

-11.2%

EMISSIONS OF CO₂ PER CAST TONNE*
COMPARED TO 2022

THINKING RESPONSIBLY, ACTING CONCRETELY

The planet is all we have and its resources are not infinite. Its protection is a priority for the Brembo Group, which, through its strategies, operates responsibly to reduce its impact wherever it is in the world.

* Scope 1 and market-based Scope 2 emissions generated by foundries / gross tonnes of molten cast iron and molten aluminium.



-9.5%

EMISSIONS OF CO₂
PER UNIT OF
FINISHED PRODUCT**
COMPARED TO 2022

75%

ELECTRICITY
COMING FROM
RENEWABLE SOURCES

** Scope 1 and market-based Scope 2 emissions generated by the pieces manufactured / total number of pieces manufactured.

7. ENVIRONMENT



-11.2%

Emissions of CO₂ per cast tonne⁷³ compared to 2022



100%⁷⁵

ISO 14001 environmentally certified plants



52%⁷⁶

ISO 50001 energy certified plants



-9.5%

Emissions of CO₂ per unit of finished product⁷⁴ compared to 2022



75%

Electricity coming from renewable sources

7.1 AN INNOVATIVE AND RESPONSIBLE BUSINESS MODEL

Faced with the weather and climate scenario of recent years, marked by a constant increase in average temperature, reduction in rainfall frequency and increase in extreme phenomena, the urgent need to deal with climate change is unquestionable. Luckily, there are already many available solutions and institutions, investors, businesses and the civil society are trying to adopt them. The aim is to mitigate the climate crisis effects and proceed towards a development model based on environmental sustainability and social equity.

As a global, industry-leading Group, Brembo has long since enunciated its responsible, sustainable business principles, and is gradually making them into a reality, by transforming its operating model – increasingly oriented towards energy efficiency, energy sources diversification and rational

use of water. This operating model is based on increasingly strict, innovative requirements capable of anticipating future legislation, with the goal of adopting solutions that may ensure industrial development while respecting the environment, minimising the environmental impact of its processes and continuing to create value for its stakeholders. It is thus a matter of balancing between financial considerations and social and environmental responsibility.

Brembo's greenhouse gas emissions are chiefly connected with the functioning of production facilities. It is for this reason that environment-related actions aim, on the one hand, at reducing atmospheric emissions through an increased process efficiency, on the other, at gradually increasing the use of electrical energy from renewable sources. The Group's tangible commitment is further proved by the

⁷³ Scope 1 and market-based Scope 2 emissions generated by foundries / gross tonnes of molten cast iron and molten aluminium.

⁷⁴ Scope 1 and market-based Scope 2 emissions generated by the pieces manufactured / total number of pieces manufactured.

⁷⁵ The plants falling within the ISO 14001 certification scope are operating industrial plants or plants that have been part of the Group for at least two years.

⁷⁶ The plants falling within the ISO 50001 certification scope are operating industrial plants or plants that have been part of the Group for at least two years and with energy consumption exceeding 5,000 GJ.

fact that these elements, as of 2018, form part of the performance assessment scheme for each of the Group's managers. In addition to the direct involvement of top management, the journey towards a more sustainable model is also based on spreading a robust culture of sustainability throughout the Brembo community, with the aim of fostering the creation of innovative ideas and the possibility for taking advantage of all new stimuli to achieve increasingly ambitious environmental sustainability objectives.

Brembo's constant investment in research into innovative solutions capable of reducing environmental impact of its operations is thus a natural consequence of this approach. For instance, assessments of whether to self-generate reduced-impact electricity continued in 2023, as did inquiries into using hydrogen in replacement of natural gas in production processes.

In addition, in 2023 Brembo continued work on formulating an environmental and energy standard to be applied to the processes of designing and purchasing new plant and machinery and the construction of buildings.

Over the last years it has been clear that climate change also has a direct impact on access to water. Therefore, the environmental protection process embarked on by Brembo also includes rational use of water.

In this area the propensity for technological innovation, along with awareness of the water resource's value, has led the Group to identify and gradually introduce new production processes entailing a more efficient water use aiming at limiting its use, eliminating waste and avoiding any possible form of contamination. In particular, Brembo's commitment is most evident in the plants located in highly water-stressed locations due to the climatic and hydrogeological conditions of the area and for which important performance improvement projects were implemented during 2023.

In keeping with the last year, 2023 as well was characterised by the constant increase in requests from all stakeholders for information on environmental impacts. These stakeholders include customers, with many of whom joint activities have been launched to identify solutions that can reduce environmental impact, first and foremost the impact of climate change. The areas of discussion and collaboration with customers concern many other areas including energy efficiency, renewable energy supply, circular economy and more generally all those aimed at achieving a reduction in the environmental impact of products from a life-cycle perspective. The Brembo Group proved to be ready and prepared to respond in a concrete manner to

the growing demands in the ESG field, in particular those relating to environmental issues, which have become fundamental and essential elements of the business. In fact, the development and implementation of a strategy aimed at pursuing "Environmental and Energy Excellence" is underway, the ultimate goal of which being to achieve the lowest environmental impact and greatest energy efficiency technologically achievable.

Brembo's environmental strategy, in terms of values, vision and mission, is described and made available in the Group's Environment and Energy Policy, where the Group states its commitment to full endorsement of Sustainable Development principles in order to minimise the use of non-renewable resources, and keep the use of renewable ones within the limits of their regeneration capability. Brembo intends to contribute to ensuring that the use of the environmental resources required to meet its current needs is managed responsibly, so as not to harm and deplete availability for future generations.

In order to ensure transparency and provide customers and investors with accurate information about these aspects, Brembo has taken part in the CDP Climate Change questionnaire since 2011. This independent organisation promotes synergies between the financial community and the business world, in order to monitor and advocate for commitment to limiting climate change and ensuring responsible and sustainable use of water resources.

