

UNIVERSAL REGISTRATION DOCUMENT 2022

comprising the annual
report, the management
report and the corporate
governance report



CARBIOS



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Société anonyme (public limited company) with a Board of Directors and share capital of €7,887,130.30
Registered office: Cataroux site - 8 rue de la Grolière - 63100 Clermont-Ferrand
531 530 228 RCS Clermont-Ferrand

UNIVERSAL REGISTRATION DOCUMENT 2022

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This Universal Registration Document was filed on April 12, 2023 with the Autorité des Marchés Financiers (AMF), as the competent authority in respect of (EU) Regulation No. 2017/1129, without prior approval, in accordance with Article 9 of said regulation.

The Universal Registration Document may be used in support of a public offering of securities or the admission to trading of financial securities on a regulated market if it is supplemented by a transaction note and, if applicable, a summary note and all amendments made to the Universal Registration Document. The set of documents is approved by the AMF in accordance with (EU) Regulation No. 2017/1129.

Pursuant to Article 19 of (EU) Regulation No. 2017/1129, the following elements are included by reference in this Universal Registration Document:

- the separate financial statements for the fiscal year ended December 31, 2020 and the related Statutory Auditors' report as presented in sections 5.1 (pages 80 to 105) and 5.3 (pages 106 to 107) of the Universal Registration Document filed with the AMF on April 14, 2021 under the number D.21-0306;
- the review of the Company's results and financial position for the fiscal year ended December 31, 2020, presented in section 2.1 (pages 34 to 42) of the Universal Registration Document filed with the AMF on April 14, 2021 under the number D. 21-0306;
- the separate financial statements for the fiscal year ended December 31, 2021 and the related Statutory Auditors' report as presented in sections 5.1 (pages 98 to 122) and 5.3 (pages 123 to 124) of the Universal Registration Document filed with the AMF on April 20, 2022 under the number D. 22-0317;
- the review of the Company's results and financial position for the fiscal year ended December 31, 2021, presented in section 2.1 (pages 43 to 54) of the Universal Registration Document filed with the AMF on April 20, 2022 under the number D. 22-0317;

- the pro-forma simplified and consolidated financial information for the fiscal year ended December 31, 2021 and the related Statutory Auditors' report as presented in sections 5.4 (pages 128 to 130) and 5.5 (page 131) of the Universal Registration Document filed with the AMF on April 20, 2022 under the number D. 22-0317; and
- the consolidated financial statements prepared under IFRS for the fiscal year ended December 31, 2021 and the related Statutory Auditors' report as presented in sections 5.6 (pages 132 to 182) and 5.7 (page 183) of the Universal Registration Document filed with the AMF on April 20, 2022 under the number D. 22-0317.

The information included in these two Registration Documents, other than those referred to above, is replaced or updated by the information included in this Universal Registration Document. These two Registration Documents are available at the Company's registered office and on its internet site www.carbios.com.

Copies of this Universal Registration Document are available free of charge at Carbios' registered office, Site de Cataroux - 8, rue de la Grolière - 63100 Clermont-Ferrand - France, the Company's website (www.carbios.com) and the AMF's website (www.amf-france.org).



In this document, the terms:

- “Carbios” or the “Company” refers to the Carbios company.
- “Universal Registration Document” refers to this document.

Forward-looking information

This Universal Registration Document contains statements regarding the Company’s objectives and areas of development. These statements are sometimes identified by the use of the future and conditional tenses and terms of a forward-looking nature such as “consider,” “envisage,” “think,” “aim,” “expect,” “intend,” “should,” “hope,” “estimate,” “believe,” “wish,” “may,” or, as the case may be, the negative form of these same terms, or any other variant or similar terminology.

Readers should note that these objectives and areas of development depend on circumstances or facts whose occurrence or completion is uncertain.

These objectives and areas of development are not historical data and should not be interpreted as guarantees that the stated facts and data will occur, the assumptions be verified or the objectives achieved. By their nature, these objectives may not be achieved and the statements or information contained in this Universal Registration Document may prove to be incorrect, and the Company is not obliged in any way to update them, subject to the regulations in force, in particular the General Regulation of the Autorité des Marchés Financiers.

This Universal Registration Document also contains information relating to the Company’s business activity as well as the market and industry in which it operates. This information comes from, among other places, studies conducted by internal and external sources (analyst reports, specialized studies, industry publications, all other information published by market research companies, companies and public bodies). The Company believes that this information gives a true and fair view of the market and industry in which it operates and accurately reflects its competitive position; however, although this information is considered reliable, it has not been independently verified by the Company.

Risk factors

Investors are also invited to take into account the risk factors described in Chapter 3 “Risk factors” in the Universal Registration Document before making their investment decision. The occurrence of one or more of these risks could have an adverse effect on the business, outlook, financial position, financial income and outlook of the Company. Other risks not yet identified or considered not to be significant by the Company may have the same adverse effect and investors may lose all or part of their investment.

Rounding

Some figures (including data expressed in thousands or millions) and percentages presented in the Universal Registration Document have been rounded. If applicable, the totals presented in the Universal Registration Document may differ slightly from those that would have been obtained by adding the exact (unrounded) values for these figures.

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1.1 GENERAL PRESENTATION

1.1.1 CARBIOS: A GLOBAL PIONEER IN THE USE OF ENZYMES IN THE PLASTICS INDUSTRY ON AN INDUSTRIAL SCALE

A major global environmental challenge: 353 million metric tons of plastic waste are generated each year⁽¹⁾, of which 79 million tons escape the management systems and 9 million end up in the seas and oceans⁽²⁾.

According to the latest OECD report, only 9% of plastic waste was recycled worldwide in 2019.

Two target markets: PET (PolyEthylene Terephthalate), nearly 90 million metric tons produced each year⁽³⁾ and PLA (Polylactic Acid), whose global consumption represents around 260,000 metric tons per year. With an estimated weighted annual growth rate of 28% until 2025.

Two proprietary technologies protected by 53 patent families and certified “Efficient Solution” by the Solar Impulse Foundation.

International recognition of the PET enzymatic recycling technology by the prestigious scientific journal Nature.

In early 2023, Carbios joined the Ellen MacArthur Foundation’s circular economy network

An industrial scale-up of PET enzymatic recycling technology supported by the excellent results of the industrial demonstration plant established in Clermont-Ferrand since September 2021.



⁽¹⁾ Source: OECD 2022. - ⁽²⁾ Source: ADEME in 2012. - ⁽³⁾ Source: IHS Markit in 2021.

Carbios, a green chemistry company created in April 2011, develops innovative and competitive biological processes constituting a major innovation in the life cycle management of plastics and textiles, for the purpose of industrializing them. Through its innovative approach combining biotechnology and plastics for the first time, Carbios aims to meet the new societal expectations of consumers and the challenges of the ecological transition, which are faced by governments and manufacturers. The Company is taking up a major challenge of our time: combating the pollution of our environment by plastic and textile waste.

Building on the results obtained in its Research and Development work, Carbios has developed new industrial solutions, based on the foundations of the circular economy, to revolutionize the life cycle of plastic and textile materials.

Through its biorecycling technology, Carbios provides an industrial solution to the recovery of PET (the dominant plastic in polyester bottles, trays and textiles), which is a market of nearly 90 million metric tons per year worldwide.

This technology converts all types of PET waste into its basic components (monomers). These can then be used to manufacture new products from 100% recycled and 100% recyclable PET, without loss of quality.

In September 2021, Carbios commissioned an industrial demonstration plant located in Clermont-Ferrand which includes a depolymerization reactor with a capacity of 20 m³ able to process 2 metric tons of PET waste per cycle, the equivalent of 100,000 bottles. The operations carried out at the demonstration plant contribute to the preparation of engineering documents for the process (Process Book) to build and operate a Reference Unit, but also to be able to grant, from 2024, the first operating licenses for this technology to manufacturers who will build and operate their own units. In line with its forward plan, the Company aims to commission a Reference Unit for the enzymatic recycling of PET in 2025¹, with an estimated processing capacity of 50,000 metric tons of PET waste per year. This plant, which is planned to be located in Longlaville (Meurthe et Moselle Department - France), on the Glanzstoff site of Indorama Ventures, is also expected to ensure the marketing of the first volumes of recycled PET by 2025 and consolidate the Company’s business model.

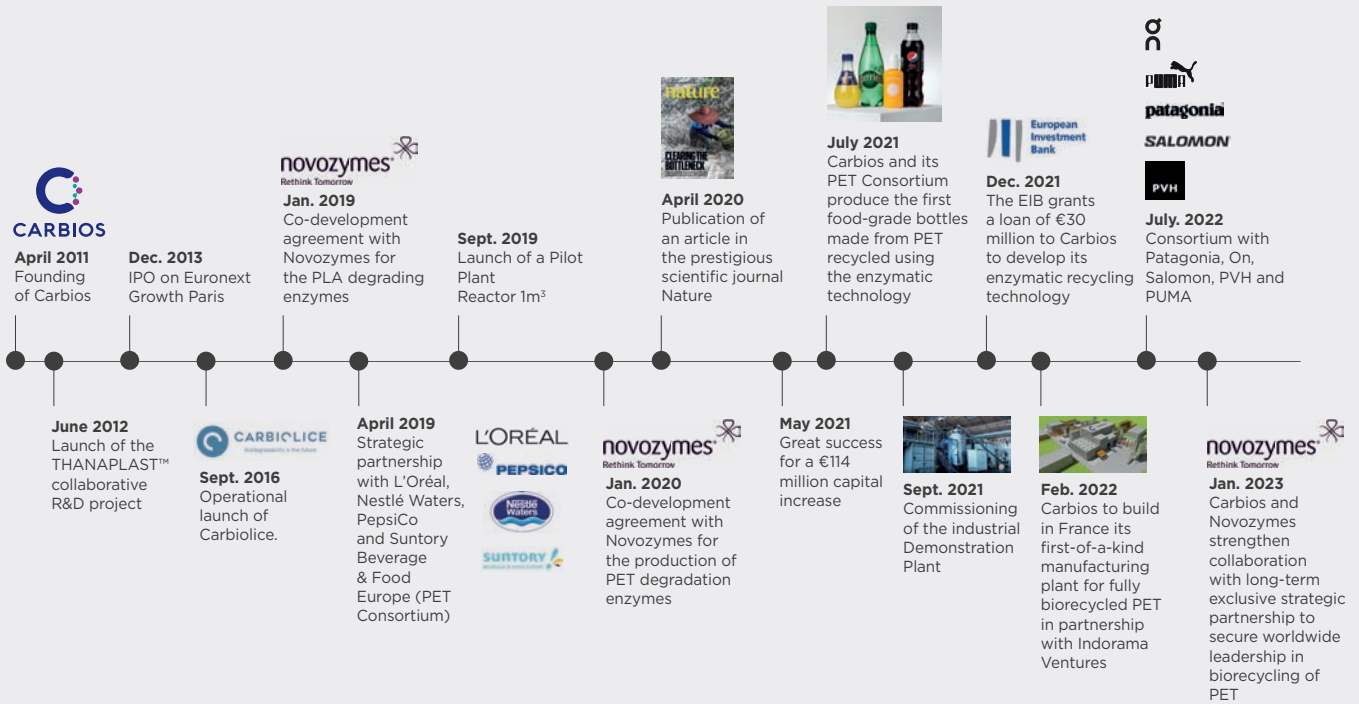
The Company has also developed a **biological solution for the enzymatic biodegradation** of PLA (plant-based) plastics. A market estimated at 260,000 metric tons in 2020 with an average annual growth rate estimated at 28% until 2025². This technology can create a new generation of plastics that are 100% compostable at ambient temperatures thanks to the integration of enzymes into the core of these plastics. This innovation, whose commercial deployment should take place in 2023, is operated under license by Carbiolice, a wholly-owned subsidiary of Carbios.

¹ Estimated commissioning date depending on the granting of building permits, environmental authorizations and, more generally, the risks presented in Chapter 3 of this Universal Registration Document.

² Source: HIS Markit in 2021.



1.1.2 KEY DATES IN THE GROUP'S DEVELOPMENT



1.1.3 A COMMITTED SHAREHOLDER BASE

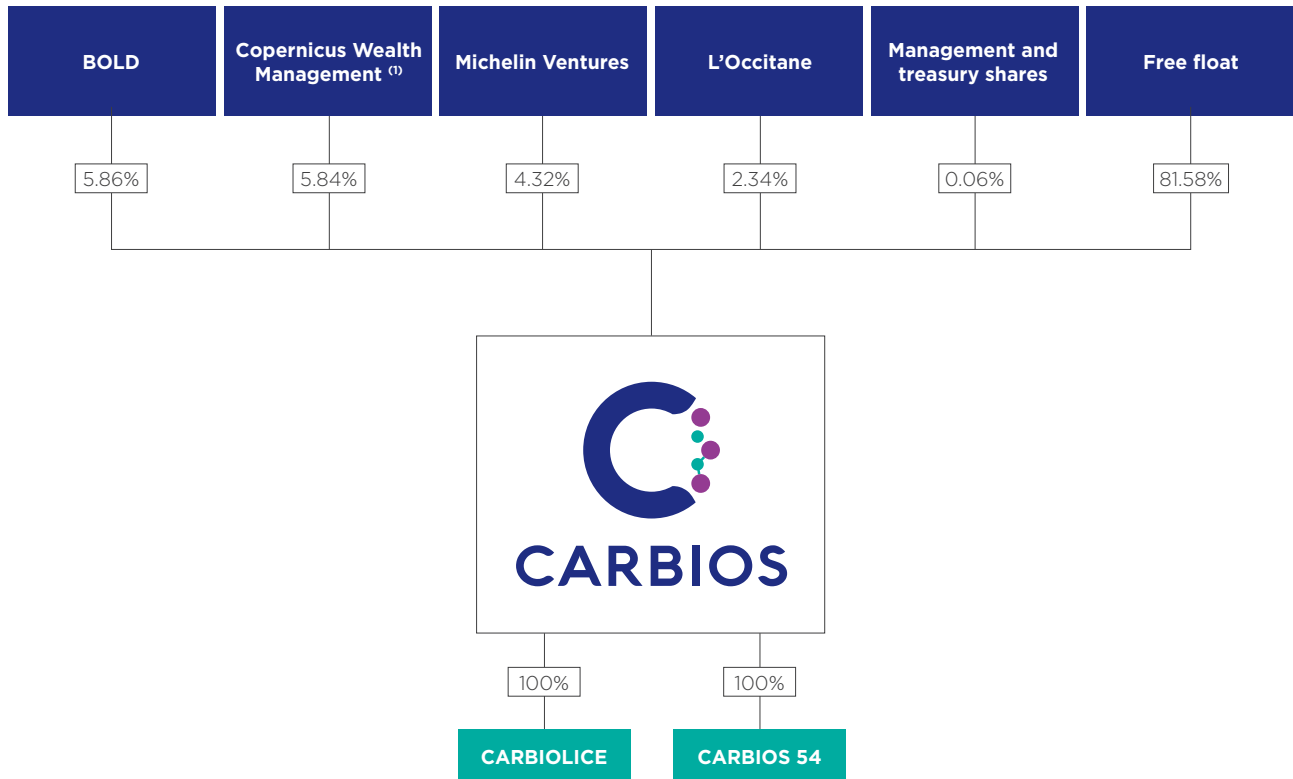
Carbios' shareholding is based on committed investors:

- the Business Opportunities for L'Oréal Development (BOLD) fund: a private equity fund created by L'Oréal to support the development of innovative startups;
- the Michelin Ventures fund, created by Michelin and launched in 2018 in order to materialize Michelin's open innovation approach and to invest in high-tech materials that include a sustainable development dimension;
- The L'Occitane Group, a major player in the natural cosmetics market and a shareholder of the Company since May 2021; and
- Copernicus Wealth Management, an asset management company which invests on behalf of individual third parties in innovative sectors with high growth potential and a positive social or environmental impact;



1. PRESENTATION OF CARBIOS AND ITS ACTIVITIES

The following organizational chart is based on the share capital held by each shareholder (excluding potential share capital) at the date of this Universal Registration Document:



*(1) Shares held by funds and/or individuals with Copernicus Wealth Management S.A. as their management company.
Carbios 54: a wholly-owned subsidiary of Carbios for its industrial operations in Longleville*

The above percentages refer to share capital, not voting rights. The percentage of voting rights is not identical to the percentage of share capital. For more information on the Company's main shareholders and their percentage of voting rights, please refer to section 6.1 of this Universal Registration Document.

Carbios share data sheet

Market: Euronext Growth Paris

Mnemonic code: ALCRB

ISIN code: FR0011648716

LEI: 969500M2RCIWO4NO5F08

First day of trading: December 19, 2013

ICB Classification: Chemicals/Specialty chemicals

Indices: Euronext Growth All-share, Euronext Growth Bpifrance Innovation, Euronext Tech Croissance, Euronext Tech Leaders, CAC PME and Euronext PEA-PME 150

Number of shares at April 6, 2023: 11,267,329

Fiscal year-end date: December 31



1.1.4 ORGANIZATION AND EMPLOYEES

The Company is organized around an industrial development division (Pilot, Industrial Demonstration Plant and Reference Unit project), a division dedicated to biodegradation activities, an R&D and innovation division and support functions (Business Development, Finance, Legal, Intellectual Property, QHSE, Communication, etc.). All these activities are the responsibility of the members of the Executive Committee.

Functional organizational chart of Carbios on the date of this universal registration document

Executive Committee			
Chief Executive Officer			
Industrial Director	Director of Strategy and Financial Officer	Scientific Director	Intellectual Property Director
Director of Sourcing and Public Affairs	General Manager Biodegradation activities and Senior Vice-President	Chief Business Officer	Director of Innovation Programs Funding, Regulation and LCA

Industrial Development, R&D and Support activities

	Pilot Unit teams	Industrial Demonstration Unit teams	Reference Unit project teams	
Human Resources division	Finance and CSR division	QHSE division	Scientific division	Innovation division
Business Development division	Regulatory Affairs division	Administrative department	Plastic processing division	Carbiolice division: Industry, Business and R&D
Legal department	Communication and Marketing division	Intellectual Property division	IT division	

On May 30, 2022¹, Lionel Arras, Industrial Development Director, and Mathieu Berthoud, Sourcing and Public Affairs Director, were appointed to the Company's enlarged Executive Committee. On September 1, 2022, the Company's Executive Committee was joined by Pascal Bricout as Director of Strategy and Finance, then by Stéphane Ferreira as Chief Business Officer on October 10, 2022.

On January 26, 2023² Martine Brisset, Chief Executive Officer of the biodegradation activity, Senior Vice-President of the Carbios Group, and Delphine Denoize, Director of Innovation Financing, Regulatory Affairs and Life Cycle Analysis (LCA), have in turn joined the Company's Executive Committee, which has nine members as of the date of this Universal Registration Document.

With the acceleration of its developments, the Company also bolstered its teams in fiscal year 2022 in order to gain additional expertise in key areas such as industrial engineering and industrial and commercial development. At December 31, 2022, the Carbios Group employed 104 people, including 20 in its subsidiary Carbiolice.

In addition to these staff, nearly 15 researchers are also mobilized at its academic partners, particularly within the enzymatic engineering research center **PoPLab**³ in Toulouse.

The ability to recruit and retain highly qualified scientific, technical and management personnel is a key success factor for the Company. As part of its budgeted growth, the Carbios Group expects to hire additional employees, which will bring its headcount to approximately 140 full-time equivalents (FTE) at the end of the 2023 fiscal year.

¹ Please refer to the press release of May 30, 2022.

² Please refer to the press release of January 26, 2023.

³ Plastic Polymers and Biotechnologies



With a view to developing its attractiveness and retaining its employees, Carbios favors permanent hires and implements an incentive-based compensation policy that is attractive to its business sector. The hiring planned for 2023 mainly concerns new jobs created in the regions to support the project to build the Reference Unit and strengthen the support functions in anticipation of future licensing.

In order to retain its employees, Carbios has developed its systems to share the increase in the Company's value via the implementation, from 2023, of a global benefits plan incorporating new compensation components.

Firstly, an incentive scheme for an initial period of two years aimed at rewarding the involvement of all Group employees in achieving defined CSR objectives, particularly in terms of safety, the environment and skills development. Secondly, a profit-sharing agreement, thirdly a value-sharing bonus (PPV) and fourthly, a performance bonus combining individual and collective performance criteria.

In order to provide individualized support to all its employees, the Company conducts annual assessments and proposes a training plan to each employee to support the Company's long-term developments.

As part of its policy of supporting training, Carbios has also become a sponsor of the INSA Toulouse Foundation, an initiative that strengthens ties between the two entities. The Foundation makes a significant contribution to the training and international outreach of students and scientific executives with the creation of a program backed by the "Biotechnologies and Environment" Chair.

1.1.5 AN EXPERIENCED MANAGEMENT TEAM

The Carbios Executive Committee is a central body in the management of the Company's projects:

- it ensures and coordinates the development of activities;
- it manages operational matters and determines the actions to be taken;
- it coordinates the approach to cross-functional topics and projects;
- it ensures the development of academic and industrial partnerships; and
- it anticipates and prepares organizational and strategic changes for the Company.

Carbios executives ensure the implementation of its strategy and are responsible for the coordination and implementation of action plans within the Company.



Emmanuel LADENT
CHIEF EXECUTIVE OFFICER

30 years of international industrial experience in the mobility sector, specializing in the development of profitability and the transformation of activities through innovation

Michelin: President – B2C Global
Automotive Business Line President
– Agricultural & Off Highway
Transportation Business Line

Graduate of Neoma Business School,
Executive Programs:
- Supply Chain Excellence at Stanford University;
- Customer Centricity at IESE Business School; and
- Finance and M&A at London Business School.



Lionel ARRAS
DIRECTOR OF INDUSTRIAL
DEVELOPMENT

More than 25 years of experience in process engineering and the chemical industry

Engineer graduated from ENSIC Nancy and holds an MBA from the Lyons School of Management



Mathieu BERTHOUD
DIRECTOR OF SOURCING
AND PUBLIC AFFAIRS

More than 30 years of experience, including 10 years at Rhodia (now Solvay) and more than 20 years at Suez

Suez: Former Chief Executive Officer of subsidiaries, Chief Operating Officer North Europe, Chief Technology Officer of the Waste business at **Suez**

Scientific university studies and holder of an MBA from HEC Paris



Pascal BRICOUT
DIRECTOR OF STRATEGY
AND FINANCE

More than 30 years of experience in international finance and strategy, and in Mergers & Acquisitions

Michelin: Chief Financial Officer in Asia and execution of major strategic external growth transactions

PwC: Manager in the international Transactions Services teams in London and Paris

Graduate in Corporate Finance from Paris-Dauphine University

Executive Programs:

- . Essec (Business Strategy)
- . Amsterdam Institute of Finance by Insead/IMD
- Prof. (M&A: Valuation, Private Equity, Negotiation Dynamics)
- . IESE Business School (Customer Centricity)



Martine BRISSET
GENERAL MANAGER OF
THE BIODEGRADATION DIVISION
AND SENIOR VICE-PRESIDENT

More than 30 years of executive management experience in major international groups in the plastic and paper packaging industry, notably at Amcor, Huhtamaki, Linpac and Klockner Pentaplast. Knight of the French National Order of Merit 2013

Engineer in Agriculture, Graduate of Science-Po CAS (Governance)



Delphine DENOIZE
INNOVATION PROGRAMS FUNDING,
REGULATORY AFFAIRS
AND LCA DIRECTOR

Innovation financing expert

Carbios: PET Project Manager - Innovation and Regulation Officer
Céréales Vallées competitiveness cluster: Innovation financing

Agricultural Engineer



Stéphane FERREIRA
CHIEF BUSINESS OFFICER

More than 20 years of experience in specialty chemicals, in-depth knowledge of the materials and life sciences markets

Ex-Dupont and Arkema in strategic and operational functions in several countries including France, Germany and Korea. Former Vice-President of Transformation for Arkema's business coatings entity.

Holder of a Master's of Science in Life Sciences and Graduate of the "Institut Agro" de Montpellier



Lise LUCCHESI
DIRECTOR
OF INTELLECTUAL PROPERTY

Intellectual property expert

Metabolic Explorer: Market Analyst & Head of the intelligence department

Biotechnology engineer, holds a CEIPI diploma (Center for International Intellectual Property Studies) in "inventive patents" and a specialized master's degree in Management of Biotechnology Companies.



Alain MARTY
CHIEF SCIENTIFIC OFFICER

International expert in enzymology and biological processes

French National Institute of Applied Sciences (INSA): Professor and Head of a research group Expert on behalf of the **French Agency for Research and Higher Education Assessment (AERES)** and the French National Research Agency (ANR)

PhD in Biology, Biochemical Engineer, University of Toulouse.



1.2 MARKET CONTEXT AND OPPORTUNITIES

Every year in the world:

- 86% of packaging waste is not recycled⁽¹⁾,
- More than 450 million metric tons⁽²⁾ of plastics are produced each year, including 90 million metric tons of PET with an estimated value of more than \$100 billion (+4% per year)⁽³⁾,
- At the current rate, the amount of plastic waste produced worldwide is expected to nearly triple by 2060⁽⁴⁾.
- 353 million metric tons⁽⁵⁾ of plastic waste are generated, including 9 million metric tons⁽⁶⁾ that ultimately end up in the seas and oceans,
- 500 billion units⁽⁷⁾ of plastic bottles are produced and less than 50% are collected for recycling.

(1) Source: Citigroup in 2018, Euromonitor in 2017. (2) (4) and (5) Source: OECD in 2022. (3) Source: IHS Markit in 2021. (6) Source: Expedition 7th Continent Association in 2015, Jenna Jambeck in 2015 and ADEME in 2012. (7) Source: Citigroup in 2018.

In light of the environmental consequences of the difficulties of controlling the end-of-life of plastics through conventional processes, turning plastic and textile waste into resources is essential and is currently one of the major focuses of the circular economy. To meet these objectives, industries must make profound changes and take up new challenges that create industrial opportunities.

1.2.1 AN ENVIRONMENTAL CHALLENGE: RETHINKING THE END-OF-LIFE OF PLASTICS AND TEXTILES

Omnipresent in our daily lives, plastic has become an essential material in the modern economy, combining unrivaled properties and low cost. Plastics, which today are still mainly of fossil origin, take around 400 to 500¹ years to degrade under natural conditions. With the development of our industrial societies, the generation of plastic waste has continued to grow and has led to an accumulation of plastic in the environment, including in the most remote and pristine regions of the world. The OECD estimates that 9% of plastic waste generated each year worldwide is recycled and 19% is incinerated. The remainder, almost 72%, accumulates in landfills and in the environment, where it contributes to polluting our soils, rivers and marine environments. In addition, almost two-thirds of plastic waste comes from products with a lifespan of less than five years: packaging (40%), consumer goods (12%), clothing and textiles (11%)².

Better management of the end-of-life of plastics and textiles is not only a major challenge of our time but also an unprecedented business opportunity to initiate this transition towards a circular economy model, thanks to innovation.

1.2.2 GROWING REGULATORY PRESSURE

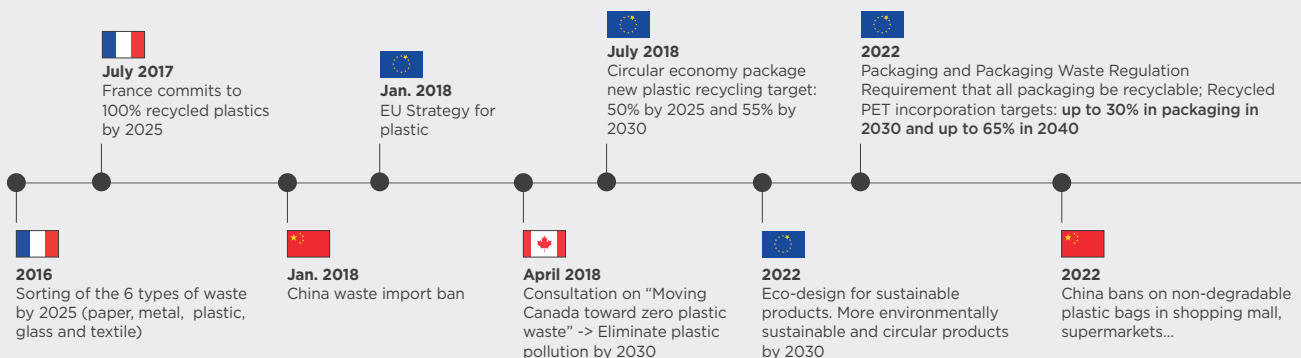
The implementation of new regulatory provisions is intensifying, both at the European level and elsewhere in the world, to promote better management of the end-of-life of plastics and the development of the circular economy.

These changes make it possible to progress in three areas:

1. reducing waste, by banning plastics that we do not need or by encouraging less consumption;
2. reuse; and
3. recycling, by promoting innovation to ensure that the plastics we need are designed and marketed in such a way that they can be reused.

These measures, necessary to reduce the flow of plastic waste that ends up in the environment, require all players in the sector to adapt and create favorable conditions for the industrial and commercial deployment of Carbios technologies.

The main regulatory provisions relating to the business sectors of interest to Carbios are listed below.



¹ Source: World Wildlife Fund (Australia) in 2018

² Source: OECD in 2022, Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, OECD Publishing, Paris, <https://doi.org/10.1787/de747aef-en>.



“Circular Economy” legislative package

Since 2017, France has worked on a roadmap for the circular economy and established a list of 50 measures to achieve certain sustainable development goals from the United Nations’ 2030 Agenda. To achieve the goals defined in this commitment, in 2018, France signed the Ellen MacArthur Foundation’s “Global Commitment” and drafted and co-signed the National Plastic Packaging Pact, alongside agrifood companies, retail players and several NGOs.

In 2018, the European Commission formed the foundations of the Circular Economy Package, for which the Framework Directives are being drafted. Measures concerning plastics have been transcribed in the Single Use Plastics Directive. A framework directive is also expected for textile waste, the separate collection of which will be made mandatory in all member states from 2025.

No-waste circular economy law

Presented in July 2019, the Law on the fight against waste and on the circular economy was definitively adopted by the French Senate on January 30, 2020. It focuses on four main areas: reinforcing consumer information, fighting against waste in order to preserve natural resources, mobilizing manufacturers to transform production methods and improving waste collection.

This Law provides, among others, for:

- the target of moving towards 100% recycled plastic by January 1, 2025;
- the obligation to reuse, reemploy or recycle unsold products;
- the establishment of environmental information for clothing;
- the ban on plastic tea and tisane bags and sachets unless they are biodegradable;
- the ban on the “compostable” labeling on products that may only be composted under industrial conditions;
- the target of ending single-use plastic packaging by 2040.

Packaging and Packaging Waste Regulation

In November 2022, the European Commission presented a proposal to revise EU legislation on packaging and packaging waste entitled the “Packaging and Packaging Waste Regulation”¹. This regulatory provision, which is no longer a directive, will make it possible to harmonize the objectives between all Member States by requiring that all packaging now be recyclable. The objective is to prevent and reduce the impact of any type of packaging and packaging waste on the environment and on human health, but also to promote the transition to a circular economy. This regulation will be adopted in 2023.

Among other things, it provides for:

- An obligation that all packaging be recyclable;
- Targets for the share of recycled PET in packaging and bottles: up to 30% r-PET in 2030 and up to 65% in 2040;
- An obligation to have reusable packaging;
- A target to reduce the quantity of packaging;
- An additional ban on certain types of single-use packaging;
- Implementation of a return and collection system for packaging waste; and
- Extended producer responsibility requirements.

This regulation incorporates and reinforces the objectives already mentioned in other directives (e.g., (EU) Single-Use Plastics No. 2019/904) with the aim of achieving carbon neutrality by 2050.

Beyond the borders of Europe

Since January 1, 2018, China has banned the importation of certain plastic waste from third-party countries². This ban, which has reduced global exports of plastic waste, is forcing waste-exporting countries to accelerate the implementation alternative solutions for the treatment of previously exported waste. In addition to these import restrictions, in its 13th five-year plan, China plans to initiate a transition towards a circular economy model for the collection and recycling of plastic waste. This approach is significant, given that the Chinese market represents 17% of the global consumption of PET³.

Since January 1, 2021, the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal has incorporated unsorted plastic waste into its fold, which prohibits its export or import to or from a State not party to the Convention. The export of unsorted plastic waste must be authorized in writing by the importing State.

After Europe and China, the United States is committed to implementing measures to improve the collection and recycling of plastic waste. Currently, numerous US states aim to find a way to eliminate the waste that was previously partly exported to China. This situation is expected to continue, since the remaining countries that still accept plastic waste from abroad are in the process of closing their doors, including Vietnam⁴ and Thailand⁵, which have already taken measures in this respect. In addition, US companies, non-profit organizations, government agencies and other stakeholders have made a commitment to work collectively within the U.S. Plastics Pact to promote the circular economy of plastics. Lastly, an American coalition that includes the plastics industry association, the American Council of Chemistry and waste recycling industrialists is putting pressure on the federal government so that \$500 million in public funding is allocated to modernizing recycling infrastructures⁶ over the next few years.

On March 2, 2022⁷, the Heads of State, the Ministers of the Environment and other representatives of 175 countries approved, during the United Nations Environment Assembly (UNEA-5) held in Nairobi, a historic resolution aimed at ending plastic pollution and developing the first legally binding international treaty by 2024.

¹ Source: https://environment.ec.europa.eu/publications/proposal-packaging-and-packaging-waste_en

² Source: China Daily - July 21, 2017 edition.

³ Source: IHS Markit in 2021, Transparency Market Research in 2015 and Pira International in 2012.

⁴ Source: <https://resource-recycling.com/recycling/2019/04/02/officials-say-vietnam-to-end-plastic-imports-in-2025/>.

⁵ Source: <https://thethaiger.com/hot-news/plastics/thailand-to-ban-import-of-plastic-waste>.

⁶ Source: <https://www.plasticsnews.com/article/20190307/NEWS/190305416/industry-coalition-eyes-500m-federal-push-for-domestic-recycling>.

⁷ Source: <https://news.un.org/fr/story/2022/03/1115462>.



1.2.3 STRONG INITIATIVES AND COMMITTED MANUFACTURERS

In addition to national and supranational regulatory provisions, pressure from consumers and NGOs is pushing industrial players to initiate a real transition towards greater circularity. They represent powerful backing for innovation in the fields of recycling and biodegradation, the core of the bioprocesses developed by Carbios.

As such, Carbios benefits from numerous sources of support, notably through its Packaging Consortium launched in 2019¹ with L'Oréal (co-founder of the Consortium), Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe (Orangina-Schweppes in France), but also through the Fiber-to-Fiber Consortium launched in July 2022² with the brands On, Patagonia, PUMA, and Salomon and joined, in January 2023, by the PVH group³, the parent company of the Tommy Hilfiger and Calvin Klein brands.

European Plastics Pact

Key industry players (member states, companies that use PET, plastic waste collectors, innovative companies and NGOs) and public bodies have come together in a European Plastic Pact. It was officially launched on March 6, 2020 in Brussels to coordinate the actions to be implemented in order to accelerate the transition to a circular economy for single-use plastic products and packaging. As a co-signatory of the Pact, Carbios is actively involved in this European initiative.

U.S. Plastics Pact

On August 25, 2020, the United States signed the launch of the US Plastics Pact, which made it possible to draw up a list of packaging considered problematic or unnecessary and to take the necessary measures to eliminate it by 2025. This list⁴, published on January 25, 2022, identifies 11 elements that are not currently reusable, recyclable or compostable across the United States and for which no circular economy solution is possible by 2025. The Pact also aims to market only plastic packaging that is 100% reusable, recyclable or compostable, to undertake actions to efficiently recycle or compost 50% of plastic packaging and to ensure 30% recycled or biosourced content in plastic packaging by 2025.

This movement, initiated by Europe, has also led other countries such as Canada, India and Kenya to set up their own Plastics Pact to accelerate their transition to a more sustainable plastics economy.

The Fashion Pact

A similar initiative, dedicated to the textile industry, was launched in France on August 26, 2019 at the G7 organized by France in Biarritz. After being launched with 32 signatories, this Fashion Pact today brings together more than 75 companies from 17 countries, representing nearly a third of the global fashion industry. This large-scale cooperation, which after two years of existence is beginning to create tipping points throughout the textile sector, should make it possible to limit the sector's impact on the climate, biodiversity and the oceans via targets set for 2030 and 2050.

One Ocean Summit

The summit for the protection of the oceans, held in Brest in February 2022 as part of the French Presidency of the Council of the European Union, led more than thirty States and economic players to commit themselves against plastic pollution of the oceans. The announcement by the shipowner CMA CGM that it would no longer transport plastic waste on any of its vessels from June 1, 2022 marks a positive step forward to accelerate the structuring of a new European collection and recycling channel for plastic packaging waste. More than 1.5 million metric tons of plastic waste was exported outside the EU in 2019⁵.

Industrial companies' commitments

Major manufacturers such as PepsiCo and Nestlé Waters are going beyond the regulatory provisions by committing to incorporating 35 to 100% recycled material in some of their bottle brands by 2025. In view of current recycling rates, achieving these objectives requires the development of new, more environmentally-friendly technologies that preserve the quality of recycled raw materials to enable them to be used in all original applications.

¹ Please refer to the press release of April 29, 2019.

² Please refer to the press release of July 6, 2022.

³ Please refer to the press release of February 18, 2023.

⁴ Source: <https://usplasticspact.org/us-plastics-pact-brings-together-leading-brands-and-materials-manufacturers-to-look-for-solutions-to-problematic-and-unnecessary-materials/>

⁵ Source: <https://www.eea.europa.eu/publications/the-plastic-waste-trade-in/the-plastic-waste-trade-in>.



Packaging



Nov. 2018
 “By 2025, 50% of plastic used in our packaging will be recycled or bio-sourced” and “by 2025, 100% of our plastic packaging will be refillable, reusable, recyclable or compostable”



Jan. 2019
 “Nestlé Waters will increase the recycled PET content in its bottles to 35% by 2025”



Oct. 2016
 “Design 100% of its packaging to be recyclable, compostable or biodegradable by 2025”



Sept. 2019
 “Our ambition? Offer 100% sustainable plastic bottles made from recycled or bio-sourced materials for our entire beverage portfolio.”



Apparel & Sportswear



“Polyester is the material we use more than any other. To reduce the environmental footprint associated with our use of this performance fabric, we are working to phase out virgin polyester and polyamide and use only 100% recycled Polyester (rPES)”



2021
 “As part of our 10FOR25 targets, PUMA has committed to scaling up the usage of recycled polyester to 75% by 2025. In 2021, we used 43% recycled polyester across all product categories.”



Key target : “Sustainably source 100% of PVH’s cotton and viscose by 2025, and 100% of polyester by 2030”



“For the Fall 2022 season, 84% of our polyester fabrics were made with recycled polyester. As a result of not using virgin polyester, we avoided more than 12.3 million pounds of CO2e being emitted into the atmosphere.”



Feb. 2019
 “The concept for a fully recyclable running shoe is the first step in Salomon’s commitment to have 100 percent of its new products designed to one or several of the company’s circular economy principles by 2025.”



1.2.4 THE CIRCULAR ECONOMY: A TRANSITION SUPPORTED BY CONSUMER DEMAND

The circular economy aims to preserve the intrinsic value and quality of products and materials at every stage of their use. In contrast to the current linear model of “producing, consuming, and disposing,” the circular economy creates the conditions for the development of a virtuous system where use replaces consumption, while limiting the wasting of raw materials and sources of energy.

The circular economy involves, therefore, a more efficient use of fossil resources, reduction of waste and lower energy consumption, and guidelines for the strategic development of a new, efficient and sustainable industrial ecology.

Only new technologies can enable manufacturers to meet their sustainable development objectives and thus initiate a real transition towards greater circularity.

Today, consumers are at the heart of this movement. Wishing to adopt more responsible consumption patterns to combat plastic waste pollution, they expect companies to implement concrete actions in favor of a transition to a more sustainable and less intensive model, respecting the principles established for a circular economy.

Conscious of new consumer expectations and the issue of sustainability in purchasing decisions, manufacturers have made strong commitments to meet these expectations and make their production methods more respectful of environmental issues and societal expectations.



1.3 STRATEGY

1.3.1 AMBITION: BECOME A GLOBAL LEADER IN LIFE CYCLE MANAGEMENT OF PLASTICS AND TEXTILES

In light of the environmental consequences of growing global demand for plastics, turning these materials into resources is essential and is currently one of the major focuses of the circular economy.

Carbios is fully committed to this systemic change and the positive recovery approach for plastics and textiles through the development of biological processes that represent a radical technological and industrial breakthrough, namely innovative processes based on the use of enzymes to reinvent the plastic and textile life cycle.

Thus, Carbios intends to become a major player in the worldwide plastic and recycling markets by providing reliable and innovative solutions, while meeting the environmental challenges of our time and creating long-term value for its shareholders and society as a whole.

