



OUR CONTRIBUTION TO PLASTIC AND TEXTILE CIRCULARITY



CARBIOS

Biotechnology powering
plastic and textile circularity

Sommaire

- Editorial
- Circularity of plastics and textiles
- Carbios in a nutshell
- Our materiality analysis
- Our ESG roadmap
- Ambition 1: become a key player in circularity
- Ambition 2: Identify and reduce the environmental impact of our solutions and activities
- Ambition 3: be a responsible employer
- Ambition 4: Strengthen relations with our ecosystem
- Taxonomy
- Methodological note
- Appendices

Editorial

Our Purpose is clear: make the circularity of plastics and textiles possible on a large scale. To meet this challenge, we have developed two breakthrough innovations resulting from over ten years of research and protected by a solid portfolio of patents:

- the enzymatic recycling of PET, which makes it possible to produce virgin quality r-PET and reduce CO₂ emissions by 92%⁽¹⁾ compared to the production of virgin PET from fossil resources;
- the enzymatic biodegradation of PLA, which accelerates the composting of difficult to recycle short-life plastics.

These advances show that it is possible to sustainably transform our relationship with plastics by reducing the extraction of fossil resources and paving the way for new models of circularity.

In 2024, Carbios joined the B Corp™ community, an international certification attesting to the compliance of its practices with the most demanding social, environmental and governance standards. This distinction reinforces our commitment to placing sustainability at the heart of our strategy and development model.

Our ESG roadmap is based on four major ambitions: be a leading player in circularity, identify and reduce our environmental impacts, be a responsible employer and strengthen ties with our stakeholders. The B Corp™ certification commits Carbios to measuring, improving and reporting on its performance in each of these areas in a transparent and verifiable manner.

By building on innovation, cooperation and recognized international standards, Carbios is pursuing its ambition to transform the current linear economy into a sustainable circular model that creates environmental and societal value. We are determined to transform innovation into tangible, accessible and sustainable solutions, everywhere in the world.

This report demonstrates our commitment to implementing a corporate strategy that takes full account of social, environmental and governance issues to make our technological innovations a positive impact driver for industry and the planet.

Vincent Kamel

Chief Executive Officer of CARBIOS



(1) Source: Carbios LCA (2025), by considering the emissions avoided by the recycling of non-recovered waste in France, i.e. by substituting 75% of emissions related to incineration and comparing with the emissions from the production of virgin PET produced in Europe, i.e. at a value of 2.9 kg of CO₂-eq. per kg of PET (source: ecoinvent 3.10).

Circularity of plastics and textiles

Circularity as seen by...

> **The European Parliament:** the circular economy is a model of production and consumption which involves sharing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible so that they retain their value. This way, product life cycles are extended to reduce the use of raw materials and the production of waste².

> **The French Ministry of Ecological Transition:** a circular economy consists of producing goods and services in a sustainable manner, by limiting consumption, resource wastage and waste production. Its challenges are at the same time environmental, economic and social³.

> **ADEME:** the circular economy refers to a set of practices (such as reuse, repair, recycling) whose purpose is to preserve natural resources such as water, air, soil and raw materials⁴. The circular economy challenges the traditional model based on the linear economy of "extract, produce, consume, throw away". We regularly talk about "completing" or "closing the loop" of the circular economy, which means:

- Conserving natural resources in the economy by optimizing their use in products and services,
- Limiting what comes out of this "loop" (waste, especially non-recovered waste),
- Limiting what goes into it (extracted natural resources, raw materials).

Carbios is fully committed to transforming the linear business model into a circular system. Thanks to its innovative solutions, the Company is helping to "close the loop" of the circular economy by mobilizing all players in the value chain. This collaborative approach reduces the extraction of natural resources, while supporting sustainable economic dynamics.



353 million metric tons of plastic waste are generated every year,

with close to **22%** (78 million) falling between the cracks of the collection system, sent to landfills or incinerated, and only

9% (32 million) are recycled⁵.

- **<1%** of textile waste is recycled as fiber-to-fiber⁶.

Some definitions



> **Recycling:** According to Article L541-1-1 of the French Environmental Code, recycling is defined as: "any recovery operation by which waste, including organic waste, is reprocessed into substances, materials or products for the purposes of their initial function or for other purposes"⁷. Recycling can be "closed-loop", meaning that materials are reused to create the same product, or "open-loop", meaning the materials are transformed into different products. In the case of plastics, recycling can either make it possible to obtain the same quality of recycled material, or to have a better or lower quality. The quality of materials may be altered depending on the type of recycling process or over the course of the recycling cycles.



> **Biodegrading:** according to ADEME, "a biodegradable or compostable product can be degraded by living things". "Biodegradable materials only degrade if they are placed under the specific conditions provided: a product that is biodegradable in industrial compost will not necessarily be biodegradable in domestic composting, and even less so in water or soil. Indeed, the conditions in industrial composting are much more drastic than in home composting (in particular raising the temperature to 60-70°C inside the windrows)"⁸.

These two circular economy approaches are at the heart of the Carbios Group's business. The technologies developed aim to strengthen and structure them for polymers of interest and multiple applications.

CARBIOS IN A NUTSHELL

Our Purpose

Making the circularity of plastics and textiles possible on a large scale.

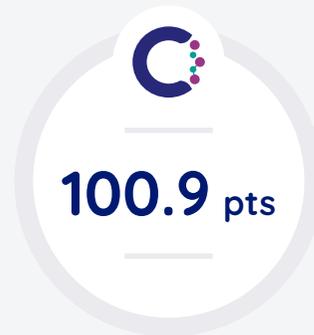
Key figures



B Corp™: an international label that promotes our social and environmental commitments

As a B Corp™ company, we are part of a global community of companies that uphold high social and environmental standards. This is a long-term commitment: to measure, progress, and continue to evolve our practices.

What does this label mean to us? Recognition of the tangible actions we are taking to place the circularity of plastics and textiles at the heart of a sustainable model. A demanding framework that pushes us to go further in our environmental, social and governance commitments. A collective ambition: to build a more sustainable model for our industry, with our teams, partners, suppliers and customers.



Minimum score required = 80 pts;
average score after 1st assessment = 50.9 pts;
Average score of certified companies = 90 pts.

2 Impact Business Models



Certified in February 2025.

A reference framework for continuous improvement



Over 500 companies certified in France.



A community of **over 9,400 companies**, in **over 100 different countries**, representing **160 industries**.

Entreprise



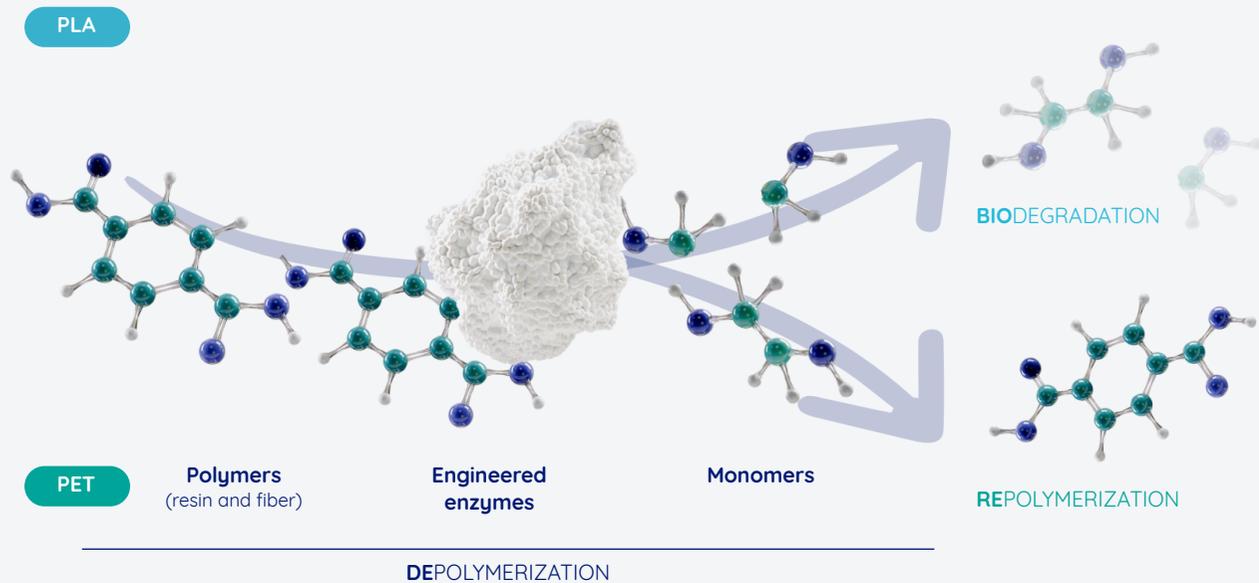
Certifiée

Our breakthrough technologies

Our technologies implement the remarkable catalytic properties of enzymes designed and developed by Carbios and its academic and industrial partners. These high-performance enzymes have the power to deconstruct existing bonds between plastic molecules. The implementation of this unique know-how, known as enzymatic depolymerization, is now reflected in the development of two major innovations:

- one dedicated to the biorecycling of PET polyester plastics and fibers; and
- the other dedicated to the biodegradation of plastics with a high PLA content.

Enzymatic solutions to reinvent the life cycle of plastics and textiles



> **PET enzymatic recycling technology** makes it possible to offer PET users or producers (brands, converters, polymer producers) a recycled product, of the same quality as virgin PET and with a reduced carbon intensity by:

- Producing high-quality recycled PET that is suitable for food contact, regardless of the type of incoming feedstock;
- Recovering currently non-recycled PET waste, such as complex packaging waste and textile waste; and
- Reducing CO₂ emissions by 92%⁽⁹⁾ compared to the current system (corresponding to the incineration of non-recycled waste and the production of PET from fossil resources).

> **PLA enzymatic biodegradation technology** provides converters and brands with a solution that accelerates the biodegradation of PLA-rich plastics by:

- Leveraging the catalytic properties of an enzyme capable of making plastics with a high PLA content biodegradable at ambient temperature; and
- Primarily targeting plastic and packaging applications which, by their nature, cannot be recycled because they are too thin, too complex to recycle or soiled by food.

(9) Source: Carbios LCA (2025), by considering the emissions avoided by the recycling of non-recovered waste in France, i.e. by substituting 75% of emissions related to incineration and comparing with the emissions from the production of virgin PET produced in Europe, i.e. at a value of 2.9 kg of CO₂-eq. per kg of PET (source: ecoinvent 3.10).

Market context

Carbios is positioned at the heart of a major industrial transformation by enabling the transition from a linear model to a circular economy. Its PET biorecycling technology overcomes the limitations of conventional approaches to sustainably meet the environmental challenge associated with the end-of-life of plastics and textiles while meeting industrial requirements. Given that around 100 million metric tons of PET will be put on the global market in 2025 and nearly 150 million metric tons per year by 2040⁽¹⁰⁾ (mainly due to packaging and textile fibers), it is all the more crucial to adopt high-performance and sustainable recycling solutions on a large scale.