Brembo has progressively extended this GHG emissions monitoring and reporting activity over the years, making it possible to include all Group sites as of 2015. This commitment has allowed not only to paint a full mapping of greenhouse gas emissions deriving from both energy and fuel consumption during production processes and from the Group's purchasing and logistic activities, but also to identify the main mitigation actions implemented to reduce the environmental impact. Furthermore, the measures will also help to support the ambition to achieve climate-changing emissions neutrality. Lastly, since 2016 Brembo has extended its reporting to water resources as well, taking part in the CDP Water Security questionnaire, identifying improvement measures with particular regard to the plants located in geographical areas where there is a greater water risk.

In confirming this commitment, in 2023 CDP named Brembo as one of the world's best companies in terms of commitment both against climate change and to water management, obtaining an A- score in both categories.

7.2 THE SYSTEM FOR EFFECTIVE MANAGEMENT OF ENVIRONMENTAL (ISO 14001) AND ENERGY (ISO 50001) IMPACTS

In light of the climate-related scenario of the last years, the regulatory pressure and the growing interest from stakeholders — communities, governments, customers, investors — towards the environmental and sustainability-related performance, Brembo has developed and maintains an up-to-date Environmental Management System compliant with the ISO 14001:2015 standard in order to maintain an optimal management of all the aspects relating to its environmental impacts. Thanks to this System, the Group is able to comply with the constantly evolving regulatory requirements and implement tools aimed at minimising its impact and its environmental risks. Moreover, since 2019 the Management System has also incorporated the requirements of standard ISO 50001: 2018 relating to energy management.

Brembo kept 100%⁷⁷ of its plants ISO 14001-certified in 2023. The programme aimed at extending the ISO 50001 certification relating to energy management also continued. The project, which started in 2019, provides for the gradual inclusion of all sites relevant for the Group in terms of energy consumption as part of the ISO 50001 corporate certification. The following plants were subjected to the ISO 50001 certification audit in 2023: disc processing plant in Mapello (Italy), disc processing plant in Betim (Brazil), cast iron foundry in Nanjing (China), disc processing plant in Nanjing (China), cast iron foundry in Langfang (China), disc processing plant in Langfang (China), aluminium foundry and processing plant in Nanjing (China). In 2023, 52% of the plants were certified according to the ISO 50001 standard⁷⁸.

Both certifications, ISO 14001 and ISO 50001, are in line with Brembo's "Corporate" scheme: these are certifications that see all the plants included linked by common operating methods and control systems, and accordingly a single certificate is issued for the Group accompanied by "satellite" certificates relating to the plants. Moreover, this Management System undergoes a voluntary annual audit by independent third parties to ensure its full compliance with international standards ISO 14001 and ISO 50001.

The management system is based on legislative compliance and the "Risk Oriented" approach, going beyond the traditional criterium limited to the assessment of environmental impacts. To encourage plants in the application of these principles, in 2021 all plants began using the ORME (Obligation and Risk Management for Environment and Energy) IT

platform, developed by E&E during 2020. Integrated in the same platform as b-Sustainable, ORME supports the sites in managing the Obligation and Risk Management processes. The first consists of a set of activities to ensure compliance with all mandatory and voluntary requirements, while the second is aimed at identifying, estimating and managing the environmental risks and opportunities generated by the impacts of production activities.

Lastly, in addition to investments in technology and services, the human factor has also a decisive role in ensuring the effective protection of the environment in everyday corporate activities. Accordingly, within the framework of its Management System, Brembo invests in training activities designed to circulate useful indications on how to handle the main environmental aspects and use the tools introduced for manage them, including specific technical training for employees on the front lines, which consists of webinars, conventions and seminars promoted by the various national and international organisations (such as the CDP) and specific induction programmes designed for newly hired employees.



over **7,000**

hours of training provided to employees on environmental and energy issues

In 2023, as well as standard training, about 7,000 hours overall of training on environmental and energy issues were provided across the Group's sites.

In particular, it should be noted that the course composed of four e-learning training modules on the requirements set in Brembo procedures for managing water, atmospheric emissions, waste and climate-altering gas emissions, was provided to all Brembo Group technical personnel who may have an impact on such issues in various capacities. "INFINITY" was another relevant project. It is an e-learning training path developed in partnership with research centres, Kilometro-Rosso and the international academic world, aimed at developing skills in circular economy relating to the manufacturing sector.

⁷⁷ The plants falling within the ISO 14001 certification scope are operating industrial plants or plants that have been part of the Group for at least two years

⁷⁸ The plants falling within the ISO 50001 certification scope are operating industrial plants or plants that have been part of the Group for at least two years and with energy consumption exceeding 5,000 GJ

7.3 ENERGY CONSUMPTION

The main source of emissions, energy consumption is also the factor on which Brembo shall focus its commitment to achieve its net zero operating model target. Therefore, in line with the indications of the global scientific community, Brembo's policy is to maximise efficiency in the use of energy while reducing consumption wherever possible and keeping emissions to a minimum. In order to minimise the environmental impact and improve energy performance, the strategy is aimed at reducing energy intensity and CO₂equivalent emissions due to production processes, while ensuring economically sustainable operations.

The improvement in energy performance is also intended to maintain and strengthen the Group's global competitiveness. Energy efficiency is therefore an integral part of Brembo's production system as it has an impact on the performance of production activities.

In order to reach these objectives, and in keeping with what has been set out in its Environment and Energy Policy, revised in 2023, the Group has provided itself with an Energy Management System compliant with ISO 50001:2018, extending it gradually to an increasing number of sites.