1.3.2 A TECHNOLOGY THAT IS UNIQUE IN THE WORLD

Enzymes are currently used in numerous applications (detergents, biofuels, food processing, textiles, paper), but using them for the biodegradation and recycling of polymers had never been considered.

The use of enzymes in the plastics industry is a world first for Carbios. This innovative approach is a real technological breakthrough to reduce the environmental impact of plastics and textiles and meet the new regulatory challenges related to their use.

Carbios has developed two processes certified “Efficient Solutions” by the Solar Impulse Foundation

Enzymatic recycling: Carbios is the first and only company in the world to develop an industrial-scale biological technology, based on the use of enzymes, to recycle plastics and textiles.

Unlike the limited potential of thermomechanical recycling processes, the Carbios approach gives value to types of plastic waste that were not previously exploited by allowing them to be 100% recycled after use. For the first time in the history of the plastics industry, the infinite recycling of plastic waste into new plastic materials, without any meticulous prior sorting, has become possible by taking advantage of the natural selectivity of enzymes.

Strengthened in its industrial development by the excellent results of its operational demonstration plant since September 2021, **the biological recycling technology** developed by Carbios achieved major new milestones in 2022 and 2023, including:

- the announcement on February 23, 2022¹ of the construction of the first industrial and commercial PET biorecycling unit, with an estimated processing capacity of 50,000 metric tons of PET waste per year;
- the announcement on July 6, 2022² of the creation of the Fiber-to-Fiber Consortium with On, Patagonia, PUMA and Salomon and joined by PVH on 18 February 2023³, to advance the circularity of the textile industry; and
- the announcement on February 3, 2023⁴ of the successful closure of the CE-PET project⁵ co-financed by the French State as part of the Programme d'Investissements d'Avenir (“Investments in the Future Program”) (PIA No. 1882C0098), now part of France 2030, and operated by ADEME (French Environment and Management Agency), which demonstrated the applicability of the Carbios technology to the recycling of PET polyester fiber waste.

In the field of biodegradation, Carbios’s approach consists of incorporating enzymes into the core of the partially or fully biosourced plastic materials in order to make them 100% biodegradable and compostable at ambient temperature. This innovation is aimed at plastics and packaging applications which, by their nature, cannot be recycled. It is particularly suitable for fine plastics, which are too complex to recycle or are soiled by food (flexible films, trays, bags, capsules, wedging bubbles, etc.).

Focus on enzymes

In nature, microorganisms degrade more or less complex compounds present in their immediate environment and use them as a source of carbon for their growth. When the carbon sources present are comprised mainly of plastics, the only microorganisms able to survive in these complex environments are those that have developed the ability to degrade and assimilate the polymers that make up plastics.

To degrade these complex materials, micro-organisms produce biocatalysts called enzymes, which act like pairs of scissors to cut the links between the monomers of the material that they degrade.

When applied to industrial processes, enzymes make it possible to achieve complex chemical reactions in a highly selective manner. Using the potential of enzymes allows manufacturers to accelerate production processes, limit unwanted co-products and work under conditions that are less demanding and costly than chemical processes in terms of energy.

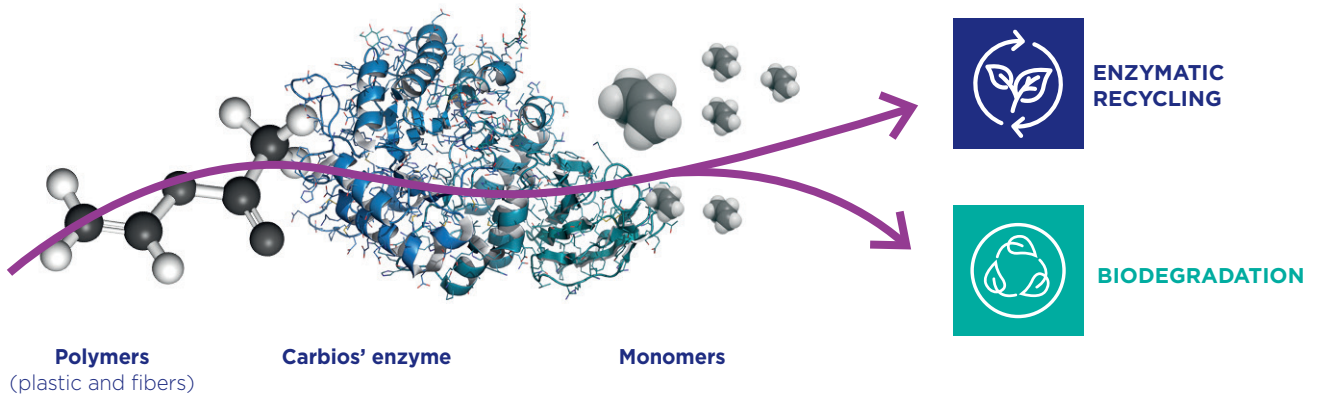
¹ Please refer to the press release of February 23, 2022.

² Please refer to the press release of July 6, 2022.

³ Please refer to the press release of February 18, 2022.

⁴ Please refer to the press release of February 3, 2023.

⁵ CE-PET: acronym given to the “Circular Economy PET” project



1.3.3 STRATEGIC APPROACH

1.3.3.1 An innovation strategy

Since its founding, Carbios has implemented a pragmatic innovation strategy that focuses on the creation of industrial value to provide manufacturers with “turnkey” biological processes for specific areas of application.

The collaborative model set up by Carbios has enabled the mobilization of significant scientific and technical resources to ensure the best chances of success in the development of its industrial bioprocesses while providing the Company with world exclusivity for the results obtained as part of this work.

The bioprocesses developed by Carbios are based on a unique combination of biotechnology and plastics manufacturing. These innovative technologies rely on many fields of expertise such as microbiology, enzymology, polymer chemistry, micro-fluids, plastics engineering and process engineering.

From its creation, the Company set up several collaborative Research and Development programs, bringing together the best public (INRAE, TWB, INSA Toulouse through the TBI laboratory, CNRS) and private sector experts dedicated to the discovery and optimization of enzymes.

Since 2020, Carbios has had a world-class research center dedicated to enzymatic engineering for the recycling and biosynthesis of plastics¹. This laboratory, called **PoPLaB** in reference to Plastic Polymers and Biotechnologies, was created in partnership with INSA Toulouse through its TBI laboratory². Its teams aim to optimize the catalytic properties and thermostability of the enzymes used in the processes developed by Carbios and to extend these enzymatic technologies to other applications and polymers of interest to industry.

Carbios ensures the industrial development of its bioprocesses at its facilities and in particular at its industrial demonstration plant, inaugurated in September 2021.

At the date of this Universal Registration Document, the Company has a research laboratory, a plastics pilot plant, a technical center dedicated to the management of its biorecycling technology for PET plastics and fibers, an industrial demonstration unit, an industrial and commercial production line for its subsidiary Carbiolice in Clermont-Ferrand (Department 63) and a cooperative research center in Toulouse (Department 31).

1.3.3.2 An industrialization phase

Carbios is now committed to the industrialization of its technologies.

The Company is currently focusing its efforts on the industrial demonstration phase of its PET biorecycling technology and on its project to build a Reference Unit for the depolymerization of used PET into Terephthalic Acid (TA) and Ethylene Glycol (EG) by enzymatic hydrolysis on an industrial scale.

This industrial demonstration phase, prior to the first license concessions, aims to enable the development of processes and recycled products (monomers from the depolymerization of materials) that meet manufacturers' specifications and to optimize and validate all the parameters required for industrial-scale operations on the PET biorecycling technology developed by Carbios.

In order to ensure the industrial deployment of this proprietary technology, the Company also announced on April 6, 2021³, a project to build a PET biorecycling Reference Unit with an estimated processing capacity of 50,000 metric tons per year.

As part of its industrial deployment strategy, the Company announced on February 23, 2022⁴ a collaboration with Indorama Ventures for the construction in France of this first plant, which should be operational in 2025 and will create 150 direct and indirect jobs.

For more information on this project, please refer to section 1.4.5 of this Universal Registration Document.

In accordance with its strategy, Carbios relies on partnerships with world-class manufacturers to support the large-scale deployment of its technologies.

¹ Please refer to the press release of January 17, 2020.

² Toulouse Biotechnology Institute.

³ Please refer to the press release of April 6, 2021.

⁴ Please refer to the press release of February 23, 2022.



Fiber-to-Fiber Consortium

In July 2022¹, Carbios announced the signing of an agreement with On, Patagonia, PUMA and Salomon to develop solutions that will enhance the recyclability and circularity of their products. This two-year agreement will aim to accelerate the launch of Carbios's biorecycling technology in the polyester fibers (PET) segment, which is a major challenge for the textile industry. Carbios and its partners will also conduct research on how products can be recycled, evaluate the development of collection solutions for used polyester items and test sorting and processing technologies. It will also consolidate data on "fiber-to-fiber" recycling as well as on circularity models. The shared ambition of the players in this Consortium is to establish true circularity in this industry by innovating to recycle the fibers of one product for another and thus reduce the problem of textile waste in a collaborative approach to create a more sustainable future.

On February 18, 2023², Carbios announced that PVH group, the parent company of Calvin Klein and Tommy Hilfiger, has joined the Fiber-to-Fiber Consortium.

The process developed by Carbios is a real breakthrough in the recycling of polyester fibers (PET) which, alone or combined with other fibers, are widely used in the clothing, footwear and sporting goods sectors. PET polyester is the main fiber in the textile industry, with 52 million metric tons produced, even exceeding cotton with 23 million³. Carbios' biorecycling process uses an enzyme capable of selectively extracting the polyester and regenerating it to recover a virgin fiber. This revolutionary technology makes it possible to deconstruct the PET polyester present in all textile waste that cannot be recycled with current technologies.



¹ Please refer to the press release of July 6, 2022.

² Please refer to the press release of February 18, 2022.

³ Source: Carbios - 2019 market data



Packaging Consortium

During the fiscal year 2022, Carbios and its partners within the Packaging Consortium¹ - L'Oréal, Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe – continued their collaboration, in particular to work on the challenges of structuring the upstream supply chain for PET waste, but also on regulatory issues (especially food contact) and the environmental impacts (life cycle analysis) of the production of recycled PET using Carbios technology.



L'ORÉAL



Food-grade bottles from Carbios' proprietary enzymatic recycling technology (Photo credits: Jérôme Pallé).

This Consortium agreement, initiated in April 2019, confirms the relevance of the strategy implemented by Carbios and its partners to support the industrialization of this major innovation and contribute to meeting the sustainable development commitments of the largest brands.

Strategic alliance with Novozymes

On January 12, 2023², Carbios and Novozymes, the world leader in biological solutions, announced an exclusive long-term partnership. This major agreement guarantees the long-term production and supply of Carbios' proprietary PET-degrading enzymes on an industrial scale for the world's first biological PET-recycling plant due to be operational in 2025 in Longlaville (France), as well as for the future licensing of plants.

Exclusive Global Partnership

Carbios and Novozymes have had a partnership since 2019 to develop enzyme-based solutions for the recycling of PET and the biodegradation of PLA, and thus address the sustainability challenge of plastic pollution. Building on the current Joint Development Agreement, Carbios and Novozymes will extend their collaboration to develop, optimize and produce enzymes that will subsequently be supplied by Novozymes to all licensees of Carbios' technology. The new agreement grants both parties exclusivity in the field of the partnership.



Publication of Carbios' first Sustainability Report

In December 2022³, Carbios announced the publication of its first Sustainability Report, which outlines the Company's commitment to developing environmental, social and governance (ESG) initiatives that go beyond the industrial development of its innovative plastics biorecycling technologies. Carbios' sustainable development strategy is based on three pillars (governance and ethics, the environment, social and societal issues) divided into 22 priority material challenges. Each one has led to the implementation of a dedicated policy and the monitoring of specific KPIs to anchor sustainable development in the heart of the Company's governance and an approach for the continuous improvement of its operations.

¹ Please refer to the press release of April 29, 2019.

² Please refer to the press release of January 12, 2023.

³ Please refer to the press release of December 15, 2022.



1.3.3.3 An active intellectual property protection policy

Safeguarding its know-how and its technological advances is a major challenge for Carbios: the Company's commercial success depends in particular on its ability to obtain patents in order to ensure the protection of its resulting innovations, products and processes.

To guarantee the exploitation of the results of its Research and Development, Carbios has, since its creation, pursued an active policy of securing and strengthening its innovations. This takes place through the protection of its results, starting from the upstream phase and consolidated by improvements made during development. It may be supplemented by the acquisition of know-how and rights from third parties up to the final phase during industrialization.

Carbios has thus ensured that it can guarantee a strategic competitive advantage in sizable markets over its current and future industrial partners.

Carbios is the owner or co-owner, with each of its partners, of the results obtained under the Thanaplast™ and CE-PET¹ programs, as well as those under the PoPLaB cooperative laboratory set up with INSA Toulouse. For all these results, Carbios holds the exclusive worldwide exploitation rights for the Company's areas of activity. Moreover, Carbios is the sole owner of the results of the services provided to it under the service provision contracts concluded by the Company and holds the exclusive worldwide exploitation rights in the Company's fields of activity. Carbios will also own the results that it will generate as part of the LIFE project and will benefit from exploitation rights in its field of the results generated by its partners. Carbios will also own the results it will generate as part of the WhiteCycle project², a consortium initiated in July 2022 by Michelin, whose main objective is to develop a circular solution to transform complex³, textile-based plastic waste.

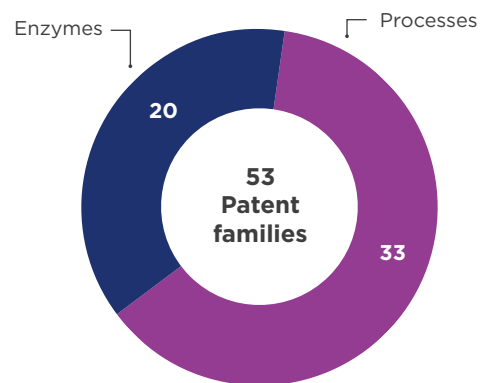
The Company dedicates a significant share of its resources to protecting its innovations. At December 31, 2022, gross investments made by Carbios in patents amounted to €2,870 thousand, of which €606 thousand in 2022.

Changes in the patent portfolio in 2022

During 2022, 3 new patent families enhanced the Group's portfolio. The new applications filed relate to its enzymatic recycling process and to new compositions of PLA-based biodegradable plastics.

As of December 31, 2022, Carbios' Intellectual Property portfolio included 53 patent families⁴ (including one under an exclusive worldwide license with the CNRS and University of Poitiers), representing 336 titles filed across the world's key regions, and which covers the Company's various areas of development (biodiversity, enzymatic recycling process, biodegradable plastic production process and bio production). Of these 53 families, 11 patent families belong to the subsidiary Carbiolice and are directly related to manufacturing biodegradable plastics, and more particularly those incorporating enzymes.

In 2022, 29 new patents were granted in all the Group's fields of activity in various countries or regions of the world (including the United States, the United Kingdom, Canada, Brazil, China, India, Malaysia, South Korea, Indonesia, Japan and Europe), bringing the number of patents granted to 79 out of the 336 titles in the Group's portfolio. Of the 53 patent families in the portfolio, 28 families have at least one patent granted out of the titles filed in different countries or regions of the world.



Trademarks

The Company has registered the following trademarks:

- two French "Carbios" word trademarks registered with the INPI (Institut National de la Propriété Industrielle - French National Institute of Industrial Property) for asset classes 1, 5, 16, 17 and 42 on March 28, 2012 and May 4, 2011, under numbers 3908795 and 3828679;
- an international "Carbios" word trademark registered with the World Intellectual Property Organization (WIPO) on September 13, 2012, under number 1149637, for asset classes 1, 5 and 42, applicable in the European Union, Algeria and Morocco, and for asset classes 1 and 42 in China;
- a French word trademark, "C-ZYME™," registered under asset classes 1 and 40 on September 29, 2020 with the French INPI under number 204686549;
- an international word trademark, "C-ZYME™," registered under asset classes 1 and 40, applicable in the European Union, the United Kingdom, the United States, Indonesia, Japan and South Korea on March 11, 2021 with WIPO under the number 4686549; and a Taiwanese word trademark on March 23, 2021 under the number 110019461;
- a French figurative trademark, "Carbios," filed on April 6, 2021 in classes 1, 16, 17 and 40 under number 214751992;
- an international figurative trademark, "Carbios," filed on October 5, 2021 in classes 1, 16, 17 and 40 and applicable in the European Union, the United Kingdom, the United States, Japan, Canada, South Korea and Thailand, with WIPO under number 4686549, and class 40 in China; and a Taiwanese figurative trademark on October 6, 2021 under number 110072188; and
- a French figurative trademark "Carbios enzymes powering the circular economy" filed on April 6, 2021 in classes 1, 16, 17 and 40 under number 214751995.

¹ For more information on the CE-PET project, please refer to section 1.4.5.1 of this Universal Registration Document.

² For more information on the CE-PET project, please refer to section 1.4.2 of this Universal Registration Document.

³ Complex waste: multi-material waste (rubber products, composites and multi-layer textiles).

⁴ Please refer to the press release of March 1, 2023.



In 2022, the Company registered a “Carbios” international word trademark in classes 1, 16, 17, 20, 21, 22, 40, 42 and 45 applicable in Algeria, Australia, Brazil, Canada, Chile, China, Colombia, South Korea, Egypt, the United States, the United Arab Emirates, Indonesia, India, Israel, Japan, Malaysia, Morocco, Mexico, Monaco, New Zealand, the United Kingdom, Switzerland, European Union and Vietnam. The Company has also registered the word trademark nationally, in classes 1, 16, 17, 40, 42 and 45 in South Africa and Taiwan and in classes 1, 16, 17, 21, 40, 42 and 45 in Hong Kong.

In France and the rest of the European Union, a trademark is protected for 10 years from filing and this protection can be renewed indefinitely.

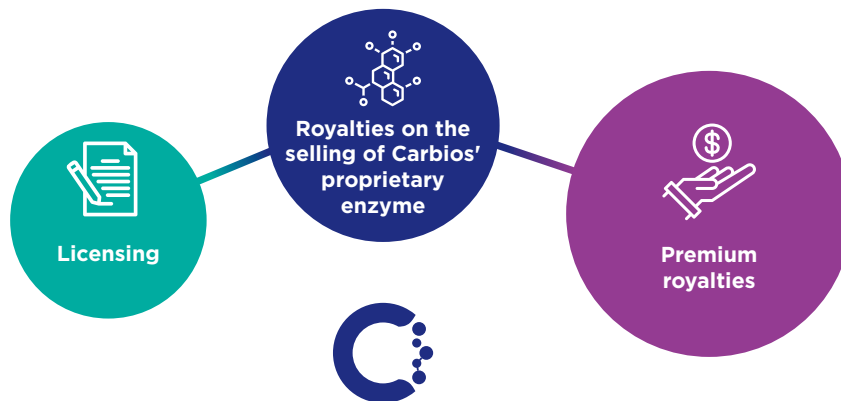
Carbiolice is the owner of the following trademarks:

- a French word trademark, “Biolice,” registered on April 3, 2004 by Limagrain Céréales Ingrédients, and renewed on 02/26/2014, in classes 1, 16 and 17, a “Biolice” word trademark registered in Europe and the United Kingdom on June 3, 2009 and renewed on June 3, 2019, in classes 1, 16 and 17;
- a French word trademark, “Carbiolice,” filed on November 22, 2018 with the INPI under number 18/4502311 in classes 1, 16 and 17;
- an international word trademark, “Carbiolice,” filed on May 16, 2019 in classes 1, 16 and 17 and applicable in the European Union, the United Kingdom, the United States, China, Mexico, Japan and India, with the WIPO (World Intellectual Property Organization) under number 1485245;
- a French figurative trademark, “Evanesto®,” filed on November 22, 2018 with INPI under number 18/4502225 in classes 1, 16 and 17;
- an international figurative trademark, “Evanesto®” filed on May 17, 2019 in classes 1, 16 and 17 and applicable in the European Union, the United Kingdom, the United States, China, Mexico, Japan and India, with WIPO under number 1498422; and
- a French word trademark, “Enzymeo” filed on November 22, 2018 with the INPI under number 18/4502351 in classes 1, 16 and 17.

1.3.4 A VALUE-CREATING BUSINESS MODEL

Carbios’ business development model is based on three types of revenue:

- the **granting of licenses for the use** of its know-how and intellectual property: the licenses granted will generate revenues in the form of upfront payments, royalties or dividends;
- **royalties** from the sale of proprietary enzymes directly to manufacturers using technologies developed by the Company; and
- **royalties** from the premium generated by manufacturers from the sale of biorecycled PET.



With a technological offer unique in the world and the support of several global leaders in their respective fields, Carbios engages all industry players (collectors, producers, processors, users and consumers) in a sustainable transition to a true circular economy model.

Thus, the Carbios model is based on the development of breakthrough innovations and intense collaboration with all stakeholders. Today, it offers manufacturers sustainable and eco-friendly alternative solutions for mass consumption markets.

By placing the circular economy at the heart of its innovations and strategy, Carbios strives to create sustainable financial, environmental, social and economic value.



1.3.5 DEVELOPMENTS AND OUTLOOK

The Company is now committed to the industrialization of its PET biological recycling technology.

In line with the Company’s projected schedule, the industrial demonstration plant is now fully operational and all the stages of the process (from the pre-treatment of PET waste to the production of monomers) are interconnected. The results obtained at the demonstration plant confirm the robustness of the technology designed and developed by Carbios as well as the industrial and commercial prospects of this innovation.

The core elements of the process, the depolymerization kinetics and the yield from enzymatic recycling of PET plastic waste from the demonstrator, are achieving identical results to those in the laboratory and pilot schemes. At this stage, the main work now focuses on optimizing productivity, yields and the qualification of sources of raw materials that will supply the Reference Unit. At the same time, the purification train is made more reliable and adjusted in close collaboration with the team in charge of the design of the Reference Unit and the technology suppliers.

The results of the demonstrator contribute to the development of process engineering documents (Process Book) to build and operate, on its own behalf, the world’s first PET biorecycling plant but also to grant the first licenses from 2024 of this technology to manufacturers who will build and operate their own units.

Reference Unit project

As part of its industrial and commercial deployment strategy, the Company aims to complete by 2025 the construction of a reference PET biorecycling plant, with an estimated processing capacity of 50,000 metric tons of PET waste per year. This plant, which is planned to be located in Longlaville (Department 54), on the French site of Indorama Ventures, will also secure the marketing of the first volumes of recycled PET by 2025 and consolidate the business model of the Company with the granting of licenses for its technologies and know-how.

The design engineering studies are progressing at a pace in line with the objectives, in particular with the filing, in December 2022, of applications for building permits and environmental authorizations for the forthcoming start of construction on the unit. Working meetings are regularly organized with stakeholders (local officials and decentralized State services) to prepare the next steps of the project.

Stages of deployment of enzymatic recycling technology for PET plastic waste and fibers:

INDUSTRIAL DEMONSTRATION PLANT	
2023	• Continued operations in the industrial demonstration plant.
1 st half-year 2023	• Finalization of the Demonstrator Process Book; and • Extension of operations to the recycling of PET polyester textile fibers.
2024	• First license concessions ² .
REFERENCE UNIT ³	
2022	• Filing of construction permit.
2023	• First orders of equipment with lengthy lead times. • Finalization of process engineering documents ⁴ ; and • Start of construction, when permits obtained in the second half of the year.
2024	• Recruitment of Carbios 54 operations team ⁵ • and training at the Cataroux Demonstration facility.
2025	• Mechanical completion and commissioning.
2026	• Ramp-up.

For more information on the strategy implemented by the Company for the industrialization of its PET biorecycling technology, please refer to section 1.4.5 of this Universal Registration Document.

¹⁻³ Provisional date depending on the granting of building permits, environmental authorizations, the conditions of the agreement to be formalized for the collaboration between the two parties and, more generally, the risks presented in Chapter 3 of this Universal Registration Document.

² Previously scheduled for the first half of 2023 - See section 1.3.5 of the 2021 Universal Registration Document

⁴ Previously scheduled for the second half of 2022 - See section 1.3.5 of the 2021 Universal Registration Document

⁵ A wholly-owned subsidiary of Carbios for its industrial operations in Longlaville



1.4 ENZYMATIC RECYCLING OF PET: A BUSINESS MODEL THAT CREATES VALUE FOR ALL PLAYERS

Global PET market: nearly 90 million metric tons produced each year⁽¹⁾

A market for recycled PET supported by a powerful trio: governments, consumers and brands

Enzymatic recycling: the only technology for the infinite recycling of PET plastics and polyester fibers

Global partners: L'Oréal, Nestlé Waters, PepsiCo, Suntory Beverage & Food Europe, On, Patagonia, PUMA, PVH, Salomon, Michelin, L'Occitane, Novozymes, Technip Energies and Indorama Ventures

(1) Source: IHS Markit in 2021.

1.4.1 THE PET PLASTICS AND POLYESTER FIBERS MARKET

Since its creation, Carbios has chosen to focus on PET recycling, which is a promising market today that is both growing and accessible. The revolution that has begun within the plastics industry to promote recycling and to set up true innovative circular economy solutions supports the relevance of the strategy implemented by our Company.

SIZE OF TARGETED MARKETS					
Description of virgin PET markets* (excluding recycled PET (r-PET))	Production		Growth rate	Target markets (waste)	
	World	Europe		World	Europe
PET packaging (bottles, trays and other containers)	27 MT	3.2 MT	2.2%	27 MT	3 MT
PET textiles (clothing, technical fibers, rugs, carpets, etc.)	60 MT	0.2 MT	6.2%	60 MT	10 MT

* Source: IHS Markit in 2021.

PET recycling

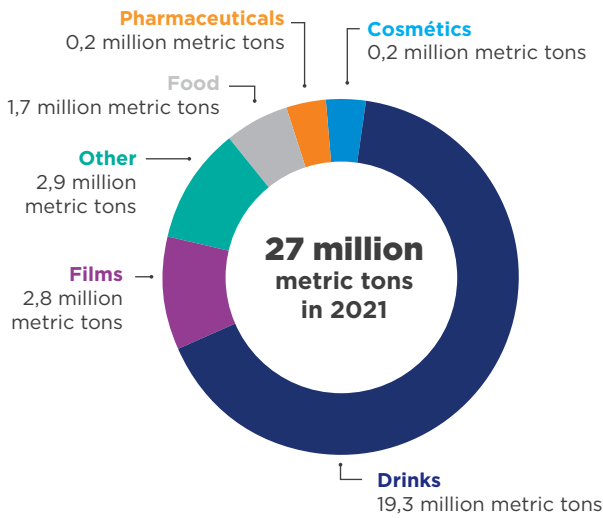
The market for resins and films made of PET (bottles, packaging, etc.) – a polyester of fossil origin widely used by manufacturers – represented global production of around 27 million metric tons in 2021 with an annual growth rate of 2.2%. This production could reach over 31 million metric tons in 2026¹. The market for PET fibers (textiles, rugs, carpets, pillows, duvets, etc.) represented an estimated global production of 60 million metric tons in 2021 with an annual growth rate of 6.2%, which would take the market to 75 million metric tons in 2026².

¹ Source: HIS Markit in 2021.

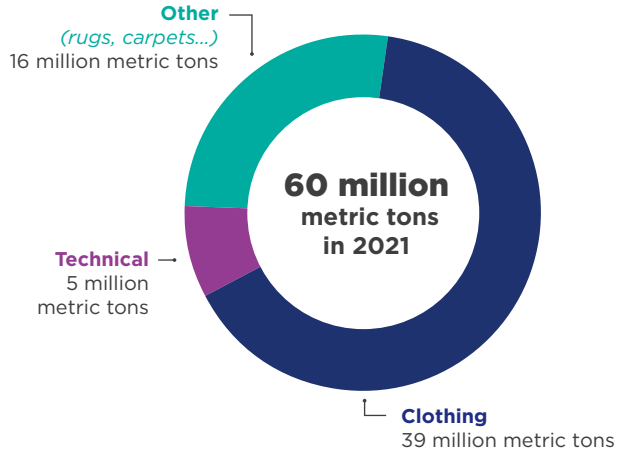
² Source: HIS Markit in 2021.



BREAKDOWN BY APPLICATION OF VIRGIN PET CONSUMPTION (IHS Markit en 2021)



BREAKDOWN BY APPLICATION OF VIRGIN PET CONSUMPTION (IHS Markit in 2020 and 2021)

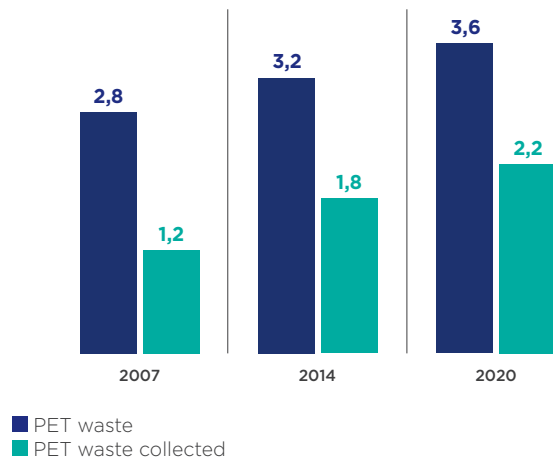


Almost all PET products marketed, whether resins or fibers, turn into waste. PET, which offers significant advantages (weight, cost, durability and flexibility) compared to alternative materials, is therefore a priority target for recycling. However, the recycling rates for waste vary widely and are greatly hindered by current techniques.

As a result of its activity, the Company believes that it can generate positive environmental outcomes, in particular by opening up recycling to a larger fraction of packaging, which would otherwise be sent to landfill and incineration. Preliminary studies conducted in 2021 have made it possible to estimate that the technology developed by Carbios for the enzymatic recycling of PET would allow a potential savings of 46% of CO₂ emissions compared to the production of virgin PET, taking into account the avoidance of a conventional end-of-life for PET waste (landfill and incineration).

In Europe, the demand for resin-grade PET used to manufacture bottles and trays was estimated at 5.1 million metric tons in 2020, including 3.0 million tons of virgin PET, 1.3 of r-PET and 0.8 of imports¹, and the share of collected waste that they generate corresponds to 2.2 million metric tons, just over 43%². Carbios' PET enzymatic recycling process would make it possible to treat 100% of resin-grade PET waste, representing an additional source of 1.4 million metric tons in Europe, which is currently incinerated or goes into landfills as it cannot be recycled³.

HISTORICAL QUANTITIES OF PET WASTE (BOTTLES) PRODUCED AND COLLECTED IN THE EUROPEAN UNION (IN MILLIONS OF METRIC TONS)⁴



Average annual growth rate of PET waste⁵: 2% between 2007 and 2022.

Average annual growth rate of PET waste⁶ collected: 4% between 2007 and 2020.

In Europe, the collection of PET waste is increasing at a rate twice that of PET consumption (and therefore the production of PET waste). However, it is necessary to intensify collection efforts to achieve the objectives set by the European Union (Packaging and Packaging Waste Regulation) and meet the growing demand for recycled PET (r-PET) from players in the plastics and textile industries.

¹ Source: Natural Mineral Waters Europe, Petcore Europe, Plastics Recyclers Europe and Unesda in 2022.

² Source: Natural Mineral Waters Europe, Petcore Europe, Plastics Recyclers Europe and Unesda in 2022.

³ Source: Company.

⁴ Source: PlasticsEurope in 2015/PetCore Europe in 2015.

⁵ Sources: PlasticsEurope in 2015 and Natural Mineral Waters Europe, Petcore Europe, Plastics Recyclers Europe and Unesda in 2022.

⁶ Sources: PlasticsEurope in 2015 and Natural Mineral Waters Europe, Petcore Europe, Plastics Recyclers Europe and Unesda in 2022.



Price trends for virgin PET and recycled PET (r-PET)¹

The price of virgin PET, which stood at around €1,210/t in January 2023, is strongly correlated with that of oil. After strong increases and highs of nearly 15 years observed at the beginning of 2022 on the price of Brent and US light crude per barrel (West Texas Intermediate, WTI), the impact on the price of virgin PET should be visible in the coming months. However, the price of r-PET is currently uncorrelated with the oil price, due to very strong demand from market players and a limited supply in terms of both quantity and quality. At around €1,400/t at the beginning of 2019, the price of r-PET had been steadily increasing until September 2022, when it peaked at €2,570/t. Since then, it has begun to decline and stood at approximately €2,100/t in January 2023.

The r-PET market is supported by a powerful trio combining government policies, consumer expectations and the commitments of brands that use PET, and in particular the beverage industry. However, these manufacturers are encountering increasing difficulties in obtaining r-PET: both quantitative and qualitative difficulties related to the low level of clear PET, the only one currently usable by thermomechanical recycling to obtain clear, food-grade r-PET, so much so that several groups have asked the European Commission to set up a regulatory framework guaranteeing them access to food-grade r-PET. This tension on the supply of r-PET, and thus the price, is expected to continue over time in view of the new regulatory provisions and the commitments of market players.

By allowing a return to monomers of a quality equivalent to virgin petrochemical monomers, Carbios' recycling technology would increase the proportion of transparent bottles and other containers produced from PET waste, and thus reduce the share used for secondary applications (such as fibers), which are currently the main destination for r-PET.

The PET plastics market, and particularly that of plastic bottles, is both accessible and highly attractive due to its large volume and the fact that the current collection systems are increasingly efficient. This market is supplemented by the market for PET pots and trays, although collection is still limited. This should help increase the volumes of PET waste available and encourage the introduction of new flows perfectly suited to the enzymatic recycling of PET. Carbios intends to offer that market a competitive process compared with the current recycling process by enabling the reintroduction of the monomers stemming from the depolymerization of all PET waste into the PET production chain.

In addition to this first large-scale market, Carbios has made its technology applicable to the recycling of PET polyester fibers with:

- the production in November 2020² of the first transparent bottles made from PET polyester textile waste recycling; and
- the production in March 2022³ of a white PET fiber that is 100% enzymatically recycled from colored textile waste.

These advances confirm the potential of Carbios' enzymatic recycling process, which makes it possible to produce a wide variety of products from any PET waste, including textiles, with a quality equivalent to those of petro-sourced origins.

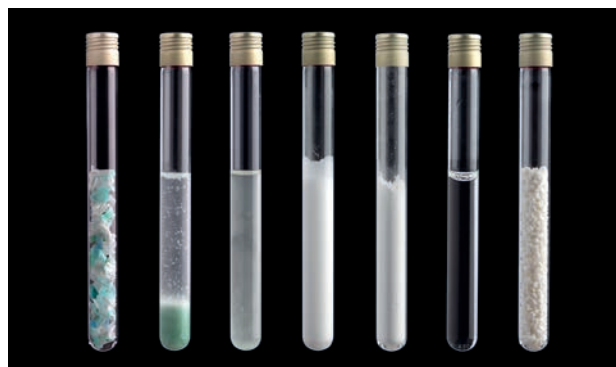
The results obtained by the Company in the area of PET plastic and polyester fiber waste recycling are a real technological breakthrough, allowing the Company to envisage the rapid industrial and commercial deployment of this innovation in high value-added markets.

1.4.2 INNOVATION

The recycling process developed by the Company is a biological process which makes it possible to recycle PET plastics and polyester textiles by going back to the initial monomers, which can be reused in all applications of the original material.

This proprietary technology uses an enzyme capable of specifically depolymerizing the PET contained in the various plastics or textiles to be recycled. At the end of this stage, the monomers that result from the depolymerization are filtered, purified and repolymerized into PET of equivalent quality to virgin PET. For the first time in the industry's history, it has become possible to create a true circular economy system that enables the recycling and production of new 100% recycled and 100% recyclable PET products, without loss of quality.

MAIN STAGES OF THE CARBIOS ENZYMATIC PET RECYCLING PROCESS



Enzymatic depolymerization of PET plastic waste to form terephthalic acid (TA) and monoethylene glycol (MEG) in a hydrolysis reactor and the repolymerization of these monomers into food quality PET, 100% recycled and 100% recyclable (Credit: Carbios).

In the recycling process designed and developed by Carbios, as illustrated above, plastic waste or PET polyester fibers are pretreated (extrusion, size reduction, etc.) and then enzymatically depolymerized in an aqueous medium at low temperature (approx. 65°C). After the depolymerization phase, the two constituent monomers of the original polymer, PTA and MEG, as well as salts, are recovered by downstream processes (filtration, decoloration, purification, AT crystallization, MEG distillation, etc.). These monomers can then be repolymerized to produce a food-grade PET, 100% recycled and 100% recyclable.

¹ Source ICIS between 2018 and 2021.

² Please refer to the press release of November 19, 2020.

³ Please refer to the press release of March 10, 2022.



Scientific progress in 2022 and after the close

CE-PET PROJECT

In March 2022¹, Carbios successfully completed the 3rd and final technical stage of the CE-PET research project supported by the French State as part of the Investments in the Future Program, now integrated into France 2030, and operated by ADEME, (France's Environment and Energy Management Agency)². The work done on this project by Carbios and academic partner INRAE³-TWB (Toulouse Biotechnology) resulted in the successful manufacture at pilot scale of a white PET fiber that is 100% enzymatically recycled from colored textile waste. The Company received €827,000 (€206,800 in subsidies and €620,400 in repayable advances) for the validation of this stage, aiming notably to develop Carbios' biorecycling process for the sustainable recovery of textile waste.

In February 2023⁴, Carbios announced the validation of the final key stage of the CE-PET research project, which enabled it to demonstrate Carbios' ability to enzymatically recycle complex waste to produce bottles and fibers and prove the robustness of its process.

For the validation of the whole project, Carbios will have received a total amount of €4,136,000 (€1,034,000 in subsidies and €3,102,000 in repayable advances) and its partner INRAE-TWB €3,416,000.

WHITECYCLE PROJECT

In August 2022⁵, Carbios announced it had joined the WhiteCycle project, launched in July 2022 and coordinated by Michelin. Its main objective is to develop a circular solution to transform complex⁶ textile-based plastic waste into high value-added products. Co-financed by Horizon Europe, the European Union's research and innovation program, this unprecedented European public/private partnership includes 16 entities and will last 4 years.

WhiteCycle predicts that by 2030, the adoption and deployment of its solution will lead to the annual recycling of more than 2 million metric tons of PET. This project is expected to prevent more than 1.8 million metric tons of this plastic from being landfilled or incinerated each year. It should also reduce CO₂ emissions by approximately 2 million metric tons.

Textile-containing complex waste (PET) from end-of-life tires, pipes and multi-layered clothing is currently difficult to recycle, but this may soon change thanks to the results of the project. Raw materials from PET waste processing could be reintegrated into the creation of high-performance products, through a circular and sustainable value chain.

Alongside Carbios, 15 European public and private entities are combining their scientific and industrial expertise as part of this project:

- 3 industrial partners (Michelin, Mandals, KORDSA);
- 1 inter-sector partner (Inditex);
- 2 waste management companies (Synergies TLC, ESTADO);
- 1 intelligent sorting monitoring system (IRIS);
- 1 product life cycle analysis company (IPOINT);

- 1 university, expert in FAIR data management (HVL);
- 4 universities, research and technology organizations (PPRIME - University of Poitiers/CNRS, DITF, IFTH, ERASME);
- 1 competitiveness cluster (AXELERA);
- 1 project management consulting company (Dynergie).

During this project, the consortium will work on the development of new processes throughout the industrial value chain, including the implementation of:

- Innovative sorting technologies to increase the PET content of complex waste streams in order to better process them;
- Pretreatment of the recovered PET plastic content, followed by the Carbios enzymatic depolymerization process;
- Repolymerization of recycled monomers into a new plastic of equivalent quality to new plastic; and
- The manufacture of new products from recycled plastics.

WhiteCycle has a total budget of nearly €9.6 million and receives European funding of nearly €7.1 million, of which approximately €0.6 million for Carbios.

SCIENTIFIC PUBLICATIONS

In July 2022⁷, Carbios and the Toulouse Biotechnology Institute (TBI) announced the publication of an article entitled "An NMR look at an engineered PET depolymerase" in the prestigious Biophysical Journal. The article describes the use of Nuclear Magnetic Resonance (NMR) spectrometry to study the thermal stability of PET depolymerization enzymes and the mechanism of enzyme adsorption on the polymer. This approach is a world first and opens up new ways to improve the performance of these enzymes. The publication of this article also reinforces the Company's international lead in the development of the most efficient enzymes for the depolymerization and recycling of plastics.

In March 2023⁸, Carbios announced the publication of an article entitled "Enzymes' power for plastics degradation"⁹ in Chemical Reviews, one of the 10 most influential scientific journals in the world. The article is a comprehensive and critical review of research published to date on the enzymatic degradation of all types of plastics (PET, PLA, polyolefins, polyurethanes, polyamides) and includes almost 700 references. Co-authored by biotechnology researchers from Carbios and TBI, as well as two eminent professors in polymer science from the University of Bordeaux, the article brings together expertise in the fields of enzymology, polymer science and industry in order to accelerate the transition to a circular economy for plastic. Beyond the comprehensive bibliographical study, the authors analyzed the data to discuss the scope, limitations, challenges and opportunities of enzymatic plastic recycling with a view to developing innovations and industrial processes. The article's unique standpoint and added value with regard to issues surrounding plastic pollution is its critical view on technology transfer and industrial scalability.

