EUROSWITCH
excellence in sensors

CORPORATE CARBON FOOTPRINT

SCOPE 1&2

2023

01 EMISSIONS QUANTIFICATION

Emissions Quantification

UNI EN ISO 14064-1
Category 1 e 2

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

CATEGORY 1 •

DIRECT GHG EMISSIONS: related to direct greenhouse gas (GHG) emissions by the organization during the year of analysis (2023). The value of the emissions is reported in tons of CO_2 equivalent.

CATEGORY 2 •

INDIRECT GHG EMISSIONS FOR IMPORTED ENERGY: This category refers to indirect emissions related to the consumption of electricity from the national grid. The value of the emissions is reported in tons of CO_2 equivalent.

CATEGORY 3 • Indirect emissions for transportation.

CATEGORY 4 • Indirect emissions for products used by the organization

CATEGORY 5 • Indirect emissions associated with the use products from the organization

CATEGORY 6 • Indirect emissions from other sources.

This analysis reports both 2022 and 2023 data.

TABLE 1 •

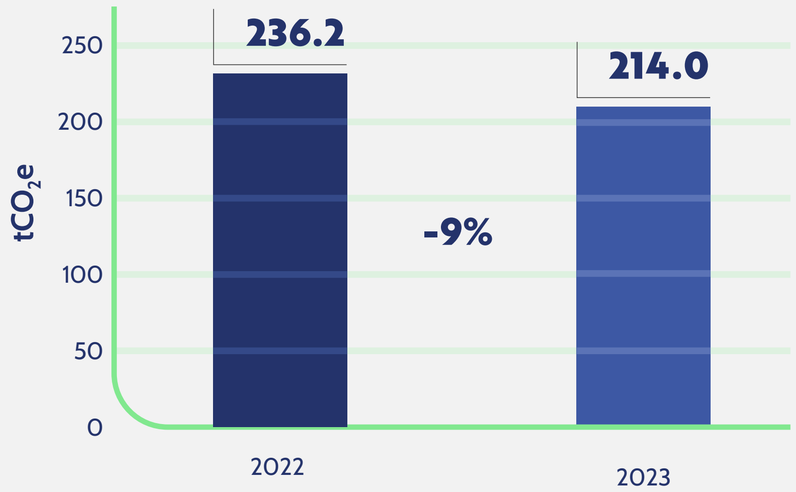
GHG Emissions (Category 1 and 2) • 2023

Category	Activity type	Quantity	UoM	Quantity 2	UoM 2	EF	UoM (EF)	EF Source	tCO_2eq	Weight
1 - Direct emissions	Natural gas	13,620	Sm^3	0.48	TJ	56.518	tCO_2eq/TJ	National standard parameter table - ISPRA 2023 (CO_2)	27.16	12.7%
						0.088	tCO_2eq/TJ	IPCC Stationary Combustion (tab 2.3) (CH4)	0.04	0.0%
						0.164	tCO_2eq/TJ	IPCC Stationary Combustion (tab 2.3) (N2O)	0.08	0.0%
	Diesel for the company fleet	15,070	l	12,583.45	kg	3.169	$kgCO_2/kg$	National standard parameter table - ISPRA 2023	39.88	18.6%
						0.000	$kgCO_2e(CH4)/kg$	DEFRA 2023 - Fuels - Diesel (average biofuel blend) - kg CH4	0.00	0.0%
						0.039	$kgCO_2e(N2O)/kg$	DEFRA 2023 - Fuels - Diesel (average biofuel blend) - kg N2O	0.49	0.2%
	Petrol for the company fleet	5,619	l	4,163.68	kg	3.152	$kgCO_2/kg$	National standard parameter table - ISPRA 2023	13.12	6.1%
						0.010	$kgCO_2eq(CH4)/kg$	DEFRA 2023 - Fuels - Petrol (100% mineral petrol)	0.05	0.0%
						0.008	$kgCO_2eq(N2O)/kg$	DEFRA 2023 - Fuels - Petrol (100% mineral petrol)	0.03	0.0%
	F-Gas	0	kg			1624	GWP	IPCC - Fifth Assessment Report (AR5)		0.0%
	Category 1 total - Direct emissions								**80.9**	**37.8%**
2 - Indirect emissions from imported energy	Electricity from the national grid	476.90	MWh			279.065	$kgCO_2e/MWh$	Ecoinvent 3.9.1 (2023) - market for electricity, medium voltage (IT)	133.08	62.2%
	Self-produced and self-consumed electricity	57.95	MWh			0	$kgCO_2e/MWh$	Energy from renewable source	0.0	0.0%
	Category 2 total - Indirect emissions for imported energy								**133.1**	**62.2%**
	TOTAL								**214.0**	**100.0%**

Direct and indirect GHG emissions

CATEGORY 1 AND 2

FIGURE 1 •
Total Emissions: 2022-2023 comparison



In 2023, the amount of total emissions produced by Euroswitch decreased by 9% compared to 2022.

