

An aerial photograph of a lush green forest. A paved road with yellow lane markings winds through the trees. The top right corner of the image is partially obscured by a solid green rectangular overlay.

# 03

# ENVIRONMENT

## **VALUE FOR THE PLANET**

- 3.1. Environmental strategy and ambition
- 3.2. Climate change mitigation
- 3.3. Resource use and circular economy



**74** in-house employees and **3** external people dedicated to preventing environmental risks

**92** ISO 14001 certified sites

**8** ISO 50001:2018

**22.8%** reduction in CO<sub>2</sub> emissions (Scope 1 and 2) compared to 2019

**+ 23.01%** renewable energy consumption

**37,092** tons of CO<sub>2</sub> avoided

**38.72%** reduction in non-hazardous waste compared to 2019 (7.6% versus 2023)

**Zero waste to landfills:** reuse of 82% of headliners waste generated in Spain

### MATERIAL TOPICS

- Climate change mitigation
- Energy
- Substances of concern and substances of very high concern
- Materials consumed
- Resource outflows related to products and services
- Waste from the value chain

### SDGs



## Review of two of the Transition Plan's key levers for climate change mitigation: decarbonization and promotion of the circular economy.



### Decarbonization Plan

- Review of emission calculation methodologies in all scopes – 1, 2 and 3.
- Scope 3 carbon footprint calculation completed: 12 categories.
- Submission of Net Term decarbonization targets to the SBTi for validation.



### Climate change mitigation

- **Energy efficiency.** Smart Energy, a program based on digitalization and AI that has reduced energy consumption by around 15% in the factories where it is implemented.
- **Renewable energy.** Electricity generation at own facilities for self-consumption located in Spain, Italy, France, Germany, India and China.
- Four more facilities (three in Germany and one in Romania) joined the list of 25 sites that now consume **electricity certified** by Guarantees of Origin or I-RECs (renewable energy certificates).



### Promotion of the circular economy

- **Ecodesign toward 100% mono-material products:** simplification of disassembly processes.
- **Update of the Life Cycle Assessment (LCA) -GaBi-** on existing and new products in lighting.
- **Sustainable solutions at source:** recycling, natural non-fossil, plant by-products, biopolymers (PersiSKIN Auto, SEAQUAL® YARN).
- **Transformation of headliners waste** in Spain into construction resources: Coretech®.



# 3.1. ENVIRONMENTAL STRATEGY AND AMBITION

European agency Copernicus recently confirmed 2024 as the warmest year on record and the first to exceed 1.5°C above pre-industrial levels. This was a year in which climate change also left its mark in the form of extreme weather events, with unprecedented rainfall and floods, particularly intense tropical cyclones, prolonged droughts and devastating forest fires in different parts of the world.

It therefore comes as no surprise that extreme weather events—followed by biodiversity loss and ecosystem collapse, as well as critical change to Earth systems—are the top long-term (10-year) and second short-term (two-year) risk in the World Economic Forum's latest Global Risks Report.

The accelerating climate emergency took center stage at the latest **United Nations Climate Change Conference**. COP29 in Baku saw significant progress on the carbon credit market, regulated by Article 6 of the Paris Agreement, which involves the creation of clear rules and procedures for the measurement, reporting and verification of emission reductions. The Conference also stressed the role of the private sector and partnerships in the transition toward a green economy.

For many years now, the **auto industry** has taken on board and understood the commitment made in Paris. Automakers are working closely with suppliers to achieve their environmental goals and forge a sustainable value chain. To this end,

automakers carry out regular audits and assessments to ensure that their suppliers comply with environmental and sustainability standards, and set specific CO<sub>2</sub> emission reduction targets, as well as ecodesign and life cycle assessment criteria focused on circularity.

In line with these expectations and the context in which the auto components sector operates, Antolin has integrated into its strategic decision-making the Paris Agreement guidelines—which seek to limit the increase in average global temperatures to 1.5 degrees—and those of the **European Green Deal**, which aim to make Europe the first climate-neutral continent by 2050.

Making the European Green Deal a reality involves fusing strategic growth with a positive environmental impact. With this in mind, Antolin's sustainable business strategy revolves around its Value for the Planet approach, which pursues **two main objectives: to be a carbon-neutral company by 2050 and to consolidate its position as a circular business**. These objectives, in turn, take the form of targets for the reduction of emissions, ecodesign and the incorporation of sustainable materials in its products.

These priorities are aligned with the environmental issues considered material for Antolin, the management of which is explained in this chapter: climate change mitigation, energy, substances of concern and substances of very high concern, materials consumed, resource outflows related to products and services, and waste from the value chain.

ENVIRONMENTAL Value for the PLANET 	
A NEUTRAL COMPANY IN 2050	A CIRCULAR BUSINESS
<p><b>CO<sub>2</sub> neutral in own operations (Scopes 1 and 2) by 2040</b></p> <p><b>75%</b> reduction in CO<sub>2</sub> emissions by 2028 (compared with 2019)</p> <p><b>Validation of Science Based Targets (SBTi) in 2024</b> (commitment made in 2022)</p>	<p><b>Ecodesign. Life cycle assessment of main products</b></p> <p><b>40%</b> sustainable plastic raw materials by 2030 (20% in 2025)</p> <p><b>10%</b> reduction in non-hazardous waste by 2028 (compared to 2019)</p>
HOW WILL WE DO IT	
<ul style="list-style-type: none"> <li>■ Reduction in emissions</li> <li>■ Energy efficiency and renewables</li> <li>■ Extending our commitments to the supply chain</li> </ul>	<ul style="list-style-type: none"> <li>■ Ecodesign and life cycle assessment</li> <li>■ Waste management</li> <li>■ Sustainable use of resources</li> </ul>



## Creating a positive impact from inside the vehicle

Antolin has made its core activity —vehicle interiors— a springboard to help protect the environment. Thanks to its innovative approach, the company has reduced the weight of its components and created new materials that not only replace more environmentally unfriendly ones, but also help to improve performance. This fusion of innovation and sustainability has led to significant strides forward in recent years, such as the NEXUS door concept in 2024, which involves a polymer with a high recycled content. This type of initiative is testament to Antolin's ability to lead the transition toward a more responsible mobility sector, supporting the industry and its customers in their decarbonization efforts.

The company has also made a significant effort to remain one step ahead of EU requirements to reduce the use of volatile organic compounds (VOCs) in its products. In recent years, VOC emissions have fallen significantly in major markets (40% in the United States since 2005, 35% in Germany between 2005 and 2020, and 25% in China since 2010) thanks to efforts by manufacturers to comply with environmental regulations and to incorporate more sustainable practices into vehicle design and production.

For over two decades now, Antolin has been adapting its processes and plants to use state-of-the-art materials with minimum VOC emissions. Always at the forefront and ahead of the curve, the company has standardized the use of solvent-free materials, to the benefit of its employees and end users.

## Climate transition plan: a year of progress

As part of its reassessment of sustainability-related strategic business priorities, Antolin has focused its climate efforts on a **review of two key drivers** of its Transition Plan, which seeks to mitigate climate change and forms the cornerstone of its Value for the Planet approach: **decarbonization and promotion of the circular economy**.



More information on key sustainability projects in 2024 can be found in [2.2.3. Sustainability: a way of being and doing](#).

