

The Planet **emissions**

Emissions

Castellum monitors its greenhouse gas emissions annually in accordance with the Greenhouse Gas (GHG) Protocol. 2017 was chosen as the base year for Castellum's Science Based Target of net-zero CO₂ emissions by 2030. This is because it was the first year when a complete Scope 3 inventory could be carried out. For scopes 1 and 2, and for business travel, there is comparable data back to 2007.

The Conversion Factors table on page 180 reports on the activities, assumptions and conversion factors forming the basis for reporting Castellum's energy use and greenhouse gas emissions. It is worth noting that in 2021, the database for Scope 3 emissions that are calculated based on the costs of the current period were replaced with a newer database. The previous database with emissions factors from the

World Input Output database, which is from 2013, has been replaced with a newer database – Exiobase 3. This database is considered to be the most reliable today for these types of calculations, and has updated emissions factors that better take economic activities into account with improved sectoral granularity. Previous years have not been updated.

Complete inventory of greenhouse gas emissions (GRI 305-1, 305-2, 305-3, 305-4, 305-5, GHG-Dir-Abs, GHG-Indir-Abs [market-based], GHG-Indir-Abs [facility-based])

	2021		2020		2019		2018		2017		Calculation method ¹⁾
	Absolute emissions	Intensity	Absolute emissions	Intensity	Absolute emissions	Intensity	Absolute emissions	Intensity	Absolute emissions	Intensity	
Scope 1											
Direct emissions (GHG-Dir-Abs) ²⁾	322	0.1	284	0.1	458	0.1	675	0.2	1,122	0.3	Fuel-based
Biogenic emissions (GHG-Dir-Abs)	342	0.1	339	0.1	535	0.1	664	0.2	924	0.2	Fuel-based
Scope 2											
Market-based method (GHG-Indir-Abs)	5,403	1.4	3,991	0.9	5,764	1.4	4,362	1.00	6,133	1.3	Fuel-based
Market-based method (GHG-Indir-Abs)	16,418	4.3	18,128	4.1	37,222	8.8	47,818	11.3	48,560	11.0	Fuel-based
Scope 1+2 (market-based method)	5,725	1.5	4,275	1.0	6,222	1.5	5,037	1.2	7,255	1.6	
Scope 1+2 (facility-based method)	16,740	4.4	18,412	4.2	37,680	8.9	48,493	11.5	49,682	11.3	
Scope 3³⁾											
1. Goods and services purchased	71,130	18.5	274,307	61.8	266,860	62.8	273,279	64.6	322,279	73.6	Cost-based
3. Fuel- and energy-related activities ⁴⁾	3,452	0.9	—	—	—	—	—	—	—	—	Fuel-based
4. Transportation and distribution, upstream	465	0.1	227	0.1	172	0.1	166	0.1	289	0.1	Cost-based
5. Waste generated in the operation	2,043	0.5	2,717	0.6	2,161	0.5	2,038	0.5	1,839	0.4	Cost-based
6. Business travel	35	0.0	49	0	127	0.0	151	0.0	138	0.0	Average method
7. Employee commutes	169	0.0	160	0	166	0.0	158	0.0	156	0.0	Average method
8. Leased assets, upstream	20	0.0	88	0	68	0.0	59	0.0	51	0.0	Cost-based
13. Leased assets, downstream ⁵⁾	8,860	2.3	12,627	2.9	54	0.0	54	0.0	54	0.0	Average method
Biogenic emissions	—	—	—	—	—	—	—	—	—	—	
Scope 3	86,174	22.4	290,175	65.4	269,608	63.4	275,905	65.2	324,806	74.1	
Scope 1+2+3 (market-based method)	91,899	23.9	294,450	66.4	275,830	64.9	280,942	66.4	332,061	75.7	
Scope 1+2+3 (facility-based method)	102,914	26.8	308,587	69.6	307,288	72.3	324,398	76.7	374,488	85.4	

Absolute emissions are indicated in metric tons of CO₂eq, and intensity in kg CO₂e per square metre.

2017 is set as the base year for Castellum's Science Based Target, since this was the first year that Castellum measured the Group's entire emissions in Scope 3. No material emissions of greenhouse gases have been excluded.

1. According to GHG Protocol Corporate Value Chain Standard.

2. In addition to fuel consumption in properties and refrigerants, also includes emissions from Castellum's own vehicles of 23 metric tonnes of CO₂e in 2021 compared with 14 metric tonnes of CO₂e in 2020.

3. The following Scope 3 emissions are not considered relevant for Castellum (approved by SBTi): 2. Capital goods, 9. Downstream transportation and distribution, 10. Processing of sold products, 11. Use of sold products, 12. End processing of sold products, 14. Franchises, 15. Investments.

4. In 2021, Castellum updated and calculated emissions for fuel- and energy-related activities.

5. The emissions factor has been updated in accordance with the residual mix emission factor of each country from Grexel's database from 2020 and onward. We believe that Grexel's residual mix emissions factor reflects carbon emissions from electricity consumption better than the Swedish Energy Markets Inspectorate's weighted residual mix emissions factors that were used in previous years. This has no significant impact on the total carbon footprint – less than 5% – which is why we have not updated either previous years or the base year.