Decarbonisation Plan Saviola Group

PATH Advisory Support for Saviola Holding (AA-011182)

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The Eco-Ethical Company







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Acronyms and abbreviations

AIB	Association of Issuing Bodies
BEIS	Department for Business, Energy & Industrial Strategy
BU	Business Unit
CDP	Carbon Disclosure Project
CEDA	Comprehensive Environmental Data Archive
CSRD	Corporate Sustainability Reporting Directive
DEFRA	Department for Environment, Food & Rural Affairs
EAC	Energy Attribute Certificate
EIA	Energy Information Administration
EIB	European Investment Bank
EC	European Commission
ESG	Environmental, Social and Governance
EU	European Union
EU ETS	European Union Emissions Trading System
GHG	Greenhouse gases
IEA	International Energy Agency
ISPRA	Istituto superiore per la protezione e la ricerca ambientale
LB	Location-based
MB	Market-based
MWh	Megawatt hour
PPA	Power-Purchase Agreement
SBTi	Science Based Targets Initiative
TCFD	Task Force on Climate-Related Financial Disclosures
tCO ₂ e	Tonnes of carbon dioxide equivalent

Introduction

The present document has the aim of presenting the Saviola Group Decarbonisation Plan developed in 2023. It consists of a public commitment to reduce the Group's greenhouse gas emissions in line with the Paris Agreement, whose main objective is to "hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels"¹. A company's Decarbonisation Plan consists of a set of internal and external levers to be put in place in order to achieve the goal of reducing its greenhouse gas emissions.

On 29 November 2022, Saviola Group signed a loan agreement with the European Investment Bank (EIB), which triggered the application of the EIB PATH framework that requires the development of a Decarbonisation Plan by one year. To elaborate a Decarbonisation Plan, Saviola Group was supported by EIB with an advisory assignment² funded by the InvestEU Advisory Hub, being Carbonsink Group Srl (a South Pole company) the Service Provider contracted by EIB.

In line with the European Investment Bank PATH Framework, the Decarbonisation Plan must be based on short- to medium-term emission reduction targets and options identified over a longer time horizon, taking into account relevant national climate policies. The Decarbonisation Plan must also outline the procedures for collecting and reporting annual data and stakeholder engagement activities. Accordingly, the Decarbonisation Plan must include a quantitative and "rolling" medium-term emissions reduction target, a justification of how this target was defined and an overview of the measures that will be implemented to achieve these targets, long-term decarbonisation options, the role of offsets, and the impact of the plan on stakeholders.

The perimeter of the Decarbonisation Plan covers all the Group's business units: Legno ("Wood", that comprises Gruppo Saviola S.r.l., Sitech S.r.l. and Trasporti Delta S.r.l.), Mobile ("Furniture", that comprises Composad S.r.l.), Chimica ("Chemical", that comprises Sadepan S.r.l.) and Life Science (that comprises Saviolife S.r.l.). The Centri Ecolegno (responsible for collecting end-life wood furniture) are the only units that remain out of the Plan's perimeter, since the associated emissions cover less than 5% (maximum threshold for exclusion) and given the unavailability of precise data for 2021 (data available only for 2018). In terms of geographical coverage it comprises the offices and production plants located in Italy, Germany, Belgium and Argentina.

The Plan envisages the Scope 1 and Scope 2 emissions for the outlined perimeter; Scope 3 emissions are not addressed in the present Decarbonisation Plan. However, a full screening of the group's Scope 3 emissions has been performed and reported in this document, with the aim of allowing Saviola Group to better track and reduce those emissions in the future.

Disclaimer

This Report should not be referred to as representing the views of the European Investment Bank (EIB), of the European Commission (EC), of the InvestEU Advisory Hub or of other

¹Paris Agreement, UNFCCC 2015

https://unfccc.int/sites/default/files/english_paris_agreement.pdf

² PATH Advisory Support for Saviola Holding (AA-011182)

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Benchmarking Analysis

Prior to the development of the Saviola Group's Decarbonisation Plan, a benchmarking analysis was carried out to assess the Group's performance and plans against peers, regarding the GHG emissions calculation and disclosure and the emissions reduction targets and initiatives.

The analysis considered a sample of 14 peers, headquartered in Italy and other countries, selected with the objective to cover the totality of the Group's business units, as illustrated in Table 1.

Saviola Group's Business Unit	Peer	Country
Legno ("Wood")	Saib	Italy
	Egger	Worldwide
	Sonae Arauco	Worldwide
	Kronospan	Worldwide
	Fantoni	Italy
	Pfleiderer	Worldwide
Mobile ("Furniture")	Tvilum	Worldwide
	Demeyer	Worldwide
	Alvic	Worldwide
	Moretti Group	Italy
Chimica ("Chemical")	Versalis	Italy
	BASF	Worldwide
Life Science	Metadynea	Worldwide
	Silvateam	Italy

Table 1: Selected peers for benchmarking analysis

The methodology applied consisted in assessing the presence and quality of the information disclosed in Sustainability/ESG Reports, Integrated Reports, Annual Reports, corporate websites, Science-Based Targets Initiative website, certifications and other documents such as Company Profiles and Press Kits.

When it comes to emissions disclosure, the presence of data for each of the emission scopes as defined by the GHG Protocol was assessed: Scope 1, Scope 2 and Scope 3; as well as the approach used for calculating the Scope 2 emissions (market-based or location-based) and the Scope 3 categories considered.