### Decarbonization project

As the first main driver of the **decarbonization** plan, over the course of 2024 company management launched two projects that act as keystones to define the roadmap toward carbon neutrality.

Thanks to specialist outside support, after in-depth analysis of the current strategy, and completion of the Scope 3 emissions calculation, the company has worked with Schneider Electric to accelerate the decarbonization process with the following **results and main initiatives**:

DECARBONIZATION STRATEGY REVIEW	
Main initiatives in 2024	Outcome
Review of the methodology to calculate emissions across all Scopes	<ul style="list-style-type: none"> <li>■ New market-based method to calculate Scope 2 emissions.</li> <li>■ Improved location-based method to calculate Scope 2 emissions.</li> <li>■ Method to calculate Scope 3 emissions based on activity in 2023.</li> </ul>
Energy maturity analysis	<ul style="list-style-type: none"> <li>■ Identification of the main lines of action and drivers to improve energy efficiency at all plants.</li> </ul>
Opportunities for renewable energy use	<ul style="list-style-type: none"> <li>■ Analysis of energy markets in the countries where Antolin operates.</li> <li>■ Identification of instruments available to access renewable energy.</li> <li>■ Renewable energy use proposals aligned with the new targets.</li> </ul>
Science Based Targets (STBi)	<ul style="list-style-type: none"> <li>■ Presentation of near-term targets to be validated in 2025.</li> </ul>
Analysis of decarbonization-related governance	<ul style="list-style-type: none"> <li>■ Identification of lines of action to place sustainability at the heart of the company's decision-making.</li> </ul>



During the **first phase of the project** Antolin reviewed what are currently its two main lines of action (consume less and consume better) and identified new drivers to reach climate neutrality. As a result of this review, near-term decarbonization targets were redefined, submitting the first batch to the SBTi for approval in 2025.

With these goals in mind, the company defined a detailed plan for each line of action. Over the coming years, new initiatives will be launched and others already active will be maintained and ramped up, such as the use of self-generated renewable electricity and electricity from certified sources. In this regard, of particular note is the project aimed at incorporating a Power Purchase Agreement (PPA) in Europe, a new instrument that promotes the use of renewable electricity.

**During the second stage of the project** and without neglecting the decarbonization of its own activities, Antolin will focus its efforts on climate change mitigation across its supply chain, both in terms of its processes and its products. The company will gear the management of its supply chain toward reducing its Scope 3 emissions, mainly in the “Purchased Goods and Services” category, which is responsible for 77% of total emissions.

### Promotion of the circular economy

The second lever of the Climate Transition Plan – fostering a circular economy – is also making headway at Antolin along three lines of action and hand in hand with customers and the supply chain: ecodesign of products and solutions; life cycle assessment (LCA) of key products; and innovation aimed at reducing component weight and integrating sustainable materials in lieu of those derived from fossil fuels. This approach is part of the company's strategic goal of incorporating 40% sustainable plastic material in products supplied to customers by 2030.



More information can be found in [3.3 Resource use and circular economy](#).

## 3.1.1. GOVERNANCE AND RESOURCES ALLOCATED TO PREVENTING ENVIRONMENTAL RISKS

Antolin fosters the creation of an **environmental culture throughout the company**, one that is led by the Board of Directors and the Sustainability and Corporate Governance Committee<sup>13</sup>.

The Sustainability department is responsible for the company's environmental, social and corporate governance functions. The company also has an area focused specifically on fighting climate change and promoting the circular economy, which facilitates integration of environmental sustainability in the day-to-day running of the organization.

Each ISO 14001 certified company has at least one environmental officer, who in certain cases is qualified to carry out cross-audits. In 2024 **23 qualified auditors** carried out internal audits of Antolin's environmental management system. In total, **74 in-house employees and three external people** are tasked with preventing environmental risks.

### Precautionary principle

Antolin applies a **precautionary principle**, enshrined in its Environment and Energy Policy, across all phases of its activity, from the design of products and services to the end of the product/service life cycle. In addition to its in-house prevention measures, the company also arranges public liability insurance, the contingencies of which are detailed in [6.11. Explanatory notes](#) of this report.

## 3.1.2. KEY ELEMENTS IN ENVIRONMENTAL MANAGEMENT

### Environment and Energy Policy

This policies fosters the use of renewable energies, the efficient use of natural resources and the extension of Antolin's environmental sustainability commitments to its entire supply chain through its Supplier Code of Conduct.

The environmental management process applicable to all companies, as well as related documents in the corporate management model, were updated in 2024. As part of that review, work was also undertaken to ensure that the Environment and Energy Policy approved by the CEO in 2023 was still pertinent, which is why it remains in force.

The Environment and Energy Policy is adopted and signed by the managers of each plant.



Photovoltaic facility at Antolin Aragusa, Burgos (Spain).

<sup>13</sup> See [2.5. Corporate governance](#).



## Environmental Management System (EMS)

Based on ISO 14001:2015, the EMS enables the company to identify risks and opportunities at each company annually and set in motion improvement programs in response. The EMS is in place at the headquarters and at the industrial companies that generate the greatest environmental impact, as well as some assembly and sequencing centers at the request of customers. With a view to refreshing employees' knowledge and serving as the learning foundations for new hires, in 2024 Antolin launched in-house training via digital media for staff at its headquarters in Burgos. This awareness campaign is designed to cover all core sustainability topics at Antolin, issues specific to the headquarters and best practices to use in employees' day-to-day.

Two new centers in Italy and China were certified in 2024. In total, **92** centers are now ISO 14001 certified, three fewer than in 2022 due to changes to the Group's scope of financial consolidation last year. The scope of the multi-site certificates in Europe and Mexico, led by Antolin Irausa and Antolin Silao respectively, remains the same.

## Energy Management System (EnMS)

Based on ISO 50001:2018 to assess significant energy uses, this system provides a continuous incentive to improve energy efficiency and adopt measures aimed at scaling back energy consumption. There are currently eight (five in Spain, two in Germany and one Turkey)<sup>14</sup> ISO 50001:2018 certified work centers.

## Improved environmental reporting

Through this report and other environmental reporting tools, Antolin remains committed to regular and accurate environmental reporting, based on legal requirements and the demands of stakeholders, such as customers, investors and rating agencies. In the interests of transparency, Antolin has made its environmental reports public through the Carbon Disclosure Project (CDP) for the supply chain, water and forests categories.

Antolin introduced improvements to its annual environmental reporting tool in 2024. These improvements enable the company to monitor equipment containing refrigerant gases and to gather evidence in the event of these gases leaking, all of which helps the company ensure the quality of the Scope 1 CO<sub>2</sub> emissions calculation.

New methodologies were introduced last year to estimate Scope 2 emissions, while work to map the Scope 3 emissions was also completed. Consequently, this report includes new indicators: market and location-based Scope 2 emissions; the disclosure of renewable energy sources; the use of sustainable plastic materials, etc. Thanks to these steps, Antolin is able to keep abreast of the new requirements contained in Directive (EU) 2022/2464 (CSRD) as regards sustainability reporting.



More information on the new emissions calculation methods can be found in [3.2.1. Carbon footprint measurement](#).

Moreover, the company evaluates the sustainability of its suppliers, which includes environmental matters. There is no additional commitment to consult stakeholders on other environmental matters<sup>15</sup>.

<sup>14</sup> See [6.4. Sustainability performance in numbers](#).

