



ORGANISATIONAL CARBON FOOTPRINT REPORT EXECUTIVE SUMMARY

NOTE: This executive summary presents the results of the company's verified Organisational Carbon Footprint report for 2022 and 2023. For further information about the report, please contact medioambiente@molecor.com.

ORGANISATIONAL CARBON FOOTPRINT (OCF)



The Organisational Carbon Footprint is the measurement of the total greenhouse gas emissions, both direct and indirect, resulting from an organisation's activities.

Calculation methodology followed

The quantification methodology used was the Greenhouse Gas Protocol Corporate Standard (*GHG Protocol*), one of the most widely used international protocols for quantifying and managing greenhouse gas emissions, which aims to provide a common framework for consistent and reliable accounting and reporting.

The methodology for calculating the GHG emissions resulting from the company's activities is based on the following formula:

$$\text{Carbon Footprint} = \text{Activity Data} \times \text{Emissions Factor}$$

Scope, approach and limitations

This executive summary relates to the calculation of **MOLECOR's** Scope 1 and 2 carbon footprint, analysing and calculating greenhouse gas emissions for the years 2022 and 2023, from 1 January to 31 December of each year, with 2022 as the base year.

An operational control approach has been used, where the calculation includes emissions from all facilities, centres and vehicles for which the company is in a position to control the operating policy and for which 100% complete and accessible information is therefore available.

The limits set for the calculation are based on operational limits, also known as reporting limits. This involves identifying and categorising direct and indirect emissions associated with operations.

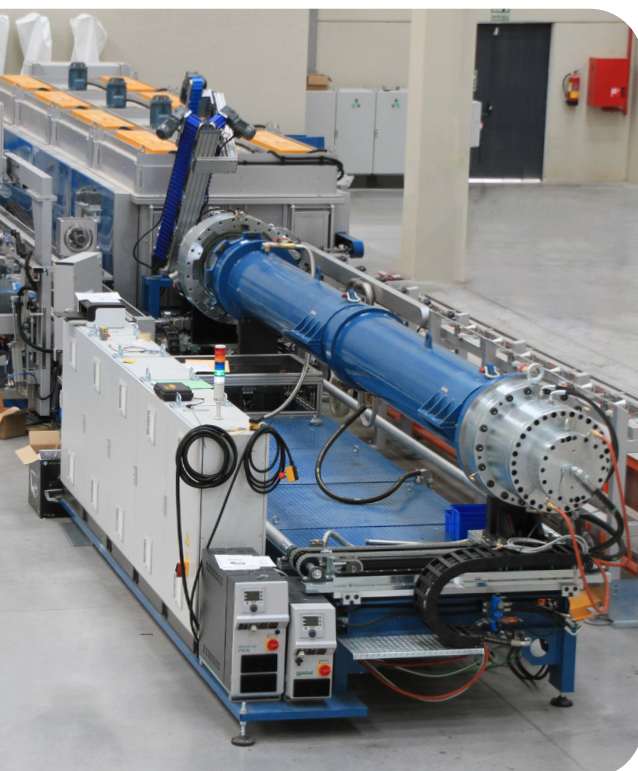
Scope	Emissions	Subcategory
SCOPE 1	DIRECT	Direct emissions from stationary combustion equipment
		Direct emissions from the company's own vehicle fleet
		Fugitive emissions: This considers emissions data for refrigerant gases, CO ₂ extinguishers and SF ₆ from transformer stations.
SCOPE 2	INDIRECTOR	Indirect GHG emissions from electricity

Scope 1: Direct emissions

Direct emissions from stationary combustion equipment

Emissions associated with the consumption of fossil fuels in factories due to the consumption of B grade diesel and LPG.

In **2022**, emissions amounted to **227.18 t CO₂ eq** and to **309.47 t CO₂ eq** in **2023**.



