ViaCon Emissions Data Report 2024

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





ViaCon Group Emissions Report 2024 – table of content

Disc	laimer	.1
Intro	duction About Us:	.1
1.1.	Sources & Methodology	.2
1.2.	Market Based Data 2024	.3
1.3.	Location Based Data 2024	10
1.4.	Data Sources	17

Disclaimer

The contents of this report are correct at the time of the report's creation on the 23^{rd of} April 2025 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.

ViaCon have improved data gathering in 2024 and have carried out a recalculation of our 2021 baseline year emissions and following years up to and including the 2024 emissions reported data. This is in line with the group emissions recalculation policy.

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.

Organization	Author	Classification	Revision date	Issue	1
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	_



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.

<u>The location-based method</u>: 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.

<u>The market-based method:</u> 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

Organization	Author	Classification	Revision date	Issue	2
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	



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 2024

Group Safety / ESG

Craig Lee

Summary	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	Germany	Hungary	Latvia	Lithuania	Netherlan ds	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
Total Scope 1	tCO2e	29.8	22.2	12.4	18.7	56.7	127.6	2.3	26.8	131.9	205.6	-	10.0	771.9	98.0	90.9	178.8	30.3	1813.9
Total Scope 2	tCO2e	3.2	0.3	93.2	3.2	11.9	24.2	65.9	15.7	22.9	-	-	-	1,072.0	178.5	15.0	315.8	42.7	1,864.6
Total Scope 3	tCO2e	177.0	43.4	11.0	56.8	490.1	866.7	30.6	24.3	40.6	1,141.2	-	112,285.7	1,770.9	154.3	670.0	611.1	192.2	118,565.9
Total	tCO2e	100.3	209.9	65.9	116.6	78.8	558.7	1,018.5	98.9	66.8	195.5	1,346.8	-	112,295.7	3,614.8	430.8	775.9	1,105.7	122,244.4
Scope 1	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	Germany	Hungary	Latvia	Lithuania	Netherlan ds	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
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
								Statio	nary combi	ustion									
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
Organization				Author				Class	ification				Revision da	te			Issue		3

Internal

23rd April 2025



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
			'	_	"	'	"	Electr	icity marke	t-based	'	"	*	"		1	"	! 	
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										
								Purchase	d goods ar	nd services									
Chemicals, general	tCO2e	-	-	-	-	-	-	-	-	-	_	-	37.5	-	-	-	-	-	37.5
Office furniture	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	-	-	-	6.7
Office supplies excl.	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1.9	-	-	-	-	-	1.9
paper Food, other	tCO2e	-	_	_	_	-	_	-	_	_	_	_	88.5	_	-	_	_	-	88.5
Books (printed	tCO2e	_	_	_	_	_	_	-	_	-	_	_	1.2	_	-	_	_	-	1.2
media) Computer-related								_		_		_		_	_			_	
hardware	tCO2e	-	-	-	-	-	-		-		-		9.3			-	-		9.3
Software	tCO2e	-	-	-	-	-	-	-	-	-	-	-	144.5	-	-	-	-	-	144.5
Telecommunications	tCO2e	-	-	-	-	-		-	-	-	-	-	15.2	-	-	-		-	15.2

OrganizationAuthorClassificationRevision dateIssue4Group Safety / ESGCraig LeeInternal23rd April 20251 /pc



Group Safety / ESG

Craig Lee

				1	ı					1	1	ı	1		1		I	ı	
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
Organization				Author				Class	ification				Revision da	te			Issue		5

Internal



Plastic products	tCO2e	-	-	-	-	-	-	-	-	-	-	-	188.7	-	-	-	-	-	188.7
Plastic products	tCO2e	-	1	-	-	-	1	-	-	-	-	-	19.9	-	-	-	-	-	19.9
Plastic products	tCO2e	-	1	-	-	-	1	-	-	-	-	-	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 granulates, PE, recycled (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,411.4	-	-	-	-	-	1,411.4
Plastic granulates, PE, recycled (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	102.7	-	-	-	-	-	102.7
Plastic granulates, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6,219.3	-	-	-	-	-	6,219.3
Plastic granulates, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	501.1	-	-	-	-	-	501.1
Plastic granulates, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	222.1	-	-	-	=	-	222.1
Hot dip galv. steel, Zn coating, ArcelorMittal	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organization				Author				Classi	ification				Revision date				Issue		