¹ Please refer to the press release of March 10, 2022.

² Project carried out under ADEME's Investments in the Future Program (PIA 1882COO98).

³ France's National Research Institute for Agriculture, Food and Environment

⁴ Please refer to the press release of February 3, 2023.

⁵ Please refer to the press release of August 9, 2022.

⁶ Complex waste: multi-material waste (rubber products, composites and multi-layer textiles).

⁷ Please refer to the press release of July 20, 2022.

⁸ Please refer to the press release of March 22, 2023.

⁹ Source: <https://pubs.acs.org/doi/10.1021/acs.chemrev.2c00644>



SCIENTIFIC CONGRESS

In December 2022¹, Carbios hosted the world's first PET Biorecycling Summit with Bertrand Piccard, Initiator and Chairman of the Solar Impulse Foundation. The event attracted over 100 international participants from the scientific, academic, and industrial worlds to exchange on the advances in the field of biological recycling and how to bring these innovations for a circular economy to market.

DISTINCTIONS

In August 2022², Carbios announced that its Chief Scientific Officer, Prof. Alain Marty, had received the prestigious Biocat Award in the "Industry" category. This award is considered one of the most prestigious in biotechnology. Prof. Alain Marty is recognized for his significant achievements in the field of enzymatic recycling of PET plastics and polyester fibers. This award recognizes in particular his research work on enzymatic optimization and the use of the exceptional specificity of enzymes to serve the circular economy of plastics. Since 2004, this award has been given to scientists who have distinguished themselves by outstanding achievements in the field of biocatalysis.

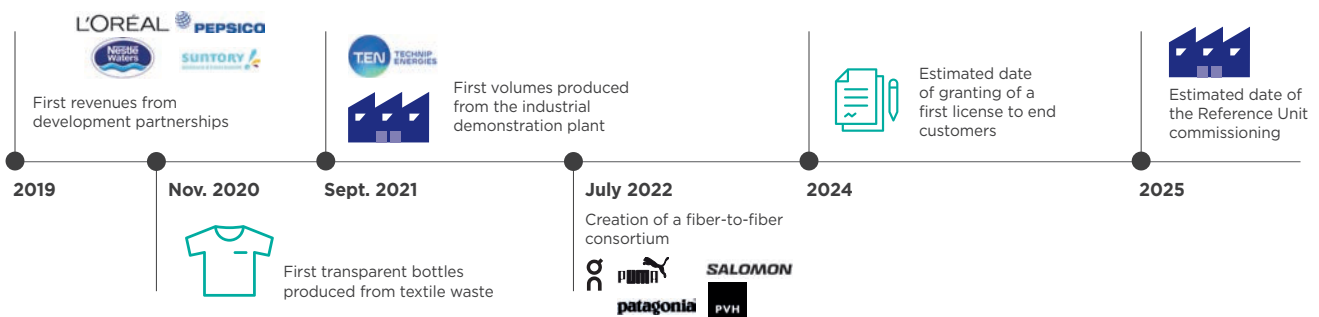
1.4.3 SUMMARY OF THE STAGE OF DEVELOPMENT

Carbios	Enzymatic recycling of PET plastic waste and polyester fibers ⁽¹⁾	
Target polymer	PET (plastics)	PET (textiles)
Applications	Packaging (bottles, flasks, trays, films)	Clothing, linens and furnishings (duvets, pillows, etc.)
Development stage	Industrial demonstration plant	Pilot
Development partners	L'Oréal, Nestlé Waters, PepsiCo, Suntory Beverage & Food Europe, L'Occitane, Novozymes, Technip Energies and Indorama Ventures	On, Patagonia, PUMA, Salomon, PVH, Novozymes and Technip Energies

(1) PET (PolyEthylene Terephthalate): polymer used to manufacture polyester bottles, trays and textiles.

As a reminder, the technology developed by Carbios deconstructs all types of PET waste into its basic components (monomers). These can then be reused to produce new PET products of the same quality as the original ones. The specificity of the Carbios process makes it possible to treat the PET present in mixed packaging or textiles by recovering the constituent monomers of the PET present in this waste. Impurities and other polymers potentially present in this mixed waste will be treated in accordance with applicable regulations.

Summary of the PET biorecycling process development phases:



The development of processes related to polymers other than PET and PLA (polyamides, polyolefins, other polyesters, etc.) may be developed as part of the Company's ongoing Research and Development work.

¹ Please refer to the press release of December 9, 2022.

² Please refer to the press release of August 31, 2022.



1.4.4 COMPETITIVE ADVANTAGES

Current recycling practices do not provide a satisfactory response to market needs, either in terms of volumes treated, or in terms of recovery.

Indeed, only a small portion of PET waste can be recycled by conventional technologies today. Thermomechanical recycling, which is currently the only industrial process, has limitations, as only clear plastic may be recycled in closed loops ("bottle-to-bottle"), with a loss of quality in each cycle, making it difficult to obtain new products from 100% recycled PET. Moreover, conventional recycling processes do not allow textile waste to be recycled in a closed loop, unlike the Carbios process, which makes it possible to upcycle materials.

Thanks to Carbios' technology, it is now possible to:

- recycle all PET plastic waste and fibers without the need for meticulous sorting, including multi-layered, colored and/or opaque plastics and polyester fibers;
- produce recycled PET of equivalent quality to the original polymer that can be used for all applications, even the most demanding. This process makes it possible to recycle plastics and textiles according to a true circular economy principle.

Positioning of Carbios' technology vis-à-vis conventional or competing recovery technologies

The PET recycling technology designed and developed by Carbios differs from other technologies by its selectivity and its high tolerance for the waste that it can recycle. Unlike conventional thermomechanical recycling, it makes it possible to process a much wider typology of PET waste while maintaining an optimal level of quality, making it possible to satisfy all original applications, including food contact.

Thermomechanical recycling

Thermomechanical recycling is a simple and relatively inexpensive secondary plastic production process. In this approach, plastic waste is simply collected, sorted, cleaned, chopped into shavings and remelted to produce r-PET granules. However, some impurities remain after the cleaning step, in particular additives used to obtain certain properties. These impurities and the deterioration of the mechanical properties of the mechanically recycled polymer, inherent in the grinding phase, result in lower performance of the recycled materials compared to their virgin equivalent. This process only allows a limited number of cycles, which results in fine in plastics that become waste that must be incinerated or landfilled. It is more a case of reuse than recycling, since we do not go back to the raw material. Thermomechanical processes are simply not completely circular, nor can they produce transparent r-PET from colored PET waste.

Gasification

Gasification of waste consists of heating it to temperatures between 900 and 1,200° C in the presence of a small quantity of oxygen (which can be supplied by the air, air enriched in O₂, pure dioxygen (O₂), carbon dioxide [CO₂] or steam). Apart from the mineral fraction of the waste and a small amount of unconverted fixed carbon that make up the solid residue, all of the waste is converted into synthesis gas called syngas. This energy-intensive technology makes it possible to treat heterogeneous waste, but only a fraction of the gases resulting from the reaction can be converted into monomers and then into polymers. Despite the advantage of being suitable for heterogeneous waste, gasification products that may contain various impurities (tars, halogens, particles, heavy metals and alkali compounds) are mainly intended for combustion, and therefore for the production of energy. It is therefore more energy recovery than recycling.

Pyrolysis

The pyrolysis of waste consists of heating it to temperatures generally between 350 and 650° C in the absence of oxygen. This results in the production of a fuel gas, a liquid (pyrolysis oil), and a by-product that contains the mineral fraction of the input waste, as well as the "fixed carbon," the carbon present in the waste that has not been transformed into gas or liquid. When mixed with virgin petroleum (mass balance), this pyrolysis oil can be transformed into virgin plastic. As with gasification, the use of high temperatures makes the pyrolysis unsuitable for oxygenates such as PET.

Chemical recycling (or organic solvolysis)

Chemical recycling, based on the use of organic solvents and/or organic catalyzers such as methanol or glycol (methanolysis or glycolysis processes), is today subject to numerous developments that should enable the industrial-scale exploitation of these technologies by 2025. Methanolysis makes it possible to obtain monomers called DMT (dimethyl terephthalate) and MEG (monoethylene glycol) from PET waste. Globally, less than 5% of PET production plants use DMT as a starting monomer, mainly for the production of specialty polyesters.


Glycolysis makes it possible to produce BHET, an intermediate product of the esterification of PET from its initial monomers (PTA or DMT and MEG). Few data are available on the acceptability of a complex PET feedstock by the glycolysis process (color, presence of polyolefins, textile). On an industrial scale, although BHET can technically be introduced as a mixture on existing polymerization lines, many new skills and operational capabilities must be developed for its use: regulatory (product stewardship), quality control, supply chain, industrial processes.

Carbios biological recycling (enzymatic hydrolysis)

Carbios' biological technology makes it possible to obtain PTA and MEG from PET plastic or textile waste. These monomers, resulting from the enzymatic depolymerization of PET, are compatible with more than 95% of the industrial capacities installed by PET producers worldwide. Thus, the Carbios technology does not add plastic production capacity, but instead replaces the use of fossil resources by the use of PET waste. Furthermore, this process, unique in the world, also operates under mild conditions, with hydrolysis in an aqueous medium, at low temperature (approx. 65°C) and at atmospheric pressure. The proprietary enzyme used by Carbios is also highly selective and particularly tolerant of impurities. This approach makes it possible to preserve all the use properties of the polymer and therefore its use in all the original applications, according to a true circular economy principle (100% recycled, 100% recyclable).



Panorama of technologies for the revalorisation and recycling of plastics

	ORGANIC SOLVOLYSIS				
	GASIFICATION	PYROLYSIS	METHANOLYSIS	GLYCOLYSIS	ENZYMATIC HYDROLYSIS 
Description	<ul style="list-style-type: none"> Decomposition at high temperature, in the presence of a gasification agent, to produce diesel, kerosene and naphtha. Conversion into monomers and polymers 	<ul style="list-style-type: none"> Decomposition at high temperature, in the absence of oxygen, to produce a pyrolysis oil Conversion of the oil into monomers and polymers 	<ul style="list-style-type: none"> PET is treated with methanol to produce two monomers : DMT and MEG The combination of both monomers enables the production of virgin-like r-PET 	<ul style="list-style-type: none"> PET is treated with glycol to produce an oligomer: BHET BHET combined with PTA and MEG enables the production of virgin-like PET 	<ul style="list-style-type: none"> Water-based enzymatic depolymerization of PET to produce two monomers : PTA and MEG The combination of both monomers enables the production of virgin-like r-PET
Pros	<ul style="list-style-type: none"> Technology adapted to various flows of organic materials (products derived from wood, organic waste) and to rubber and plastic (e.g. tires) 	<ul style="list-style-type: none"> Possible to produce « virgin plastics » from pyrolysis oil Technology adapted to polyolefins Tolerance to waste (excl. PVC) 	<ul style="list-style-type: none"> Produces monomers registered for food contact applications Accepts blends of PET and other polymers 	<ul style="list-style-type: none"> Only one compound to isolate: BHET 	<ul style="list-style-type: none"> Accepts all kind of PET plastics and fibers Works at low temperature (around 65°Celsius) and atmospheric pressure Produces monomers registered for food contact applications More than 95% of the world's PET production capacities uses PTA + MEG
Development stage	Industrial	Industrial	Preindustrial	Industrial	Preindustrial
Cons	<ul style="list-style-type: none"> Highly energy intensive A small fraction of these gases can be converted into polymers Emits significant amounts of GHG 	<ul style="list-style-type: none"> Energy intensive Transformation of pyrolysis oil requires mixing with virgin fuel (mass balance) Not suitable for organic compounds such as PET 	<ul style="list-style-type: none"> Does not accept certain organic compounds (elastane fibers, pigments...) Less than 5% of the world's PET production capacities uses DMT + MEG High industrial constraints for the use of DMT (SEVESO classification) 	<ul style="list-style-type: none"> Only works with high quality PET waste (clear or slightly colored) BHET is not an input for PET production BHET is not registered in Europe to manufacture food-grade plastics 	<ul style="list-style-type: none"> Pretreatment of PET plastics and polyester fibers required to accelerate the hydrolysis Purification of PTA complex



For information on Carbios' potential competitors in PET recycling, the reader is invited to consult section 3.2.1.3 "Risks associated with the emergence of competing technologies" in this Universal Registration Document.



1.4.5 INDUSTRIALIZATION STRATEGY

Since September 2021, Carbios has been scaling up its recycling technology through the operation of its industrial demonstration plant dedicated to the depolymerization of PET plastic waste into monomers. In accordance with the Company's industrialization strategy, the work carried out at the pilot scale is transposed to the scale of the demonstration plant, the operation of which will make it possible to prepare, by the end of the first half of 2023, the relevant process engineering documents (Process Book) to build and operate the Carbios Reference Unit, but also to grant, from 2024, the first operating licenses for this proprietary technology.

<p>PILOT UNIT</p> <ol style="list-style-type: none"> 1. Transposition of R&D results from the laboratory to the Pilot scale 2. Process development and optimization of the various steps <p>1 M³ reactor Launched: July 2018</p>	<p>INDUSTRIAL DEMONSTRATION PLANT</p> <ol style="list-style-type: none"> 1. Transposition of the Pilot process to the industrial demonstration scale 2. Tests on different waste streams and adaptation of the process to the specificities of the collection systems 3. Preparation of complete engineering documents for the process (Process Book) for the construction of future plants <p>20 M³ reactor Partner: Technip Energies Production: -100 tons Start of operation: September 2021</p>	<p>REFERENCE UNIT</p> <ol style="list-style-type: none"> 1. Filling of the construction permits and environmental authorization (2022) 2. Construction of the Reference Unit (2023 - 2025) <p>Processing capacity : 50,000 tons of PET waste per year. Partners: Indorama Ventures and Technip Energies Planned commissioning: 2025</p>
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1.4.5.1 Industrial pilot phase of the technology

Within its pilot unit inaugurated at the end of 2019, the Company also optimizes the stages of pre-treatment of plastic and textile waste, depolymerization of PET and purification of monomers. Validation of the quality of the monomers obtained is then achieved by r-PET re-polymerization tests¹, transformation into products (bottles and fibers), and tests to characterize the mechanical and food-contact properties of these finished products. This work has already made it possible to produce the first batches of transparent bottles from monomers resulting from the depolymerization of PET plastic waste as well as from PET polyester textile waste. It is also thanks to its pilot unit that Carbios and the partners of its PET Consortium produced the first prototypes of food-grade bottles entirely made from enzymatically recycled plastic in June 2021².

The work carried out on a pilot scale as part of the CE-PET project made it possible to meet three objectives:

1. ensure the development of the pilot-scale process for PET plastic waste;
2. adapt and optimize the process for the recycling of PET textile clothing, linens and upholstery waste (duvets and pillows with high PET content) up to the pilot scale;
3. ensure the competitiveness of the process.

To this end, Carbios and its academic partner TWB have focused on the development of a new generation of enzymes whose activity, thermostability and absorption will be improved compared to the enzymes previously developed by Carbios. This work, carried out within the cooperative laboratory PopLaB in Toulouse, and which continues today in the context of new projects, aims to obtain the best possible yield and productivity during the depolymerization stage of PET plastic waste.

In February 2023³, Carbios announced the validation of the final key stage of the CE-PET research project, which enabled it to demonstrate its ability to enzymatically recycle complex waste to produce new bottles and fibers and prove the robustness of its recycling process.

The last key stage of the CE-PET project was fully approved by ADEME.

Main technical results of the CE-PET project:

- The development and optimization of a high-performance and competitive enzyme for the depolymerization of PET plastic and textile waste.
- The replicability of the process performance at the pilot scale and the definition of the various unit operations for the transposition of the process to the scale of an industrial demonstration plant.
- Characterization and specifications of sources of PET that can be used in the process
- The production of r-PET bottles 100% from PET plastic and textile waste, and compliant with food-grade applications.
- The production of a white r-PET fiber made from 100% plastic and textile waste, even colored ones.

For the validation of the whole project, Carbios will have received a total amount of €4,136,000 (€1,034,000 in subsidies and €3,102,000 in repayable advances) and its partner INRAE-TWB €3,416,000.



Reactor for the depolymerization of plastic waste and PET textiles into monomers at the Carbios pilot unit.

¹ r-PET: recycled PET.

² Please refer to the press release of June 24, 2021.

³ Please refer to the press release of February 3, 2023.



1.4.5.2 Start-up of the industrial demonstration plant: from project to operation

This demonstrator represents the final stage of development of the process and foreshadows the design of future industrial units. The installation of this demonstration plant on the Cataroux site in Clermont-Ferrand in a closed building allows Carbios and Michelin to pool the utilities and services necessary for the operation of this facility while securing access.

This facility includes storage areas for raw materials and finished products (terephthalic acid and monoethylene glycol), the pre-treatment of PET waste, a hydrolysis reactor with a capacity of 20 m³ and equipment for the purification of monomers (terephthalic acid and monoethylene glycol) enabling the production of high-purity batches. The operation is carried out by a team of 15 people, with a recruitment plan for operators and technicians that will continue in the first half of 2023 to support the increase in volumes.

During the fiscal year 2022, Carbios continued to commission the steps of its process in its industrial demonstration plant, which is now complete and operational for the processing of PET food packaging feedstock (bottles, trays).

Modules were also added to integrate more than 30% of textile into the process. These additions of modules will continue during the first half of 2023.

The operations carried out at the demonstrator make it possible to acquire the operating know-how, as well as the key data necessary for the optimization and extrapolation of the technologies of each step of the process. Performance tests are carried out on each unit operation of the process and included in the technology process book. Assumptions regarding the sizing of equipment, material balance and consumption of utilities (water, steam, etc.) are confirmed and included in the design documents for the Reference Unit project. All of the results obtained support the structural assumptions of the industrial project (environmental impact, performance, technologies, sizing on a commercial scale, cost, schedule).

It is also the tool of choice for the validation of PET waste sources and batches of monomers, products of depolymerization. In 2022, the reliability of the facilities and qualification of the technology was carried out using a PET feedstock of colored bottles. Tests were also carried out using feedstock food trays prepared in France.

In 2023, the demonstrator program provides for:

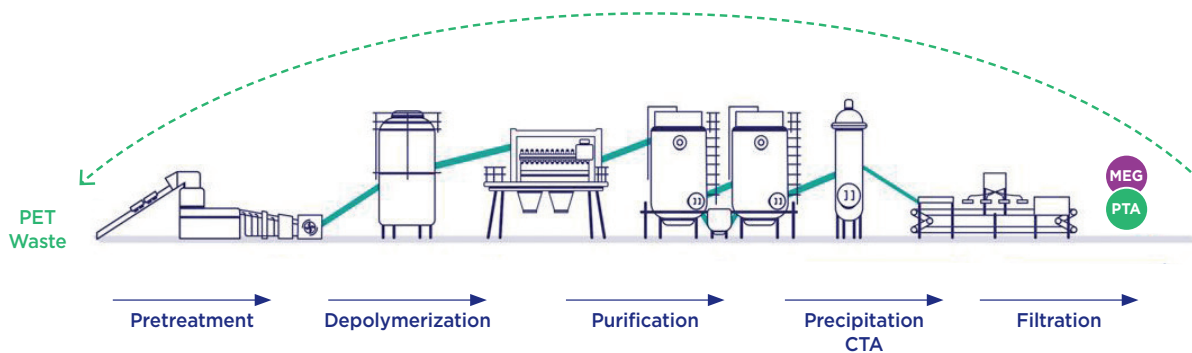
- in the first half of the year: approval through long campaigns (3 to 6 months) of feedstock from trays to internal monomers, and to the finished PET food-grade product with the support of partners for repolymerization.
- In the second half of the year:
 - testing of new grades potentially available for supplying the first industrial unit; and
 - the first demonstrator campaigns using PET textile feedstock.

At the date of this Universal Registration Document, the industrial scale-up of this biorecycling technology is supported by the excellent results obtained in the demonstrator since its commissioning.

As regards the core of the process (enzymatic depolymerization), after having successfully carried out the change of scale of the pilot (1 m³) for the demonstration plant (20 m³) in 2021, the highlight of 2022 was the confirmation of the robustness of the technology:

- The reaction (productivity, yield) is replicable and not very sensitive to variations in raw materials and operating conditions.
- The batches of monomers produced in 2022 are in line with the product quality objectives.

These results will be verified in 2023 with larger volumes produced from diversified PET feedstocks. As such, the Company has set itself the target of depolymerizing 60 metric tons of PET at its Cataroux site, the equivalent of approximately 2.4 million plastic bottles or 3 million food trays.



Modeling of the main stages of the process of depolymerization of PET plastic and textile waste into monomers, as used at the industrial demonstration plant



Carbios industrial demonstration plant for the depolymerization of PET plastic waste and textiles into monomers. (Carbios)

Grouping of sites

On the strength of the possible synergies offered by the site hosting its industrial demonstration plant, Carbios grouped its teams¹ at the Cataroux site (Clermont-Ferrand) in July 2022. The buildings leased by Carbios on this site include, alongside the demonstration plant, the vast majority of the Company's activities and in particular the development laboratory, the pilot plant, the support activities and, since March 2023, the industrial production unit and sales team of its subsidiary Carbiolice. The quality of the new infrastructure will enable Carbios to improve the risk profile associated with the industrial demonstration phase while controlling costs and deadlines. The operational teams will thus benefit from an optimal environment to successfully industrialize Carbios' enzymatic PET recycling technology.

1.4.5.3 Reference Unit construction project

In order to ensure the industrial deployment of its proprietary PET recycling technology, the Company announced in April 2021 a project to build a Reference Unit. This first industrial unit will also strengthen Carbios' business model, which remains the licensing of its technologies and know-how to its licensees, who will build their own PET biological recycling production units.

As part of this project, the Company conducted advanced discussions with several world-class PET producers and was able to announce the following progress:

- in April 2021², Carbios announced the signature, on April 15, 2021, of a non-exclusive and non-binding agreement in the form of a Letter of Intent with one of the largest PET producers worldwide;
- on January 19, 2022, Carbios announced the preselection of two world-class PET producers to host the future Reference Unit operating Carbios' enzymatic recycling technology.

- On February 23, 2022³, Carbios announced a partnership with Indorama Ventures, the world leader in the production of recycled PET, for the establishment of its Reference Unit on the French site of Indorama (Glanzstoff) in Longlaville. This collaboration confirms the opportunity to set up the world's first PET enzymatic recycling unit in France, with an estimated processing capacity of 50,000 metric tons of PET waste per year, representing the equivalent of 2 billion bottles or more than 2.5 billion trays. The project is expected to create around 150 direct and indirect full-time jobs.



Modeling of the Reference Unit of Carbios 54, a wholly-owned subsidiary of Carbios for its Longlaville industrial operations (Credit: Technip Energies)

¹ Please refer to the press release of September 28, 2020.

² Please refer to the press release of April 26, 2021.

³ Please refer to the press release of February 23, 2022.



On June 8, 2022, Carbios 54, a wholly-owned subsidiary of Carbios for its industrial operations in Longlaville, was created.

In 2022, Indorama Ventures was involved in the industrial project in different ways:

- due diligence: technological reviews of the demonstrator results and the Reference Unit design process documents;
- technical cooperation on sub-assemblies with an upstream/downstream interface or for which Indorama Ventures has industrial expertise; and
- general reviews of project progress of FEL 2 (technology planning) and FEL 3 (project planning): progress of studies, cost estimate and schedule.

On the basis of this technical and economic due diligence, Indorama could co-invest in Carbios 54.

The preliminary design study for the plant (or FEL 2), launched in January 2022, followed the feasibility study for a facility with a capacity of 50,000 metric tons per year, already carried out with Technip Energies over the 2020-2021 period.

The end of FEL 2 milestone was reached in October 2022, with a general level of maturity in line with best practices (assessment according to the Project Definition Rating Index method) at this stage.

In particular:

- all technological options were closed with the results produced by the demonstrator; and
- the main choices in connection with the building permit and the application for environmental authorization had been made.

Subsequently, the building permit and environmental authorization applications were sent to the Administration on December 22, 2022.

At constant prices, the estimate at the end of FEL 2 (class IV) confirmed the investment cost of €200 million communicated by the Company in February 2022. The main risk factors on the cost of the project are the inflation observed in 2022 on the equipment and works contract and the technical and environmental specificities of the Unit's construction site .

Since November 2022, all the detailed pre-project activities (or FEL 3) have been launched, still in collaboration with Technip Energies' operational center in Lyons, with the aim of completing the pre-project studies in June 2023.

Concerning the FEL 3 activities on the critical path of the project, these started in July 2022. They relate in particular to specifications of equipment, packages or turnkey units with a delivery period of more than 18 months. The first orders will be placed in the second quarter of 2023. In FEL 3, the process business alignment between the process project team and the Cataroux demonstrator remains a key success factor for quality and planning control. Demonstrator tests are prioritized accordingly.

As part of this project, Carbios intends to secure solid financial support from the French government and local public authorities. In this respect, a request for financing was filed with ADEME in June 2022. As of the date of this Universal Registration Document, the request is being examined by the State services and local authorities.

To support the ramp-up and quality of the project, Carbios is strengthening its team with internal resources and service providers who are experts in engineering and operations, project management and support functions. At the end of 2022, the Carbios project and project management team had around 75 people working under the responsibility of the Project Director.

The future Plant Manager was recruited in November 2022 with the main assignments of participating in the major design reviews of the project, the planning of the reception (or commissioning) of the subsystems and the preparation of the industrial operations, with the first recruitments starting in 2023.

Key steps of the Reference Unit project:

2022	• Filing of construction permit.
2023	• First orders of equipment with long lead times; and • Start of construction, when permits obtained in the second half of the year.
2024	• Recruitment of Carbios 54 operations team and training at the Cataroux Demonstration facility.
2025	• Mechanical completion and commissioning.
2026	• Ramp-up.



1.4.5.4 Industrialization and licensing model

The success of Carbios' industrialization model lies in its ability to build strategic industrial partnerships¹. To facilitate the implementation of such agreements, the Company favors, as of the upstream technological development phases, the signing of "Joint Development Agreements," "Consortium Agreements" or "Letters of Intent" which combine R&D cooperation and competitiveness analyses. Building on its developments, from 2024, Carbios aims to grant the first operating licenses for its proprietary enzymatic recycling technology for plastic waste and PET polyester fibers to manufacturers who will build and operate their own units.

Carbios' licensing model is based on the operation, by PET producers, of licensed industrial units fed by both plastic and textile waste. Indeed, the possibility of treating PET waste in plastic or textile form, alone or as a mixture, in the same recycling unit would not only diversify the sources of supply and regulate the PET content of incoming waste, but also massify incoming waste streams and make it possible to adapt to available supplies depending on the geographical location of PET producers.

The size of the units may vary depending on the geographical areas where they operate. Carbios' biorecycling process makes it possible to consider two complementary location options: either in areas that already produce PET, or in areas that consume PET products and therefore generate waste. The main target regions are initially Europe, then the United States and Asia and, after that, Africa-Middle East (AME). The two predominant criteria taken into account in future choice of location are, on the one hand, the availability of waste and the efficiency of the collection and sorting network in the country where the polymerist is located and, on the other hand, the choice of countries with high per capita GDP (e.g., United States, Europe, Japan, South Korea, etc.) because the consumption of plastic packaging and textiles is significant and consumers are more aware of circularity and sustainable development factors.

Carbios' business development model is based on three types of revenue:

- the **granting of licenses for the use** of its know-how and intellectual property: the licenses granted will generate revenues in the form of upfront payments, royalties or dividends;
- **royalties** from the sale of proprietary enzymes directly to manufacturers using technologies developed by the Company; and
- **royalties** from the premium generated by manufacturers from the sale of biorecycled PET.

As part of the technological licensing, Carbios will thus derive the value of its innovation through revenue from upfront payments, royalties or dividends from the granting of licenses, engineering assistance services and technical assistance until the start-up of the units.

The Process Book resulting from the work carried out at the demonstrator should enable Carbios to license its enzymatic recycling process to PET producers who will build and operate their own units and repolymerize the monomers produced on their existing lines, of which more than 95% currently use PTA and MEG for the production of PET.

This license will also be accompanied by the provision of technical support services to the licensees, such as training and supervision during the detailed engineering, construction, commissioning, start-up and performance tests of the units.

At the same time, the enzymes intended to feed the PET production units will be produced by Novozymes, the world leader in the production of enzymes. To this end, the Company signed, on January 11, 2023², an exclusive and long-term strategic agreement with Novozymes. This agreement, which is an extension of the partnership initiated in January 2020 with Novozymes³, made it possible to develop the expression hosts and the pre-industrial scale production of Carbios' proprietary enzyme. The production of enzymes for the Reference Unit and for future licensees was thus secured with this world leader in enzyme production.

Licensing documentation ready for industrial and commercial deployment internationally

In April 2023³, Carbios announced that its licensing documentation was now ready for the global commercialization of its PET biorecycling technology. The successful ongoing operations in its demonstration unit in Clermont-Ferrand and the advanced engineering study for its first commercial plant define the engineering basis and operational guidelines for units to be operated under license agreements. From technology promotion with the Technical Information Summary (TIS⁴) to project development with a specific Process Design Package (PDP⁵) and Process Book, future Carbios licensees will be handed all necessary process documentation to reliably engineer, procure, construct and operate their PET biorecycling plants under stringent HSE standards⁶ and with high product quality.

This new industrial stage complements the work done with the brands brought together within the two Carbios consortia, as well as the exclusive long-term partnership with Novozymes.

¹ For more information on the strategic partnerships related to the PET project, please refer to section 2.5 of this Universal Registration Document.

² Please refer to the press release of January 12, 2023.

³ Please refer to the press release of January 30, 2020.

⁴ TIS = Technical Information Summary

⁵ PDP = Process Design Package

⁶ Health, Safety and Environment



1.5 CARBIOLICE: A TECHNOLOGICAL LEADER IN THE BIODEGRADATION OF PLA-BASED BIOPLASTICS

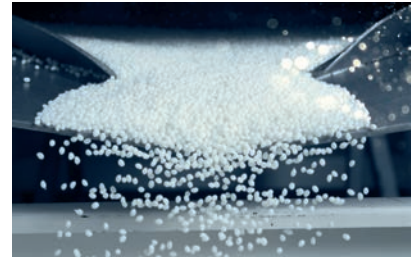
Global bioplastics production capacity: 2.4 million metric tons in 2021¹

Global PLA production capacity: 440 thousand metric tons in 2021²

Carbiolice Masterbatch: the first additive that enables plastics with a high PLA content to achieve “OK compost HOME” certification from TÜV AUSTRIA Group.

Technology labeled “Efficient Solution” by the Solar Impulse Foundation³ and GreenTech Innovation by the French Ministry for the ecological transition⁴.

Carbiolice, an ISO 9001 level 2-certified industrial company, wholly-owned subsidiary of the Carbios Group.



1.5.1 ACCESSIBLE MARKETS

The development of biosourced plastics (i.e., made from natural resources such as corn or sugar cane) started over 20 years ago through the development of green chemistry and the desire to market products stemming from renewable resources as an alternative to products derived from petrochemicals, in order to address (i) the dwindling of oil resources, (ii) the greenhouse gas issue and (iii) the preservation the environment.

Even though they have been around for a long time, bioplastics accounted for less than 1% of global plastic production in 2019 , but show strong growth prospects. In 2021, global production capacity for bioplastics was estimated at 2.4 million metric tons and should reach 7.6 million metric tons by 2026.

Among these bioplastics, Carbios, via its subsidiary Carbiolice, was particularly interested in PLA (PolyLactic Acid, or polylactic acid), whose market is both promising and growing strongly.

PLA is a biosourced and biodegradable plastic polymer according to the EN13432 standard (industrial compost environment) which is also biocompatible.

It is currently used for the following applications :

- rigid packaging, mainly for food (35% of the market);
- flexible packaging, mainly for food (27% of the market);
- non-woven textiles: tea bags, diapers, wipes, filters (19% of the market);
- consumer products in cosmetics, 3D printing and automotive (13% of the market); and
- agricultural or horticultural uses: mulching films, clips and pots (6% of the market).

Process	Description of markets	Estimated global production		Growth rate
		2021	2026	
Global PLA production capacities	Flexible or rigid packaging, textile fibers and medical applications for which the biodegradability of PLA is sought. PLA is also an excellent substitute for PET, PE, PS or PP.	440 KT ⁽¹⁾	790 KT ⁽²⁾	28% ⁽¹⁾
Global production capacity of bioplastics (biodegradable polymers and biosourced/non-biodegradable polymers)		2.42 MT ⁽³⁾	7.59 MT ⁽³⁾	25.7%

⁽¹⁾ Source: IHS Markit in 2021. ⁽²⁾ Source: Nova institute projection in 2021. ⁽³⁾ Source: Plastics Europe in 2021.

¹ Source: Nova Institute in 2021

² Source: HIS Markit in 2021.

³ Please refer to the Carbiolice press release of January 10, 2021.

⁴ Please refer to the Carbiolice press releases of January 20, 2021 and May 3, 2021.

⁵ Source: PlasticsEurope in 2018, European Bioplastics and Nova Institute in 2019.

⁶ Source: PlasticsEurope in 2021.

⁷ Source: Global Polylactic Acid Market Size Report, 2021-2028 (grandviewresearch.com) and Biopolymers facts and statistics, IfBB 2020, p43.



Globally, PLA production capacity was estimated at around 440,000 metric tons per year¹ in 2021.

In recent years, many investments have been made and capacity expansions have been implemented on the sites of major producers such as NatureWorks LLC in the United States², TotalEnergies Corbion in Thailand³ and Cofco Biochemical in China. As demand is currently much higher than production capacity, new investments were announced in 2020, which makes it possible to estimate the installed production capacity at around 790 KT by 2026.

Recent major projects announced for the production of PLA include:

- the construction by NatureWorks of a second unit in Thailand with a capacity of 75 KT per year, which will be fully integrated with the production of lactic acid for an estimated investment of \$600 million⁴;
- the investment by TotalEnergies Corbion in France on the Grands Puits site for a capacity of 100 KT per year with a start-up scheduled for 2025⁵;
- an extension of Cofco Biochemical's capacity in China to reach a capacity of 100 KT⁶ per year and the construction of a unit in the United States via a joint venture created by ADM and the LGChem group⁷;
- Futerro's investment in France at the Port-Jérôme site in Normandy through its joint venture with the Chinese company COFCO, for a new production capacity of 75 KT of PLA from the fermentation of wheat and the construction of an adjoining recycling unit with an announced investment of more than €500 million⁸.

Demand for PLA is currently supported by mature markets such as the United States and Europe, and the strongest growth rates are observed in Asia and mainly in China, India, Japan and Korea.

In France, less than 8% of plastic packaging, excluding bottles and flasks, is recycled, even though it represents more than 50% of packaging⁹. Contrary to some initial fears, compostable packaging can be integrated into conventional plastic flows. Thus, according to an ADEME opinion published in November 2019¹⁰ on the environmental impact of fruit and vegetable bags in November 2019: *"The tests carried out by the Technical Committee for the recycling of plastic packaging show that near-infrared optical sorting technologies can perfectly separate compostable films from low-density polyethylene films without a significant difference in efficiency compared to other resins."* This opinion reinforces the relevance of the use of compostable plastics for

targeted applications, and particularly when it is difficult to integrate them into the recycling stream of conventional plastics for technical (complex plastics, too small or thin, difficult to identify), economic (upstream sorting, washing) or environmental (additional sorting and washing operations, landfill, etc.) reasons.

In August 2022, a test was carried out by TotalEnergies Corbion and the company Tomra Recycling to sort PLA trays in a municipal waste stream containing PET¹¹. Once again, this test conducted on an industrial scale demonstrated that PLA can be sorted by infrared, a technology widely used in sorting centers. In addition, PLA plastics do not disrupt the processing of other plastic flows such as PET.

By avoiding incineration or landfills, compostable plastics represent an appropriate solution for many uses. This is the case, for example, for food packaging used in places where containers can be difficult to wash on site (fast food restaurants, stadiums, festivals, etc.). Thus, compostable bio-waste, paper and plastics could be sent together for composting.

Since the end of 2020 and the marketing by Carbiolice of the first volumes of its Masterbatch for the purpose of conducting tests with end customers, the first market segments were targeted, in particular for flexible films for industrial applications, such as wedge bubbles, and for rigid applications such as horticultural pots, for which TÜV Austria "OK compost HOME" certifications have been obtained on standard formulations. These first proofs of concept will serve as a basis for the commercial development of Masterbatch.

Carbiolice is currently focusing on developing new market segments, particularly in flexible and rigid food packaging with greater thicknesses. For these products, which are subject to stricter regulations, barrier properties are expected to guarantee food safety and preserve the organoleptic qualities and shelf life of the food. Developments carried out jointly with brands require a development time of 18 to 24 months.

Food contact approvals for products incorporating the technology supported by Carbiolice are underway in the United States and should allow commercial production in 2023. A similar application will be filed in Europe in 2023, which will then open access to the European market following the assessment and approval phase of the application by EFSA.

¹ Source: HIS Markit in 2021.

² Source: NatureWorks | NatureWorks announces additional lactide monomer purification technology to expand the availability of Ingeo biopolymer from Blair facility (natureworkslc.com).

³ Source: Total Corbion in 2021: <https://www.totalenergies-corbion.com/media/1111bcko/210906-total-corbion-pla-marks-100kt-luminy-pla-production-milestone.pdf>.

⁴ Source: NatureWorks | NatureWorks Passes Final Authorization Milestone for New Fully Integrated Ingeo PLA Manufacturing Plant in Thailand (natureworkslc.com).

⁵ Source: A bioplastics production unit: PLA | v2grandpuits (totalenergies.fr).

⁶ Source: Carbios data in 2022.

⁷ Source: Unlocking Nature. Enriching Life. | ADM.

⁸ Source Futerro: Futerro aims to set-up a new fully integrated PLA biorefinery in Normandy, France. | Futerro

⁹ Source: CITEO activity report 2020

¹⁰ Source: ADEME Opinion of November 14, 2019: <https://presse.ademe.fr/2019/11/reviews-de-lademe-limpact-environnemental-des-sacs-demballage-de-fruit-et-legumes.html>

¹¹ Source: Sorting PLA from Municipal Plastic Waste is Proven Easy Again (plasticstoday.com)



1.5.2 INNOVATION

The innovation of the biodegradation process developed by Carbios for PLA-based plastics consists of introducing enzymes into plastic materials to make them biodegradable and 100% compostable, including at ambient temperature. These enzymes enable PLA-rich plastics to be 100% compostable under aerobic (industrial composting, domestic composting, in soil) and anaerobic (methanization) conditions.

This technology is now used on an industrial scale in the form of an additive (an encapsulated enzyme) that is integrated into the core of the plastics and packaging during their manufacture in conventional plastics processes (blow film extrusion, calendering extrusion, injection, etc.).

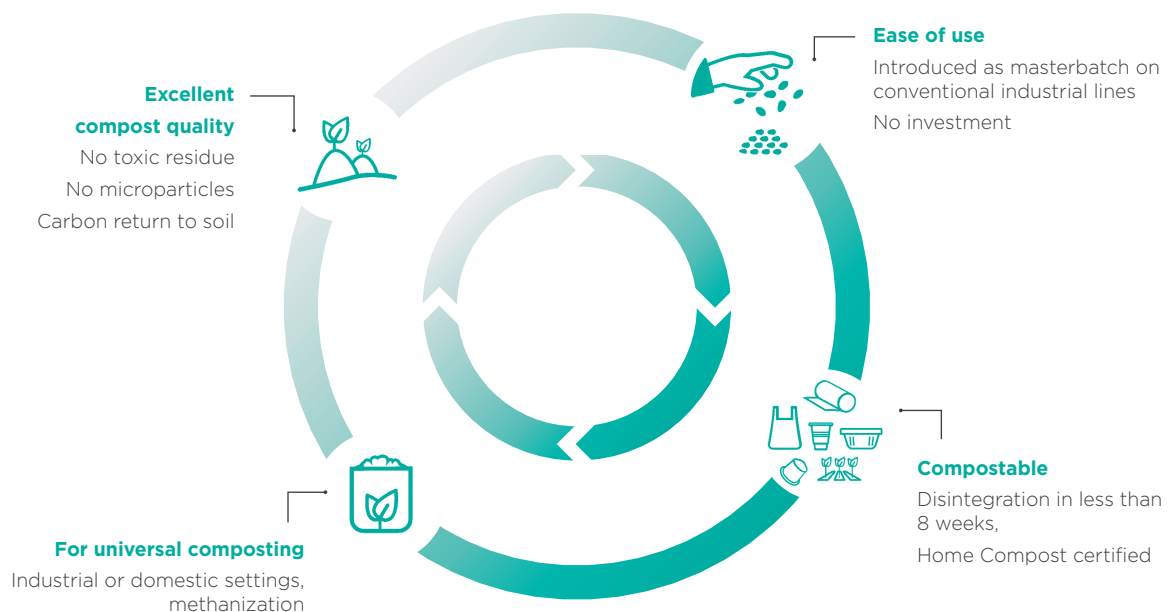
The enzymes, specifically optimized for the degradation of PLA, are firstly integrated into a polymer matrix, which protects them from high temperatures. The enzyme additive thus obtained is then integrated, up to 5%, as a mixture with PLA or compounds with a high level of PLA, on traditional plastics processing tools in order to shape finished products (flexible films, sheets, etc.).