The key points of the Group's energy-related strategy are:

- measurement and reporting of site energy uses and CO₂equivalent emissions;
- audit and review of the performance of the Energy Management System;
- setting of targets for reducing energy intensity and CO₂equivalent emissions;
- identification, implementation and spreading of energy efficiency improvement projects, through a comparative analysis of the effects on performance;
- intelligent system planning aimed at minimising energy waste;
- promotion of the development of digital systems serving energy management;
- constant research and evaluation of new solutions for energy self-production;
- constant commitment to in-house research into new production processes and optimisation of existing ones;
- constant search for opportunities for heat recovery and other forms of energy output from the processes.

To simplify the approach to managing environmental and energy matters at the Group's facilities, revision of the procedures for defining, analysing and monitoring energy performance indicators, began in 2022, continued in 2023.

When choosing energy sources, Brembo favours renewable energy sources over fossil fuels, on the one hand by pursuing in 2023 as well the Group's commitment relating to renewable energy purchases, on the other by increasing its self-production capacity, including through the installation of photovoltaic panels.

The energy quota from renewable sources which the Group procured rose from 69% in 2022 to 75% in 2023. This result was achieved thanks to the purchase of renewable energy certificates (Guarantee of Origin, I-RECs, RECs, etc.), PPAs (Power Purchasing Agreements) and other contractual agreements.

100% renewable electricity at Italian sites was maintained in 2023 as well through the purchase of guarantee of origin certificates and electricity generated by photovoltaic systems installed at the Sellero production facility.

Even the Mexican and Brazilian plants kept 100% of their electricity sourced from renewables for the year 2023. In the other countries in which Brembo operates, the Group increased its percentage of electricity from renewable sources: in China it went from 44% in 2022 to 53% in 2023, in Czech Republic from 29% to 43% and in Poland from 85% to 86%. Finally, Brembo increased the purchase of REC certificates in the US for its consumption in the country from 24% to 48%. In India, as of 2021 Brembo purchases renewable source electricity from photovoltaic systems installed at the Pune site (plant with a capacity of 900 kWp⁷⁹). In 2023, renewable energy accounted for 7% of the consumption in the country. Lastly, Spain's share of renewable energy was 93%.

Brembo currently self-produces electricity from photovoltaic systems at its Italian sites in Stezzano and Curno. Additional energy self-generation capacity continued to be installed in 2023 at the Mapello and Curno Italian sites (3,807 kWp).

⁷⁹ kWp, i.e. the maximum electric power that the photovoltaic system is capable of generating in standard temperature conditions of 25° C with incident solar radiation of 1,000 Watt/m².

Starting from 2024, Brembo is committed to increasing the share of self-produced energy in other geographies by installing photovoltaic panels on the roofs of all new buildings. With regard to energy efficiency, the actions taken to achieve these goals include, for example, adopting advanced monitoring systems (B.E.P. — Brembo Energy Platform), interconnected with the factory’s main utilities according to a smart factory approach, replacing obsolete systems with others using more efficient technologies, reducing waste (e.g., the search for and reduction of compressed air leakages), automatically shutting down systems or parts of systems during unproductive periods), heat recovery (for instance, from compressors’ cooling circuits).

The promotion of energy saving, which is reflected in the rational use of energy and hence in reduced consumption, is a topic that involves all the Group’s operating units, which were asked to help achieve, each with a specific target, Brembo’s energy efficiency objective set for 2023 at 2.70% (calculated as contribution from improvement actions achieved thanks to energy efficiency projects compared to previous year’s consumption).

The 200 projects developed in 2023 generated an overall energy saving of 147,843 GJ, equal to **22,551** tonnes of CO₂ equivalent. This objective has been largely exceeded, with a **3.48%** result especially thanks to the activities aimed at optimising the foundries’ production processes.

The energy consumption optimisation measures have produced material savings and reduced costs significantly, both in the Group’s older plants built with previous-generation technology, and in the more recently constructed plants which, built with high energy efficiency, cutting-edge technologies, have focused on the management procedures connected with use of electricity and natural gas with reference to general, auxiliary and processing technical systems.

To further strengthen the collection, monitoring and sharing of energy efficiency projects at the Group’s various sites, Brembo uses the Energy Efficiency Projects (EEP) platform, released in 2022. In line with the goals for digitalisation of company processes, it enables to rely on a constantly up-to-date view of all energy efficiency projects developed at the Group’s various sites, while also facilitating sharing and circulation of such projects.



3.48%

energy consumption reduction compared to 2022 thanks to energy efficiency initiatives



about 71%

contribution of cast iron and aluminium foundries to Group’s total energy efficiency in 2023



SBS HEAT RECOVERY – BREMBO SUSTAINABILITY AWARDS 2022

In 2023, the “Brembo Sustainability Awards 2022” was awarded to the “SBS Heat Recovery” project carried out at the SBS Friction production plant in Denmark.

The aim of the project is to recover the heat coming from the production processes, to heat premises during

the winter season, thus reducing the consumption of fossil fuels. The recovery system:

- exploits the heat generated by the cooling of production machines, allowing production and office environments to be heated against a reduction in the consumption of

natural gas and related GHG emissions (up to 85%);

- it is scalable and applicable across Operations;
- it is the first example in the Group of usage of a heat pump with CO₂ natural coolant with minimal heating potential (GWP).

ANALYSIS OF MAIN MEASURES TO REDUCE ENERGY CONSUMPTION AT GLOBAL LEVEL

AREA OF INTERVENTION	ENERGY CONSUMPTION REDUCTION (GJ)	ESTIMATE OF CO ₂ eq TONNES AVOIDED
Lighting system optimisation (installation of LED lamps in offices and production departments)*	4,150	722
Compressed air system optimisation (replacement of compressors, leak detection and repair, optimised use during production processes) *	25,932	4,598
Replacement of processing systems with more efficient technology**	5,769	841
General production process optimisation**	103,121	15,257
Optimisation of general technical equipment management**	8,870	1,132
Installation of photovoltaic plant*	0	0
TOTAL	147,843	22,551

* Category of intervention including the reduction of electricity, thus impacting on Scope 2 emissions.

