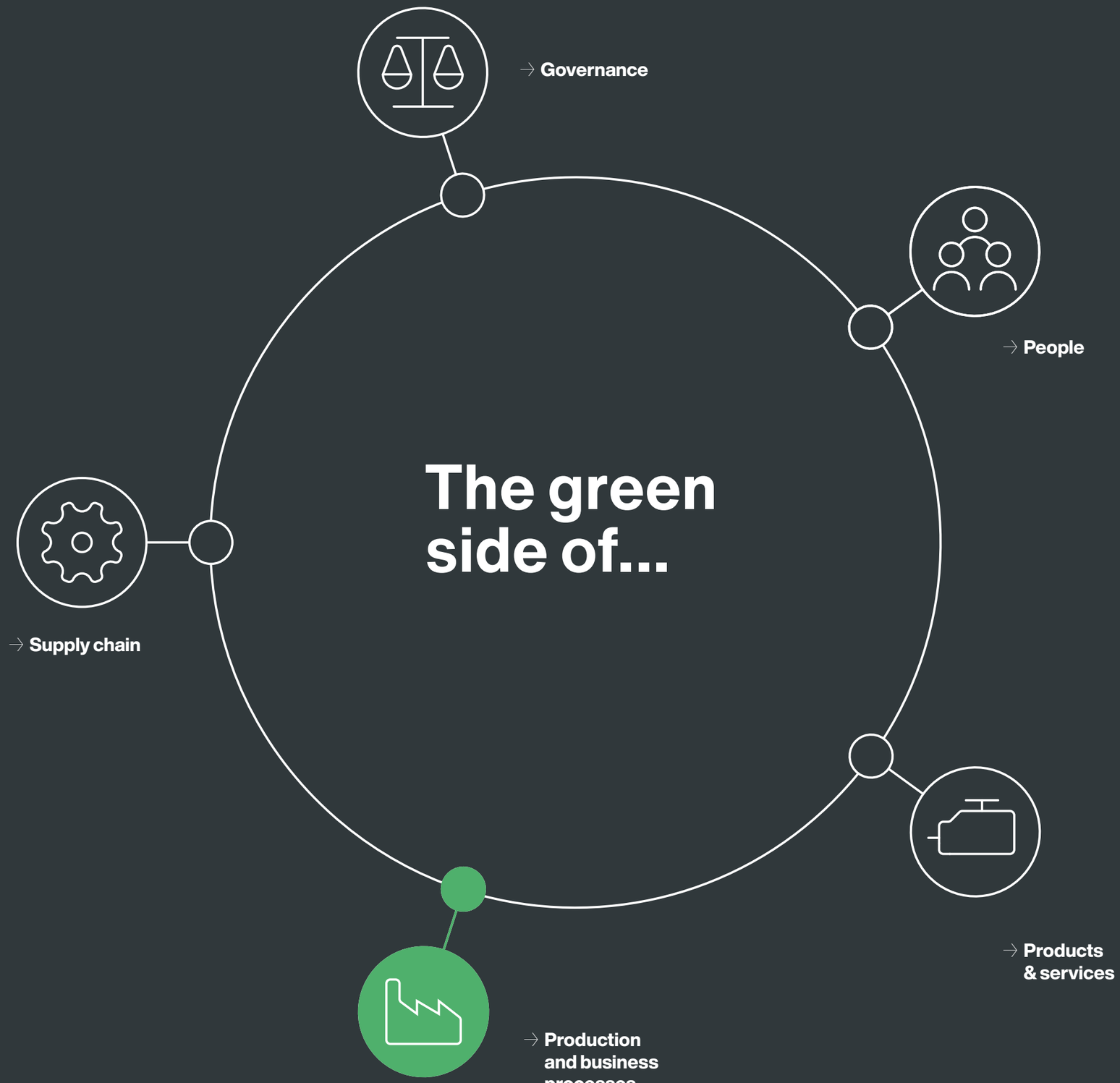
Production and business processes



Road to Net Zero, our main commitment

Climate change is the biggest environmental, social and economic threat globally.