<sup>15</sup> See [5.4. Value chain relations](#).



### 3.1.3. ALLIANCES FOR THE PLANET

UN Climate Change Executive Secretary Simon Stiell highlighted the importance of global cooperation to tackle the environmental crisis at COP29: *"Now it is the time to show that global cooperation is not down for the count. So I urge you all, let us rise together. This crisis is affecting every single individual in the world one way or another. We need all parties to push for agreement right from the start – to stand and deliver."* Antolin shares this vision and believes that alliances that bring together diverse voices and ideas will bridge gaps and amplify the impact of its initiatives.

The company has therefore forged links with leading entities and forums both in Spain and abroad, a relevant sample of which can be found below.

#### ■ Alianza Q-Cero

Antolin joined Q-Cero in 2024, an alliance that pursues the decarbonization of thermal electricity demand in Spain, made up of more than 40 companies. Facilitated and supported by the Center for Innovation in Technology for Human Development, attached, in turn, to Universidad Politécnica de Madrid, the initiative was created as a meeting point to discuss and step up decarbonization, especially of thermal energy users in both the industrial and building sectors, and to fight climate change. The alliance aims to provide clarity on the current situation, make headway, detect barriers to progress and possible solutions in various industries and put in place processes over the next two years.

#### ■ Circular Plastics Alliance (CPA)

Antolin cooperated with this alliance in 2024, which is made up of 300 industrial, academic and governmental organizations. CPA's ultimate goal is to strengthen the market for recycled plastics in the European Union, setting an ambitious target of 10 million tons by 2025.

#### ■ Climate Change Cluster (Forética)

Made up of more than 60 large companies, this cluster serves as a leading business platform in the fight against climate change. The Climate Change Cluster's activity in 2024 focused on one of the five trends on this year's business agenda: the importance of forging ahead with climate change adaptation measures through corporate activity as a key driver to adapt our societies, economies and ecosystems to the inevitable impacts of climate change. The Net-Zero Spanish Business Forum, a leading public event, focused this year on corporate strategies to adapt to climate change.

#### ■ ENVALORA

ENVALORA is the first Extended Producer Responsibility Collective System (EPRCS) with definitive authorization in Spain to organize and finance the management of single-use and reusable industrial and commercial packaging in various industrial sectors. The association's objectives are to organize and finance the management of packaging of member companies that use industrial and commercial packaging to transport and sell their goods in the Spanish market, or that import packaged products, with a view to fostering circularity and highly efficient recycling.

In 2024, nine Spanish Antolin companies joined this system to comply with Royal Decree 1055/2022 on packaging and packaging waste. Antolin Ingeniería, through its corporate head of climate change and the circular economy, has joined ENVALORA's Board of Directors to contribute to the development of this EPRCS.

#### ■ Castilla & León Circular Economy Compact

Antolin joined the Circular Economy Compact in 2024, which is promoted by the government of Castilla & León. Joining this initiative demonstrates the company's firm commitment to fostering a circular economic model in its activity and to advancing the transformation of the local economy. Antolin is one of the 81 entities that have signed up to the compact, of which 41 are companies, seven are local entities and 33 are social organizations, chambers of commerce, professional associations and universities.



## 3.2. CLIMATE CHANGE MITIGATION

**Material topics:** Climate change mitigation, Energy, Substances of concern and of very high concern.

The **Paris Agreement**, signed in 2015, set the goal of limiting global warming to 1.5°C above pre-industrial levels in a bid to avoid the worst effects of climate change. Every additional fraction of a degree of warming will significantly increase the risks of extreme weather events, biodiversity loss and forced displacement of populations, —scientists have warned—.

2024 not only saw a record high for this critical threshold for the planet, it was also witness to an increase in global greenhouse gas emissions, which exceeded 40 gigatons of CO<sub>2</sub> per year. This has led to an increase in the concentration of carbon dioxide in the atmosphere, which now exceeds 420 parts per million (ppm), a level hitherto unseen. The European Union therefore continues to bolster its commitment to a low-carbon economy, which includes levying more stringent carbon taxes and greater support for innovation in clean technologies. Beyond Europe, the world economy is investing two trillion dollars a year in clean energy: two out of every three dollars invested in energy is linked to decarbonizing the energy mix.

Antolin has aligned its commitments to the ambitions of the Paris Agreement and considers **climate change mitigation** to be one of the material topics in its management. Based on this climate ambition and in line with the leading regulatory requirements and stakeholder demands, it is working on three lines of action:

- **Consume less:** reduce energy consumption by 5% through digitalization efforts and the introduction of energy efficiency criteria for processes and products.
- **Consume better:** ensure 70% of energy consumed is from renewable sources.
- **Offset:** through actions such as reforestation.

These lines of action will be complemented by the new drivers that were identified during the review of the decarbonization strategy. This project involved work to complete the calculation of Scope 3 emissions, a key step toward updating the near-term decarbonization targets. These new targets take 2023 as the baseline year, instead of 2019, and have a time horizon spanning until 2034. In addition, emission reduction pathways have been defined for the coming years for Scope 1 and 2 (1.5°C), and Scope 3 (WB2D).

### Antolin in leading decarbonization initiatives

Since January 2023, Antolin has formed part of the **Science Based Target initiative (SBTi)**, an international endeavor led by the Carbon Disclosure Project (CDP), United Nations Global Compact, World Resources Institute (WRI), World Wildlife Fund (WWF), and the We Mean Business Coalition. The SBTi enables companies and financial institutions around the world to play a key role in combating the climate crisis using science-based decarbonization commitments. Thanks to projects undertaken in 2024 to improve and complete the carbon footprint for all three emission scopes, Antolin has showcased its new decarbonization targets to the SBTi and expects them to be validated over the course of 2025.

Moreover, since 2012 Antolin has reported on its environmental performance annually to **Carbon Disclosure Project (CDP)**, a global organization that works with shareholders and companies to publish corporate performance in terms of greenhouse gas emissions. The CDP score is a staple requirement for Antolin's stakeholders, especially customers and rating agencies.

The company achieved a B rating in the CDP Climate Change 2023 Report for the second consecutive year. At the time of publication of this report, CDP has not communicated the results and reports for the performance reported in 2024.