** Category of intervention including the reduction of both electricity and natural gas, thus impacting on Scope 1 and Scope 2 emissions.

Overall, in 2023 Brembo’s energy consumption amounted to just above 5.5 million GJ, with a 6% increase compared to 2022, as a result of a balance of resumption and growth of production activities — previously affected by production stoppages due to the pandemic — and energy efficiency projects implemented.

This consumption is predominantly in the form of electrical

energy — which accounts for 73% of total energy consumption —, equivalent to more than 4 million GJ. Electrical energy is primarily used by the cast iron melting furnaces and secondarily by the mechanical processing systems and compressed air production systems used in the production processes. Natural gas consumption, primarily used in the aluminium melting processes, is equivalent to more than 1 million GJ.

**ANNUAL ENERGY CONSUMPTION BROKEN DOWN BY SOURCE (GJ)***

	2021	2022	2023
DIRECT CONSUMPTION	1,359,479	1,468,055	1,468,430
Natural Gas	1,066,140	1,125,999	1,060,903
Diesel	21,793	24,186	21,754
Petrol	4,837	6,623	9,778
LPG	31,937	36,208	87,034
Coke	205,759	253,134	281,463
Anthracite	27,716	19,930	4,779
Self-produced electricity (photovoltaic)**	1,297	1,975	2,719
INDIRECT CONSUMPTION	3,888,026	3,816,882	4,116,678
Electrical energy	3,353,182	3,788,112	4,096,542
<i>from non-renewable sources</i>	1,565,949	1,171,129	1,015,811
<i>from renewable sources***</i>	1,787,233	2,616,983	3,080,731
District heating	34,844	28,770	20,136
TOTAL	4,747,505	5,284,937	5,585,108

* The calculation was made using the conversion factors published by the UK Department for Environment Food & Rural Affairs and Department for Business, Energy & Industrial Strategy.

** The self-produced energy quota and sent to network is not material.

*** Electrical energy from renewable sources purchased through renewable energy certificates (Guarantee of Origin, I-RECs, RECs, etc.), PPAs (Power Purchasing Agreements) and other contractual agreements.

7.4 GREENHOUSE GAS EMISSIONS

Brembo's policy on climate change has included, since 2015, increasingly challenging objectives consistent with the commitments set by the United Nations during the COP21 in Paris in order to combat climate change effects. To win this challenge Brembo implemented a strategy structured into a series of actions aimed at achieving short-, medium- and long-term objectives to cut its greenhouse gas emissions.

In detail, the Group set an annual sustainability goal defined as a percentage of emissions avoided due to improvements, including efficient use of any form of energy and the use of renewable energy, compared with the previous year's emission levels. In 2023, the target of reducing CO₂eq emissions thanks to the improvement actions, compared to the previous year's emissions, set at 20%, was reached and exceeded with a result of about 31.7%. This was achieved thanks to the energy efficiency projects implemented in all the Group's plants and the increase in the share of renewable energy purchased in Poland, Czech Republic, US, India and China.

**Reduction of emissions
Scope 1 & 2 market-based obtained
thanks to improvement actions**

≥20%

**Scope 1 & Scope 2 market-based
for the previous year**

Nel 2021 Brembo ha fissato i propri obiettivi di medio e di lungo periodo che includono tutte le fabbriche.

In 2021, the Group set its medium- and long-term objectives, relating to all factories. The Group is committed to reducing its Scope 1, market-based Scope 2 and Scope 3 emissions by at least 4.2% year-on-year, with the ultimate goal of reaching Net Zero emissions by 2040. Objectives are inspired by the SBTi (Science-Based Targets initiative) Net Zero criteria for keeping the global temperature increase well below 1.5°C. Brembo intends to submit its targets for validation to the SBTi.

BY 2030

- Reducing absolute (market-based Scope 2) indirect emissions by **100%**
- **100%** use of electricity coming from renewable sources
- Reducing absolute Scope 1 and market-based Scope 2 emissions by **42%** compared to 2020
- Reducing absolute Scope 3 emissions by **42%** compared to 2020

BY 2040

- Reducing absolute Scope 1 and market-based Scope 2 emissions by **90%** compared to 2020
- Reducing absolute Scope 3 emissions by **90%** compared to 2020
- Neutralising absolute emissions by a maximum of **10%** compared to 2020



-11.2%

reduction of CO₂ emissions
per cast tonne* rispetto al 2022

*Scope 1 and market-based Scope 2 emissions,
generated by foundries / gross tonnes
of molten cast iron and molten aluminium



-9.5%

reduction of CO₂ emissions
per unit of finished product**
compared to 2022

**Scope 1 and market-based Scope 2 emissions,
generated by finished products / total number
of pieces manufactured



ROAD MAP TO NET ZERO



To achieve Net Zero emissions, Brembo has defined a Road Map that is subject to continuous refinement in accordance with technical, technological and market developments. The Road Map also includes the supply of renewable energy, both self-produced and purchased, to reach a share of 70% of consumption in 2025 and 100% in 2030.

Further areas of action are represented by the increase in the use of secondary raw materials within products, transport optimisation, energy efficiency and technological innovation.

Great commitment is expected in the involvement of the supply chain so that each supplier reduces its Scope 1 and Scope 2 emissions.

To ensure that the defined strategy is implemented and consistent with the objectives set, the Environment and Energy Area coordinates a working group that involves all the company functions concerned and which in different ways collaborate and carry out the improvement initiatives aimed at reducing CO₂eq emissions.

Scope 1, market-based Scope 2 and Scope 3 emissions generated by Brembo's manufacturing activities in 2023 amounted to slightly more than 2,476,000 tonnes of CO₂eq. In 2023, Scope 1 and market-based 2 emissions, equal to 280,887 tonnes of CO₂eq, decreased by 2.8% compared to 2022, when they amounted to 288,848 tonnes of CO₂eq.

