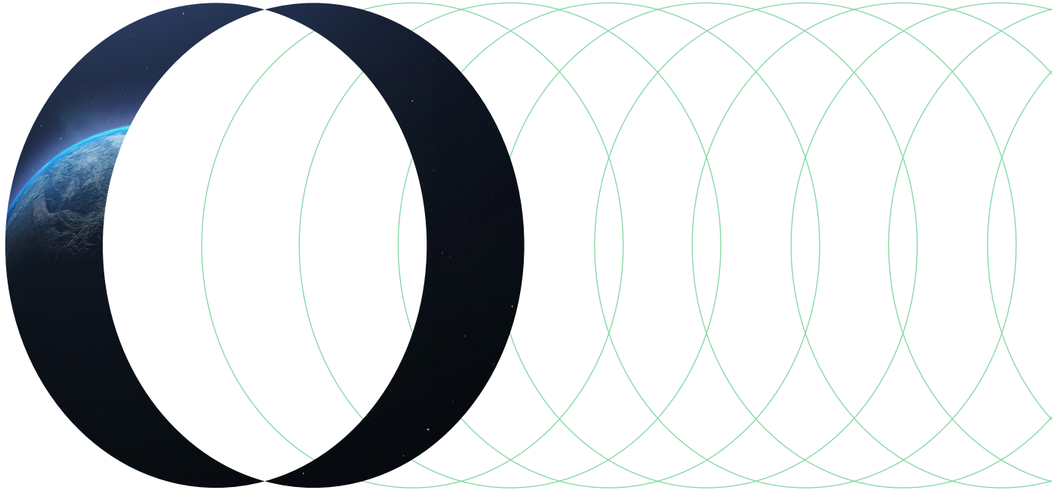
SBTi

Bondalti submitted its letter of commitment

4.

TOMORROW MATTERS **TO THE PLANET**

4.
Planet



Constant improvement in environmental performance is seen by Bondalti as forming an integral part of its entire business model. Concern for the Planet is seen holistically, observing the current and future environmental aspects and impacts of our direct activity, but also all those associated with the supply chain. We are also concerned with ensuring the environmental awareness of employees, suppliers and the local community so that the preservation of the natural environment is a priority in the ecosystem in which we operate.

Strategic SDG

Impacted SDG

By 2030, Bondalti intends to have 100% of its electrical energy from renewable sources

In 2023, environmental sustainability once again represented a mission that cuts across all areas of the organisation, with essential steps having been taken on the path that aims to contribute to decarbonisation in operations and throughout the company's value chain

This was the year in which the calculation of the carbon footprint at Bondalti Chemicals was completed, as well as environmental licensing for the Aveiro Storage Plant. The target of achieving a 50% reduction in the number of non-compliances vis-à-vis environmental law compared to 2020 was also exceeded, falling from seven to one in 2023.

Over the course of the year, new environmental projects were also initiated. One of them involved the standardisation of internal standards for environmental management processes between the two industrial sites (Estarreja and Cantabria), including changes at the level of Sustainable Purchasing, in order to create a single document.

Among the highlights of 2023, it is worth highlighting the Earth project, an initiative that will allow us to understand how, over the years, the dispersion of possible soil contaminants can occur. Divided into three stages, this project, which began in 2023 and is scheduled for completion in 2024, aims to summarise the whole gamut of monitoring carried out over the last 15 years, enabling spatio-temporal profiling, to study its evolution and develop a dashboard of indicators to which an alert system is associated.

4.1. Towards Climate Transition

The strategy outlined by Bondalti in its Climate Transition Programme, presented in 2020, comprises various action fronts, with a wide range of projects to reduce emissions, as well as water and waste management, taking place in 2023.