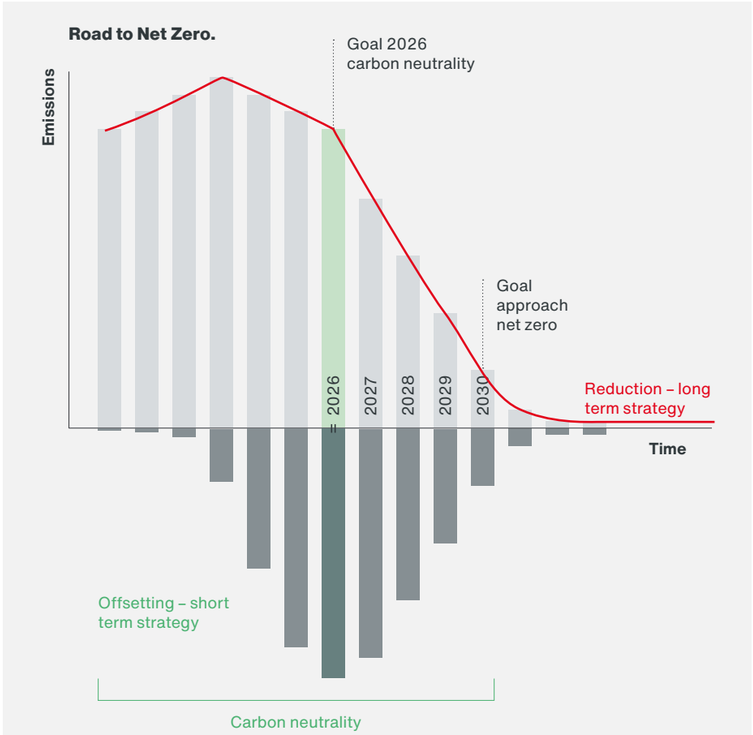
We all need to make an effort to reduce the greenhouse gas and CO_2 emissions resulting from human activities. We want to play an active role in creating a sustainable future, contributing to the evolution of the social and economic system while protecting the environment.

100%

energy from renewables

In 2022, direct and indirect Scope 1 and Scope 2 greenhouse gas emissions in terms of CO_2-eq totalled 592.20 tonnes.
If we had not purchased 100% renewable energy, the 387.91 tonnes of CO_2-eq generated by Scope 2 electricity consumption would have to be added to these emissions.

We have a 174 m^2 photovoltaic system with a maximum output of 32.4 kWp. The proportion of self-generated energy is 2.9% of our company's total needs.



The network of electricity consumption meters at the Solaro site was upgraded.

Green Policy
We prepared a new version of the Green Policy, which will take effect in 2023. The new Green Policy expands the range of topics addressed, introducing innovations relating to digital pollution, energy consumption, renewables, car fleet management and biodiversity.

Biodiversity
We have signed a memorandum of understanding with the Groane & Brughiera Briantea Regional Park, which our Solaro site borders directly onto, to make the most of the scenic resources of this area.