A favorable French and European regulatory framework

The European Union actively supports the development of recycling through several key regulatory measures:

- The Packaging and Packaging Waste Regulation (PPWR), which imposes stringent requirements for recyclability, reuse and reduction in overpackaging;
- The Waste Framework Directive, which establishes the hierarchy of processing methods and strengthens Extended Producer Responsibility (EPR);
- The Single-Use Plastics Directive (SUP), which bans certain products and sets targets for the collection and incorporation of recycled materials; and
- The European contribution on non-recycled plastics, equivalent to €800/metric ton, paid by each Member State since 2021 to encourage recycling and finance the European recovery plan.

France, in particular, is positioning itself at the forefront of these EU ambitions with a strong policy of Extended Producer Responsibility. This specifically promotes the integration of recycled PET from waste that is difficult to recover, as enabled by Carbios' enzymatic process.

The publication of the Recycled Plastics Incorporation Order in the Official Journal on September 7, 2025, with an entry into force on January 1, 2026, marks a major regulatory turning point: it introduces a bonus of up to

€1,000/metric ton for the incorporation of recycled plastics from complex streams.

Today, Carbios' biorecycling technology is recognized by the EU and France's authorities as contributing to a sustainable chemical recycling. This recognition offers to its industrial partners a regulatory visibility and access to financial incentives, favoring the large-scale deployment of Carbios' innovation.

Demand for r-PET outstrips supply

In 2025, the European r-PET market for packaging and textiles is expected to show a demand of 1.8 million tons, against a supply of only 1.5 million tons⁽¹¹⁾. This imbalance underlines the need to develop new local production capacities to reduce dependence on imports and consequently, the carbon footprint of products marketed in Europe.

Sustainable growth drivers

The demand for r-PET is expected to grow in all applications, driven by multiple factors:

- Regulatory provisions and other incentives (bonus for the incorporation of r-PET) or dissuasive measures (tax on virgin or non-recycled plastic);
- Improving collection and sorting systems in EU member countries;
- Changing consumer expectations for more sustainable products; and
- Voluntary commitments by brands to incorporate more r-PET into their packaging.

In this context, the industrial deployment of Carbios' technology represents a strategic opportunity to address market needs by offering a solution capable of recycling raw materials not previously treated by conventional processes.



Focus on 2025 regulatory news, which is a strong signal in favor of enzymatic recycling in France

On September 7, 2025, the French government published a structuring order in favor of plastic recycling. This text introduces a bonus of up to €1,000/metric ton for the incorporation of recycled plastics from waste that is difficult to recover, particularly in sensitive applications such as food contact.

Applicable from January 2026, this scheme aims to:

- Encourage brands to incorporate more recycled plastics into their products;
- Strengthen the competitiveness of circular technologies on French and European territory; and
- Support innovation in the field of recycling.

The PET biorecycling technology developed by Carbios is fully in line with this momentum. It will allow brands to benefit from this bonus from the first kilo incorporated (i.e. below the regulatory threshold), thus offering an immediate and significant economic advantage.

(10) Source: Carbios, ICIS, Wood Mackenzie (2024) (11) Source: Wood Mackenzie, Eurostat, European Environment Agency, Carbios (2024)



Value creation model

PET markets	Customers	Products & Services	Revenues
<p>Key activities and value proposition:</p> <ul style="list-style-type: none"> • Development of an engineered enzyme and biorecycling process tailored to break down PET into valuable monomers • Production of biorecycled monomers (rPTA and rMEG) from PET waste at Carbios demonstration plant and future facilities operated in-house or under licence. • Grant of licences to third parties to deploy Carbios commercial offer 	<p>Brand owners and polymer producers</p>	<p>High quality and low carbon intensity r-PET made from biorecycled monomers</p>	<p>Revenues from the sale of r-PET</p>
	<p>Licencees (Polymer producers and waste management companies)</p>	<p>Rights of use on Carbios' PET biorecycling technology</p>	<p>Revenues from licensing activities :</p> <ol style="list-style-type: none"> 1. Upfront fee based on installed capacity. 2. Recurring royalties from enzymes consumables and sales of r-PET by licencees.
		<p>Services such as training and supervision during detailed engineering, construction, commissioning and start-up of industrial plants</p>	<ol style="list-style-type: none"> 3. Fees based on consulting and services.

PLA markets	Customers	Products & Services	Revenues
<p>Key activities and value proposition:</p> <ul style="list-style-type: none"> • Development of an engineered enzyme, which can be embedded into the core of PLA-rich plastics to make them biodegradable and compostable on both aerobic conditions (domestic composting and biodegradation in soil) and anaerobic conditions (methanization) • Industrial and commercial production of this solution in the form of an additive called CARBIOS Active at the Group's facility 	<p>Brand owners and plastic converters</p>	<p>CARBIOS Active: pellets containing an enzyme encapsulated in a biopolymer matrix, catalyzing the biodegradation of plastics and packaging with a high PLA content</p>	<p>Revenues from CARBIOS Active</p>

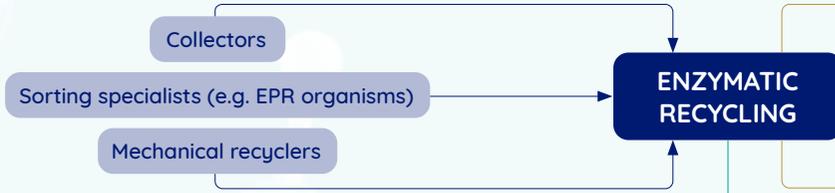
Our ecosystem



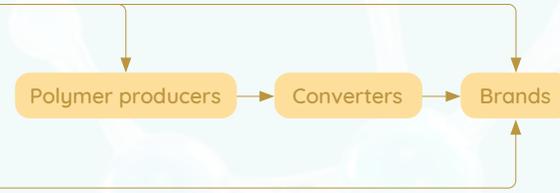
PET value chain and partners

TYPES OF PLAYERS

UPSTREAM



DOWNSTREAM



Key stakeholders:

- Investors and financial partners
- Enzyme producer (Novonesis)
- European institutions and Government bodies
- Public financiers
- Local communities
- International academic community
- NGO and civil society
- Engineering partners

EPR organisms and sourcing



R&D



Strategic shareholders



Public financiers



Professional associations



Certifications



Industrial and engineering partners



Consortia

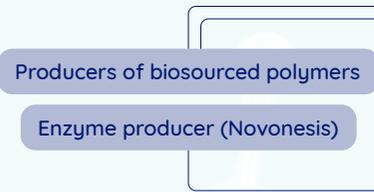




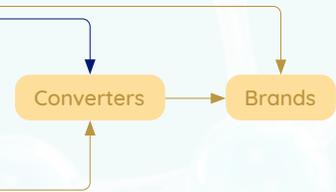
PLA value chain and partners

TYPES OF PLAYERS

UPSTREAM



DOWNSTREAM



Key stakeholders:

- International certification organisms
- Partners in the co-development of final products
- Independent experts
- Network
- Local communities
- International academic community
- Civil society

Independent experts



Recognition and certifications



Industrial and commercial partners



Network



Moving forward together: Stakeholders, modes of interaction and impact



Customers

Offering manufacturers and brands:

- An enzymatic PET recycling technology that makes it possible to effectively recycle currently non-recycled plastic and textile waste while maintaining its primary qualities;
- An innovative additive containing an encapsulated enzyme that makes plastics with a high PLA content compostable, even at room temperature;
- Personalized support in understanding our technologies and their environmental performance with environmental studies tailored to their needs; and
- Sharing of samples for testing and then moving on to Proofs of concept and market launches.

Meeting the quality requirements of manufacturers and brands:

- Implementation of an environmental management system with ISO 14001 certification;
- Certifications of our products and guarantee of Carbios' ability to produce products that fully satisfy its customers with ISO 9001; and
- Critical review of the process life cycle assessment according to ISO 14040 and ISO 14044.



Suppliers

- Deployment of the Group Procurement Policy which details Carbios' commitments and the manner in which the Company intends to interact with its suppliers; and
- Assessment of the level of maturity in terms of CSR of the main suppliers and, if necessary, collaboration on more sustainable practices.



Industrial partners

- Exclusive global partnership with Novonesis guaranteeing the supply of enzymes to future plants operated directly and under license;
- Coordination and animation of two consortia bringing together world leaders in their fields (Packaging Consortium with L'Oréal, Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe; Fiber-to-Fiber Consortium with On, Patagonia, PVH Corp, Puma and Salomon);
- Participation in the WhiteCycle project, coordinated by Michelin. This project brings together 16 European entities (public and private) to develop a circular solution for the transformation of complex plastic waste; and
- Business relations with Zhink Group (Wankai New Materials), SASA, FCC Environment UK, Selenis, Indorama Ventures, FENC and our engineering service providers to support the industrial and commercial deployment of our PET biorecycling technology.



Academic partnerships

- Strategic alliance with the Institut National des Sciences Appliquées de Toulouse (National Institute of Applied Science - INSA) through its Toulouse Biotechnology Institute (TBI) laboratory, mixed research unit (INSA Toulouse, INRA, CNRS);
- Academic collaborations around innovation projects, notably with the École Polytechnique de Paris, the Laboratoire de Génie Chimique de Toulouse, the Synchrotron SOLEIL (Paris), the University of Delaware, the University of Portsmouth, the University of Manchester, the University of Greifswald, Aminoverse (AI), the CRPP laboratory (Microfluidics);
- Co-publications in some of the world's most influential scientific journals; and
- Sponsorship with the AgroParisTech Foundation to contribute to the developments of the Copack Chair on biodegradable and compostable packaging.



Shareholders / Investors

- Investor Relations Department;
- Website comprising the regulatory documentation and all useful information for shareholders and investors (presentations, financial and non-financial reports, Shareholders' Meeting documentation, stock coverage);
- Webcast presentation of the annual and half-year results;
- Meetings with investors: 16 conferences, 7 roadshows, 183 asset management companies met and 16 countries covered in 2024;
- Responses to questionnaires from extra-financial rating agencies; and
- Proxy roadshow prior to the shareholders' meeting and engagement with proxy voting policy consulting agencies (ISS, Glass Lewis and Proxinvest).