4.1.1. Strategic objectives

Objective	Goal	Prospects 2024-2026	Performance
Consumption of electrical energy from 100% renewable sources	2030	On track	40%
-0.7% Specific energy consumption	2025	On track	In line with the target
-50% Scope 1 GHG Emissions, compared to 2005	2030	On track	-16%
-100% Scope 2 GHG Emissions, compared to 2005	2030	On track	-39%
Reduction of other atmospheric pollutants, compared to 2005, according to PNEC (VOC, SOx, NOx, PM10)	-	Already achieved	Under review according to new legislation for PT and ES
+30% Water reuse, compared to 2012 (Estarreja site)	2030	Objective/Target under review	21%
-43% Specific water consumption, compared to 2012 (Estarreja site)	2030	Objective/Target under review	-21%
-30% Total volume of liquid effluents per ton of product, compared to 2012 (Estarreja site)	2030	Objective/Target under review	-17%
100% Non-Hazardous Industrial Waste (NHIW) recovered (Recycling) / 0% NHIW final deposition (Estarreja site)	2030	On track	-97%
Hazardous Industrial Waste (HIW) recovered* / HIW final deposition (Estarreja site)	2030	On track	-94%
-15% Production of industrial waste, compared to 2012 (Estarreja site)	2030	Objective/Target under review	+18%

* Includes incineration of waste with energy recovery

4.1.2. Investments to improve environmental performance

The year was marked by intense work on the development of the green hydrogen project, under Component 5 of the PRR. Produced using renewable energy, green hydrogen will thus allow the decarbonisation of the aniline production process – this being one of the products sold by Bondalti – as well as creating a positive environmental impact for society in general, through injection into the natural gas network.

Another set of projects started last year stems from the candidature for Component 11 of the PRR, which involves a total investment of 76 million euros and is based on two essential fronts for reducing emissions: energy efficiency and electrification.

On the energy efficiency front, the Technological Reconversion Project involved the replacement of two less efficient technologies with a state-of-the-art technology that presents lower specific energy consumption in the production of chlorine. This initiative will reduce energy consumption by around 2% and, therefore, CO_2 emissions per product produced.

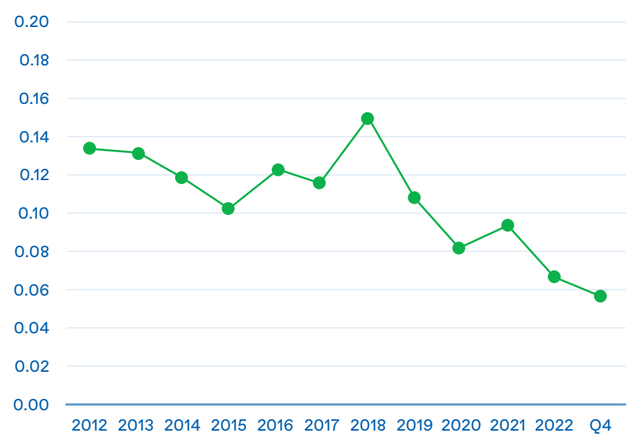
Bondalti plans to reduce natural gas consumption through the partial electrification of its steam production system.

Under the ambit of Component 11 of the PRR, there are also other structural investments in the improvement and expansion of electrical infrastructures, which will allow us to focus on increasing power, electrifying more processes, as well as connecting and self-consuming renewable energy produced in solar parks under construction at the Bondalti Chemicals site in Estarreja.

Despite a doubling of production, there was a 93% reduction in emissions of volatile organic compounds at Bondalti Chemicals, between 2005 and 2023, and a 93.8% reduction in particles

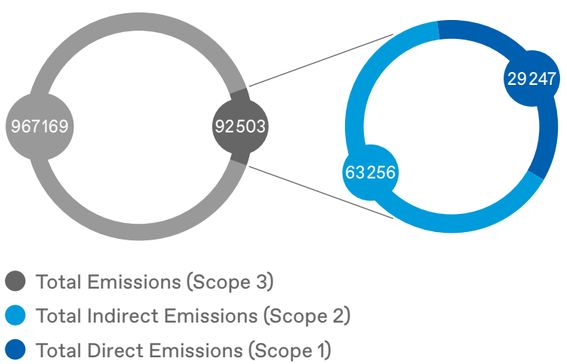
Emissions per ton of product

Total Carbon Intensity (t CO_2 eq/t product)



Total GHG Emissions in Industrial Chemicals

(t CO_2 eq)



Total GHG Emissions in Industrial Chemicals

	2021	2022	2023	Δ (%)
Scope 1 Emissions in Industrial Chemicals (t CO_2 eq)	29 395	26 327	29 247	3%
Scope 2 Emissions in Industrial Chemicals (t CO_2 eq)*	110 500	81 107	63 256	-26%
Scope 3 Emissions in Industrial Chemicals (t CO_2eq)	1 076 723	985 909	967 169	-4%
Total	**1 216 619**	**1 093 343**	**1 059 672**	**-6%**