This result was achieved thanks to energy efficiency projects totalling 22,550 tons of CO₂eq and to the purchase of renewable energy solutions equal to 543,571 tons of CO₂eq. According to this classification, the most relevant share of Brembo's emissions is tied to the work of its suppliers that produce and transport machinery and components for Brembo.

Every year, Brembo subjects its GHG emissions inventory and related emissions calculation methodology to limited assurance by a third party. In particular, for 2023 the GHG emissions inventory and related emissions calculation methodology will be subject to limited assurance in early 2024 according to the criteria set out in the standard ISAE 3410, revised by Deloitte & Touche S.p.A.

In 2023, in view of ongoing improvement, Brembo reviewed its method to calculate several categories of Scope 3 emissions, as illustrated in greater detail in the notes in the table.

GREENHOUSE GAS EMISSIONS BY SCOPE (T CO₂EQ)¹

		2021 ²	2022	2023
SCOPE 1		89,454	100,126	106,461
Emissions from production processes and heating systems		84,141	93,639	100,065
Emissions from company vehicles and other fuels		3,801	4,319	4,293
Emissions from leaks of coolants for air-conditioning systems ³		1,512	2,168	2,103
SCOPE 2⁴		254,785	188,722	174,426
Indirect emissions due to power consumption and district heating				
<i>Market based</i>		254,785	188,722	174,426
<i>Location based</i>		478,342	540,467	597,556
SCOPE 3	GHG PROTOCOL CATEGORY	1,537,590	1,937,720	2,195,728
Emissions generated by suppliers to produce materials and/or services for Brembo ⁵	1	1,032,620	1,293,902	1,621,326
Emissions generated by the purchase of hardware, machinery and equipment	2	144,909	188,410	130,650
Emissions due to the energy lost through power distribution and transmission ⁶	3	88,671	83,507	83,859
Emissions due to product transport within the Group and product distribution logistics to customers paid by Brembo ⁷	4	63,487	76,101	45,048
Emissions due to waste disposal and transport ^{7,8}	5	52,093	68,174	72,847
Emissions due to business trips ^{7,9}	6	652	1,751	3,704
Emissions due to employees commuting between home and workplace ⁷	7	37,766	40,677	28,368
Emissions due to product distribution logistics to customers paid by customers ⁷	9	79,053	142,588	172,301
Emissions due to equity investments		38,339	42,610	37,625
Total Scope 1, (MB) 2 and 3 emissions		1,881,829	2,226,568	2,476,615

1 The calculation of the CO₂ equivalent emissions (which includes CO₂, CH₄, NO₂, and HFC emissions when present), was carried out in accordance with the indications of the GHG Protocol. The calculation was carried out using the emission factors published by: • AIB (Association of Issuing Bodies), • IEA (International Energy Agency), • UK Department for Environment Food & Rural Affairs and Department for Business, Energy & Industrial Strategy, • GHG Protocol, • Eurostat, • EPA (Environmental Protection Agency), • Ecoinv.

2 2021 values have been recalculated to include the sites of J.Juan, a company acquired at the end of 2021, in accordance with the indications of the GHG Protocol.

3 The figure includes the quantities of coolants dispersed into the atmosphere and reported in the special registers when air conditioning systems are refilled periodically. In the absence of such a record or other evidence of gas refills carried out during the year, all the gas contained in the air conditioning systems is considered to be dispersed into the atmosphere — as a precautionary measure.

4 The overall Scope 2 emissions take into account the total emissions valued using the market-based method.

5 The calculation methodology for this category was revised in 2023 to also

include the emissions of the whole supply chain, in accordance with the indications of the GHG Protocol. The previous years' values have been recalculated using a similar methodology. For aluminium suppliers, calculations are based on current year's data. For the other suppliers, calculations took into account the previous year's data.

6 The calculation methodology for this category was revised in 2023 to also include the WTT emissions relating to electricity, district heating and fuels, in accordance with the indications of the GHG Protocol. The previous years' values have been recalculated using the same methodology.

7 To calculate Scope 3 emissions, and in particular for categories 4, 5, 6, 7 and 9 of the GHG Protocol, distances travelled have been estimated on the basis of the departure and destination information available. In addition, for categories 4 and 9, in the absence of specific information, the weight of goods transported is estimated on the basis of the load of the vehicle used.

8 The calculation methodology for this category was revised in 2023 to also include the emissions due to waste disposal, in accordance with the indications of the GHG Protocol. The previous years' values have been recalculated using the same methodology.

9 For the calculation of this category's emissions, only employee air travel is considered. As of 2023, travel by train are also taken into account.



FROM PRIMARY TO SECONDARY ALUMINIUM

Producing a brake caliper using secondary aluminium to replace, in whole or partly, the primary one while ensuring performance, quality and aesthetic criteria is one of key goals in the field of sustainability. The development of the calipers of to-

morrow, fully made of recycled aluminium, will allow to reduce CO₂e emissions by about 80% in the next decade compared to the current emissions. The expected result will be achieved through a series of subsequent steps including:

- the gradual increase of aluminium

- produced with renewable energy;
- purchase of “hybrid” alloys made of a growing amount of renewable aluminium;
- the production of calipers made entirely from recycled aluminium.

SCOPE 1

Climate-changing emissions generated directly by Brembo come from plants, assets and vehicles operated directly by Brembo. This scope includes emissions from the combustion of fossil fuels in melting furnaces, leakage of coolants in air conditioning systems or use of fossil fuels in the company fleet.

SCOPE 2

Indirect emissions of greenhouse gases resulting from the generation of electricity purchased by Brembo, as well as the heating of water/steam procured by the Group through district heating systems. With these purchases Brembo indirectly contributes to the emissions generated by electricity or heat suppliers.

