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CARBON FOOTPRINT REPORT

2024

WHAT IS A CARBON FOOTPRINT?

Calculating an organisation's carbon footprint means calculating the greenhouse gas emissions generated through its operations. The unit of carbon footprint is the carbon dioxide equivalent, which reflects the global warming effect of different greenhouse gases converted into the corresponding effect of carbon dioxide in the atmosphere. The carbon footprint measurement method for this calculation is based on GHG Protocol guidelines. The GHG Protocol is a standard published in 1998 by the World Business Council on Sustainable Development (WBCSD) and the World Resource Center (WRI) to help companies determine greenhouse gas emissions from their operations.

Greenhouse gas emissions generated in accordance with the guidelines are sorted into Scope 1, Scope 2 and Scope 3 emissions. The factors affecting a company's greenhouse gas emissions are divided into scopes 1-3.

Scope 1 – Direct emissions of the organization. Assets owned by an enterprise, including the company's own energy production and fuel consumption of its own vehicles or vehicles under its control.

Scope 2 Indirect emissions of the organization. Electricity and heat/cooling energy purchased by the company.

Scope 3 Upstream and downstream. Scope 3 includes a number of other business emissions from subcontracting all the way to the customer. Scope 3 includes, but is not limited to, business travel, waste, purchased transportation, packaging and commuting.



CALCULATION

Carbon footprint management starts with identifying emission sources and determining the amount of emissions caused by operations. With the help of carbon footprint calculations, it is possible to map the largest sources of emissions, which also allows measures to reduce emissions to be targeted correctly.

With the help of the calculation results, Meconet can develop its operations in an even lower-emission direction in the future. Based on the calculations, the amount of offsetting required for carbon neutrality can also be seen.

The report includes the carbon footprint of Meconet operations for the period 01.01.2023 – 31.12.2023, presented as carbon dioxide equivalents (CO2e). The figures are compared to base year (2021) CO2 emission calculation results.

There's also an emission trend calculation versus company turnover for comparing the effectiveness of actions against the volume of business.

The carbon footprint is calculated using the consumption figures of the company's various emission sources and site-specific emission factors for the period 01.01.2023 - 31.12.2023.

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CALCULATION LIMITATIONS



The limitation of the carbon footprint calculation is based on the GHG Protocol standard, according to which direct greenhouse gas emissions (Scope 1) and indirect emissions (Scope 2) must be included in the calculation. Other indirect greenhouse gas emissions (Scope 3) can be included on a case-by-case basis.

The functional limitation of the calculation is based on the emissions caused by the activities controlled by the company, i.e. the emissions that the company can influence through its operations.

In addition to Scope 1 and 2 emission sources, the carbon footprint calculation includes logistics managed by Meconet, employee travel (travel between home and work), business travel, waste, water, purchased materials and raw materials. In accordance with the Gradle – to – customer principle, the calculation was limited to ending when the ownership of the asset changes from the enterprise to the customer. Some of Scope 3 emissions have been divided between Meconet production units compared to production volume or number of employees working in entity.

Scope cathegory [t CO ₂ e]	Emission source	2021	2022	2023
Scope 1.1	Scope 1.1 Heating with own fuels	88,79	54,38	55,42
Scope 1.2	Scope 1.2 Fuels of company vehicles	60,95	67,98	62,49
Scope 1.4	Scope 1.4 Gases and fuels of production	74,68	153,95	137,98
Tot. [t]	Scope 1	224,41	276,31	255,89
Scope 2.1	Scope 2.1 Elecricity	1034,39	1 044,65	1 830,98
	Scope 2.1 Heating	289,28	243,71	186,54
Tot. [t]	Scope 2	1323,67	1 288,36	2 017,52
Scope 3.1	Scope 3.1 Purchaced metals	27 503,59	23 670,25	23 656,35
	Scope 3.1 Packing materials	34,79	39,48	51,38
	Scope 3.1 IT purchaces	5 <i>,</i> 58	6,56	2,19
	Scope 3.1 Oils and substances	73,11	100,64	101,15
Scope 3.5	Scope 3.5 Waste	41,29	70,33	51,30
	Scope 3.5 Water	3,22	2,43	2,23
Scope 3.6	Scope 3.6 Business traveling	26,60	84,51	121,60
Scope 3.7	Scope 3.7 Commuting	269,36	288,22	305,51
Scope 3.9	Scope 3.9 Sales freights (logistics)	1018	640,72	568,02
Tot. [t]	Scope 3	28 975,54	24 903,14	24 859,74
Total [t]	Total carbon footprint [t CO ₂ e]	30 524	26 468	27 133





Total CO² equivalent emissions of Meconet in year 2023 were **27 133 t**.

From total emissions, the Scope 3 portion was **92%**, Scope 2 portion **7%** and Scope 1 portion **1%**.



From Meconet's Total CO² equivalent emissions of 2023 **(27 133 t)**, Äänekoski unit emissions were 14 625t, Vantaa 5 968t, Tallinn 4 363t and Pihtipudas 2 160t.

The percentual portion of scope 3 emissions was 90% or more in every production unit.



Compared to base year 2021, the CO² equivalent emissions of Meconet have been reduced in total from **30 524** t to **27 133** tons (**13%**) in 2023.

The biggest reduction in emissions is coming from Scope 3, and decreased volume of purchased raw material.

In scope 2, the emissions have increased due to non green electricity emission factor raising by 219%, but scope 1 emissions are reduced.

MECONET CARBON EMISSIONS EVOLUTION COMPARED TO TURNOVER AND BASE YEAR 2021



In comparison to the base year for carbon footprint, and weighted with Meconet group annual turnover, the reduction of carbon emissions has been 20% in year 2023.



In 2023, Meconet has been able to reduce heating- and central heating emissions. Also, the absolute electricity usage has been reduced in all Meconet entities. However, since the emission factor for non-green electricity has been raised by 219%, the calculated emissions of electricity have also increased.