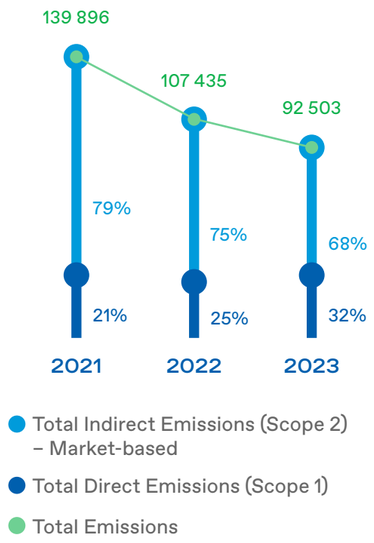
* Market-based.
To calculate the variation, the difference between 2023 and the three-year average was determined.

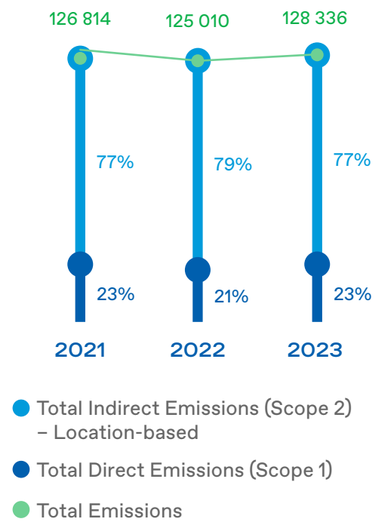
In terms of its global carbon footprint, Bondalti Chemicals achieved a reduction of 6% in relation to the three-year average, representing a reduction of 7% per ton of product produced

In terms of direct and indirect emissions, given the increase in Bondalti Chemicals' production capacity from 2012 onwards, a 2% reduction was achieved by 2019. In 2020, the year in which production activity began in Torrelavega by Bondalti Cantabria, on 31 December 2023, there was a 14% reduction in its direct and indirect scope 1 and 2 emissions, respectively

Direct and indirect GHG emissions in Industrial Chemicals

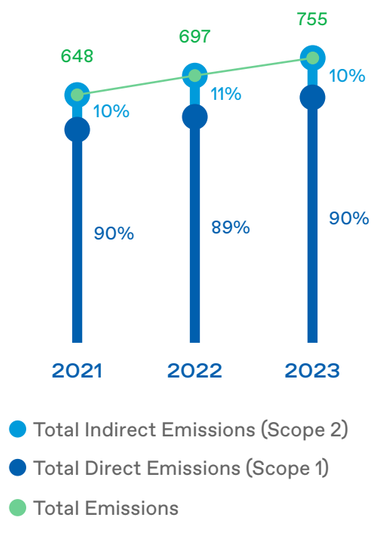
(t CO_2 eq)





Direct and indirect GHG emissions in Water Treatment

(t CO_2 eq)



Bondalti Chemicals achieved an 18% reduction in emissions in its operations (scope 1 and scope 2) compared to the three-year period

Membership of SBTi: Emissions reduction aligned with the climate science

Regarding Bondalti's climate objectives, in 2023 high-level training sessions were held on Climate Transition, which included, among others, raising awareness among employees about the urgency of climate action; the importance of joining efforts to decarbonise and involve the entire value chain; and the company's objective to set emissions reduction targets in line with the climate science. In 2024, Bondalti Chemicals SA committed to the Science Based Targets initiative (SBTi) to define science-based GHG emission reduction targets aligned with the Paris Agreement, which will be followed by their respective submission and approval by this international reference entity.

Within the framework of the SBTi, all targets must be defined in line with the most recent science-based criteria and methodologies that are considered necessary to achieve the objectives of the Paris Agreement – limiting global warming to 1.5 °C above pre-industrial levels. Bondalti Chemicals SA will submit these targets over the next 24 months.

Joining the SBTi is a sign of Bondalti's commitment to the latest climate science and global decarbonisation goals for the chemical sector.

4.2. Investments in renewable energy

By the end of 2025, with the expected completion of the projects currently underway in Estarreja, it will be possible to increase the amount of electricity produced from solar energy for self-consumption, going from a production capacity of around 2 MWp to 30 MWp, corresponding to a peak supply potential of 70% of the needs of this industrial unit.