Employees and candidates

Employees

- Organization of corporate events, team building and integration of new recruits (dedicated day and implementation of sponsors)
- Social dialog through Social and Economic Committee actions and meetings
- Employee training, particularly on safety issues (safety welcome booklet, CSR and QHSE policy, Single Occupational Risk Assessment Document, etc.)
- Raising awareness of environmental issues and eco-responsible actions (climate fresk, educational sheets, distribution of flash notes on the internal social network)
- Integration of "progress ideas" put forward by employees in the CSR action plan
- Deployment of an action plan in line with the Great Place to Work barometer, in particular via the remote working charter
- Participation in the inter-company wheelchair rugby tournament organized by the HandiSchool association
- Proposal for fruit and vegetable orders from local producers
- Waste management awareness campaign with World Clean Up Day and visit to Vernéa, the Puy-de-Dôme (France) household waste recovery hub

Candidates

- Response provided to 100% of candidates who contact Carbios
- Collaborative development of the Carbios Employer Promise, based on the active listening of a representative panel of employees and the analysis of the expectations of priority target candidates



Local and institutional authorities

- Support provided to frontline institutional partners, notably through ADEME, France 2030, the Grand-Est Region, the European Commission with the "LIFE Cycle of PET" and "WhiteCycle" programs, and the European Investment Bank.



Local communities

- Development of sustainable and transparent relations with local players, whether public, economic, social, or from university or school circles; and
- Academic partnerships dedicated to research programs or with local authorities for the deployment of industrial and commercial activities.



Civil society

- Development of innovative solutions that meet consumer expectations by addressing the challenges of plastic and textile pollution and the transition of production and consumption patterns to a more circular economy.



NGO

- Member of the Ellen MacArthur Foundation (in 2024); and
- Member of the World Alliance for Efficient Solutions of the Solar Impulse Foundation.



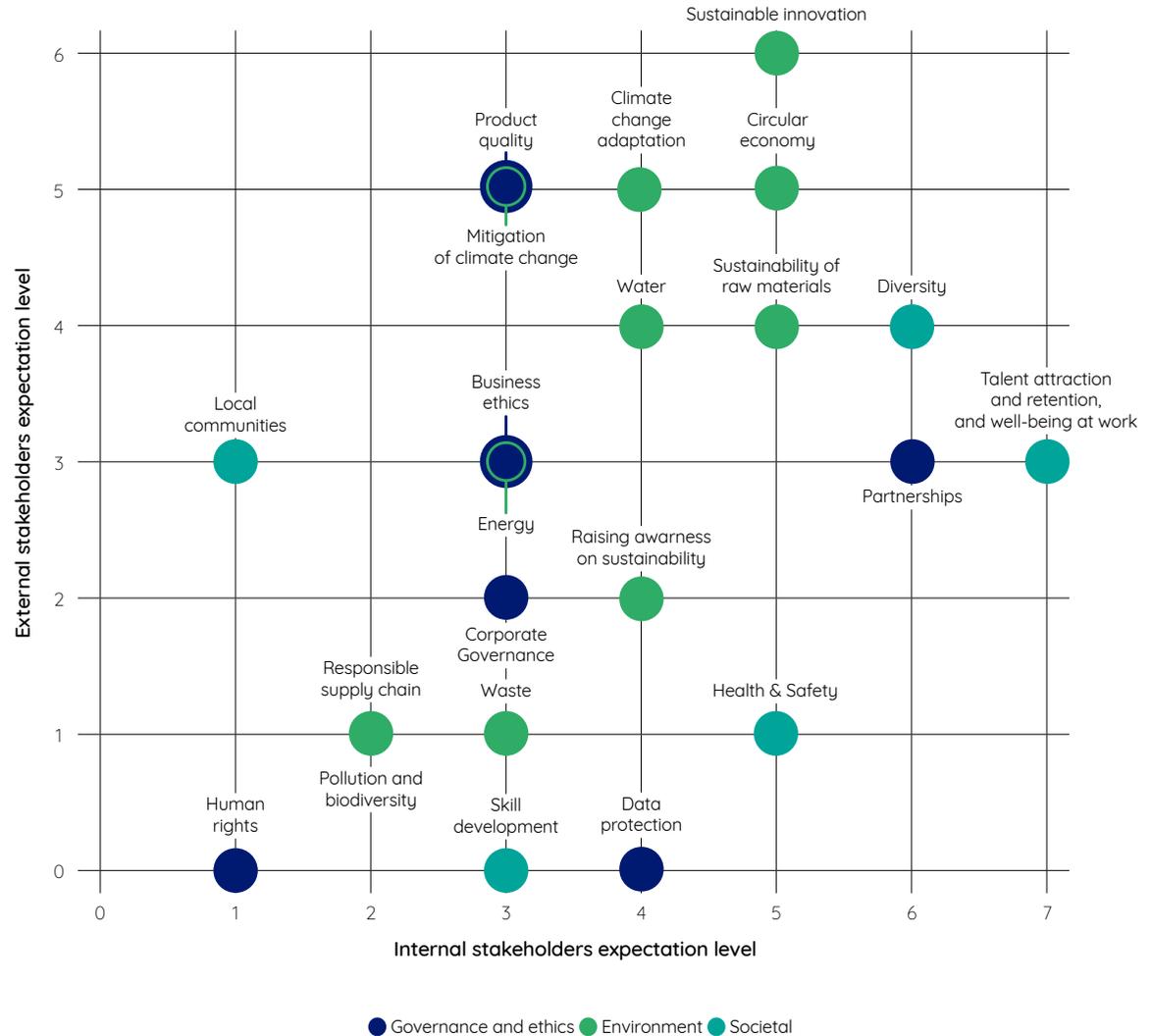
Our materiality analysis

For the fourth consecutive year, Carbios has published a sustainability report, reflecting its desire for transparency and sharing of its commitments and performance in terms of sustainable development. This proactive approach underlines Carbios' commitment to mobilizing its resources and teams for the development of technological innovations with a sustainability advantage for its industrial partners and consumers. This approach aims to deploy a circular economy model and to work for the health, safety and well-being at work of its teams.

To enhance its strategic scope, our CSR policy was built by listening to and discussing with our stakeholders. Thus, from our first sustainability report, we conducted an analysis of our material challenges in terms of environmental, social and governance issues.

The work already carried out enabled us to identify, map and question our major stakeholders in order to better understand the issues they are faced with and which Carbios must respond to. Most of the positions expressed are detailed in this 2024 report. Our ambition for the coming years is to make progress in this direction by analyzing the megatrends in our value chain and by identifying and characterizing its challenges from an ESG perspective.

Matrix of key issues for internal and external stakeholders



Our ESG roadmap

A clear strategy for a positive environmental and social impact

Sustainability is integrated at all levels of our company: from our mission to our purpose, including the management of our activities and our business model. In keeping with this focus, we have chosen to place CSR issues at the heart of our corporate strategy, with the aim of strengthening our positive impact on the environment and society. This approach is based on 4 ambitions and 11 priority challenges, anchored in the more global framework of the United Nations Sustainable Development Goals (SDGs).



Our Purpose:
making the circularity of plastics and textiles possible on a large scale



11 CHALLENGES

- .1**
Improve the recovery of plastic and textile waste
 
- .2**
Generalise and expand plastic and textile circularity through the commercialization of our technologies
 
- .3**
Identify and measure the impact of our technology

- .4**
Identify and control the impacts of our activities on the environment
 
- .5**
Develop a safe work environment

- .6**
Promote talent management and skills development

- .7**
Promote the fulfilment, commitment and well-being of our employees at work
 
- .8**
Fight discrimination and promote diversity

- .9**
Establish lasting relations with our clients

- .10**
Support and encourage our suppliers' involvement

- .11**
Grow with our local communities




Ambition #1
 Become
 a key player
 in circularity

The circularity of plastics and textiles: an essential transition, made possible by innovation and the mobilization of ecosystems

The transition to a circular economy for plastics and textiles is no longer an option but an imperative to reduce environmental pollution, preserve resources and build a more sustainable world. Currently, of the 353 million metric tons of plastic waste generated each year, two-thirds comes from short-life products, such as packaging (40%), consumer goods (12%) and clothing and textiles (11%).¹² Unfortunately, less than 10% of this plastic waste is actually recycled, while 49% ends up in landfill, and nearly 6 million metric tons pollute aquatic environments. At this rate, the OECD foresees that this type of waste will triple by 2060, with a recycling rate that would remain below 20% globally¹³.

The transformation of the current model, although complex, is now possible, thanks to the convergence between technological innovation and the development of solid collaborative ecosystems. The emergence of new solutions, such as those developed by Carbios, opens up new tangible perspectives for advanced recycling, the eco-design of sustainable materials and responsible consumption. In addition, synergies between companies, research players, public authorities and citizens create an environment favorable to the emergence of circular models. Driven by this collective ambition, the transition to virtuous management of the life cycle of plastics and textiles is becoming a reality: it is now possible to transform our waste into resources on a large scale.

Key figures



(12) Source: OECD "Global Plastics Outlook" (2022) (13) Source: OECD "Global Plastics Outlook" (2022) (14) Carbios Projection (Sources ICIS, Eunomia, Napcor, Textile Exchange)



CHALLENGE 1

Improve the recovery of plastic and textile waste

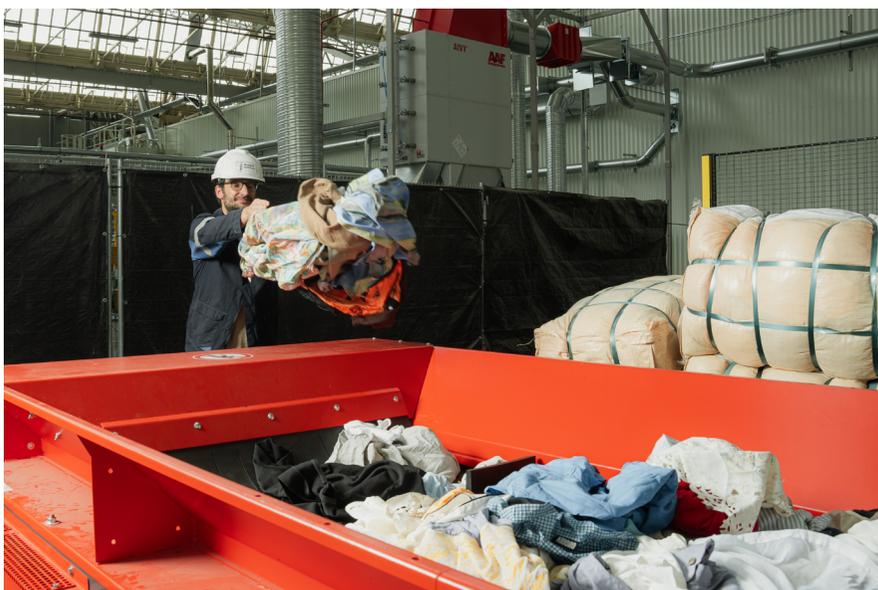
Materiality

The exponential growth of plastic and textile waste represents a major challenge for our societies: that of their recyclability. Insufficient efforts have been made to date. Recycling is mainly limited to transparent plastics, which represent only 36.6% of the volume of PET placed on the European market each year¹⁵.