OrganizationAuthorClassificationRevision dateIssue6Group Safety / ESGCraig LeeInternal23rd April 20251 /pc



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	-	ī	-	-	-	-	-	-		-	ı	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	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	Ξ
SCOPE3_PURCHAS ED_GOODS_AND_S ERVICES Total	tCO2e	-	-	-	-	-	-	-	-	-	-	-	113,959.5	-	-	-	-	-	113,959.5
								Fuel-and-e	nergy-relat	ed activities	s								
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
Organization		1		Author	1	1	<u> </u>	Classi	ification	1			Revision dat	e	<u> </u>		Issue	1	₇

OrganizationAuthorClassificationRevision dateIssue7Group Safety / ESGCraig LeeInternal23rd April 20251 /pc



Group Safety / ESG

Craig Lee

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
		'			1		Ups	tream trans	sportation a	and distribu	ıtion	'	•						
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	i	-
SCOPE3_UPSTREA M_TRANSPORTATIO N_AND_DISTRIBUTI ON 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Ī	0.1
Organization		·	·	Author	<u> </u>	<u> </u>		Class	ification	<u> </u>		·	Revision da	ite	<u> </u>	<u> </u>	Issue		8

Internal

9

Issue

1 /pc



Organization

Group Safety / ESG

Author

Craig Lee

Industrial inert																			
waste, landfill	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hazardous waste, landfill	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Total	tCO2e	-	-	-	-	3.6	16.4	0.9	1.2	-	8.0	-	-	52.3	4.0	3.3	8.5	4.5	95.6
								В	usiness tra	vel									
Air transportation	tCO2e	-	-	-	-	-	-	-	-	-	-	-	353.2	-	-	-	-	-	353.2
Hotel accommodation	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
	Milegge all aug ear																		
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_EMPLOYE E_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
							Down	stream tra	nsportation	and distri	bution								
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
							Er	nd-of-life tre	eatment of	sold produ	cts								
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_L IFE_TREATMENT_O F_SOLD_PRODUCT S Total	tCO2e	-	-	-	-	18.3	69.8	6.9	16.3	-	129.6	-	-	289.0	42.2	22.3	115.2	32.3	741.8

Classification

Internal

Revision date



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
							Aı	nual Marke	et-Based G	HG Emissi	ons								
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 2024

Summary	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	Germany	Hungary	Latvia	Lithuania	Netherlan ds	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
Total Scope 1	tCO2e	29.8	22.2	12.4	18.7	56.7	127.6	2.3	26.8	131.9	205.6	-	10.0	771.9	98.0	90.9	178.8	30.3	1813.9
Total Scope 2	tCO2e	3.6	0.6	15.9	3.0	9.2	38.1	46.0	9.1	3.1	226.7	-	2.1	1,511.0	232.6	3.0	315.8	30.0	2,449.7
Total Scope 3	tCO2e	177.0	43.4	11.0	56.8	490.1	866.7	30.6	24.3	40.6	1,141.2	-	112,285.7	1,770.9	154.3	670.0	611.1	192.2	118,565.9
Total	tCO2e	100.3	209.9	65.9	116.6	78.8	558.7	1,018.5	98.9	66.8	195.5	1,346.8	-	112,295.7	3,614.8	430.8	775.9	1,105.7	122,829.4
Scope 1	Unit	Bulgaria	Czech Rep.	Denmark	Estonia	Finland	France	Germany	Hungary	Latvia	Lithuania	Netherlan ds	Norway	Poland	Romania	Sweden	Turkey	United Kingdom	Total
Diesel (NO)	tCO2e	-	-	-	-	-	ı	-	-	-	-	-	13.4	ı	-	-	-	-	13.4
Diesel (SE)	tCO2e	-	-	-	ı	ı	ī	-	1	-	-	-	ı	ı	-	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	ı	300.8	86.4	-	122.4	21.0	1,131.4
Petrol	tCO2e	2.6	5.0	-	1.9	7.6	ı	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
								Statio	nary combu	ustion									
Natural gas	tCO2e	-	-	-	-	-	1	-	-	-	38.1	-	-	314.8	13.4	-	-	-	366.4
LPG	tCO2e	6.5	-	-	1	16.4	ı	-	•	-	2.5	-	ı	10.2	1.0	-	-	-	36.7
Natural gas (UK grid)	tCO2e	-	-	-	ı	-	ī	-	1	-	-	-	ı	ı	-	-	-	14.2	14.2
Stationary combustion Total	tCO2e	6.5	-	-	•	16.4	-	-	-	-	40.6	-	-	325.0	14.5	-	-	14.2	417.3