On the other hand, when it comes to targets, besides Emissions Reduction targets, it was also analyzed the presence of Renewable Energy, Energy Efficiency, Circular Economy and Net Zero targets.

The results showed that while 9 peers disclosed their Scope 1 and 2 emissions, only 5 also disclosed their Scope 3 emissions, related to their value chain. The market-based approach was predominant when disclosing Scope 2 emissions. Some peers (BASF, Saib and Egger) also reported the emissions from wood combustion separately as biogenic emissions.

When it comes to Scope 3 emissions, the main categories reported (by at least 3 peers) were Purchased Goods and Services, Upstream and Downstream Transportation and Distribution, Waste Generated in Operations, Employee Commuting and Fuel- and Energy-related activities.

Five peers (BASF, Egger, Alvic, Pfleiderer e Versalis) presented emissions reduction targets with different time horizons (2025, 2030 or 2035) covering Scope 1 and 2 emissions, or only Scope 1 emissions in the case of Egger. Therefore, such targets excluded the Scope 3 emissions and focused on reductions in the short- to medium-term. Additionally, the majority of these targets were less ambitious (2°C) than the requirements of the Paris Agreement and SBTi (1.5°C), except for the Pfleiderer's target which is aligned to them.

Two peers, Sonae Arauco and Tvilum, disclosed they would submit a target to SBTi with ambition 1.5°C by 2022 and 2023, respectively. Additionally, Pfleiderer is committed to further align its target with SBTi requisites.

When it comes to targets other than emissions reduction ones:

- 7 peers disclosed circular economy targets (use of recycled materials and wood);
- 1 peer disclosed an energy efficiency target;
- 2 peers disclosed renewable energy and electric mobility targets;
- 3 peers disclosed Carbon neutrality or Net zero targets.

In particular, Versalis declared a Carbon neutrality and Net zero target by 2050 in line with Eni Group's commitment, BASF announced a Net zero target by 2050 and Sonae Arauco disclosed the compensation of their 2019 emissions. In the case of Pfleiderer, the company argues its target will lead their business towards a Net Zero carbon business; however, Pfleiderer does not disclose a specific time-bound target.

As a main takeaway, in Italy, only Versalis (Chemicals BU) reports emissions, has set targets (ambition 2°C) and is committed to Carbon Neutrality and Net Zero by 2050, in line with the parent company Eni's objectives.

Therefore, the development of a 1.5°C Decarbonisation Plan by the Saviola Group could constitute a competitive advantage and demonstrate the Group's commitment to be at the vanguard of climate action in its sector. This commitment, together with their pioneering use of 100% recycled wood as a raw material in Italy, contributes to impact positively also the Group's stakeholders, such as the local communities, by reducing the local hazards that could be caused by pollution and deforestation, and the clients, by providing low-carbon products and transparency of carbon information.

Besides, a new legislation, called Corporate Sustainability Reporting Directive, which will be applicable in the next few years could increase the Saviola Group's clients expectations about its climate change declaration and product performances. For Saviola Group the Decarbonisation Plan could create the opportunity to anticipate the alignment with that legislation and be ready to answer to other future obligations.

Baseline Emissions

Methodology

As the starting point for developing the Saviola Group's Decarbonisation Plan, the calculation of its baseline GHG emissions was performed. Even if the Decarbonisation Plan takes into account the Scope 1 and 2 emissions, a screening of Scope 3 emissions was performed in order to identify the main hotspots in the value chain.

In order to calculate the baseline emissions, a profound analysis of the specific characteristics of each Saviola Group's business units was carried out to allow the determination of their main emissions sources as defined by the Greenhouse Gas Protocol (GHG Protocol) accounting standard. This assessment was performed through the examination of public documentation from Saviola Group's website, interviews with internal stakeholders, annual reports and ultimately through a site visit to some of the offices and production plants.

This phase helped outlining the data collection, which involved a series of stakeholders that provided activity and economic data. Thanks to the already present Saviola's data collection process, the granularity of the data collected allowed, in the vast majority of cases, the calculation of the GHG emissions broken down by country, business unit and facility. Based on the type of available data, the most appropriate emission factors were selected in order to determine the associated emissions.

Scope 1 emissions

As regards the Scope 1 emissions, also called direct emissions, data was collected for fossil and non-fossil fuels used to generate energy to power production processes, business activities and transportation of goods and employees, considering the specific consumption profiles of different plants and offices. As aforementioned, the GHG emissions were broken down by country, business unit and facility; and in the case of Scope 1 emissions, it was also possible to break them down by type of fuel. The following list contains the considered fuels:

- Diesel
- Liquefied petroleum gas (LPG)
- Natural gas / Methane
- Gasoline
- Fuel Oil
- Ethanol
- Wood waste (100% virgin)
- Wood scraps (from waste-in-house processing)
- Residue Derived Fuel (RDF) from Municipal Solid Waste
- Residue Derived Fuel (RDF) not from Municipal Solid Waste
- Screening powder (from waste-internal processing)
- Sanding powder (from waste-internal processing)
- Screening powder (100% virgin wood feedstock)
- Sanding powder (100% virgin wood feedstock)

The emission factors were selected taking into account the type of fuel, unit of measure and also the country in question. In the case of fossil fuels, for the majority of countries

BEIS-DEFRA 2021 emission factors were applied and, in the case of Italy, it was used ISPRA 2021 country-specific emission factors. On the other hand, for non-fossil energy sources, Saviola's specific emission factors were applied as calculated and monitored according to the determinations of the European Union Emissions Trading System (EU ETS). Such emission factors were provided through the EU ETS Monitoring Plans for the reporting period.