73.6%

waste recovered

ENVIRONMENT

Sustainability goals	ESG topics	Actions	Indicators	Target 2023	Target 2024	Target 2025
Reduction of carbon footprint CFPO (carbon footprint of product and of organisation)	Increase circularity	Boost the culture of separating and reusing packaging materials and reducing scope 3 emissions generated by waste sent for disposal / landfill	Percentage material reused	75%	80%	85%
			Percentage waste disposed of in landfill	1.6%	1.3%	1.0%
	Reduction of consumption and emissions + Combatting climate change	Contribute transition to electric mobility by introducing electric cars to the corporate fleet and car list	Value of average emissions of CO_2 of the corporate fleet	130 g/km CO_2	120 g/km CO_2	100g/km CO_2
			Number of electric vehicles in the fleet	At least 8 electric vehicles in the fleet	At least 13 electric vehicles in the fleet	At least 23 electric vehicles in the fleet
	Reduction of consumption and emissions + Combatting climate change	Development and implementation and maintaining the home work travel plan (piano spostamento casa lavoro - PSCL) with the aim of reducing the impact of emissions generated by commuting employees	Number of company provisions to optimise home-word travel	2 electric shuttle cars, keep the PSCL plan updated	3 electric shuttle cars, keep the PSCL plan updated	5 electric shuttle cars, keep the PSCL plan updated
	Reduction of consumption and emissions	Detailed measurement of internal power use to eliminate waste, reduce the organisation's consumption and thus its CO_2 footprint	Energy management actions	Completion of measurement framework of spot power consumption / Definition of 6 analysis datasheets	Maintaining research and cutting energy waste / 4 analysis datasheets	Maintaining research and cutting energy waste / 4 analysis datasheets
			Percentage of reduction in energy consumption [kWh] obtained by implementing energy management actions	5%	5%	5%
		Contribute to increasing self-production of renewables	Percentage of energy needs covered by self-production, with reference to consumption in 2021	3%	9%	25%

Environment: ESG topics

\+
Reduce consumption and emissions - **material topic**

\+
Increase circularity

\+
Combat climate change

\+
Protect biodiversity

Green Policy

In 2020, we approved our Green Policy, a strategic document needed to chart the actions and initiatives we intend to implement to develop our sustainability goals. In the course of 2022, we prepared a new version of the Green Policy, which will take effect in 2023.

This new version of the Green Policy expands the range of topics covered and introduces innovations relating to digital pollution, energy consumption, renewables, car fleet management and biodiversity.

Digital pollution: surfing the web, sending emails, storing data and using search engines are all a real cost to the environment. In order to reduce CO_2 emissions and energy consumption associated with the use of smart devices, digital equipment and corporate software, we promote behaviours that minimise the environmental impact of the digital world, and encourage employees to adopt healthy habits and raise awareness on a largely unknown topic

Energy consumption: both heating and cooling systems should be used with a view to minimising energy consumption. Therefore, the climate controls and temperatures set in the rooms where the company's activities are carried out are required to comply with the new parameters imposed by national regulations. Along with these parameters, all those behaviours aimed at optimising the use of the climate control system must be adopted, such as wearing appropriate clothing for the temperature and keeping windows closed, except when airing the room.

Renewable energy sources: we are committed to making the group's sites energy efficient - when we have to construct new buildings or refurbish existing ones - by increasing insulation levels, installing photovoltaic panels, replacing heating/cooling systems that are more than 10 years old with new-generation systems, and installing systems for monitoring and optimising power consumption for building systems and work equipment.

Sustainable mobility: we intend to guide and accelerate the transition to electric mobility, organising information and awareness-raising events on the subject and bringing a significant number of electric cars into the fleet. We actively support the use of more sustainable means of transport by providing charging stations for electric vehicles and bicycle racks.

Biodiversity: the company’s landscaped areas will be planted with native perennials that are suitable for the local environmental conditions and require little care and irrigation. Natural grass areas will be planted with native grasses and wild flowers that will grow wild to create a suitable environment for pollinating insects. The tall grass is not mowed and will also help to maintain the temperature and humidity of the top layer of soil even in the event of drought and high outside temperatures. For the same reason, mowing of the portions of mowed lawn will be kept to a minimum.

Green Policy
strategic document that charts the actions and initiatives to implement in order to develop our sustainability goals

Consumption, recycling and reuse

To reduce environmental impact, we invest in circular processes, i.e. a series of actions that respect the three Rs:

+
Reduce

+
Recycle

+
Reuse

Annex C of Italian law no. 152 of 3 April 2006 defines waste that we have sorted and delivered to the disposer as follows: Recovered [R]= destined for energy production in waste-to-energy plants or re-introduced into the processing chain, as is the case for metals

Disposed [D] = destined for disposal facilities such as landfills

Reused: Waste sorted and set aside for reuse. Materials sold as a product and not as waste also belong to this category.