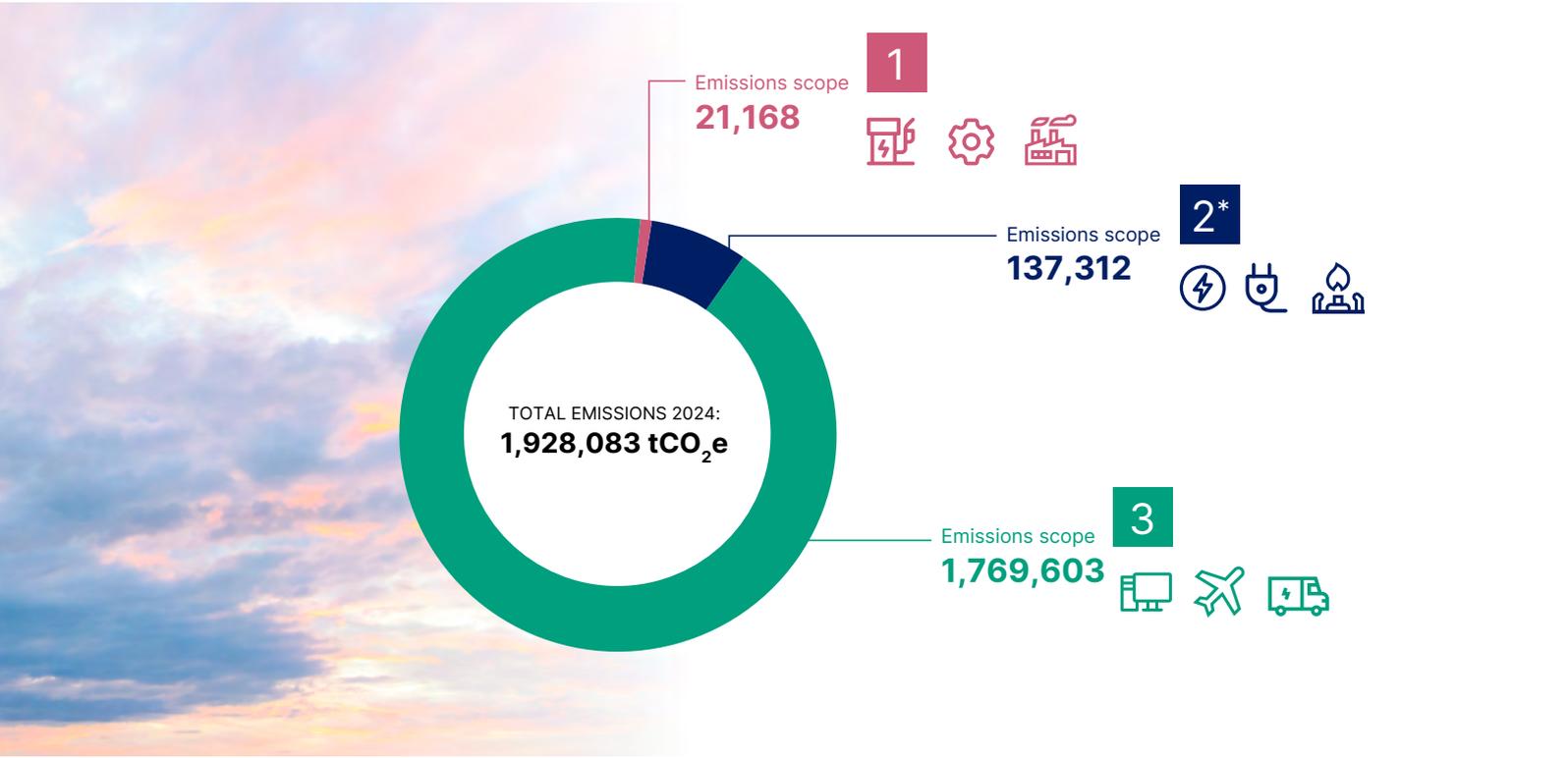


### 3.2.1. CARBON FOOTPRINT MEASUREMENT

Antolin has drawn on specialist third-party firms to complete the measurement of its carbon footprint in 2024, an objective firmly framed within its decarbonization efforts.

The **calculation of emissions in all their scopes** has been carried out in accordance with the GHG Protocol methodology, making some adjustments in its application, as detailed below.

	Description	Calculation methodology	Notes
SCOPE 1	Direct emissions from fuel consumption (natural gas, propane, LPG, etc.) and, to a lesser extent, from refrigerant gas leakage.	Amount of fuel and refrigerant gases reported by all sites within the company's scope of financial consolidation, multiplied by the respective emissions factors accepted by the GHG Protocol.	No change in the calculation methodology, except for an update of the relevant emission factors.
	SCOPE 2	Indirect emissions associated with energy consumption.	The decarbonization review helped identify two methodological adjustments that have improved and broadened the calculation method:
<p><b>1 Location-based method.</b> Non-renewable electricity and certified renewable electricity consumed is multiplied by the most up-to-date average emission factor for each region. Only self-generated renewable electricity is considered carbon neutral.</p> <p>This shows the average emissions intensity of grid-connected energy consumption, reflecting the reduction in emissions due to external factors (the overall decarbonization of the market) and an improvement in energy efficiency.</p>			
<p><b>2 Market-based method.</b> This shows the emissions of electricity suppliers, reflecting the reduction in emissions attributable to both external (increase in renewable energy use at Antolin, energy efficiency improvements) and external factors.</p> <ul style="list-style-type: none"> <li>The renewable electricity emission factor of both certified and self-generated energy is zero. Supplier-specific emission factors are applied to calculate emissions from the remaining non-renewable electricity.</li> <li>Where specific factors are not available, residual emission factors published by the leading international bodies (AIB; EPA; International Energy Agency) are applied.</li> </ul>			
SCOPE 3	Other indirect emissions linked to the upstream and downstream value chain.	Gross Scope 3 emissions are calculated in accordance with the GHG Protocol methodology set out in the "Technical Guidance for Calculating Scope 3. Emissions Supplement to the Corporate Value Chain (Scope 3)" Scope 3 Calculation Guidance   GHG Protocol.	<p>Calculation of Scope 3 emissions has been completed for all relevant categories for Antolin for 2023 and 2024.*</p> <p>* Up until 2023, only 6 of the 15 indirect emissions categories were calculated.</p>
	12 categories calculated.*	Three methodologies are used based on the available data:	
	<ol style="list-style-type: none"> <li>Purchased goods and services</li> <li>Capital goods</li> <li>Fuel and energy-related activities (not included in Scope 1 or Scope 2)</li> <li>Upstream transportation and distribution</li> <li>Waste generated in operations</li> <li>Business travel</li> <li>Employee commuting</li> <li>Upstream leased assets</li> <li>Downstream transportation and distribution</li> <li>End-of-life treatment of sold products</li> <li>Downstream leased assets</li> <li>Investments</li> </ol> <p>* Three categories have been excluded as they are not considered relevant or applicable to Antolin's activities (processing of sold products, use of sold products and franchises).</p>	<p><b>1 Spend-based method.</b> Over 70% of gross emissions have been calculated using the spend-based method, most of them from the main category 3.1 "Purchased goods and services", and 100% of those from category 3.2 "Capital goods".</p> <p>Spending on each category is multiplied by the emissions factors based on Exiobase's EEIO model. The chosen emission factor reflects the average emissions of the economic sector supplying the purchased goods, services or assets.</p> <p><b>2 Activity-based method.</b> This approach allows for a more accurate estimate of supply chain emissions based on gathering detailed information on quantities of products, energy, distance travelled, and so on.</p> <p>Approximately one quarter of total Scope 3 emissions have been calculated using this method:</p> <ul style="list-style-type: none"> <li>20% of emissions from the main category 3.1 "Purchased goods and services", based on the quantities of purchased products expressed in mass units multiplied by the appropriate Ecoinvent emission factors (kgCO<sub>2</sub>e/kg).</li> <li>100% of other lesser categories, such as: 3.3 Fuel and energy-related activities; 3.5 Waste generated in operations; 3.8 Upstream leased assets; 3.9 Downstream transportation and distribution; 3.12 End-of-life treatment of sold products; 3.13 Downstream leased assets; and 3.15 Investments.</li> </ul> <p><b>3 Supplier-based method.</b> Less than 5% of emissions have been calculated by suppliers. Nevertheless, they are important as they improve the quality of the data compared to other estimation methods that rely on industry average data.</p> <p>The majority of emissions in category 3.4 "Upstream transportation and distribution" were calculated using distance travelled data provided by haulers. A portion of the emissions in category 3.6 "Business travel" was provided by airlines.</p>	



\* Per the market-based method. Following the location-based method, the Scope 2 emissions in 2024 were 150,568 tCO<sub>2</sub>e

### 3.2.2. REDUCTION OF EMISSIONS

Antolin has set itself the target of being carbon neutral by 2050. To this end, the company—in accordance with the recommendations of the Intergovernmental Panel on Climate Change (IPCC)—is committed to a progressive reduction of greenhouse gas emissions by improving processes and facilities, increasing the use of energy from renewable sources, and generating its own electricity.

