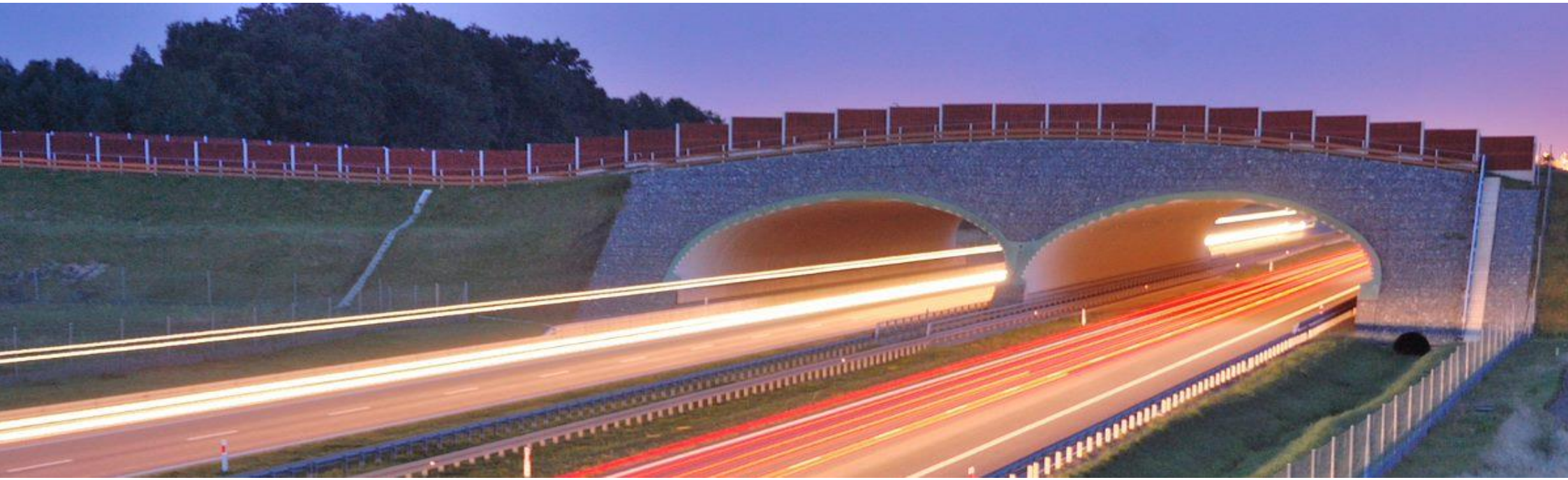
VIACON

ViaCon Emissions Data Report 2023

Emissions data report for ViaCon 2023 – Market-based & Location-based

2024-03-07



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Disclaimer

The contents of this report are correct at the time of the reports creation on the 15th February 2023 and all data and figures are extracted from CEMAsys. The report at the time of creation excludes scope 3 areas purchased goods and services, capital goods and upstream leased assets.

Introduction About Us:

Combining more than three decades of experience with today's cutting-edge technology, ViaCon is a pioneer in the field of Bridges & Culverts, Geotechnical and Stormwater Solutions.
We offer our customers a host of distinct state-of-the-art solutions that are reliable, long-lasting, and designed to meet the challenges of a changing world. ViaCon's solutions support both our customers and the society in reaching the vital sustainable goals.

Comprehensive local markets know-how combined with the strengths of the group makes ViaCon your partner of choice.

ViaCon aims at the highest standards when it comes to environmental protection, well-being of the society and corporate governance.

Sustainability is the key word of the 21st century. We believe that a sustainable way of thinking must define every one of our actions, including those that are not directly related to the environment, but rather to the well-being of society or business.

1.1. Sources & Methodology

The Greenhouse Gas Protocol Initiative (GHG Protocol) was developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). This analysis is done according to A Corporate Accounting and Reporting Standard Revised edition, currently one of four GHG Protocol accounting standards for calculating and reporting GHG emissions. The reporting considers the following greenhouse gases

converted into CO2-equivalents: CO2, CH4 (methane), N2O (laughing gas), SF6, HFCs, PFCs, and NF3.

For corporate reporting, two distinct approaches can be used to consolidate GHG emissions: the equity share approach and the control approach. The most common consolidation approach is the control approach, which can be defined in either financial or operational terms.
The carbon inventory is divided into three main scopes of direct and indirect emissions.

Scope 1 includes all direct emission sources. This includes all use of fossil fuels for stationary combustion or transportation, in owned and, depending on the consolidation approach selected, leased, or rented assets. It also includes any process emissions, from e.g., chemical processes, industrial gases, direct methane emissions etc.

Scope 2 includes indirect emissions related to purchased energy; electricity and heating/cooling where the organization has operational control. The electricity emission factors used in Cemasys are based on national gross electricity production mixes from the International Energy Agency's statistics (IEA Stat). Emission factors per fuel type are based on assumptions in the IEA methodological framework. Factors for district heating/cooling are either based on actual (local) production mixes, or average IEA statistics.

In January 2015, the GHG Protocol published new guidelines for calculating emissions from electricity consumption. Primarily two methods are used to "allocate" the GHG emissions created by electricity generation to the end consumers of a given grid. These are the location-based and the market based methods. The location-based method reflects the average emission intensity of the grids on which energy consumption occurs, while the market-based method reflects emissions from electricity that companies have purposefully chosen (or not chosen).

Organizations who report on their GHG emissions will now have to disclose both the location-based emissions from the production of electricity, and the marked-based emissions related to the potential purchase of Guarantees of Origin (GoOs) and Renewable Energy Certificates (RECs).
The purpose of this amendment in the reporting methodology is on the one hand to show the impact of energy efficiency measures, and on the other hand to display how the acquisition of GoOs or RECs affect the GHG emissions. Using both methods in the emission reporting highlights the effect of all measures regarding electricity consumption.

The location-based method: The location-based method is based on statistical emissions information and electricity output aggregated and averaged within a defined geographic boundary and during a defined period. Within this boundary, the different energy producers utilize a mix of energy resources, where the use of fossil fuels (coal, oil, and gas) result in direct GHG-emissions. These emissions are reflected in the location-based emission factor.

The market-based method: The choice of emission factors when using this method is determined by whether the business acquires GoOs/RECs or not. When selling GoOs or RECs, the supplier certifies that the electricity is produced exclusively by renewable sources, which has an emission factor of 0 grams CO2e per kWh. However, for electricity without the GoO or REC, the emission factor is based on the remaining electricity production after all GoOs and RECs for renewable energy are sold. This is called a residual mix, which is normally substantially higher than the location-based factor. As an example, the market-based Norwegian residual mix factor is approximately 7 times higher than the location-based Nordic mix factor. The reason for this high factor is due to Norway's large export of GoOs/RECs to foreign consumers. In a market perspective, this implies that Norwegian hydropower is substituted with an electricity mix including fossil fuels.