SCOPE 3

Emissions that are not included in the previous scopes but linked to Brembo’s value chain. This scope includes emissions from Brembo product distribution and handling among plants and towards customers, personnel’s commuting from home to workplace or business trips, the purchase of hardware, machinery and equipment, and emissions generated by suppliers for materials and/or services purchased by Brembo.



7.5 ATMOSPHERIC POLLUTING EMISSIONS

Pollutant emissions that derive from Brembo's production may have direct negative effects on the health of communities adjacent to facilities or give rise to problems also for the area's flora and fauna. For these reasons, the Environment and Energy Management System implemented by Brembo has introduced requirements common to all the Group's plants aimed at containing the environmental risk well below the emission limits imposed by the legislation of the Countries in which it operates.

The control of quality parameters for atmospheric emissions is required by all legislations in force in the Countries where Brembo plants reside, although with different limits from country to country. Each plant has established appropriate monitoring plans for its emissions with the

ultimate aim of limiting the emissions generated by its production processes to the technological limit, including odorous ones, an aspect not normally covered by legislative requirements.

The typical parameters subject to sampling and analysis are those emitted by melting processes (such as powders, NOx and SOx) and those generated by mechanical processing and painting processes (powders and VOCs), whose emission values are governed by local legislation. To contain the risk of pollution, Brembo has set internal requirements that each emission point be equipped with abatement systems capable of ensuring that atmospheric emissions are 60% lower than the limit set by local legislation.

EMISSIONS OF HARMFUL SUBSTANCES (t)*

	2021	2022	2023
Nitrogen oxides (NOx)	66.32	82.68	186.22
Sulphur oxides (SOx)	100.04	47.37	180.53
Persistent organic pollutants (POP)	0.003	0.03	0
Volatile organic compounds (VOC)	108.32	77.73	96.88
Hazardous pollutants	1.37	1.82	2.32
Fine particulates (PM)	177.64	274.41	320.31
Carbon monoxide (CO)	246.59	370.58	1,357.84

* The values shown are based on precise measurements made in plants that are subject to regular or ongoing spot checks. Each plant's emissions is calculated based on these precise measurements, since the concentration of harmful substances, the mass flow and the operating time of the plant are already known.

In the same way it monitors pollutants, Brembo also monitors the quantity of coolants (HFC and HCFC) released into the atmosphere, calculating the relevant CO₂eq impact.

In 2023, approximately 1.21 tonnes of gases, of which 0.03 tonnes of freon 22 gas (R-22), were dispersed into the atmosphere. The figure includes the quantities of coolants

dispersed into the atmosphere and reported in the special registers when air conditioning systems are refilled periodically. In the absence of such a record or other evidence of gas refills carried out during the year, all the gas contained in the air conditioning systems is considered to be dispersed into the atmosphere — as a precautionary measure.

7.6 MANAGEMENT AND USE OF WATER RESOURCES

Climate change and particularly the increase in drought periods and related extreme weather phenomena affect the availability of fresh water, an essential resource for the survival of man and any economic sector, especially in geographical areas characterised by scarce water availability. The challenge faced by the institutions and companies that use the most water will thus be to manage water use fairly, so that it does not become a factor of disruption of business or harm to the natural cycles of ecosystems or social inequality. For this reason, the 2030 Agenda for Sustainable Development recognises the importance of water, mainly in its Goals 6 and 14 but also in all the other Goals, linked to water directly or indirectly.

Brembo, whose production processes require water resources quantifiable as approximately 1,620 MI, has defined a strategy acting in multiple directions: promoting the rational use of water, by gradually reducing its use in its production processes, and fostering the minimisation of possible pollutants that could have a negative impact on the environment, as well as the supply from alternative sources such as the recovery from other processes.

In particular, Brembo uses water for cooling its plants, melting furnaces, surface treatments and the preparation of waste coolant emulsions – specific 7-10% oil emulsions needed for cooling and chip evacuation in mechanical processing. Brembo's manufacturing activity may thus generate material impacts in terms of the quantity of water used, contributing to depletion of the resource in areas with limited availability or also in terms of water contamination, albeit to a less significant degree.

With regard to water performance, in 2023 a total of about 1,620 MI of water were taken, a slight increase compared to the trend of recent years. The overall figure is mainly affected by the increase in production volumes recorded at almost all the Group's plants.

The water mains still constitutes the main source of supply (approximately 73%) which not only ensures suitable quality levels, but also a reliably constant supply over time.

With reference to waste water, nearly all of it is destined for the local water consortium sewers to which the sites are linked. Only a tiny fraction (less than 1%) of waste water is destined to other types of release (e.g., released into surface water bodies or in the subsoil). In all cases waste water is subject to prior verification to ensure that the relevant local legal specifications on acceptability are met.

Brembo's Environment and Energy Management System concerns not only energy consumption, but also water use. Within the system adopted by Brembo, the Water Management procedure sets requirements and restrictions for ensuring rational use of the resource and protection against all possible accidental contamination.

The requirements defined are binding on all Brembo facilities, thus ensuring the procedure is uniformly applied. In the specific case of the risk of contamination of environmental matrices due to water discharge, the procedure's requirements are equally stringent: the limits to be observed are up to 60% lower than those set by local regulations.

Accordingly, all sites are required to take every appropriate action to ensure that the concentration of pollutants in discharges remains consistently below this limit over time, for example by using products or substances with a lesser impact or discharge water treatment technologies. Within the Management System, each plant carries out a risk and opportunities assessment for each process and production phase that has an impact on water resources.