The lines of action with the greatest impact on reducing emissions are as follows:



**Location of just-in-time plants and production centers**, i.e. near Antolin’s customers in the 23 countries where it operates.



**Development of new materials** from renewable sources.



**Implementation of tech solutions to reduce the physical weight of the components it manufactures**, which helps mitigate the environmental impact of the vehicles used to transport its products.



**Efficient energy management** of facilities through measures such as the use of smart lighting.



### 3.2.3. RESPONSIBLE AND EFFICIENT ENERGY MANAGEMENT

Energy management at Antolin is governed by its Environment and Energy Policy, as well as its Energy Management System (EnMS). This is another of the company’s drivers to decarbonize its activity. The company has set itself a target where 70% of energy consumption must be from renewable sources by 2028.

Antolin has adopted a proactive approach from the very beginning in this regard, seeking solutions to optimize energy usage and reduce the related environmental impact. Activity tied to energy savings and its responsible use has been enshrined in two strategic lines of action: consume better and consume less.

#### Consume better

- **Generation of electricity at its own facilities for self-consumption.** Antolin commissioned two new photovoltaic facilities in 2024: one in Turkey<sup>16</sup> and the other in Italy with an installed capacity of 500 kW. Another facility in Spain was expanded through an additional 100 kW. Since the company installed its first photovoltaic equipment at its headquarters in 2020, 11 companies located in Spain, Italy, France, Germany, India and China have joined this initiative. An extension of these installations is planned at another plant in Europe in 2025.

- **100% renewable energy consumption.** Since 2022, all electricity used at Antolin’s sites in Spain and Portugal, and at some plants in Brazil, Mexico, China and India, has been from renewable sources. Furthermore, in 2024, four more facilities (three in Germany and one in Romania) joined the list of 25 sites that now consume electricity certified by Guarantees of Origin or I-RECs (renewable energy certificates).

Consequently, the consumption of energy from renewable sources increased to 18.53% in 2024. This increase avoided the release of 37,092 tons of CO<sub>2</sub>, as per market-based calculation methods.

#### Consume less

This line of action involves initiatives aimed at ensuring an optimal and responsible use of energy. To this end, the digital transformation<sup>17</sup> which the company is currently undergoing also represents a strategic value-added driver for the company from an energy efficiency standpoint.

One of Antolin’s most salient projects in this regard is **Smart Energy**. This initiative shows that it is possible to fuse sustainability and innovation, forming a combination that is helping to shape a new smart factory model; one that optimizes production processes and generates considerable added value.

Smart Energy involves the application of big data analytics for the real-time monitoring and control of energy consumption. The resulting information feeds the algorithms, which —based on consumption patterns— make it possible to identify and flag up inefficient energy consumption or possible equipment failures. Energy consumption data can be processed via data analytics for multiple purposes, such as defining predictive maintenance problems, devising action plans to reduce average consumption per part manufactured, or planning production so that consumption is optimized.

In 2024, six new companies in the Czech Republic, France, Poland, Germany and Romania have joined the Smart Energy program, which has now been implemented at a total of 12 European factories. To evaluate the program’s results and quantify the improvements achieved, Antolin is using a new indicator: the normalized energy efficiency index (EEn), which measures the ratio between the facility’s actual energy usage versus the theoretical consumption that would have been expected had the program not been implemented. Smart Energy has made it possible to reduce energy consumption by around 15% compared to plants not included in the program.



Solar panels at the Caserta plant, Antolin Italy.

<sup>16</sup> See 6.4 Sustainability performance in numbers.  
<sup>17</sup> See 2.3.3. Digitalization: key developments.



Thanks to this initiative, the following energy efficiency improvements from changes in production processes at the plants were identified and implemented, alongside others involving additional investment: optimization of the start-up of injection machinery and other general equipment; energy consumption of equipment in stand-by mode; efficient adjustments to process parameters; identification of the most efficient equipment from an energy standpoint; and improvements to the preventive maintenance of cooling equipment.

**Another energy reduction measure adopted** at various Antolin facilities involves harnessing the residual heat generated by the manufacturing process. This is then used to heat the facilities themselves, thereby reducing the use of heating systems. Another production plant in Spain joined this **energy initiative** in 2024, enabling consumption to be cut by 54% on 2023. Antolin does not have any co-generation units currently.

Furthermore, **natural gas heating has been replaced** by more efficient electric climate-control equipment and ambient temperatures are controlled to **optimize the consumption** of natural gas.

### 3.2.4. POLLUTION

As a result of the double materiality assessment, Antolin determined that **substances of concern and substances of very high concern** are a critical topic in its management. These substances fall into categories defined by environmental and chemicals industry legislation, mainly the European Union's **REACH Regulation** (Registration, Evaluation, Authorization and Restriction of Chemicals). Substances with a potential negative impact on human health or the environment are identified as substances of concern and very high concern.

The REACH Regulation obliges companies in Europe to report on the use of these substances in their production processes. Under the management model that shapes Antolin's corporate governance, the company is committed to reducing the use of substances of concern reported under both REACH and GADSL (Global Automotive Declarable Substance List). The company has high quality methods in place to identify such substances and, working hand in hand with suppliers, **minimize their presence in the materials used**. Collaboration across every link in the value chain is key to effectively manage the risks arising from the use of these substances and to ensure product safety and sustainability.

Antolin also took the first steps in 2024 to **scale back the use of perfluoroalkyl and polyfluoroalkyl substances (PFAS)**, which is a group of over 4,700 synthetic chemical agents that build up over time in humans and the environment. The company's efforts in 2024 focused on raising awareness about their use and the transition toward PFAS-free electronic designs in order to strengthen the company's commitment to more sustainable solutions, thus meeting both regulatory standards and customer requirements.

### Emissions impacting the ozone layer

NOx and SOx emissions mainly come from fossil fuel combustion, basically natural gas and propane, which are low in sulphur content, meaning SOx emissions are lower. They are used by companies in certain processes (steam generation, thermal oil heating, etc.), mostly for HVAC purposes.

To ensure the proper functioning of combustion equipment, Antolin carries out **preventive maintenance** based on an established procedure. This equipment is not particularly powerful, so it only requires periodic measurement to ensure compliance with atmospheric emission caps, as per prevailing legislation. The measurements are performed by external maintenance companies or authorized control bodies.

Gases used in refrigeration and fire extinguishing systems are harmful to the ozone layer. Accordingly, these installations are examined regularly by maintenance and/or inspection companies to check there are no leaks and to verify compliance with prevailing legislation in each country. Thanks to the scheduled preventive maintenance checks, it was detected that 135 kg of such substances had leaked from four facilities in 2024, equivalent to the emission of 391 tons of CO<sub>2</sub>. Maintenance and inspection activities are reviewed during —internal and external— audits. These audits are conducted to verify the legal compliance of controls, measurements and their results, as well as of the remedies implemented in the event of deviations.