Production	Emissions from fuel consumption in factories in 2022			
	kg CO ₂	g CH ₄	g N ₂ O	kg CO ₂ eq
Loeches	67,011.66	552.16	2,886.27	67,789.70
Getafe	0.00	0.00	0.00	0.00
Alcázar de San Juan	77,518.11	638.73	3,338.80	78,418.13
Alovera	0.00	0.00	0.00	0.00
Antequera	43,288.71	356.69	1,864.50	43,791.31
Malaysia	0.00	0.00	0.00	0.00
Paraguay	2,502.33	0.20	0.00	2,508.02
South Africa	34,477.33	4,620.67	236.96	34,670.94
TOTAL	224,798.14	6,168.45	8,326.52	227,178.10
				227.18 t

Production	Emissions from fuel consumption in factories in 2023			
	kg CO ₂	g CH ₄	g N ₂ O	kg CO ₂ eq
Loeches	69,470.73	572.42	2,992.19	70,303.34
Getafe	11,748.00	96.80	506.00	11,888.80
Alcázar de San Juan	87,864.36	723.98	3,784.42	88,917.42
Alovera	0.00	0.00	0.00	0.00
Antequera	50,730.00	418.00	2,185.00	51,338.00
Malaysia	29,100.00	3,900.00	200.00	29,263.41
Paraguay	4,398.41	0.36	0.00	4,408.40
South Africa	53,051.86	7,110.04	364.62	53,349.77
TOTAL	306,363.36	12,821.60	10,032.22	309,469.14
				309.47 t

Scope 1: Direct emissions

Direct emissions from the company's own vehicle fleet

Emissions associated with the consumption of fossil fuels in vehicles due to the consumption of diesel, petrol and adblue.

In **2022**, emissions amounted to **51.44 t CO₂ eq** and to **177.40 t CO₂ eq** in **2023**.



Production	Emissions from vehicle fuel consumption in 2022			
	kg CO ₂	g CH ₄	g N ₂ O	kg CO ₂ eq
Molecor Tecnología	32,627.18	1,343.33	953.25	32,924.61
Molecor Canalizaciones	8,441.75	13.55	359.04	8,539.98
Malaysia	0.00	0.00	0.00	0.00
Paraguay	8,384.40	566.81	170.71	8,446.81
South Africa	1,510.85	2.43	64.40	1,528.47
TOTAL	50,964.19	1,926.12	1,547.40	51,439.87
				51.44 t

Production	Emissions from vehicle fuel consumption in 2023			
	kg CO ₂	g CH ₄	g N ₂ O	kg CO ₂ eq
Molecor Tecnología	33,047.94	843.98	1,140.22	33,382.34
Molecor Canalizaciones	84,018.83	800.94	3,351.74	84,954.72
Malaysia	38,354.66	3,840.61	360.06	38,560.41
Paraguay	17,150.49	1,556.53	215.25	17,252.77
South Africa	3,212.96	5.17	136.94	3,250.42
TOTAL	175,784.88	7,047.23	5,204.21	177,400.65
				177.40 t

Scope 1: Direct emissions

Emissions of fugitive gases

Emissions associated with leaks or refills of refrigerant gases, CO₂ extinguishers and SF₆ in transformer stations.

In **2022**, emissions amounted to **11.71 t CO₂ eq** and to **245.83 t CO₂ eq** in **2023**.



Production	Emissions from leakage of air-conditioning and refrigeration equipment per site in 2022			
	Coolant	GWP	Refill (kg)	Emissions (kg CO ₂ eq)
Loeches	HFC-134A	1,530	1.90	2,907.00
Getafe	No refills	0	0.00	0.00
Alcázar de San Juan	R-410A	2,256	1.50	3,384.00
Alovera	No refills	0	0.00	0.00
Antequera	No refills	0	0.00	0.00
Malaysia	No refills	0	0.00	0.00
Paraguay	R-410A	2,256	2.40	5,414.40
South Africa	No refills	0	0.00	0.00
TOTAL			5.80	11,705.40
				11.71 t