In the case of the Centri Ecolegno, the centers responsible for collecting end-life wood furniture, there was an unavailability of precise data for the reporting year (2021). However, in line with the GHG Protocol, those emissions were estimated in order to allow their exclusion due to low relevance. The estimation was performed based on the available 2018 fuel data (diesel and natural gas) for 8 centers, which was re-proportioned to the total of 18 centers.

In the absence of specific data, estimations were also performed to account for:

- the passenger vehicles emissions in Belgium and Germany, taking into account the available data for other facilities and re-proportioning it based on the overall Scope 1 and 2 emissions;
- the natural gas consumption emissions of a small-scale office for which primary data was not available, estimated based on the office space area by using a proprietary emissions calculator.

Scope 2 emissions

In the case of Scope 2 emissions, which refer to the indirect emissions from the consumption of electricity acquired from the grid, data on the electricity purchased in MWh were collected from GRI-based sustainability reports for each office and plant. Therefore, the emissions could also be broken down by country, business unit and facility.

For calculating the Scope 2 emissions, two different approaches were applied, as recommended by the GHG Protocol: market-based and location-based. The emission factors were selected based on the approach and the country in question.

For the location-based approach, an emission factor that reflects the average emissions of a specific country's electrical grid was applied. Therefore, the location-based emissions factors utilized were:

- Italy: ISPRA 2021;
- Belgium and Argentina: IEA 2021;
- **Germany:** emission factor elaborated by Carbonsink considering a German-specific source (Entwicklung der spezifischen Kohlendioxid-Emissionen des deutschen Strommix in den Jahren 1990 2019) and IEA 2021 for including CH4 and N2O emissions.

On the other hand, for the market-based approach, the country-specific residual mix was adopted. Such an emission factor was applied to the electricity acquired that is **not** covered by Energy Attribute Certificates (EACs), which is the case of Saviola Group. Within this approach, a zero emission factor could be applied for the electricity covered by EACs. Therefore, the market-based emissions factors utilized were:

- Italy: AIB 2021;
- **Belgium and Germany:** emission factor elaborated by Carbonsink considering AIB 2021 and Ecoinvent 3.9 sources;

• **Argentina:** IEA 2021 location-based emission factor in the absence of a more appropriate one (in line with the GHG Protocol).

In the case of the Centri Ecolegno, as aforementioned, there was an unavailability of precise data for the reporting year (2021). However, in line with the GHG Protocol, those emissions were estimated in order to allow their exclusion due to low relevance. The estimation was performed based on the available 2018 fuel data (diesel and natural gas) for 8 centers, which was re-proportioned to the total of 18 centers.

In the absence of specific data, estimations were also performed to account for the electricity consumption emissions of a small-scale office for which primary data was not available. Such emissions were estimated based on the office space area by using a proprietary emissions calculator.

Scope 3 emissions

In line with the EIB PATH requirements, Scope 3 emissions were addressed by performing an emissions screening. The most relevant categories for the Group's business were identified through a series of interviews with the functions. More specifically, where possible, the calculation was performed on physical data. However, where primary physical data were not available, the estimates were performed on economic data; in some cases, to overcome the lack of data for minor sites or offices, the emissions were computed for hotspots facilities and then adjusted for the entire perimeter through the use of proxies.

Scope 3 emissions linked to the activity of Centri Ecolegno are not included in this screening; this decision is led primarly by the low-relevance of this business in terms of indirect emissions. On the second hand, similarly to Scope 1 and 2, the calculation faced unavailability of data related to Scope 3 emissions. Therefore, the exclusion of Centri Ecolegno is a reasonable choice considering their low-materiality, the difficulties in the data collection and the nature of the screening itself, whose objective is to underline the hotspots.

In the case of Scope 3 emissions, the data was collected through a series of internal documentation such as sustainability and financial reports regarding materials consumption, capital goods acquisition, waste generation, leased goods and investments. To allow estimating some emissions related to specific plants or business units for which primary data was not available, other information was collected such as production volumes, revenues and number of employees; those emissions were estimated proportioning the Scope 3 emissions of other plants or business units. Besides, Scope 3 emissions were calculated paying attention to excluding double-counting related to intragroup economic flows (purchases and sales of materials and services within the Company boundaries). The Scope 3 emissions were then classified according to the 15 emissions categories defined by the GHG Protocol.

In the case of the **Purchased Goods and Services** category, physical data (e.g. kilograms, liters, meters, units) were provided at a facility level and economic data at a business unit level. The emission factors applied were Ecoinvent version 3.9 for physical data and CEDA 6 for economic data.

As regards the **Capital Goods** category, only economic data was available and CEDA 6 dataset of emission factors was adopted.

The emissions related to **Fuel- and Energy-related Activities** (not already included in Scope 1 and 2) were calculated based on the energy consumption data used to calculate the Scope 1 and 2 emissions. The emission factors applied were:

- Fossil fuels: DEFRA 2021 well-to-tank emission factors;
- **Non-fossil fuels:** DEFRA 2021 well-to-tank emission factors for wood chips in the case of powder with a 100% virgin wood feedstock and "EIA US fuel wood and wood residuals 2021" emission factors for the other fuels;
- **Electricity:** DEFRA 2021 well-to-tank and transmission and distribution emission factors.