Organization	Author	Classification	Revision date	Issue	10
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	

1 /pc



Group Safety / ESG

Craig Lee

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
		'		,		'		Electri	city marke	t-based	•			<u>'</u>			'		
Electricity Nordic mix	tCO2e												2.1						2.1
Electricity Sweden	tCO2e															3.0			3.0
Electricity Turkey	tCO2e																315.8		315.8
Electricity Romania	tCO2e														232.6				232.6
Electricity Poland	tCO2e													1,511.0					1,511.0
Electricity Lithuania	tCO2e										226.7								226.7
Electricity Hungary	tCO2e								9.1										9.1
Electricity France	tCO2e						38.1												38.1
Electricity Finland	tCO2e					9.2													9.2
Electricity Czech Rep.	tCO2e		0.6																0.6
Electricity Bulgaria	tCO2e	3.6																	3.6
Electricity Belarus	tCO2e	515																	ı
Electricity Latvia	tCO2e									3.1									3.1
Electricity Estonia	tCO2e				3.0														3.0
Electricity Denmark 125	tCO2e			15.9															15.9
Electricity Germany	tCO2e							46.0											46.0
Electricity UK	tCO2e																	30.0	30.0
Electricity market- based Total	tCO2e	3.6	0.6	15.9	3.0	9.2	38.1	46.0	9.1	3.1	226.7		2.1	1,511.0	232.6	3.0	315.8	30.0	2,449.7
									ctricity ger					.,					
Electricity Renewable, on-site (consumption)	tCO2e					-													-
Electricity general Total	tCO2e					-													-
Scope 2 Total	tCO2e	3.6	0.6	15.9	3.0	9.2	38.1	46.0	9.1	3.1	226.7		2.1	1,511.0	232.6	3.0	315.8	30.0	2,449.7
									Scope 3										
								Purchase	d goods an	nd services									
Chemicals, general	tCO2e	-	-	-	-	-	-	-	-	-	-	-	37.5	-	-	-	-	-	37.5
Office furniture	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	-	-	-	6.7
Organization				Author				Class	fication				Revision da	ate			Issue		

Internal



Office supplies excl.													T . T						
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	ı	-	-	-	-	-	-	-	-	-	-	20.6	-	ı	-	-	-	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

Organization	Author	Classification	Revision date	Issue	12
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	_



	1			I	1		I	1	1	I			T T						
Plastic products	tCO2e	-	ı	-	-	-	-	-	-	-	-	-	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 granulates, PE, recycled (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	1,411.4	-	-	-	-	-	1,411.4
Plastic granulates, PE, recycled (Europe)	tCO2e	-	ı	-	-	-	-	-	-	-	-	-	102.7	-	-	-	-	-	102.7
Plastic granulates, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	6,219.3	-	-	-	-	-	6,219.3
Plastic granulates, PP (Europe)	tCO2e	-	-	-	-	-	-	-	-	-	-	-	501.1	-	-	-	-	-	501.1
Plastic granulates,	tCO2e	-	-	-	-	-	-	-	-	-	-	-	222.1	-	-	-	-	-	222.1
PP (Europe)															L	L			

Organization	Author	Classification	Revision date	Issue	13
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	



						1		1							,		,		
Hot dip galv. steel, Zn coating, ArcelorMittal	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_PURCHAS ED_GOODS_AND_S ERVICES Total	tCO2e	-	-	-	-	-	-	-	-	-	-	-	113,959.5	-	-	-	-	-	113,959.5
								Fuel-and-e	nergy-relat	ed activities	s								
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organization				Author				Classi	ification				Revision da	te			Issue		14