### Management of air, water and soil pollution

Antolin's Environment and Energy Policy —which governs its environmental management— includes, among other commitments, preventing pollution, which encompasses the preservation of air quality, and the efficient use of water and other natural resources.

Although air or water pollution is not a material issue for Antolin given the nature of its activity, the companies ensure equipment susceptible to atmospheric emissions undergoes preventive maintenance in accordance with legal requirements or the equipment manufacturers' technical guidelines. The organization follows the precautionary principle, as discussed in section [3.1.2. Key elements in environmental management](#) in this chapter.



More information on the justification of non-material topics can be found in [6.2. Double materiality assessment methodology](#).

Antolin also designs its facilities to prevent soil contamination (properly enclosed or protected storage of chemical products to prevent spills onto unprotected soil, spill trays, double-walled overhead tanks, etc.). It also carries out regular air and water quality checks to ensure they comply with legal limits.



## Noise and light pollution

Given Antolin's activity, noise pollution is not a material topic for the organization. Nevertheless, the companies conduct regular controls of outside noise levels, pursuant to the legal requirements in each region, to ensure compliance with established noise levels.



More information on the justification of non-material topics can be found in [6.2. Double materiality assessment methodology.](#)

Likewise, light pollution is not a material topic for Antolin either. It is worth noting at this point that the companies only have the outdoor lighting that is strictly necessary to ensure the safety of both people and facilities, based on prevailing legislation.

In both cases, note that Antolin's Environment and Energy Policy ensures the prevention of pollution and compliance with the legal requirements of an environmental nature applicable to its activities, products and services.



More information can be found in [3.1.2. Key elements in environmental management.](#)

## 3.2.5. OFFSETTING OF EMISSIONS

As a gesture linked to climate change mitigation, in 2024 Antolin launched an initiative to offset the carbon footprint of its online management convention.

Through the TreeNation platform and in conjunction with Externa Events —its partner in organizing the event— Antolin supported the planting of 43 trees that have offset 8.6 tons of CO<sub>2</sub> equivalent to the emissions generated during the meeting. Specifically, the company joined the Alvelal project, an initiative supported by farmers who want to restore the landscape, biodiversity and protect the soil against erosion in the southeast of the Iberian Peninsula.

Furthermore, thanks to its partnership with one of its regular service providers (an airline), Antolin has traded in the benefits obtained from the **frequent use of employee travel** for 1,500 kg of sustainable aviation fuel. This represents the mitigation of at least 4,484 kg of CO<sub>2</sub> compared to conventional fossil-based aviation fuel.

Following the example of this line of action, Antolin has made a commitment in Mexico to the regeneration of forests impacted by wildfires in various parts of the country. The company, together with the Mexican Government —through the State Reforestation Committee— launched a reforestation campaign that involved the planting of 15 million trees over 15,000 hectares, contributing to the preservation of local flora and fauna.



More information on Antolin's environmental campaigns can be found in [4.2.2. Creation of shared value.](#)





# 3.3. RESOURCE USE AND CIRCULAR ECONOMY

**Material topics:** Materials consumed, Resource outflows related to products and services, Waste from the value chain.

The world’s growing population, the economic rise of emerging countries and the consequent increase in resource use constitute one of the greatest challenges of our time. Faced with a challenge that threatens the survival of the planet as we know it, the circular economy offers a viable solution through the fostering of a model that seeks to minimize waste and maximize the reuse of materials.

In this regard, under the guidelines of the 2030 Agenda —specifically, SDG 12—, the European Union’s **Circular Economy Action Plan** has put in place a regulatory framework that is driving the transition toward a more sustainable model. This plan calls for a reduction in resource use by encouraging practices that allow for the recycling and reuse of products at the end of their useful life.

A key aspect within this framework is the **End-of-Life Vehicles (ELV) Directive**, which sets out rules to ensure that end-of-life cars are managed responsibly. The directive includes requirements for the recovery and recycling of components, as well as for the safe disposal of hazardous substances. Implementation of these regulations not only seeks to reduce the amount of waste generated, but also to recover valuable materials that can be reintegrated into new products.

Antolin is embracing this approach and is aiming to become a circular business. Fundamentally, the company considers circularity to be an essential driver that can ramp up decarbonization to achieve climate neutrality by 2050. Together with customers and its supply chain, Antolin is tackling the following **lines of action**:

- **Ecodesign of products** and solutions, considering their environmental impact from the outset.
- **Life cycle assessment (LCA)** of its key products.
- Innovation and the application of technology to **develop more lightweight components and sustainable materials**.

As part of the objectives enshrined in its Value for the Planet strategic pillar, the company has committed to incorporating 40% sustainable plastic material in products supplied to customers by 2030 —with an intermediate target of 20% by 2025— taking 2022 as the baseline year. This commitment will be reviewed as part of the process of adapting Antolin’s strategic priorities to the expectations and demands of the market, customers and regulators.





### 3.3.1. ECODESIGN AND LIFE CYCLE ASSESSMENT

The life cycle assessment (LCA) is an **essential tool to evaluate the environmental impact of products from the design stage to the end of their useful life**. Taking into account the entire life cycle (cradle-to-grave), Antolin identifies opportunities where it can reduce resource consumption, minimize waste and emissions and improve sustainability. In addition, the LCA incentivizes innovation in the design of greener and more efficient products, helping those involved to make informed decisions that benefit the environment, the economy and society, and promoting more sustainable and responsible development.

An in-house team of experts leads initiatives that span the entire organization, enabling significant headway to be made on the LCA targets set by the company, which are essential to its decarbonization strategy. In 2024 we updated the existing life cycle assessments on instrument panels and worked on new assessments concerning lighting products. The latter resulted following a request from a customer that was interested in calculating the carbon footprint impact that would come from purchasing the components compared to the impact from in-house manufacturing, on specific projects.

The focus on ecodesign embraces every area of the company, the goal being to bring to life Antolin's vision and offer customers **innovative and sustainable solutions** that contribute to smarter, safer, more comfortable vehicle interiors that also generate a lower environmental impact.

#### NEXUS, a new door panel concept

**The innovative NEXUS door panel concept is a clear example of the ecodesign initiatives being pursued by the company.**

The door panel is composed of a polymer with a high recycled content, while also including mono-material parts and natural or bio-based trims. This virtual door panel was conceived from a single central nexus in which, thanks to a plug and play scheme, various functionalities and finishes can be obtained to facilitate customization and recyclability across all phases of the product life cycle.

The use of recycled materials, reducing the weight, process simplification and mono-material products are the driving force behind many of the initiatives already in production, the most notable examples of which are presented below.

#### ■ Sustainable headliners

As a world leader in the production of headliner modules, Antolin strives to develop lighter and more circular headliners in order to anticipate the needs of its customers. In this regard, in 2024 a new **ultra-lightweight panoramic headliner concept entered serial production**.

It is also the **market's first sustainable headliner** made with materials sourced from urban waste, post-consumer plastic waste and end-of-life tires. In 2023 and thanks to collaboration with key suppliers, Antolin launched an headliner substrate with polyurethane obtained from organic waste and recycled textile trims. In addition to protecting natural resources and reducing reliance on petrochemical-based materials, this headliner retains the same appearance and properties of a conventional part, so its improved environmental impact does not come at the expense of its mechanical or physical properties.