REDUCE
Use fewer resources;

This takes the form of a commitment to reduce electricity consumption, the carbon footprint of the corporate fleet, paper consumption and the proportion of waste generated in each area.

RECYCLE
The commitment to correctly dispose of waste to be able to turn it into new resources;

We devote time and attention to separate waste collection, which we outsource to waste disposal suppliers that ensure a high recovery rate and a low rate of disposal.

REUSE
Extend the useful life of materials and product components instead of considering and treating them as waste.

We concretely put "reuse" into practice in two areas:

PACKAGING: we recover the packaging that we receive in our warehouses, and reuse it for product shipments.

PRODUCTS: our business model has always offered customers a repair service, extending the useful life and recovering and reusing the motor components that are still fit for use.

Waste management

The disposal of the waste we produce in our workshop follows a linear flow based on 6 macro-activities:

+
Waste production

+
Classification and storage of waste

+
Supplier contact for waste recovery

+
Waste collection

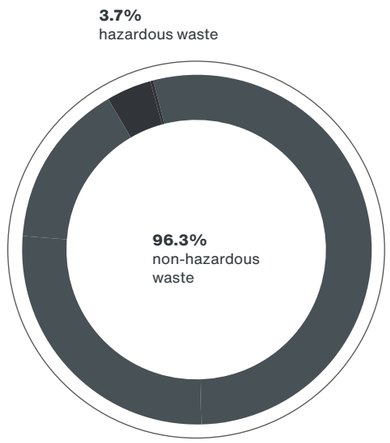
+
Waste Form Filing

+
Data collection and analysis to monitor sustainability performance

Dedicated storage containers are set up in the company buildings for each category of waste, marked by signs showing the name of the waste and the relevant CER code.

There are currently 19 CER waste codes that are assigned to disposal companies, plus copper and aluminium that are sold.

We separate 100% of the waste produced into categories. Of these, only one is mixed, i.e. consisting of unsorted waste, called “dry residue” and represents 1.8% of the total. In any case, the dry residue portion is recovered by the waste disposal company, which usually uses this waste as fuel to generate energy.



Hazardous wastes are contaminated greases, adhesives, waxes and sealants.

WASTE BY TYPE AND METHOD OF DISPOSAL (KG)		2021 [kg]	2021 recalculated [kg]	2022 [kg]
Non-hazardous waste	Recovered [R]	81,360	81,360	65,441
	Disposed of [D]	56	56	0
	Reused [RIU]	24,008	205,256	211,913
	Total non-hazardous waste	105,424	286,671	277,354
Hazardous waste	Recovered [R]	646	646	5,310
	Disposed of [D]	5,760	5,760	5,197
	Total hazardous waste	6,406	6,406	10,507
TOTAL		111,830	293,077	287,861

WASTE BY TYPE AND METHOD OF DISPOSAL		2021 [kg]	2021 recalculated [kg]	2022 [kg]	2022 [%]
Cardboard [kg] CER 150101	Recovered [R]	29,460	29,460	23,130	40%
	Reused [RIU]	3,522	35,222	35,329	60%
	Total	32,982	64,682	58,459	100%

WASTE BY TYPE AND METHOD OF DISPOSAL		2021 [kg]	2021 recalculated [kg]	2022 [kg]	2022 [%]
Packaging in wood [kg] CER 150103	Recovered [R]	9,920	9,920	16,440	9%
	Reused [RIU]	20,486	170,034	176,584	91%
	Total	30,406	179,954	193,024	100%

TOTAL WASTE GENERATED	2021 [kg]	2021 recalculated [kg]	2022 [kg]	2022 [%]
TOTAL WASTE RECOVERED [R]	82,006	82,006	70,751	24.6%
TOTAL WASTE DISPOSED OF [D]	5,816	5,816	5,197	1.8%
TOTAL WASTE REUSED [RIU]	24,008	205,256	211,913	73.6%
TOTAL WASTE	111,830	293,077	287,861	100%

Key:

Recovered [R] = Waste sorted by SEW-EURODRIVE and recovered by the waste disposer in accordance with the recovery methods specified in Italian Legislative Decree no. 152 of 3 April 2006.