Group Safety / ESG Craig Lee Internal 23rd April 2025 1 /pc



							1												
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
							Ups	tream tran	sportation a	and distribu	ution		•						
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_UPSTREA M_TRANSPORTATIO N_AND_DISTRIBUTI ON 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Organization	Author	Classification	Revision date	Issue	15
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	



Group Safety / ESG

Craig Lee

Residual waste, incinerated	tCO2e	-	-	-	-	1.4	3.4	-	-	-	-	-	-	-	0.5	0.5	1.0	-	6.9
Commercial waste,	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	12.0	2.2	-	-	-	14.2
Concrete waste, recycled	tCO2e	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1
Mixed waste,	tCO2e	-	-	-	-	0.2	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	0.6
recycled 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,	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
								В	usiness tra	vel									
Air transportation	tCO2e	-	-	-	-	-	-	-	-	-	-	-	353.2	-	-	-	-	-	353.2
Hotel accommodation	tCO2e	-	-	-	-	-	-	-	-	-	-	-	140.5	-	-	-	-	-	140.5
Air travel,	tCO2e	-	-	-	-	-	-	-	-	-	-	-	115.9	-	-	-	-	-	115.9
Hotel nights, Europe	tCO2e	-	-	-	-	-	-	-	-	-	-	-	2.4	-	-	-	-	-	2.4
SCOPE3_BUSINESS _TRAVEL Total	tCO2e	-	-	-	-	-	-	-	-	-	-	-	612.0	-	-	-	-	-	612.0
								Empl	loyee com	nuting									
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_EMPLOYE E_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
							Dow	nstream tra	nsportation	n and distri	ibution								
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
Organization				Author				Class	ification				Revision da	te			Issue		16

Internal



							Er	nd-of-life tr	eatment of	sold produ	cts								
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	ı	-	47.2	21.0	-	-	-	176.3
Concrete waste, recycled	tCO2e	-	1	-	-	1	-	ı	-	-	-	ī	-	0.4	ı	-	-	-	0.4
SCOPE3_END_OF_L IFE_TREATMENT_O F_SOLD_PRODUCT S 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
							Ar	nual Mark	et-Based G	HG Emissio	ons								
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

Sources:

Department for Business, Energy & Industrial Strategy (2022). Government emission conversion factors for greenhouse gas company reporting (DEFRA)

IEA (2022). Emission Factors database, International Energy Agency (IEA), Paris.

IEA (2022). Electricity information, International Energy Agency (IEA), Paris.

Eco Invent 3.8 and 3.9.1. Wernet, G., Bauer, C., Steubing, B., Reinhard, J., Moreno-Ruiz, E., and Weidema, B., 2016. The Ecoinvent database version 3 (part I): overview and methodology. The International Journal of Life Cycle Assessment.

Organization	Author	Classification	Revision date	Issue	17
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	



IMO (2020). Reduction of GHG emissions from ships - Third IMO GHG Study 2014 (Final report). International Maritime Organisation, http://www.iadc.org/wp-content/uploads/2014/02/MEPC-67-6-INF3-2014-Final-Report-complete.pdf

IPCC (2014). IPCC fifth assessment report: Climate change 2013 (AR5 updated version November 2014). http://www.ipcc.ch/report/ar5/

AIB, RE-DISS (2022). Reliable disclosure systems for Europe – Phase 2: European residual mixes.

WBCSD/WRI (2004). The greenhouse gas protocol. A corporate accounting and reporting standard (revised edition). World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 116 pp.

WBCSD/WRI (2011). Corporate value chain (Scope 3) accounting and reporting standard: Supplement to the GHG Protocol corporate accounting and reporting standard. World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 149 pp.

WBCSD/WRI (2015). GHG protocol Scope 2 guidance: An amendment to the GHG protocol corporate standard. World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 117 pp.

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.

Organization	Author	Classification	Revision date	Issue	18
Group Safety / ESG	Craig Lee	Internal	23 rd April 2025	1 /pc	_