Production	Emissions from leakage of air-conditioning and refrigeration equipment per site in 2023			
	Coolant	GWP	Refill (kg)	Emissions (kg CO ₂ eq)
Loeches	R-410A	2,256.00	10.00	22,560.00
	HFC-134A	1,530.00	2.00	3,060.00
Getafe	No refills	0.00	0.00	0.00
Alcázar de San Juan	R-410A	2,256.00	1.50	3,384.00
	HFC-32	771	0.70	539.70
Alovera	No refills	0.00	0.00	0.00
Antequera	R-410A	2,256.00	1.35	3,045.60
Malaysia	R-410A	2,256.00	83.50	188,376.00
	HFC-134A	1,530.00	13.60	20,808.00
Paraguay	R-410A	2,256.00	1.80	4,060.80
South Africa	No refills	0.00	0.00	0.00
TOTAL			114.45	245,834.10
				245.83 t

Scope 2: Indirect emissions

Scope 2 emissions result from the electricity consumption (kWh), taking into account its nature (renewable or non-renewable), of all facilities within the scope of the report, including all electrically powered machinery.

Based on market approach, In **2022**, total emissions amounted to **12,509.03 t CO₂ eq** and to **13,881.81 t CO₂ eq** in **2023**. Meanwhile, based on location approach, in **2022**, total emissions amounted to **9,235.99 t CO₂ eq** and to **11,656.22 t CO₂ eq** in **2023**.

Market approach 2022				
Production	Origin of electricity	Consumption (kWh)	Emissions factors (kg CO ₂ /kWh)	Emissions (kg CO ₂ eq)
Loeches	Marketers without GoO (OMIE)	8,620,355.00	0.273	2,353,356.92
	Renewable energy facilities (solar PV plant)	1,147,736.61	0.000	0.00
	Renewable GoO marketers (GoO Certificates)	1,100,000.00	0.000	0.00
Getafe	Marketers without GoO (OMIE)	136,270.00	0.273	37,201.71
Alcázar de San Juan	Marketer EDP CLIENTES	9,790,034.00	0.272	2,662,889.25
Alovera	Marketer EDP CLIENTES	8,345,435.00	0.272	2,269,958.32
Antequera	Marketer EDP CLIENTES	4,700,436.00	0.272	1,278,518.59
Malaysia	Marketers without GoO	0.00	0.897	0.00
Paraguay	Renewable GoO marketers (hydropower supply)	289,964.00	0.000	0.00
South Africa	Marketers without GoO	3,427,286.79	1.140	3,907,106.94
TOTAL		37,557,517.40		12,509,031.72
				12,509.03 t

Market approach 2023				
Production	Supply company	Consumption (kWh)	Emissions factors (kg CO ₂ /kWh)	Emissions (kg CO ₂ eq)
Loeches	Marketers without GoO (OMIE)	8,644,904.00	0.260	2,247,675.04
	Renewable energy facilities (Solar PV plant)	1,323,370.00	0.000	0.00
	Renewable GoO marketers (GoO Certificates)	2,400,000.00	0.000	0.00
Getafe	Marketers without GoO (OMIE)	161,732.00	0.260	42,050.32
Alcázar de San Juan	Marketer EDP CLIENTES	2,493,593.00	0.259	645,840.59
	Marketers without GoO (OMIE)	4,589,788.00	0.260	1,193,344.88
	Renewable GoO marketers (GoO Certificates)	3,100,000.00	0.000	0.00
Alovera	Marketer EDP CLIENTES	1,769,393.00	0.259	458,272.79
	Marketers without GoO (OMIE)	3,415,898.00	0.260	888,133.48
	Renewable GoO marketers (GoO Certificates)	2,800,000.00	0.000	0.00
Antequera	Marketer EDP CLIENTES	1,728,108.00	0.259	447,579.97
	Marketers without GoO (OMIE)	2,650,055.00	0.260	689,014.30
	Renewable GoO marketers (GoO Certificates)	2,200,000.00	0.000	0.00
Malaysia	Marketers without GoO	1,949,762.00	0.897	1,749,131.49
Paraguay	Renewable GoO marketers (Hydropower supply)	380,662.00	0.000	0.00
South Africa	Marketers without GoO	4,842,778.71	1.140	5,520,767.72
TOTAL		44,450,043.71		13,881,810.58
				13,881.81 t