Disposed [D] = Waste sorted by SEW-EURODRIVE and disposed of by the waste disposer in accordance with the disposal methods specified in Italian Legislative Decree no. 152 of 3 April 2006.

Reused [RIU] = Waste sorted and set aside by SEW-EURODRIVE for reuse. This category includes pallets and cardboard packaging that is reused for the same purpose for which it was originally produced and used. This category also includes materials sold as a product and not as waste.

The difference between the amount of waste produced in 2021 and 2022 is caused by an error in the extraction of last year's data, since, erroneously, in 2021 the figure was provided as a unit, i.e. with varying weight according to size, and not as a weight. In addition, in 2021, a lot of reused packaging material was not counted, so in 2022 we defined the rules and methods to count the waste correctly.

We have included a recalculation of the 2021 figures to make them comparable with 2022, based on the information available.

Breakdown of waste

a
waste disposed of [R] with specialised disposal firms, see waste registers

b
waste that is not disposed of because it is reusable [RIU], such as packaging

c
waste that is not disposed of but sold [RIU], also reusable by the buyer.

Categories B and C are made up of waste that can only be reused because of our efforts to sort and store recoverable waste, to avoid disposing of even those materials that can have a new life.

This is the case with the packaging of material received from the parent company: SEW-brand cartons are opened without being damaged, stored without being crushed and used again. The same goes for pallets. The proportion of this reuse is 73.6% of the total waste, namely 211.9 tonnes.

Water withdrawal

Water is used only in the restrooms and common areas for the consumption of meals. No water is used for production processes, except for small quantities to recharge the motor-washing machinery. These machines do not use running water, but water that is mixed with solvents and reused for numerous washing cycles and finally disposed of as special waste. Water consumption for these purposes is around 12,000 litres per year.

12,000 l

the amount of water used each year for washing

Water is also used for watering the lawn and flowerbeds. However, the type of plants chosen do not require large amounts of water; the system is also fitted with sensors that activate and disable the irrigation system in the event of rain, so that no water is wasted. During the 2022 drought, we complied with the municipal restrictions imposed and shut down the irrigation system; luckily, this did not hurt the garden unduly, thanks to the resistance of the selected plants.

As part of the "flower field" project launched in early 2023 and to be presented in the next sustainability report, we decided to let the flower sown portion of the lawn grow. One of the various benefits of not mowing is the conservation of moisture in the turf and the reduction of water needed for watering, as well as the reduction of temperatures in the top layer of soil.

Energy consumption

The upgrade of the network of electricity consumption meters at the Solaro site was designed and implemented in 2022.

The meters were placed in the facility's control panels so that the following point readings would be available continuously:

Total energy SEW-EURODRIVE Solaro

HVAC	Consumption in offices	Consumption in workshop			
Offices (hot/cold)	**Lighting**	**Assembly**	**Logistics**	**Services**	**Other**
Workshops (thermostats)	**Devices**	Eps	Air knives	Washer	Lighting
		MTP (Motor Test Panel)	Forklifts	Spray booth	Cold HVAC
		MOVITRANS® (AGV)		Test machines	Compressor
		Catenary			
		Oil filling			
		Press machine			

The network was installed in December 2022, the first measurements will therefore be collected from February 2023. The monitoring system was implemented to reliably determine the amount of energy pertaining to each department, to report the quantity of emissions and to enable us to define the product carbon footprint in the future. In the meantime, we looked for points of wasteful consumption in our systems and operations and implemented a series of actions to reduce electricity consumption, without ever losing sight of the requirements of the Italian National Energy Efficiency Action Plan in accordance with Directive (EU) 2018/2002, which sets an energy efficiency target of at least 32.5% by 2030.

Our approach consists of:

+
measuring point consumption,

+
analysing them by looking for anomalies and possible improvements,

+
planning reduction actions,

+
monitoring their actual results.