Faced with this limitation, Carbios is the first company in the world to industrialize a biological recycling technology based on the catalytic properties of high-performance enzymes. This innovation makes it possible to recycle all types of PET waste, including those that cannot be processed by conventional methods, paving the way for a new generation of circular solutions for plastics and textiles.

Objective

Make currently unrecovered PET waste, such as complex packaging waste and textile waste, recyclable on an industrial scale, while ensuring a high level of quality.



Actions

Today

• Optimization of our PET biorecycling process

OPTI-ZYME project [Jan. 2023 – Dec. 2026]: Carbios benefits from the financial support of ADEME as part of the France 2030 Plan for its OPTI-ZYME project (Convention no. 2282D0513-A), carried out in partnership with INSA and INRAE. This project aims to further optimize its PET depolymerization process and guarantee its economic and environmental competitiveness. (€4.8 million received from ADEME for the start-up of the project and the completion of the first two key milestones in 2023 and 2024).

• Improving enzyme performance

> Carbios, the CNRS and the University of Bordeaux have developed a revolutionary microfluidic screening technology that can screen millions of enzymes in one day, whereas conventional technologies only processed a few thousand. This increased capacity aims to accelerate the development of Carbios' innovation portfolio, while paving the way for even more efficient solutions.

• Other collaborative projects

LIFE CYCLE OF PET project [Oct. 2021 – March 2026]: Carbios, alongside its partners T.EN Zimmer GmbH and Deloitte, participates in the European Commission's LIFE programs with the aim of demonstrating the enzymatic recycling process on a pre-industrial scale and granting the first licenses of the technology.

WhiteCycle project [Jul. 2022 – Jul. 2026]: this innovative European project with an ecosystem of 16 partners is led by Michelin and funded by the European Commission. The main objective is to develop a circular solution to transform complex waste containing PET (such as textile fibers from tires or complex clothing textiles) into high added-value products.

Tomorrow

- Deployment of proprietary and licensed industrial capacity for the large-scale processing of complex PET packaging waste and polyester textile waste.

Managers and stakeholders

- Scientific Department, Technology and Industrial Department, Programs Funding, Business Development and Regulatory Affairs Department
- Public authorities, European and local authorities, academic and industrial partners

Indicators

- 48 metric tons of PET depolymerized at the industrial demonstration plant in 2024
- 28 new patents granted in 2024
- At the end of 2024, the Group's intellectual property portfolio comprised 58 patent families representing 502 titles filed in the main regions of the world



CHALLENGE 2

Generalize and expand plastic and textile circularity through the commercialization of our technologies

Materiality

For our innovations to have a real impact on the circularity of plastics and textiles, it is essential that they can be implemented at scale. This implies an effective transition from the demonstration stage to economically viable and competitive industrial production.

Objectives

To ensure the success of this stage of our development, our efforts are now focused on the following objectives:

1. The signing of commercial agreements to ensure the industrial deployment of our PET biorecycling technology and to grant operating licenses to third parties.
2. The strengthening of our strategic partnerships to deploy our solutions (PET and PLA) on a global scale in market segments with the highest added value.



Actions

Today

• Start of construction of the Longlaville plant

In 2024, the land for the Longlaville plant project was acquired by Carbios and construction work began. The identification of waste sources and the steps to secure this supply as well as the first commercial contracts for the sale of r-PET and monomers have been initiated¹⁶.

• Strategic partnership with Novonesis, the world leader in enzyme production

Carbios and Novonesis, the world leader in enzyme production, have joined forces in an exclusive and long-term global partnership for the supply of enzymes to all future plants implementing Carbios' PET biorecycling technology and the CARBIOS Active production line.

• Licensing

In 2024, the teams continued work on the industrial and commercial development of Carbios' technology worldwide. This progress has taken the form of several Letters of Intent (LOIs) signed with a view to concluding agreements for the creation of plants operated under license, notably in China with Zhink Group (Wankai New Materials), in Turkey with SASA and in the United Kingdom with FCC Environment UK.

• Development of new partnerships with upstream players in our value chain

In 2024, Carbios also signed new partnerships with a view to securing new supply contracts for post-consumer PET waste for the future Longlaville plant. This progress has led to the signing of several memorandums of intent or collaboration agreements with major players in the collection and recycling of plastics.

• Commercial deployment of CARBIOS Active, our PLA biodegradation solution

In 2024, the CARBIOS Active solution was included in the inventory of food contact substances (FCS) of the US Food and Drug Administration (FDA) with the food contact notification (FCN) 2325. Thanks to this step, Carbios was able to initiate the first sales of CARBIOS Active on the North American market.

Tomorrow

- Restart of construction at the Longlaville plant, subject to obtaining the necessary additional financing.
- Adoption of our PET biorecycling technology by customers via licensing contracts.
- Continued commercial deployment of the CARBIOS Active solution to target its application markets in the field of PLA biodegradation.
- Geographical and application extension of our technologies.

Managers and stakeholders

- Industrialization Officer & operations teams, Chief Business Officer & sales teams, Regulation Department, Legal Affairs Department
- Polymer producers, recycling and collection players, converters, partners, customers and commercial prospects, certification bodies

Indicators

- Industrial sectors targeted: 9
- Priority geographical areas: Europe, Asia, North America
- CARBIOS Active certifications: TÜV Austria, Biodegradable Products Institute (BPI), Food and Drug Administration (FDA)
- New customer tests carried out on industrial lines for CARBIOS Active in 2024: 9

⁽¹⁶⁾ In December 2024, Carbios announced a temporary suspension of construction work on its Longlaville plant, pending the conclusion of the necessary additional financing.



Ambition #2

Identify and reduce the environmental impact of our solutions and activities

CHALLENGE 3

Identify and measure the impact of our technologies

Materiality

Our solutions are the result of continuous R&D and cutting-edge innovation that pushes the boundaries of what already exists. This is why it is essential to demonstrate their performance and robustness, so that they are widely adopted. This ability to win the support of our partners and stakeholders requires a rigorous analysis of the impact of our technologies and complete transparency in our commercial relationships.

In order to act, measure and inform, we have adopted a quantifiable and communicable continuous improvement approach, focused on reducing the impact of our activities on the environment, and shared with our stakeholders.

Objectives

1. Measure and limit the impact of our products and technologies on the environment.
2. Share the environmental footprint of our activities and technologies with our stakeholders.
3. Consider environmental performance in our investment processes and decisions.

To measure its impact, Carbios has implemented since 2018 an assessment of the environmental impact of its technologies via a life cycle assessment. In addition, in 2023, Carbios assessed the degree of circularity of r-PET resulting from its process using the MCI (Material Circularity Indicator). This tool, developed by the Ellen MacArthur Foundation, measures a product's performance by assessing the extent to which it minimizes linear flows (virgin materials and waste) and maximizes circular flows (recycling and reuse).





Actions

Today

- Update and critical review of the life cycle assessment (LCA) of our PET biorecycling technology for packaging

In 2024, our LCA was updated by a consulting firm specializing in LCA using design data from the Longlaville plant project and the ecoinvent 3.10 database. The LCA was reviewed by an independent third party in accordance with the ISO 14040 and ISO 14044 standards. LCA uses the Product Environmental Footprint impact methods recommended by the European Commission. According to these LCA results, Carbios' technology enables a 92% reduction in CO₂ emissions for the production of recycled PET compared to the production of virgin PET¹⁷.

- Update of the life cycle assessment of our PET biorecycling technology specifically for textile waste

In 2024, another project involved updating preliminary LCA of the pilot-scale process applied specifically to textile waste. The results confirm the potential for CO₂ emissions reductions equivalent to that of the packaging-specific process. This work was carried out as part of the collaborative LIFE Cycle of PET project in partnership with Deloitte Conseil and T.EN Zimmer GmbH. This program is supported by the European Commission to the tune of €3.3 million.

Tomorrow

- Regularly update our life cycle assessments to measure the impact of our continuous improvement approach and communicating these changes to our stakeholders.
- Integration of process optimization projects (e.g. OPTI-ZYME project) in the evaluation of the environmental performance of the technology via LCA.

Managers and stakeholders

- Regulatory Affairs Director in conjunction with the R&D teams, Sustainability and LCA specialist, Chief Business Officer and sales teams
- Polymer producers, recycling and collection players, members of packaging and textile consortia, converters, partners, commercial prospects, certification bodies, French (ADEME) and European public funding bodies

Indicators

- **-92% in CO₂ emissions** compared to the production of virgin PET, taking into account 75% waste end-of-life substitution¹⁸.
- **1.3 metric tons of avoided oil** per metric ton of recycled PET produced compared to one metric ton of virgin PET produced¹⁹.
- **5x more circular** than the existing system according to the results of the MCI model.
- **Treatment of all types of PET waste** using the PET biorecycling technology designed and developed by Carbios, compared to only 36.6% of PET waste sources compatible for mechanical recycling²⁰.

(17) Considering the emissions avoided by the recycling of non-recovered waste in France, i.e. substituting 75% of emissions related to incineration and comparing with the emissions from the production of virgin PET produced in Europe, i.e. at a value of 2.9 kg of CO₂-eq, per kg of PET (source: ecoinvent 3.10). (18) Source: Carbios LCA (2025). (19) An average of 13 kg of oil is required to produce 1 kg of virgin polymer - Source: Halina Marczak, Energy Inputs on the Production of Plastic Products, Journal of Ecological Engineering, 2022. 154 kg of crude oil to produce 13 kg of oil - Source: Muhammad Tamoor et al, The Cradle-to-Cradle Life Cycle Assessment of Polyethylene terephthalate: Environmental Perspective, 2022. (20) Source: Zero Waste France, 2022



CHALLENGE 4

Identify and control the impacts of our activities on the environment

Materiality

The enzymatic recycling of polyester plastic and textile waste, as well as the production of enzymatic pellets for the biodegradation of PLA short-life plastics are industrial processes that require resources. This challenge is fully taken into account by Carbios. Where possible, we have implemented tangible actions to reduce our water consumption and replace fossil resources with renewable energy sources. In order to limit the environmental footprint of our activities, we are constantly working to optimize our industrial processes and raise awareness among our teams, working closely with the players in our ecosystem. With a view to the industrial and commercial deployment of our technologies, we aim to make our low-carbon processes an environmental benchmark, thus contributing to the attractiveness and sustainable performance of our solutions.

Objectives

1. Sustain the continuous improvement approach undertaken in terms of sustainable development on the foundations of a certified Environmental Management System (EMS) using environmental analysis.
2. Carry out an assessment of the Carbios Group's carbon footprint each year to precisely identify all the levers of action to limit our footprint in our day-to-day operations.
3. Improve the energy performance of our operations.
4. Continue to optimize our processes to limit water consumption and optimize its circularity.