When it comes to the **Upstream Transportation and Distribution** category, only economic data was available from annual reports and CEDA 6 dataset of emission factors was adopted. The intra group transportation performed by Trasporti Delta (Legno BU) was excluded to avoid double counting, since those emissions were already considered in Scope 1.

In the case of **Waste Generated in Operations** category, the physical amount (in tonnes) of waste was collected, as already reported in a specific sustainability report, and the most adequate emission factors from Ecoinvent version 3.9 were applied.

The emissions related to **Business Travel** were estimated using a spend-based approach; in fact, economic data related to Italian employees' accommodation were available and the specific CEDA emission factor was utilized. In order to overcome the scarcity of data for the non-Italian facilities, the business travel spendings for the latter have been estimated through a proxy related to the number of employees in each facility and hence their emissions.

In the case of **Employee Commuting** emissions, the average number of days of work in the office was available, broken down by facility and business unit. With the support of Saviola internal functions, it was possible to assume the number of kilometers traveled each day by employee and to identify the main transportation modes. Therefore, an average-data method was applied and DEFRA 2021 emissions factor dataset was used.

Emissions related to **Upstream leased assets** are already included in Scope 1 or Scope 2 and refer to the use of fuel and electricity by leased machineries.

The emissions related to the **Downstream Transportation and Distribution** flows were already partially included in the Upstream Transportation and Distribution and Use of Sold Products categories, given the impossibility of distinguishing between inbound and outbound flow voices. On the other hand, data for the last-mile distribution was not identified. Therefore, in order to avoid double counting and to limit estimation, in this initial screening the emissions related to Downstream Transportation and Distribution were assumed as negligible.

As regards the **Processing of Sold Products** category, a hybrid method was used. For those products processed in the furniture industry, a specific approach was applied by creating specific emission factors based on Composad's carbon footprint and material flows. In fact, Composad belongs to the Mobile ("Furniture") business unit and processes the main products delivered by the other business units to create and sell furniture as Saviola Group's clients do. This approach was not applicable to the products sold by the Chimica ("Chemical") business unit and, in this case, a specific Ecoinvent version 3.9 emission factor was used.

The emissions related to the **Use of Sold Products** refers to the use of electricity sold by Saviola Group, as a surplus of the electricity self-produced at some of the Group's plants. The 2021 Italian residual mix as defined by AIB was applied to estimate this emissions category.

The emissions related to the **End-of-life treatment of Sold Products** have been considered as not relevant, since the main products sold by Saviola Group are processed to create furniture which, specially in Italy, are collected in Centri Ecolegno to be recycled and have a second life as a raw material.

The emissions related to **Downstream leased assets** are not applicable as Saviola Group does not lease any assets.

Additionally, as Saviola Group doesn't have any **Franchises**, this Scope 3 category is not applicable for the Company.

Finally, Saviola Group has some investments in companies from the same business as the Centri Ecolegno. Therefore, the emissions related to the **Investments** have been estimated proportioning the Scope 1 and 2 emissions of the Centri Ecolegno to these companies, based upon the number of plants of each company and the share of investment.

Results

As the result of the application of the aforementioned methodology, Saviola Group 2021 emissions were calculated and are presented in the following sections.

Scope 1 and 2 emissions

Saviola Group 2021 Scope 1 and 2 emissions are illustrated in the Table 2 and Charts 1, 2 and 3. While the table presents the results for Scope 2 emissions calculated according to both market-based (MB) and location-based (LB) approaches, the charts only present the results for the market-based approach, since it is more recommended for baseline emissions, taking into account that it allows the adoption of EACs (Energy Attribute Certificates) and PPAs (Power-Purchase Agreements) as levers for decarbonisation.

Given the lack of accurate data for 2021, it was decided to keep the Centri Ecolegno out of the perimeter of the baseline emissions to which the Decarbonisation Plan and target refer to. This is justified by the fact that the correspondent emissions cover less than 5% (estimated 3.2%) of the Group's total Scope 1 and 2 emissions – the maximum threshold for exclusion as defined by the EIB Path Framework and in line with the SBTi requirements.

Emissions Scope	Emissions (tCO2e) ³
Scope 1	82,724
Scope 2 (location-based)	89,045
Scope 2 (market-based)	151,561
Total (location-based)	171,769
Total (market-based)	234,286

³ The excluded Centri Ecolegno emissions were estimated as 7,651 for Scope 1,168 for Scope 2 MB and 94 for Scope 2 LB.

