

ORGANIZATION CARBON FOOTPRINT



QUANTIFICATION OF EMISSIONS

UNI EN ISO 14064:1 – SCOPE 1 AND 2



ISO 14064-1:2018 provides for the division of emission sources into six different categories:

- **Scope 1 – Direct emissions:** Direct greenhouse gas (GHG) emissions are calculated by the organization during the year of analysis (2022). Emissions are reported in tonnes of CO2 equivalent.
- **Scope 2 – Indirect emissions for imported energy:** Are reported indirect emissions related to the organization arising from the withdrawal from the national electricity network. Emissions shall be reported in tonnes of CO2 equivalent.
- **Scope 3 – Indirect emissions for transport**
- **Scope 4 – Indirect emissions for products used by the organization**
- **Scope 5 – Indirect emissions associated with the use of products of the organization**
- **Scope 6 – Indirect emissions from other sources**

DIRECT AND INDIRECT EMISSIONS

SCOPE 1 AND 2



Category	Activity data	Quantity	U/M	Quantity 2	U/M 2	FE	U/M (FE)	Source FE	tCO2eq	Weight
1 – Direct Emissions	Natural Gas	29.346	Sm ³	1,04	TJ	56,333	tCO2eq/TJ	National standard parameters - ISPRA 2022 (CO2)	58,32	8,7%
						0,084	tCO2eq/TJ	IPCC Stationary Combustion (tab 2,3) (CH4)	0,09	0,0%
						0,159	tCO2eq/TJ	IPCC Stationary Combustion (tab 2,3) (N2O)	0,16	0,0%
	Diesel oil for company cars	16.715	L	13.957,10	kg	3,169	kgCO2/kg	National standard parameters - ISPRA 2022	44,23	6,6%
						0,000	kgCO2e(CH4)/kg	DEFRA 2022 - Fuels - Diesel (average biofuel blend) - kg CH4	0,00	0,0%
						0,044	kgCO2e(N2O)/kg	DEFRA 2022 - Fuels - Diesel (average biofuel blend) - kg N2O	0,61	0,1%
	Petrol for company cars	2.026	L	1.501,33	kg	3,152	kgCO2/kg	National standard parameters - ISPRA 2022	4,73	0,7%
						0,010	kgCO2eq(CH4)/kg	DEFRA 2022 - Fuels - Petrol (100% mineral petrol)	0,01	0,0%
						0,009	kgCO2eq(N2O)/kg	DEFRA 2022 - Fuels - Petrol (100% mineral petrol)	0,01	0,0%
	F-Gas R134A	0	kg			1300	GWP	IPCC - Fifth Assessment Report (AR5)	0,00	0,0%
	F-Gas R22	0	kg			1760	GWP	IPCC - Fifth Assessment Report (AR5)	0,00	0,0%
	F-Gas R32	0	kg			677	GWP	IPCC - Fifth Assessment Report (AR5)	0,00	0,0%
	F-Gas R404A	0	kg			3643	GWP	IPCC - Fifth Assessment Report (AR5)	0,00	0,0%
	F-Gas R407C	0	kg			1624	GWP	IPCC - Fifth Assessment Report (AR5)	0,00	0,0%
	F-Gas R410A	0	kg			1924	GWP	IPCC - Fifth Assessment Report (AR5)	0,00	0,0%
Total Scope 1 – Direct Emission									108,2	16,1%
2 – Indirect Emissions from imported energy	Electric energy taken from power grid	2.050,51	MWh			275,639	kgCO2e/MWh	Ecoinvent 3.9.1 (2023) - market for electricity, medium voltage (IT)	565,20	83,9%
	Self-produced and self-consumed energy (photovoltaic system)	229,07	MWh			0	kgCO2e/MWh	Energy from renewable sources	0,0	0,0%
Total Scope 2 – Indirect Emissions from imported energy									565,2	83,9%
Total Overall									673,4	100,0%

Table 1: GHG Emissions Calculation (Scope 1 and 2) - (2022)