Actions

Today

- **Certifications of the Group's activities to the ISO 14001 standard**

Carbios structures its environmental approach according to the environmental management principles defined by the ISO 14001 standard. Clear guidelines have been established for an efficient use of resources and measures to reduce the consumption of water, electricity and waste production have been implemented, while integrating pollution prevention. Regular environmental analyses make it possible to identify significant environmental aspects and adapt action plans accordingly. At the same time, the awareness-raising of employees and the deployment of an environmental management program in each department reflect Carbios' desire to continuously reduce its impacts and strengthen its contribution to sustainability targets.

- **Annual carbon footprint covering all Group entities**

For the fourth consecutive year, Carbios has carried out a carbon footprint assessment taking into account scopes 1, 2 and 3 as defined by the Greenhouse Gas Protocol. This approach aims to identify emission sources and manage our carbon footprint as well as anticipate deployment at industrial level. In the 2024 fiscal year, the main emission sources concern scope 3, in particular purchases of goods and services, leased or fixed industrial assets, and business travel. Scopes 1 and 2 represented 5% of the total carbon footprint in 2024. A focus on scope 3 is made in the following page of this report. The methodological note in the Appendix recalls the scope, the reference framework and the methodology used to carry out the carbon footprint.

- **Raising awareness of environmental issues among Group employees**

In 2024, the CSR division organized awareness-raising sessions on environmental issues via workshops on the theme of "biodiversity and the sixth mass extinction". The QHSE division also regularly produces communications, in the form of news flashes, on significant environmental aspects, compliance with waste sorting, and the rational use of water and energy.

- **Work to further reduce the water requirement of our PET biorecycling process**

> Reducing our water consumption is a priority for Carbios. The less we consume, the more we will improve the environmental performance and competitiveness of our process. At the demonstration plant in Clermont-Ferrand, the continuous improvement of the process has already led to a 20% reduction in the volume sent to industrial wastewater treatment plants.

> Since late 2024, Carbios has also been studying at pilot-scale the recycling in the process of an aqueous effluent after treatment by a membrane process. This approach could lead to a potential reduction of approximately 50% in the overall consumption of an industrial site.

> Carbios also works with INSA (CRITT Toulouse), a public research institute, to identify additional water treatment technologies in order to guarantee the high quality of treated water as from the operational phase.

- **Obtaining the B Corp™ label**

In 2024, Carbios successfully completed the process to join the B Corp™ community. Thus, Carbios joins a network of international companies aiming to make a long-term commitment to change their practices on environmental and social aspects.



Tomorrow

- As part of the industrial operation of our biorecycling process, 90% of the water used will be returned to the natural environment after an extensive treatment that meets regulatory requirements.
- Rigorous elimination, through biological degradation and pretreatment, of residual amounts of PET depolymerization compounds from effluents.
- Establishment of recovery channels for waste produced by the CARBIOS Active industrial line (non-compliance, quality control, etc.).
- Continuation of work to guarantee the efficiency of our processes.

Managers and stakeholders

- Industrial Director, QHSE Manager, Sustainability and LCA specialist
- Independent third-party bodies, INSA, EPR collectors and eco-organizations for household waste, polymer producers, converters and r-PET end-users

Indicators

1. Greenhouse gas emissions

The Group's 2024 carbon footprint has changed scope and methodology compared to 2023. These changes concern the addition to the 2024 scope of Carbios 54, which represents less than 5% of total GHG emissions, and an update of the methodology with certain enriched categories of activities previously not taken into account. Consequently, the comparison between the 2023 and 2024 data is provided for information purposes only.

Year	2023	2024
Total [tCO ₂ e]	6,392	7,469
Scope 1	100	116
Scope 2	168	252
Scope 3	6,123	7,101

2. Reduction in water consumption per metric ton of waste treated: 20% reduction in 2023 and an additional target of 20% by 2028

3. Raising employee awareness of environmental issues: 11 biodiversity awareness sessions were organized in 2024, reaching more than 92% of employees made aware

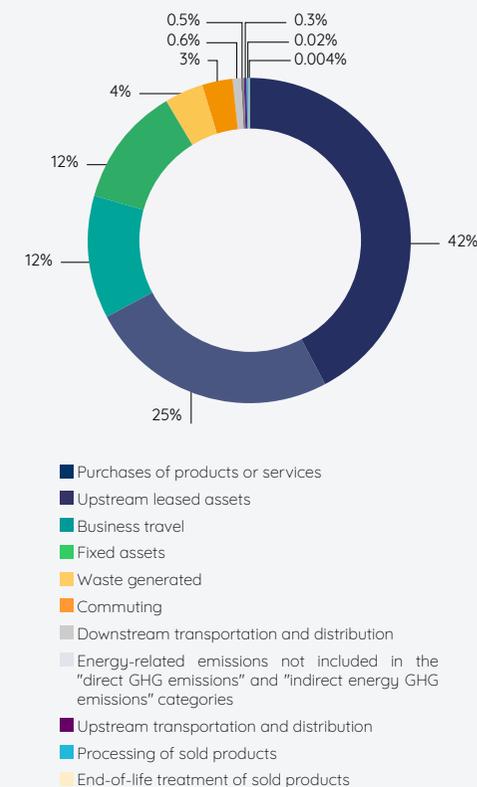
4. ISO 14001 certification obtained in December 2024

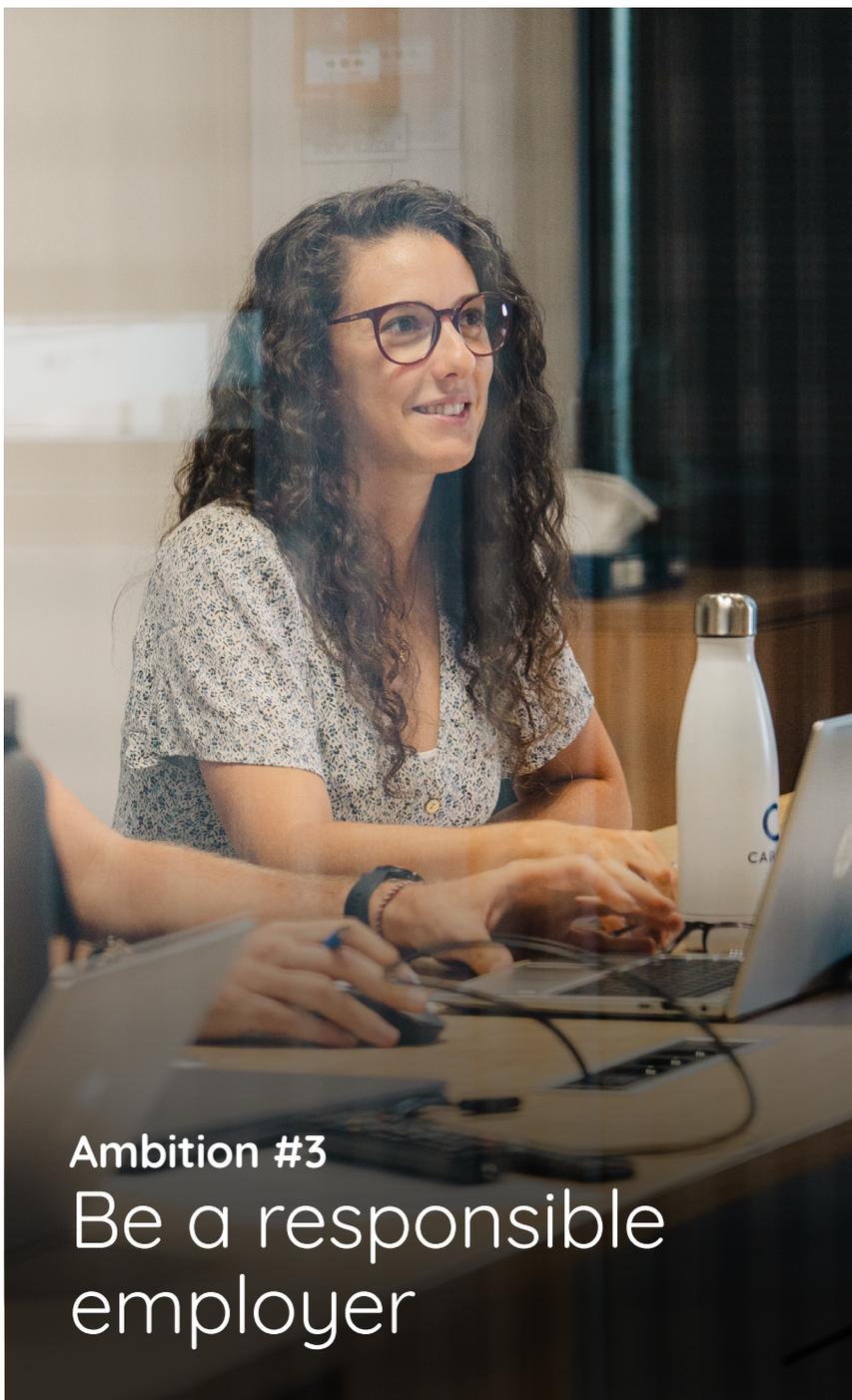
5. B Corp™ certification obtained in February 2025

Focus on scope 3 of the carbon footprint

95% of the Group's carbon footprint is linked to Scope 3. At this stage of the Company's development, purchases of products and services represent 42% of this scope, in particular services provided, raw materials purchased and used at the industrial demonstration plant, laboratories and on the CARBIOS Active production line. The second item corresponds to leased assets, such as the rental of equipment, machinery and buildings. Lastly, business travel and fixed assets in 2024 each accounted for 12% of the footprint.

Scope 3 Emissions (tCO₂-eq)





Ambition #3 Be a responsible employer

A matter of meaning

70% of 18-30 year-olds could abandon the idea of applying to a company that does not sufficiently consider environmental issues²¹. 57% could leave their job for the same reasons. This search for meaning and utility, which is far more intergenerational than we might have thought, is found in all sectors and profoundly redefines what makes a job desirable. For the students and alumni of leading schools, the environment tops the list of sought-after fields²² and companies with a strong impact in this area are now top choices, ahead of major groups. This is a sign that the value of a diploma is now intimately linked to the perceived utility of the mission it grants access to.

In this context, Greentech jobs offer a tangible response to these aspirations. They embody a strong environmental and societal utility, provided that they demonstrate consistency and commitment. CSR can no longer be considered as a peripheral approach: it represents an employer's responsibility towards its current and future employees.

CHALLENGE 5

Develop a safe work environment

Materiality

The health and safety of our employees are an absolute priority. In practice, this translates into an unwavering commitment to maintaining working conditions that guarantee the physical integrity and the physical and psychological health of our employees.

Objective

Strive for zero accidents by continuing to roll out and strengthen our Health and Safety Policy focused on the elimination of hazards, the reduction of risks, and the prevention of accidents and occupational illnesses through HSSE (Health, Safety, Security and Environment) management and a corporate culture involving all employees.