FIGURE 2 •
Direct and indirect GHG Emissions comparison • 2022

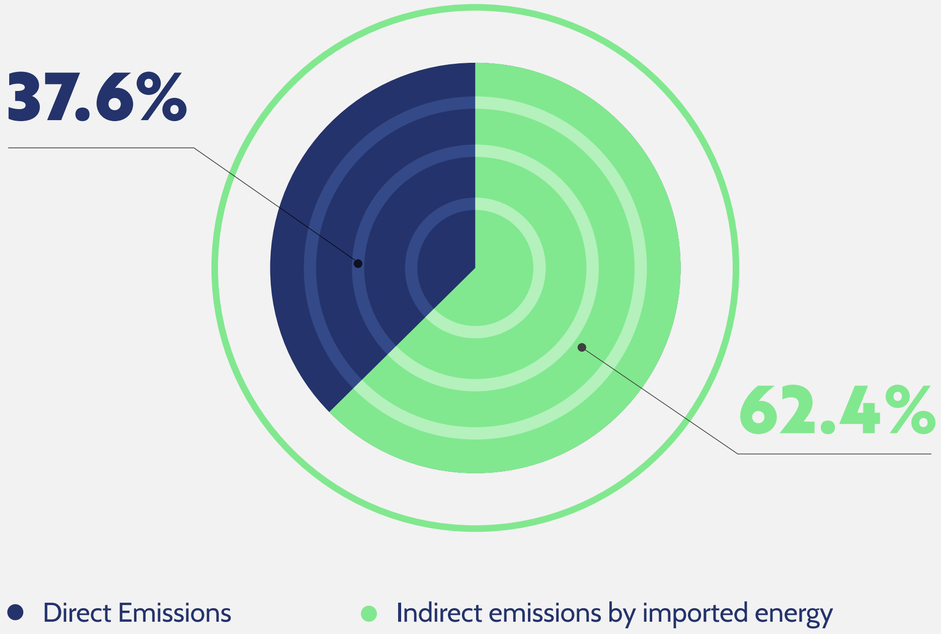
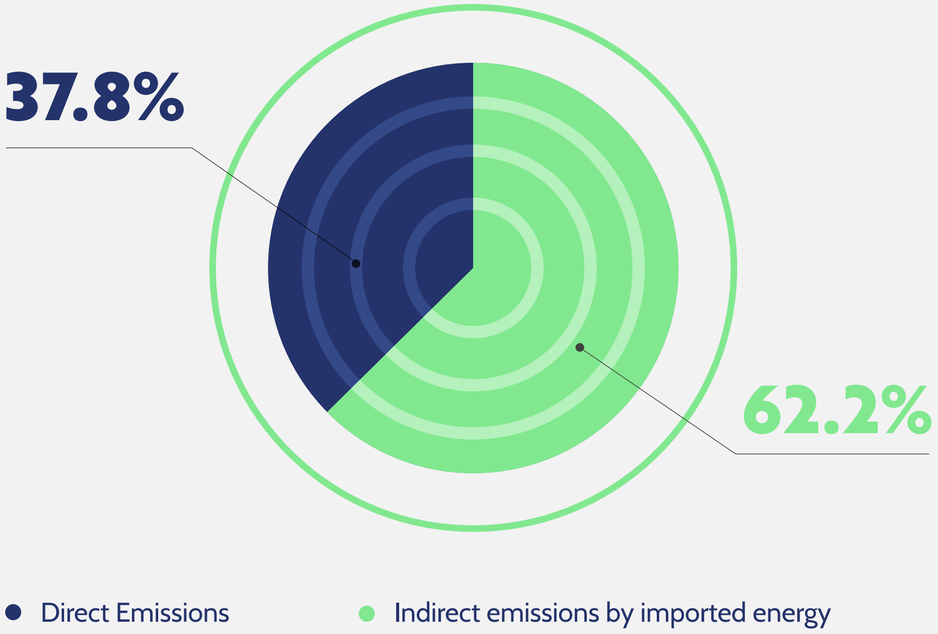


