
GHG REPORT

2023

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Salvarat S.r.l. Società Benefit

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pest control - fumigation services

FOREWORD AND OBJECTIVES

In response to the growing challenges posed by climate change and in line with Salvarat's ongoing commitment to environmental sustainability, the first **Greenhouse Gas Emissions Report**, covering the year 2022, was published in 2023.

This report complements the annual Sustainability Report and aims to strengthen the company's focus on the environmental impact of its activities.

The scientific community, represented by the **Intergovernmental Panel on Climate Change (IPCC)**, has identified atmospheric emissions of greenhouse gases as the main cause of the climate change we are witnessing.

It is therefore essential that the institutions, the productive sector and all citizens work together to adopt concrete solutions in order to interrupt this process and prevent a continuous and irreversible deterioration of the ecosystem, quality of life and economic conditions on a global scale.

This report, which refers to the year 2023, is therefore intended to be a tool for analysing and reporting on the greenhouse gas emissions produced by the company, as well as for communicating to stakeholders the results of the company's commitment to decarbonise and reduce the impact of its activities on the environment.

DECARBONISATION TARGETS

As more than 90% of the company's emissions (both direct and indirect) are proportional to the pest management activities carried out by the company, management has decided to use **Carbon Intensity** as a measure of decarbonisation performance.

Carbon intensity measures the amount of carbon dioxide (CO₂) emissions produced per unit of economic or energy output. In order to provide a clearer picture of its environmental performance, Salvarat has defined its output as the economic value generated by the company, which quantitatively corresponds to how many tonnes of CO₂ are produced per million euros of revenue. (unità di misura **tCO₂/M€**).

In February 2024, the European Commission presented its assessment of a 2040 climate target for the European Union. The Commission recommended reducing the EU's net greenhouse gas emissions by 90% by 2040 compared to 1990.

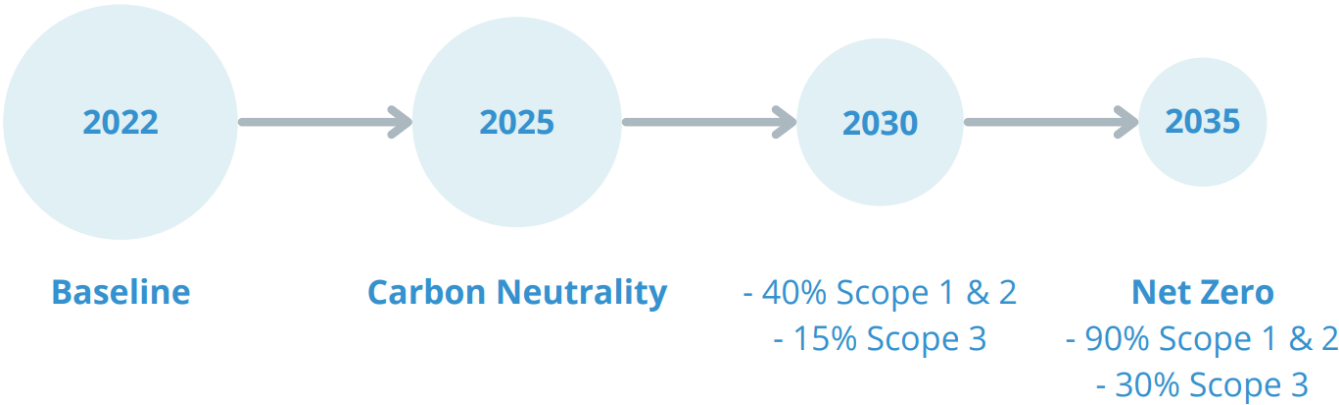
As an interim step, the EU's 2030 climate target is to reduce net greenhouse gas emissions by at least 55% compared to 1990 levels.

In line with the European Commission's guidance, Salvarat has set itself even more stringent reduction targets to anticipate the achievement of carbon neutrality and net zero targets.

Carbon Neutrality: Greenhouse gas emissions are offset by an equivalent amount of emissions reduced, avoided or sequestered within a specified time horizon.*

Net Zero: Emissions that cannot be reduced by mitigation actions are neutralised by an equivalent removal of greenhouse gases from the atmosphere within a specified time horizon.*

*IPCC, Intergovernmental Panel on ClimateChange



METHODOLOGICAL APPROACH

The analysis of the climate impact of Salvarat's activities follows internationally recognised methodologies and standards, such as the **Global Reporting Initiative (GRI)**. In the specific case of this report, it has been prepared in accordance with the guidelines of the **GHG Protocol**, an organisation that represents a partnership between the **World Resources Institute (WRI)** and the **World Business Council for Sustainable Development (WBCSD)**, which provides for the preparation of an inventory of greenhouse gas emissions to be updated annually.