Table 2: Saviola Group Scope 1 and 2 emissions baseline (market-based and location-based approach)

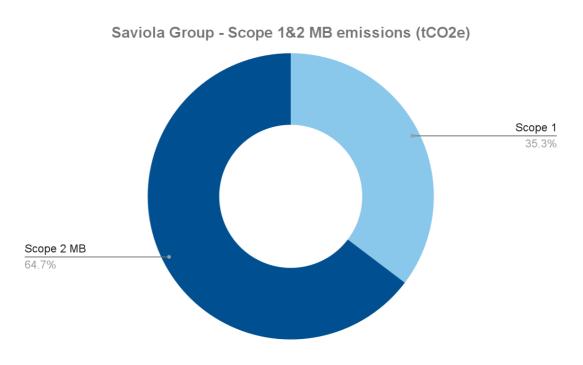
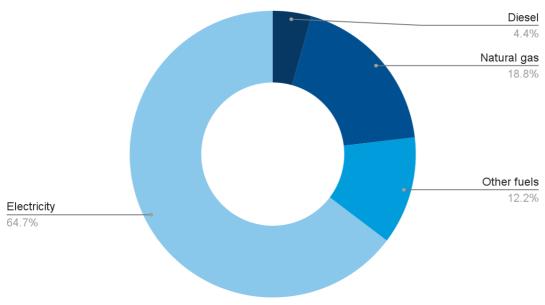
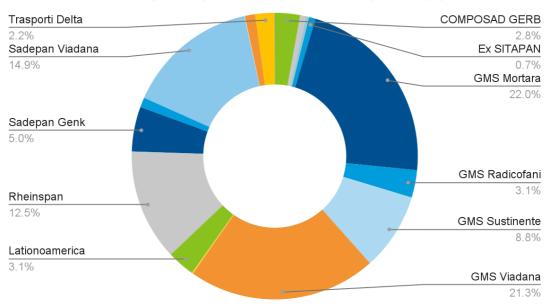


Chart 1: Saviola Group Scope 1 and 2 emissions (market-based approach)



Saviola Group - Scope 1&2 MB emissions by fuel type (tCO2e)

Chart 2: Saviola Group Scope 1 and 2 emissions (market-based approach) by fuel type



Saviola Group - Scope 1&2 MB emissions by facility (tCO2e)

Chart 3: Saviola Group Scope 1 and 2 emissions (market-based approach) by facility

As it can be seen from Chart 3, the main hotspots for the baseline Scope 1 and 2 emissions are identified as follows:

- Gruppo Mauro Saviola Mortara: 22.0% of Scope 1 and 2 emissions
- Gruppo Mauro Saviola Viadana: 21.3% of Scope 1 and 2 emissions
- Sadepan Viadana: 14.9% of Scope 1 and 2 emissions
- Gruppo Mauro Saviola Rheinspan: 12.5% of Scope 1 and 2 emissions

As expected, the "Wood" Business Unit (to which Gruppo Mauro Saviola S.r.l. belongs) represents the main source of emissions of the entire business; overall, it covers 73% of Scope 1 and 2 (MB) emissions. In addition, the Chemical BU (to which Sadepan S.r.l. belongs) accounts for 20% of the overall emissions, of which 14.9% comes from the Viadana plant, thus reflecting the carbon-intensive sector which the Chemical BU is part of. The hotspots in terms of emissions are proportional to the production trends of the single BUs and facilities.

Additionally, in terms of energy sources, Chart 2 illustrates the predominance of electricity acquired from the grid, representing 64.7% of Scope 1 and 2 emissions, followed by natural gas with 18.8% and diesel with 4.4%. This result reflects the predominance of Scope 2 emissions over the total carbon footprint and the natural gas as the main source of Scope 1 emissions.

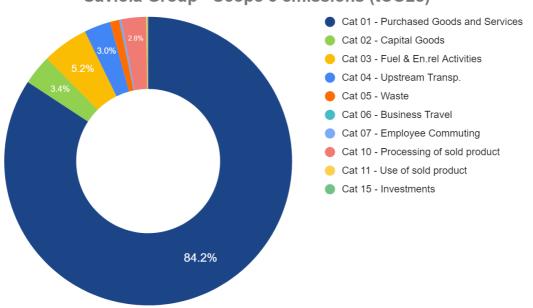
Therefore, such hotspots were taken into consideration during the evaluation of possible decarbonisation levers for the medium and long term, as they represent the highest potential for Scope 1 and 2 emissions reduction.

Scope 3 emissions

As regards the Scope 3 emissions, the Table 3 and Chart 4 present the total 2021 Saviola Group's emissions broken down by Scope 3 category, determined through an emissions screening:

Scope 3 Emissions Category	Emissions (tCO2e)
Purchased Goods and Services	804,644
Capital Goods	32,037
Fuel- and Energy-related Activities	49,387
Upstream Transportation and Distribution	28,337
Waste Generated in Operations	9,922
Business Travel	85
Employee Commuting	2,360
Processing of Sold products	26,396
Use of Sold Products	1,313
Investments	942
Total	955,423

Table 3: Saviola Group Scope 3 emissions by category



Saviola Group - Scope 3 emissions (tCO2e)

Chart 4: Saviola Group Scope 3 emissions by category

As it can be seen from the charts, the main hotspot for the Scope 3 emissions comes from the materials purchased, which represent 84.2% of the total. In future decarbonisation plans that may also cover the impact from Scope 3 emissions, this category should be primarily addressed. The second most impactful category is Fuel and Energy-related Activities (5.2%), which is intrinsically linked to the Scope 1 and 2 emissions (upstream processes to generate the energy consumed). Therefore, such a category would benefit from the reduction of Scope 1 and 2 emissions, consequently reducing the corresponding Scope 3 emissions.

Nonetheless, this first screening exercise should be considered as a pure sorting of the relative importance of Scope 3 categories, and confrontation of the magnitude of these emissions compared to Scope 1 and 2. It is not expected to give an exhaustive nor accurate quantitative picture of indirect emissions, to be analyzed in deeper detail whenever better primary data are made available.