FIGURE 3 •
Direct and indirect GHG Emissions comparison • 2023



Direct and indirect GHG emissions

SPECIFIC EMISSIONS ON PRODUCTION

0.07 $kgCO_2$ / single produced sensor

(stable in 2022 and 2023)

FIGURE 4 •
Composition Category 1 - Direct Emissions • 2022

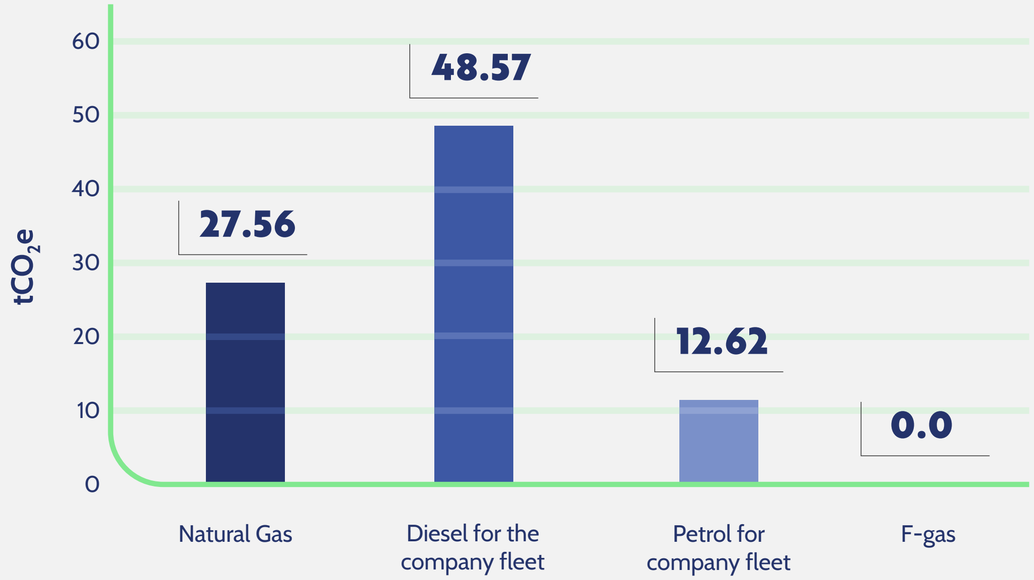
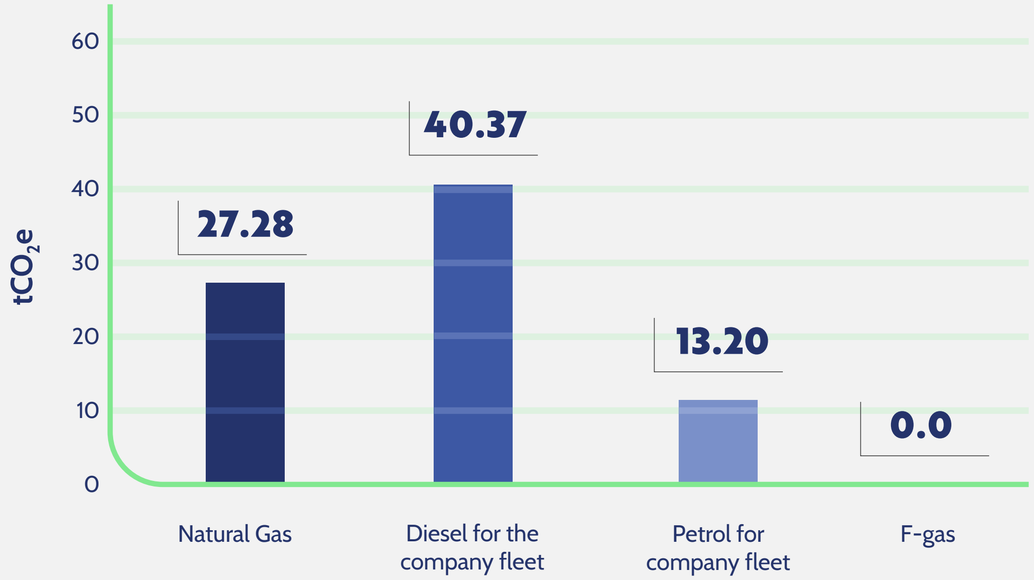