Scope 2: Indirect emissions

Location approach 2022			
Production	Consumption (kWh)	Emissions factors (kg CO ₂ /kWh)	Emissions (kg CO ₂ eq)
Spain	32,692,530.00	0.163	5,328,882.39
Malaysia	0.00	0.897	0.00
Paraguay	289,964.00	0.000	0.00
South Africa	3,427,286.79	1.140	3,907,106.94
TOTAL	36,409,780.79		9,235,989.33
			9,235.99 t

Location focus 2023			
Production	Consumption (kWh)	Emissions factors (kg CO ₂ /kWh)	Emissions (kg CO ₂ eq)
Spain	35,953,471.00	0.122	4,386,323.46
Malaysia	1,949,762.00	0.897	1,749,131.49
Paraguay	380,662.00	0.897	0.00
South Africa	4,842,778.71	0.000	5,520,767.72
TOTAL	43,126,673.71	1.140	11,656,222.68
			11,656.22 t



In addition, the use of renewable energy from a photovoltaic plant at the Loeches factory, hydroelectricity at the Paraguayan centre and the purchase of renewable guarantee of origin certificates at the rest of the Spanish facilities has allowed the emission of a significant amount of greenhouse gases into the atmosphere to be avoided.

In **2022**, total emissions avoided amounted to **692.79 t CO₂ eq** and to **3,173.05 t CO₂ eq** in **2023**.

Year	Total emissions (kg CO ₂ eq)	Emissions avoided (kg CO ₂ eq)	% of emissions avoided compared to total
2022	10,550.83	692.79	6.57%
2023	11,623.74	3,173.05	27.30%

MOLECOR's results

2022

The value of the Organisational Carbon Footprint for Scopes 1 and 2 for 2022, taking into account the established organisational limits and according to the **market approach**, is **12,799.35 t CO₂ eq**, while according to the **location approach** it is **9,526.31 t CO₂ eq**.

Scope	Emission source	2022 emissions
		t CO ₂ eq
Scope 1	Direct emissions	290.32
Scope 2	Electricity consumption (Market approach)	12,509.03
	Electricity consumption (Location approach)	9,235.99
TOTAL (Market approach)		12,799.35
TOTAL (Location approach)		9,526.31

2023

The value of the Organisational Carbon Footprint for Scopes 1 and 2 for 2023, taking into account the established organisational limits and according to the **market approach**, is **14,614.51 t CO₂ eq**, while according to the **location approach** it is **12,388.93 t CO₂ eq**.

Scope	Emission source	2023 emissions
		t CO ₂ eq
Scope 1	Direct emissions	732.70
Scope 2	Electricity consumption (Market approach)	13,881.81
	Electricity consumption (Location focus)	11,656.22
TOTAL (Market focus)		14,614.51
TOTAL (Location focus)		12,388.93

A time comparison between the years shows an upward trend, with practically all consumption increasing compared to the base year, mainly due to the addition to the inventory of consumption from the Malaysian plant, which became part of the company at the end of 2022.

Furthermore, the emissions ratio is provided based on two activity indicators: annual turnover, corresponding to sales, and the company's production, in terms of tons produced.