Scope 3 includes indirect emissions resulting from value chain activities. The scope 3 emissions are a result of the company's upstream and downstream activities, which are not controlled by the company, i.e., they are indirect. Examples are business travel, goods transportation, waste handling, consumption of products etc.

In general, the carbon accounting should include information that users, both internal and external to the company, need for their decision making. An important aspect of relevance is the selection of an appropriate inventory boundary which reflects the substance and economic reality of the company's business relationships.

1.2. Market Based Data 2023

Key Figures
GHG Emissions

Summary	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	German y	Hungary	Latvia	Lithuania	Netherlands	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
Total Scope 1	tCO2e	23.7	23.0	21.3	15.8	51.9	89.3	56.6	51.4	179.1	269.6	20.7	13.4	816.0	107.6	73.8	145.1	35.9	**1,994.2**
Total Scope 2	tCO2e	3.8	1.1	69.1	3.2	4.5	110.2	71.2	17.6	19.0	-	-	-	1,161.1	157.2	10.3	184.8	34.5	**1,847.9**
Total Scope 3	tCO2e	72.8	17.8	13.6	72.2	463.2	424.5	47.5	39.9	52.3	751.5	4.9	114,824.3	1,219.9	136.6	465.1	299.4	145.0	**119,050.4**
Total	**tCO2e**	**100.3**	**41.9**	**104.0**	**91.2**	**519.6**	**624.0**	**175.3**	**108.9**	**250.4**	**1,021.1**	**25.6**	**114,837.6**	**3,197.0**	**401.5**	**549.2**	**629.4**	**215.4**	**122,892.5**

	Category	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	German y	Hungary	Latvia	Lithuania	Netherlands	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
Scope 1																				
	Transportation																			
	Diesel (NO)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	13.4	-	-	-	-	-	13.4
	Diesel (SE)	tC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65.0	-	-	65.0

		tCO2e																	
	Petrol (SE)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.8	-	-	8.8
	Diesel	tCO2e	14.5	18.0	21.3	13.9	27.9	89.3	52.8	36.7	146.8	158.8	20.7	-	300.8	86.4	-	122.4	21.0	1,131.4
	Petrol	tCO2e	2.6	5.0	-	1.9	7.6	-	3.8	14.7	32.3	70.2	-	-	190.2	6.7	-	22.7	0.7	358.4
	Transportation Total	**tCO2e**	**17.1**	**23.0**	**21.3**	**15.8**	**35.4**	**89.3**	**56.6**	**51.4**	**179.1**	**229.0**	**20.7**	**13.4**	**491.0**	**93.2**	**73.8**	**145.1**	**21.8**	**1,576.9**
	Stationary combustion																			
	Natural gas	tCO2e	-	-	-	-	-	-	-	-	-	38.1	-	-	314.8	13.4	-	-	-	366.4
	LPG	tCO2e	6.5	-	-	-	16.4	-	-	-	-	2.5	-	-	10.2	1.0	-	-	-	36.7
	Natural gas (UK grid)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.2	14.2
	Stationary combustion Total	**tCO2e**	**6.5**	**-**	**-**	**-**	**16.4**	**-**	**-**	**-**	**-**	**40.6**	**-**	**-**	**325.0**	**14.5**	**-**	**-**	**14.2**	**417.3**
	Scope 1 Total	**tCO2e**	**23.7**	**23.0**	**21.3**	**15.8**	**51.9**	**89.3**	**56.6**	**51.4**	**179.1**	**269.6**	**20.7**	**13.4**	**816.0**	**107.6**	**73.8**	**145.1**	**35.9**	**1,994.2**
Scope 2																				
	Electricity market-based																			
	Electricity Nordic mix	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Electricity Sweden	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.3	-	-	10.3
Electricity Turkey	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184.8	-	184.8
Electricity Romania	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	157.2	-	-	-	157.2
Electricity Poland	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	1,161.1	-	-	-	-	1,161.1
Electricity Lithuania	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity Hungary	tCO2e	-	-	-	-	-	-	-	17.6	-	-	-	-	-	-	-	-	-	17.6
Electricity France	tCO2e	-	-	-	-	-	110.2	-	-	-	-	-	-	-	-	-	-	-	110.2
Electricity Finland	tCO2e	-	-	-	-	4.5	-	-	-	-	-	-	-	-	-	-	-	-	4.5
Electricity Czech Rep.	tCO2e	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1
Electricity Bulgaria	tCO2e	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.8
Electricity Belarus	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity Latvia	tCO2e	-	-	-	-	-	-	-	-	19.0	-	-	-	-	-	-	-	-	19.0

	Electricity Estonia	tCO2e	-	-	-	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2
	Electricity Denmark 125	tCO2e	-	-	69.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69.1
	Electricity Germany	tCO2e	-	-	-	-	-	-	71.2	-	-	-	-	-	-	-	-	-	-	71.2
	Electricity UK	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34.5	34.5
	Electricity market-based Total	**tCO2e**	**3.8**	**1.1**	**69.1**	**3.2**	**4.5**	**110.2**	**71.2**	**17.6**	**19.0**	**-**	**-**	**-**	**1,161.1**	**157.2**	**10.3**	**184.8**	**34.5**	**1,847.9**
	Scope 2 Total	**tCO2e**	**3.8**	**1.1**	**69.1**	**3.2**	**4.5**	**110.2**	**71.2**	**17.6**	**19.0**	**-**	**-**	**-**	**1,161.1**	**157.2**	**10.3**	**184.8**	**34.5**	**1,847.9**
Scope 3																				
	Purchased goods and services																			
	Chemicals, general	tCO2e	-	-	-	-	-	-	-	-	-	-	-	37.5	-	-	-	-	-	37.5
	Office furniture	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	-	-	-	6.7
	Office supplies excl. paper	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1.9	-	-	-	-	-	1.9
	Food, other	tCO2e	-	-	-	-	-	-	-	-	-	-	-	88.5	-	-	-	-	-	88.5
	Books (printed media)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	1.2