In 2022, the most important actions to save electricity consumption were:

+
Switching off the compressor at night

+
Reducing the heating temperature by 1°C in compliance with the MISE decree

+
Increasing minimum summer temperatures to 28°C in compliance with MISE decree

+
Reducing ventilation and correction of some operating parameters of the climate system.

Our efforts have yielded positive results; and we have recorded a 3.8% year-on-year reduction in energy consumption, thanks to the savings policies implemented for summer and winter climate and consumption optimisation actions on some workshop machinery. We will continue in this direction to reach the target of a 5% reduction set in the previous Sustainability Report.

The decrease in energy consumption is even more appreciable when we observe that, in 2022, we achieved a growth in turnover generated by the sum of the sale of products assembled locally and products assembled in Germany and shipped to Italy.

Specifically, turnover grew by 20% overall, generating a 12.6% increase in parts assembled in Italy (growth percentages are not proportional because the Solaro facility's production capacity has reached saturation point).

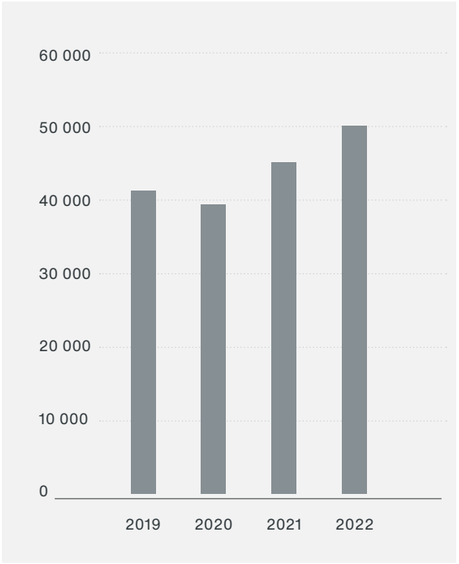
25.4%

reduction in consumption of methane gas

3.8%

decrease in energy consumption

Motor assembly (no.)



The 12.6% increase in Italian assembly did not generate a corresponding increase in energy consumption; on the contrary, compared to the previous year, the 3.8% drop in consumption is particularly satisfying.

The only exception is in the Italian outlying locations, where there was a 13.6% increase in electricity consumption compared to 2021. The company monitored possible malfunctions and found no specific problems and planned further overhauls of the systems to increase their efficiency and control.

CONVERSION COEFFICIENTS		
Electricity	GJ per kWh	0.0036
Methane	GJ/sm3	0.035303

Electricity and natural gas consumption

ENERGY CONSUMPTION INSIDE SEW ITALY	UoM	2019	2020	2021	2022
Total electricity consumption HQ + DC Solaro	kWh	1,147,937	1,173,144	1,279,850	1,211,811
year-on-year change in % HQ + DC Solaro			2.2%	9.1%	-5.3
Total electricity consumption DC	kWh	118,306	98,450	111,103	126,274
year-on-year change in % DC			-16.8%	12.9%	13.7%
Total electricity consumption SEW Italy	kWh	1,266,243	1,271,594	1,390,953	1,338,085
	GJ	4,558	4,578	5,007	4,817
year-on-year change in % total consumption			0.4%	9.4%	-3.8%

GAS CONSUMPTION INSIDE SEW ITALY	UoM	2019	2020	2021	2022
Methane gas consumption HQ + DC Solaro	sm3	89,533	91,258	116,387	86,640
Methane gas consumption DC	sm3	1,951	1,688	1,871	1,629
Total gas consumption SEW Italy	sm3	91,484	92,946	118,258	88,269
	GJ	3,230	3,279	4,172	3,114

TOTAL ENERGY CONSUMPTION INSIDE SEW ITALY	UoM	2019	2020	2021	2022
Total energy consumption SEW Italy	GJ	7,788	7,857	9,180	7,931
year-on-year reduction in energy consumption (%)			0.9%	16.8%	-13.6%

Considering total energy consumption of both electricity and gas, normalised and converted into GJ, the overall reduction in consumption is 13.6% compared to 2021.