The outcome of this analysis leads — for the areas identified as at high risk or with relevant opportunities — to mitigation or other actions that may help seize any opportunities. In parallel to the analysis, Brembo runs a yearly company-wide risk evaluation aimed at determining the exposure, for each Group's site, to risk factors relating to water quality and availability in a specific area, specifically in current conditions and future scenarios. Such evaluation is conducted using the World Resource Institute's (WRI) ACQUEDUCT methodology.

RESPONSIBLE WATER PROCUREMENT IDRICA



For Brembo, achieving maximum optimisation in water use is a much-needed result, especially in highly water-stressed areas.

This was the case of the plants in Mexico, where severe drought made rationing in water distribution necessary in 2022 and 2023. In response to this issue, Brembo launched at the

cast iron foundry in Escobedo (Mexico) a water reuse project in which further chemical and physical processing by Brembo allows discharged water to be used in the municipal purifier instead of water from the aqueduct. Since December 2023, the Escobedo site has therefore been supplied with aqueduct water for civil uses only, while water withdrawal due to pro-

duction processes, which amounts to about 300 m³ per day, comes entirely from purified wastewater.

During the year, Brembo finalised a study aimed at identifying the priority sites on which the same water recovery process will be implemented in the coming years.

To enable increasingly accurate water reporting, and identify and reduce every source of waste, it was set the goal of reaching 100% water flows monitoring capability by 2025 (water withdrawal, discharge and significant internal use) for every site in the Group. Such goal is aimed at identifying the sources of waste and abnormal consumption with respect to internal or external benchmarks — for the different points of use — in order to highlight all the situations where improvement actions can be introduced consistent with the local contexts.

The Group completed at all production plants the installation of flowmeters at the entry points and will complete the installation of measuring equipment at the exit points at the recently acquired plants, as well as measuring equipment for significant internal use. A further development of the project is the inclusion of water measurements within the BEP (Brembo Energy Platform) monitoring platform which — similarly to energy — will enable a constant

monitoring of consumption, which will be useful to identify priority areas for intervention in order to optimise water needs and monitor each plant's targets.

Simultaneously a programme aimed at increasing the involvement of the supply chain in order to better know and understand the impact on water generated by Brembo outside its factories continued. Similarly to what happened with gas emissions, a specific questionnaire sent to suppliers also documented water consumption along the entire value chain.

During 2023, two accidental spill events were recorded, one relating to a leak of a waste coolant emulsion at the Ostrava plant (Czech Republic) and one relating to the water used for the abatement of foundry fumes at the Homer plant (USA): both incidents were promptly intercepted and resolved, avoiding damage to the external environment.

WATER WITHDRAWAL (ML= MEGALITRES)

	2021		2022		2023	
	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS
GROUNDWATER	481.51	0	455.07	0	431.82	0.00
Fresh water	481.51	0	455.07	0	431.82	0.00
Other types of water	0	0	0	0	0.00	0.00
THIRD-PARTY WATER RESOURCES	967.29	360.20	1,114.69	396.72	1188.90	409.75
Fresh water	967.29	360.20	1,094.47	376.51	1174.10	394.95
Other types of water	0	0	20.21	20.21	14.80	14.80
TOTAL	1,448.80	360.20	1,569.75	396.72	1620.72	409.75
TOTAL THIRD-PARTY WATER WITHDRAWAL BY SOURCE - WATER STRESSED AREAS						
Surface water	-	274.75	-	297.082	-	309.60
Groundwater	-	85.14	-	99.64	-	99.67
Produced water	-	0.31	-	0	-	0.48
TOTAL	-	360.20	-	396.72	-	409.75

WATER DISCHARGE (ML= MEGALITRES)*

	2021		2022		2023	
	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS
SURFACE WATER	0.00	0.00	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	0.00	0.00	0.00
Other types of water	0.00	0.00	0.00	0.00	0.00	0.00
GROUNDWATER	8.33	0.01	5.57	0.01	2.41	0.01
Fresh water	8.33	0.01	5.57	0.01	2.41	0.01
Other types of water	0	0	0	0	0.00	0.00
THIRD-PARTY WATER RESOURCES	510.51	173.57	597.95	173.50	629.42	166.87
Fresh water	380.72	105.34	515.78	128.40	524.93	126.94
Other types of water	129.79	68.23	82.17	45.11	104.49	39.93
TOTAL	518.84	173.58	603.52	173.51	631.84	166.88



	2021		2022		2023	
	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS
WATER DISCHARGE BY LEVEL OF PROCESSING*						
Any processing		175.49		201.57		226.49
Level of processing 1		15.67		20.49		28.38
Level of processing 2		53.49		131.16		121.49
Level of processing 3***		287.50		265.98		275.02
TOTAL		532.16		619.20		651.37

* In the event of the absence or malfunction of measuring equipment on industrial discharge, the volume of water discharged is estimated on the basis of available data, such as the volume of water withdrawn, the water evaporated, water disposed of as waste, etc. Where civil water discharge figures are not available, the volume discharged is estimated to be equal to the volume withdrawn.

** Level of processing 1: aims at removing the solid substances which either deposit or float on top of the water.
Level of processing 2: aims at removing the substances and materials which remain suspended or are dissolved in the water.
Level of processing 3: aims at improving water quality before its disposal. This processing also includes removal processes for substances such as heavy metals, nitrogen and phosphorous.

*** The figure includes the quantity of water recovered by the Pune (India) processing plant and entirely reused within the plant. For this reason, total water discharged is not equal to the figure broken down by level of processing.

WATER CONSUMPTION (ML= MEGALITERS)

	2021		2022		2023	
	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS	ALL AREAS	WATER STRESSED AREAS
TOTAL WATER CONSUMPTION	929.96	186.62	966.23	223.21	988.88	242.87

7.7 WASTE REDUCTION

The generation of hazardous and non-hazardous waste from industrial processes may result in pollution of the soil, water or air and may have adverse consequences in terms of altering the ecosystem, such as soil or water contamination due to possible leaching or accidental leaks, or because of entrusting waste to third parties without the required authorisation. To reduce and mitigate such impacts, as part of its Environment and Energy Management System Brembo has prepared a Waste Management procedure in which it defined operating requirements inspired by available best practices to ensure responsible, consistent management of these aspects at all Group plants. For example, specific solutions are adopted for temporary waste storage areas at plants, which must be designed using systems that prevent the effects of atmospheric agents on the waste.