The introduction of a Quality, Health, Safety & Environment Management System provides companies with a structuring framework. With its systemic approach, it enables them to improve their performance, but also to strengthen their QHSE culture by integrating sustainable practices and engaging all stakeholders in a continuous improvement process. The management system that we have built according to ISO standard requirements helps us to structure our entire continuous improvement process by setting targets, allocating necessary resources, rolling out associated action plans and regularly reviewing performance. This approach is an effective tool for the Executive Committee to identify, measure and classify risks and opportunities, and thereby define priorities for action. It also encourages active participation from all employees, regardless of their occupation or level of contribution, towards this shared project for which their involvement is crucial. In short, this approach internally and externally highlights and solidifies the company's vision, ambition and commitments in an operational manner. //

Adeline RAMBAUD,
QHSE MANAGER



Actions

Today

- **Employee awareness-raising, training and monitoring on QHSE issues**
 - > New hires are systematically trained on health and safety according to the job profiles, so that they can perform their duties in strict compliance with the rules.
 - > Awareness-raising actions are regularly carried out for all employees on health and safety issues in the workplace through presentations, training (e.g. introduction to first aid, handling of fire extinguishers), posters (e.g. wearing PPE) or flash notes via the internal social network (e.g. changes in alert and rescue instructions, road risks, high temperatures, strong winds, snow and ice, etc.).
 - > Employees also follow all regulatory training related to their activities in order to guarantee perfect control of the risks present at their workstations. These training courses include modules relating to explosive atmospheres (ATEX), the transportation of hazardous materials (TDG), the handling of chemical products, as well as specific authorizations and certifications such as the CACES, the use of safety and protection equipment (SPE), fire risk, etc.
- **Compliance with ISO 9001 and ISO 14001, other current standards and regulations**
 - > ISO 9001 and ISO 14001 certifications obtained in 2024.
 - > The QHSE team reviews the health and safety processes to ensure compliance with the regulations and standards in force, as soon as there is a change in the process content and/or the process managers.
 - > The Group also ensures its compliance with Regulation (EC) 1907/2006 of the European Parliament and of the Council of December 18, 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals ("REACH Regulation").
- **Procedures put in place by the QHSE team**
 - > The QHSE team systematically reviews all incidents to determine the root causes and implement action plans, if necessary. In 2024, Carbios recorded three accidents with lost time (AAAT) and three accidents without lost time (ASAT), some of which led to corrective measures in terms of safety procedures and display signage.
 - > A specific reinforced system has been rolled out for laboratory staff and fire safety and first aid (SST) training courses has been set up for all these employees.
 - > Specific procedures allowing the use of CMRs²³, toxic products and the handling of class 2 and unknown strains have been put in place.
 - > The Single Occupational Risk Assessment Document (DUERP) is regularly updated (at least once a year and systematically in the event of an accident) and shared with all employees.

Tomorrow

- Continued development of the health and safety culture across all our processes. Strengthening and diversifying awareness-raising initiatives throughout the year.
- Creation of an integration monitoring tool to ensure that skills are properly acquired in the workplace and to assess an individual's ability to perform their job independently in compliance with health and safety rules

Managers and stakeholders

- Executive Committee, Human Resources, QHSE manager, employees and subcontractors
- Workplace medicine, external health and safety auditors

Indicators

Year	2023	2024
Number of accidents with lost work time (AAAT)	2	3
Number of accidents without lost work time (ASAT)	4	3
Workplace accident frequency rate (number of lost-time accidents * 1,000,000 / number of hours worked)	10.38%	11.48%
Workplace accident severity rate (number of days lost due to accidents or occupational diseases * 1,000 / number of hours worked)	0.06	0.08
Percentage of training budget allocated to safety	12%	16%



CHALLENGE 6

Promote talent management and skills development

Materiality

Carbios' ability to attract and retain talent is an essential lever in supporting the deployment of our strategy and business model. This involves identifying current and future needs, hiring, training and retaining employees, while fostering an agile and entrepreneurial corporate culture based on operational excellence, inclusion and equal opportunities.

Objective

Develop our employees' know-how, social skills and employability throughout their career, in line with our Company's strategic objectives.



Actions

● Today

- **Annual individual interviews to assess performance and manage talent**

Every year, individual interviews give employees the opportunity to review the past year and look ahead to future objectives. It is also a privileged moment of exchange to plan their professional development and formulate their aspirations in terms of training and development within the Company.

- **Information sharing and awareness-raising to strengthen our corporate culture**

Awareness-raising sessions are regularly organized for all employees on Carbios' "core" subjects, such as enzymatic hydrolysis, intellectual property, and the regulatory environment. These training courses aim to create a common base of knowledge and strengthen our corporate culture.

- **A framework for developing employee skills**

For each department, we create and update multi-skills matrices as well as job descriptions. This process allows us to precisely identify the skills needed by our employees and the related training or recruitment needs.

● Tomorrow

- Continuing to support and enhance the skills of our employees.
- Balance of training provided between know-how and social skills.

● Managers and stakeholders

- Executive Committee, Human Resources, division managers and employees
- Universities, training and certification bodies

Indicators

Year	2023	2024
Percentage of employees who received training	57%	56%
Average number of training hours per employee	23.4	13.1
Training contribution rate (training budget/payroll)	1.37%	1.84%



CHALLENGE 7

Promote the fulfilment, commitment and well-being of our employees at work

Foreword: in the context of the temporary suspension of the Longlaville project announced in December 2024, the Carbios Group set up an employment protection plan that was rolled out in 2025. The actions described below concern 2024.

Materiality

In 2024, Carbios continued its commitments to health, safety and quality of life at work. Efforts have been focused on training, risk prevention and initiatives to promote work-life balance, in order to support employees and the Group's growth.

Objectives

1. Guarantee a working environment where everyone feels respected and supported.
2. Support the Company's development.
3. Encourage open discussions on aspects related to working conditions, both on the content and organization of tasks, as well as on management, available tools, professional relations, or HR policy.
4. Ensure an attractive compensation policy.
5. Guarantee a motivating work environment enabling a work-life balance.
6. Encourage initiative, social dialog and the development of the managerial culture.

Actions

● Today

- Multiple discussions to promote social dialog, the development of the managerial culture and employee well-being in a context of transition

Our goal is to ensure an active social dialog through regular meetings at Group and team level. These meetings are an opportunity to share the Company's roadmap and progress. They also address key issues such as working conditions, compensation, health, safety and CSR.

In 2024, Carbios also formalized managerial rituals with an HR cycle and a managerial charter. Three structuring tools were put in place in 2024: a managerial charter that sets a common framework of practices and behaviors, training dedicated to managers to develop their interpersonal and leadership skills, and an HR cycle redesigned to better support career paths. This social dialog is also enriched by the actions and meetings of the Social and Economic Committee.

Following the announcement of the temporary suspension of the Longlaville project, the Carbios Group, in conjunction with the Social and Economic Committee (SEC), immediately made a listening unit available to employees 24/7, allowing everyone to have access to healthcare professionals for mental and psychological support if needed.

The Group's managers were also trained in preventing psychosocial risks within their activities and teams.

- A continuous improvement approach to guarantee fairness and transparency

In 2024, Carbios has set up a comprehensive compensation and benefits plan that included a competitive base salary, variable compensation elements including an incentive agreement based on the achievement of CSR objectives and a performance-based bonus. It was then supplemented by the deployment of an employee shareholding plan.

To guarantee its competitiveness and the fair treatment of everyone in terms of salary, Carbios has a Job mapping system and associated salary scales. Carbios also maintains salary during paternity leave and encourages internal mobility.

In addition to the compensation components, Carbios implemented a remote working charter in 2020 and used the Great Place to Work® Barometer in 2023 and 2024 to measure employee satisfaction and implement action plans to improve it.

● Tomorrow

With an open social dialogue, we will continue to act to strengthen the commitment, well-being and fulfilment of our employees, ensuring that we maintain respectful and inclusive working conditions.

● Managers and stakeholders

- Human Resources, SEC, CSR, management, employees
- Great Place to Work® certification body, Company Savings Plan Manager

Indicators

Year	2023	2024
Great Place to Work® overall score	72%	78%
Participation rate in the Great Place to Work® survey	89%	92%



CHALLENGE 8

Fight discrimination and promote diversity

Materiality

Diversity and inclusion are a real source of wealth and performance for our company. That is why we are committed to ensuring employment equity and equal opportunities for all.

Objective

Expand the topic of diversity, which is currently centered around relations between women and men, to the complementarity of forms of diversity (age, gender, disability, social diversity, etc.).



Our goal is to work towards a genuine complementarity of diversities at our company. While we have already taken important steps in terms of gender equality in the workplace, it is vital we recognize that diversity is not limited to one single dimension. We must broaden our approach to include other equally fundamental aspects: age, gender, disability, social diversity and more. By cultivating this wealth of perspectives and experience, we will create a working environment that is not only fairer, but also more innovative and efficient. This requires continued collective commitment, at all company levels, to ensure every individual has the ability to feel fulfilled and fully contribute, regardless of their differences. In future, our priority will be to cement this commitment by implementing concrete and measurable actions: it is by promoting the complementarity of diversities that we will build a sustainable and inclusive future for all.

Sophie BALMARY,
 Chief People, Legal Affairs and Communication Officer

Actions

● Today

Carbios is committed to measuring and reducing the pay gap between men and women in similar positions, whether for its technicians/supervisors or its engineers/managers.

Under its HR policy, men and women are treated equally when it comes to salary increases.

In order to fight against all forms of discrimination, Carbios has set up a procedure for collecting and processing alerts in application of French law No. 2016-1691 of December 9, 2016. This procedure, which relies on the external services of Alertcys, is accessible to internal and external stakeholders on the Carbios website. It ensures the protection of the whistleblower, the person who is the subject of the whistleblowing, witnesses and other persons involved by specifying the rights and responsibilities of the persons involved.

● Tomorrow

As part of our commitments to gender equality and diversity, Carbios, in consultation with the Social and Economic Committee, aims to formalize a three-year action plan in 2025 to set the objectives and tangible measures that will be implemented to guarantee a fair and inclusive working environment. This action plan will also cover effective compensation, hiring, training and the balance between professional activity and personal and family life.

Because we want to increase diversity at all levels, Carbios is committed to continuing its efforts to guarantee equitable representation of women in management positions and at the highest compensation levels.

Finally, our ambition is also to broaden our approach to include other aspects of diversity that are just as fundamental: age, gender, disability, social diversity, etc.