#### ■ Chemical foaming technology to reduce weight

Antolin continues to push chemical foaming technology through the launch of new projects with significant weight savings. This innovation offers a **weight reduction in excess of 20%** without compromising the rigidity of the door panel.

Parts injected with chemical foam can also be recycled and the material is so ductile it can be used in different trimming parts. In view of all these benefits, and based on the "cradle-to-grave" life cycle assessment, this technology could achieve a 20% reduction in global warming potential (GWP).

#### ■ Instrument panels with recycled and lightweight content

In 2024 Antolin increased the integration of materials with higher recycled content, both post-industrial and post-consumer. It also updated several LCAs to further deepen its understanding and mitigation of the environmental impact of these components.

In recent years, thanks to its focus on sustainable innovation, the company has made progress on projects involving solutions such as **double slush skin**, a double-layered trim that not only reduces the weight of instrument panels, but also reduces the part's PVC content. With technology as an ally, Antolin is also researching the use of recycled carbon fiber materials and single-component decorative parts.



NEXUS door concept.



■ **Sustainable adhesive solutions**

**Water-based** removable adhesives are another good example of Antolin's keen focus on ecodesign and the circular economy. When a vehicle reaches the end of its useful life, these innovative solutions facilitate the separation of components and their subsequent recycling and recovery for reintroduction into the production cycle.

■ **Window regulators and sunvisors with a reduced impact**

The components business unit has been working on various sustainable developments, such as a **window regulator** made of 25% recycled plastic material but with the same mechanical properties; or a **mono-material sunvisor** with a one-piece chemical foam-injected screen that is more lightweight.

■ **HMI product design and optimization studies**

The company is developing LED lighting solutions that are not only more energy efficient, but also have a longer useful life, thus reducing electronic waste.

The alliance with E Ink is also expected to create dynamic surfaces through the use of electronic ink that —unlike traditional backlit solutions— only consume energy during color transitions, contributing to greater energy efficiency and, consequently, better driving autonomy.

**Going beyond environmental sustainability**

**These studies have led to improved safety in the use of HMI (Human Machine Interface) products by end users. A clear example is the research into tactile panel solutions.**

The use of capacitive surfaces to replace physical buttons has become the norm in recent years to offer “cleaner” and more competitive solutions. However, these solutions have been shown to decrease safety behind the wheel and increase user distractions, raising the risk of accidents.

Antolin is working on hybrid solutions that combine tactile solutions with physical buttons, striking the right balance between cost, design, ergonomics and safety.



Sunrise cockpit prototype.

**3.3.2. INNOVATION AND TECHNOLOGY FOR MORE SUSTAINABLE MATERIALS**

In addition to meeting customer demands, the continuous quest for innovation implies added value, thanks to the development and sourcing of materials with the lowest environmental impact. This is an area in which Antolin has made fresh commitments in recent years and in which it is making notable headway across **several lines of action**, which are described below:

- Monitoring and analysis of the **availability of sustainable raw materials** in the market to replace less sustainable ones.
- Verification of the technical feasibility of **incorporating sustainable materials** into the various components supplied to customers, prioritizing the increased use of sustainable plastics.
- Development of **materials obtained from renewable sources**, such as natural fibers and polyurethane foams with a high content of biobased polyols. These are used in the production of interior headliner trims as an alternative to fossil-based materials.
- Development of high added-value surface finishes using **natural materials** such as cork, minerals or cellulose in various vehicle parts.

This last line of work has been one of the cornerstones of the performance and new functionality optimization program, which forms part of the company's 3rd Strategic Innovation Plan 2022-2024. Projects include the development of fungal mycelium, one of Antolin's most important sustainability achievements in recent years.



More information on innovation and the Strategic Innovation Program can be found in [2.3.2. Sustainable innovation and value creation](#).



## Mycelium, nature and innovation

Mycelium is a root-like and thread-like fungal structure that forms the vegetative part of multicellular fungi such as mushrooms and molds. Combined with organic waste, the mycelium results in a structural material from which automotive components can be produced. Moreover, this process is CO<sub>2</sub>-neutral, as the material develops organically and directly in the mold, compared to the traditional plastic injection method.

The mycelium project also exemplifies Antolin's approach to the management and use of waste —100% biodegradable in this case— at the end of its useful life, the quintessential feature of the circular economy.

## Natural, organic and sustainable trims

The end result of the innovation ecosystem fostered by Antolin, alongside its strategic alliances, is more sustainable solutions. A good example of this is the collaboration agreement with PersiSKIN, which harnesses organic waste —specifically, surplus fruit from the persimmon harvest— to develop a natural, organic and sustainable trim for vehicle interiors, PersiSKIN<sup>18</sup> Auto.

Unlike other leather alternatives that are based on agro-food waste or by-products, PersiSKIN Auto enables over 75% organic plant-based content to be integrated into the material. This offers customers a sustainable alternative, as this trim also reduces the use of chemicals and water consumption.

The project was recognized in 2024 at El Norte de Castilla Environmental Sustainability Awards<sup>19</sup>.

## Materials composed of recycled plastics

Through its innovative products, Antolin's customers have the opportunity to choose more comfortable and durable interiors and to combat pollution caused by excessive plastic waste. As a result of the collaboration with Antex (yarn supplier) and Textil Santanderina (fabric supplier), the company's product offering includes recycled polyester fabric that has been validated for vehicle interiors, using SEAQUAL® YARN, a material composed of recycled plastics: 10% from marine origin and 90% from land-based sources. The former comes from plastic waste recovered from seas, beaches, rivers and estuaries, while the latter from land-based sources gives a second life to post-consumer waste of fully recyclable plastic (PET).



<sup>18</sup> See [2.3.2. Sustainable innovation and value creation](#).

<sup>19</sup> See [1.3. Awards](#).



### 3.3.3. SUSTAINABLE USE OF RESOURCES

Antolin's commitment to the sustainable, efficient and responsible use of resources forms part of its Environment and Strategic Policy. As a key part of the company's environmental management, this guideline calls for a reduction in consumption wherever possible, or for the use of resources of sustainable origin or from renewable energy sources when this is not feasible.

#### Consumption of raw materials

To develop its components, Antolin mainly uses two families of raw materials, for which data is provided in this report: polyol and isocyanate and plastic chippings.

- **Polyol and isocyanate**

Antolin is the world leader in the manufacture of vehicle interior trims and headliners. This production process uses polyurethane foam, which is based on two essential chemical components: polyols and isocyanates. These composite materials, to a lesser extent, are also used in the production of instrument panels and other accessories. A total of 30 Antolin companies use polyol and isocyanates in their processes.

- **Plastic chippings**

This material is essential for the manufacture of various parts, from instrument panels and door panels to pillars and smaller components used in sunvisors, window regulators and lighting elements, among others. In total, **36 centers use chippings** to manufacture plastic parts, mainly using the injection method.