Computer-related hardware	tCO2e	-	-	-	-	-	-	-	-	-	-	-	9.3	-	-	-	-	-	9.3
Software	tCO2e	-	-	-	-	-	-	-	-	-	-	-	144.5	-	-	-	-	-	144.5
Telecommunications	tCO2e	-	-	-	-	-	-	-	-	-	-	-	15.2	-	-	-	-	-	15.2
Wooden windows, doors and flooring	tCO2e	-	-	-	-	-	-	-	-	-	-	-	48.7	-	-	-	-	-	48.7
Steel, iron products, primary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	20.6	-	-	-	-	-	20.6
Steel, iron products, primary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,887.0	-	-	-	-	-	1,887.0
Steel, iron products, primary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	163.8	-	-	-	-	-	163.8
Steel, iron products, primary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	150.8	-	-	-	-	-	150.8
Paints and coatings	tCO2e	-	-	-	-	-	-	-	-	-	-	-	102.5	-	-	-	-	-	102.5
Metal products, other	tCO2e	-	-	-	-	-	-	-	-	-	-	-	283.5	-	-	-	-	-	283.5
Metal coatings and heat treatments	tCO2e	-	-	-	-	-	-	-	-	-	-	-	5,912.8	-	-	-	-	-	5,912.8
Plastics	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,263.9	-	-	-	-	-	1,263.9

Steel products, secondary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	649.2	-	-	-	-	-	649.2
Steel products, secondary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	387.7	-	-	-	-	-	387.7
Steel products, secondary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	101.1	-	-	-	-	-	101.1
Steel products, secondary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	129.1	-	-	-	-	-	129.1
Steel products, secondary	tCO2e	-	-	-	-	-	-	-	-	-	-	-	3.5	-	-	-	-	-	3.5
Other rubber products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	324.7	-	-	-	-	-	324.7
Geosynthetics, Non Woven	tCO2e	-	-	-	-	-	-	-	-	-	-	-	4,278.4	-	-	-	-	-	4,278.4
Geosynthetics, Non Woven	tCO2e	-	-	-	-	-	-	-	-	-	-	-	13.4	-	-	-	-	-	13.4
Geosynthetics, Non Woven	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,765.0	-	-	-	-	-	1,765.0
Drefton ST	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2,342.6	-	-	-	-	-	2,342.6
Asphalt reinforcement, ViaCon	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,265.6	-	-	-	-	-	1,265.6
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	855.1	-	-	-	-	-	855.1

Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	129.4	-	-	-	-	-	129.4
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	201.0	-	-	-	-	-	201.0
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	353.2	-	-	-	-	-	353.2
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,099.5	-	-	-	-	-	1,099.5
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	40.7	-	-	-	-	-	40.7
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	27.0	-	-	-	-	-	27.0
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	188.7	-	-	-	-	-	188.7
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	19.9	-	-	-	-	-	19.9
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	7.2	-	-	-	-	-	7.2
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	40.2	-	-	-	-	-	40.2
Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	338.7	-	-	-	-	-	338.7
Geogrids	tCO2e	-	-	-	-	-	-	-	-	-	-	-	9,088.9	-	-	-	-	-	9,088.9

Geogrids	tCO2e	-	-	-	-	-	-	-	-	-	-	-	253.8	-	-	-	-	-	253.8
Geogrids	tCO2e	-	-	-	-	-	-	-	-	-	-	-	412.9	-	-	-	-	-	412.9
Geogrids	tCO2e	-	-	-	-	-	-	-	-	-	-	-	264.1	-	-	-	-	-	264.1
Geogrids	tCO2e	-	-	-	-	-	-	-	-	-	-	-	179.7	-	-	-	-	-	179.7
Geotextiles, woven	tCO2e	-	-	-	-	-	-	-	-	-	-	-	777.5	-	-	-	-	-	777.5
Geotextiles, woven	tCO2e	-	-	-	-	-	-	-	-	-	-	-	5,383.5	-	-	-	-	-	5,383.5
Geotextiles, woven	tCO2e	-	-	-	-	-	-	-	-	-	-	-	167.1	-	-	-	-	-	167.1
Geomembranes, ViaCon	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2,692.0	-	-	-	-	-	2,692.0
Geosynthetic liner, GCL, Bentofix	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,157.3	-	-	-	-	-	1,157.3
Plastic granulate, PE, recycled (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,411.4	-	-	-	-	-	1,411.4
Plastic granulate, PE, recycled (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	102.7	-	-	-	-	-	102.7
Plastic granulate, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6,219.3	-	-	-	-	-	6,219.3

Plastic granulate, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	501.1	-	-	-	-	-	501.1
Plastic granulate, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	222.1	-	-	-	-	-	222.1
Hot dip galv. steel, Zn coating, ArcelorMitta	tCO2e	-	-	-	-	-	-	-	-	-	-	-	9,044.3	-	-	-	-	-	9,044.3
Black steel, Colacoglu (A1-A3)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	7,741.0	-	-	-	-	-	7,741.0
Ready-mix concrete, Lafarge	tCO2e	-	-	-	-	-	-	-	-	-	-	-	102.7	-	-	-	-	-	102.7
Plastic (HDPE)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plastic (HDPE)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plastic (PP)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plastic HDPE, recycled (OL)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot dip galv. steel, coils, Wupperman	tCO2e	-	-	-	-	-	-	-	-	-	-	-	7,978.1	-	-	-	-	-	7,978.1
Steel, hot dip galv. (EU avg.)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	12,285.5	-	-	-	-	-	12,285.5
Steel, hot dip galv. (EU avg.)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2,525.3	-	-	-	-	-	2,525.3

Steel, hot rolled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	14,992.2	-	-	-	-	-	14,992.2
Steel, hot rolled sheets/coils (SE/FI)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	3,740.6	-	-	-	-	-	3,740.6
Steel products, Scrubena	tCO2e	-	-	-	-	-	-	-	-	-	-	-	565.6	-	-	-	-	-	565.6
Copolymers, SABIC	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,451.6	-	-	-	-	-	1,451.6
Steel, hot rolled (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SCOPE3_PURCHASED_GOODS_AND_SERVICES Total	**tCO2e**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**113,959.5**	**-**	**-**	**-**	**-**	**-**	**113,959.5**
Fuel-and-energy-related activities																			
Diesel (B20) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	3.5	-	-	-	-	-	3.5
Diesel (WTT)	tCO2e	3.4	4.2	5.0	3.3	6.5	21.0	12.4	8.6	34.4	37.3	4.9	-	70.6	20.3	-	28.7	4.9	265.5
Petrol (WTT)	tCO2e	0.7	1.3	-	0.5	2.0	-	1.0	3.8	8.4	18.2	-	-	49.2	1.7	-	5.9	0.2	92.7
Natural gas (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	6.9	-	-	57.3	2.4	-	-	2.6	69.2
Electricity Latvia (upstream)	tCO2e	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	-	-	1.2