	2022	2023
Turnover (million €)	159,620,338	172,333,404
Emissions ratio (t CO ₂ /million € turnover)	0.0000802	0.0000848

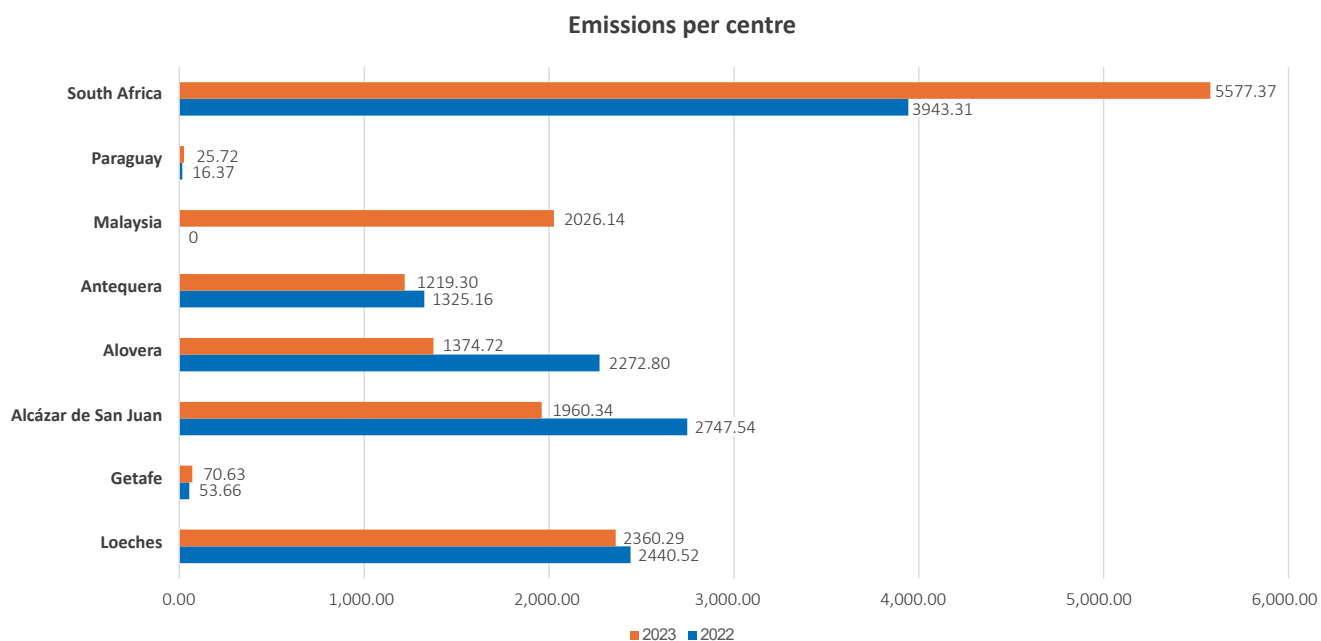
	2022	2023
Production (tons)	56,364	61,173
Emissions ratio (t CO ₂ /t production)	0.23	0.24

Contribution per organisation



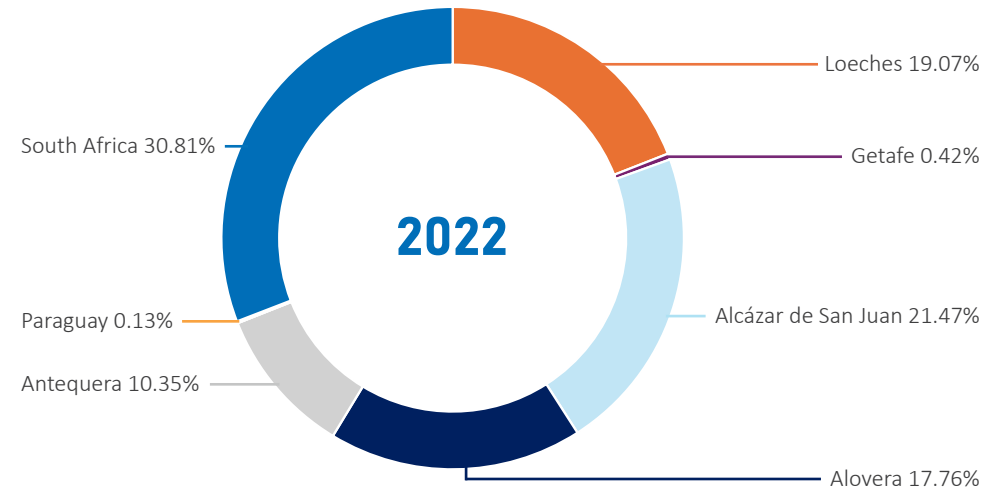
The tables below show the contribution of each organisation to the total emissions generated by **MOLECOR** in Scopes 1 and 2 for 2022 and 2023.