Decarbonisation Plan

A company's Decarbonisation Plan consists of a set of internal and external levers to be put in place in order to achieve the goal of reducing its greenhouse gas emissions. The internal levers consist of initiatives taken by the company itself to reduce its emissions, and the external levers are a reflection of possible decarbonisation scenarios, e.g. on the energy sector or the supply chain.

In line with the European Investment Bank (EIB) PATH Framework, the Decarbonisation Plan must be based on short- to medium-term emission reduction targets and options identified over a longer time horizon, taking into account relevant national climate policies. The Decarbonisation Plan must also outline the procedures for collecting and reporting annual data and stakeholder engagement activities. Accordingly, the Decarbonisation Plan must include a quantitative and "rolling" medium-term emissions reduction target, a justification of how this target was defined and an overview of the measures that will be implemented to achieve these targets, long-term decarbonisation options, the role of offsets, and the impact of the plan on stakeholders.

In particular, the EIB's PATH Framework also outlines criteria that must be met in order to develop the emission reduction targets that are part of the Decarbonisation Plan. In the case of companies that have not yet joined the Science Based Targets Initiative (SBTi)⁴, they are required to present and publicly disclose a quantitative medium-term emission reduction target, i.e. with a time horizon of 5 to 10 years, "rolling" (i.e. updated every 5 years) at a rate of at least 4.2% per year or a rate below 4.2% supported by a justification. In addition, this target must cover at least 95% of Scope 1 and 2 emissions. These criteria are aligned with the Paris Agreement and the Science Based Targets Initiative for short-term targets for Scope 1 and 2, and thus allow global temperatures to rise within 1.5°C from pre-industrial levels. In contrast, setting a target on Scope 3 emissions is not mandatorily required by the PATH Framework for the Saviola Group's sector.

The definition of a Decarbonisation Plan is an important step for developing a solid Climate Transition Plan, in light of possible future improvements in shaping the overall Saviola Group's climate strategy. As defined by the CDP (ex-Carbon Disclosure Project), a Climate Transition Plan is a time-bound action plan that outlines how an organization will achieve its strategy to pivot its business towards a trajectory aligned with the latest and most ambitious climate science recommendations. Climate Transition Plans are ever more being requested by disclosure frameworks such as the CDP, the Task Force on Climate-Related Financial Disclosures (TCFD), the ACT initiative and the emerging Corporate Sustainability Reporting Directive (CSRD).

Mid-Term Plan

The Decarbonisation Plan is divided into two parts: Mid-Term Plan and Long-Term Plan. As required by the EIB PATH Framework, the mid-term part of the Plan must cover the time horizon of 5 to 10 years in the future. For the Saviola Group's case, a time horizon of 5 years (2021-2026) was selected, starting from 2021, the year for which the baseline was calculated. This target year (2026) was selected in order to align with the horizon of the Group's 2023-2026 Investment Plan. This Investment Plan includes a number of initiatives to reduce Scope 1 and 2

⁴ https://sciencebasedtargets.org/

emissions, enabling, together with additional initiatives, the achievement of a mid-term target in line with the Paris Agreement within 5 years.

Regarding the ambition of the mid-term target, Saviola Group has decided to align with the PATH Framework and reduce its Scope 1 and 2 emissions at a rate of 4.2% per year. As a result, **Saviola Group commits to a 21% reduction in Scope 1 and 2 market-based emissions by 2026 compared to the 2021 baseline, in line with the Paris Agreement.** The baseline covers 96.8% of Scope 1 and 2 market-based emissions (the only exclusions being the non-relevant emissions from Centri Ecolegno), meeting the minimum coverage of 95% defined by the EIB PATH Framework and in line with SBTi's requirements.

This mid-term target was agreed with the Operations Director, to whom reports all business units, and approved in May 2023 by the ESG Committee, composed of the Energy Director, Centri Ecolegno Director, Head of Communication and Chief Financial Officer. The ESG Committee works closely with the Board of Directors to define sustainability strategies and to present new proposals in this regard.

Such commitment is supported by the presence of a number of planned investments in emission reduction initiatives (made possible through the loan agreement signed with EIB on 29 November 2022), which are scheduled to be implemented by 2026 and whose quantification in CO2e allowed the target to be identified. The initiatives assessed can be grouped into the following categories, illustrated in detail on Table 5:

- 1) Investment Plan: initiatives that are envisaged within the 2023-2026 Saviola Group's Investment Plan.
- 2) Energy Transition Plan: already planned solutions related to self-production of electricity.
- 3) Energy Efficiency initiatives: pool of initiatives linked to the improvement of energy efficiency of machineries.
- 4) Other initiatives: on ground photovoltaic plant and other self-production initiatives which are not yet envisaged by the Investment Plan.

While the target covers all business units (BUs) of the Saviola Group (Legno, Chimica, Mobile and Life Science), the identified reduction initiatives relate to the Legno, Chimica and Mobile BUs, which account for 99.9% of the Saviola Group's Scope 1 and 2 emissions. Additionally, the reduction initiatives are focused on the main hotspots as defined through the assessment of the Scope 1 and 2 emissions baseline: Gruppo Mauro Saviola (Mortara, Viadana and Rheinspan) and Sadepan Viadana.