In addition, this procedure imposes requirements also with respect to management of the value chain, providing for audits of suppliers responsible for transporting and disposing of waste to ensure minimum precautions are taken, even in geographical areas where the law permits a looser approach.

Another important focus of the procedure is circular economy criteria, with all plants urged to identify every possible opportunity to apply them. This is an aspect to which Brembo has devoted a great deal of energy. The linear "take-make-dispose" economic model based on having access to only seemingly unlimited resources is increasingly ill-adapted to Brembo's environment, especially given the need to access high quality raw materials with sustainable costs, whilst being mindful of the environment. The very nature of some of the production processes, such as cast iron foundries, means that they are suitable as a model for applying the "take-make-reuse" concept on which the circular economy is based. The raw materials procured by a foundry are for the most part of secondary origin, resulting from machining process waste or from the product of the ferrous scrap salvage chain. The progressive extension of circularity to all production processes is an opportunity that Brembo intends to seize in order to ensure a steady business growth that is in balance with the environment.

The above procedure encourages identification of every possible opportunity for exploiting waste materials, which in various cases may be sold to third parties or reused internally as secondary raw materials, or also disposed of as waste. This reduces the need to extract raw materials from the Earth, significantly reducing the overall environmental impact. Brembo is working on the subject with various projects concerning both the production process and the product. With regard to the production process, the areas of intervention aim to reduce the amount of waste generated and to reuse scrap materials in the process. When it comes to products, one virtuous example is the project on which Brembo is working to test its first experimental melting of aluminium alloy with increasing secondary material content from both the market and the scrap internal recovery.

In 2023 as well, various actions were taken to mitigate the environmental impacts generated during waste management and reduction processes. These include the use as a by-product of waste materials from the process of manufacturing carbon ceramic discs, the recovery of spent cast iron foundry sands to make sand for use in the process of creating cores to replace virgin sand in cast iron foundries or the reuse of incoming packaging materials to make fillers for outgoing packaging at the San Cugat (J.Juan) plant in Spain.

In 2023, Brembo generated a total of about 505,000 tonnes of waste, a 9% increase on 2022 due to higher production volumes. The distribution of hazardous waste remained at 5% of total waste generated, in line with previous years. The percentage of waste sent for disposal in dumps decreased and accounted for 12% of the total.

WITH REGARD TO WASTE MANAGEMENT, IN 2022 BREMBO DEFINED THE FOLLOWING TARGETS

- Reaching **90%** of waste to be recovered by 2025
 - Reaching **95%** of waste to be recovered by 2030
-

WASTE BY TYPE AND PERCENTAGE ON TOTAL WASTE (t)

	2022	2023	%
Foundry sands	197,235	216,897	42.99%
Iron chip and filings	151,737	161,798	32.07%
Dust from abatement plants	20,871	22,242	4.41%
Foundry slag	25,565	29,369	5.82%
Waste emulsions	12,706	14,046	2.78%
Packaging materials	6,815	7,107	1.41%
Aluminium foams	3,854	3,046	0.60%
Acid/basic waste solutions	2,945	2,913	0.58%
Sludge	2,225	2,375	0.47%
Waste filter materials	213	200	0.04%
Waste not classified differently	36,781	44,551	8.83%
Total	460,947	504,544	

WASTE GENERATED (t)

	2021	2022	2023
Hazardous waste	20,213	23,521	25,223
<i>of which: discharged</i>	3,675	5,032	4,474
<i>of which: reused</i>	16,538	18,489	20,749
Non-hazardous waste	375,939	437,427	479,320
<i>of which: discharged</i>	55,043	63,082	56,479
<i>of which: reused</i>	320,896	374,354	422,841
Total	396,152	460,947	504,544
<i>of which: discharged</i>	58,718	68,113	60,952
<i>of which: reused</i>	337,434	392,834	443,590

7.8 PROTECTION OF BIODIVERSITY

In December 2022, nearly 200 governments pledged to meet ambitious goals and targets under the Kunming-Montreal Global Biodiversity Framework to halt and reverse the loss of biodiversity and natural ecosystems by 2030. Businesses are called upon to transparently monitor, assess and disclose their risks, dependencies and impacts on biodiversity to ensure that businesses, society and nature live in harmony. The Group has always been committed to protecting the environment and ecosystems by minimising the impacts of its operations.

In this context, Brembo has felt the need to act for the protection of biodiversity, first and foremost by adopting a methodological approach to help protect it in the vicinity of its production plants. As a first step, Brembo, with the support of a specialist consultant, launched a sensitivity analysis aimed at defining and applying a methodology for screening the state of biodiversity in the geographical areas where its manufacturing plants are located.

The screening activity aims to identify the level of sensitivity of the area in which the sites are located and determine those plants that may require intervention, defining improvement, prevention and mitigation actions.

In particular, the spatial interactions between Brembo's production sites and three variables related to the state of biodiversity in the surrounding geographical areas were analysed: land use category, species classified as threatened according to the IUCN Red List and the presence of areas of ecological interest (including Natura 2000 sites, Ramsar sites, protected natural areas according to local, national or international legislation). Based on these variables, a prioritisation of Brembo's sites was defined, identifying the production sites that are located in the most sensitive areas from the point of view of natural ecosystems and biodiversity. Based on these analyses, the Group will identify, over the next few years, a plan of actions designed to reduce and mitigate its impacts on biodiversity.