Electricity Estonia (upstream)	tCO2e	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
Electricity Nordic mix (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	1.5
Diesel (B5) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diesel (SE) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.0	-	-	20.0
Electricity Turkey (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51.5	-	51.5
Electricity France (upstream)	tCO2e	-	-	-	-	-	21.0	-	-	-	-	-	-	-	-	-	-	-	21.0
Electricity Denmark (upstream)	tCO2e	-	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8
Electricity Czech Rep. (upstream)	tCO2e	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
LPG (WTT)	tCO2e	0.8	-	-	-	2.0	-	-	-	-	0.3	-	-	1.2	0.1	-	-	-	4.4
Petrol (SE) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	2.5
Electricity Lithuania (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	125.3	-	-	-	-	-	-	-	125.3
Electricity Hungary (upstream)	tCO2e	-	-	-	-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	3.2

Electricity Bulgaria (upstream)	tCO2e	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8
Electricity Germany (upstream)	tCO2e	-	-	-	-	-	-	12.3	-	-	-	-	-	-	-	-	-	-	12.3
Electricity UK (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	9.3
Electricity Sweden (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-	-	4.2
Electricity Romania (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	46.2	-	-	-	46.2
Electricity Poland (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	408.5	-	-	-	-	408.5
Electricity Finland (upstream)	tCO2e	-	-	-	-	6.1	-	-	-	-	-	-	-	-	-	-	-	-	6.1
Fuel-and-energy-related activities Total	**tCO2e**	**5.7**	**5.7**	**12.8**	**4.4**	**16.6**	**41.9**	**25.7**	**15.6**	**44.0**	**187.9**	**4.9**	**4.9**	**586.8**	**70.8**	**26.7**	**86.1**	**17.1**	**1,157.5**
Upstream transportation and distribution																			
Transportation diesel	tCO2e	16.0	-	-	54.2	340.1	31.4	-	-	-	212.2	-	175.1	2.9	-	243.7	36.1	-	1,111.8
Transportation petrol	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SCOPE3_UPSTREAM_TRANSPORTATION_AND_DISTRIBUTION Total	**tCO2e**	**16.0**	**-**	**-**	**54.2**	**340.1**	**31.4**	**-**	**-**	**-**	**212.2**	**-**	**175.1**	**2.9**	**-**	**243.7**	**36.1**	**-**	**1,111.8**
Waste																			
Metal waste, recycled	tCO2e	-	-	-	-	0.9	0.8	0.9	0.1	-	0.8	-	-	30.6	0.8	0.3	5.1	1.2	41.4
Metal waste, recycled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual waste, incinerated	tCO2e	-	-	-	-	1.4	3.4	-	-	-	-	-	-	-	0.5	0.5	1.0	-	6.9
Commercial waste, landfill	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	12.0	2.2	-	-	-	14.2
Concrete waste, recycled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1
Mixed waste, recycled	tCO2e	-	-	-	-	0.2	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	0.6
Residual waste, landfill	tCO2e	-	-	-	-	-	9.2	-	1.1	-	-	-	-	-	-	-	-	0.8	11.1
Hazardous waste, incinerated (Europe)	tCO2e	-	-	-	-	1.1	2.9	-	-	-	-	-	-	9.6	0.4	2.4	2.4	2.4	21.2
Industrial waste, recycled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1
Industrial inert waste, landfill	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hazardous waste, landfill	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Total	**tCO2e**	**-**	**-**	**-**	**-**	**3.6**	**16.4**	**0.9**	**1.2**	**-**	**0.8**	**-**	**-**	**52.3**	**4.0**	**3.3**	**8.5**	**4.5**	**95.6**
Business travel																			
Air transportation	tCO2e	-	-	-	-	-	-	-	-	-	-	-	353.2	-	-	-	-	-	353.2
Hotel accomodation	tCO2e	-	-	-	-	-	-	-	-	-	-	-	140.5	-	-	-	-	-	140.5
Air travel, continental	tCO2e	-	-	-	-	-	-	-	-	-	-	-	115.9	-	-	-	-	-	115.9
Hotel nights, Europe	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2.4	-	-	-	-	-	2.4
SCOPE3_BUSINESS_TRAVEL Total	**tCO2e**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**612.0**	**-**	**-**	**-**	**-**	**-**	**612.0**
Employee commuting																			
Mileage all. avg. car	tCO2e	3.1	1.0	0.9	3.3	7.2	11.0	13.9	6.7	8.2	25.2	-	11.6	71.2	19.4	10.3	17.1	5.5	215.5
Mileage all. avg. car (WTW)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mileage all. motorcycle	tCO2e	-	-	-	-	0.1	0.1	0.2	0.1	0.1	0.3	-	0.1	0.8	0.2	0.1	0.2	0.1	2.6
SCOPE3_EMPLOYEE_COMMUTING Total	**tCO2e**	**3.1**	**1.0**	**0.9**	**3.3**	**7.3**	**11.1**	**14.0**	**6.8**	**8.3**	**25.5**	**-**	**11.7**	**72.1**	**19.7**	**10.4**	**17.3**	**5.6**	**218.1**

Downstream transportation and distribution																			
Diesel (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation diesel	tCO2e	48.0	-	-	10.3	77.4	253.9	-	-	-	195.4	-	61.1	216.9	-	158.6	36.2	85.4	1,143.1
Transportation petrol	tCO2e	-	11.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1
Goods transportation Total	**tCO2e**	**48.0**	**11.1**	**-**	**10.3**	**77.4**	**253.9**	**-**	**-**	**-**	**195.4**	**-**	**61.1**	**216.9**	**-**	**158.6**	**36.2**	**85.4**	**1,154.2**
End-of-life treatment of sold products																			
Metal waste, recycled	tCO2e	-	-	-	-	18.3	69.8	6.9	16.3	-	21.5	-	-	241.4	21.2	22.3	115.2	32.3	565.1
Plastic waste, recycled	tCO2e	-	-	-	-	-	-	-	-	-	108.2	-	-	47.2	21.0	-	-	-	176.3
Concrete waste, recycled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	0.4
SCOPE3_END_OF_LIFE_TREATMENT_OF_SOLD_PRODUCTS Total	**tCO2e**	**-**	**-**	**-**	**-**	**18.3**	**69.8**	**6.9**	**16.3**	**-**	**129.6**	**-**	**-**	**289.0**	**42.2**	**22.3**	**115.2**	**32.3**	**741.8**
Scope 3 Total	**tCO2e**	**72.8**	**17.8**	**13.6**	**72.2**	**463.2**	**424.5**	**47.5**	**39.9**	**52.3**	**751.5**	**4.9**	**114,824.3**	**1,219.9**	**136.6**	**465.1**	**299.4**	**145.0**	**119,050.4**
Total (Scope 1 + 2)	**tCO2e**	**27.5**	**24.1**	**90.4**	**19.0**	**56.4**	**199.6**	**127.8**	**69.1**	**198.1**	**269.6**	**20.7**	**13.4**	**1,977.2**	**264.9**	**84.1**	**329.9**	**70.4**	**3,842.0**