With regard to the countries where the Saviola Group's operations are located (Italy, Belgium, Germany and Argentina), the commitment includes the totality of countries and the mid-term initiatives cover Italy, Germany and Argentina. In the case of Belgium, a specific emissions reduction plan is under development and, when it comes to the long-term decarbonization options, potential initiatives in Belgium have been considered.

For each initiative in the mid-term plan, a quantitative study was carried out by the Saviola Group to identify potential energy savings in terms of the amount of electricity and/or fuel saved. Based on these savings figures, the absolute emission reduction potential of Scope 1 and 2 emissions between 2021 and 2026 was estimated.

In order to estimate the emission reduction potential , the business growth between 2021 and 2026, as envisaged in the Investment Plan, was also taken into account.

Table 5 summarizes the initiatives and respective plans considered for reaching the mid-term target by 2026.

Initiative category	Description
Investment Plan and Energy Transition Plan	GMS ⁵ Trasporti Delta: vehicle replacement (Euro 6)
	GMS Sustinente: replacement of press for melamine faced panel, "green field" plant for chipboard production, improvement of compressed air system, photovoltaic plant, revamping of self-production plant
	GMS Mortara: Electric and thermal self-generation plant, photovoltaic plant
	GMS Viadana: installation of new boiler for production department needs, photovoltaic plant
	GMS Radicofani: agreement with a supplier to be provided with geothermal energy, photovoltaic plant, self-production of energy from biomass
	Composad Gerbolina: new bordering equipment, photovoltaic plant
	Sadepan Viadana: cogeneration plant, photovoltaic plant
	Sadepan Truccazzano: cogeneration and trigeneration plant, photovoltaic plant
	Sadepan Latinoamericana (BU Legno): combustion regulation initiatives in the burner, automatic shutdown, replacement of low-efficiency motors and pumps, frequency variation integrators for motors and pumps, installation of LED lighting, revamping of compressed air generation system
	GMS Sitech: photovoltaic plant
Energy Efficiency initiatives	GMS Mortara: reduction of natural gas in boiler, modification of impeller design for dryer fan, improvement of compressed air system
	GMS Viadana: modification of impeller design for dryer fan, improvement of compressed air system
	GMS Radicofani: improvement of compressed air generation system
	Trasporti Delta: improvement of vehicle efficiency
	Sadepan Viadana: rationalization of boiler consumption, replacement of heat recovery units, revamping steam distribution plant, revamping and automation of plant cooling towers, replacement of neon systems with LEDs
	Sadepan Trucazzano: replacement of neon systems with LEDs

⁵ GMS: Gruppo Mauro Saviola S.r.l.

Other initiatives	GMS Viadana: ground-based photovoltaics (potential Purchased Power Agreement)
	GMS Rheinspan: photovoltaic plant
Table 5: Mid-term emission	reduction initiatives (by 2026)

Table 5: Mid-term emission reduction initiatives (by 2026)

Long-Term Plan

In addition to the Mid-Term Plan, whose time horizon is aligned with the Group Investment Plan that ends in 2026, the present Decarbonisation Plan also envisages a Long-Term Plan starting in 2026. For the long-run, the Group is committed to continue pursuing the decarbonisation of their emissions and the achievement of Climate Neutrality around mid-century, and in the near future the rolling target will be updated considering the upcoming Group Investment Plans and the expected evolution of technology.

In order to determine the possible decarbonisation options in the long-run, the initiatives identified for the Mid-Term Plan were considered as a starting point and their potential replicability to other facilities in the future was assessed through a series of interviews with Saviola Group. The potential emissions reduction was, therefore, calculated based on the estimated energy consumption savings and through the application of the same emission factors adopted for the baseline (2021).

Similarly to the mid-term initiatives, the long-term ones can be grouped into four main categories:

- 1) Corporate Development initiatives
- 2) Energy Transition initiatives
- 3) Energy Efficiency initiatives
- 4) Other initiatives (external and internal)

The **Corporate Development** initiatives consist of specific self-production plants, e.g photovoltaic or biomass, that could be installed in some of the Group's facilities. In addition, it includes an initiative to reduce the process emissions of the Chemical BU through the partial substitution (25-30%) of methanol with biomethanol as a raw material utilized in Sadepan Viadana and Sadepan Genk. The Corporate Development Initiatives combined reach a reduction potential between 7% and 9% over the 2021 baseline.

When it comes to the **Energy Transition Initiatives**, an expected increase of 4% to 7% on the total electricity consumed was assumed to be covered by self-production. The reduction potential derived from these initiatives accounts for a range of 1% to 4% of the total baseline Scope 1 and 2 emissions.

The **Energy Efficiency initiatives** correspond to a predicted rise of 10% to 15% in the overall Group's energy efficiency (consumption of fuel and electricity). These actions could have a potential reduction of around 5% to 9% compared to the 2021 baseline.

Finally, the **Other initiatives** cover, on the one hand, some internal levers such as the introduction of biomethane certificates to reduce the emissions related to the use of methane, limited to the EU ETS covered plants in Italy. The introduction of biomethane certificates could lead to a reduction between 8% and 10% of the total baseline emissions. On the other hand, they cover external emissions reduction levers that correspond to the decarbonisation of the energy sector. In this specific case, the potential reduction has been computed through the

application of decarbonisation scenarios, to account for possible reductions in the Scope 1 and 2 emission factors. In particular, the following aspects were considered:

- the natural gas emission factor reduction for Italy, as an effect of the introduction of green and low carbon gas on the total gas that circulates in the network in 2030, according to the Terna-Snam 2022 Scenario⁶;
- the electricity emission factor reduction, as an effect of the projection up to 2030 of the historical trend consistently with the assumption of a full switch from coal to natural gas in Italy.