In order to extend the application field of this technology and make the additive even more efficient in the most critical processes of plastics manufacturing (injection, fiber extrusion, etc.) and very thick applications, Carbiolice has, in addition to its industrial and commercial production line, an R&D workshop and pilot tools. This equipment makes it possible to test formulations and manufacturing processes for the additive and then to shape different types of finished products. A pilot extruder, single-layer and multi-layer inflation and calendering extruders as well as an injection molding machine are thus available to the Carbiolice teams. A laboratory equipped for the needs of materials characterization and enzymology also makes it possible to validate the developments carried out for the extension of this technology to new applications with high added value.

Internationally, this technology is currently protected by 26 patent families belonging to Carbios or Carbiolice or licensed to Carbios, and which cover the enzyme, the formulation and the process for preparing the additive, as well as the finished products in which it can be introduced.



ENZYMATIC SOLUTION TO MAKE PLA COMPOSTABLE AT AMBIENT TEMPERATURE





1.5.3 SUMMARY OF THE STAGE OF DEVELOPMENT

PLA plastics biodegradation process for which Carbios has granted an operating license to its subsidiary Carbiolice:

Commercial product	Carbiolice Masterbatch
Target polymer	PLA
Applications	Flexible packaging, mulching films, bags, sachets, industrial films, trays, rigid food packaging, coffee capsules, etc.
Development stage	Industrial
First licensing revenues for Carbios	2016 ⁽¹⁾
Estimated date of marketing by Carbiolice of Masterbatch to final customers	2020 ⁽²⁾
Development partners	Carbios, Novozymes, Barbier Group and Futuragrow

(1) Fixed royalty of €8 million received in 2016 under a patent and know-how license agreement signed with Carbiolice SAS.

(2) Previously forecast for 2019, the first revenues from the biodegradation technology licensed to Carbiolice were received at the end of 2020 with the start of marketing of the Carbiolice Masterbatch solution for the purpose of conducting tests at end customers.

The enzymatic biodegradation of PLA-based bioplastics (made from natural resources such as corn or sugar cane) makes it possible to create a new generation of plastics that are 100% compostable, including at ambient temperature, thanks to the integration of enzymes into the core of these plastics. The introduction of Carbiolice Masterbatch in the manufacture of PLA-based plastic products allows them to fully biodegrade in industrial or domestic composts, or in methanization units. The commercial launch of Carbiolice Masterbatch, an enzyme-based additive developed by Carbios, was initiated in December 2020 for the purpose of testing at end customers. It is the first additive that allows plastics with a high PLA content (flexible films and rigid plastic packaging) to achieve "OK compost HOME" certification from TÜV AUSTRIA Group¹.

In addition, Carbiolice has conducted several series of end-of-life tests on packaging incorporating its Masterbatch solution to assess the benefits when it is processed in industrial composting or methanization. The full results of these trials will be available in 2023 and should make it possible to confirm the benefits of the use of this technology in a context where the separate collection of bio-waste will become mandatory from January 1, 2024 in Europe.

1.5.4 COMPETITIVE ADVANTAGES

The technology implemented by Carbiolice in the field of biodegradation of plastics with a high PLA content aims to offer plastic products for which it will be possible to ensure compostability under domestic conditions according to the NFT 51-800 standard, without residue and without ecotoxicity:

- in less than 30 days for flexible films of 90 microns in 100% PLA; and
- in less than 80 days for rigid plastics up to 800 microns also in 100% PLA.

In this context, combining sustainability and biodegradability under domestic conditions is one of the major challenges of the enzymatic biodegradation process developed by Carbios.

This innovative and eco-friendly alternative offers a positive response to some disadvantages of the biodegradable plastics currently on the market, namely:

- a real capacity for biodegradation under domestic conditions, whatever the temperature, unlike the majority of currently so-called biodegradable products that only biodegrade under industrial conditions (temperature above 60°C); and
- new plastics designed to be competitive, and which can replace fossil-based plastics in the most common applications, for which no recycling or recovery solution is suitable.

For example, the use of one ton of Carbiolice Masterbatch will reduce the amount of plastic waste generated when replacing fossil-based polymers by 20 metric tons.

With its technological offering, Carbiolice should be able to exploit this competitive advantage in high value-added application markets.

For information on Carbiolice's potential competitors in PLA plastic biodegradation, the reader is invited to consult section 3.2.1.3 "Risks associated with the emergence of competing technologies" in this Universal Registration Document.

¹ Please refer to the Carbiolice press release of December 1, 2020 and of September 2, 2021.



1.5.5 CARBIOLICE: AN INDUSTRIAL AND COMMERCIAL COMPANY

Created in 2016, Carbiolice is a French company resulting from a tripartite agreement between Carbios, the SPI ("Sociétés de Projets Industriels - Industrial Project Companies") investment fund managed by Bpifrance Investissement and Limagrain Ingrédients.

Following the purchase of all of the equity interests of Limagrain Ingrédients and the SPI fund in the capital of Carbiolice, which took place respectively in October 2020¹ and June 2021², Carbios now holds 100% of the share capital and voting rights of Carbiolice.

As part of the project to consolidate the activities of the Carbios Group, the Carbiolice teams, the laboratory, the pilot equipment and the industrial line joined the Cataroux site in February 2023. This grouping on a single site helps to strengthen synergies between teams and projects.

With an operational industrial tool and multidisciplinary teams (Industrial Research and Development, production, quality, applications, etc.) and a dedicated sales function, Carbiolice continues to market the PLA biodegradation solution with tests with manufacturers and has begun the scale-up of a new generation of enzymes that will expand the potential of accessible markets.

The production and marketing of Masterbatch are secured by a joint development agreement signed in January 2019 by Carbios and Carbiolice with Novozymes³, in which the latter agrees to become, in the long term, the exclusive supplier of Carbiolice, and to produce on an industrial scale the proprietary enzyme developed by Carbios for the biodegradation of PLA.

Through its production unit, Carbiolice intends to address specific areas of application, namely the flexible film markets (bags and sachets, industrial films and food packaging), all rigid applications in the agriculture and horticulture sectors and rigid food packaging (food containers for fast-food outlets, trays, etc.).

1.5.5.1 License concessions

On August 30, 2016, Carbios granted an exclusive worldwide license to Carbiolice for the operation of the enzymatic biodegradation technology for all mixes (plastic compositions and masterbatches) based on certain specific biodegradable polyesters, and notably PLA, for certain specific applications ("the Field"). In an amendment to the license agreement dated June 28, 2018, the scope of the license to Carbiolice was extended to new patent families, applications and products.

On August 30, 2016, for the granting of patent licenses and know-how by Carbios to Carbiolice, Carbios recorded non-monetary operating revenue of €8 million, of which the counterparty was a receivable from Carbiolice, subsequently converted into an equity interest in that company. This license agreement also provides for the payment of royalties on the sales of products integrating Carbios' patented enzymatic biodegradation technology. The amendment to the license agreement dated June 28, 2018 also provides, in consideration for the extension of the number of patent families and new applications licensed to Carbiolice, for the payment to Carbios of an additional lump sum, conditional upon achievement by Carbiolice of a defined amount of revenue.

Following the purchase of the shares of the SPI fund in the capital of Carbiolice which took place on June 3, 2021, Carbiolice, as an affiliate of Carbios, now directly holds the exclusive worldwide operating license for the patent family owned by the CNRS and the University of Poitiers. In this respect, Carbiolice may pay royalties to the joint owners with the revenues generated by Carbiolice's exploitation of this family of patents. No royalties from Carbiolice to the co-owners were recognized in fiscal year 2022.

¹ Please refer to the press release of October 8, 2020.

² Please refer to the press release of June 4, 2021.

³ Please refer to the press release of January 29, 2019.



Carbiolice production line ©BrunoLevi

1.5.5.2 Funding of Carbiolice and changes in the capital structure

Funding of Carbiolice

Since its creation in 2016, the historical shareholders of Carbiolice - Limagrain Ingrédients, the SPI fund and Carbios - have invested €18 million, which was released in four phases over 4 years depending on the achievement of technical and commercial milestones. These investments in Carbiolice's share capital were made in accordance with the initial commitments and the provisional schedule, as detailed below:

- the first tranche of funding of €4 million, of which €1.5 million was provided by Carbios, took place on the business start-up in September 2016;
- a second tranche of funding of €3.35 million, initially scheduled to be paid in 2019, was released early in July 2018 (including €1.1 million provided by Carbios) given the acceleration of Carbiolice's developments, namely the implementation of a new business plan and the filing of several patent applications confirming the achievement of new milestones;
- a third tranche of funding in the amount of €3.35 million (including €1.1 million provided by Carbios) was released in July 2019; and
- a fourth and final tranche of funding for an amount of €7.3 million (including €2.8 million from Carbios and the balance by the SPI fund) was released in October 2020.

Acquisition of the stake of the Bpifrance Investissement SPI funding the capital of Carbiolice

On June 4, 2021¹, Carbios announced the acquisition from the SPI fund of Bpifrance Investissement of its entire stake of 37.29% in the capital of Carbiolice. This acquisition, which took place on June 3, 2021 for a price of €17.9 million, ended 5 years of structuring collaboration with the SPI fund. Following this acquisition, which was paid exclusively in cash, Carbios now holds 100% of the share capital and voting rights of Carbiolice. This transaction, which took place as part of the rationalization of the Company's portfolio, followed the acquisition, in October 2020, of the entire stake of Limagrain Ingrédients in the capital of Carbiolice².

These two successive transactions, which value Carbiolice at around €48 million, demonstrate the confidence of Carbios in Carbiolice's developments and in its ability to expand its activities in the biodegradation of polymers beyond PLA.

¹ Please refer to the press release of June 4, 2021.

² Please refer to the Carbiolice press release of June 24, 2020.



HISTORY OF EQUITY CONTRIBUTIONS IN CARBIOLICE

(In euros)	Carbios	Limagrain Ingrédients	SPI
Creation of the entity	1	-	-
Incorporation of the Company	98	1	-
Distribution of share capital at inception	99	1	-
Distribution of share capital at inception (in %)	99.00%	1.00%	0.00%
Carbios cash contribution	1,499,901	-	-
Conversion of Carbios receivables into Carbiolice equity securities	8,000,000	-	-
Partial contribution of Limagrain Ingrédients assets	-	3,499,999	-
SPI cash contribution	-	-	2,500,000
Distribution of share capital at December 31, 2016	9,500,000	3,500,000	2,500,000
Distribution of share capital at December 31, 2016 (in %)	61.29%	22.58%	16.13%
Distribution of share capital at December 31, 2017	9,500,000	3,500,000	2,500,000
Distribution of share capital at December 31, 2017 (in %)	61.29%	22.58%	16.13%
Cash contribution 2 nd installment	1,100,000	250,000	2,000,000
Distribution of share capital at December 31, 2018	10,600,000	3,750,000	4,500,000
Distribution of share capital at December 31, 2018 (in %)	56.23%	19.90%	23.87%
Cash contribution 3 rd installment	1,100,000	250,000	2,000,000
Distribution of share capital at December 31, 2019	11,700,000	4,000,000	6,500,000
Distribution of share capital at December 31, 2019 (in %)	52.70%	18.02%	29.28%
Acquisition of the stake of Limagrain Ingrédients	4,000,000	(4,000,000)	-
Cash contribution 4 th installment	2,800,000	-	4,500,000
Distribution of share capital at December 31, 2020	18,500,000	-	11,000,000
Distribution of share capital at December 31, 2020 (in %)	62.71%	0.00%	37.29%
Acquisition of the stake of the SPI fund of BPIfrance Investissement	11,000,000	-	(11,000,000)
Distribution of share capital at December 31, 2021	29,502,000	-	-
Distribution of share capital at December 31, 2021 (in %)	100.00%	0.00%	0.00%
Distribution of share capital at December 31, 2022	29,502,000	-	-
Distribution of share capital at December 31, 2022 (in %)	100.00%	0.00%	0.00%



1.5.5.3 Collaborations and developments

Collaborations

Barbier Group

On June 24, 2020¹, Carbiolice and the Barbier Group, the French leader in the manufacture of films for agriculture, announced a collaboration to develop biodegradable mulching films that include enzyme incorporation technology. This project aimed to develop a new generation of mulching films incorporating an enzyme masterbatch and combining a higher PLA content and biodegradation in the soil. As a result, over 1,000 m² of films were extruded in May 2020 by Carbiolice and the Barbier Group for tests currently being conducted under real growing conditions in several experimental horticultural stations. Despite encouraging results, the parties decided not to proceed immediately with the project, given the limited market opportunities and less favorable economic conditions compared to other application fields considered as priorities for the deployment of this technology.

Novozymes

As a reminder, in January 2019, Carbios and Carbiolice also signed a co-development agreement with Novozymes for the production and supply of PLA degradation enzymes on an industrial scale. During fiscal year 2022, this collaboration continued, in particular for the preparation of the Food Contact approval files for Masterbatch.

Other collaborative projects

Carbiolice is also involved in 4 European collaborative projects aimed at developing compostable packaging and bringing together several university and industrial partners.

- The PRESERVE and SISTERS projects, which started in January 2021, should make it possible to accelerate the evaluation of Carbiolice Masterbatch for applications in compostable flexible packaging with improved properties.
- The SEALIFE project, which is due to continue until September 2024, and in which the Company collaborates with the Spanish technical center ITENE and the company Bio4pack for the development of compostable food utensils and containers under domestic conditions.
- The CBPM project, led by the Dutch technical center Wageningen Food & Biobased Research, which ended in October 2022 and made it possible to demonstrate that the enzymatic pathway to accelerate the biodegradation of PLA was the most promising. In this context, laboratory-scale tests were carried out with 2 industrial partners (expanded PLA application and horticultural pots) and will lead to post-project scale-ups on industrial lines.

“OK compost HOME” Certification

In September 2021², Carbiolice announced that it had obtained “Ok compost HOME” certification from the TÜV Austria Group for rigid PLA-based (up to 70%) packaging containing its Masterbatch. New requests for “OK compost HOME” certification have been filed with TÜV Austria for flexible 100% PLA films up to a thickness of 90 microns and 100% PLA sheets of up to 800 microns in order to highlight the significant advances in disintegration speed. They also aim to confirm the performance of Carbiolice Masterbatch by a third-party organization and to accelerate the certification process of the finished products of future customers.

At the same time, initiatives were launched in the United States to obtain equivalent certification from the Biodegradable Product Institute (BPI).

Distinctions

Since 2021, Carbiolice Masterbatch has been certified “Efficient Solution” by the Solar Impulse Foundation. This distinction is awarded on the basis of criteria combining technical feasibility, environmental impact and potential for economic profitability.

The technology driven by Carbiolice also received the label “Greentech Innovation” from the French Ministry for the Ecological Transition. This recognition attests to the innovative nature of the enzymatic biodegradation technology of plastics implemented by Carbiolice and its ability to make a significant contribution to the environmental transition. Carbiolice thus joins the network of 247 start-ups labeled³ “Greentech Innovation” since its creation in 2016.



Compostability test - Credit: Carbiolice

¹ Please refer to the press release of January 29, 2019.

² Please refer to the Carbiolice press release of September 2, 2021.

³ Source: The Greentech innovation initiative | French Ministry for the Ecological Transition (ecologie.gouv.fr)



1.6 OTHER AREAS OF DEVELOPMENT

As part of its research and development work, Carbios aims to extend its recycling and biodegradation processes to other polymers and other applications of interest to industry.

The work carried out to date has focused on the following three areas:

1. **The enzymatic recycling of PLA;** and
2. **The biodegradation of PLA textiles**

Other areas of innovation have already been identified in order to adapt the processes developed by Carbios to waste containing polymers other than PLA and PET, for which Carbios is working to identify new enzyme/polymer pairs, such as:

- **polyamides:** PA6 (global market of 5.3 million metric tons¹), and PA6.6 (global market of 3.0 million metric tons²);
- **polyolefins:** polyethylene PE (global market of 107 million metric tons³), polypropylene PP (global market of 72 million metric tons⁴): and
- **elastomers:** natural rubber (global market of 13.8 million metric tons⁵).

These polymers are present in the packaging and textiles sectors, such as PLA and PET, but also in other sectors, in particular the automotive sector where an extended producer responsibility chain exists in France, but where end-of-life recovery methods are still very limited.

1.6.1 ENZYMATIC RECYCLING OF PLA

The enzymatic recycling of PLA waste is a process allowing the PLA to be depolymerized and returned to its original monomer, lactic acid. The monomers obtained are purified and repolymerized to produce new recycled PLA products of the same quality as those made using virgin PLA plastics.

As part of its research and development work, Carbios has demonstrated its ability to depolymerize PLA to obtain lactic acid. These results were confirmed by the success of the depolymerization of the PLA to 90% in 24 hours. This progress has made it possible to prove the concept of closed-loop recycling with the production of recycled PLA from lactic acid stemming from the PLA enzymatic recycling process.

Carbios has thus demonstrated the circularity of the PLA recycling process and its applicability to commercial items (flexible and rigid packaging).

For the enzymatic recycling of PLA, Carbios is targeting a nascent market, since the availability of PLA waste is still low. At the date of this Universal Registration Document, the Company does not intend to launch the industrial or commercial utilization of this technology.

1.6.2 THE BIODEGRADATION OF PLA TEXTILES

In addition to the plastics applications targeted by Carbiolice, PLA has considerable development potential for short-lifespan textile applications, such as hygiene products (baby diapers, feminine hygiene, adult incontinence or wipes), disposable protection equipment (gowns, hairnets, etc.), mulching felts and tea bags and coffee capsules. These applications represent a global market of over 5 million metric tons, with strong growth, notably due to the increase in the global population. Biodegradation has a particular interest in these applications where recycling is complex due to the presence of organic materials (e.g., diapers, coffee grounds) and/or dispersion in the environment (e.g., mulching felt).

The enzyme incorporation technology developed for the biodegradation of PLA plastics needs to be adapted due to the higher extrusion temperatures in textile spinning than in the plastics industry. This is why a new process has been developed. This led to the filing of a patent application for a multi-component thermoplastic product. Optimizations continue today within the Carbios laboratory in close collaboration with the Carbiolice teams.

In addition, Carbios could also consider adapting this process developed for PLA to other biosourced polymers such as PHAs (Polyhydroxyalkanoates).

¹ Source: Research and Markets in 2020

² Source: Paaler Mats in 2019, Transparency Market Research in 2018

³ Source: Mordor Intelligence in 2020 and Icis in 2019.

⁴ Source: Precedence Research relayed by GlobeNewswire in 2020.

⁵ Source: Association of Natural Rubber Producing Countries relayed by Tire Business in 2019.





2. COMMENTS ON THE BUSINESS

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Section 2.1 focuses on the Company's results and financial position based on the audited separate financial statements for the fiscal years ended December 31, 2021 and December 31, 2022, each lasting 12 months.

Section 2.3 focuses on the Company's results and financial position based on its audited consolidated financial statements prepared under IFRS for the fiscal years ended December 31, 2021 and December 31, 2022, each lasting 12 months.

This chapter should be read in the light of the Universal Registration Document as a whole. In particular, please read the description of the Company's operations presented in Chapter 1 of this Universal Registration Document. Likewise, please refer to the financial statements for the fiscal years ended December 31, 2021 and December 31, 2022, as well as the notes thereto, presented in Chapter 5 of this Universal Registration Document. The Company's separate financial statements were prepared in accordance with the accounting standards applicable in France for companies registered under French law.

2.1 ANALYSIS OF THE BUSINESS AND THE COMPANY'S RESULTS

Audited separate financial statements – French standards (In thousands of euros)	2022	2021
Operating income	6,800	1,793
Of which revenues derived from contracts with Carbiolice	165	163
Of which income from rebilling to Carbios 54	2,744	-
Operating expenses	25,239	15,123
OPERATING INCOME (LOSS)	(18,440)	(13,330)
Financial income	(1,060)	(81)
CURRENT INCOME BEFORE TAXES	(19,500)	(13,411)
Extraordinary gain or loss	(165)	10
Income tax	(2,538)	(2,265)
PROFIT OR LOSS	(17,127)	(11,136)

2.1.1 KEY FACTORS WHICH HAVE A SIGNIFICANT IMPACT ON CARBIOS' REVENUE

2.1.1.1 Key factors significantly affecting the Company's operating revenue

Carbios is an innovative green chemistry company whose goal is to accelerate the green revolution in chemistry for our everyday lives by re-thinking the life cycle of plastic and textile polymers. Its main activity thus consists in searching for innovative industrial bioprocesses to optimize the technical, economic and environmental performance of polymers by exploiting the biological properties of enzymes and developing these bioprocesses to license them to industrial partners for their commercial use and marketing.

The Company's operations and results are mainly impacted by the R&D expenses for the projects it undertakes. The Company also dedicates a large part of its resources to the protection of its intellectual property by filing patent applications at an early stage.

The Company's original business model is based on the industrialization and marketing of its products and/or enzymes, its technologies and its bioprocesses through the concession of operating licenses for its know-how and its intellectual property to major manufacturers in the sectors concerned by the Company's innovations. The Company thus intends to identify one or more leading manufacturer(s), offering the best potential for the industrial and commercial use of the innovation.

The subsidies granted for the CE-PET program were released according to the project's progress and the submission of reports to ADEME regarding the completion of each key stage stipulated in the signed framework agreement. The payment of the subsidies is conditional upon the completion of each key stage under the relevant conditions, depending on the deliverables:

Details of the payments provided for the CE-PET project (In euros)	KS1 (35%)	KS2 (60%)	KS3 (80%)	KS4 (100%)	Total
Payment year	2019	2020	2021	2022	
Subsidy	361,900	258,500	206,800	206,800	1,034,000
Repayable advance	1,085,700	775,500	620,400	620,400	3,102,000
TOTAL	1,447,600	1,034,000	827,200	827,200	4,136,000



From the founding of Carbios up until 2022 (except in 2016) the Company's activities have generated operating losses, since the projects developed have required increasing funding, while no operating revenues were recognized before the first license agreements. All R&D expenses are thus recognized as operating expenses for the year in which they are incurred.

In 2016, the Company founded the joint venture Carbiolice with Limagrain Ingrédients and the SPI ("Sociétés de Projets Industriels") investment fund for which the management company is Bpifrance Investissement. This company took over the production and sale of granules for the bio-sourced and biodegradable plastic products of Limagrain Ingrédients. It intends to develop this business through Carbios' technologies.

To this effect, a license agreement for Carbios' patents and know-how was signed on August 30, 2016 between SAS Carbiolice and Carbios (supplemented by an amendment on June 28, 2018). With this agreement, Carbios recorded its first licensing revenues in the 2016 fiscal year.

Since January 1, 2012, the Company has been eligible for Research Tax Credit (CIR), a scheme which offers a refundable tax credit to companies investing in R&D. The recognition of this tax credit thus reduces the impact of operating expenses on the Company's net income.

Research Tax Credit (CIR) (in euros)	2022	2021
Recognized as income	2,537,656	2,264,860
Cashed	2,264,860	1,487,911

2.1.1.2 Government, economic, budgetary, monetary or political factors that have materially affected or could materially affect, directly or indirectly, the Issuer's operations

For the Thanaplast™ project, the Company obtained 5-year funding from Bpifrance, with its academic and industrial partners. At December 31, 2017, this funding had been fully released.

The Company's future financing needs will depend on several factors, including the following:

- the required investments in laboratory equipment, human resources and partnerships for the pre-industrial development of the processes;
- the signing of license agreements in the fields targeted by the bioprocesses developed by the Company, which can generate income in the short or medium term.

As part of the CE-PET project, the Company obtained financial assistance from ADEME over 4 years, 80% of which had been drawn on at 31 December 2022, the balance to be received in 2023 following the full validation of the project.

Recent regulations on waste, such as the Energy Transition Law for Green Growth, the "France 2030" investment project and the "Circular Economy" package adopted by the European Commission (section 1.2.2 of this Universal Registration Document) can also present opportunities for the Company, particularly in terms of revenue.

2.1.2 OPERATING REVENUES

The projects conducted by the Company generated licensing revenues for the first time in 2016. Other operating revenues mainly stem from operating subsidies and the provision of services to the subsidiary Carbiolice recognized at the end of the fiscal years. Operating revenues amounted to €6,800 thousand in 2022 (compared with €1,793 thousand in 2021).

Thus, in respect of the fiscal year 2022, the Company recorded income of €207 thousand from the subsidy granted by ADEME, corresponding to the end of the fourth key stage of the CE-PET project, as well as €782 thousand through the European Commission LIFE program launched at the end of 2021.

In 2022, the Company recognized income of €120 thousand under a management contract entered into with its subsidiary CARBIOLICE on August 2, 2021 but effective on July 1, 2021, for an initial period of 12 months, and automatically renewed. The employee secondment contract expired on December 31, 2021.

The Company also rebilled a total of €45 thousand to its subsidiary for fees regarding regulatory matters.

Since October 1, 2021, the Company has decided to capitalize its development expenses related to the PET recycling project. Capitalized production in the amount of €1,287 thousand was recognized in this respect in the fiscal year ended December 31, 2022.

Lastly, the Company recorded operating income of €3,297 thousand in respect of reversals of depreciation, amortization and provisions, and transfers of expenses, mainly consisting of:

- borrowing costs disbursed with the European Investment Bank of €450 thousand, since they are spread over the term of said loan; and
- rebilling to CARBIOS 54 relating to the expenses incurred on behalf of its newly created subsidiary as part of the project to create the Reference Unit for €2,744 thousand.

Other operating income amounted to €1,062 thousand.



2.1.3 RESULTS

2.1.3.1 Operating expenses

The Company's operating expenses mainly consist of R&D costs and salaries. For the past two fiscal years, they break down as follows:

Audited separate financial statements – French standards <i>(In thousands of euros)</i>	2022	2021
OTHER COSTS AND EXTERNAL EXPENSES		
External studies, subcontracting and scientific consultations	3,432	1,844
Consumables	315	131
Supplies	354	130
Rentals, maintenance and upkeep expenses	1,878	1,546
Expenses and fees related to industrial property	74	87
Fees	6,317	2,364
Business travel	614	183
Miscellaneous expenses	926	369
TOTAL OTHER EXPENSES AND EXTERNAL EXPENSES	13,910	6,654
Taxes and similar payments	138	126
Salaries and wages	6,580	5,277
Social security contributions	2,510	2,077
Depreciation of fixed assets	1,910	764
Other expenses	191	225
TOTAL OPERATING EXPENSES	25,239	15,123

In 2022, Carbios spent €25,239 thousand on operational activities (compared to €15,123 thousand in 2021), of which 54% concerned Research & Development and Industrialization (RDI).

As a result, 42% of operating expenses were devoted directly to research and development (down as a percentage of total expenses, but up 10% compared to 2021). In accordance with the Company's roadmap and priorities, this effort has mainly focused on the development of the enzymatic recycling process for PET plastics and fibers. The sharp increases in external research, subcontracting and scientific consulting expenses, but also in consumables and supplies (which mainly concern the industrial demonstration plant) demonstrate the intensity of the resources that continue to be deployed.

Fees shows a sharp increase of €4 million, of which around €3 million directly concern the Reference Unit project (which mobilized 14% of the Company's operating expenses) and were rebilled to Carbios 54, a subsidiary newly created by the Company in 2022 to build and operate the Reference Unit.

Lastly, personnel expenses (wages and salaries, and social security contributions) continue to increase significantly in line with the significant growth in the Company's headcount, and this growth is expected to continue in 2023.

In general, R&D expenses include the expenses related to the following:

- external studies conducted in collaboration with the Company's academic partners and the outsourcing of a certain amount of technological work to its partners for the development of processes dedicated to the end-of-life of plastic materials;
- research personnel costs, including salaries, wages and social contributions, as well as environment expenses such as workstations and travel;
- scientific consultancy contracts with scientific experts and advisers who assist the Company in defining and supervising its R&D programs;
- expenses and fees related to industrial property; and
- the structural costs of the Company's R&D department.

No sumptuary expenditure was recorded for fiscal year 2022, and expenses not deductible from corporate income tax amounted to €89,862 for fiscal year 2022 (Article 223 quater and 39-4 of the French General Tax Code).



2.1.3.2 Financial income and expenses

The Company's financial income consists of interest on money-market investments and term account deposits. With the aim of optimizing returns on its available cash, the Company opened term deposit accounts for a total amount of €45 million during the fiscal year, allowing it to benefit from attractive returns as well as guaranteed capital that is available at all times. Cash is therefore systematically invested in risk-free money market products.

The Company obtained two loans from Bpifrance, for a total of €3 million at a rate of 3.03% for the first on November 23, 2018 and 4.34% for the second on November 20, 2019. In addition, a State-guaranteed loan of €1 million was released on August 31, 2020 at a rate of 0.25%. The conditional advances granted by Bpifrance (OSEO) and ADEME also bear interest with discount rates of 2.67% and 0.84% respectively.

Finally, the Company took out a loan with the European Investment Bank on June 29, 2022 at the rate of 5% (1st maturity on December 29, 2022).

Financial income - Audited separate financial statements (In thousands of euros)	2022	2021
Financial income	134	43
Financial expenses	1,194	124
FINANCIAL INCOME	(1,060)	(81)

Financial income mainly comes from investments of available cash amounting to €133 thousand.

In 2022, financial expenses mainly consisted of interest on EIB loans for €750 thousand and also accrued interest on the ADEME and OSEO repayable advances for €314 thousand.

2.1.3.3 Net income

Net income - Audited Separate Financial Statements (In thousands of euros)	2022	2021
Current income before taxes	(19,500)	(13,411)
Extraordinary gain or loss	(165)	10
Income tax (tax credit)	(2,538)	(2,265)
PROFIT OR LOSS	(17,127)	(11,136)

For fiscal year 2022, the extraordinary gain or loss was a negative €165 thousand, mainly composed of a capital loss of €141 thousand recognized following the scrapping of non-transferable assets (development works) on the former sites of Saint-Beauzire, Riom and La Pardieu. The rest of the loss comes from a loss on treasury shares of €30 thousand.

There was also a sale-leaseback transaction for an amount of €1,537 thousand relating to investments made on the industrial demonstration plant, which had no impact on extraordinary gain or loss since it did not generate any capital gains or losses.

Carbios also benefited from a Research Tax Credit of €2,538 thousand (compared to €2,265 thousand in 2021), calculated on the basis of eligible expenses for the Research and Development undertaken by the Company in 2022.



Income statement for the last five financial years

Nature of the indications	2018	2019	2020	2021	2022
SHARE CAPITAL AT YEAR-END					
Share capital (in euros)	3,260,056	4,833,226	5,673,708	7,825,630	7,869,866
Number of ordinary shares	4,657,223	6,904,609	8,105,297	11,179,472	11,242,666
Number of shares with priority dividends	-	-	-	-	-
Maximum number of shares to be created by:					
conversion of bonds:	-	-	-	-	-
exercise of:					
Share subscription warrants (i)	319,500	208,400	208,400	179,600	298,528
BSPCE (ii)	141,530	169,530	478,423	518,048	674,937
OPERATIONS & PROFIT AND LOSS FOR THE PERIOD (thousands of euros)					
Revenue excluding taxes	932	1,025	1,346	968	1,227
Income before tax, employee profit-sharing, additions to and reversals of depreciation, amortization and provisions	(4,002)	(4,201)	(7,179)	(12,637)	(17,462)
Additions to and reversals of depreciation, amortization and provisions	299	349	455	764	2,203
Income tax	(1,191)	(800)	(1,488)	(2,265)	(2,538)
Employee profit-sharing	-	-	-	-	-
Profit and loss for the period	(3,110)	(3,749)	(6,146)	(11,136)	(17,127)
Distributed earnings*	-	-	-	-	-
EARNINGS PER SHARE (in euros)					
Profit and loss before additions to and reversals of depreciation, amortization and provisions	(0.86)	(0.61)	(0.89)	(1.13)	(1.55)
Profit and loss for the period	(0.67)	(0.54)	(0.76)	(1.00)	(1.52)
Dividend paid per share*	-	-	-	-	-
STAFF					
Average headcount	19	24	31	46	66
Payroll for the year (in thousands of euros)	1,628	2,018	2,904	5,277	6,580
Amount of employee benefits (in thousands of euros)	582	912	1,288	2,077	2,510

The Company has not distributed any dividends or other income (Art. 243 bis of the French General Tax Code) during the last three fiscal years.



2.2 CASH FLOW AND FINANCIAL STRUCTURE OF THE COMPANY

Statement of financial position - Audited Separate Financial Statements (In thousands of euros)	2022	2021
FIXED ASSETS		
Intangible assets	3,376	1,785
Concessions, patents, licenses, software	1,681	1,372
Pending patents	0	5
Development costs	1,696	409
Property, plant and equipment	21,652	15,168
Office and IT hardware	344	172
Laboratory equipment and material	2,035	1,027
Fixtures and fittings	12,652	7,940
Property, plant and equipment under construction	6,621	6,030
Advances on assets under construction	0	-
Financial assets	43,182	38,878
Equity interests	38,381	38,371
Receivables related to equity investments	3,785	-
Deposits and guarantees	325	283
Liquidity contract	563	87
Treasury shares	129	136
TOTAL FIXED ASSETS	68,211	55,831
CURRENT ASSETS		
Laboratory raw material inventories	52	94
Receivables	419	96
State receivables	3,548	3,898
Subsidies receivable	207	-
Other receivables	1,218	535
Subscribed capital - called up, not paid up	233	121
Cash, cash equivalents and marketable securities	101,041	100,884
Prepaid expenses	183	440
TOTAL CURRENT ASSETS	106,901	106,068
Deferred expenses	448	13
OVERALL TOTAL	175,559	161,912



Statement of financial position - Audited Separate Financial Statements <i>(In thousands of euros)</i>	2022	2021
EQUITY		
Share capital	7,870	7,826
Issue, merger and contribution premiums	146,967	146,337
Retained earnings	(11,136)	0
Investment subsidies	249	8
Profit and loss for the period	(17,127)	(11,136)
TOTAL EQUITY	126,823	143,035
OTHER EQUITY CAPITAL		
CONDITIONAL ADVANCES	3,707	3,707
PROVISIONS FOR CONTINGENCIES AND EXPENSES		
PROVISIONS FOR EXPENSES	292	-
DEBT		
Loans	35,974	6,490
Bank overdrafts	750	-
Trade and other payables	4,534	5,585
Tax and social liabilities	2,680	1,728
Other liabilities	180	121
Deferred income	618	1,246
TOTAL LIABILITIES	44,736	15,171
OVERALL TOTAL	175,559	161,912

2.2.1 CAPITAL

Audited Separate Financial Statements <i>(In thousands of euros)</i>	12/31/2022	12/31/2021
Equity	126,823	143,035
Other equity capital (conditional advances)	3,707	3,707
Loans and financial liabilities	37,016	6,490
Cash and cash equivalents	101,041	100,884
Debt (Cash) - Net position	(64,025)	(94,394)
Net financial debt to equity	N/A	N/A

If the projects are successful, the conditional advances recognized as quasi-equity will become liabilities to be repaid. At December 31, 2022, conditional advances totaled €3,707 thousand.

2.2.2 CASH FLOWS

2.2.2.1 Comments on working capital and working capital requirements

Working capital amounted to €98,103 thousand, up €715 thousand compared to 2021, due to the difference between:

- sustainable resources for the fiscal year up by €32,054 thousand, mainly thanks to the loan contracted with the EIB (net €29,550 thousand), lease-back financing (€1,575 thousand) and reduced by negative net cash flow of €14,785 thousand; and
- the Company's needs, up €16,554 thousand, i.e., gross capital expenditure of €16,006 thousand, loan repayments of €548 thousand. The working capital requirement stood at -€2,938 thousand (cash surplus), up €558 thousand compared to fiscal year 2021, due to:
 - the decrease in trade payables (-€1,052 thousand) and deferred income (-€628 thousand); and
 - a decrease in other receivables offset, however, by the increase in tax and social security liabilities of €952 thousand;

With working capital of €98,103 thousand and a cash surplus of €2,938 thousand, the cash position stood at €101,041 thousand at December 31, 2022.



2.2.2.2 Information on terms of payment

Invoices received and issued, outstanding and past due at the fiscal year closing date (table required under item I, Article D. 441-4 of the French Commercial Code):

	Article D. 4411.1: Invoices received, outstanding and past due at the closing date					Article D. 4411.2: Invoices issued, outstanding and past due at the closing date					Total (1 day and more)
	0 days (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	0 days (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	
(A) OVERDUE PAYMENT PERIODS											
Number of invoices involved					94						3
Total amount of invoices involved, excl. tax	480,018	610,611 ⁽¹⁾	92,284	-	1,182,912	100,000	42,000		150,000		292,000
Percentage of the year's total purchases, excl. tax	2.08%	2.65%	0.40%	0.00%	5.13%						
Percentage of revenue excluding tax of the fiscal year						8.15%	3.42%		12.23%		23.80%
(B) INVOICES EXCLUDED FROM (A) CONCERNING DISPUTED OR NON-RECOGNIZED DEBTS OR RECEIVABLES											
Number of invoices excluded											
Total amount of excluded invoices											
(C) CONTRACTUAL OR LEGAL PAYMENT TERMS USED (ARTICLE L. 441-6 OR ARTICLE L. 443-1 OF THE FRENCH COMMERCIAL CODE)											
Payment terms used for the calculation of overdue payments	Contractual terms: invoice due date					Contractual terms: 30 days from invoice date					

⁽¹⁾ Includes an invoice in the amount of €495 thousand which appears to be overdue at December 31, 2022 but has been placed on hold with the supplier's agreement, with a full credit note pending receipt at the closing date (and which has been received in 2023).

It should be noted that any invoice for which the payment period indicated by the supplier is "on receipt" is automatically considered as not paid in the "past due" term, given the Carbios invoice settlement process (and internal control), which requires the advance verification and validation of invoices and therefore several days of processing after receipt in order to proceed with payment.



2.2.2.3 Cash flow statement

Audited Separate Financial Statements <i>(In thousands of euros)</i>	2022	2021
Cash flows related to operations (A)		
Profit and loss for the period	(17,127)	(11,136)
Depreciation and amortization (including investment subsidies)	2,201	763
Gains or losses on asset disposals	141	47
Changes in working capital requirements for operations	1,732	237
Net cash absorbed by operations	(13,053)	(10,089)
Cash flows related to investments (B)		
Acquisition of property, plant and equipment and intangible assets	(11,639)	(12,069)
Acquisition of non-current financial assets	(4,368)	(17,973)
Disposals of fixed assets	1,575	188
Change in fixed asset liabilities	(2,289)	2,313
Net cash absorbed by investments	(16,721)	(27,541)
Net cash flow from financing activities (C)		
Net proceeds from the issuance of shares and BSAs	670	109,039
Inflows from loans, net of repayments and expenses	29,018	(242)
Inflows from repayable advances and investment subsidies	243	620
Net cash from financing activities	29,931	109,417
Change in cash and cash equivalents (A+B+C)	158	71,787
Cash and cash equivalents at the beginning of the period	100,884	29,097
Cash and cash equivalents at end of period	101,041	100,884

In 2022, the cash flow absorbed by the Company's operations amounted to €13,053 thousand. This was notably due to the accounting loss recognized.

Regarding investment flows, they absorbed €16,721 thousand mainly as part of the installation of the industrial demonstration plant on the Cataroux site for €6,009 thousand, including building improvements, and also in the renovation of offices on this same site for €2,559 thousand. In addition, the company has an advance of a total of €3,785 thousand to its subsidiary Carbios 54.

Financing activities generated €29,931 thousand in cash, mainly consisting of the loan taken out with the European Investment Bank of €29,550 thousand net of fees.

Concerning the Company's financial risks, please refer to section 3.3.2 of this Universal Registration Document.



2.2.3 FINANCING

As at the date of this Universal Registration Document, the Company does not have any bank loans.

On December 19, 2012, the Company received a grant from Bpifrance consisting of €3.7 million in conditional advances recognized as equity (and €3.1 million in subsidies) spread over a period of 60 months from 2012 to 2017. The grants were released according to the project's progress and the submission of reports regarding the completion of each key stage stipulated in the framework agreement signed with Bpifrance.