	Total (Scope 1 + 2 + 3)	**tCO2e**	**100.3**	**41.9**	**104.0**	**91.2**	**519.6**	**624.0**	**175.3**	**108.9**	**250.4**	**1,021.1**	**25.6**	**114,837.6**	**3,197.0**	**401.5**	**549.2**	**629.4**	**215.4**	**122,892.5**
Annual Market-Based GHG Emissions																				
	Electricity Total (Scope 2) with Market-based calculations	**tCO2e**	**3.8**	**1.1**	**69.1**	**3.2**	**4.5**	**110.2**	**71.2**	**17.6**	**19.0**	**-**	**-**	**-**	**1,161.1**	**157.2**	**10.3**	**184.8**	**34.5**	**1,847.9**
	Scope 2 Total with Market-based electricity calculations	**tCO2e**	**3.8**	**1.1**	**69.1**	**3.2**	**4.5**	**110.2**	**71.2**	**17.6**	**19.0**	**-**	**-**	**-**	**1,161.1**	**157.2**	**10.3**	**184.8**	**34.5**	**1,847.9**
	Scope 1+2+3 Total with Market-based electricity calculations	**tCO2e**	**100.3**	**41.9**	**104.0**	**91.2**	**519.6**	**624.0**	**175.3**	**108.9**	**250.4**	**1,021.1**	**25.6**	**114,837.6**	**3,197.0**	**401.5**	**549.2**	**629.4**	**215.4**	**122,892.5**

1.3. Location Based Data 2023

Key Figures GHG Emissions

Summary	Description	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	Germany	Hungary	Latvia	Lithuania	Netherlands	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
Total Scope 1		tCO2e	23.7	23.0	21.3	15.8	51.9	89.3	56.6	51.4	179.1	269.6	20.7	13.4	816.0	107.6	73.8	145.1	35.9	**1,994.2**
Total Scope 2		tCO2e	3.0	0.9	19.8	2.6	13.7	46.0	49.8	10.6	3.9	379.5	-	2.4	1,518.1	155.2	3.5	184.8	31.9	**2,425.9**
Total Scope 3		tCO2e	72.8	17.8	13.6	72.2	463.2	424.5	47.5	39.9	52.3	751.5	4.9	114,824.3	1,219.9	136.6	465.1	299.4	145.0	**119,050.4**
Total		**tCO**	**99.5**	**41.7**	**54.7**	**90.6**	**528.8**	**559.8**	**153.9**	**101.9**	**235.3**	**1,400.6**	**25.6**	**114,840.1**	**3,554.0**	**399.5**	**542.3**	**629.4**	**212.8**	**123,470.5**

		2e																	
	Category	Description	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	Germany	Hungary	Latvia	Lithuania	Netherlands	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
Scope 1																				
	Transportation																			
	Diesel (NO)		tCO2e	-	-	-	-	-	-	-	-	-	-	-	13.4	-	-	-	-	-	13.4
	Diesel (SE)		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65.0	-	-	65.0
	Petrol (SE)		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.8	-	-	8.8
	Diesel		tCO2e	14.5	18.0	21.3	13.9	27.9	89.3	52.8	36.7	146.8	158.8	20.7	-	300.8	86.4	-	122.4	21.0	1,131.4
	Petrol		tCO2e	2.6	5.0	-	1.9	7.6	-	3.8	14.7	32.3	70.2	-	-	190.2	6.7	-	22.7	0.7	358.4
	Transportation Total		**tCO2e**	**17.1**	**23.0**	**21.3**	**15.8**	**35.4**	**89.3**	**56.6**	**51.4**	**179.1**	**229.0**	**20.7**	**13.4**	**491.0**	**93.2**	**73.8**	**145.1**	**21.8**	**1,576.9**
	Stationary combustion																				
	Natural gas		tCO2e	-	-	-	-	-	-	-	-	-	38.1	-	-	314.8	13.4	-	-	-	366.4

	LPG	tCO2e	6.5	-	-	-	16.4	-	-	-	-	2.5	-	-	10.2	1.0	-	-	-	36.7
	Natural gas (UK grid)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.2	14.2
	Stationary combustion Total	**tCO2e**	**6.5**	**-**	**-**	**-**	**16.4**	**-**	**-**	**-**	**-**	**40.6**	**-**	**-**	**325.0**	**14.5**	**-**	**-**	**14.2**	**417.3**
	Scope 1 Total	**tCO2e**	**23.7**	**23.0**	**21.3**	**15.8**	**51.9**	**89.3**	**56.6**	**51.4**	**179.1**	**269.6**	**20.7**	**13.4**	**816.0**	**107.6**	**73.8**	**145.1**	**35.9**	**1,994.2**
Scope 2																				
	Electricity location-based																			
	Electricity Nordic mix	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2.4	-	-	-	-	-	2.4
	Electricity Sweden	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5	-	-	3.5
	Electricity Turkey	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184.8	-	184.8
	Electricity Romania	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	155.2	-	-	-	155.2
	Electricity Poland	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	1,518.1	-	-	-	-	1,518.1

Electricity Lithuania	tCO2e	-	-	-	-	-	-	-	-	-	379.5	-	-	-	-	-	-	-	379.5
Electricity Hungary	tCO2e	-	-	-	-	-	-	-	10.6	-	-	-	-	-	-	-	-	-	10.6
Electricity France	tCO2e	-	-	-	-	-	46.0	-	-	-	-	-	-	-	-	-	-	-	46.0
Electricity Finland	tCO2e	-	-	-	-	13.7	-	-	-	-	-	-	-	-	-	-	-	-	13.7
Electricity Czech Rep.	tCO2e	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9
Electricity Bulgaria	tCO2e	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0
Electricity Belarus	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity Latvia	tCO2e	-	-	-	-	-	-	-	-	3.9	-	-	-	-	-	-	-	-	3.9
Electricity Estonia	tCO2e	-	-	-	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6
Electricity Denmark 125	tCO	-	-	19.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.8