The following principles were applied in the data collection, analysis and preparation of this report:

- **Relevance:** select sources, absorbers, sinks, data and methodologies that meet the needs of the user;
- **Completeness:** include all relevant GHG emissions and removals;
- **Consistency:** allow meaningful comparisons of GHG information;

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- **Accuracy:** reduce systematic errors and uncertainties as much as possible in practical application;
 - **Transparency:** disclose sufficient and appropriate GHG-related information to allow users to make decisions with reasonable confidence.

TYPES OF EMISSIONS

The **GHG Protocol Corporate Accounting and Reporting Standard** provides a standardised methodology for quantifying greenhouse gas emissions associated with the Corporate Carbon Footprint (CCF) by classifying them as **Scope 1**, **Scope 2** and **Scope 3** emissions.

Scope 1: direct emissions generated by the company, the source of which is owned or controlled by the company.

Scope 2: indirect emissions generated by energy purchased and consumed by the company (e.g. electricity). These are emissions that are physically generated outside the company.

Scope 3: Indirect emissions generated by activities outside the company that affect the organisation's value chain. These are divided into 15 categories:

purchases of goods and services, purchases of capital goods, emissions related to fuels and energy not included in Scopes 1 and 2, upstream transport and distribution, waste generation, business travel, employee home-work travel, leased assets (emissions not included in Scopes 1 and 2), downstream transport and distribution, product sales process, use of products sold, end-of-life of products sold, leased assets, franchising, investments.

ORGANISATIONAL AND OPERATIONAL BOUNDARIES

The organisational boundaries considered for the analysis have been defined in such a way as to include in the accounting the GHG emissions associated with the activities carried out both at the head office in Via XX Settembre, 85 in Sansepolcro and at the operating office in Via Marconi, snc in Anghiari, as well as at customer sites.

Operationally, the company has decided to analyse and report all types of direct and indirect emissions (Scope 1, 2 and 3).

For Scope 2, both **location-based**¹ and **market-based**² emissions are represented.

For Scope 3, the relevant categories are: purchase of goods and services, fuel and energy emissions not included in Scopes 1 and 2, transport and distribution of purchased goods, waste generation, business travel, employee home-work trips.

CALCULATION METHOD

In order to quantify the GHG emissions, Salvarat identified the different sources within the organisational and operational boundaries and collected the available data. The quantification methodology used is based on the multiplication between the “activity data”, which quantifies the activity, and the corresponding “emission factor”.

$$\text{GHG Emission} = \text{Activity Data} * \text{CF}$$

- **GHG Emission** is the quantification of the GHG emitted by the activity, expressed in tonnes of CO2 equivalent (tCO2eq);;
- **Activity Data** is the quantity generated or consumed that describes the activity, expressed in energy (kWh), mass (kg), volume (m3 or l), distance (km) or units (#); if the physical data is not available, it has been decided to use data in €;
- **CF** is the conversion factor to convert the quantity into the resulting greenhouse gas emission, expressed in CO2 emitted per unit of the given activity.

The reporting of greenhouse gas emissions includes not only carbon dioxide emissions, but all greenhouse gases (such as methane and nitrous oxide). The conversion of these gases to CO2 equivalents has been made using the **Global Warming Potential (GWP)** values presented in the AR5 (**Fifth Assessment Report**) of the IPCC (**International Panel on Climate Change**).

CONVERSION FACTORS

The following table shows the sources of the emission factors used. This list is essentially the same as the one used for the 2022 reporting year, except for updates to the latest available versions of the sources used and the factor for estimating emissions from pesticide supply: in this case, the source was changed from an older scientific literature source (2004) to the latest available version of the **Ecoinvent Database**. The change in the conversion factor used, from 5.1 kg CO2eq/kg to 9.1 kg CO2eq/kg, not only

¹ Scope 2 'location-based' emissions are calculated using the average emission factors of the network where consumption takes place, regardless of the contractual choices of the consumer. This approach reflects the average emissions of all available electricity generation sources in a given geographical area ([European Commission](#)).

² Scope 2 'location-based' emissions are calculated using the average emission factors of the network where consumption takes place, regardless of the contractual choices of the consumer. This approach reflects the average emissions of all available electricity generation sources in a given geographical area (European Commission). ([European Commission](#)).

contributed to an increase in the emissions due to the procurement of goods, but also involved a restatement of the data for 2022.