Overall, the abovementioned external levers could lead to an emissions reduction around 4% to 5% over the 2021 baseline. The external levers are currently limited to the Italian perimeter given the use of well-known decarbonisation scenarios for the energy sector in such a country. A possible future integration for the Long-Term Plan is to consider the decarbonisation of the energy sector for the other countries where the Group operates.

In addition, the contribution derived from the **purchase of renewable electricity** covered by Energy Attribute Certificates (e.g. Guarantees of Origin) could be investigated in the future, considering the high potential reduction of the initiative given the predominance of Scope 2 (market-based) emissions on total Scope 1 and 2 Saviola Group's carbon footprint.

Finally, the Group could possibly consider compensating its residual unabated emissions through the purchase of carbon credits (emissions reduction or removal projects), whose potential could be quantified in the future. In fact, **voluntary climate finance** is an essential way to take responsibility for emissions that cannot be reduced in the short-term and to contribute to global GHG reductions in the interim through beyond value chain mitigations⁷, in order to have the elements to create a consistent long-term climate journey. It is worth noting that any possible climate investment from Saviola into carbon credits would not to be intended as a replacement for emissions reduction initiatives (i.e. compensating emissions would not count as a contribution to the 2026 mid-term target nor to any other long-term emissions reduction targets), but it is a step recommended by standards such as the SBTi Net Zero for companies that want to play a distinctive role by doing some more climate action than simply achieving reductions within their Scope 1, 2 or even 3 emissions.

Plan progress and update

In line with the PATH Framework and as required by SBTi, progress in achieving the mid-term target will be reported annually within the Saviola Group Sustainability Report, along with the updated Scope 1 and 2 emissions inventory. In this way, Saviola Group will ensure transparency in reporting the progress of its target to its stakeholders, who are ever more aware of the importance of climate action.

Since it corresponds to a 'rolling' target, the Group commits to update the target at least every 5 years from the date it was set. Given that the target year is 2026, it will be updated 3 years after

⁷ Beyond value chain mitigation is defined by the SBTi as channeling additional climate finance towards mitigation activities outside of their value chains, to compensate for unabated emissions through the use of verified climate contributions.

https://sciencebasedtargets.org/beyond-value-chain-mitigation

⁶ Terna-Snam 2022, "Documento di descrizione degli scenari 2022".

its publication in 2023, in order to guarantee the continuity of the Group's decarbonisation strategy and the relaunch of the Group's ambition at the end of the current commitment period.

Conclusions

Within the EIB mandate agreed upon, Saviola Group has undertaken the process of developing a Decarbonisation Plan, which includes a quantitative and "rolling" medium-term emissions reduction target and long-term decarbonisation options.

Saviola Group had already calculated and disclosed its Scope 1 and 2 emissions in previously published Sustainability Reports. However, as the starting point for developing the first Saviola Group's Decarbonisation Plan, the recalculation of its baseline (2021) GHG emissions was performed, which involved broadening the perimeter covered and improving the calculation methodology in line with the GHG Protocol accounting standard and the SBTi requirements. The application of such a standardized and best-in-class approach allows its replicability for calculating the Group's emissions in upcoming years.

As a result, the reperformed Scope 1 and 2 (market-based) emissions amount to 234,286 tCO2e for 2021, which was considered as the baseline for defining the interventions to reduce the Group emissions. The baseline covers 96.8% of Scope 1 and 2 market-based emissions, meeting the minimum coverage coverage of 95% as defined by the EIB PATH Framework and in line with SBTi's requirements. Based on initiatives included in the Group's 2023-2026 Investment Plan and other energy efficiency and self-produced electricity measures, the quantitative assessment of the potential reductions in terms of tCO2e emissions led **Saviola Group to commit to a 21% reduction in Scope 1 and 2 market-based emissions by 2026 compared to the 2021 baseline, in line with the Paris Agreement.**

The possible decarbonisation options in the long-run have also been determined through the quantification of internal and external reduction levers, thus leading to a range of emissions reductions over the 2021 baseline. More specifically, the interventions considered are Corporate Development initiatives (7% to 9% reduction); Energy Transition initiatives (1% to 4% reduction); Energy Efficiency initiatives (5% to 9%) and Other initiatives (4% to 5% reduction).

Given their outstanding reduction potential, the purchase of renewable electricity covered by Energy Attribute Certificates and the purchase of carbon credits for compensating residual emissions could also be investigated in upcoming years, in order to have the elements to create a consistent and robust long-term climate journey.

Furthermore, the development of a 1.5°C Decarbonisation Plan by the Saviola Group could constitute a competitive advantage and demonstrate the Group's commitment to be at the vanguard of climate action in its sector. This commitment, together with their pioneering use of 100% recycled wood as a raw material in Italy, contributes to impact positively also the Group's stakeholders, such as the local communities, by reducing the local hazards that could be caused by pollution and deforestation, and the clients, by providing low-carbon products and transparency of carbon information. Additionally, the Decarbonisation Plan could create the opportunity for Saviola Group to furtherly develop a more comprehensive Climate Transition Plan, anticipate the alignment with sustainability reporting legislation and be ready to answer to other future obligations.