		2e																	
	Electricity Germany	tCO2e	-	-	-	-	-	-	49.8	-	-	-	-	-	-	-	-	-	49.8
	Electricity UK	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31.9	31.9
	Electricity location-based Total	**tCO2e**	**3.0**	**0.9**	**19.8**	**2.6**	**13.7**	**46.0**	**49.8**	**10.6**	**3.9**	**379.5**	**-**	**2.4**	**1,518.1**	**155.2**	**3.5**	**184.8**	**31.9**	**2,425.9**
	Scope 2 Total	**tCO2e**	**3.0**	**0.9**	**19.8**	**2.6**	**13.7**	**46.0**	**49.8**	**10.6**	**3.9**	**379.5**	**-**	**2.4**	**1,518.1**	**155.2**	**3.5**	**184.8**	**31.9**	**2,425.9**
Scope 3																			
	Purchased goods and services																		
	Chemicals, general	Chemicals	tCO2e	-	-	-	-	-	-	-	-	-	-	-	37.5	-	-	-	-	-	37.5
	Office furniture	office furniture	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	-	-	-	6.7
	Office supplies excl. paper	office suppliers, other office	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1.9	-	-	-	-	-	1.9
	Food, other	Food and Snacks	tCO2e	-	-	-	-	-	-	-	-	-	-	-	88.5	-	-	-	-	-	88.5
	Books (printed media)	Literature and Newspaper	tCO	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	1.2

		2e																		
Computer-related hardware	Hardware IT	tCO2e	-	-	-	-	-	-	-	-	-	-	-	9.3	-	-	-	-	-	9.3
Software	Software IT	tCO2e	-	-	-	-	-	-	-	-	-	-	-	144.5	-	-	-	-	-	144.5
Telecommunications	Tele Communication	tCO2e	-	-	-	-	-	-	-	-	-	-	-	15.2	-	-	-	-	-	15.2
Wooden windows, doors and flooring	Wood pallets	tCO2e	-	-	-	-	-	-	-	-	-	-	-	48.7	-	-	-	-	-	48.7
Steel, iron products, primary	Prefab Conspan	tCO2e	-	-	-	-	-	-	-	-	-	-	-	20.6	-	-	-	-	-	20.6
Steel, iron products, primary	Metal components	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,887.0	-	-	-	-	-	1,887.0
Steel, iron products, primary	ZN/TC	tCO2e	-	-	-	-	-	-	-	-	-	-	-	163.8	-	-	-	-	-	163.8
Steel, iron products, primary	steel - MAEPROOY	tCO2e	-	-	-	-	-	-	-	-	-	-	-	150.8	-	-	-	-	-	150.8
Paints and coatings	Painting	tCO2e	-	-	-	-	-	-	-	-	-	-	-	102.5	-	-	-	-	-	102.5

Metal products, other	Bolts & nuts	tCO2e	-	-	-	-	-	-	-	-	-	-	-	283.5	-	-	-	-	-	283.5
Metal coatings and heat treatments	Surface treatment	tCO2e	-	-	-	-	-	-	-	-	-	-	-	5,912.8	-	-	-	-	-	5,912.8
Plastics	PP/PE	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,263.9	-	-	-	-	-	1,263.9
Steel products, secondary	Black steel	tCO2e	-	-	-	-	-	-	-	-	-	-	-	649.2	-	-	-	-	-	649.2
Steel products, secondary	Gabions	tCO2e	-	-	-	-	-	-	-	-	-	-	-	387.7	-	-	-	-	-	387.7
Steel products, secondary	Unclassified	tCO2e	-	-	-	-	-	-	-	-	-	-	-	101.1	-	-	-	-	-	101.1
Steel products, secondary	Other	tCO2e	-	-	-	-	-	-	-	-	-	-	-	129.1	-	-	-	-	-	129.1
Steel products, secondary	Gabions assembling material	tCO2e	-	-	-	-	-	-	-	-	-	-	-	3.5	-	-	-	-	-	3.5
Other rubber products	Plastic components	tCO2e	-	-	-	-	-	-	-	-	-	-	-	324.7	-	-	-	-	-	324.7
Geosynthetics, Non Woven	Bontex Non Woven	tCO	-	-	-	-	-	-	-	-	-	-	-	4,278.4	-	-	-	-	-	4,278.4

		2e																		
Geosynthetics, Non Woven	Unclassified	tCO2e	-	-	-	-	-	-	-	-	-	-	-	13.4	-	-	-	-	-	13.4
Geosynthetics, Non Woven	Non-woven Geotextiles	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,765.0	-	-	-	-	-	1,765.0
Drefton ST	Non Woven	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2,342.6	-	-	-	-	-	2,342.6
Asphalt reinforcement, ViaCon	Asphalt reinforcement	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,265.6	-	-	-	-	-	1,265.6
Plastic products	Geosynthetic Drainage�?	tCO2e	-	-	-	-	-	-	-	-	-	-	-	855.1	-	-	-	-	-	855.1
Plastic products	Polyethylene pipes	tCO2e	-	-	-	-	-	-	-	-	-	-	-	129.4	-	-	-	-	-	129.4
Plastic products	Other geosynthetic	tCO2e	-	-	-	-	-	-	-	-	-	-	-	201.0	-	-	-	-	-	201.0
Plastic products	Drainage slots	tCO2e	-	-	-	-	-	-	-	-	-	-	-	353.2	-	-	-	-	-	353.2
Plastic products	Drainage pipes	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,099.5	-	-	-	-	-	1,099.5

Plastic products	Unclassified	tCO2e	-	-	-	-	-	-	-	-	-	-	-	40.7	-	-	-	-	-	40.7
Plastic products	Drainage (dimpled) membrane	tCO2e	-	-	-	-	-	-	-	-	-	-	-	27.0	-	-	-	-	-	27.0
Plastic products	Geosynthetic erosion control mats	tCO2e	-	-	-	-	-	-	-	-	-	-	-	188.7	-	-	-	-	-	188.7
Plastic products	Mattress	tCO2e	-	-	-	-	-	-	-	-	-	-	-	19.9	-	-	-	-	-	19.9
Plastic products	Fixing pins for erioson control	tCO2e	-	-	-	-	-	-	-	-	-	-	-	7.2	-	-	-	-	-	7.2
Plastic products	Drainage geocomposite	tCO2e	-	-	-	-	-	-	-	-	-	-	-	40.2	-	-	-	-	-	40.2
Plastic products	Other	tCO2e	-	-	-	-	-	-	-	-	-	-	-	338.7	-	-	-	-	-	338.7
Geogrids	Geogrids	tCO2e	-	-	-	-	-	-	-	-	-	-	-	9,088.9	-	-	-	-	-	9,088.9
Geogrids	Geocomposite	tCO2e	-	-	-	-	-	-	-	-	-	-	-	253.8	-	-	-	-	-	253.8
Geogrids	Geocells	tCO	-	-	-	-	-	-	-	-	-	-	-	412.9	-	-	-	-	-	412.9