● Managers and stakeholders

- Human Resources department, SEC, employees
- Alertcys, Great Place to Work®

Indicators

Year	2024
Professional equality index and balanced gender representation	93/100
> Gender pay gap in similar positions	38/40
> Pay rise differences	35/35
> Percentage of employees receiving a wage increase after maternity leave	15/15
> Number of women among the 10 best paid employees	5/10
Percentage of over 50 years	13%
Percentage of women in the total workforce	40%
Percentage of women on the Executive Committee	30%
Percentage of women on the Board of Directors	45%
Percentage of employees with disabilities	1%



CHALLENGE 9

Establish lasting relations with our clients

Materiality

Building a strong and sustainable customer culture is a strategic lever to support the industrial and commercial deployment of our technologies. This approach is based on a detailed understanding of the needs of our target customers, whether they are brands, polymer producers, converters or industrial players involved in the packaging, textile or other plastic applications.

Integrating customer expectations into our innovation process has been instrumental in the success of our consortia. These collaborations allow us to co-construct solutions adapted to market requirements, while ensuring their relevance for end consumers.

This customer focus is also essential to facilitate the adoption of our technologies, including through the licensing of our

know-how and intellectual property. This model allows our industrial partners to deploy our processes locally, while contributing to the deployment of circular solutions at scale.

Objective

Build a sustainable business model by meeting our customers' needs and market expectations.



Ambition #4
Strengthen
relations with
our ecosystem



Actions

Today

• “Proofs of concept” during 2024 to validate our solutions with our customers

> In 2024, Carbios, L'Occitane en Provence and Pinard Beauty Pack collaborated to create and produce a limited-edition bottle of shower oil entirely made from enzymatically recycled PET. This bottle reflects a shared desire to build an efficient European industry to accelerate the transition to a circular economy.

> In 2024, Carbios and its partners in the “fiber-to-fiber” consortium, On, Patagonia, PUMA, Salomon, and PVH Corp., unveiled the very first garment made from 100% textile waste that had been enzymatically recycled into polyester. This collective achievement allows the consortium to demonstrate the viability of a closed “fiber-to-fiber” loop.

• Product quality and corporate organization in line with international standards

In 2024, Carbios obtained ISO 9001 certification for its activities, assessing the quality of the Company's organization and guaranteeing Carbios' ability to produce products that fully satisfy its customers.

• Partnerships to support our customers in their industry

> In 2024, Carbios and Selenis established a strategic partnership for the production of PETG²⁴ from Carbios' biorecycling technology for the cosmetics and health markets.

> Carbios has formed a co-development partnership with Sleever® for the development of Home Compost biodegradable PLA shrink sleeves. Through this partnership, a first concept of tamper evident seal, SEELCAP® ONEGO, was presented at the LuxePack 2024 trade show.

• The structuring of Carbios' policies for our employees and suppliers to build a customer culture and reflect our values

Since 2023, Carbios has adopted a code of conduct (or ethics charter). In 2024, Carbios also rolled out a purchasing policy for its suppliers in order to sustain existing relationships and ensure the smooth supply of future production.

Tomorrow

- Build partnerships with players in the value chain to contribute to the circularity of PET.
- Develop and strengthen our customer relationships.
- Experimentation and tests of our products with our customers.
- Bring to market products designed with our technology.
- Continuation of the structuring of the Group's policies and internal organization to meet certifications and regulations in place in the various markets.

Managers and stakeholders

- Chief Business Officer, R&D, Innovation, Production, Regulatory Affairs Director, Legal Affairs Officer
- Partners of the Packaging and Textiles consortia, polymer producers, converters, certification bodies (FDA, AFNOR, Biodegradable Products Institute, TÜV Austria)



Indicators

PET biorecycling

- Consortia: 2
- Number of market activations: 1
- Number of Proofs of concept: 3

PLA biodegradation

- Number of customer tests in 2024: 9
- Product certifications²⁵ in 2024: 2

CHALLENGE 10

Support and encourage our suppliers' involvement

Materiality

To ensure the commercial deployment of our innovative solutions dedicated to the recycling and biodegradation of plastics, it is essential to involve our entire ecosystem. Carbios' ambition is to promote a sustainability dynamic that goes beyond the sole scope of its activities. Our suppliers play a key role in achieving our CSR commitments. Identifying risks and opportunities within our value chain, as well as implementing tangible action plans, require a collaborative approach, based on taking into account the specificities of each stakeholder and actively supporting our customers and suppliers.

Objectives

1. Prioritize suppliers located close to our sites, for a comparable offer.
2. When choosing suppliers, consider their commitments and achievements in terms of CSR and assess them accordingly.



Actions

● Today

In 2024, Carbios communicated to its stakeholders on its vision, its commitments and the way in which it wishes to interact with its partners, suppliers and service providers through the development of the Group's purchasing policy. For Carbios, consideration of social and environmental stakes is one of the major pillars of its responsible procurement policy, and therefore the foundation for lasting relations with its partners.

This approach, combined in 2024 with the collection of CSR data from our main suppliers, should enable us to integrate social and environmental criteria into their assessment and to define together the possible areas for improvement, where necessary. This first step allows Carbios to establish an initial framework to support the development of responsible purchasing.

● Tomorrow

- Extension of the deployment of the Group's Purchasing Policy to more suppliers.
- Continuing the assessment process of our suppliers and monitoring of rectification plans where necessary.
- Dialog with our suppliers to improve the quality of their products and their commitments.
- Securing of the supply needs of our sites and supporting our licensees.

● Managers and stakeholders

- CSR, management, employees
- Suppliers

Indicators

- Number of questionnaires sent / or suppliers under assessment: 60
- Questionnaire return rate: 55%

CHALLENGE 11

Grow with our local communities

Materiality

True to its values, Carbios wishes to actively participate in the development of the regions in which the Group operates. This desire is part of a logic of returning to the territories that support our growth and create the conditions favorable to our success.

We are thus pursuing our commitment to strengthening the local economic, academic and social fabric, by promoting synergies with regional players and contributing to a sustainable territorial dynamic, wherever we develop our activities.

Objectives

1. Contribute towards developing new sustainable material sectors and become involved in territorial dynamics.
2. Encourage scientific careers.



Focus on the partnership with the CGénial Foundation

Carbios is partnered with the CGénial competition, jointly organized by the “Science at School” ministerial scheme and the CGénial foundation. This competition promotes science and technology education in middle and high schools. It enables young students to present a didactic and innovative project in a multitude of scientific disciplines, including physics, chemistry, mathematics, technology or life sciences, with the assistance of their teachers. The 2023 instalment saw 91 high school projects and 272 middle school projects, with 7,461 students involved across all academies in metropolitan France and overseas territories. The awards bestowed on winning projects enable them to take part in EU Contests for Young Scientists (EUCYS) or in international contests (CASTIC) and to be invited to visit companies in France and abroad. This provides them with the concrete means of witnessing the prospects offered by scientific and technological studies.

Pushing our doors wide open to present our careers

11 IESF Auvergne (Engineers and Scientists of France) postgraduates met with the Carbios teams as part of the “Postgraduates in Companies” program. This initiative enables postgraduate students to prepare their professional integration by further introducing them to the corporate world and the work a postgraduate can accomplish. This was an opportunity for them to visit our laboratories, our pilot and our industrial demonstration plant, as well as to talk to postgraduate employees within Carbios.

Actions

Today

- The Group maintains relations with employment and training players in local communities.
- Prior to obtaining the building and operating permit for the future Longlaville plant, consultations were held in the area (residents) to identify and respond to the issues raised locally.
- In February 2024, Carbios welcomed Mr. Bruno Le Maire, former Minister of the Economy, Finance and Industrial and Digital Sovereignty, to its headquarters in Clermont-Ferrand, where its industrial demonstration plant is located. In the presence of stakeholders from the textile industry, local representatives, partners and investors, through his visit, the Minister pledged his support for innovation and the creation of a textile recycling industry.
- Foundation stone laid for the Longlaville plant project in April 2024, in the presence of local players and partners in our value chain.

Tomorrow

- Strengthen Carbios’ involvement in all the regions where its activities are carried out, particularly within the life of associations.
- Development of a stakeholder engagement plan, including local communities.

Managers and stakeholders

- Executive Committee, management, employees
- Local communities, associations, schools and universities, network

Indicators

- Number of collaborations with schools and universities: 5
- Number of major events organized in connection with local communities: 2

Taxonomy

Recap of the regulatory framework

Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, or the Green Taxonomy Regulation, is a system to classify activities that aim to promote sustainable investment. The goal is to establish a common framework to define “sustainable” activities, in order to redirect capital flows towards sustainable investments and limit greenwashing. To this end, companies must indicate the extent to which the activities they are involved in comply with the economic activities formally defined as sustainable by the Taxonomy, in reference to six environmental objectives set out by the Green Taxonomy Regulation as follows:

- Climate change mitigation (Objective 1);
- Climate change adaptation (Objective 2);
- Sustainable use and protection of water and marine resources (Objective 3);
- The transition to a circular economy (Objective 4);
- Pollution prevention and control (Objective 5);
- The protection and restoration of biodiversity and ecosystems (Objective 6).

Next steps

The obligation of publication does not currently apply to Carbios. The Group undertook its first taxonomy analysis on its activities in 2022. This work enabled Carbios to identify the activities eligible for the taxonomy and assess their alignment with the taxonomy's criteria.

Carbios has included in its future roadmap a reassessment of the eligibility and alignment of its activities with the taxonomy, including both R&D activities and industrial and commercial activities under development.



Methodological note

Reporting period

The period used for the annual reporting for 2024 is the calendar year from January 1 to December 31, 2024.

Reporting scope

Unless otherwise indicated, the scope taken into account for the sustainability report is identical to the one considered for the consolidated financial statements. This includes Carbios S.A., as well as its subsidiaries Carbiolice and Carbios 54, collectively referred to as "the Group".

2024 Carbon footprint

The scope of the carbon footprint for the 2024 fiscal year includes three entities: Carbios (industrial demonstration plant, headquarters and support functions, R&D and pilot line, enzymology laboratory in Toulouse); Carbiolice (production line, R&D, support functions and headquarters included in Carbios) and Carbios 54 (to date: start of construction, inclusion of site consumption due to the construction site and offices).

For the calculation of the carbon footprint, the reference followed is the GHG Protocol standard. The carbon footprint methodology is applied to carry out the calculation with the monitoring and expertise of Carbone 4 on the subject. The databases of emission factors used are ecoinvent 3.9 and the ADEME carbon database.

The entities' physical activity data was collected via internal Group contributors using the internal ERP system, traceability files, purchase orders and utility consumption statements. Monetary data were collected with the accounting department by identifying the necessary sub-items based on the year 2023 and the physical data collected.

The carbon footprint calculation file was reviewed by Carbone 4 to ensure the consistency of the results and the correct application of the methodology. Carbone 4 has also reviewed the new assumptions related to the change in scope and the emission factors added for new activities.