ENVIRONMENT	DESCRIPTION	SOURCES USED
Scope 1	Emissions directly caused by the organisation's activities	- DEFRA: Greenhouse gas reporting: conversion factors 2023
Scope 2	Emissions caused indirectly by the activities of the organisation	- A) Location Based: Rapporto ISPRA 386/2023 - Efficiency and decarbonization indicators in Italy and in the biggest European Countries. Edition 2023 - B) Market Based: AIB - Association of Issuing Bodies (2023) European Residual mixes 2022
Scope 3	Emissions generated indirectly by stakeholders associated with the organisation's activities	- Supply Chain Greenhouse Gas Emission Factors v1.2 by NAICS-6 - DEFRA: Greenhouse gas reporting: conversion factors 2023 - Database EcolInvent 3.10 - ICAO Carbon Emissions Calculator (ICEC)

EMISSIONS INVENTORY

EMISSIONS - SCOPE 1 & 2

TYPE OF EMISSION	U.o.M.	2023	2022	%Δ23/22
Diesel	tCO ₂ eq	58,25	73,43	- 20,7%
Petrol	tCO ₂ eq	2,11	1,21	+74,0%
Natural Gas	tCO ₂ eq	0,65	1,19	- 45,5%
Total Scope 1	tCO₂eq	61,00	75,83	- 19,5%
Electrical energy (Location-based)	tCO ₂ eq	1,29	1,65	- 21,8%
Total Scope 2 (Location-based)	tCO₂eq	1,29	1,65	- 21,8%
Total Scope 1+2 (Location-based)	tCO₂eq	62,29	77,48	- 19,6%
Electrical energy (Market-based)	tCO ₂ eq	2,31	2,39	- 3,4%
Total Scope 2 (Market-based)	tCO₂eq	2,31	2,39	- 3,4%
Total Scope 1+2 (Market-based)	tCO₂eq	63,31	78,22	- 19,1%

CARBON INTENSITY	U.o.M. ³	2023	2022	%Δ23/22
Scope 1	tCO ₂ eq/M€	51,24	73,33	- 30,1%
Scope 2 (Location-based)	tCO ₂ eq/M€	1,08	1,59	- 32,1%
Scope 2 (Market-based)	tCO ₂ eq/M€	1,94	2,31	- 16,0%
Scope 1+2 (Location-based)	tCO₂eq/M€	52,32	74,92	- 30,2%
Scope 1+2 (Market-based)	tCO₂eq/M€	53,18	75,64	- 29,7%

³ The denominator used to calculate the carbon intensity is the turnover of Salvarat S.r.l., which is €1.034.100 for 2022 and €1.190.543 for 2023.

EMISSIONS – SCOPE 3

TYPE OF EMISSION	U.o.M.	2023	2022	%Δ23/22
Cat 1 – Purchased goods and services	tCO ₂ eq	103,65	81,17	+27,7%
Cat 3 – Fuel and energy related activities (not included in Scope 1/2)	tCO ₂ eq	15,19	17,43	- 12,8%
Cat 4 – Upstream transportation and distribution	tCO ₂ eq	2,37	1,98	+19,9%
Cat 5 – Waste generated in operations	tCO ₂ eq	0,31	0,42	- 26,7%
Cat 6 – Business travel	tCO ₂ eq	3,55	0,78	+355,3%
Cat 7 – Employee commuting	tCO ₂ eq	3,43	3,28	+4,7%
Total Scope 3	tCO₂eq	128,51	105,06	+22,3%
Total Scope 1+2+3 (Location-based)	tCO₂eq	190,80	182,54	+4,5%
Total Scope 1+2+3 (Market-based)	tCO₂eq	191,82	183,28	+4,6%

CARBON INTENSITY	U.o.M.	2023	2022	%Δ23/22
Scope 3	tCO ₂ eq/M€	107,94	102,12	+5,7%
Scope 1+2+3 (Location-based)	tCO₂eq/M€	160,26	176,52	- 9,2%
Scope 1+2+3 (Market-based)	tCO₂eq/M€	161,12	177,23	-9,1%

CONCLUSIONS

The results for 2023 are better than expected, with a 30% reduction in carbon intensity for Scope 1 and 2 emissions compared to the previous year.

The increase in Scope 3 emissions in 2023 compared to the previous year is due to a higher procurement flow of +5.7%.

In the short term, it will be necessary to consolidate these results by initiating a constant downward trend over time. In the long term, however, the company is preparing the necessary initiatives and projects to ensure the achievement of net zero in line with the targets set.