These are projects that, in addition to energy efficiency, will represent a reduction of almost 30% in total scope 1 and scope 2 emissions, compared to 2019. Under the ambit of Component 11 of the PRR, the installation of electric batteries is also being studied to allow the accumulation of renewable energy resulting from production peaks, whenever it is not consumed when it is generated.

By 2030, Bondalti intends to obtain 100% of its electrical energy from renewable sources, through a strategy focused on self-consumption and PPA (Power Purchase Agreements with stability and price advantages). Currently, Bondalti has already commissioned 40% of its green energy consumption with guarantees of origin.

After the implementation, in October 2022, of the first two solar parks at the Estarreja plant, 2023 was the first full year of self-consumption production. With this contribution and the acquisition of electricity from renewable sources, in Estarreja and Cantabria, there was a 23.8% reduction in scope 2 emissions (Market-based).

The work developed during 2023 to increase the renewable energy component saw an important development, in January 2024, with the signing of a new agreement for the installation of another 24 720 photovoltaic solar panels on the Estarreja site, with an installed capacity of 14 MWp for self-consumption. The more than 20 thousand MWh generated annually at the facilities, from the end of 2024, will dictate a reduction of around 3800 tons in CO_2 eq emissions, thus allowing an acceleration of the energy transition process.

BONDALTI HIGHLIGHTED BY THE EUROPEAN COMMISSION

Bondalti is part of the range of pioneering companies in the green and digital transition of the chemical industry, with three projects highlighted by the European Commission (EC).

In June 2024, the EC published the first business initiatives to support the transition strategy in the sector, as part of a challenge launched a year earlier.

Portugal has three projects, originating from Bondalti, focusing on energy efficiency and environmental sustainability, to be implemented at the Estarreja unit:

- New electric boiler for steam production, replacing the current natural gas boiler. Energy production will originate from renewable sources, increasing environmental efficiency. Bondalti aims to achieve a total reduction in GHG emissions of 27.5% (54.2% scope 1 and 20.4% scope 2) compared to 2019 levels. This project should be completed and licensed in the 4th quarter of 2025.
- Photovoltaic park for self-consumption and electrochemical batteries that allow the management of surplus renewable energy.

With the completion of the investments foreseen in this project and assuming 2019 as a baseline scenario, it is expected that it will be possible to stop consuming 46 970 MWh/year of electricity from the grid, which will allow Bondalti to reduce its scope 2 emissions by 12 194 t CO_2 eq in 2025.

- New thermo-compressor that reuses high pressure steam to generate heat in the production of chlor-alkalis. Estimated reduction of around 55 m^3 of de-mineralised water per day and up to 460 kNm^3 of natural gas per year. Expected reduction in CO_2 emissions up to 3130 t CO_2/year. Project in the final construction phase, scheduled to start in April 2024.

In the first phase of this European action, the EC collected and analysed more than 80 concrete actions “that will help make Europe a more modern, resilient and climate-neutral economy”, as the European body states. Around half of the initiatives focus on safe and sustainable chemicals, alternatives to fossil fuels, green technologies (such as hydrogen and electrification), and digitalisation.

4.3. Water management

In order to manage the environmental and social impacts of the use of water resources in an industrial context, Bondalti has been prioritising the reduction of specific water consumption (consumption per ton of product).

The organisation's strategy for the efficient use of water involves reusing this resource, in an effort that, in 2023, resulted in the reuse of 21% of the water withdrawn.

Representative of this systematic action, effluents originating from the operation of cooling towers are reincorporated into other processes, promoting the circularity of water in the industrial process.

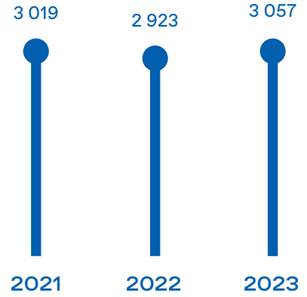
In one of the processes, water is a by-product, which is then purified and used again, for example, to produce steam.

The correct management of wastewater is also of great importance throughout the process.