#### Consumption of water and marine resources

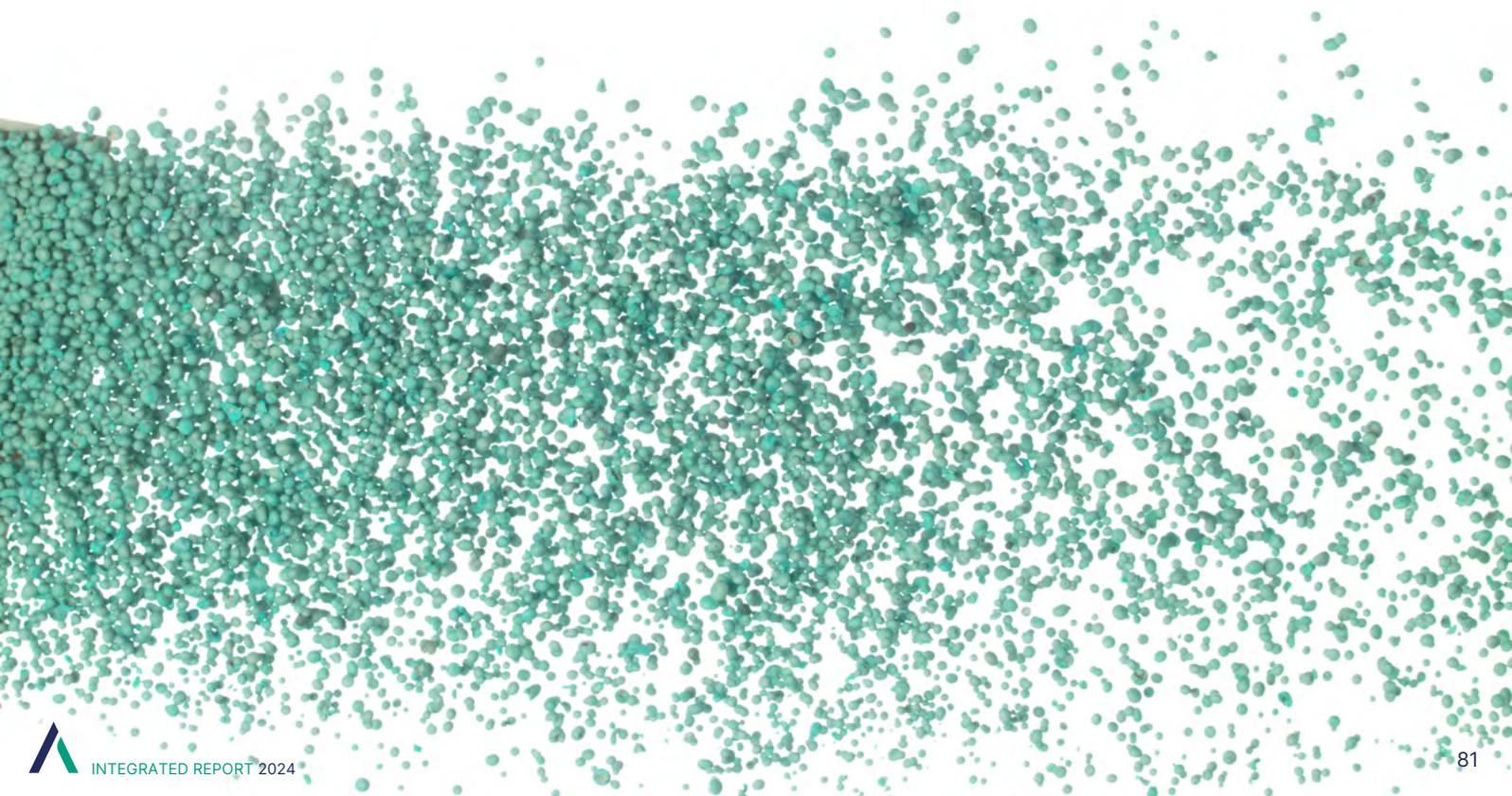
Antolin's production process is not water intensive and does not depend significantly on this resource for its operations. Only five facilities (one in Spain and four in Mexico) are located in areas with some kind of water stress, such as drought or overexploitation of aquifers. Most companies, and the former especially, apply actions that strictly control water consumption, reduce water usage and treat water for reuse to diminish the company's impact in this resource area. Water does not therefore represent a significant risk or material topic in the company's operations.

Among the measures implemented to ensure efficient water consumption, some examples include employing cooling towers, making changes to garden irrigation systems or the complete refurbishment of sanitary fittings (pipes, toilets and sinks).

Turning to marine resources, no resources of marine origin are used in Antolin's production process or in its value chain. It has been verified that there is no dependence or impact related to marine resources, which reinforces the determination that this topic is not relevant to the materiality analysis.



More information on the justification of non-material topics can be found in [6.2. Double materiality assessment methodology](#).





### 3.3.4. WASTE MANAGEMENT

As a world leader and benchmark in the development of sustainable solutions, the company also assumes responsibility for reducing the waste generated by its own production process.

To this end, it has a **waste management policy** in place made up of **three fundamental principles** that guide its activity:

- Reduce the consumption of raw materials and energy.
- Reduce waste generation as much as possible.
- Ensure control over material stocks.

The **outstanding initiatives** carried out by the various production plants, in compliance with the commitments set out in the policy, notably include:

- The **in-house recycling of plastics** through the sorting, shredding and reconditioning of plastic pellets for reuse in production, which has a clear impact on waste reduction at the work centers in the Czech Republic.
- The agreements with new waste management companies to **foster the recycling of plastics (rigid plastics)** at Henin Beaumont (France).
- The installation of new containers to **improve the sorting of waste** in Poland.
- The **reduction in the amount of hazardous waste** thanks to improvements made to waste sorting in Shenyang (China) and Tangiers (Morocco).

### 3.3.5. PROTECTING BIODIVERSITY

Antolin's activity **does not have a relevant impact on biodiversity**, as shown by the materiality analysis, which takes into account the company's various stakeholders.

In any case, Antolin monitors all possible impacts on biodiversity, especially in the 12 facilities in Spain, South Africa, China, Brazil, India and Hungary located near areas that have some kind of environmental protection. Given their zero impact, none of these companies have any additional legal requirements in respect of these environmentally protected areas. Nevertheless, they all apply the commitments undertaken in the company's Environment and Energy and Corporate Social Responsibility and Human Rights policies. In this regard, they adhere to the commitments in terms of pollution prevention and efficient water usage, as well as to the precautionary principle enshrined in these policies. There were no accidents in 2024 with an impact on the environment or biodiversity.

### Zero waste to landfill: turning waste into resources

**Antolin is a leader in the production of headliners, where 80% is dominated by GLASUTEC technology. With its "zero waste to landfill" goal, the company is constantly seeking industrial solutions to turn waste into sustainable products as part of its circularity strategy.**

One of the most salient initiatives is the **agreement with Casa DIFF in Portugal** for the recycling and recovery of waste from two of its main headliner substrate production plants in Spain. A range of technical materials made from waste is marketed under the Coretech® brand, which offers excellent acoustic isolation properties and protection against moisture for application in the construction sector.

**Through this solution, Antolin has avoided 135 tons of waste being sent to landfill in 2024, thanks to the reuse of 82% of waste generated. These percentages will gradually increase, based on the planned schedule, until 2028 which will see this amount rise to 1,500 tons.**

Furthermore, the use of Coretech® in educational projects such as the building of prefabricated schools in Mecúfi (Mozambique) by DIIIF Education generates added social value that makes this collaboration agreement a circular project in environmental, social and governance terms.



More information on the justification of non-material topics can be found in [6.2. Double materiality assessment methodology](#).