DIRECT AND INDIRECT EMISSIONS

SCOPE 1 AND 2

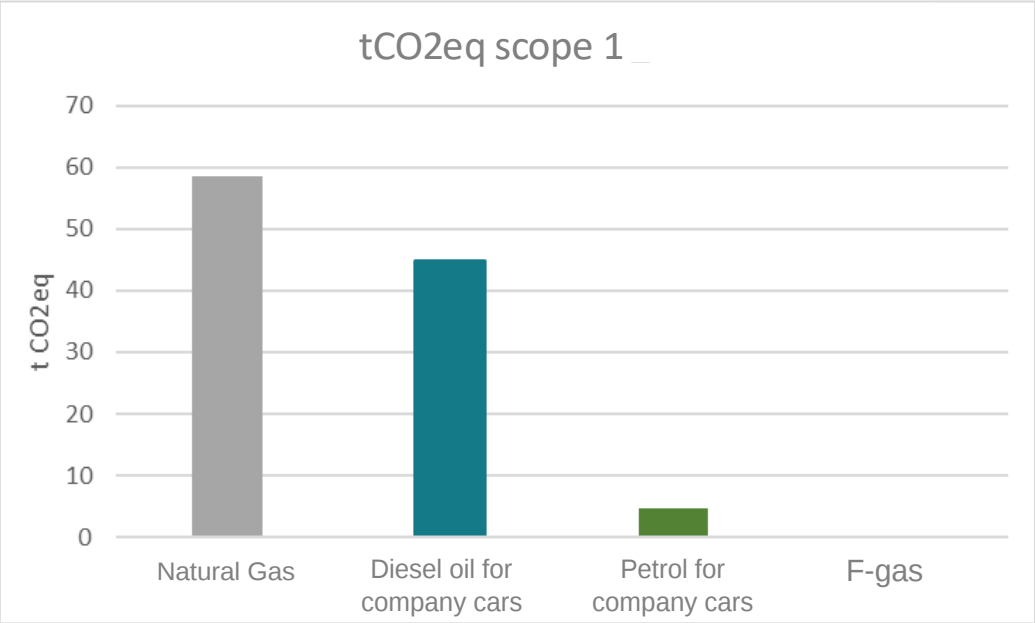


Chart 1: Scope 1 composition – direct emissions (2022)

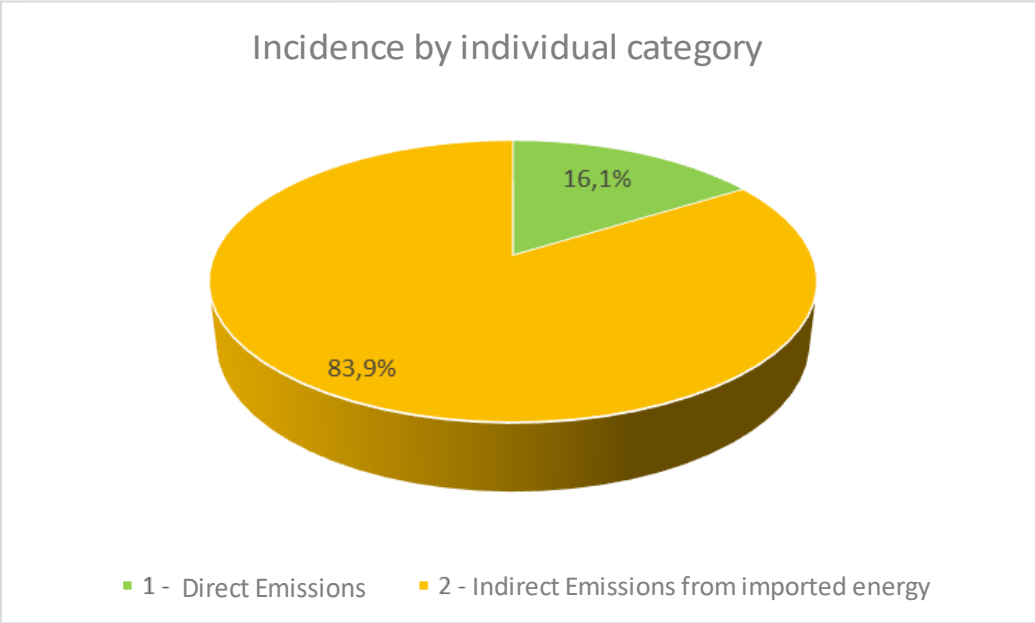


Chart 2: Direct and indirect emissions in comparison (2022)

PROSPECTS FOR IMPROVEMENT

SCOPE 1 AND 2 – EMISSIONS REDUCTION



*Mollificio Bergamasco is committed to **monitoring** emissions and **reducing** its carbon footprint through annual assessments and implementation of improvement actions aimed at reducing the impact generated.*



THANK YOU FOR YOUR ATTENTION!



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