In the event that the research program is successful, the Company has undertaken to reimburse the repayable advance to Bpifrance Innovation for an amount of €4.5 million (with an annual discount rate of 2.67%) upon achieving cumulative income of €10 million generated by the exploitation of products resulting from the Thanaplast™ program:

Thanaplast™ financial returns (In euros)	Year 1*	Year 2	Year 3	Year 4	Year 5
Conditional advance	300,000	500,000	800,000	975,000	1,950,000
TOTAL FINANCIAL LIABILITIES	300,000	500,000	800,000	975,000	1,950,000

*Following the crossing of the €10 million income threshold.

In addition, as soon as the reimbursement of the repayable advance has been completed, the agreement stipulates that the Company shall pay a bonus equal to 4% of its revenue generated by the utilization of the products if it exceeds a cumulative amount of €100 million. This additional payment is, however, subject to a time limit (applicable only for a period of five consecutive years from the date of the end of the reimbursement of the advance), and an amount cap (ceiling of €7.1 thousand).

On November 23, 2018, the Company obtained an innovation loan of €1,500 thousand from Bpifrance at a variable rate of 3.03% over a 7-year period to finance the intangible expenses linked to the industrial and commercial launch of an innovation. After a grace period of 8 quarters, constant capital repayments of €75 thousand will take place from March 31, 2021 to December 31, 2025.

On November 20, 2019, for the same project, the Company obtained a new 7-year loan of €1,500 thousand from Bpifrance at a variable rate of 4.34%. After a grace period of 8 quarters, the constant capital repayments of €75 thousand will take place from September 30, 2022 to June 30, 2027.

On January 10, 2019, Carbios and Toulouse White Biotechnology (TWB) obtained financing of €7.5 million granted by the Secrétariat Général pour l'Investissement (General Secretariat for Investment - SGPI) as part of the Future Investment Program (PIA No. 1882CO098) operated by ADEME to support the ramp-up of Carbios' industrial and commercial project in the field of enzymatic recycling of plastic waste and PET fibers, over a period of 48 months. As project leader and coordinator of the CE-PET project, Carbios will be tasked with accelerating the industrialization of its technology for the enzymatic recycling of PET plastics and fibers. The terms and conditions applicable to TWB and Carbios as part of this project will be governed by the rules defined by a research and development consortium agreement signed between the Company and INRAE on July 9, 2019. Under this agreement, Carbios has full ownership of the results obtained under this project (excluding the generic results of TWB, for which the Company has a non-exclusive license). The rules for financial returns were defined in a valuation agreement of the CE-PET consortium signed between the Company, INRAE and INRAE TRANSFERT on January 6, 2020.

This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in installments throughout the CE-PET project term. The Company received a grant composed of repayable advances totaling €3,102 thousand and subsidies of €1,034 thousand spread over a 48-month period from 2018 to 2022. The grants were released according to the project's progress and the submission of reports regarding

the completion of each key stage stipulated in the framework agreement signed with ADEME. The agreement provides for a total grant rate of 60% that is applied to total eligible expenditures and used for each key stage, 25% of which is a subsidy and 75% a repayable advance (with conditions). Upon the validation of each key stage, a predetermined portion of the repayable advance becomes due.

At the end of 2021, the Company received €827 thousand for the validation of the third key stage of the CE-PET project. As a reminder, the Company received €1 million for the validation of the second key stage in 2020 and €1.4 million for the completion of the first key stage in 2019, i.e., a total amount of €3.3 million since the start of the project.

Since 2019, the Company financed major capital expenditures on laboratory equipment for the set-up of its pilot through finance leasing totaling €605 thousand.

On July 23, 2020, Carbios announced the success of a capital increase through an offering to qualified investors by way of an accelerated book-building process. The Company issued 1,028,572 new ordinary shares each with a nominal value of €0.70, at a price of €26.25 per share, issue premium included, for a total amount of €27,000,015, which represents 14.79% of the Company's share capital prior to the transaction on an undiluted basis, i.e., a dilution of 12.89%. Strategic shareholders L'Oréal, through its private equity fund BOLD (Business Opportunities for L'Oréal Development), and Michelin Ventures subscribed to the capital increase in accordance with the undertakings they had made, for a total amount of €3.9 million, which represents 148,571 new shares or 14.44% of the total number of new shares issued as part of this capital increase.

The funds raised as part of this capital increase will be used to finance:

- the second phase of construction of the industrial demonstration plant for the enzymatic recycling of PET-based plastic waste, which is scheduled to be commissioned in September 2021;
- the Company's operating expenses, including those related to the industrial demonstration plant; and
- participation in the capital increase of Carbiolece, which took place in October 2020.



In August 2020, the Company also obtained a French Government-guaranteed bank loan of €1 million, repayable in full within one year, with the possibility of extending the repayment date through an additional amortization period of up to 5 years.

In May 2021, Carbios announced the success of a capital increase carried out with cancellation of shareholders' preferential subscription rights by way of a public offering and with a priority period. The Company issued 3,000,000 new ordinary shares with a par value of €0.70 per share, at a unit price of €38, including the issue premium, for a total amount of €114 million, representing 36.7% of the Company's share capital before the transaction. The strategic shareholders L'Oréal, through its private equity fund BOLD (Business Opportunities for L'Oréal Development), and Michelin Ventures subscribed to the capital increase in accordance with the commitments they had made, for a total amount of €11.4 million. L'Occitane Group subscribed to this capital increase for an amount of €10 million. This support, together with the strong demand expressed by international institutional investors and individuals eligible for this public offering, are strong markers of the legitimacy acquired by the Company and its management team.

The purpose of the funds raised is to finance:

- the construction of a Reference Unit using the Carbios' enzymatic technology for recycling 100% of PET with an estimated production capacity of 50,000 metric tons per year, amounting to approximately 65% of the net proceeds from the issue; it is specified that the part of the investment in the Reference Unit not financed by the net proceeds of the issue will be, when the time comes, through other sources of financing;
- the Company's operating expenses, amounting to approximately 5% of the net proceeds of the issue;
- operating expenses related to the demonstration plant located in Clermont-Ferrand, representing approximately 5% of the net proceeds of the issue;
- expenses related to R&D activities specific to PET and PLA and the deployment of the Company's Research activities into other polymers and/or other applications, amounting to approximately 10% of the net proceeds of the issue; and
- streamlining of the Company's portfolio to develop its biodegradation technologies beyond PLA, up to approximately 15% of the net proceeds of the issue.

On November 25, 2021, Carbios announced that it had obtained European funding of €3.3 million (including €3 million for the Company) in the form of a subsidy through the LIFE program, alongside its partners T.EN Zimmer GmbH and Deloitte. T.EN Zimmer GmbH provides its expertise on the repolymerization of monomers in 100% recycled PET and Deloitte on the analysis of the environmental performance (in particular via the Life Cycle Analysis) of the process from plastic and textile waste. The European Commission's LIFE program is a large grant program aimed at supporting innovative projects with a low environmental impact and a proven industrial deployment capacity. Carbios is fully in line with the European Commission's objectives through its C-ZYMETM® technology. This financing, composed of grants, will be paid in several installments over the duration of the project, with an initial instalment of 40%, i.e., an amount of €1,320 thousand received by Carbios on November 5, 2021, including €119 thousand to be paid to partners.

On December 20, 2021, Carbios and the European Investment Bank (EIB) announced the signature of a €30 million loan agreement supported by the European Commission's InnovFin energy demonstration program. The objective of this type of financing is to support innovative projects with high potential, developed by companies aiming to achieve major changes in line with the EU's climate objectives and contributing to the leadership of European industry in the development of sustainable technologies. This loan of €30 million, disbursed in a single installment by the EIB on June 29, 2022, carries a fixed annual interest of 5%, with a maturity of 8 years. This agreement is supplemented by a share subscription warrant agreement under the terms of which Carbios will issue 2.5% of the fully diluted share capital in the form of share subscription warrants for the benefit of the EIB, including 1.25% with an exercise price of €40 per share and 1.25% with an exercise price of €38.8861 per share, corresponding to the volume-weighted average price of the Company's ordinary share during the last three (3) trading days prior to the fifth day preceding the signature date. The creation and issue of these EIB share subscription warrants, and therefore the disbursement of the loan of €30 million, were subject to a vote by Carbios' Extraordinary Shareholders' Meeting of February 2, 2022 with a delegation of authority to the Board of Directors, and a decision of the Company's Board of Directors using this delegation of authority.



At the date of filing of this Universal Registration Document and on the basis of cash flow items and its forecast operating expenses, the Company considers that it is in a position to meet its future payments beyond the next twelve months.

Expected sources of funding

Following the successful completion of the third key stage of the CE-PET project in the fourth quarter of 2021, the Company has received a total amount of €3.3 million since the start of the project. As a reminder, as part of this project, Carbios was granted financing by the Secrétariat Général pour l'Investissement (General Secretariat for Investment - SGPI) as part of the Investment for the Future Program (PIA No. 1882C0098) operated by ADEME up to €4.1 million. As the Company recently validated the last key stage, the contract provides for the payment to the Company of an additional €0.8 million.

In addition, as part of the LIFE project, funded by the European Commission, the Company is eligible for a subsidy of €3 million, of which €1 million has already been received to date.

Lastly, as part of the Whitecycle project, led by Michelin (leader), financed by the European Commission and starting on July 1, 2022, for a period of 48 months, the Company will be able to obtain a subsidy of up to €564 thousand (out of the €7 million allocated to the complete project). In this respect, the Company has received an advance of €197 thousand (35%).



2.2.4 INVESTMENTS

The Company has financed all of its investments through its equity capital, and also received in 2014 an interest-free loan from the FIAD of €605 thousand¹ for the acquisition of a pre-pilot laboratory. From 2019 to 2021, the Company also leased equipment for the implementation of its PET enzymatic recycling pilot for a total of €605 thousand. In addition, the Company entered into a second sale-leaseback agreement for a total amount of €5.8 million with several banks to finance part of the equipment for its industrial demonstration plant.

The investments made or in progress are all located in France.

2.2.4.1 Main investments made by the Company in the past three fiscal years

2.2.4.1.1 Laboratory, pilot plant and demonstrator

Investments in equipment for its laboratories continued, amounting to €265 thousand in 2020, €104 thousand in 2021, and €214 thousand in 2022, bringing the total to €2,035 thousand at December 31, 2022.

The Company also commissioned its PET enzyme recycling pilot in 2019. In this respect, at December 31, 2022, the Company had invested €411 thousand in its own materials and equipment, of which €176 thousand in 2022, €128 thousand in 2021 and €45 thousand in 2020, as well as €605 thousand financed by finance leases during the 2020 and 2021 fiscal years.

In addition, the Company had invested €6,779 thousand in equipment for its industrial demonstration plant as of December 31, 2022, with an additional €1.5 million in equipment already refinanced under finance leases.

2.2.4.1.2 Patents

The Company also dedicates a large part of its resources to the protection of its intellectual property by filing patent applications at an early stage.

At the end of 2022, Carbios' intellectual property portfolio included 42 patent families (including one under exclusive worldwide license from the CNRS and the University of Poitiers and 24 protecting its innovation in the enzymatic recycling of PET plastics and fibers). At the end of 2022, Carbiolice's intellectual property portfolio included 11 patent families, all of which protect innovation in the production of enzymated biodegradable plastics.

At December 31, 2022, gross investments made by Carbios in patents amounted to €2,870 thousand, of which €391 thousand in 2020, €600 thousand in 2021 and 606 thousand in 2022.

2.2.4.1.3 Equity interests

At December 31, 2022, the Company held nearly 100% of the share capital of Carbiolice, created in 2016 and whose registered office is located in Riom (Department 63), following the acquisition by the Company of the entire stake of Limagrain Ingrédients and the SPI fund managed by Bpifrance Investissement in the share capital of Carbiolice². Carbiolice shares thus appear on Carbios' statement of financial position for a total amount of €38,371,461.

On May 30, 2022, the Company subscribed for 100% of the share capital of €10,000, thus granting it control of its new subsidiary Carbios 54, whose registered office is located in Longlaville (Department 54), whose objective is to carry the construction project of the Reference Unit. In addition, at December 31, 2022 Carbios had committed an amount of €3.8 million on behalf of its subsidiary Carbios 54 (receivable formalized through a current account advance agreement) in external expenses (fees) and in personnel expenses rebilled to Carbios 54.

2.2.4.1.4 Other investments

As the Company has centralized its activities on the Cataroux site since the beginning of the second half of 2022, it carried out development and fitting work for a total of €13,883 thousand, of which €7,988 thousand in 2021 and €5,678 thousand in 2022.

At the same time, the Company invested €143 thousand in office furniture and equipment, and €136 thousand in the development and renewal of its IT system. Regarding the furniture and IT equipment items, the Company invested €95 thousand in 2021 and €53 thousand in 2020.

With respect to the other fixed asset items, the Company has not made any other significant investments over the last three fiscal years.

2.2.4.2 Main investments in progress

In accordance with accounting standards, the "Property, plant and equipment in progress" item, which amounted to €6,621 thousand in 2022, mainly consists of costs relating to the implementation of the Company's industrial demonstration plant for €5,801 thousand in 2022 and the extension of building B80 for €790 thousand.

The "Property, plant and equipment under construction" item relating to the installation of the Company's industrial demonstration plant will be subject to:

- lease-back financing; or
- or a reclassification to "property, plant and equipment" when they are brought into service.

¹ Please refer to section 5.1.4.13 of this Universal Registration Document

² Please refer to the press release of June 4, 2021.



2.2.4.3 Joint ventures and significant shareholdings

Subsidiary	Share capital	Equity	Share of capital in %	Carrying amount of securities	Loans and advances in fixed assets	Guarantees and endorsements given by Carbios	Income excluding VAT at 12/31/2022	Net income at 12/31/2022
Carbiolice	28,618,748	5,315,126	100%	38,371,461	(49,309)	-	25,044	(3,931,900)
Carbios 54	10,000	(3,272,875)	100%	10,000	3,784,740	-	0	(3,282,875)

2.2.4.4 Environmental impact of the use of property, plant and equipment

To the best of the Company's knowledge, no factor of an environmental nature has influenced the Company's operations in recent years or is likely to influence them significantly, directly or indirectly.

The Company's business activity is subject to environmental laws and regulations.

At the time of their acquisition, all diagnostics required by the applicable regulations were performed on all real estate assets held by the Company.



2.3 ANALYSIS OF THE BUSINESS AND THE GROUP'S INCOME

The consolidated financial statements of the Company as of December 31, 2022, are presented in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB) and adopted by the European Union.

For 2022, these IFRS consolidated financial statements include the financial statements of Carbios, the parent company, and the financial statements of its fully integrated subsidiaries Carbiolice and¹ Carbios 54 at December 31, 2022.

Thus, on May 30, 2022, the Company subscribed for 100% of the share capital of €10,000, thus granting it control of its new subsidiary Carbios 54, whose registered office is located in Longlaville (Department 54) in France, whose objective is to carry the construction project of the Reference Unit.

For 2021, these IFRS consolidated financial statements include the full-year financial statements of Carbios, as well as the financial statements of Carbiolice for the period June 4, 2021 to December 31, 2021, insofar as Carbiolice was equity-accounted until June 3, 2021, and without the Carbios 54 entity, which was created on June 8, 2022. For comparison purposes, a pro forma situation is presented below. It takes into account the takeover of Carbiolice on January 1, 2021 instead of June 3, 2021, and consequently presents Carbiolice as fully consolidated for the full-year 2021.

The business comments below are therefore based on the pro forma financial statements in order to provide a better reading and comparability of the financial statements for the reader.

Consolidated statement of income (in thousand euros)	12/31/2022 12 months	12/31/2021 12 months	12/31/2021 pro forma 12 months
INCOME	70	105	126
Net Research and Development expenses	(12,993)	(7,727)	(8,998)
<i>Research and development expenses</i>	<i>(19,057)</i>	<i>(11,732)</i>	<i>(13,377)</i>
<i>Subsidies and other income from activities</i>	<i>4,776</i>	<i>3,597</i>	<i>3,971</i>
<i>Capitalization of development costs</i>	<i>1,287</i>	<i>409</i>	<i>409</i>
Sales and marketing expenses	(4,373)	(1,976)	(2,300)
General and administrative expenses	(8,807)	(6,251)	(7,001)
OPERATING EXPENSES	(26,173)	(15,954)	(18,300)
Other operating income and expenses	2	21,211	20,104
OPERATING INCOME/(EXPENSES) (1)	(26,101)	5,363	1,931
FINANCIAL INCOME	(1,640)	(454)	(504)
INCOME/(EXPENSES) BEFORE TAXES	(27,741)	4,908	1,426
Income tax	-	-	-
Share of net income of equity-accounted companies (3)	-	(1,128)	-
NET INCOME/(LOSS) FOR THE PERIOD (4)	(27,741)	3,780	1,426
IFRS accounting impact related to the takeover of Carbiolice:			
<i>Other operating income and expenses (2)</i>	<i>-</i>	<i>21,211</i>	<i>20,104</i>
<i>Share of net income of equity-accounted companies (3)</i>	<i>-</i>	<i>(1,128)</i>	<i>0</i>
Operating income/(expenses) adjusted for the IFRS impacts related to the takeover of Carbiolice (1)-(2)	(26,101)	(15,848)	(18,173)
Net income (loss) "adjusted" for the IFRS impacts related to the takeover of Carbiolice (4)-(2)-(3)	(27,741)	(16,303)	(18,678)

2022 figures include the full-year accounts of Carbios and Carbiolice, as well as the accounts of Carbios 54 for the period from June 8, 2022 to December 31, 2022, whereas the 2021 figures show the full-year accounts of Carbios, as well as the accounts of Carbiolice from June 4, 2021 to December 31, 2021, since Carbiolice was accounted for as an equity affiliate until June 3, 2021, and without the Carbios 54 entity, which was created on June 8, 2022.

However, to ease the comparison of 2022 and 2021 figures, the comments on activities around the income statement will be based, for 2021, on the pro forma situation, which fully takes Carbiolice into account for the year 2021 as if it was fully consolidated as of January 1, 2021.

¹ A wholly-owned subsidiary of Carbios for its industrial operations in Longlaville



2.3.1 KEY FACTORS SIGNIFICANTLY AFFECTING THE GROUP'S REVENUE

2.3.1.1 Key factors significantly affecting the Group's operating revenue

The Group is made up of three companies. Carbios is an innovative green chemistry company whose goal is to accelerate the green revolution in chemistry for our everyday lives by re-thinking the life cycle of plastic and textile polymers. Its main activity thus consists in searching for innovative industrial bioprocesses to optimize the technical, economic and environmental performance of polymers by exploiting the biological properties of enzymes and developing these bioprocesses to license them to industrial partners for their commercial use and marketing.

Carbiolice is a French company resulting from a tripartite agreement between Carbios, the SPI investment fund, whose management company is Bpifrance Investissement, and Limagrain Ingrédients. Following the purchase of all of Limagrain Ingrédients' and SPI fund's stakes in the capital of Carbiolice, which took place respectively in October 2020¹ and June 2021², Carbios holds 100% of the share capital and voting rights of Carbiolice, and since that date has fully consolidated the company in its consolidated financial statements under IFRS. With an operational industrial tool and multidisciplinary teams (Industrial Research and Development, production, quality, applications, etc.) and a dedicated sales function, Carbiolice continues to market the PLA biodegradation solution with tests with manufacturers and has begun the scale-up of a new generation of enzymes that will expand the potential of accessible markets.

The Group's operations and results are mainly impacted by the R&D expenses for the projects it undertakes. The Group also dedicates a large part of its resources to the protection of its intellectual property by filing patent applications at an early stage.

The Group's original business model is based on the industrialization and marketing of its products and/or enzymes, its technologies and its bioprocesses through the concession of operating licenses for its know-how and its intellectual property to major manufacturers in the sectors concerned by the innovations of Group companies. The Group thus intends to identify one or more leading manufacturers offering the best potential for the use of the innovation on an industrial and commercial scale.

The creation of Carbios 54 in June 2022 should enable the Group to generate its first commercial revenues on an industrial scale and to be in a position to become profitable.

Carbios and Carbiolice are eligible for the Research Tax Credit (CIR), a scheme that offers a refundable tax credit to companies investing in R&D. The impact of operating expenses on the Group's net income can thus be reduced by the recognition of the CIR as a deduction from the related expenses. All R&D expenses are thus recognized as operating expenses for the fiscal year in which they are incurred.

Research Tax Credit (CIR) (in euros)	2022	2021
Observed	3,192,581	2,985,771
Cashed	2,985,771	2,065,057

2.3.1.2 Government, economic, budgetary, monetary or political factors that have materially affected or could materially affect, directly or indirectly, the Group's operations

Recent regulations on waste, such as the Energy Transition Law for Green Growth, the "France 2030" investment project and the "Circular Economy" package adopted by the European Commission (section 1.2.2 of this Universal Registration Document) can also present opportunities for the Group, particularly in terms of revenue.

¹ Please refer to the press release of October 8, 2020.

² Please refer to the press release of June 4, 2021.



2.3.2 INCOME

For the financial years 2021 and 2022, income accounted under IFRS 15 is related to feasibility studies, tests and research services, as well as deliveries of raw materials and samples of the Masterbatch by Carbiolice.

At December 31, 2022, the Group's income stood at €70 thousand, compared to €126 thousand (pro forma) for the year ended December 31, 2021.

2.3.3 RESULTS

2.3.3.1 Operating expenses

The Company's operating expenses mainly consist of R&D costs and salaries. For the past two fiscal years, they break down as follows:

Consolidated statement of income (in thousand euros)	12/31/2022 12 months	12/31/2021 12 months	12/31/2021 Pro forma 12 months
Net Research and Development expenses	(12,993)	(7,727)	(8,998)
Research and development expenses	(19,057)	(11,732)	(13,377)
Subsidies and other income from activities	4,776	3,597	3,971
Capitalization of development costs	1,287	409	409
Sales and marketing expenses	(4,373)	(1,976)	(2,300)
General and administrative expenses	(8,807)	(6,251)	(7,001)
OPERATING EXPENSES	(26,173)	(15,954)	(18,300)
Other operating income and expenses	2	21,211	20,104

With regards to the presentation of its IFRS consolidated statements, the Group shows a statement of income by destination. As such, recurring operating expenses are categorized and presented in the income statement as: Net research and development expenses, Sales and marketing expenses and General and administrative expenses.

For 2022, operating expenses stood at €26,173 thousand, compared to €18,300 thousand in the 2021 pro forma position.

To support the growth of its activities, the average number of employees within the Group increased from 80 in 2021 to 104 in 2022.

Net Research and Development expenses: The Group pursued its research and development efforts on all its proprietary pipeline of innovations and notably on its PET biorecycling technology. For the year 2022, the Group's Net R&D expenses stood at €12,993 thousand, compared to €8,998 thousand for 2021.

For the year 2022:

- On R&D, the Group spent €19,057 thousand, in line with its industrialization ambitions. The significant rise in R&D expenses is mainly due to the operations carried out within its industrial demonstration facility, as well as to expenses incurred in connection with its Reference Unit project. The main changes are explained by the full-year operation of the demonstration facility, as well as the use of external services (in connection with the Reference Unit project) and the sustained efforts in R&D (particularly with the Company's academic partners)
- On Subsidies and other income from operations, the Group recorded €4,776 thousand, partially offsetting its R&D expenses. This item includes notably a research tax credit of €2,538 thousand for Carbios and €655 thousand for Carbiolice in 2022 (as opposed to, respectively, €2,265 thousand and €721 thousand in 2021, these amounts having been received in 2022).

- Finally, the Group has capitalized €1,287 thousand in Development expenses related to the Company's PET enzymatic recycling project in 2022. This activation started on October 1, 2021, in accordance with the capitalization criteria of the IAS 38 standard.

Sales and Marketing expenses: sales and marketing expenses stood at €4,373 thousand in 2022, compared to €2,300 thousand in 2021. This rise comes mainly from increased efforts to secure the commercial roll-out of Carbios technology by developing partnerships and structuring the value chain (supply, market targets...). Thus, the increase stems both from external resources (fees) and internal resources, noticeable by the change in composition of the Executive Committee.

General and Administrative expenses: General and administrative expenses stood at €8,807 thousand in 2022, as opposed to €7,001 thousand in 2021. This increase is mainly due to personnel expenses, as a result of the significant increase in the number of employees in 2022 to further structure the Company's functions, and to consulting services to a lesser extent.

In application of IFRS standards, the takeover of Carbiolice, dated June 4, 2021, has generated IFRS accounting restatements impacting the 2021 consolidated income statement on the aggregate of "Other operating income and expenses."

As of December 31, 2021, by application of IFRS 3 standards, the sale of the shares accounted for by the equity method of associates (prior to the acquisition of all the shares of Carbiolice) generated a non-cash net bonus valued on the basis of the share previously held by Carbios in Carbiolice at fair value, which amounts to €21.2 million. As a result, these items had no impact in terms of cash flow for the Group.



2.3.3.2 Financial income and expenses

Financial income includes:

- expenses related to the Company's financing: interest paid and accretion of repayable advances and financial liabilities;
- income related to interest on term deposits and the capitalization contract;
- income related to repayable advances.

Net financial income/(expenses) (in thousands of euros)	12/31/2022	12/31/2021	12/31/2021 Pro forma
Foreign exchange gains	1	-	-
Other financial income	133	43	43
FINANCIAL INCOME	134	43	43
Cost of borrowing	(1 724)	(493)	(543)
Interest expense on borrowings	(1,224)	(139)	(150)
Interest expense on EIB loans	(375)	-	-
Interest expense on repayable advances	50	(237)	(267)
Interest expense on lease liabilities IFRS 16	(171)	(116)	(125)
Interest expense on employee benefit obligations IAS 19	(4)	(1)	(1)
Other financial expenses	(49)	(4)	(4)
FINANCIAL EXPENSES	(1,774)	(497)	(547)
NET FINANCIAL INCOME/(EXPENSES)	(1,640)	(454)	(504)

The Company's financial income consists of interest on money-market investments and term account deposits. All available cash is placed in risk-free money market products.

Financial expenses come from interest expenses on loans and repayable advances.

2.3.3.3 Net income

Consolidated income statement (in thousands of euros)	12/31/2022	12/31/2021	12/31/2021
	12 months	12 months	Pro forma 12 months
Income/(expenses) before taxes	(27,741)	4,908	1,426
Income tax	-	-	-
Share of net income of equity-accounted companies (3)	-	(1,128)	-
Net income/(loss) for the period (1)	(27,741)	3,780	1,426
IFRS accounting impact related to the takeover of Carbiolice:			
Other operating income and expenses (2)	-	21,211	20,104
Share of net income of equity-accounted companies (3)	-	(1,128)	0
Net income (loss) adjusted for the IFRS impacts related to the takeover of Carbiolice (1)-(2)-(3)	(27,741)	(16,303)	(18,678)

The Group also presents a net result "adjusted" by the IFRS impacts of the takeover of Carbiolice, which takes into account the financial result, the income tax, and the restatement/cancellation of the "share of profit (loss) of equity affiliates" (this amount being neutralized in the pro forma accounts). This net "adjusted" result corresponds to a loss of €27.7 million as of December 31, 2022, as opposed to a loss of €16.3 million as of December 31, 2021 (the pro forma loss amounted to €18.7 million euros).



2.4 CASH FLOW AND THE GROUP'S FINANCIAL STRUCTURE

Consolidated statement of financial position (in thousands of euros)	12/31/2022	12/31/2021
ASSETS		
Goodwill	20,583	20,583
Intangible assets	22,457	23,188
Property, plant and equipment	24,965	16,466
Right-of-use assets	6,765	6,989
Investments in associates	-	-
Financial assets	906	388
Non-current assets	75,674	67,614
Trade receivables	57	16
Other current assets	7,670	6,148
Cash and cash equivalents	100,557	104,956
Current assets	108,284	111,120
Total assets	183,959	178,734

Consolidated statement of financial position (in thousands of euros)	12/31/2022	12/31/2021
EQUITY AND LIABILITIES		
Share capital	7,870	7,826
Share and contribution premium	146,968	146,337
Consolidated reserves	(5,482)	(10,604)
Retained earnings	3,826	(600)
Net income – share attributable to equity holders of the parent company	(27,741)	3,780
Equity	125,441	146,739
Non-current provisions	184	202
Current and non-current borrowings and financial liabilities	35,395	11,941
Non-current lease liabilities	5,142	5,358
Other non-current liabilities	546	-
Deferred tax liabilities	1,694	1,694
Non-current liabilities	42,961	19,194
Current provisions	-	76
Current borrowings and financial liabilities	2,782	1,376
Current lease liabilities	1,346	1,256
Trade payables	4,021	5,137
Other current liabilities	7,408	4,956
Current liabilities	15,557	12,801
Total liabilities and equity	183,959	178,734



2.4.1 CAPITAL

Consolidated financial statements <i>(in thousands of euros)</i>	12/31/2022	12/31/2021
Equity	125,441	146,739
Loans and financial liabilities	44,665	19,930
Cash and cash equivalents	100,557	104,956
Debt (Cash) - Net position	(55,892)	(85,026)
Net financial debt to equity	N/A	N/A

2.4.2 CASH FLOWS

Consolidated statement of cash flows Amount <i>(in thousands of euros)</i>	12/31/2022 12 months	12/31/2021 12 months
Cash and cash equivalents at beginning of period	104,956	29,077
Cash flow from operating activities	(21,820)	(9,044)
Cash flow from investing activities	(9,327)	(22,837)
Cash flow from financing activities	26,747	107,761
Change in cash position	(4,399)	75,880
Cash and cash equivalents at end of period	100,557	104,956

In 2022, the Group's activity absorbed €4,399 thousand in cash, which fell from €105 million at the end of 2021 to €101 million at December 31, 2022.

Cash flows related to operating activities absorbed €21.8 million, mainly corresponding to the accounting loss recognized for the Group.

Investment flows absorbed €9.3 million, mainly as part of the continuation of investments for the industrial demonstration plant on the Cataroux site, building improvements and finally, investments related to the Reference Unit project (mainly engineering and various studies).

Financing activities generated €26.7 million in cash, mainly consisting of the loan taken out with the European Investment Bank (€29,550 thousand net of fees) by Carbios.

Benefiting from the net proceeds of the €114 million raised in 2021, as well as from the €30 million loan granted to Carbios by the European Investment Bank¹ (EIB), which has been drawn down in the first half of 2022, the Group closed out with a net cash position of €101 million at December 31, 2022, enabling it to pursue current developments beyond the next 12 months.

Concerning the Company's financial risks, please refer to section 3.3.2 of this Universal Registration Document.

¹ Please refer to the press release of December 20, 2021.



2.4.3 FINANCING

At the date of this Universal Registration Document, the Company does not have any bank loans.

On December 19, 2012, Carbios received a grant from Bpifrance consisting of €3.7 million in conditional advances recognized as equity (and €3.1 million in subsidies) spread over a period of 60 months from 2012 to 2017. The grants were released according to the project's progress and the submission of reports regarding the completion of each key stage stipulated in the framework agreement signed with Bpifrance.

In the event that the research program is successful, the Company has undertaken to reimburse the repayable advance to Bpifrance Innovation for an amount of €4.5 million (with an annual discount rate of 2.67%) upon achieving cumulative income of €10 million generated by the exploitation of products resulting from the Thanaplast™ program:

Thanaplast™ financial returns (In euros)	Year 1*	Year 2	Year 3	Year 4	Year 5
Conditional advance	300,000	500,000	800,000	975,000	1,950,000
TOTAL FINANCIAL LIABILITIES	300,000	500,000	800,000	975,000	1,950,000

*Following the crossing of the €10 million income threshold.

In addition, as soon as the reimbursement of the repayable advance has been completed, the agreement stipulates that the Company shall pay a bonus equal to 4% of its revenue generated by the utilization of the products if it exceeds a cumulative amount of €100 million. This additional payment is however subject to a time limit (applicable only for a period of five consecutive years from the date of the end of the reimbursement of the advance), and an amount cap (ceiling of €7.1 thousand).

On November 23, 2018, the Company obtained an innovation loan of €1,500 thousand from Bpifrance at a variable rate of 3.03% over a 7-year period to finance the intangible expenses linked to the industrial and commercial launch of an innovation. After a grace period of 8 quarters, constant capital repayments of €75 thousand will take place from March 31, 2021 to December 31, 2025.

On November 20, 2019, for the same project, the Company obtained a new 7-year loan of €1,500 thousand from Bpifrance at a variable rate of 4.34%. After a grace period of 8 quarters, the constant capital repayments of €75 thousand will take place from September 30, 2022 to June 30, 2027.

On January 10, 2019, Carbios and Toulouse White Biotechnology (TWB) obtained financing of €7.5 million granted by the Secrétariat Général pour l'Investissement (General Secretariat for Investments - SGPI) as part of the Future Investment Program (PIA No. 1882C0098) operated by ADEME to support the ramp-up of Carbios' industrial and commercial project in the field of enzymatic recycling of plastic waste and PET fibers, over a period of 48 months. As project leader and coordinator of the CE-PET project, Carbios will be tasked with accelerating the industrialization of its technology for the enzymatic recycling of PET plastics and fibers. The terms and conditions applicable to TWB and Carbios as part of this project will be governed by the rules defined by a research and development consortium agreement signed between the Company and INRAE on July 9, 2019. Under this agreement, Carbios has full ownership of the results obtained under this project (excluding the generic results of TWB, for which the Company has a non-exclusive license). The rules for financial returns were defined in a valuation agreement of the CE-PET consortium signed between the Company, INRAE and INRAE TRANSFERT on January 6, 2020.

This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in installments throughout the CE-PET project term. The Company received a grant composed of repayable advances totaling €3,102 thousand and subsidies of €1,034 thousand spread over a 48-month period from 2018 to 2022. The grants were released according to the project's progress and the submission of reports regarding the completion of each key stage stipulated in the framework agreement signed with ADEME. The agreement provides for a total grant rate of 60% that is applied to total eligible expenditures and used for each key stage, 25% of which is a subsidy and 75% a repayable advance (with conditions). Upon the validation of each key stage, a predetermined portion of the repayable advance becomes due.

At the end of 2021, the Company received €827 thousand for the validation of the third key stage of the CE-PET project. As a reminder, the Company received €1 million for the validation of the second key stage in 2020 and €1.4 million for the completion of the first key stage in 2019, i.e., a total amount of €3.3 million since the start of the project.

Since 2019, the Company financed major capital expenditures on laboratory equipment for the set-up of its pilot through finance leasing totaling €605 thousand.

On July 23, 2020, Carbios announced the success of a capital increase through an offering to qualified investors by way of an accelerated book-building process. The Company issued 1,028,572 new ordinary shares each with a nominal value of €0.70, at a price of €26.25 per share, issue premium included, for a total amount of €27,000,015, which represents 14.79% of the Company's share capital prior to the transaction on an undiluted basis, i.e., a dilution of 12.89%. Strategic shareholders L'Oréal, through its private equity fund BOLD (Business Opportunities for L'Oréal Development), and Michelin Ventures subscribed to the capital increase in accordance with the undertakings they had made, for a total amount of €3.9 million, which represents 148,571 new shares or 14.44% of the total number of new shares issued as part of this capital increase.



Carbiolice subscribed to two State-guaranteed loans (PGE) in 2020 in the amount of €950 thousand each. The first one bears interest at the rate of 1.09% with a two-year grace period. The second bears interest at a rate of 2.09% with a two-year grace period. They entered into the scope of consolidation with the takeover of Carbiolice in June 2021. In August 2020, Carbios also obtained a French State-guaranteed bank loan of €1 million, repayable in full within one year, with the possibility of extending the repayment date through an additional amortization period of up to 5 years.

In May 2021, Carbios announced the success of a capital increase carried out with cancellation of shareholders' preferential subscription rights by way of a public offering and with a priority period. The Company issued 3,000,000 new ordinary shares with a par value of €0.70 per share, at a unit price of €38, including the issue premium, for a total amount of €114 million, representing 36.7% of the Company's share capital before the transaction. The strategic shareholders L'Oréal, through its private equity fund BOLD (Business Opportunities for L'Oréal Development), and Michelin Ventures subscribed to the capital increase in accordance with the commitments they had made, for a total amount of €11.4 million. L'Occitane Group subscribed to this capital increase for an amount of €10 million. This support, together with the strong demand expressed by international institutional investors and individuals eligible for this public offering, are strong markers of the legitimacy acquired by the Company and its management team.

The purpose of the funds raised is to finance:

- the construction of a Reference Unit using the Carbios' enzymatic technology for recycling 100% of PET with an estimated production capacity of 50,000 metric tons per year, amounting to approximately 65% of the net proceeds from the issue; it is specified that the part of the investment in the Reference Unit not financed by the net proceeds of the issue will be, when the time comes, through other sources of financing;
- the Company's operating expenses, amounting to approximately 5% of the net proceeds of the issue;
- operating expenses related to the demonstration plant located in Clermont-Ferrand, representing approximately 5% of the net proceeds of the issue;
- expenses related to R&D activities specific to PET and PLA and the deployment of the Company's Research activities into other polymers and/or other applications, amounting to approximately 10% of the net proceeds of the issue; and
- streamlining of the Company's portfolio to develop its biodegradation technologies beyond PLA, up to approximately 15% of the net proceeds of the issue.

In 2021, Carbiolice obtained two subsidies from the European Commission for the PRESERVE and SISTERS projects, financing two R&D projects, for respective amounts of €8,000 thousand, of which €331 thousand for Carbiolice, and €8,340 thousand, of which €86 thousand for Carbiolice.

On November 25, 2021, Carbios announced that it had obtained

European funding of €3.3 million (including €3 million for the Company) in the form of a subsidy through the LIFE program, alongside its partners T.EN Zimmer GmbH and Deloitte. T.EN Zimmer GmbH provides its expertise on the repolymerization of monomers in 100% recycled PET and Deloitte on the analysis of the environmental performance (in particular via the Life Cycle Analysis) of the process from plastic and textile waste. The European Commission's LIFE program is a large grant program aimed at supporting innovative projects with a low environmental impact and a proven industrial deployment capacity. Carbios is fully in line with the European Commission's objectives through its C-ZYMETM® technology. This financing, composed of grants, will be paid in several installments over the duration of the project with an initial instalment of 40%, i.e.. an amount of €1,320 thousand received by Carbios on November 5, 2021, including €119 thousand to be paid to partners.

On December 20, 2021, Carbios and the European Investment Bank (EIB) announced the signature of a €30 million loan agreement supported by the European Commission's InnovFin energy demonstration program. The objective of this type of financing is to support innovative projects with high potential, developed by companies aiming to achieve major changes in line with the EU's climate objectives and contributing to the leadership of European industry in the development of sustainable technologies. This loan of €30 million, disbursed in a single installment by the EIB on June 29, 2022, carries a fixed annual interest of 5%, with a maturity of 8 years. This agreement is supplemented by a share subscription warrant agreement under the terms of which Carbios will issue 2.5% of the fully diluted share capital in the form of share subscription warrants for the benefit of the EIB, including 1.25% with an exercise price of €40 per share and 1.25% with an exercise price of €38.8861 per share, corresponding to the volume-weighted average price of the Company's ordinary share during the last three (3) trading days prior to the fifth day preceding the signature date. The creation and issue of these EIB share subscription warrants, and therefore the disbursement of the loan of €30 million, were subject to a vote by Carbios' Extraordinary Shareholders' Meeting of February 2, 2022 with a delegation of authority to the Board of Directors, and a decision of the Company's Board of Directors using this delegation of authority.



At the date of filing of this Universal Registration Document and on the basis of cash flow items and its forecast operating expenses, the Company considers that it is in a position to meet its future payments beyond the next twelve months.



Expected sources of funding

Following the successful completion of the third key stage of the CE-PET project in the fourth quarter of 2021, Carbios has received a total amount of €3.3 million since the start of the project. As a reminder, as part of this project, Carbios was granted financing by the Secrétariat Général pour l'Investissement (General Secretariat for Investment - SGPI) as part of the Investment for the Future Program (PIA No. 1882C0098) operated by ADEME up to €4.1 million. As the Company recently validated the last key stage, the contract provides for the payment to the Company of an additional €0.8 million.

In addition, as part of the LIFE project, financed by the European Commission, Carbios is eligible for a subsidy of €3 million, of which €1 million has already been received to date.

Lastly, as part of the Whitecycle project, led by Michelin (leader), financed by the European Commission and starting on July 1, 2022, for a period of 48 months, Carbios will be able to obtain a subsidy of up to €564 thousand (out of the €7 million allocated to the complete project). In this respect, the Company has received an advance of €197 thousand (35%).