		2e																	
Geogrids	Unclassified	tCO2e	-	-	-	-	-	-	-	-	-	-	-	264.1	-	-	-	-	-	264.1
Geogrids	Drainage geocomposite	tCO2e	-	-	-	-	-	-	-	-	-	-	-	179.7	-	-	-	-	-	179.7
Geotextiles, woven	Other	tCO2e	-	-	-	-	-	-	-	-	-	-	-	777.5	-	-	-	-	-	777.5
Geotextiles, woven	Woven Geotexiles	tCO2e	-	-	-	-	-	-	-	-	-	-	-	5,383.5	-	-	-	-	-	5,383.5
Geotextiles, woven	Unclassified	tCO2e	-	-	-	-	-	-	-	-	-	-	-	167.1	-	-	-	-	-	167.1
Geomembranes, ViaCon	Geomembranes	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2,692.0	-	-	-	-	-	2,692.0
Geosynthetic liner, GCL, Bentofix	GCL	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,157.3	-	-	-	-	-	1,157.3
Plastic granulate, PE, recycled (Europe)	PE recycled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,411.4	-	-	-	-	-	1,411.4
Plastic granulate, PE, recycled (Europe)	PP recycled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	102.7	-	-	-	-	-	102.7

Plastic granulate, PP (Europe)	PP prime	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6,219.3	-	-	-	-	-	6,219.3
Plastic granulate, PP (Europe)	PP NTP	tCO2e	-	-	-	-	-	-	-	-	-	-	-	501.1	-	-	-	-	-	501.1
Plastic granulate, PP (Europe)	PE NTP	tCO2e	-	-	-	-	-	-	-	-	-	-	-	222.1	-	-	-	-	-	222.1
Hot dip galv. steel, Zn coating, ArcelorMitta	Steel ZN	tCO2e	-	-	-	-	-	-	-	-	-	-	-	9,044.3	-	-	-	-	-	9,044.3
Black steel, Colacoglu (A1-A3)	Black Steel	tCO2e	-	-	-	-	-	-	-	-	-	-	-	7,741.0	-	-	-	-	-	7,741.0
Ready-mix concrete, Lafarge	concrete	tCO2e	-	-	-	-	-	-	-	-	-	-	-	102.7	-	-	-	-	-	102.7
Plastic (HDPE)		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plastic (HDPE)	CACO3	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plastic (PP)		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plastic HDPE, recycled (OL)		tCO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		2e																		
Hot dip galv. steel, coils, Wupperman	Steel ZN	tCO2e	-	-	-	-	-	-	-	-	-	-	-	7,978.1	-	-	-	-	-	7,978.1
Steel, hot dip galv. (EU avg.)	Steel TC	tCO2e	-	-	-	-	-	-	-	-	-	-	-	12,285.5	-	-	-	-	-	12,285.5
Steel, hot dip galv. (EU avg.)	Steel ZN	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2,525.3	-	-	-	-	-	2,525.3
Steel, hot rolled	Black Steel	tCO2e	-	-	-	-	-	-	-	-	-	-	-	14,992.2	-	-	-	-	-	14,992.2
Steel, hot rolled sheets/coils (SE/FI)	Black Steel - SSAB	tCO2e	-	-	-	-	-	-	-	-	-	-	-	3,740.6	-	-	-	-	-	3,740.6
Steel products, Scrubena	Bolts and nuts	tCO2e	-	-	-	-	-	-	-	-	-	-	-	565.6	-	-	-	-	-	565.6
Copolymers, SABIC	PP prime	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,451.6	-	-	-	-	-	1,451.6
Steel, hot rolled (Europe)		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SCOPE3_PURCHASED_GOODS_AND_SERVICES Total		**tCO2e**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**113,959.5**	**-**	**-**	**-**	**-**	**-**	**113,959.5**
Fuel-and-energy-related activities																				

Diesel (B20) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	3.5	-	-	-	-	-	3.5
Diesel (WTT)	tCO2e	3.4	4.2	5.0	3.3	6.5	21.0	12.4	8.6	34.4	37.3	4.9	-	70.6	20.3	-	28.7	4.9	265.5
Petrol (WTT)	tCO2e	0.7	1.3	-	0.5	2.0	-	1.0	3.8	8.4	18.2	-	-	49.2	1.7	-	5.9	0.2	92.7
Natural gas (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	6.9	-	-	57.3	2.4	-	-	2.6	69.2
Electricity Latvia (upstream)	tCO2e	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	-	-	1.2
Electricity Estonia (upstream)	tCO2e	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
Electricity Nordic mix (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	1.5
Diesel (B5) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diesel (SE) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.0	-	-	20.0
Electricity Turkey (upstream)	tCO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51.5	-	51.5

	2e																		
Electricity France (upstream)	tCO2e	-	-	-	-	-	21.0	-	-	-	-	-	-	-	-	-	-	-	21.0
Electricity Denmark (upstream)	tCO2e	-	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8
Electricity Czech Rep. (upstream)	tCO2e	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
LPG (WTT)	tCO2e	0.8	-	-	-	2.0	-	-	-	-	0.3	-	-	1.2	0.1	-	-	-	4.4
Petrol (SE) (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	2.5
Electricity Lithuania (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	125.3	-	-	-	-	-	-	-	125.3
Electricity Hungary (upstream)	tCO2e	-	-	-	-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	3.2
Electricity Bulgaria (upstream)	tCO2e	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8
Electricity Germany (upstream)	tCO2e	-	-	-	-	-	-	12.3	-	-	-	-	-	-	-	-	-	-	12.3
Electricity UK (upstream)	tC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	9.3

		O2e																		
	Electricity Sweden (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-	-	4.2
	Electricity Romania (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	46.2	-	-	-	46.2
	Electricity Poland (upstream)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	408.5	-	-	-	-	408.5
	Electricity Finland (upstream)	tCO2e	-	-	-	-	6.1	-	-	-	-	-	-	-	-	-	-	-	-	6.1
	Fuel-and-energy-related activities Total	**tCO2e**	**5.7**	**5.7**	**12.8**	**4.4**	**16.6**	**41.9**	**25.7**	**15.6**	**44.0**	**187.9**	**4.9**	**4.9**	**586.8**	**70.8**	**26.7**	**86.1**	**17.1**	**1,157.5**
	Upstream transportation and distribution																			
	Transportation diesel	tCO2e	16.0	-	-	54.2	340.1	31.4	-	-	-	212.2	-	175.1	2.9	-	243.7	36.1	-	1,111.8
	Transportation petrol	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SCOPE3_UPSTREAM_TRANSPORTATION_AND_DISTRIBUTION Total	**tCO2e**	**16.0**	**-**	**-**	**54.2**	**340.1**	**31.4**	**-**	**-**	**-**	**212.2**	**-**	**175.1**	**2.9**	**-**	**243.7**	**36.1**	**-**	**1,111.8**
	Waste																			
	Metal waste, recycled	tC	-	-	-	-	0.9	0.8	0.9	0.1	-	0.8	-	-	30.6	0.8	0.3	5.1	1.2	41.4