The 2024 carbon footprint is the fourth carried out by the Group on an annual and voluntary basis. Compared to 2023, the scope of the footprint was enriched in 2024 with the integration of Carbios 54, the subsidiary dedicated to the Longlaville industrial site, as well as new activities previously outside the scope. This change reflects the ramp-up of operations and allows a more complete representation of Carbios' commitments and impacts. The independent consulting firm Carbone 4, a specialist in energy and climate issues, has issued a favorable opinion on the methodology and result of the Carbios Group's 2024 carbon footprint following its monitoring during the production and the review carried out.



Appendices

Governance

	Unit	2022	2023	2024
Risk of dilution of minority shareholders				
Share of capital held by founders, families and executives	%	0.42	1.05	1.05
Control of the share capital (≥ 34% shareholding) by a shareholder or group of shareholders	Y/N	NO	NO	NO
Share of capital held in treasury stock	%	0.03	0.10	0.26
Share of capital held by employees (excluding executives)	%	0.00	0.00	0.08
Share of capital held by other shareholders holding at least 5% of total shares	%	11.73	5.60	5.60
Existence of double voting rights	Y/N	YES	YES	YES
Composition of governance bodies				
Separation of the roles of Chairman of the Board of Directors and Chief Executive Officer <small>(1): Effective separation of roles from January 1 to December 18, 2024 and again from March 20, 2025</small>	Y/N	YES	YES	YES ⁽¹⁾
Number of members of the Board of Directors	VA	11	11	11
Number of women on the Board of Directors	VA	4	4	5
Percentage of women on the Board of Directors	%	36	36	45
Number of executive members on the Board of Directors	VA	1	1	1
Number of board members representing a significant shareholder (holding > 10% of shares or voting rights) (excluding founders and families)	VA	0	0	0
Number of (non-executive) members representing founders and families on the Board of Directors/Supervisory Board	VA	1	1	1
Number of employee representatives on the Board of Directors	VA	0	0	0
Number of independent directors	VA	7	7	7
Number of members on the Executive Committee	VA	8	11	10
Number of women on the Executive Committee	VA	2	5	3
Percentage of women on the Executive Committee	%	33	45	30
Operation of governance bodies				
Commitment to comply with the recommendations of a corporate governance code (Middlenext)	Y/N	YES	YES	YES
Assessment of the functioning of the Board of Directors	Y/N	YES	YES	YES
Number of Board of Directors meetings	VA	8	9	9
Average attendance rate of directors at Board meetings	%	97	95	93
Existence of an Audit Committee whose Chairman is independent and has significant experience in audit/finance	Y/N	YES	YES	YES
Existence of a Compensation and Appointments Committee	Y/N	YES	YES	YES
Existence of a CSR Committee	Y/N	NO	YES	YES
Number of CSR committee meetings	VA	N/A	2	2

Appendices

Governance

	Unit	2022	2023	2024
Compensation of executives and board members				
Total amount of compensation paid to members of the Board of Directors	€K	298.84	239.00	154.80
Total compensation paid to the Chief Executive Officer (excluding compensation as a Board member)	€K	358.62	674.78	760.41
Transparency on variable compensation criteria for the Chief Executive Officer	Y/N	YES	YES	YES

Business ethics

Publication of a formalized business conduct and anti-corruption policy	Y/N	YES	YES	YES
Activities in countries exposed to corruption risks	Y/N	NO	NO	NO
Existence of a whistleblowing system on which the Company communicates proactively with employees	Y/N	YES	YES	YES
Existence of a formal procedure for collecting and processing alerts	Y/N	NO	YES	YES
Number of warnings / questions / requests for advice received by the alert system	VA	0	0	0
Number of convictions for violations of anti-corruption laws during the reporting year	VA	0	0	0
% of alerts processed within 6 months	%	N/A	N/A	N/A
Share of audit fees out of total statutory auditors' fees	%	55.87	30.88	36.26
Public controversy (well-founded or not), litigation or unfavorable court decision in the last three years	Y/N	NO	NO	NO

CSR policy / Social and Environmental Performance

Formalization of a structured CSR/ESG strategy (with or without targets)	Y/N	YES	YES	YES
Analysis and classification of the Carbios Group's ESG challenges	Y/N	YES	YES	YES
Commitment to achieve one or more of the UN Sustainable Development Goals (SDGs)	Y/N	YES	YES	YES
Signatory of the UN Global Compact	Y/N	NO	NO	NO
Existence of a specific manager for CSR / sustainable development challenges	Y/N	YES	YES	YES
Presentation of the CSR strategy to the Board of Directors during the year	Y/N	YES	YES	YES
Annual review of the company's environmental and societal performance conducted by the Board of Directors	Y/N	NO	YES	YES
% of employees trained in CSR challenges	%	N/A	87.2	93.0

Cybersecurity / Data Protection

Existence of data management and cybersecurity measures (e.g. privacy policy, etc.)	Y/N	NO	YES	YES
Compliance with European GDPR regulation (General Data Protection Regulation)	Y/N	YES	YES	YES
Existence of a Data Protection Officer (DPO)	Y/N	NO	NO	YES
Presentation of IT risks to governance bodies at least once a year	Y/N	YES	YES	YES

Appendices

Social	Unit	2022	2023	2024
Characteristics and social policy				
Existence of a Human Resources Department at Group level	Y/N	YES	YES	YES
Total workforce at end of fiscal year (in FTE, including fixed-term contracts, interim contracts, etc.)	VA	101	147	187
Permanent workforce - End of fiscal period (in FTE)	VA	96	129	165
Female employee workforce in FTE at end of fiscal year	VA	45	54	65
Permanent workforce - End of fiscal year (in FTE)	VA	3	5	5
Non-permanent workforce at the end of the fiscal year (in FTEs: fixed-term contracts, temporary contracts)	VA	5	5	9
Female non-permanent employee workforce in FTE at end of the fiscal year (12.31.N - fixed term contract)	VA	2	7	13
Headcount in training (apprentices, work-study students, etc.)	VA	5	13	14
Share of the total workforce located in the country of headquarters	%	100	100	100
Gender equality index: Pénicaud index for France	VA	59	94	93
Turnover rate	%	40.4	25.8	35
Working conditions				
Publication of a commitment to promote freedom of association and social dialogue	Y/N	NO	NO	NO
Departure rate of permanent employees (number of permanent employee departures (FTE) / total workforce (FTE))	%	17.8	7.5	28.0
Existence of profit-sharing schemes (incentives, employee shareholding, etc.), excluding legal schemes	Y/N	YES	YES	YES
Number of employees operating under collective agreements	VA	101	147	189
Employee surveys conducted in the last three years	Y/N	YES	YES	YES
Share of workforce operating in countries sensitive to fundamental rights at work	%	0	0	0
Skill development				
Share of workforce having an annual personal performance review	%	100	100	100
Percentage of employees having received training during the year	%	55	57	56
Average number of training hours per employee	HR	15.3	23.4	13.1



Appendices

Social	Unit	2022	2023	2024
Diversity / Equal opportunities				
Percentage of women in workforce	%	48	42	40
Percentage of women in managerial workforce	%	48	40	42
Percentage of employees with disabilities	%	1	1	1
Percentage of employees over 50 years old in the permanent workforce	%	12	22	13
Average age of employees	VA	34	37	37
Health & Safety				
Existence of a HSS (Health, Safety, Security) management system	Y/N	YES	YES	YES
Workplace health & safety risk analysis conducted, including psychosocial risks	Y/N	NO	YES	YES
Regular health and safety training programs for employees	Y/N	YES	YES	YES
Percentage of training budget allocated to safety	%	21	12	16
Absenteeism rate due to unjustified absences, illnesses and workplace accidents (excluding maternity leave and other authorized leave)	%	3.1	1.2	1.6
Number of accidents with lost work time (AAAT)	VA	0	2	3
Number of accidents without lost work time (ASAT)	VA	1	4	3
Number of internal audits conducted	VA	0	0	1
Workplace accident frequency rate	VA	0	10.38	11.48
Workplace accident severity rate	VA	0	0.06	0.08



Appendices

Environment

	Unit	2022	2023	2024
Environmental policy and management system				
Existence of a formalized environmental policy	Y/N	YES	YES	YES
ISO 14001 certification (% of Group sites, Carbios and Carbiolice)	Y/N	NO	NO	YES
Percentage of products/services having been the subject of a Life Cycle Analysis (LCA)	%	50	100	100
Total provisions for environmental risks	€K	0	0	0
Percentage of products/services with a recognized environmental label/ecolabel	%	50	50	50
Animal Experimentation/Testing	Y/N	NO	NO	NO
Biodiversity				
Sites or activities located near biodiversity-sensitive areas	Y/N	NO	NO	NO
Land degradation, desertification or soil sealing related to the Group's activity	Y/N	NO	NO	NO
Energy and GHG				
Existence of a quantitative climate objective (energy, GHG emissions)	Y/N	NO	NO	NO
Measures to reduce energy consumption and greenhouse gas emissions	Y/N	YES	YES	YES
Total electricity consumption	MWh	222.0	896.4	1,490.0
% of electricity from renewable sources	%	100	100	100
Total gas consumption (heating)	MWh	178.6	619.6	739.0
Total energy consumption	MWh		1,875.3	2,911.4
Greenhouse gas emissions for scope 1	tCO ₂ e	68	100	116
Greenhouse gas emissions for scope 2 - location-based	tCO ₂ e	37	168	252
Greenhouse gas emissions for scope 3	tCO ₂ e	4,757	6,123	7,101
Total emissions (Scope 1 + 2 + 3)	tCO ₂ e	4,862	6,392	7,469
Water				
Total water consumption	m ³	2,357	1,973	3,376
Commitment to reduce water consumption per metric ton of PET waste treated	Y/N	NO	YES	YES
Waste				
Existence of an action plan for waste management	Y/N	YES	YES	YES
Non-hazardous waste generated	T	1,250	290	71
Hazardous waste generated	T	8	23	15
Recycled waste	T	0.7	73	43



Appendices

External stakeholders / suppliers / clients

	Unit	2022	2023	2024
Supplier relations / Supply chain				
Responsible procurement policy integrating social and/or environmental criteria	Y/N	NO	YES	YES
Existence of ESG requirements in terms of selection and choice of partners	Y/N	NO	YES	YES
Relations with clients, civil society and product responsibility				
Existence of a quality management system	Y/N	NO	NO	YES
ISO 9001 certification (% of Group sites, Carbios and Carbiolice)	%	0	0	100
Implement regular corrective actions by QHSE to drive continuous improvement	Y/N	NO	YES	YES
Customer satisfaction surveys conducted in the last three years	Y/N	NO	NO	NO
Presence of subsidiaries registered in countries with a risk of financial opacity or tax havens	Y/N	NO	NO	NO
Number of interns, apprentices, PhD students, etc.	VA	9	14	35

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