2.4.4 INVESTMENTS

The Group has financed all of its investments through its equity capital, and also received in 2014 an interest-free loan from the FIAD of €605 thousand¹ for the acquisition of a pre-pilot laboratory. Since 2017, the Group has also financed equipment leasing for the implementation of its PET enzymatic recycling pilot for a total of €605 thousand, for its industrial production line and extrusion equipment for €1,064 thousand and lastly €1,537 thousand for the deployment of its industrial demonstration plant at the Cataroux site. It should be noted that the financing of the equipment of its industrial demonstration plant amounts to a total of €5.8 million and has been concluded with several banking institutions.

The investments made or in progress are all located in France.

2.4.4.1 Main investments made by the Group over the last three fiscal years

2.4.4.1.1 Laboratory, pilot plant, demonstrator and Reference Unit

Investments in equipment for its laboratory continued, amounting to €333 thousand in 2020, €165 thousand in 2021, and €261 thousand in 2022, bringing the total to €2,539 thousand at December 31, 2022.

The Group also commissioned its PET enzyme recycling pilot in 2019. In this respect, at December 31, 2022, the Company had invested €411 thousand in its own materials and equipment, of which €176 thousand in 2022, €128 thousand in 2021 and €45 thousand in 2020, as well as €605 thousand financed by finance leases during the 2020 and 2021 fiscal years.

In addition, the Group invested €6,779 thousand in the equipment for its industrial demonstration plant at December 31, 2022, with an additional €1.5 million in equipment already refinanced under finance leases.

Lastly, an amount of €2,095 thousand was invested for the construction of the Reference Unit located in Longlaville, bearing in mind that only expenses incurred after November 1, 2022 have been activated.

2.4.4.1.2 Patents

The Company also dedicates a large part of its resources to the protection of its intellectual property by filing patent applications at an early stage.

At the end of 2022, Carbios' intellectual property portfolio included 42 patent families (including one under exclusive worldwide license from the CNRS and the University of Poitiers and 24 protecting its innovation in the enzymatic recycling of PET plastics and fibers). At the end of 2022, Carbios' intellectual property portfolio included 11 patent families, all of which protect innovation in the production of enzymated biodegradable plastics.

At December 31, 2022, gross investments made by the Group in patents amounted to €3,133 thousand, of which €475 thousand in 2020, €669 thousand in 2021 and €694 thousand in 2022.

2.4.4.1.3 Other investments

As the Company has centralized its activities on the Cataroux site since the beginning of the second half of 2022, it carried out development and fitting work for a total of €14,285 thousand, of which €7,988 thousand in 2021 and €5,678 thousand in 2022.

At the same time, the Company invested €143 thousand in office furniture and equipment, and €136 thousand in the development and renewal of its IT system. Regarding the furniture and IT equipment items, the Company invested €105 thousand in 2021 and €70 thousand in 2020.

Lastly, the company invested a total of €3,703 thousand in its production line, of which €638 thousand in 2021 and €93 thousand in 2022.

With respect to the other fixed asset items, the Company has not made any other significant investments over the last three fiscal years.

2.4.4.2 Main investments in progress

In accordance with accounting standards, the "Property, plant and equipment in progress" item, which amounted to €6,646 thousand in 2022, consists mainly of the costs relating to the implementation of the Company's industrial demonstration plant for €5,801 thousand in 2022 and the extension of building B80 for €790 thousand.

The "Property, plant and equipment under construction" item relating to the installation of the Company's industrial demonstration plant will be subject to:

- lease-back financing; or
- or a reclassification to "property, plant and equipment" when they are brought into service.

2.4.4.3 Environmental impact of the use of property, plant and equipment

To the best of the Company's knowledge, no factor of an environmental nature has influenced the Group's operations in recent years or is likely to influence them significantly, directly or indirectly.

The Company's business activity and that of its subsidiaries is subject to environmental laws and regulations.

At the time of their acquisition, all real estate assets held by the Group were subjected to the diagnostics required under the applicable regulations.

¹ Please refer to section 5.1.4.13 of this Universal Registration Document



2.5 EVENTS AFTER THE REPORTING PERIOD

MOST SIGNIFICANT TRENDS SINCE DECEMBER 31, 2022

On January 12, 2023, Carbios and Novozymes, the world leader in biological solutions, announced an exclusive long-term partnership. This major agreement guarantees the production and supply of Carbios' proprietary PET-degrading enzymes on an industrial scale for the world's first plant due to be operational in 2025 in Longlaville (France), as well as for the plants of Carbios' future licensee customers.

2.6 OUTLOOK AND OBJECTIVES

The Company does not publish any forecasts or estimates of its net income or operating income, or those of its subsidiaries.

KNOWN TRENDS THAT ARE LIKELY TO HAVE A MATERIAL EFFECT ON THE ISSUER'S PROSPECTS

Covid-19

The COVID-19 epidemic, the risks of which are regularly reassessed, could still affect the Company's outlook, as described in section 3.2.3 of this Universal Registration Document.

Ukraine/Russia conflict

Since the beginning of the crisis in Ukraine, the Company has not, as of the date of publication of this document, encountered any difficulties in pursuing its activities or its planned investments. To date, the Company has no direct or indirect relations with Ukraine or Russia, and the Company has managed to limit any delays directly related to this crisis in the industrial and commercial deployment of its technologies.

However, if this crisis were to continue and/or generate lasting economic consequences, the Company could have difficulties in containing the adverse effects of these measures and in particular, the increase in the cost as well as the extension to the lead times of supplies of certain materials, equipment and products necessary for the construction of its Reference Unit. This extension of lead times and the increase in prices could delay the construction of the first industrial and commercial unit using the PET recycling technology developed by the Company. In addition, the negative impact of the conflict on the financial markets and potentially on the Company's share price could intensify if it were to continue.

In view of the current situation between Russia and Ukraine, the Company specifies that its economic and balance sheet exposure to these two countries is not significant. In 2022, Carbios did not record any expenses with suppliers based in Russia and Ukraine.



2.7 MATERIAL CONTRACTS

The main agreements to which the Company is party are the following:

AGREEMENTS ASSOCIATED WITH THE DEVELOPMENT OF THE COMPANY'S TECHNOLOGIES

- Since April 1, 2018, the enzyme optimization work conducted within TBI and CRITT has been eligible for ADEME funding as part of the CE-PET project¹ for which Carbios received the funding notification on January 10, 2019². As part of this project, the PIA operated by ADEME granted €7.5 million in financing to Carbios and TWB in order to support the upscaling of Carbios' industrial and commercial project in the field of enzymatic recycling of plastic waste and PET fibers, over a period of 48 months.

As part of this financing, consisting of subsidies and repayable advances in the event of success, a payment was made in several tranches over the duration of the project. On March 10, 2022, Carbios announced that it had successfully validated the third and final technical stage of the project and that it had received an amount of €827,200. On February 3, 2023, Carbios announced that it had successfully completed the last key stage of the CE-PET project, which was approved without reservation by ADEME. For the validation of the whole project, Carbios will have received a total amount of €4,136,000 (€1,034,000 in subsidies and €3,102,000 in repayable advances) and its partner INRAE-TWB €3,416,000³.

As part of this work, Carbios, project leader and coordinator, was tasked with accelerating the industrialization of its technology for the enzymatic recycling of PET plastic waste and fibers. In November 2020, it also announced that it had produced the first bottles containing 100% recycled purified terephthalic acid (rPTA) from textile waste with a high PET content⁴.

The contract signed between TWB and Carbios on July 9, 2019 as part of this project is governed by the rules defined by the TWB consortium agreement. In accordance with the TWB rules on competitive contracts, it provides that Carbios will have full ownership of the results obtained under this project. The technical work was completed in October 2021. The last year of the project, which ended on October 31, 2022, was dedicated to economic and industrialization milestones.

In order to continue the enzymatic engineering work carried out as part of this CE-PET project co-financed by ADEME, INSA and Carbios signed a research collaboration agreement that came into force on November 1, 2021. The contract is governed by the rules defined by the TWB consortium agreement and provides, in accordance with the TWB rules on competitive contracts, that Carbios will have full ownership of the results obtained under this project.

- On January 17, 2020, the Company announced a strategic alliance with INSA Toulouse through its TBI laboratory to set up an internationally renowned enzymatic engineering research center for the recycling and biosynthesis of plastics⁵. This laboratory, called PoPLaB, in reference to Plastic Polymers and Biotechnologies, was inaugurated on January 28, 2020. On this occasion, Carbios announced that it had become a sponsor of the INSA Toulouse Foundation for a period of three years.

- On November 25, 2021, Carbios announced that it had received support from the European Commission through the LIFE program for the "LIFE cycle of PET" project. For this project, Carbios, project coordinator, and its partners T.EN Zimmer GmbH and Deloitte, obtained a grant of €3.3 million (including €3 million for Carbios), spread over the 39 months dedicated to the project.

A Grant Agreement has been signed with the European Commission and a consortium agreement is being signed with Carbios partners for this project. As part of this project, Carbios will benefit from full ownership and exclusive exploitation rights of the results it will have generated. It will also have the exploitation rights in the field of enzymatic recycling on the results generated by its partners.

- On August 9, 2022, CARBIOS announced that it had joined the WhiteCycle project, launched in July 2022 and coordinated by Michelin. The main objective of this innovative European project 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. This project brings together sixteen entities and will last four years⁶.

A Grant Agreement was signed by the European Commission and Michelin, in its capacity as coordinator of the project, and a Consortium Agreement was signed between all partners with an effective date of July 1, 2022. As part of the project, Carbios will implement the PET depolymerization and monomer recovery and purification technologies that it has previously developed.

AGREEMENTS ASSOCIATED WITH THE ESTABLISHMENT OF THE INDUSTRIAL DEMONSTRATION PLANT:

- Since February 2017, Carbios and TechnipFMC, world leader in engineering in the areas of energy, chemistry and bio-sourced industries, have collaborated on the industrial development of Carbios' PET enzymatic recycling process. On March 1, 2019, a Research, Engineering and Purchasing Assistance contract entered into force between Carbios and TechnipFMC. This contract includes an option for the monitoring of supplies, markets and the coordination of an engineering project relating to the definition of a demonstration unit for terephthalic acid (TA) and ethylene glycol (EG) monomers by recycling used PET.

Carbios holds the intellectual property rights for the research and work conducted under this agreement. In April 2020, Carbios exercised the option provided for under this agreement so that TechnipFMC also supports the Company during the construction phase and the start-up of the industrial demonstration plant operated by Carbios. It should be noted that since the spin-off of TechnipFMC on February 16, 2021, Carbios is now working with Technip Energies resulting from this same spin-off.

¹ For more information on the CE-PET project, please refer to section 1.4.5.1 of this Universal Registration Document.

² Please refer to the press release of January 17, 2019.

³ Please refer to the press release of February 3, 2023.

⁴ Please refer to the press release of November 19, 2020.

⁵ Please refer to the press release of January 17, 2020.

⁶ For more information on the WhiteCycle project, please refer to section 1.4.2 of this Universal Registration Document.



- In September 2020, the Company announced that it was bringing together its teams on the same site belonging to the Michelin Group and located near the Carbios facilities in Clermont. The buildings leased by Carbios make it possible to house the vast majority of the Company's activities previously spread over several sites and in particular, the development laboratory, the pilot plant, the support activities, the industrial demonstration plant and, since March 2023, the Carbiolice industrial production equipment.

The industrial demonstration plant, now integrated into the Michelin Group's Cataroux site, was commissioned in September 2021. In this context, two commercial leases were signed on April 13, 2021 between the Company and the Michelin Group for the purposes of defining the terms and conditions of the provision of the building housing the Company's demonstration plant, on the one hand, and that of the building housing the development laboratory, pilot and support activities on the other hand.

- Since July 2022, the Company's development laboratory, pilot and support activities teams have been grouped together in the same B80 building on the Cataroux site. The Carbiolice laboratory and support activities teams joined their colleagues in the B80 building in February and March 2023.
- In March 2023, Carbiolice's industrial production equipment joined the building housing the Company's demonstration plant, known as "O24," which is also located at the Cataroux site.

CONSORTIUM CONTRACTS AND PARTNERSHIPS

- On October 27, 2017, the Company announced that it had signed a 5-year consortium agreement with L'Oréal on September 30, 2017. This agreement aims to promote the circular economy through innovative plastic recycling solutions. The purpose of this agreement is to bring together a number of industrial and commercial companies that wish to support the Company in the industrialization of its enzymatic recycling technology. This agreement does not provide for the transfer of industrial property rights.

As a follow-up to this consortium agreement, the Company signed a consortium agreement with L'Oréal on December 31, 2017 for a four-year period from its launch date, i.e., April 19, 2019. The latter specifically concerns the enzymatic recycling of PET (the "Consortium").

On April 29, 2019, Carbios and L'Oréal announced the arrival of three other partners in the Consortium: Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe¹. The Consortium's partners hope to industrialize Carbios' technology and thus increase the availability of high-quality recycled plastics to support their commitments to sustainable development.

Technical stages are planned and the Consortium's partners pay an annual flat-rate contribution to support Carbios' developments to meet their expectations in terms of the recyclability of their products. In the context of this Consortium, to accelerate the industrialization of the process developed by Carbios, the partners further agreed to support the Company in the structuring of the new value chain for the recycled PET resulting from this innovative process.

On July 6, 2022, the Company announced the signing of a consortium agreement on the same day with the companies On, Patagonia, PUMA, and Salomon to develop solutions that increase the recyclability and circularity of their products. An important aim of the two-year deal will be to speed up the introduction of Carbios' unique biorecycling technology for the textile industry. Carbios and its four partners will also conduct research into how textile products can be recycled, evaluate the development of collection solutions for used polyester items and test sorting and processing technologies. It will also consolidate data on "fiber-to-fiber" recycling as well as on circularity models. In January 2023, PVH group², the parent company of the Tommy Hilfiger and Calvin Klein brands, also joined the Fiber-to-Fiber Consortium.

CONTRACTS RELATED TO THE REFERENCE UNIT PROJECT

- On March 16, 2022, the Company and Technip Energies entered into a contract for studies, engineering, purchasing assistance, monitoring of supplies, markets and site coordination. This contract defines the terms and conditions for Technip Energies to carry out, initially, engineering studies for the FEL 2 phase of the project to build a Reference Unit for the Company. Amendment No. 1 to this contract was signed with an effective date of July 2, 2022. Through this amendment, the Company entrusted Technip Energies with carrying out the engineering studies for phase FEL 3 of the Reference Unit construction project.

- On January 28, 2020, the Company signed a co-development agreement with Novozymes, world leader in enzyme production, for the production of its proprietary enzyme dedicated to the recycling of PET plastics and fibers. This collaboration will guarantee the production of its proprietary PET degradation enzyme during the demonstration and industrial deployment phases of the enzymatic PET recycling technology developed by Carbios. On January 12, 2023, the Company announced the signing, on January 11, 2023, of a major agreement with Novozymes that strengthens the previous collaboration via a strategic, exclusive and long-term partnership. This agreement guarantees the production and supply of Carbios PET degradation enzymes on an industrial scale for its first plant, which is scheduled to be commissioned in 2025 in Longlaville (France), as well as for future licensed plants, and guarantees both parties exclusivity in the area of the partnership.

AGREEMENTS ASSOCIATED WITH CARBIOLICE³

- On August 30, 2016, Carbios granted Carbiolice an exclusive worldwide license for the utilization of its PLA-based plastics enzymatic biodegradation technology. In an amendment to the license agreement dated June 28, 2018, the scope of the license was extended to new patent families, applications and products.
- In January 2019, Carbios and Carbiolice signed a co-development agreement with Novozymes, the global leader in enzyme production⁴.
- In order to support the takeover of Carbiolice by Carbios, the two companies entered into a management contract on August 2, 2021, enabling Carbiolice to benefit from the skills, expertise and certain material and human resources available to Carbios. This contract allows Carbios to provide management services to redefine Carbiolice's strategic orientations as well as develop its associated activities and resources.

¹ Please refer to the press release of April 29, 2019.

² Please refer to the press release of February 18, 2023.

³ Please refer to section 1.5.5 of this Universal Registration Document concerning Carbiolice.

⁴ Please refer to the press release of January 29, 2019.



FINANCIAL COMMITMENTS RELATED TO THE EXPLOITATION OF THE RESULTS

PLA biodegradation process

- Since 2015, Carbios has benefited from a license on a patent family protecting a production process for biodegradable plastics through the inclusion of an enzyme and filed jointly by the CNRS, Poitiers University and Valagro. This license agreement has already given rise to the payment of a sum of €800 thousand to the co-owners as return following the upfront of 2016 received by Carbios when the license was granted to Carbiolice. Subsequent remuneration from this agreement will come in the form of royalties to the joint owners in correlation with the revenues generated by Carbiolice's exploitation of this family of patents. The first royalties were recognized in view of the revenue generated by Carbiolice through the operation of this family in 2020.

Following the purchase of the shares of the SPI fund in the capital of Carbiolice on June 3, 2021, Carbiolice, as an affiliate of Carbios, now directly holds the exclusive worldwide operating license for this patent family. In this respect, Carbiolice may pay royalties to the joint owners with the revenues generated by Carbiolice's exploitation of this family of patents. No royalties from Carbiolice to the co-owners were recognized in 2022.

- As part of the Thanaplast™ project which ended on June 30, 2017, Carbios is still bound by the commitments made on the returns payable by Carbios to its partners in the event of exploitation of the results obtained as part of the Thanaplast™ project.

As such, for the part of the project dedicated to PLA biodegradation, 6 patent families resulting from the project were licensed to Carbiolice and resulted in a retrocession in the form of flat-rate amounts (in 2016) and royalties (from 2020). Thus, in July 2017, Carbios signed an operating agreement with INRAE Transfert, on behalf of INRAE, INSA Toulouse and CNRS, on a patent family jointly owned with INRAE/INSA/CNRS. This agreement concerns an enzyme for the degradation of polyesters developed at TBI as part of the research collaboration agreement with INRAE, itself part of the Thanaplast™ project.

Carbios is 50% co-owner of this patent family and benefits from an exclusive worldwide utilization license and a utilization sub-licensing right for this family of patents. The signing of this utilization agreement follows Carbios' granting of a license to Carbiolice on August 30, 2016 concerning this family of patents in particular. This agreement has already resulted in a payment of €50 thousand to INRAE Transfert as repayment following the upfront payment received by Carbios in 2016.

Subsequent remuneration from this agreement will come in the form of royalties to INRAE Transfert in correlation with Carbios' revenues generated by Carbiolice's utilization of this family of patents. No payments are to be declared for 2022. In addition, in order to comply with their obligations related to the use of genetic resources collected from the territories of the signatory States of the Nagoya Protocol, Carbios and INRAE signed an agreement in 2020 with the University of Kasetsart (Thailand), where the strain from which the aforementioned enzyme originated was obtained, and which allows access to and use of said biological material.

- In December 2019, Carbios also signed an operating agreement with INRAE Transfert, on behalf of INRAE, INSA Toulouse and CNRS, on a patent family for a second polyester degradation enzyme. This enzyme was developed with TBI as part of the collaborative services contract within the Thanaplast™ project and optimized under a competitive research contract signed with INRAE, under the aegis of TWB.

Under the terms of this agreement, Carbios has the exclusive ownership of the intellectual property rights over this enzyme and has committed, as a counterparty, to compensate INRAE if this technology is utilized. On June 28, 2018, Carbios and INRAE Transfert signed an amendment to the license granted to Carbiolice, including the said patent family.

Following this, Carbios and INRAE Transfert signed an operating agreement providing for the payment of a flat-rate amount of €25 thousand at the signature of the agreement in December 2019 and additional payments associated with the revenues received by Carbios in the event of effective direct or indirect use of this patent family via Carbiolice. No payments are to be declared for 2022.

For fiscal year 2022, no financial retrocession to the academic partners of the CE-PET project is to be declared.

PET biorecycling process

In addition, 6 patent families fully owned by Carbios were filed under the Thanaplast™ project for the enzymatic recycling process for polyesters, and in particular PET, and for the associated enzymes. In the event that these families are exploited or licensed for future exploitation, they could also result in a financial retrocession to INRAE in the form of lump sums, since three of them came from work conducted under the research services agreement with INRAE.

For the CE-PET project, the contract signed between TWB and Carbios on July 9, 2019¹ notably provides for financial returns to TWB in the event of exploitation of the results arising from the collaboration, in accordance with the rules of the TWB Consortium. Within this framework, a valuation agreement defining the terms and conditions for the returns was signed between Carbios, INRAE and INRAE Transfert on December 18, 2019.

In addition, Carbios will have full ownership of the results obtained under the competitive contracts signed with INSA, which entered into force on November 1, 2021 and January 1, 2023. In the event that these results are exploited or licensed by Carbios for future exploitation, this exploitation could also give rise to a financial retrocession to the INSA in the form of a lump sum.

¹ Please refer to section 2.5 "Agreements associated with the development of the Company's technologies" in this Universal Registration Document.





3. RISK FACTORS

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Investors are invited to review all of the information contained in this Universal Registration Document, including the risk factors described in this section.

The main risk factors liable, as at the date of publication of this Universal Registration Document, to have a negative impact on the Company, its business, its financial position, its results or its ability to achieve its objectives, are set out below.

These risk factors are Company-specific. They are grouped into 6 categories and are classified according to their degree of net criticality, in decreasing order. The risk's probability of occurrence and its magnitude are assessed according to three levels ("low," "moderate" and "high"). Future events that are internal or external to the Company may modify this order.

The net criticality of the risk factors is assessed by combining each risk's probability of occurrence and magnitude, after taking into account the risk management measures implemented by the Company to manage them. The combination of these two criteria makes it possible to assess each risk and classify them into 3 levels of criticality (criticality = probability x magnitude): Significant, Moderate, Minor.

As of the date of this Universal Registration Document, the Company is not aware of any significant risks other than those summarized below.

However, the attention of investors is drawn to the fact that the list of risks and uncertainties described below is not exhaustive. Other risks, of which it is not currently aware or that it does not consider to be significant, on the date of publication of this Universal Registration Document, could also have an adverse impact on its business and financial position, its results or its ability to achieve its objectives. Investors are invited to carefully review each of the risks listed below, along with all of the information provided in this Universal Registration Document.

3.1 SUMMARY OF SIGNIFICANT AND SPECIFIC RISKS

The presentation below takes into account the COVID-19 pandemic and its impacts.

Risk type	Probability of occurrence	Risk magnitude	Net degree of criticality
1. Risks related to the Company's business and market			
Risks associated with technology development	Average	High	Significant
Risks associated with raw materials	Average	Average	Moderate
Risks associated with the emergence of competing technologies	High	Low	Moderate
Risks associated with dependence on key partners	Low	Average	Moderate
2. Financial risks			
	Average	High	Significant
3. Risks related to changes in the macroeconomic environment			
Risks associated with the impact of the COVID-19 epidemic	High	Low	Moderate
Risks related to the military conflict between Russia and Ukraine	High	Moderate	Moderate
4. Risks related to the Company's organization			
Risks of dependence on key personnel	Average	Average	Moderate
5. Intellectual property risks			
Risks associated with uncertain protection of patents	Average	Low	Moderate
Risks associated with dependence on third-party technology	Low	Low	Minor
6. Regulatory risks			
Risks associated with compliance with the Nagoya Protocol on Access to Genetic Resources	Low	Low	Minor
Risks associated with regulations on plastics intended to come into contact with foodstuffs	Low	Low	Minor



3.2 DETAILED PRESENTATION OF SIGNIFICANT AND SPECIFIC RISKS

3.2.1 RISKS RELATED TO THE COMPANY'S BUSINESS AND MARKET

3.2.1.1 Risks related to technology development

3.2.1.1.1 Risk identification

The Company invests significant amounts in product research and development (bioprocesses, enzymes, technologies, etc.). During the course of an R&D project and in its various upscaling phases, it is not certain that the products under development will be launched commercially. It is also possible that Carbios will not invest in the most promising technologies or products that will be required and, as a result, it may be unable to launch new products or build a solid portfolio of products to meet customer needs.

Technical, industrial, regulatory or commercial difficulties with these bioprocesses could have an impact on the Company's growth and profitability:

- the launch of new products and/or enzymes, technologies or bioprocesses may require greater investments than planned in terms of research and development and marketing, as well as sales force and sales support, and customer and/or licensee training;
- it may be too costly or there may be technical difficulties in manufacturing certain new products on an industrial scale or in finding the necessary supplies to manufacture and market them. The difficulties encountered in obtaining sufficient volumes of PET waste to supply an enzymatic recycling industrial plant could generate costs such that the economic viability of the technology developed by the Company could be called into question;
- technical, industrial, regulatory or intellectual property issues could delay the commercial launch of the Company's products and adversely affect the commercial success of the systems proposed;
- new products may not be sufficiently responsive to market needs. The Company's business is dependent on the risks associated with the development of innovative technologies and/or products that may lead to discrepancies between the studies carried out and the reality of the target market;
- the Company could decide to abandon all or part of a project.

As part of its PET recycling project, the Company aims to build a Reference Unit that will enable it to extrapolate the data from its demonstration plant on an industrial scale in order to consolidate its business model, which remains the licensing of its technologies and know-how to its licensees, who will build their own recycled PET production units.

The main risks of the Reference Unit project are as follows:

- Delay
 - In the detailed pre-project studies
 - In obtaining permits and environmental authorizations due to the specific technicalities of the project and the land.
 - Finalization of the terms and conditions of the occupancy and use of the site owned by the Indorama group
 - Construction issues (e.g., climatic hazards, equipment supply delays)
- Cost
 - consequences of the above delays.
 - price inflation for equipment, supplies and works contracts,
 - additional costs of solutions to be decided in connection with the technical characteristics of the site (tendency to flooding, geotechnics, soil pollution, environmental quality of the Chiers river into which the treated wastewater will be discharged).
 - additional work during the construction phase

However, the difficulties identified above could hinder the successful implementation of this strategy in accordance with the planned schedule.

These risks could prevent the Company from having the necessary and sufficient data to build its Reference Unit within the announced deadlines. They could also prevent it from entering into licensing agreements for its technology, including the engineering documentation of the process and the supply of the enzymes that are respectively necessary for the construction and operation of higher capacity industrial units.

In such a case, any delay or failure in the industrialization phase of the PET recycling technology could prevent the Company from meeting, or to a limited extent, the needs for recycled PET expressed by end-users according to the schedule that it has set and thus jeopardize the Company's commitments and its long-term survival.

In any event, the abandonment of a project for which significant human and financial resources have been invested could have an adverse effect on the Company or its business, financial position, results, growth or outlook.

In the event of the abandonment of a major area of scientific development, which would definitively call into question the viability of the Company's business model, it would then be necessary to consider the optimal way of valuing the assets accumulated by the Company at the date such an observation. Measures, such as the partial or total sale of these assets, should also be taken to minimize the impact of such a situation on its shareholders. In such an event, the long-term survival of the Company could be brought into question.



3.2.1.1.2 Risk management

At the date of this Universal Registration Document, the Company has set up strategic partnerships which support its technical, industrial and commercial ambitions in its main areas of development, i.e., the enzymatic recycling of PET and the biodegradation of PLA.

Carbios is developing its internal industrial team, with the recruitment of engineers experienced in technologies and projects to run the Reference Unit project and the industrial demonstration plant test plan at the same time. The latter's production team is adapted to support the ramp-up of the purification steps and the testing of new raw materials. The network of technology experts is maintained and strengthened in order to have independent advice from equipment suppliers.

Risk management is integrated into the management of the Reference Unit project and reviewed in FEL 2 and the beginning of FEL 3.

The schedule of engineering studies is synchronized with the progress of the demonstration plant. Consultations for equipment purchases are only launched on specifications validated with the results of the demonstration plant or other reliable reference conditions.

The procedures and studies in connection with the filing of permit applications were launched with the mobilization of external experts mandated by Carbios and the establishment of a collaboration with the services of the State, the Region, the Mayor of Longlaville and the urban community, in project mode. The project's procurement and supply plan is initiated in advance to take into account potentially deteriorated market conditions for the supply of certain materials, equipment and products necessary for the construction and deployment of the Reference Unit.

3.2.1.1.3 Degree of criticality of the risk

Significant.

3.2.1.2 Risks related to raw materials

3.2.1.2.1 Risk identification

As part of the enzymatic recycling process developed by the Company, plastic or textile waste composed mainly of PET or polyester fibers is the main raw material required for large-scale operations.

Household plastic packaging waste is currently recycled using mechanical technologies and the quantities collected and available are limited. The textile waste is today relatively poorly collected. The recyclable waste stems from across Europe and is collected locally. The volumes of waste required for future industrial units are substantial and will, therefore, require an efficient collection system that is expanded both geographically and to all types of PET waste (packaging waste that is currently not collected and textile waste).

The Company and its partners could encounter difficulties in supplying industrial units with the required quantities, or have to bear costs and quality levels in sourcing supplies that would hinder the competitiveness of the process.

Indeed, two players with competing processes (methanolysis) have announced the construction of industrial units in France requiring a cumulative capacity of 230,000 tons per year of PET waste. Such competing technologies could potentially have an adverse effect on the supply of raw materials for the industrial and commercial operation of the PET enzymatic recycling technology developed by the Company.

Like all companies developing an industrial process, the Company has to deal with volatility in terms of prices and the availability of all the raw materials involved in its process.

Other entrants are also concerned, since the Carbios technology consumes commodity raw materials and energy sources whose price fluctuations in the current market context could negatively impact production costs.

3.2.1.2.2 Risk management

The difficulties that the Company may encounter in accessing raw materials are a challenge faced by all of Carbios' competitors.

In order to secure these supplies for industrial and commercial operations, the Company has already engaged in advanced discussions with eco-organizations (Extended Producer Responsibility operators) and with several leading players capable of supplying raw materials to the future operators of its enzymatic recycling technology.

In addition, Carbios conducts depolymerization tests on various types of waste in its pilot unit and its demonstration plant. The aim is to diversify the sources of supply required to operate its recycling process. The Company also participates in European working groups with the aim of improving the efficiency of the collection and recycling of plastic waste and textiles made of PET.

In addition, the location of the Company's future Reference Unit in Meurthe-et-Moselle will make it possible to envisage a supply of waste from France and from Belgium, Luxembourg and Germany, which has an excellent collection system, including for post-consumer textiles.

An industrial working group was set up with Novozymes to define the means of production, storage and logistics of the enzyme, from the Novozymes site(s) to the Reference Unit in Longlaville (54).



3.2.1.2.3 Degree of criticality of the risk

Moderate.

3.2.1.3 Risks related to the emergence of competing technologies

3.2.1.3.1 Risk identification

The various markets in which the Company operates are the target of growing environmental and industrial interest, which in practice gives rise to growing competition. Furthermore, projects such as the Company's, whose purpose is to promote a circular economy, are strongly encouraged. The development of competing technologies, in particular based on chemical recycling processes, has been emerging over recent years and certain pilot plants are being started up.

The Company cannot guarantee that technically, environmentally or economically better solutions other than its technologies will not be developed and marketed in the near future. Moreover, the Company cannot guarantee that its processes will be brought to the market more quickly than those of its competitors.

At the same time, the identification of enzymes intended for the enzymatic recycling of PET is the subject of research by various universities around the world. The Company cannot guarantee that these academic laboratories will not develop an enzyme that is more efficient than Carbios' proprietary enzymes.

Such events could have a material adverse effect on the Company's business, outlook, financial position, results and growth.

Fields of application	Industrial competitors
Recycling	PET and/or polyester fibers: Samsara, Loop Industries*, Ioniqa*, Teijin*, Jeplan*, Gr3n*, Garbo*, Axens IFP Group Technologies*, BP*, Eastman*, Cumapol*, Revalyu Recycling* Other polymers: Galactic*, Creacycle*, Worn Again*
Biodegradation	Advanced Enzyme Science Limited and its Enzymoplast® product Manufacturers of compostable plastics for home composting (such as Novamont and its Mater-Bi®, Sphere)

*Competitors using chemical and non-biological technologies.

3.2.1.3.2 Risk management

Carbios is a pioneer in the development of bioprocesses dedicated to optimizing the life cycle management of plastics and textiles. It has many strengths to enable its processes to be marketed despite the emergence of competing technologies. To this end and in order to obtain a competitive advantage, the Company has established strategic collaborations with several industrial leaders in their fields, such as Novozymes, L'Oréal, Nestlé Waters, PepsiCo, Suntory Beverage & Food Europe, Michelin, l'Occitane, On, Patagonia, PUMA, Salomon, PVH and Technip Energies. These partners, keen to initiate a real transition towards a circular economy model to manage the life cycle of plastics and textiles, support the Company in the industrial and commercial implementation of its technologies.

The Company also plans to strengthen its academic partnerships in order to provide itself with the possibility of acquiring upstream technologies that may be developed in the field of enzymatic recycling from universities. In addition, the Company has intellectual property covering the entire recycling process, regardless of the enzyme used.

3.2.1.3.3 Degree of criticality of the risk

Moderate.

3.2.1.4 Risks related to dependence on key partners

3.2.1.4.1 Risk identification

The Company's business depends on its collaboration with academic laboratories and industrial partners, which give it access to technologies, expertise and know-how. If that access were to be impeded, the Company may be forced to stop or delay the projects involved.

Academic partnerships

In order to ensure the development of its technologies at the laboratory stage, the Company has entered into collaboration or research service agreements with academic laboratories. This is notably the case with the Thanaplast™ program (now completed) and the CE-PET project (completed in February 2023). For the latter, a consortium agreement was signed in 2019 with INRAE, acting on behalf of the Toulouse White Biotechnology Mixed Services Unit (TWB). In 2020, the Company also set up a cooperative laboratory, PopLaB, with INSA Toulouse through its internationally recognized laboratory TBI (Toulouse Biotechnology Institute). In 2021, the Company continued the work in progress at TBI by setting up a new contract with INSA Toulouse, which entered into force in November 2021.



The academic partners could fail to complete the entrusted research work by the set deadline. The Company could then be forced to stop or delay the projects concerned, to commit unforeseen investments and/or additional resources. This could have an adverse effect on the Company's technology development and financial position. If it could no longer benefit from these renowned academic partnerships, the Company could no longer have access to state-of-the-art data, materials and equipment. The Company would then be forced to make financial investments that it may not be able to support.

Industrial partnerships

In 2020, the Company continued its collaboration with Technip Energies for the engineering and construction oversight of its demonstration plant on the Cataroux site in Clermont-Ferrand¹. Since September 2021, Carbios has operated it on its own.

As part of its project to build a Reference Unit on the Longlaville site (Department 54), on March 16, 2022, the Company also signed a contract with Technip Energies for studies, engineering, purchasing assistance, monitoring of supplies, contracts and site coordination. This defines the terms and conditions for Technip Energies to carry out, initially, engineering studies at FEL 2 level for this project. Amendment No. 1 to this contract was signed with an effective date of July 2, 2022. Through this amendment, the Company entrusted Technip Energies with carrying out the engineering studies for phase FEL 3 of the Reference Unit construction project.

At the same time, in anticipation of the industrialization of these technologies and the supply of the associated proprietary enzymes, the Company entered into three exclusive co-development agreements with Novozymes, the global leader in enzyme production:

- the first in January 2019, with Carbiolice, for the development of the PLA-based single-use plastics enzymatic biodegradation technology; and
- the second, in January 2020, for the development of the Carbios technology for the enzymatic recycling of PET fibers and plastics. This new agreement will guarantee the production of the proprietary enzyme designed and developed by Carbios in the demonstration phase and for the industrial and commercial use of the technology; and
- the third on January 11, 2023 with Carbios, which strengthens the previous collaboration via a strategic, exclusive and long-term partnership. This new agreement confirms the production and supply of Carbios' PET degradation enzymes on an industrial scale for its first plant, unique in the world, scheduled to be commissioned in 2025 in Longlaville (France), as well as for future plants under license from Carbios, and guarantees exclusivity in the area of partnership for both parties.

These partners may not validate the key stages of the collaboration, in particular the profitability studies of the planned partnership. They may not complete their tasks within the set deadlines or, more generally, fail to meet their commitments. The Company could then be forced to stop or delay the industrialization of the project(s) involved. Such a delay could have an adverse effect on the Company's business and financial position, especially if new investments proved necessary.

For such partnerships in particular, the Company generally depends on a single partner, which ranks among the leaders in its field. In the event of the termination or deterioration of its relations with this industrial partner, the Company could find it impossible to strike an agreement with other partners with the necessary capabilities to meet the Company's needs and requirements. This could adversely affect its ability to successfully develop, produce at a competitive cost and market its products or processes.

In addition, the Company continues to look for partnerships in order to carry out its industrial strategy. If the Company were unable to find suitable partners, its industrial strategy could be called into question or delayed.

3.2.1.4.2 Risk management

The set-up of each partnership of a structural nature for the Company involves the negotiation and signing of a contract between the Company and the partner. The Company pays special attention to the contract termination and guarantee clauses, to cover itself in the event of a breach by the partner or its early termination of the contract.

At the same time, each partnership is monitored on the basis of a "project management" model. This includes the appointment of project managers within the Company and its partners; the set-up of monitoring and reporting tools; and the establishment of steering committees within the Company's management team and that of its partners in order to be able to quickly anticipate any delay in work or other major problem.

Lastly, partnerships related to pre-industrialization or industrialization generally depend on a single partner. The Company has focused on building with Technip Energies and Novozymes, a solid long-term partnership relationship, which strengthens mutual trust and is an asset for the success of these partnerships.

3.2.1.4.3 Degree of criticality of the risk

Moderate.

3.2.2 THE COMPANY'S FINANCIAL RISKS

3.2.2.1 Risk identification

At December 31, 2022, the cash and marketable securities held by the Company totaled €100 million.

At December 31, 2022, the Company's financial liabilities consisted solely of conditional advances of €3.7 million and borrowings of €35.9 million.

Please refer to section 5.1.4 for an overview of the Company's conditional advances (Note 13) and debt schedule at December 31, 2022 (Note 8).

It should also be noted that the Company's historical deficit can be explained by the fact that it is still in its development phase. During this phase, research expenses increase while no recurring revenue is generated. This may create a liquidity risk for the Company, excluding subsidies or additional fundraising.

¹ Please refer to section 2.5 of this Universal Registration Document.



Thus, for the fiscal year ended December 31, 2022, it should be noted that the Company's operational activities had consumed €13 million in cash. Flows from investments in fixed assets (excluding financial items) consumed €17 million, and the Company absorbed these negative flows by drawing on the €30 million EIB loan.

The cash flow forecasts for the 2023 fiscal year take the following items into consideration:

- available cash of around €100 million at December 31, 2022;
- the receipt of the Research Tax Credit (CIR) of €2,538 million (amount recognized at December 31, 2022), for which the payment should take place during the 2nd quarter of 2023; and
- the expected receipt of the ADEME grant relating to balance of the CE-PET project, subject to the validation of the corresponding milestone, namely €207 thousand in subsidies and €620 thousand in repayable advances¹.

3.2.2.2 Risk management

On March 31, 2023, the Company carried out a specific review of its liquidity risk on the basis of cash items, which amount to €84 million at March 31, 2023. On this date, and on the basis of its investments and current operating expenses, the Company considers that it will be able to meet its future maturities for at least the next twelve months. These items take into account investments for the deployment of the various phases of the process at the industrial demonstration plant stage, the probable final cost of which is estimated at between €20 and €25 million, and the first orders of equipment relating to its Reference Unit.

3.2.2.3 Degree of criticality of risk

Significant.

3.2.3 RISKS RELATED TO CHANGES IN THE MACROECONOMIC ENVIRONMENT

3.2.3.1 Risks related to the COVID-19 epidemic

3.2.3.1.1 Risk identification

The COVID-19 epidemic, which first appeared in China in December 2019 and subsequently spread to numerous countries including France, could, if it were to intensify, significantly disrupt the Company's business by causing operational difficulties, particularly due to:

- the closure of the Company's partner companies or service providers;
- slowdowns in the activities of certain suppliers (materials, components, etc.) and therefore supply difficulties;
- the closure of research laboratories;
- the lockdown measures in place;
- travel restrictions; and
- the impossibility for certain employees to work from home.

Since the start of the COVID pandemic, the Company has encountered certain difficulties in the continuation of its activities, in particular, given the restrictions and lockdown measures suffered by some of its suppliers, service providers and partners. To date, however, the Company has managed to limit any delays directly related to the health crisis in the industrial and commercial deployment of its technologies.

However, if the restrictions and confinement measures continued to be applied both in France and abroad, the Company could have more and more difficulty in containing the harmful effects of these measures and in particular, the extension of the delays in the supply of certain materials, equipment and products required for the construction and deployment of its industrial demonstration plant and Reference Unit.

This extension of lead times could delay the next stages of the industrial demonstration plant and, as a result, the collection of the data necessary for the construction of the first industrial and commercial unit using the PET recycling technology developed by the Company. In addition, the negative impact of this epidemic on the financial markets and potentially on the Company's share price could intensify if the health crisis were to continue for several more months.

As of the date of this Universal Registration Document, this health crisis is still affecting France and several other countries. Its impacts are, therefore, still likely to negatively affect the Company's ability to conduct its business and could cause delays in the industrial and commercial deployment of its technologies.