The organisations that have contributed most to Molecor's emissions were **Alcázar de San Juan** and **South Africa** during **2022**, and **Loeches** and **South Africa** during **2023**. The combined contributions of these organisations range from 49.91% to 54.33% of total emissions.

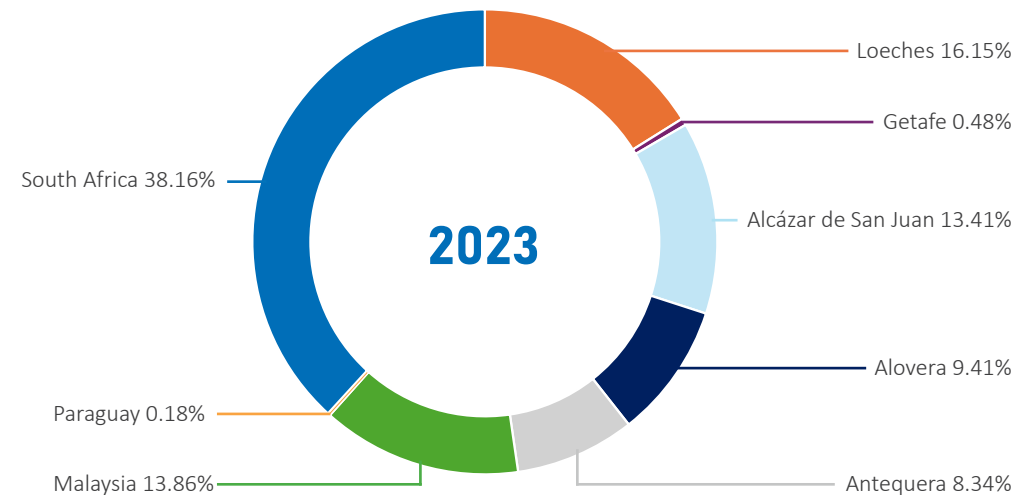


Contribution per organisation

Contribution of each organisation in 2022				
Organisation	Scope 1 (t CO ₂ eq/2022)	Scope 2 (t CO ₂ eq/2022)	Scope 1+2 (t CO ₂ eq/2022)	% of total
Loeches	87.16	2,353.36	2,440.52	19.07%
Getafe	16.46	37.20	53.66	0.42%
Alcázar de San Juan	84.65	2,662.89	2,747.54	21.47%
Alovera	2.85	2,269.96	2,272.80	17.76%
Antequera	46.64	1,278.52	1,325.16	10.35%
Malaysia	0.00	0.00	0.00	0.00%
Paraguay	16.37	0.00	16.37	0.13%
South Africa	36.20	3,907.11	3,943.31	30.81%
TOTAL	290.32	12,509.03	12,799.36	100.00%



Contribution of each organisation in 2023				
Organisation	Scope 1 (t CO ₂ eq/2023)	Scope 2 (t CO ₂ eq/2023)	Scope 1+2 (t CO ₂ eq/2023)	% of total
Loeches	112.61	2,247.68	2,360.29	16.15%
Getafe	28.58	42.05	70.63	0.48%
Alcázar de San Juan	121.16	1,839.19	1,960.34	13.41%
Alovera	28.32	1,346.41	1,374.72	9.41%
Antequera	82.70	1,136.59	1,219.30	8.34%
Malaysia	277.01	1,749.13	2,026.14	13.86%
Paraguay	25.72	0.00	25.72	0.18%
South Africa	56.60	5,520.77	5,577.37	38.16%
TOTAL	732.70	13,881.81	14,614.51	100.00%





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