		tCO2e																		
Metal waste, recycled	Aluminium	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual waste, incinerated		tCO2e	-	-	-	-	1.4	3.4	-	-	-	-	-	-	-	0.5	0.5	1.0	-	6.9
Commercial waste, landfill		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	12.0	2.2	-	-	-	14.2
Concrete waste, recycled		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1
Mixed waste, recycled		tCO2e	-	-	-	-	0.2	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	0.6
Residual waste, landfill		tCO2e	-	-	-	-	-	9.2	-	1.1	-	-	-	-	-	-	-	-	0.8	11.1
Hazardous waste, incinerated (Europe)		tCO2e	-	-	-	-	1.1	2.9	-	-	-	-	-	-	9.6	0.4	2.4	2.4	2.4	21.2
Industrial waste, recycled		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1
Industrial inert waste, landfill		tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hazardous waste, landfill	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Total	**tCO2e**	**-**	**-**	**-**	**-**	**3.6**	**16.4**	**0.9**	**1.2**	**-**	**0.8**	**-**	**-**	**52.3**	**4.0**	**3.3**	**8.5**	**4.5**	**95.6**
Business travel																				
Air transportation	tCO2e	-	-	-	-	-	-	-	-	-	-	-	353.2	-	-	-	-	-	353.2
Hotel accomodation	tCO2e	-	-	-	-	-	-	-	-	-	-	-	140.5	-	-	-	-	-	140.5
Air travel, continental	tCO2e	-	-	-	-	-	-	-	-	-	-	-	115.9	-	-	-	-	-	115.9
Hotel nights, Europe	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2.4	-	-	-	-	-	2.4
SCOPE3_BUSINESS_TRAVEL Total	**tCO2e**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**612.0**	**-**	**-**	**-**	**-**	**-**	**612.0**
Employee commuting																				
Mileage all. avg. car	tCO2e	3.1	1.0	0.9	3.3	7.2	11.0	13.9	6.7	8.2	25.2	-	11.6	71.2	19.4	10.3	17.1	5.5	215.5
Mileage all. avg. car (WTW)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Mileage all. motorcycle	tCO2e	-	-	-	-	0.1	0.1	0.2	0.1	0.1	0.3	-	0.1	0.8	0.2	0.1	0.2	0.1	2.6
SCOPE3_EMPLOYEE_COMMUTING Total	**tCO2e**	**3.1**	**1.0**	**0.9**	**3.3**	**7.3**	**11.1**	**14.0**	**6.8**	**8.3**	**25.5**	**-**	**11.7**	**72.1**	**19.7**	**10.4**	**17.3**	**5.6**	**218.1**
Downstream transportation and distribution																			
Diesel (WTT)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation diesel	tCO2e	48.0	-	-	10.3	77.4	253.9	-	-	-	195.4	-	61.1	216.9	-	158.6	36.2	85.4	1,143.1
Transportation petrol	tCO2e	-	11.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1
Goods transportation Total	**tCO2e**	**48.0**	**11.1**	**-**	**10.3**	**77.4**	**253.9**	**-**	**-**	**-**	**195.4**	**-**	**61.1**	**216.9**	**-**	**158.6**	**36.2**	**85.4**	**1,154.2**
End-of-life treatment of sold products																			
Metal waste, recycled	tCO2e	-	-	-	-	18.3	69.8	6.9	16.3	-	21.5	-	-	241.4	21.2	22.3	115.2	32.3	565.1
Plastic waste, recycled	tCO2e	-	-	-	-	-	-	-	-	-	108.2	-	-	47.2	21.0	-	-	-	176.3
Concrete waste, recycled	tCO	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	0.4

		2e																	
	SCOPE3_END_OF_LIFE_TREATMENT_OF_SOLD_PRODUCTS Total	**tCO2e**	**-**	**-**	**-**	**-**	**18.3**	**69.8**	**6.9**	**16.3**	**-**	**129.6**	**-**	**-**	**289.0**	**42.2**	**22.3**	**115.2**	**32.3**	**741.8**
	Scope 3 Total	**tCO2e**	**72.8**	**17.8**	**13.6**	**72.2**	**463.2**	**424.5**	**47.5**	**39.9**	**52.3**	**751.5**	**4.9**	**114,824.3**	**1,219.9**	**136.6**	**465.1**	**299.4**	**145.0**	**119,050.4**
	Total (Scope 1 + 2)	**tCO2e**	**26.7**	**23.9**	**41.1**	**18.4**	**65.6**	**135.3**	**106.4**	**62.0**	**182.9**	**649.1**	**20.7**	**15.8**	**2,334.1**	**262.9**	**77.3**	**329.9**	**67.9**	**4,420.1**
	Total (Scope 1 + 2 + 3)	**tCO2e**	**99.5**	**41.7**	**54.7**	**90.6**	**528.8**	**559.8**	**153.9**	**101.9**	**235.3**	**1,400.6**	**25.6**	**114,840.1**	**3,554.0**	**399.5**	**542.3**	**629.4**	**212.8**	**123,470.5**
Annual Market-Based GHG Emissions																				
	Electricity Total (Scope 2) with Market-based calculations	**tCO2e**	**3.8**	**1.1**	**69.1**	**3.2**	**4.5**	**110.2**	**71.2**	**17.6**	**19.0**	**-**	**-**	**-**	**1,161.1**	**157.2**	**10.3**	**184.8**	**34.5**	**1,847.9**
	Scope 2 Total with Market-based electricity calculations	**tCO2e**	**3.8**	**1.1**	**69.1**	**3.2**	**4.5**	**110.2**	**71.2**	**17.6**	**19.0**	**-**	**-**	**-**	**1,161.1**	**157.2**	**10.3**	**184.8**	**34.5**	**1,847.9**
	Scope 1+2+3 Total with Market-based electricity calculations	**tCO2e**	**100.3**	**41.9**	**104.0**	**91.2**	**519.6**	**624.0**	**175.3**	**108.9**	**250.4**	**1,021.1**	**25.6**	**114,837.6**	**3,197.0**	**401.5**	**549.2**	**629.4**	**215.4**	**122,892.5**

1.4. Data Sources

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The reference list above is incomplete but contains the essential references used in CEMAsys. In addition, several local/national sources may be relevant, depending on which emission factors are used.