3.2.3.1.2 Risk management

Since the start of the COVID-19 epidemic, Carbios has been taking the required measures to protect its employees and ensure the continuity of its business.

As at the date of this Universal Registration Document:

Since May 11, 2020, when the lockdown measures were lifted by the government, the Company has relaunched all its R&D, piloting and industrial demonstration activities for its technologies; It ensures that its staff respect barrier gestures and that health and safety measures are implemented in its establishments. The Company has set up a crisis management system to ensure the continuity of its employees' operations at its various sites and protect their health and safety in the course of their daily work and business travel.

The Company meets these objectives through strict compliance with government guidelines and through the use of teleworking, where possible and necessary. The Company's Executive Management also keeps a permanent watch on the risks associated with the development of this health crisis and implements all appropriate actions to reduce its potential negative impacts. As at the date of this Universal Registration Document, the Company cannot, however, assess the impacts of this crisis on the 2023 fiscal year, if it were to continue. With regard to the Reference Unit project, the COVID risk persists but is mitigated with effective protocols put in place in the companies and the evolution of the pandemic.

¹ Please refer to section 5.1.4.13 of this Universal Registration Document



3.2.3.1.3 Degree of criticality of the risk

Moderate.

3.2.3.2 Risks related to the military conflict between Russia and Ukraine

3.2.3.2.1 Risk identification

Since the beginning of the conflict in Ukraine, the Company has not, as of the date of publication of this document, encountered any difficulties in pursuing its activities or its planned investments. To date, the Company has no direct or indirect relations with Ukraine or Russia, and the Company has managed to limit any delays directly related to this crisis in the industrial and commercial deployment of its technologies.

However, if this crisis were to continue and/or generate lasting economic consequences, the Company could have difficulties in containing the adverse effects of these measures and, in particular, the increase in the cost as well as the extension to the lead times of supplies of certain materials, equipment and products necessary for the construction of its Reference Unit. This extension of lead times and the increase in prices could delay the construction of the first industrial and commercial unit using the PET recycling technology developed by the Company. In addition, the negative impact of this conflict on the financial markets and potentially on the Company's share price could intensify if the crisis were to continue for several more months.

In view of the current situation between Russia and Ukraine, the Company specifies that its economic and balance sheet exposure to these two countries is not significant. In 2022, Carbios did not record any expenses with suppliers based in Russia and Ukraine.

3.2.3.2.2 Risk management

In view of the current situation between Russia and Ukraine, the Company specifies that its economic and balance sheet exposure to these two countries is not significant. During the first half of 2022, Carbios did not record any expenses with suppliers based in Russia or Ukraine.

3.2.3.2.3 Degree of criticality of the risk

Moderate

3.2.4 RISKS RELATED TO THE COMPANY'S ORGANIZATION

Risks of dependence on key personnel

3.2.4.1 Risk identification

The success of the Company depends largely on the work and expertise of its executives and its key scientific and business development personnel. These people include the Chief Executive Officer, Emmanuel LADENT, the Scientific Director, Professor Alain MARTY, the Director of Intellectual Property, Lise LUCCHESI, the Director of Strategy and Finance, Pascal BRICOUT, the Director of Industrial Development, Lionel ARRAS, the Sourcing and Public Affairs Director, Mathieu BERTHOUD and the Chief Business Officer, Stéphane FERREIRA.

The loss of their skills could affect the Company's ability to achieve its objectives.

At 31 December 2022, the Carbios Group had 104 employees, including 20 in its subsidiary Carbiolice. The Company anticipates significant growth in its business. It will, therefore, need to recruit additional employees to expand its operational activities, in particular qualified scientific and technical employees to assist in its developments and the industrialization of its PET biorecycling technology.

The Company is in competition with other companies, groups, research organizations and academic institutions for the recruitment and retention of highly qualified scientific, technical and management personnel. In this context, the Company may not be able to attract or retain these key employees under economically acceptable conditions. It may therefore not be able to compete with reputable companies, groups or organizations with greater financial strength.

The Company's inability to retain, attract and retain these key individuals could prevent it from achieving its growth objectives. This would have a material adverse effect on its business, prospects, financial position, results and development.

Moreover, the Company may not be able to manage its growth and may encounter unexpected difficulties as it expands. In such a case, the business, outlook, financial position, results and growth of the Company could be affected.

3.2.4.2 Risk management

To reduce the risk of losing its key personnel, the Company has set up systems to share the rise in value of the Company via founder share subscription warrants (BSPCEs), which encourage key beneficiaries to stay in the Company and work for its success.

In addition, the Company has set up an attractive compensation program for its employees with implementation from 2023, consisting of:

- a value-sharing bonus, the amount of which is identical for all employees;
- an overhaul of the target bonus system, which may be higher for employees than the system previously in force;
- a profit-sharing and incentive program (the first payments to employees to be made in 2024 if the conditions set are met); and
- a company savings plan.



With the acceleration of its developments, the Company strengthened its Executive Committee and the teams of its various operational divisions during the 2022 fiscal year in order to gain additional expertise in key areas such as industrial engineering, finance and research. The strengthening of the Executive Committee and operational teams also helps to mitigate the risks related to the departure of key personnel. Lastly, the Company also introduced annual assessments and a training plan to enable each employee to keep up with the Company's developments over the long term.

3.2.4.3 Degree of criticality of risk

Moderate.

3.2.5 INTELLECTUAL PROPERTY RISKS

3.2.5.1 Risk identification

The intellectual property rights held by Carbios, in particular the patents protecting its technological innovations, are Carbios assets that require special precautions. To ensure the success of the business model, it is thus essential that the Company, as well as its current or future licensors and licensees, be in a position to obtain, maintain and ensure the respect of their intellectual property rights.

The challenging of intellectual property rights and the use – by unauthorized third parties – of any assets, products or processes covered by intellectual property rights constitute a major risk for Carbios.

Risks associated with uncertain protection of patents

It cannot be ruled out that the inventions developed may be used by competitors, particularly in the following cases:

- the inventions developed by the Company are not patentable;
- the patents for which applications have been filed, including in countries likely to offer major commercial development prospects, are not issued;
- the extent of the protection provided by a patent is insufficient to prevent the use of the relevant invention by competitors.

Despite the care taken, it is possible that the patent applications filed by Carbios have a more limited scope than expected.

Third parties or competitors could also successfully challenge, before a competent court, the validity of the intellectual property rights that the Company owns directly or jointly or holds under license. Furthermore, some third parties may successfully infringe on or circumvent the Company's intellectual property rights with their own innovations.

A lawsuit may prove necessary to ensure the respect of the intellectual property rights, to protect the commercial trade secrets or to uphold the validity and scope of the Company's intellectual property rights. Any litigation may result in significant expenditure, reduce profit and fail to provide the protection sought by the Company.

Risks associated with dependence on third-party technology

Carbios' success will also depend on its ability, and that of its partners, to use the Company's exclusive technologies without infringing upon, misappropriating or otherwise violating any third parties' intellectual property rights or exclusive rights. However, despite the efforts made, the Company may not be aware of all of the intellectual property rights held by third parties and potentially linked to the Company's technologies. Therefore, the Company cannot guarantee that its processes do not infringe on patents held by third parties, or that it will not be accused of such infringement.

Any litigation or claim against the Company, regardless of the outcome, could result in substantial costs and compromise its reputation. The occurrence of one or more of these risks could have an adverse effect on the Company's business, outlook, financial position, results and growth.

Any such litigation could also force the Company to stop developing, selling or using the products or bioprocesses that would depend on the allegedly infringing intellectual property. It could also require it to obtain a license from the holder of the intellectual property rights, which may not be obtained on reasonable terms, if at all.

3.2.5.2 Risk management

In order to counter these intellectual property risks, Carbios ensures, before entering into any research contracts with third parties, that it will have exclusive property rights over the results or, in the event of joint property, the exclusive right to use the results in its field of activity.

In addition, with the backing of the Company's scientists, an in-house team is tasked with keeping a watch on competitors, technology and patents. This watch makes it possible to identify existing prior art before applying for patents and improves the chances of obtaining patents. It also makes it possible to identify emerging work, expertise and patents in relevant fields in order to take them into account in the development of innovations and ensure that the Company's processes and products can be used without restrictions.

Moreover, given the paramount importance of patents in its business sector, the Company has formed a non-statutory Intellectual Property Committee that meets periodically to define the Company's industrial property strategy. Carbios also benefits from the in-house expertise of two industrial property specialists and is regularly assisted by an intellectual property consultancy firm.

3.2.5.3 Degree of criticality of risks

Risks associated with uncertain protection of patents: Moderate.

Risks associated with dependence on third-party technology: Minor.



3.2.6 REGULATORY RISKS

3.2.6.1 Risk identification

Risks associated with compliance with the Nagoya Protocol on Access to Genetic Resources

The Rio Convention on Biological Diversity (CBD), signed by over 150 states, requires prior informed consent for any biological material collection and access to genetic resources in a given state, as well as an agreement governing the terms of transfer of the genetic resource and the conditions for sharing the benefits from the exploitation of that resource.

These conditions for the fair and equitable sharing of benefits arising from the utilization of genetic resources of “plants, animals, bacteria or other organisms, for commercial or research purposes, or for other objectives” are set out in a supplementary agreement to the CBD, the Nagoya Protocol, ratified by some 120 states.

The Company could therefore be faced with reluctance or refusal on the part of the local authorities to issue the collection or utilization permits, or be unable to meet the demands of the local authorities when negotiating a benefit-sharing agreement. The Company mainly works on genetic resources that are not identified by Carbios from a natural strain but in public databases (“Digital Sequence Information”), and for which the research work does not require a collection permit.

The only exception to date has been the identification of an enzyme for the degradation of polyesters in collaboration with INRAE and for which Carbios and INRAE signed an agreement in 2020 to access and use biological material with the University of Kasetsart (Thailand). The strain from which the aforementioned enzyme originated was obtained from this university.

In addition, as a company operating on French soil, the Company must comply with European regulations (EU No. 511/2014 on “compliance measures for users from the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization in the Union” and its Implementing Regulation No. 2015/1866). These lay down detailed rules for the utilization of genetic resources, whenever the enzymes used by the Company fit the definition of “genetic resource.”

To reinforce this European regulation, law No. 2016-1087 of August 8, 2016 and its implementing decree No. 2017-848 of May 9, 2017 include new provisions. These provisions relate, in particular, to the due diligence to be carried out in the event of use of genetic resources taken from the territories of the signatory States of the Nagoya Protocol.

The Company may thus encounter difficulties with the suppliers of biological materials and/or the authorities of the States concerned in obtaining the necessary information and making the declarations required by these regulations.

Risks associated with regulations on plastics intended to come into contact with foodstuffs

The Company is developing a PET recycling technology that can be regarded as a chemical recycling process. Regulation 2022/1616/EU on recycled plastic materials and articles intended to come into contact with foodstuffs, published in September 2022, establishes the criteria for the marketing and development of technologies and use with foodstuffs for plastic packaging. This new regulation applies regardless of the type of recycling process used. Nevertheless, processes involving a return to monomers, as is the case for the PET recycling technology developed by Carbios, are expressly excluded by Article 1 of this new regulation.

The monomers resulting from the Company's process must therefore comply with:

- substances registered according to the REACH Regulation No. 1907/2006 concerning the registration, evaluation and authorization of chemical substances; and
- Regulation No. 10/2011 (currently being revised) on plastic materials and articles intended to come into contact with foodstuffs.

Monomers, resulting from the chemical (or biological) recycling of PET waste, could have impurity characteristics that are not those of monomers from petrochemicals. This could potentially lead to a separate registration of the monomers from the Company's PET enzymatic recycling technology and therefore to additional registration costs and/or lead times for the Company.

3.2.6.2 Risk management

Concerning the management of risks associated with compliance with the Nagoya Protocol on access to genetic resources

The Company must ensure that it has the right to use every enzyme that it may come to develop or industrialize. To this effect, when working on specific genetic resources, the Company conducts the following checks:

- identification of the likely State of origin of the genetic resource;
- study of the terms defined by said State, either under the Nagoya Protocol or its national law, concerning the sharing of benefits; and
- contacting of local authorities to obtain their approval for the use and/or sharing of the benefits derived from the use of the enzyme.

Concerning the management of risks associated with regulations on plastics intended to come into contact with foodstuffs

The Company participates in working groups on chemical recycling regulations with the European association PETCORE (Monomer recycling) as part of discussions with European bodies such as DG Santé and EFSA (European Food Safety Authority). In addition, Carbios has strengthened its teams with a person dedicated to regulatory issues and its collaborations with expert firms.

3.2.6.3 Degree of criticality of risks

Risks associated with compliance with the Nagoya Protocol on Access to Genetic Resources: Minor.

Risks associated with regulations on plastics intended to come into contact with foodstuffs: Minor



3.3 RISK MANAGEMENT MEASURES

3.3.1 INTERNAL CONTROL ORGANIZATION AND PROCEDURES

As part of its internal control, the Company has, since its inception, implemented detailed procedures to ensure compliance with the rules in force and to guard against the related risks. These procedures are validated by the Company's management and distributed to all employees who undertake to comply with them. They are also regularly reviewed and adjusted to take into account structural and/or organizational changes in the Company in order to maintain a minimum level of risk.

In addition, the finance team ensures compliance with procedures on a quarterly and half-yearly basis by performing random self-checks on various procedures. The results are sent to the Audit Committee (below) and to the Statutory Auditor. The teams receive regular feedback on this subject, and corrective measures are taken if necessary.

See section 4.1.5.2.1.2. "Audit Committee," which details the composition and role of the Audit Committee. It reports to the Board of Directors and aims to review internal control and proper risk management.

In addition to its annual (and sometimes half-yearly) closing work, the Company's Statutory Auditors regularly audit the internal control systems set up by the Company to ensure that documented procedures are in place and effective.

3.3.2 INSURANCE AND RISK COVERAGE

At the date of this Universal Registration Document, the Company believes that it has adequate insurance coverage for its activities. In the future, the Company does not foresee any particular difficulties in maintaining adequate levels of insurance within the limits of availability and market conditions.

The Company has taken out a "Professional Multi-Risk" insurance policy for the premises of its registered office, which is now located at the Cataroux site, 8 rue de la Grolière, 63100 Clermont-Ferrand, France.

The main clauses of this insurance policy are as follows:

- property insurance against risks of fire, explosions, natural disasters, climate events, water damage, electrical damage, theft, vandalism, demonstrations, riots, machinery breakdown, glass breakage, the cost of reconstructing the archives for previous events on the Company's premises; and
- insurance for the financial consequences of the cessation of activity due to a covered claim.

The Company has also taken out Civil Liability Insurance which covers the civil liability of the Company due to its operations.

This insurance is extended to the Company's activities carried out on premises made available by public laboratories. The policy guarantee covers the financial consequences of the civil liability that the Company may incur as a result of material and immaterial damage to property entrusted to the Company in the course of its activities.

In addition, the Company has also taken out insurance policies in connection with the work undertaken as part of the installation of the industrial demonstration plant and its operation, namely "comprehensive construction site/comprehensive test and assembly," "structural damage" and "machinery breakdown" insurance policies.

Lastly, as part of the two innovation loans, the Company has taken out a borrower guarantee in the event of death, total and irreversible loss of autonomy, total and permanent disability or total inability to work for key insured persons.

During the fiscal year ended December 31, 2022, the Company recognized an amount of €120 thousand in premiums for all insurance policies to which it has subscribed.

3.3.3 LEGAL AND ARBITRATION PROCEEDINGS

There are no governmental, judicial or arbitration proceedings (including any proceedings of which the Company is aware that are in abeyance or that are threatened) that may or might have had a significant effect on the financial position or profitability of the Company in the last 12 months.

The Company has therefore not recorded any provision for litigation.





4. CORPORATE GOVERNANCE

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4.1 GOVERNANCE ORGANIZATION

4.1.1 BOARD OF DIRECTORS

The Company is a French Société Anonyme (public limited company) with a Board of Directors whose mode of operation is described in the bylaws and in section 7.2 of this Universal Registration Document. At its meeting of May 5, 2022, the Board of Directors decided to co-opt Emmanuel LADENT to replace Ian HUDSON, who resigned. At its meeting of June 29, 2022, the Board of Directors duly noted the resignation of Jacques BREUIL and Mieke JACOBS from their directorships. Juan DE PABLO and Isabelle PARIZE were co-opted as directors to replace the two who resigned. At its meeting of February 7, 2023, the Board of Directors duly noted the resignation of Jacqueline LECOURTIER, Jean-Claude LUMARET, Alain CHEVALLIER and Jean FALGOUX from their directorships. Karine AUCLAIR, Mateus SCHREINER GARCEZ LOPES, Amandine DE SOUZA and Sandrine CONSEILLER were co-opted as directors to replace the four who resigned.

4.1.1.1 Directors

Information concerning the directors

At the date of this Universal Registration Document, the Board of Directors was composed of the following 11 directors and one non-voting director:

First name-Surname or company name	Main position held within the Company	Gender	Main position held outside the Company	Age	Nationality	First appointment	Member of a statutory committee ⁽²⁾
Philippe POULETTY ⁽¹⁾	Chairman of the Board of Directors from April 1, 2022	Male	Chief Executive Officer of Truffle Capital SAS	64	French	04/01/2022	-
Emmanuel LADENT	Director	Male	Chairman of Carbiolice	53	French	05/05/2022	-
BOLD, Business Opportunities for L'Oréal Development, represented by Laurent SCHMITT	Director	Male	Chief Corporate Finance and Financial Communication Officer of the L'Oréal Group	58	French	06/23/2021	-
MICHELIN VENTURES, represented by Nicolas SEEBOTH	Director	Male	Head of Polymers and Chemicals Research at Manufacture Française des Pneumatiques Michelin	45	French	06/23/2021	Member of the Audit Committee
Vincent KAMEL	Independent director	Male	Chairman of Kamergy SAS	60	French	06/23/2021	-



First name-Surname or company name	Main position held within the Company	Gender	Main position held outside the Company	Age	Nationality	First appointment	Member of a statutory committee ⁽²⁾
Juan DE PABLO	Independent director	Male	Executive Vice-President for Science, Innovation, National Laboratories and Global Initiatives and Liew Family Professor of Molecular Engineering University of Chicago Pritzker School of Molecular Engineering Senior Scientist Argonne National Laboratory	60	American	06/29/2022	Member of the Scientific Committee
Isabelle PARIZE	Independent director	Female	Chairwoman of the Supervisory Board of Delsey Partner of ODYS SPRL	65	French	06/29/2022	Chairman of the Audit Committee
Mateus SCHREINER GARCEZ LOPES	Independent director	Male	Global Director for Energy Transition and Investments at Raizen	40	Brazilian	02/07/2023	-
Karine AUCLAIR	Independent director	Female	Professor of Chemistry McGill University	50	Canadian	02/07/2023	Member of the Scientific Committee
Amandine DE SOUZA	Independent director	Female	Chief Executive Officer of Leboncoin	43	French	02/07/2023	-
Sandrine CONSEILLER	Independent director	Female	Partner & Co-founder of Neofounder	51	French	02/07/2023	-
Copernicus Wealth Management represented by Alen VUKIC	Non-voting director	Male	Chief Financial Officer Copernicus Wealth Management	47	Swiss	06/22/2022	-

(1) Philippe POULETTY was appointed Chairman of the Board of Directors after having been co-opted as a director of the Company to replace TRUFFLE CAPITAL, which resigned. Until its resignation, TRUFFLE CAPITAL was represented by Philippe POULETTY on the Board of Directors.

(2) Only the members of a statutory committee are mentioned in this table. The Company has also set up non-statutory commissions. Please refer to section 4.1.5.2 of this Universal Registration Document for a description of these.

Each director is domiciled at the Company's registered office at the Cataroux site - 8 rue de la Grolière - 63100 Clermont-Ferrand, France.



Director biographies

Philippe POULETTY, Chairman of the Board of Directors

A medical doctor (University of Paris VI), immunologist, former intern at Hôpitaux de Paris and immunology specialist at Institut Pasteur (general immunology), Philippe POULETTY did postdoctoral research at Stanford University. He is the inventor of 32 patents, including Stanford University's second most lucrative patent in the field of life science.

Philippe POULETTY is the co-founder and CEO of Truffle Capital, a private equity firm managing funds of €700 million (January 2021). He was Chairman of France Biotech (the French association of biotechnology companies) for 9 years and was formerly Vice-Chairman of Europabio (the European biotech federation). He is also the founder or co-founder of 17 biotechnology and medical device companies in Europe and the United States (including Carbios), which have already generated a capitalization of more than €2.5 billion and which have developed numerous drugs and innovative medical devices. He is currently Chairman or Board member of several biotechnology and medical device companies in Europe, several of which are listed on the stock exchange.

Philippe POULETTY has contributed to several government initiatives in France, including the law of 1999 on the simplification of corporate law (SAS), the 2002 "Biotech Plan" to revive and develop biotechnology and the Young Innovative Company status which grants significant tax exemptions to technology companies.

Emmanuel LADENT, Chief Executive Officer and member of the Board of Directors

Emmanuel LADENT, a graduate of Neoma Business School, has 30 years of experience in the automotive sector and more specifically in mobility. He previously managed the MICHELIN Group's largest Business Line, the Global Automotive Brands division. His career as an executive is characterized by a strong international footprint, with more than 20 years spent on several continents. Specialized in the development of profitability and the transformation of activities through innovation, Emmanuel LADENT has contributed to the development of subsidiaries with several billion euros in revenue. As a true leader, he has been able to mobilize multidisciplinary and intercultural teams around a common vision and a shared ambition.

Laurent SCHMITT (representative of BOLD, Business Opportunities for L'Oréal Development), member of the Board of Directors

Laurent SCHMITT has dedicated more than 30 years of his career to the L'Oréal Group, where he has taken on many leadership roles internationally. He has held the positions of Chief Financial and Supply Chain Director in the Czech Republic and then in Brazil, Chief Executive Officer of the luxury goods business unit in Brazil, Chief Financial Officer in France for the Professional Products Division and Chief Financial Officer for the Africa, Middle East and Pacific regions. He currently holds the positions of Chief Corporate Finance and Financial Communication Officer of the L'Oréal Group and Chief Executive Officer of BOLD, "Business Opportunity for L'Oréal Development," a venture capital investment fund of the L'Oréal Group. Laurent SCHMITT is a graduate of the Institut d'Études Politiques de Paris (Sciences-Po).

Nicolas SEEBOTH (representative of Michelin VENTURES), member of the Board of Directors

Nicolas SEEBOTH is an experienced research director with proven experience in the field of polymers and the chemical industry. He is also Chairman of Toulouse White Biotechnology, a public-private consortium aimed at accelerating the development of industrial biotechnologies. With a solid knowledge of chemistry and polymers, he held various research positions at Michelin after obtaining a doctorate focusing on organometal chemistry at the École Polytechnique de Paris. He is the inventor of more than 40 patents, among which are some of the Michelin Group's major innovations (specialty polymers and chemical additives) and regularly speaks at international conferences.

Vincent KAMEL, member of the Board of Directors

Vincent KAMEL holds an engineering degree from École Centrale de Lyon. He has more than 35 years of experience in the chemical industry (Rhône Poulenc, Rhodia, Solvay), in France and abroad (China, Korea, Brazil), during which he held leading positions as Chief Executive Officer of the Polyamide Division of Solvay, Director of the Coatis Business Unit and Asia Director for "Engineering Plastics." In particular, he has developed an in-depth knowledge of regulatory, industrial and business development aspects of recycling. Vincent KAMEL also held the position of COO at Domo Chemicals until January 2023.

Juan DE PABLO, member of the Board of Directors

Professor of Molecular Engineering at the Pritzker School and Executive Vice-President for Science, Innovation, National Laboratories and Global Initiatives at the University of Chicago, Juan DE PABLO is also a Senior Scientist at the Laboratoire National Argonne. Most of his work is dedicated to the understanding and design of new materials, and he is at the forefront of polymeric material simulations. Juan DE PABLO holds more than twenty patents and is the author or co-author of more than 600 publications.

Juan DE PABLO strives to maximize the reach of the University's efforts in innovation, technology and science, and to connect them to political and industrial issues. In 1990, he obtained a PhD in Chemical Engineering from the University of California, Berkeley and did post-doctoral studies at the Swiss Federal Institute of Technology in Zurich.

Isabelle PARIZE, member of the Board of Directors

Isabelle PARIZE has held the role of Chairwoman of the Supervisory Board of DELSEY Paris, a French luggage and travel accessories company since August 2021, after having been its Chief Executive Officer since September 2018. Previously, she was Chief Executive Officer of Douglas Holding S.A., Europe's leading retailer of perfumes and cosmetics and served as Chief Executive Officer of Nocibé, a French retail perfume and cosmetics company, from 2011 to 2016. Isabelle PARIZE is a member of the Board of Directors of Air France-KLM S.A., an airline company, and Coty, a beauty and perfume creation company, both listed on the stock exchange. Isabelle PARIZE holds an MBA from the Ecole Supérieure de Commerce in Paris.



Mateus SCHREINER GARCEZ LOPES, member of the Board of Directors

Mateus SCHREINER GARCEZ LOPES is Global Director of Energy Transition and Investments at Raizen (world leader in bioenergy in Brazil) where he leads technology, new business development and intellectual property. He was previously Global Director of Innovation and Business Development in the renewable chemicals sector at Braskem (the largest producer of thermoplastic resins in the Americas and the largest producer of biopolymers in the world). Before joining the corporate world, Mateus held several research and teaching positions in synthetic biology and metabolic engineering at universities in Mexico, Germany, the United States and Brazil. He is also a member of the Board of Directors of logen Energy Corporation, Vice-Chairman of the Board of Directors of the Brazilian Bio-Innovation Association and a member of the Advisory Committee of the MIT Energy Initiative.

Karine AUCLAIR, member of the Board of Directors

Prof. Karine AUCLAIR is a Professor of Chemistry at McGill University and holder of the Tier 1 Canada Research Chair on antimicrobials and green enzymes. She has received numerous awards over the years, including the Clara Benson Award from the Canadian Society of Chemistry, the McGill Tomlinson Professorship, the Leo Yafe Teaching Award and the McGill Fessenden Professorship, to name but a few. An internationally renowned bio-organic chemist, she has made significant scientific contributions in the fields of antimicrobial resistance, biocatalysis and enzymology. Her research has resulted in several patents, particularly in the field of closed-loop enzymatic depolymerization of untreated PET with high crystallinity. Her work has been the subject of nearly 100 peer-reviewed publications in high-impact journals and is often highlighted by the media. As a recognized leader in her field, she is often invited to speak at industry and academic conferences around the world, and to review theses and applications for subsidies from international institutions.

Amandine DE SOUZA, member of the Board of Directors

Amandine DE SOUZA has been Chief Executive Officer of BHV MARAIS (large French retail, decoration and fashion stores), Eatly (Italian gastronomy concept franchise) and Home, DIY and Leisure Purchases of the Galeries Lafayette Group since April 2018, of which she has also been a member of the Executive Committee since February 2020. Amandine has 17 years of experience in companies of very different sizes and governance: from family businesses to multinationals and start-ups. She was Chief Executive Officer France at Westwing (a pure-player e-commerce start-up) from 2015 to 2018. From 2009 to 2015, she was Merchandise Director for various categories, mainly non-food, and sourcing at the Casino group (food and non-food distribution). Previously, she worked as a strategy consultant at Bain & Company in France and abroad.

Sandrine CONSEILLER, member of the Board of Directors

Sandrine CONSEILLER is the former Chief Executive Officer of Aigle (an emblematic French brand committed to sustainable fashion). Before joining Aigle, Sandrine was Executive Vice-President of Marketing & Branding at Lacoste (another iconic French fashion brand) from 2011 to 2015. She contributed to the turnaround of the House of Lacoste, of which she was a member of the Executive Committee, with strong growth and numerous professional awards, including several Cannes Lions Awards. Sandrine began her career at Unilever and spent 18 years managing international businesses, mainly in the Personal Care division, in Latin America, Europe and Asia. Sandrine is also a member of the Board of Directors of Phildar (the emblematic French knitwear brand), a member of the Board of Directors of Raise Sherpa (the first philanthropic endowment fund dedicated to start-ups) and a founding partner of NEO FOUNDERS, a venture capital fund sponsoring impact start-ups.

List of offices and positions held by directors in all companies over the last 5 years

First name-Surname or company name of the member	Other offices currently held in other companies	Other offices and positions held in other companies over the past five years and no longer held at the date of this Universal Registration Document
Philippe POULETTY	<p>As permanent representative of TRUFFLE CAPITAL: Chairman of the Board of Directors of Diaccurate S.A. Co-founder and Director of Affluent Medical S.A. Co-founder and Director of Holistick Medical S.A.S.U. Co-founder and Director of Deinove S.A. - Euronext Growth Paris Co-founder and Director of Skinosive S.A.S. Co-founder and Director of Artedrone S.A.S. Chairman of the Board of Directors of PK Med S.A.S. Co-founder and Director of Bariatek S.A.S. Chairman of the Board of Directors of Caranx Medical S.A.S. Co-founder of Skinnate S.A.S. Co-founder & Chairman of Spiklmm S.A.S.</p> <p>In a personal capacity: Chief Executive Officer of TRUFFLE CAPITAL S.A.S. Manager of NAKOSTECH SARL Founder and Chairman of the Board of Directors of ABIVAX S.A. - Euronext Paris Director of France Biotech (French non-profit organization under French Law of 1901)</p>	<p>As permanent representative of TRUFFLE CAPITAL: Member of the Executive Committee of DEINOBOTICS S.A.S. Director of VEXIM S.A. Director of PLASMAPRIME S.A.S. Director of NEOVACS S.A. - Euronext Growth Paris Member of the Executive Committee of KEPHALIOS Member of the Executive Committee of LUOPOWERS Chairman of NANOSIVE S.A.S.U. Co-founder and Director of Carmat S.A. - Euronext Growth Paris Co-founder and Director of Pharnext S.A. - Euronext Growth Paris Director of Biokinesis S.A.S.</p> <p>In a personal capacity: Member of the Supervisory Board of INNATE PHARMA S.A. - Euronext Growth Paris (December 2016) Chairman and Director of SPLICOS S.A.S. Member of the Supervisory Board of CYTOMICS S.A. Director of Association Centre Chirurgical Marie Lannelongue (French non-profit organization under French Law of 1901) Honorary Chairman of France Biotech (French non-profit organization under French Law of 1901)</p>



Emmanuel LADENT	Chairman of Carbiolice	None
Laurent SCHMITT (representative of BOLD, Business Opportunities for L'Oréal Development)	As permanent representative of BOLD, Business Opportunities for L'Oréal Development: None. In a personal capacity: Chief Corporate Finance and Financial Communication Officer of the L'Oréal group Chairman of BOLD - "Business Opportunities for L'Oréal Development"	As permanent representative of BOLD, Business Opportunities for L'Oréal Development: None. In a personal capacity: None.
Nicolas SEEBOTH (representative of Michelin Ventures)	As representative of MICHELIN VENTURES: None. In a personal capacity: None.	As representative of MICHELIN VENTURES: None. In a personal capacity: None.
Vincent KAMEL	Director and Chairman of Kamergy S.A.S.	Director of Rhodia Opérations S.A.S. Director of PolyTechnyl S.A.S. Chairman of GBU Solvay PEPOL COO of Domo Chemicals
Jean-Claude LUMARET	Chairman of JCL Conseil S.A.S.	Chairman of Toulouse Biotechnology Institute (TWB) until March 2021 Chairman of the Carbiolice Board of Directors until June 2021 Associate member of the Chamber of Commerce and Industry of Puy-de-Dôme until November 2021 Chairman of Carbiolice until November 2021
Jean FALGOUX	Director of Bluestar Adisseo (a company listed on the Shanghai Stock Exchange)	None
Alain CHEVALLIER	Director of Compagnie Immobilière et Commerciale S.A. Senior Partner Life Science of Truffle Capital Chairman of Artedrone S.A.S. Chairman of DIACCURATE S.A. Chairman and Chief Executive Officer of Charro Conseils S.A.S. Director-Treasurer of Fondation ARC	Chairman of Piezomedic S.A.S.
Juan DE PABLO	Member of the Scientific Advisory Board of Solvay Director of the Toyota Technical Institute of Chicago Member of the Board of the American Academy of Arts and Sciences	None
Isabelle PARIZE	Chairwoman of the Board of Directors of Delsey Partner of ODYS S.P.R.L. Member of the Board of Directors and of the Audit Committee of COTY Member of the Board of Directors of FLO Health Inc. Member of the Board of Directors of Air France-KLM S.A.	Chairwoman of DHI S.A.S. until July 2021 Chairwoman of Delsey S.A.S. until July 2021 Member of the Board of Directors of Auchan Retail International until October 2018 Member of the Board of Directors of Robertet until June 2020 Member of the Board of Directors of Delsey Luggage Inc. and Delsey DUSH until August 2021 Member of the Board of Directors of Delsey Asia Limited, Delsey Hong Kong Ltd and Delsey Dongguan until September 2021 Member of the Board of Directors and Audit Committee of Pandora
Mateus SCHREINER GARCEZ LOPES	Global Head of Energy Transition and Investments at Raizen Vice-Chairman of the Board of the Brazilian Bioinnovation Association	Global Head of Innovation and Business Development in the renewable chemicals sector at Braskem until July 2021
Karine AUCLAIR	Professor of chemistry at McGill University	None



Amandine DE SOUZA	Chief Executive Officer of Bazar De l'Hotel De Ville (BHV) Chief Executive Officer of BHV Exploitation Chief Executive Officer of Restauration du Bazar Chief Executive Officer of Eataly Chief Executive Officer of Home, DIY and Leisure Purchasing at the Galeries Lafayette Group Member of the Executive Committee of the Galeries Lafayette Group	Chief Executive Officer France of Westwing
Sandrine CONSEILLER	Independent Director of PP Yarn (Phildar) Independent Director of Raise Sherpa Independent Director of "Mouvement Impact" France Founding partner of NEO FOUNDERS	CEO of Aigle - Maus Freres Brand Group
Jacqueline LECOURTIER	Director of Produits Chimiques Auxiliaires et de Synthèse S.A. Director of Skytech Member of the Scientific Committee of CEA's Military Affairs Department	Member of the Scientific Committee of École des Mines/Telecom

4.1.1.2 Non-voting directors

Information about non-voting directors

During the fiscal year ended December 31, 2022, the following non-voting director took part in the meetings of the Board of Directors:

First name-Surname or company name	Gender	Main position held outside the Company	Age	Nationality	First appointment	Expiry of the term of office
Copernicus Wealth Management represented by Alen VUKIC	Male	Chief Financial Officer Copernicus Wealth Management	47	Swiss	06/22/2022	2023 OGM for fiscal year 2022

Biography of the non-voting director

Alen VUKIC (representative of Copernicus Wealth Management), non-voting director

Copernicus Wealth Management is a manager of discretionary mandates and private and public investment funds, based in Switzerland and recognized by the local supervisory body FINMA, the CSSF in Luxembourg, the CBI in Ireland and the FME in Liechtenstein, and which, through the investment vehicles it manages, favors investments in innovative companies with high growth potential that can improve social well-being and address important issues such as environment.

Alen VUKIC, Chief Financial Officer of Copernicus Wealth Management, is co-founder of the Copernicus group. He is also Chairman of Thalia Capital Advisors S.A. and Finpartners Financial Services S.A. and spent 11 years at BSI Group (now EFG), including four years at the group's wealth management company, Patrimony 1873 S.A., which he helped create. Since his beginnings in 2001 as a financial analyst, he has held the positions of co-manager of the BSI Multinvest Asia ex-Japan fund, Risk Manager Asset Management at BSI, member of the "Fondazione di Previdenza BSI S.A." and "Fondo Complementare di Previdenza BSI S.A." (two foundations of the BSI group). He is a member of the Board of Directors of several dedicated private funds managed by Copernicus in Ireland and Luxembourg, and of Centrica SICAV, Copernicus's undertaking for collective investment in SICAV securities, as well as of the Alliance of Swiss Wealth Managers since 2021.



List of offices and positions held by the non-voting director in all companies over the last 5 years

First name-Surname or company name of the non-voting director	Other offices currently held in other companies	Other offices and positions held in other companies over the past five years and no longer held at the date of this Universal Registration Document
Copernicus Wealth Management represented by Alen VUKIC	<p>In a personal capacity: Non-Executive Director of Gaea QIAIF ICAV Non-Executive Director of B Settlement Fund SICAV-SIF Non-Executive Director of Bernhei Investment Fund SICAV-SIF Non-Executive Director of Palesia Multi Asset Fund SICAV-SIF Non-Executive Director of Centrica until September 2022 Executive Director of Copernicus Wealth Management S.A. Chairman and Non-Executive Director of Thalia Capital Advisors S.A. Chairman of Finpartner Financial Services S.A. Non-Executive Director of Alliance of Swiss Wealth Managers Non-Executive Director of Italian Private Opportunities S.p.A. Non-Executive Director of Sorgenti Italiane Regionali S.p.A. Non-Executive Director of IPO Fashion & Design S.r.l.</p>	<p>In a personal capacity: Non-Executive Director of Centrica until September 2022</p>

4.1.2 EXECUTIVE MANAGEMENT

4.1.2.1 Composition of Executive Management

Emmanuel LADENT has been Chief Executive Officer since December 1, 2021, for a term of five years. He is domiciled at the Company's registered office, Cataroux Site - 8 rue de la Grolière - 63100 Clermont-Ferrand - France.

First name-Surname or company name	Date of 1st appointment	Expiry of the term of office	Main position held within the Company	Main position held outside the Company
Emmanuel LADENT	Board of Directors meeting of November 5, 2021 (with effect from December 1, 2021)	December 1, 2026	Chief Executive Officer	Chairman of Carbiolice

The management team is also composed of Alain MARTY, Chief Scientific Officer, Lise LUCCHESI, Director of Intellectual Property, Pascal BRICOUT, Director of Strategy and Finance, Mathieu BERTHOUD, Director of Sourcing and Public Affairs, Lionel ARRAS, Director of Industrial Development, Stéphane FERREIRA, Chief Business Officer, Martine BRISSET, General Manager of the Biodegradation Activity and Senior Vice-President and Delphine DENOIZE, Director of Innovation Financing, Regulatory Affairs and LCA, whose biographies are presented below:

Professor Alain MARTY holds an Engineering degree and a Doctorate in Biochemical and Food Engineering from INSA (Institut National des Sciences Appliquées) in Toulouse. He started his career in 1992 as Lecturer at INSA Toulouse. In 2004, he obtained an accreditation to direct research and was appointed Professor in 2007. At the time, he conducted his research in the INSA/CNRS/INRAE TBI laboratory, in particular in the fields of biotechnology, biocatalysis, enzymology, enzymatic molecular engineering, the development of intensified enzymatic reagents and metabolic engineering. During his career, he combined cutting-edge research with the drive to implement it in the industrial world. He was appointed expert for AERES (the French agency for the assessment of research and higher education) and for ANR (the French national research agency). Alain MARTY has been Chief Scientific Officer at Carbios since June 1, 2015.

Lise LUCCHESI is a biotechnology engineer. She also holds a CEIPI diploma (Center for International Intellectual Property Studies) and a Specialized Masters in Management of Biotechnology Companies. After a few years as a market analyst in a green chemistry company, Lise joined Carbios in 2012 as Head of Strategic Monitoring, then held the position of Head of Intellectual Property and Agreements. Today, she is the Director of Intellectual Property and is in charge of managing the Company's patent and trademark portfolios, and also has responsibility for contracts involving intellectual property rights (licensing, research collaboration, services, etc.).

Pascal BRICOUT leads the management and organization of Carbios' finance function and is also in charge of Strategy, Investor Relations and the deployment of the Group's CSR approach. He joined Carbios in 2022 with more than thirty years of experience in finance, strategy and international mergers & acquisitions. He holds a degree in Finance from the University of Paris-Dauphine and has held the position of Chief Financial Officer for the Michelin Group in Asia, a region of strong growth for the Group. Over the past ten years, he has focused on major strategic acquisitions.



Mathieu BERTHOUD has more than 30 years of experience, including 10 years at Rhodia (now Solvay) and more than 20 years at Suez, in various business development positions or general management of subsidiaries in France or abroad (Benelux, Germany). He was most recently Technical and Performance Director of the recycling and recovery activities of the entire Group. A university-trained scientist, he also holds an MBA from HEC Paris. Having joined Carbios, he is responsible for securing the supply of PET waste for the future Reference Unit, international development and the Company's public affairs.