ENERGY INTENSITY	UoM	2019	2020	2021	2022
Total energy consumption SEW Eurodrive	GJ	7,788	7,857	9,180	7,931
Total turnover	[EUR]	138,662,000	127,056,000	138,662,000	166,448,000
Pieces assembled in Italy	no. of pieces	41,140	39,380	44,660	50,297
Quantity of goods shipped from Solaro	[metric tons]	5,143	4,479	5,112	6,220
Quantity of goods shipped from Solaro	no. of packs	86,949	83,134	93,433	105,686
Total area (offices + DC)	m2	12,181	12,181	12,181	12,181
Energy consumption / Turnover	MJ/€	8.28	9.23	9.23	7.28
Energy consumption / Area	GJ/m2	0.64	0.65	0.75	0.65
Electricity consumption in Solaro / Number of pieces	GJ/piece	0.18	0.19	0.20	0.15
year-on-year reduction in energy consumption (%)			0.9%	16.8%	-13.6%

Energy intensity is benchmarked against multiple values (turnover, surface area and number of assembled parts) and shows a reduction in all cases considered. Enel Energia certifies that the energy we use is 100% renewable. In addition, a photovoltaic system is installed on the roof of the Solaro building consisting of 140 photovoltaic panels with a total area of 174 square metres and a maximum power of 32.4 kWp. We consume the energy generated for our production activities. In 2022, we generated 35,721 KWh of energy, equal to 2.9% of the total electricity consumption of Solaro 2022 and 2.7% of the total consumption of the whole of SEW-EURODRIVE Italy 2022.

100% of the energy that we purchase and use comes from renewables.

	UoM	2019	2020	2021	2022
Photovoltaic energy self-generated and consumed	kWh	32,718	34,785	33,367	35,721
Percentage of self-generated energy out of total consumption Italy		2.6%	2.7%	2.4%	2.7%
Percentage of self-generated energy out of total consumption Solaro		2.9%	3.0%	2.6%	2.9%

Solar panels for the new Caserta site will be installed in 2023. The installation includes panels with a total capacity of 89.6 kWp.

This forthcoming installation is expected to bring the coverage of our annual needs to 9% compared to consumption in 2022.

The targets for the coming years 2023-2026 are more ambitious, so as to bring energy self-generation to cover between 25 and 40 per cent of our needs (with reference to the group's 2022 consumption).

In addition, we are in the process of assessing the feasibility of investing in the Solaro plant roof.

Lastly, planning is underway for a new plant in Bologna that will feature 6,000 square metres of roofing for the installation of about 250 kWp.

Greenhouse gas emissions

We only purchase green energy, which is why Scope 2 emissions are zero: we have cut 400 tonnes of potential CO_2-eq from electricity consumption.

Our operations do not generate any particular pollutant emissions into the atmosphere, except in minimal quantities. Mandatory periodic checks constantly confirm their low level and show no need for continuous, specific monitoring.

We monitor direct and indirect greenhouse gas emissions according to the Greenhouse Gas Protocol, separating emissions into categories or scopes.

11.7

kg CO_2-eq
are the Scope 1 and 2 emissions per piece assembled in Italy, down 8% year-on-year

Scope 1

592.20

tonnes of CO_2-eq

Scope 2

0.00

tonnes of CO_2-eq (100% of energy from renewables)

+
Scope 1: direct emissions from sources owned and controlled by the company. In the case of SEW-EURODRIVE Italy, this means emissions from the company car fleet. We have chosen to keep all these trips in Scope 1 because the distinction between personal trips would have been made with rough estimates. This way, we are also committed to offsetting the personal trips of employees with company cars;

+
Scope 2: indirect emissions from the generation of electricity drawn from the grid and consumed by the company;

+
Scope 3: other indirect emissions. In this second report, SEW-EURODRIVE Italy assessed emissions from the disposal of waste disposed of and recovered.

In 2022, direct and indirect Scope 1 and Scope 2 greenhouse gas emissions in terms of CO_2-eq totalled 592.20 tonnes.

