

Industrial Reporting Database



1.1. Industrial Reporting Database

The European Environment Agency (EEA) in collaboration with the European Environmental Information and Observation Network gather and assess data on a wide range of topics regarding the environment. The target is 'to provide sound, independent information on the environment for those involved in developing, adopting, implementing and evaluating environmental policy, and also the general public'.

The Industrial Reporting Database is the result of this fully functioning cooperation. The accessible files represent the status of the EEA Industrial Reporting database as of 22 March 2022. The publicly accessible Industrial Reporting Database (European Environmental Agency, 2022c) makes the mapping of bio-based (nutrient rich) input streams possible since the registered companies (Table 1 to Table 3) are potential candidates for the implementation of P and/or N – recovery. The reporting of the data includes ages 2007 to 2020.

The accessible data will be presented for Belgium, Portugal and Hungary. In Table 1, Table 2 and Table 3 one can find the addresses of all the registered Urban WW Treatment Plants in the Waste and WW management sector. Regarding the non-hazardous waste and the selection of recovery as a path of treatment, the registrations and the quantities are as follows:

Table 1: Place of Origin and quantity (kg) of the non-hazardous WW that is managed in materials and resources recovery facilities in Belgium (European Environmental Agency, 2022c)

Place of Origin in Belgium	2016	2017	2018	2019	2020
Forest	28,900	30,400	29,000	25,000	24,000
Oupeye	20,900	19,400	19,300	21,100	22,500
Bruxelles	23,500	20,200	23,900	21,400	18,100
Mouscron		13,406	1,3202	14,670	13,250



Liege		9,190	8,750	9,660	9,300
Pepinster	7500	8,150	7,960	7,180	8,530
Montignies-sur-Sambre		7,222	6,775	7,086	7,170
Aiseau-Presles		2,941	4,501	4,040	6,246
Rosières		4,300	4,050	4,057	4,592
Wavre		2,861	2,411	1,811	3,532
Wasmuel		1,760	1,490	10,600	3,280

An extensive evaluation of bio-based input streams has been performed by numerous sources. Another option of EU-MS is the incineration or even co-incineration of products that derive after the treatment of urban and industrial WW, Sewage sludge and Food (in the scope of the WaINUT project). Incineration ash and sewage sludge ash are rich in phosphorus and more than 90 % of it can be valorised towards the production of an adequate phosphate fertiliser. Attention must be paid to the purification stage due to the accumulative effect of heavy metals (Cu, Ni, Cd) on soil contamination in case a dewatered phosphate sludge (after for example the precipitation of phosphates with lime water) is used as a bio-based fertiliser (Franz, 2007). The industrial Reporting Database provides access to the waste incineration (WI) and waste co-incineration (co-WI) plants in EU-MS. In Table 4, Denmark will be used as an example of the presentation of WI plants registered in 2020.

Table 2: Place of Origin and quantity (kg) of the non-hazardous WW that is managed in materials and resources recovery facilities in Portugal (European Environmental Agency, 2022c)

Place of Origin in Portugal	2016	2017	2018	2019	2020
Lisboa		55,100	55,900	54,200	46,500
Cascais			23,900	25,400	26,500



Porto		20,300	20,900	17,500	22,200
Serzedelo GMR		19,300	18,900	17,800	18,500
Coimbrão		7,230	7,980	12,100	17,900
Fradelos VNF		18,600	17,300	18,800	17,500
Frielas		13,800	13,700	14,500	13,500
Corroios			8,800	10,300	11,000
Cacia		9,230	9,270	10,600	10,200
Lisboa		5,940	11,300	9,360	9,790
Lisboa		10,900	11,500	11,000	9,550
Santo Tirso		8,260	10,800	10,100	8,680
Alverca do Ribatejo		5,860	5,140	7,080	7,470
Gafanha da Encarnação		4,930	4,270	6,070	6,960
Lordelo GMR		8,140	7,150	7,080	6,810
Paramos		3,830	2,690	6,260	6,320
Braga	4,620	6,970	8,010	7,470	6,050
Matosinhos			4,700	6,860	5,760
Vila Nova de Gaia		18,800	5,850	12,200	5,640
São João da Talha		5,060	4,220	4,620	5,490



Setúbal		4,190	5,170	6,690	5,470
V Frescainha (S Pedro)		11,900	12,100	9,890	5,330
Faro					4,730
Coimbra		3,550	6,320	8,500	4,110
Porto		5,390	5,640	5,150	4,060
Almada		4,880	8,800	3,900	3,960
Albufeira	5,120	6,560	7,140	6,880	3,890
Guia ABF	4,030	4,750	5,250	4,860	3,410
Portimão			1,860	5,570	3,210
Quarteira	4,340	4,190	4,500	4,290	2,920
Tougues		2,790	2,370	3,090	2,860
Vila Real Santo António		2,730	3,270	3,580	2,610
Quinta do Conde		2,350			2,510
Lavradio		5,490	8,510	3,870	2,330