Around 21% of the water used in Bondalti's production processes was reused in 2023, compared to 20% in 2017

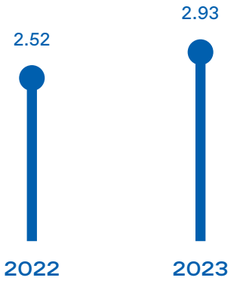
Total water withdrawn in Industrial Chemicals

(ML)



Total water withdrawn in Water Treatment

(ML)



4.4. Waste recovery

Bondalti seeks to maximise the full potential of circularity in its industrial processes by continually investing in the optimisation of the resources used. Priority is given not only to reducing waste production, but also to its recycling and recovery.

The company has been using technology and innovation to develop solutions that enable the reincorporation of waste into production processes, or its internal recovery, particularly in energy production.

Currently, the majority of waste classified as hazardous is recovered for energy in the company, through incineration to produce steam, which is integrated into the production process, or by being sent to external cogeneration plants.

In 2023, a recovery rate of 91% of the Bondalti group's non-hazardous waste was achieved, including in the Chemicals and Water areas

Industrial Chemicals Waste

Industrial Chemicals (t)	2021	2022	2023	Δ (abs)	Δ (%)
Hazardous waste	**18 343**	**16 592**	**18 470**	**668**	**4%**
Recycled	176	365	373	68	22%
Other type of recovery	3	87	80	24	43%
Incinerated	17 520	15 222	16 850	319	2%
Landfill	292	831	1 083	348	47%
Other type of disposal	352	87	84	-91	-52%
Non-hazardous waste	**292**	**470**	**232**	**-99**	**-30%**
Recycled	212	425	178	-93	-34%
Other type of recovery	57	45	50	0	-1%
Incinerated	0	0	0	0	0%
Landfill	23	0	4	-5	-58%
Other type of disposal	0	0	0	0	0%
Total waste produced	**18 635**	**17 062**	**18 702**	**569**	**3%**

To calculate the variation, the difference between 2023 and the three-year average was determined.

Water Treatment Waste

Water Treatment (t)	2021	2022	2023	Δ (abs)	Δ (%)
Hazardous waste	**15.5**	**11.9**	**11.4**	**-1.5**	**-12%**
Recycled	14.4	9.5	8.5	-2.3	-21%
Other type of recovery	0.2	1.1	2.6	1.3	99%
Incinerated	0.0	0.0	0.0	0.0	0%
Landfill	1.0	1.2	0.4	-0.5	-55%
Other type of disposal	0.0	0.0	0.0	0.0	0%
Non-hazardous waste	**36.6**	**31.2**	**46.4**	**8.3**	**22%**
Recycled	6.8	8.9	25.5	11.8	86%
Other type of recovery	6.6	4.0	0.0	-3.5	-100%
Incinerated	9.7	4.5	3.9	-2.1	-35%
Landfill	13.5	13.9	17.0	2.2	15%
Other type of disposal	0.0	0.0	0.0	0.0	0%
Total waste produced	**52.2**	**43.1**	**57.8**	**6.8**	**13%**

To calculate the variation, the difference between 2023 and the three-year average was determined.

4.5. Sharing of environmental indicators with the community

Bondalti adopts a recurring practice of sharing environmental indicators from the Estarreja site with the local community. This is a practice that falls under the ambit of the PACOPAR - Estarreja Responsible Practices Programme Community Advisory Panel.

In 2023, on World Water Day, at the conference "Estarreja and water – Transforming and Using", which was promoted by the City Council, Bondalti, on behalf of PACOPAR, publicised the efforts that have been made by companies in the Estarreja Chemical Complex (CQE) to improve water management, as well as the objectives defined for the coming years.

In 2022, on National Air Day, an action open to the population took place, also in conjunction with Estarreja City Council, in which air quality monitoring data in Estarreja was presented. The session included a presentation from the University of Aveiro on the evolution of this indicator and another from PACOPAR on emissions from the industrial hub and the improvement initiatives of each company in the CQE.

For 2024, the session will have as its central theme the CQE's action in relation to waste management.

PACOPAR was created in 2001, on the initiative of companies from the Estarreja Chemical Complex, with the aim of applying the principles of the Responsible Care programme, adopting a joint approach in responding to people's concerns and greater openness and proximity to the community. PACOPAR thus constitutes a broad forum of local agents representing various social areas, based on a relationship of good neighbourliness, cooperation and mutual assistance. This hub of communication with the community is currently made up of CQE companies and various entities in the areas of Education, Science, Health, Civil Protection, Safety, Environment and others, and focuses its activity on these themes.

BONDALTI

TOMORROW MATTERS®