If we had not purchased 100% renewable energy, the approximately 400 tonnes of CO_2-eq generated by Scope 2 electricity consumption would have to be added to these emissions.

Direct greenhouse gas emissions (Scope 1)	UoM	2019	2020	2021	2022
Emissions from transport - company car fleet	[t CO_2-eq]	401.90	264.41	329.51	408.87
Emissions from gas consumption for heating	[t CO_2-eq]	185.76	188.00	239.04	178.42
Gas leaks climate control systems	[t CO_2-eq]	no leak	no leak	no leak	4.90
Total emissions (Scope 1)	[t CO_2-eq]	587.66	452.41	568.55	592.20

Direct greenhouse gas emissions (Scope 2)	UoM	2019	2020	2021	2022
Emissions from electricity consumption	[t CO_2-eq]	367.08	368.64	0.00	0.00
Total emissions (Scope 2)	[t CO_2-eq]	367.08	368.64	0.00	0.00

100% renewables

The goal for 2026 is to obtain a clearer picture of Scope 3 emissions by retrieving the necessary information from at least 100 per cent of intra-company deliveries and 50 per cent of deliveries from the remaining suppliers. Scope 3 emissions due to the use of SEW products by customers will be provided by our parent company, which has planned to make this data available for SEW products by 2024.

Again, the emission intensity was measured against several factors: the number of assembled parts and the turnover.

KPI - [TCO_2/NO. ASSEMBLED PARTS]	UoM	2019	2020	2021	2022
Intensity of GHG emissions - Scope 1	[kg CO_2/piece]	14.28	11.49	12.73	11.77

KPI - [TCO_2/TURNOVER]	UoM	2019	2020	2021	2022
Intensity of GHG emissions - Scope 1	[kg CO_2/ thousand EUR]	4.238	3.561	3.973	3.558

Biodiversity

Collaboration between SEW-EURODRIVE Italy and the Groane & Brughiera Briantea Regional Park

We are mindful of protecting the environment and biodiversity and are keen to play an active role in creating an eco-sustainable future, offsetting the CO_2 emissions resulting from our activities; we have entered into an interaction agreement with the Groane & Brughiera Briantea Regional Park, which our Solaro (MI) office directly borders on to the east.

The Memorandum of Understanding signed in Solaro on 16 November 2022 by the President of the Park Authority Emiliano Campi and our Managing Director Giorgio Ferrandino calls for collaboration in environmental protection and sustainability activities to make the most of the scenic resources of the Groane & Brughiera Briantea Regional Park, a regional protected area identified and classified by Regional Law no. 32 of 8 November 1986 as a woodland and metropolitan area park.

We aim to raise awareness of the issues in the area with various stakeholders: workers, customers, schools and other entities, promoting social inclusion and relations with the community around us, through programmes and initiatives for their active engagement.

During the first Conference of the Park Associations, on 19 November 2022 at the premises of the former powder magazine - Polveriera - in Solaro, Eva De Col, Procurement, Facilities & Sustainability Manager of SEW-EURODRIVE Italy, explained our company's commitment to an environmental path oriented towards continuous improvement and the creation of shared value.

We are specifically interested in:

+
creating a favourable “habitat” for pollinating insects in our private area, called the “PRATO FIORITO” or flower field project, compatible with the uniqueness of the Groane Park context,

+
making our areas available for possible studies or monitoring by the Park Authority or appointed personnel,

+
curbing non-native species, especially Invasive Alien Species (IAS),

+
considering the possibility of contributing to environmental rehabilitation, protection and conservation projects in the Cesate Pinewood area, part of the Natura 2000 Network or in another area in the natural park, signing an agreement with the managing body.

Invasive Alien Species (IAS)
Also known as non-native species, these are animal or plant species transferred by humans outside their natural geographical area, either deliberately or accidentally.

These species reproduce and expand rapidly at the expense of native species and can cause damage to biodiversity, human health, farm crops or structures.