'This database contains identification and administrative information reported to the EU Registry on Industrial Sites. It includes facilities involved in activities listed in Annex I of the European Pollutant Release and Transfer Register (E-PRTR) Regulation and installations involved in activities listed in Annex I of the Industrial Emissions Directive (IED), with additional granularity on installations subject to Chapters III and IV of the IED (large combustion plants (LCPs), waste incinerators (WIs) and co-waste incinerators (co-WIs)). The database creates a (geographical) relationship between entities covered by the



E-PRTR Regulation and the IED. The database brings together thematic data formerly reported separately under Article 7 of the E-PRTR Regulation and IED Article 72. It includes annual facility releases to air, water and land of pollutants listed in Annex II of the E-PRTR Regulation (above Annex II release thresholds only) as well as off-site transfers in waste-water. Off-site transfers of waste are also included (above Article 5 thresholds only). The database also includes plant-by-plant data on LCPs including rated thermal input, annual energy input and emissions of SO₂, NO_x and dust. This dataset contains the location and administrative data for the largest industrial complexes in Europe, releases and transfers of regulated substances to all media, waste transfers as well as more detailed data on energy input and emissions for large combustion plants. These data are reported to EEA under Industrial Emissions Directive (IED) 2010/75/EU Commission Implementing Decision 2018/1135 and the European Pollutant Release and Transfer Register (E-PRTR) Regulation (EC) No 166/2006 Commission Implementing Decision 2019/1741. The dataset brings together data formerly reported separately under E-PRTR Regulation Art.7 and under IED Art.72. Additional reporting requirements under the IED are also included. It contains by EU Member States, Iceland, Liechtenstein, Norway, Serbia, Switzerland and the United Kingdom. The provided files represent the status of the EEA Industrial Reporting database as of 22 March 2022.' (European Environmental Agency, 2022c).

Regarding 2020, the latest accessible version uploaded on April 25th 2022 ((European Environmental Agency, 2022c) of the accessible data is organised as follows:

- Total releases at national level into water
- Total release at E-PRTR Sector into Water
- Total release at E-PRTR Annex I Activity into Water
- Detailed releases at facility level with E-PRTR Sector and Annex I Activity detail into Water
- Total pollutant transfer
- Detailed pollutant transfer at facility level with E-PRTR Sector and Annex I Activity detail
- Total waste transfer
- Detailed waste transfer at facility level with E-PRTR Sector and Annex I Activity detail
- Detailed information on WI and co-WI

The mapping also includes the 'Total information on Installations' file

Table 3: Place of Origin and quantity (kg) of the non-hazardous WW that is managed in materials and resources recovery facilities in Hungary (European Environmental Agency, 2022c)

Place of Origin in Hungary	2016	2017	2018	2019	2020
Miskolc	371,000	446,000	373,000	325,000	317,000
Budapest 21. ker.	60,100	55,100	59,500	62,200	57,900



Budapest 04. ker.			49,900	50,300	50,300
Győr	58,100	50,900	10,900	11,100	11,800
Székesfehérvár	10,500	14,800	12,200	9,450	10,700
Nyíregyháza	10,600	11,400	11,700	12,200	10,200
Kaposvár		16,200	20,200	15,300	7,620
Pápa	6,230	7,500	7,850	7,250	7,000
Szolnok	6,210	6,330	6,570	6,660	6,840
Szentes					4,180
Zalaegerszeg					3,020
Vác	2,700			2,490	2,460

In Table 4, Denmark is used as an example of the presentation of WI plants registered in 2020. Nutrient recovery can be applied on the incineration ash in WI plants with nutrients and nutrient content depending on the origin of the waste or waste water (Krüger & Adam, 2015).

Table 4: Place of Origin of WI facility and Permitted capacity (t) of non-hazardous waste in Denmark (European Environmental Agency, 2022c)

Place of Origin of WI facility in Denmark	Permitted capacity (t) of non-hazardous waste
Slagelse	6
Næstved	4.5
Næstved	9.2
Aarhus N	8



Aarhus N	19
Roskilde	20
Roskilde	25
Hjørring	3.8
Hjørring	7.2
København K	5.9
Hvidovre	6
Rønne	2.75
Esbjerg Ø	24
Kolding	9
Kolding	10.5
Odense C	8.1
Odense C	14.4
Horsens	5.7
Frederikshavn	5
Grenaa	2.5
Hammel	2.3
Hammel	4.1



København S	35
Hørsholm	11
Hørsholm	10
Aars	3.5
Aars	5
Thisted	6.3
Holstebro	10
Nykøbing F	4.6
Nykøbing F	10.2
Aalborg Øst	11
Aalborg Øst	22
Skanderborg	4.5
Skanderborg	5.5
Svendborg	7.2
Sønderborg	8
Glostrup	32
Glostrup	37.2



1.2. References

- European Environmental Agency*. (2022c, June). Retrieved from The Industrial Reporting Database: <https://www.eea.europa.eu/data-and-maps/data/industrial-reporting-under-the-industrial-6>
- Franz, M. (2007). Phosphate fertilizer from sewage sludge ash (SSA). *Waste Management*, 1809-1818.
- Krüger, O., & Adam, C. (2015). Recovery potential of German sewage sludge ash. *Waste Management*, 400-406.