FIGURE 5 •
Composition Category 1 - Direct Emissions • 2023



Indirect emissions by imported energy 2023

CATEGORY 2: LOCATION-BASED VS MARKET-BASED SCENARIOS

Two approaches are distinguished for the calculation of category 2 emissions

LOCATION-BASED (ISO 14064-1:2018

consists of using a national emission factor, which in 2022 was 275.6 kgCO_2/MWh (source: Ecoinvent 3.9.1) and in 2023 was 279.1 kg CO_2/MWh (source: Ecoinvent 3.10)

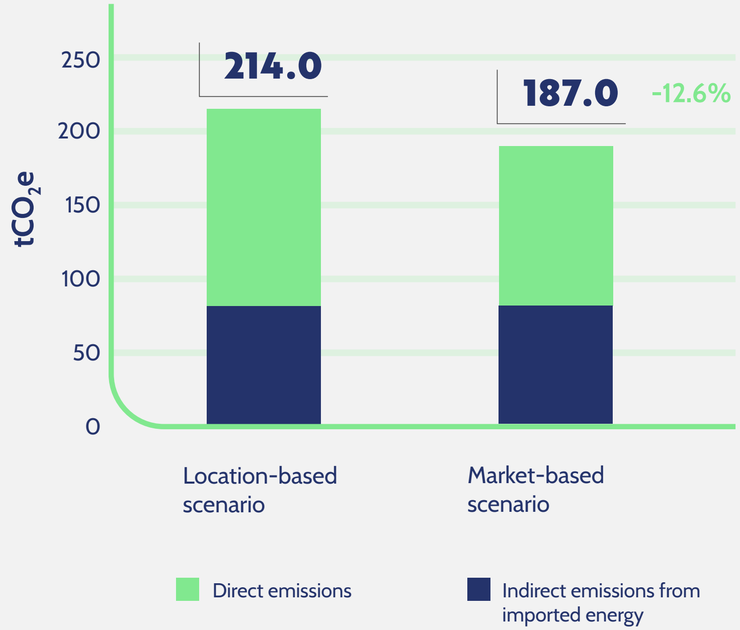
MARKET-BASED

consists in using a supplier's own emission factor. In the case of Euroswitch, this is Enel (more virtuous than the national average) whose emission factor considered* is 222.4 kgCO_2/MWh for 2022 and 238.1 kgCO_2/MWh for 2023.

*The emission factor was calculated from the supplier's declared energy mix in the sales invoices.

FIGURE 6 •
Indirect emissions by imported energy • 2022

FIGURE 7 •
Indirect emissions by imported energy • 2023



02 OUR COMMITMENT TO REDUCE GHG EMISSIONS

OUR COMMITMENT TO REDUCE GHG EMISSIONS

GHG EMISSIONS AND CARBON NEUTRALITY

In 2022, Euroswitch set a goal to reduce by 30% (compared to the base year 2022) its Scope 2 emissions by 2025 and achieve carbon neutrality (in a market-based scenario) by 2030 through several actions. The activities that were implemented during 2023 were:

AZIONE 1 •
Installation of a **150 kWp** photovoltaic system on the Pisogne production site

AZIONE 2 •
Relamping of the entire Pisogne production site (saving around 50% of the electricity consumption used for lighting)

AZIONE 3 •
New **heating** and **refrigeration** systems

OUR COMMITMENT TO REDUCE GHG EMISSIONS

GHG EMISSIONS AND CARBON NEUTRALITY

The other actions the company plans to implement in the future are:

AZIONE 1 •

Purchase of **electricity** with Guarantees of Origin

AZIONE 2 •

Offsetting the remaining emissions through the purchase of carbon credits by supporting certified "**Carbon Removal**" emission reduction projects*.

*Voluntary offsets allow companies to offset their emissions by supporting certified emission reduction projects. If 'Net Zero' targets are set, these projects must be classified as 'Carbon Removal'. 1 Carbon Credit purchased corresponds to 1 tCO_2 absorbed or avoided.

EUROSWITCH
excellence in sensors

EUROSWITCH S.P.A.
Via Provinciale n.15 - 25057 Sale Marasino (BS) Italy
Tel. +39 030 986549 - Fax +39 030 9824202

info@euroswitch.it