Lionel ARRAS is a graduate of ENSIC Nancy and holds an MBA from the Lyons School of Management. Before joining Carbios, Lionel ARRAS was Director of Technology and Project Europe at Elkem Silicones, Director of Strategic and Industrial Projects (increases in capacity, improvement of efficiency) and in charge of managing the portfolio of current investments for the production activities of large on-site intermediaries with substantial productivity, cost and HSE challenges. He was also responsible for R&D projects and resources in Chemistry and Processes Europe and contracts with external development partners. He was heavily involved in the development of the global Technology and Projects organization between Europe, China and Norway. Prior to that, Lionel ARRAS held positions as process engineer and production manager in factories. He began his career in 1998 in the engineering and technology center of Rhône-Poulenc in Décines (France) after a cooperation with Purdue University in Indiana (United States).

Stéphane FERREIRA is Chief Business Officer at Carbios, where he is in charge of the international business development of Carbios and will manage the relationship with all the industrial and commercial partners. With more than 20 years of experience in specialty chemicals, Stéphane FERREIRA has in-depth knowledge of the materials and life sciences markets. A graduate of the Institut Agro Montpellier, he holds a Masters of Science in Life Sciences. He has held strategic and operational positions at DuPont and Arkema, working in several countries including France, Germany and Korea. More recently, Stéphane FERREIRA was Vice-President of Transformation for Arkema's coatings business entity. His leadership and customer focus have enabled him to successfully carry out major transformation projects, developing the culture, processes and strategic partnerships essential to business growth.

Martine BRISSET has more than 30 years of Executive Management experience in major international groups in the plastic and paper packaging industry, notably at Amcor Food Europe, Huhtamaki and Klockner Pentaplast. Since 2020, she has been on a transition management mission as General Manager in order to integrate Carbiolice within the Carbios Group. As Senior Vice-President, her main mission is to support the operational structuring and commercial development of biodegradation technology, as well as providing support for the teams.

Delphine DENOIZE: after several years spent in innovation in the agricultural world, Delphine DENOIZE joined the Company in 2016 and is one of the Group's top twenty employees. First in charge of Innovation Financing and Regulation, then Project Manager for PET biorecycling, she supports the Company's projects. Her responsibilities include the French and European public financing of innovation, the validation of the compliance of processes and products with various regulations around the world, as well as the assessment of their environmental impact through tools such as life cycle analysis.

4.1.2.2 Personal information relating to members of Executive Management

Emmanuel LADENT, Chief Executive Officer

Emmanuel LADENT, 53, a graduate of Neoma Business School, has 30 years of experience in the automotive sector and more specifically in mobility. He managed the Michelin Group's largest Business Line, the Global Automotive Brands division. His career as an executive is characterized by a strong international footprint, with more than 20 years spent on several continents. Specialized in the development of profitability and the transformation of activities through innovation, Emmanuel LADENT has contributed to the development of subsidiaries with several billion euros in revenue.

4.1.2.3 List of offices and positions held by the members of Executive Management in any company over the last 5 years

First name-Surname or company name of the member	Other offices currently held in other companies	Other offices and positions held in other companies over the past five years and no longer held at the date of this Universal Registration Document
Emmanuel LADENT	Chairman of Carbiolice	None



4.1.3 DECLARATIONS CONCERNING THE MEMBERS OF THE BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT

Over the past five years, none of the members of the Company's Board of Directors or Executive Management:

- has been found guilty of any fraud;
- has been involved in any bankruptcy, receivership or liquidation proceedings as an executive or corporate officer;
- has been banned, by a court of law, from acting as a member of an administrative, management or supervisory body of an issuer or being involved in the management or conduct of such a company's business;
- has been subject to any official public indictment and/or sanction by any statutory or regulatory authorities (including designated professional bodies).

4.1.4 CONFLICTS OF INTEREST AT THE LEVEL OF THE ADMINISTRATIVE BODIES AND EXECUTIVE MANAGEMENT

As of the date of this Universal Registration Document, Michelin Ventures holds 4.32% of the share capital and 4.29% of the exercisable voting rights of the Company, and BOLD holds 5.87% of the share capital and 5.82% of the Company's exercisable voting rights. However, notwithstanding said holdings, at the date of this Universal Registration Document, to the Company's knowledge:

- there are no conflicts of interest between the duties of the members of the Board of Directors and Executive Management within the Company and their private interests;
- there is no arrangement or agreement entered into with the main shareholders, customers, suppliers or others pursuant to which a member of the Board of Directors or Executive Management has been appointed;
- there is no restriction agreed to by the members of Board of Directors or the Executive Management concerning the disposal, within a certain period of time, of their interests in the issuer's share capital.

4.1.5 FUNCTIONING OF THE ADMINISTRATIVE AND EXECUTIVE BODIES

4.1.5.1 Terms of office of the members of the Board of Directors and Executive Management

Executive Management

The Company is represented with regard to third parties by Emmanuel LADENT, Chief Executive Officer, who was appointed in this capacity by decision of the Board of Directors on November 5, 2021.

Executive Management (Article 17 of the bylaws)

Please refer to section 7.2.2.3 of this Universal Registration Document.

Board of Directors

Terms of office of the members of the Board of Directors

At the date of this Universal Registration Document, the Board of Directors was composed of the following members:

First name-Surname or company name	Date of 1 st appointment	Expiry of the term of office
DIRECTORS		
Philippe POULETTY	03/31/2022	2025 OGM for fiscal year 2024
Emmanuel LADENT	05/05/2022	2025 OGM for fiscal year 2024
Vincent KAMEL ⁽¹⁾	06/23/2021	2025 OGM for fiscal year 2024
BOLD, Business Opportunities for L'Oréal Development (represented by Laurent SCHMITT)	06/23/2021	2025 OGM for fiscal year 2024
MICHELIN VENTURES (represented by Nicolas SEEBOTH)	06/23/2021	2025 OGM for fiscal year 2024
Juan DE PABLO ⁽¹⁾	06/29/2022	2025 OGM for fiscal year 2024
Isabelle PARIZE ⁽¹⁾	06/29/2022	2025 OGM for fiscal year 2024
Karine AUCLAIR ⁽¹⁾	02/07/2023	2025 OGM for fiscal year 2024
Mateus SCHREINER GARCEZ LOPES ⁽¹⁾	02/07/2023	2025 OGM for fiscal year 2024
Amandine DE SOUZA ⁽¹⁾	02/07/2023	2025 OGM for fiscal year 2024
Sandrine CONSEILLER ⁽¹⁾	02/07/2023	2023 OGM for fiscal year 2022
NON-VOTING DIRECTORS		
Copernicus Wealth Management (represented by Alen VUKIC)	06/22/2022	2023 OGM for fiscal year 2022

(1) Independent members of the Board of Directors.



All directors may be reappointed at the end of each 4-year term of office and all non-voting directors at the end of each 1-year term.

The Board of Directors (Articles 13 to 16 of the bylaws)

Please refer to section 7.2.2.1 of this Universal Registration Document.

Non-voting directors (Article 15.6 of the bylaws)

Please refer to section 7.2.2.2 of this Universal Registration Document.

Attendance rate of directors and non-voting directors at meetings of the Board of Directors

The minutes of each meeting are prepared under the responsibility of the Chairman of the Board of Directors. It is transcribed in the minutes register after signature by the Chairman and one of its members.

During the fiscal year ended December 31, 2022, the Company's Board of Directors met 8 times on the days and months listed below.

Board meeting dates	Number of directors and non-voting directors present or represented	Attendance rate
January 18, 2022	Directors: 11	Directors: 100%
February 3, 2022	Directors: 9	Directors: 81.82%
February 17, 2022	Directors: 11	Directors: 100%
March 31, 2022	Directors: 11	Directors: 100%
May 5, 2022	Directors: 10	Directors: 100%
June 29, 2022	Directors: 9 Non-voting directors: 1	Directors: 100% Non-voting directors: 100%
September 29, 2022	Directors: 10 Non-voting directors: 1	Directors: 90.91% Non-voting directors: 100%
December 13, 2022	Directors: 11 Non-voting directors: 1	Directors: 100% Non-voting directors: 100%

At the end of the next annual Shareholders' Meeting, the Board will examine the results of the votes and decide on the possibility of a communication on this subject.

Service agreements between members of the administrative or executive bodies and the Issuer or one of its subsidiaries (Article 19 of the bylaws)

Between December 1, 2021 and March 31, 2022, Jean-Claude LUMARET, director until February 6, 2023, was bound to the Company by an employment contract in respect of his duties as Industrial Director, which contract is described in the special report of the Statutory Auditors (see section 4.3.2 of this Universal Registration Document). At the date of this Universal Registration Document, there is no service agreement binding the members of the Board of Directors and Executive Management to the Company.

Article 19 - Agreements between the Company and a director, the Chief Executive Officer, a Deputy Chief Executive Officer or a shareholder holding more than 10% of voting rights

19.1 Agreements subject to prior authorization

Except for agreements concerning day-to-day operations and taking place under normal conditions, any agreement taking place directly, or via a third person, between the Company and one of its Board members, the Chief Executive Officer, a Deputy Chief Executive Officer or a shareholder holding more than 10% of the Company's voting rights (or if such a shareholder is a legal entity, the Company controlling it within the meaning of Article L. 233-3 of the French Commercial Code) shall be subject to the Board of Directors' prior authorization.

The same applies to any agreements in which one of the persons referred to in the previous paragraph has an indirect interest.

Prior authorization is also required for agreements between the Company and another company, if the Company's Chief Executive Officer, one of its Deputy Chief Executive Officers or one of its Board members is an owner, unlimited liability partner, manager, Board member, member of the Supervisory Board or, generally, an executive officer of said company.

Such agreements must be authorized and approved as required by law.

19.2 Prohibited agreements

Under penalty of nullity of the contract, Board members other than legal entities are prohibited from taking out any form of loan from the Company, obtaining any overdraft from the Company, through a current account or otherwise, or getting the Company to guarantee or stand surety for their commitments to third parties.

This ban also applies to the Company's Chief Executive Officer, its Deputy Chief Executive Officers and the permanent representatives of any legal entities who are Company directors. It also applies to the spouses, ascendants and descendants of the persons mentioned in this Article, as well as any intermediary.

19.3 Current agreements

Agreements relating to day-to-day operations and entered into under normal conditions are not subject to the legal authorization and approval process.



4.1.5.2 Information concerning committees

The bylaws (Article 16) provide that the Board of Directors may set up a certain number of special purpose committees.

4.1.5.2.1 Statutory committees

4.1.5.2.1.1 Scientific Committee

The Scientific Committee or **Scientific Advisory Board** (SAB) is an ad hoc advisory committee whose general mission is to assist the Board of Directors with any scientific matter by issuing opinions, proposals and recommendations. It reports to the Board of Directors on a regular basis.

The members of the SAB are appointed by the Board of Directors and are chosen for their expertise and scientific renown, or from among the researchers working for the Company. They are appointed for a fixed term at the Board's discretion, with the understanding that the Board of Directors may terminate the duties of the members of the Scientific Committee at any time, without compensation, without prior notice and without having to justify its decision.

As of the date of this Universal Registration Document, the Scientific Committee is composed of the following members: Prof. Alain MARTY, member and Chairman of this Committee, Juan DE PABLO and Karine AUCLAIR.

The Scientific Committee's duties are as follows:

- scientific monitoring of the Company's research projects: analysis of the scientific and technological barriers encountered by the Company and proposals of research strategies to overcome them;
- scientific and technological monitoring in the various areas of the Board's expertise: the Committee informs the Company of recent international advances in each of these areas;
- identifying new research topics likely to support the Company's development;
- proposing public or private partners or service providers with the required expertise to perform the tasks sought after by the Company within its research projects.

The Scientific Advisory Board meets 3 times a year, at the request of its Chairman or the Board of Directors.

The Scientific Advisory Board's decisions are adopted by a majority of the members present at the meeting. A member cannot be represented by another member and the decisions of the Scientific Advisory Board are counter-signed in its minutes.

4.1.5.2.1.2 Audit Committee

The Audit Committee is an ad hoc advisory committee whose general mission is to assist the Board of Directors with regard to the accuracy of the financial statements, the quality of the internal control system, the quality and relevance of the information provided and the Statutory Auditors' proper execution of their assignment. It does this by issuing opinions, proposals and recommendations. To this effect, the Audit Committee's duties are the following:

- verifying that the Company has set up and uses an organization and resources to provide fair, accurate and reliable accounting information to shareholders and the market;
- ensuring that procedures have been laid down and are implemented with regard to choosing the Statutory Auditors and complying with the latter's recommendations;
- ensuring that the financial information published is consistent with the Company's financial statements;
- examining the replies provided by the Executive Management to the questions submitted by stock market authorities and financial analysts;
- ensuring that procedures have been laid down and are implemented correctly to identify, qualify and control the risks incurred by the Company;
- ensuring the existence and assessing the relevance of financial control and internal audit procedures.

The members of the Audit Committee are appointed by the Board of Directors for a fixed term set by the appointment decision, with the understanding that the Board of Directors may terminate the duties of the members of the Audit Committee at any time without compensation, without prior notice and without having to justify its decision.

Isabelle PARIZE and Nicolas SEEBOTH are members of the Audit Committee. Isabelle PARIZE is its Chairwoman. Alain CHEVALLIER is an external consultant to the Audit Committee.

The Audit Committee meets 2 or 3 times a year, at the request of its Chairwoman or the Board of Directors.

The Audit Committee's decisions are adopted by a majority of the members present at the meeting. A member cannot be represented by another member and the decisions of the Audit Committee are counter-signed in its minutes.



4.1.5.2.2 Non-statutory committees

4.1.5.2.2.1 Intellectual Property Committee

The Intellectual Property Committee is an ad hoc advisory body whose general mission is to assist the Board of Directors on any issue related to the Company's intellectual property. It does this by issuing opinions, proposals and recommendations. It reports to the Board of Directors on a regular basis.

The Intellectual Property Committee is composed of the following members: Philippe POULETTY, who is also its Chairman, and Emmanuel LADENT. Jean-Claude LUMARET is an external consultant within the Intellectual Property Commission.

The Intellectual Property Committee meets as required, at least once a year.

Its duties involve the following:

- examining intellectual property matters;
- reviewing competition in terms of intellectual property;
- strategy for the filing, extension and defense of rights;
- issuing recommendations to the Board of Directors regarding intellectual property.

4.1.5.2.2.2 Compensation and Appointments Committee

The Compensation and Appointments Committee is an ad hoc advisory body whose general mission is to assist the Board of Directors on any issue related to the compensation of any person performing a task for the Company, such as its executive officers, employees and consultants. It does this by issuing opinions, proposals and recommendations. The committee's mission is also to assist the Board of Directors in the appointment of any person to the functions of, in particular, directors and executive officers.

It reports to the Board of Directors on a regular basis.

It is composed of the following members: Sandrine CONSEILLER, Philippe POULETTY, and BOLD, "Business Opportunities for L'Oréal Development," represented by Laurent SCHMITT. It is chaired by Laurent SCHMITT.

The Compensation and Appointments Committee meets once a year.

Its duties involve the following:

- analyzing compensation;
- proposing the award of exceptional compensation;
- putting forward proposals to define criteria and objectives;
- appointment proposals.

4.1.5.2.2.3 Strategy Committee

The Strategy Committee meets whenever the Company wishes to address strategic issues.

It is composed of the following members: Philippe POULETTY, Isabelle PARIZE, Vincent KAMEL, Matheus SCHREINER and Emmanuel LADENT, who chairs it.

The Strategy Committee meets as many times as the Chairman of the Board of Directors deems necessary.

The Industrialization Committee created in December 2019 was integrated into the Strategy Committee.

Its duties involve the following:

- participate in determining the strategy of the Company and the Group and in monitoring its implementation;
- maintain an ongoing dialog with Executive Management on the strategic developments of the Company and the Group;
- verify that Executive Management follows a thorough reflection process and examines all possible options;
- bring together experts to examine the appropriateness of the strategic choices considered.

4.1.5.2.2.4 CSR Committee

When the Company wishes to address Corporate Social and Environmental Responsibility (CSR) issues, the CSR Committee meets.

It is composed of the following members: Amandine DE SOUZA, Emmanuel LADENT and Sandrine CONSEILLER, who chairs it.

The CSR Committee meets as many times as its Chairwoman deems necessary.

Its general mission is to assist and make recommendations to the Board of Directors on aspects of CSR concerning the Company, and for specific missions (i) to establish a CSR Charter and verify its proper application within the Company, and (ii) put in place CSR indicators and measures to improve the existing processes within the Company.

4.1.5.2.3 Corporate governance statement

At the date of this Universal Registration Document, the Company refers to the corporate governance guidelines for small and mid-caps as published in September 2021 by Middlednext. The Company also improves its internal control principles by taking into account, in particular, the risk management and internal control reference framework for small and mid-caps published by the AMF on July 22, 2010.



The following table presents the Middenext recommendations with which the Company complies and those with which it intends to comply in the future:

Middenext Code Recommendations	Applied	Not applied
I “Supervisory” power		
R1: Code of Ethics for Board members	X	
R2: Conflicts of interest	X	
R3: Composition of the Board – Presence of independent members on the Board	X	
R4: Board member information	X	
R5: Board member training ⁽¹⁾		X
R6: Organization of Board and Committee meetings	X	
R7: Creation of committees ⁽²⁾	X	
R8: Establishment of a specialized Corporate Social Responsibility (CSR) committee	X	
R9: Establishing internal rules for the Board ⁽³⁾	X	
R10: Selection of each director	X	
R11: Duration of terms of office of Board members ⁽⁴⁾	X	
R12: Directors’ compensation	X	
R13: Establishing an assessment of the Board’s work ⁽⁵⁾	X	
R14: Relations with “shareholders”	X	
II Executive power		
R15: Diversity and equity policy within the Company	X	
R16: Definition and transparency of compensation for executive corporate officers	X	
R17: Preparation for the succession of “executives”	X	
R18: Holding of both employment contract and corporate office	X	
R19: Severance payments ⁽⁶⁾	X	
R20: Supplementary pension schemes ⁽⁷⁾		X
R21: Stock options and allocation of free shares	X	
R22: Review of points to be monitored	X	

(1) As of the date of this Universal Registration Document, no training plan is currently in place within the Company. This provides for a review on this issue to assess the advisability of complying with this recommendation.

(2) As of the date of this Universal Registration Document, the Company complies with this recommendation, except for the independence of the Chairman of the Compensation and Appointments Committee. Indeed, Laurent SCHMITT chairs the Compensation and Appointments Committee. Although the latter is not an independent director, in view of his experience as well as his in-depth knowledge of management and issues specific to large groups of companies, his appointment as Chairman of the Compensation and Appointments Committee is appropriate for the Company.

(3) The internal rules of the Board of Directors may be consulted at the Company’s registered office.

(4) This recommendation is applied, with the exception of the staggering of terms of office. A review of this subject will be carried out.

(5) The procedure for the annual assessment of the Board of Directors concerns its operating methods, composition and organization, measures the contribution and involvement of directors and makes it possible to verify that important issues are properly prepared, addressed and discussed during meetings. The Board’s assessment is carried out annually on the basis of a detailed questionnaire sent to each director, the responses to which are summarized by the Compensation and Appointments Committee and discussed at a meeting of the Board of Directors. The recommendations for improvement resulting from these assessments are discussed by the Compensation and Appointments Committee and the Board of Directors before their implementation, where applicable.

(6) On November 5, 2021, the Board of Directors authorized the Company to award Jean-Claude LUMARET a severance payment from his duties as Chief Executive Officer. Please refer to section 4.2 of this Universal Registration Document.

(7) Given the history of the Company, its shareholder structure and its size, implementing such procedures would be too heavy a burden. The Company does not therefore foresee a supplementary pension scheme for its executives.

Concerning the equity ratio provided for in recommendation R16, for the fiscal year ended 31 December 2022 it stood at 21¹ for Emmanuel LADENT, 40 for Martin STEPHAN (Deputy Chief Executive Officer until September 29, 2022 - the ratio thus taking into account the severance payment of Martin STEPHAN), 3 for Ian HUDSON, Chairman of the Board of Directors until March 31, 2022 and of 0.5 for Philippe POULETTY, Chairman of the Board of Directors since April 1, 2022. Furthermore, the lowest salary within the Company is €1,958 gross per month.

¹ Calculation of the ratio: total compensation payable as the numerator and the minimum wage for the reference year or the comparative period as the denominator.



4.1.5.3 Diversity and equity policy

The Company works to promote diversity and monitors that it does not discriminate on any grounds whatsoever. It ensures equal opportunities for all in terms of recruitment, training, compensation, assignments and professional development, according to personal skills and aptitudes. The Company also ensures that all its employees are treated fairly.

The Company is committed to inclusion, diversity and equality as it believes that respect for these values enables employees to be more professionally and personally fulfilled and more involved. It is therefore essential for the Company to create an environment where difference is encouraged and where employees can each make a contribution to the Company's momentum.

Any employee who experiences or witnesses behavior that goes against the values of diversity or fairness advocated by the Company is expected to report it to the appropriate authorized person, who is generally his or her line manager or the HR manager.

The Company has already observed that this policy enables it to have better productivity, higher levels of innovation and better decision-making.

4.1.5.4 Independent Directors

The Company has 7 independent directors, Vincent KAMEL, Juan DE PABLO, Isabelle PARIZE, Karine AUCLAIR, Mateus SCHREINER GARCEZ LOPES, Amandine DE SOUZA and Sandrine CONSEILLER, i.e., 63.64% of the total number of directors, which the Company considers have met recommendation No. 3 of the Middenext Code since their appointment, namely:

- to be neither an employee nor an executive corporate officer of the Company or its group and not to have been so within the last five years;
- to not have and not have had over the last two years a significant business relationship with the Company or its group (customer, supplier, competitor, service provider, creditor, etc.);
- to neither be a lead shareholder of the Company nor hold a significant percentage of voting rights;
- to not have a close relationship or close family ties with a corporate officer or lead shareholder; and
- to not have been a Statutory Auditor of the Company within the last six years.



4.2 COMPENSATION AND BENEFITS

Tables 1, 2, 3 and 11 of Appendix 2 to the AMF Position-Recommendation No. 2021-02 are presented below. Tables 4, 5, 6, 7, 9 and 10 are not applicable. Table 8 is presented in section 6.4.2 of this Universal Registration Document.

The following table shows all of the compensation of any nature, benefits in kind and other compensation paid to the members of the Board of Directors and the Executive Management of Carbios during the fiscal years ended December 31, 2021 and 2022:

TABLE 1: SUMMARY OF COMPENSATION AND OPTIONS/SHARES ALLOCATED TO EXECUTIVE CORPORATE OFFICERS

(In euros) ⁽¹⁾	12/31/2022 (12 months)	12/31/2021 (12 months)
Ian HUDSON, Chairman of the Board of Directors until March 31, 2022		
Compensation awarded for the fiscal year	14,250 ⁽²⁾	60,643 ⁽²⁾
Value of multi-year variable compensation awarded during the fiscal year	-	-
Value of options awarded during the fiscal year	-	-
Value of free shares awarded during the fiscal year	-	-
Value of other long-term compensation plans	⁽³⁾	⁽³⁾
Philippe POULETTY, Chairman of the Board of Directors from April 1, 2022		
Compensation awarded for the fiscal year	8,929	-
Value of multi-year variable compensation awarded during the fiscal year	-	-
Value of options awarded during the fiscal year	-	-
Value of free shares awarded during the fiscal year	-	-
Value of other long-term compensation plans	-	-
Jean-Claude LUMARET, Chief Executive Officer until November 30, 2021		
Compensation awarded for the fiscal year	-	1,363,643
Value of multi-year variable compensation awarded during the fiscal year	-	-
Value of options awarded during the fiscal year	-	-
Value of free shares awarded during the fiscal year	-	-
Value of other long-term compensation plans	-	-
Emmanuel LADENT, Chief Executive Officer		
Compensation awarded for the fiscal year	493,372 ⁽⁴⁾	41,250 ⁽⁴⁾
Value of multi-year variable compensation awarded during the fiscal year	-	-
Value of options awarded during the fiscal year	-	-
Value of free shares awarded during the fiscal year	-	-
Value of other long-term compensation plans	⁽³⁾	⁽³⁾
Martin STEPHAN, Deputy Chief Executive Officer until October 15, 2022		
Compensation awarded for the fiscal year	800,665 ⁽⁴⁾	386,653 ⁽⁴⁾
Value of multi-year variable compensation awarded during the fiscal year	-	-
Value of options awarded during the fiscal year	-	-
Value of free shares awarded during the fiscal year	-	-
Value of other long-term compensation plans	⁽³⁾	⁽³⁾
TOTAL	1,317,216	1,852,189

(1) Gross amount before tax.

(2) This is the amount of compensation due for his office as director. For the purposes of comparison, all compensation due to members of the Board of Directors is presented on a gross basis before tax. Please refer to table No. 3.

(3) Executive corporate officers were granted BSAs (share subscription warrants) and BSPCEs (founder share subscription warrants). This benefit in kind was not subject to valuation. Consequently, it is not included in the above table. Please refer to section 6.4.2 of this Universal Registration Document concerning the BSAs and BSPCEs granted to executive corporate officers.

(4) For details of compensation, see Table 2.



TABLE 2: SUMMARY OF THE COMPENSATION OF EACH EXECUTIVE CORPORATE OFFICER

(In euros) ⁽¹⁾	12/31/2022 (12 months)		12/31/2021 (12 months)	
	Amounts payable	Amounts paid	Amounts payable	Amounts paid
Ian HUDSON, Chairman of the Board of Directors until March 31, 2022				
Fixed compensation	-	-	-	-
Annual variable compensation	-	-	-	-
Multi-year variable compensation	-	-	-	-
Exceptional compensation	-	-	-	-
Compensation allocated in respect of his office as director	14,250	14,250	60,643	40,875
Benefits in kind	-	-	-	-
Philippe POULETTY, Chairman of the Board of Directors from April 1, 2022				
Fixed compensation	-	-	-	-
Annual variable compensation	-	-	-	-
Multi-year variable compensation	-	-	-	-
Exceptional compensation	-	-	-	-
Compensation allocated in respect of his office as director	8,929	3,571	-	-
Benefits in kind	-	-	-	-
Jean-Claude LUMARET, Chief Executive Officer until November 30, 2021				
Fixed compensation	-	-	250,838	250,838
Annual variable compensation	-	-	100,335	88,531
Multi-year variable compensation	-	-	-	-
Exceptional compensation	-	-	998,065	998,065
Compensation allocated in respect of his office as director	-	-	-	-
Benefits in kind	-	-	14,405	28,810
Emmanuel LADENT, Chief Executive Officer since December 1, 2021 and director since May 5, 2022				
Fixed compensation	330,000	330,000	27,500	27,500
Annual variable compensation ⁽²⁾	148,500	13,750	13,750	-
Multi-year variable compensation	-	-	-	-
Exceptional compensation ^{(3) (4)}	-	-	-	-
Compensation allocated in respect of his office as director	-	-	-	-
Benefits in kind ⁽⁵⁾	14,872	14,872	-	-
Martin STEPHAN, Deputy Chief Executive Officer until October 15, 2022				
Fixed compensation ⁽⁶⁾	237,881	237,881	223,809	223,809
Annual variable compensation ⁽²⁾	82,454	160,787	78,333	69,117
Multi-year variable compensation	-	-	-	-
Exceptional compensation ^{(3) (4)}	469,885	469,885	74,603	74,603
Compensation allocated in respect of his office as director	-	-	-	-
Benefits in kind ⁽⁵⁾	10,445	13,314	9,908	7,039
TOTAL	1,317,216	1,258,310	1,852,189	1,809,187



- (1) Gross amount before tax.
- (2) In accordance with the commitments made by the Company, Emmanuel LADENT and Martin STEPHAN are likely to receive an annual bonus equal to, respectively, 50% and 35% of their annual compensation, subject to the cumulative achievement, within the stipulated deadlines, of defined professional objectives. These elements are reassessed every year by the Board of Directors following the presentation of recommendations by the Compensation and Appointments Committee. At the beginning of the calendar year, the latter proposes to the Board of Directors to set precise and quantifiable annual strategic objectives for the Company's management team by applying a weighting coefficient for each objective according to its importance. At the end of the year, or at the beginning of the following year, the Compensation and Appointments Committee proposes that the Board of Directors record the achievement of all or part of each of the objectives. It is the cumulative achievement of each of the objectives that defines the percentage of the annual bonus to be paid to Emmanuel LADENT and Martin STEPHAN. For the fiscal year 2022, the bonus was paid in January 2023, but was provisioned in the Company's financial statements as at December 31, 2022, in accordance with applicable accounting principles. Given the departure of Martin STEPHAN on October 15, 2022, the bonus due to him for the fiscal year ended December 31, 2022 was paid to him upon his departure in 2022.
- (3) Exceptional compensation is an item granted by the Board of Directors on the basis of a proposal by the Compensation and Appointments Committee and relating to achievements not planned within the framework of the annual objectives initially set. For 2021 and 2022, exceptional objectives to be achieved by the management team were set during the year. The exceptional compensation granted under these terms following the achievement of these objectives and as shown in the table, was paid to Martin STEPHAN in June 2021 for the 2021 objectives, and in January 2022 for those of 2022. Given the termination of his duties in October 2022, Martin STEPHAN received a severance payment but did not receive any exceptional compensation in 2022 in respect of the 2022 objectives.
- (4) Executive corporate officers were granted BSAs and BSPCEs. This benefit in kind was not subject to valuation. Consequently, it is not included in the above table. Please refer to section 6.4.2 of this Universal Registration Document concerning the BSAs and BSPCEs granted to executive corporate officers.
- (5) In accordance with the commitments made by the Company, Martin STEPHAN received a benefit in kind in the form of a company car and company housing. Emmanuel LADENT receives benefits in kind in the form of a company car, a supplementary pension, "Civil liability for corporate officers" insurance and an executive unemployment insurance. For the fiscal year 2021, the benefits in kind were booked for the year 2021, but "paid" in January 2022. For the fiscal year 2022, the benefits in kind were booked for the year 2022, but "paid" in January 2023.
- (6) In accordance with his employment contract and job description, Martin STEPHAN, under the authority of the Chief Executive Officer, performed the duties of Deputy Chief Executive Officer. He was responsible for ensuring the proper execution of the operational policies identified to achieve the corporate objectives set, ensuring the cross-functional monitoring of projects from the idea to the business model for their valuation, proposing adjustments to the action plans, managing and directing the operations of Carbios in line with the strategy and development of the Company, supervising and coordinating the drafting and negotiation of contracts such as joint ventures, partnership agreements or others, license agreements and any other legal document related to project valuation tactics in line with the value creation strategy of the Company's Business Plan. Martin STEPHAN does not receive any compensation for his corporate office.

TABLE 3: DIRECTORS' FEES AND OTHER COMPENSATION RECEIVED BY NON-EXECUTIVE CORPORATE OFFICERS

Gross remuneration due (In euros)	12/31/ 2022 (12 months)	12/31/2021 (12 months)
Jacqueline LECOURTIER, director until February 6, 2023		
Compensation (fixed, variable)	12,429	16,000
Other compensation	-	-
Ian HUDSON, director until March 31, 2022⁽¹⁾		
Compensation (fixed, variable)	14,250	60,643
Other compensation ⁽²⁾	-	-
Jean-Claude LUMARET, Industrial Director until March 31, 2022 and director until February 6, 2023		
Compensation (fixed, variable)	22,857	-
Other compensation ⁽³⁾	143,947	29,264
Alain CHEVALLIER, director until February 6, 2023		
Compensation (fixed, variable)	17,643	27,071
Other compensation	-	-
Jacques BREUIL, director until June 29, 2022		
Compensation (fixed, variable)	7,571	22,500
Other compensation	-	-
TRUFFLE CAPITAL, director until March 31, 2022		
Compensation (fixed, variable)	-	-
Other compensation	-	-
Jean FALGOUX, director until February 6, 2023		
Compensation (fixed, variable)	24,786	45,714
Other compensation	-	-
Mieke JACOBS, director until June 29, 2022		
Compensation (fixed, variable)	5,286	5,929
Other compensation	-	-



BOLD, Business Opportunities for L'Oréal Development, represented by Laurent SCHMITT		
Compensation (fixed, variable)	-	-
Other compensation	-	-
MICHELIN VENTURES, represented by Nicolas SEEBOTH		
Compensation (fixed, variable)	-	-
Other compensation	-	-
Vincent KAMEL, director		
Compensation (fixed, variable)	24,643	5,286
Other compensation	-	-
Juan DE PABLO, director since June 29, 2022		
Compensation (fixed, variable)	7,071	-
Other compensation	-	-
Isabelle PARIZE, director since June 29, 2022		
Compensation (fixed, variable)	9,429	-
Other compensation	-	-
Karine AUCLAIR, director since February 7, 2022		
Compensation (fixed, variable)	-	-
Other compensation	-	-
Mateus SCHREINER GARCEZ LOPES, director since February 7, 2022		
Compensation (fixed, variable)	-	-
Other compensation	-	-
Amandine DE SOUZA, director since February 7, 2022		
Compensation (fixed, variable)	-	-
Other compensation	-	-
Sandrine CONSEILLER, director since February 7, 2022		
Compensation (fixed, variable)	-	-
Other compensation	-	-
TOTAL	289,911	212,407

(1) Compensation allocated in respect of his office as director.

(2) On December 6, 2018, the Board of Directors granted Ian HUDSON 28,000 founder share subscription warrants (BSPCEs) free of charge with effect from January 1, 2019, entitling him to 28,000 shares at an exercise price of €5.29999 per share. This benefit in kind was not subject to valuation. Consequently, it is not included in the above table. Please refer to section 6.4.2 of this Universal Registration Document.

(3) Only the amounts received under his Industrial Director contract (December 2021 until March 31, 2022) are shown here. Consequently, the amounts received by Jean-Claude LUMARET in 2021 as part of his corporate office as Chief Executive Officer do not appear here. However, this information is available in section 4.2. of the 2021 Universal Registration Document in Tables 1 and 2 and includes the amount of €29,264 in this table.

It should also be noted that the Board of Directors offered BSA warrants to certain directors in return for payment of a price determined by the Board of Directors based on an expert appraisal produced for each allocation, without any discount to the value stated in this expert appraisal, as this value is deemed to be the fair value. For details of these BSA, please refer to section 6.4.2.1 of this Universal Registration Document.

**TABLE 11: DETAILS CONCERNING THE CONDITIONS APPLICABLE TO THE COMPENSATION AND OTHER BENEFITS GRANTED TO EXECUTIVE CORPORATE OFFICERS**

	Employment contract		Supplementary pension scheme		Indemnities or benefits due or liable to be due on severance or change of position		Compensation under a non-compete clause	
	Yes	No	Yes	No	Yes	No	Yes	No
Executive corporate officers								
Philippe POULETTY Chairman of the Board of Directors Start of term: 04/01/2022 End of term: 2025		X		X		X		X
Emmanuel LADENT Chief Executive Officer, director Start of term: 12/01/2021 End of term: 12/01/2026		X		X	X ⁽¹⁾			X
Martin STEPHAN Deputy Chief Executive Officer until October 15, 2022 Start of term: 06/17/2020 End of term: 09/29/2022	X ⁽²⁾			X		X		X

(1) Emmanuel LADENT receives severance pay related to the end of or change in duties under the social security regime for company managers (GSC).

(2) Martin STEPHAN, Deputy Chief Executive Officer until September 29, 2022, has had a permanent employment contract since February 1, 2017 which defines his conditions of employment as Deputy Chief Executive Officer. Under this contract, Martin STEPHAN received €800,665 in respect of the 2022 fiscal year. Martin STEPHAN stepped down as Deputy Chief Executive Officer on October 15, 2022.

As of the date of this Universal Registration Document, no member of the Board of Directors is bound to the Company by an employment contract and does not receive any compensation from the Company other than that paid to him or her in respect of their corporate office.

Emmanuel LADENT benefits, in respect of his office as Chief Executive Officer, from job loss insurance, the contribution of which is 100% covered by the Company. In the event that this insurance provides for a waiting period during which Emmanuel LADENT cannot benefit from the proposed guarantees, the Company undertakes to indemnify Emmanuel LADENT so that he is paid, during this waiting period, a sum equivalent to 70% of his net compensation.

The directors are not entitled to any pension scheme, severance pay or non-compete compensation.



4.3 OPERATIONS WITH AFFILIATES

4.3.1 TRANSACTIONS WITH RELATED PARTIES

The reader is invited to see Note 17 "Related parties" in section 5.1.4.17 of this Universal Registration Document.

The transactions with related parties shown in the table below generated operating income in 2022 of €3,153 thousand.

Affiliate	Transaction completion date	Nature of transaction	Amount
M. Jean-Claude LUMARET (Industrial Director until March 31, 2022 and director until February 6, 2023)	November 5, 2021	Employment contract	The employment contract provides for gross annual compensation of €250,838, as well as an annual bonus of 40% of the total compensation of Jean-Claude LUMARET. In 2022, the compensation due under his employment contract amounted to €143,947, including €62,710 in fixed compensation, €62,710 in exceptional bonuses and €18,528 in respect of his termination.
Carbiolice (company 100% owned by the Company as of the date of this document)	August 30, 2016 Amendment dated June 28, 2018	Licensing and sub-licensing of patent and know-how licenses	The contract states that Carbios will receive a lump-sum royalty of €8 million and a variable royalty on revenue resulting from the use by Carbiolice of the technology licensed. No variable royalties were recognized in respect of 2022.
	September 17, 2018	Letter of agreement for service provision rebilling	Rebiling of services performed by service providers on behalf of Carbios and Carbiolice. This resulted in income of €45 thousand being recognized in 2022.
Carbios 54 (company 100% owned by the Company as of the date of this document)	July 1, 2022	Employee secondment agreement	Rebiling of Carbios staff working as part of the Reference Unit project on behalf of Carbios 54. This resulted in income of €453 thousand being recognized in 2022.
	September 1, 2022	Employee secondment agreement	
			Current account advance agreement
Michelin (company 4.32% owned by the Company as of the date of this document)	April 13, 2021	Leasing contract	The contract provides for the provision of premises and utilities for the B80 building. In this respect, expenses of €296 thousand were recognized in 2022.
	April 13, 2021 Amendments dated September 14, 2021, July 1, 2022 and November 30, 2022	Leasing contract	The contract provides for the provision of premises and utilities for the O24 building. In this respect, expenses of €489 thousand were recognized in 2022, and €63 thousand in respect of a security deposit for the extension of the building.
L'Oréal (company 5.86% owned by the Company as of the date of this document)	July 1, 2021	Research services agreement	The contracts provide for the financial contribution for participation in the various works of the Consortium as well as compensation for the research work carried out. This resulted in income of €368 thousand being recognized in 2022.
	October 3, 2017	Consortium agreement	



4.3.2 STATUTORY AUDITORS' REPORTS ON REGULATED AGREEMENTS

Regulated agreements are mentioned in the Statutory Auditors' special reports presented below for the years 2021 and 2022.

4.3.2.1 Statutory Auditors' special report on regulated agreements (fiscal year ended December 31, 2021)

To the Shareholders' Meeting

In our capacity as Statutory Auditors of your Company, we hereby present our report on regulated agreements.

It is our responsibility to inform you, on the basis of the information provided to us, of the characteristics, the main terms and conditions as well as the reasons justifying the interest for the Company of the agreements of which we have been informed or that we have discovered during our mission, without having to comment on their usefulness and merits nor to seek the existence of other agreements. It is your responsibility, under the terms of Article R. 225-31 of the French Commercial Code, to assess the interest in signing these agreements in order to approve them.

In addition, it is our responsibility, where applicable, to provide you with the information provided for in Article R. 225-31 of the French Commercial Code relating to the execution, during the past fiscal year, of agreements already approved by the Shareholders' Meeting.

We have conducted our review in accordance with the procedures that we considered necessary with regard to the professional standards of the Compagnie Nationale des Commissaires aux Comptes (French National Company of Statutory Auditors) relating to this mission. These procedures consisted in verifying that the information provided to us was consistent with the source documents from which it was taken.

AGREEMENTS SUBMITTED FOR APPROVAL AT THE SHAREHOLDERS' MEETING

Agreements authorized and concluded during the past fiscal year

Pursuant to Article L. 225-40 of the French Commercial Code, we have been informed of the following agreements entered into during the past fiscal year which were subject to the prior authorization of your Board of Directors.

> Employment contract between Carbios and Jean-Claude Lumaret, industrial Director

• *Type and purpose:*

Carbios entered into an employment contract with Jean-Claude LUMARET, Director of the Company, with effect from December 1, 2021, to perform the duties of Industrial Director in order to benefit from his skills.

The terms of this agreement were authorized by the Board of Directors on November 5, 2021.

• *Modalities and financial implications:*

The total amount of compensation recorded in expenses and paid to Jean-Claude LUMARET in respect of the 2021 fiscal year amounts to €20,903.

The amount of the bonus recorded in expenses for the 2021 fiscal year pro rata temporis over one month of the year amounts to €8,361. This amount has not yet been paid to Jean-Claude LUMARET as of December 31, 2021.

> Severance indemnity for Mr. Jean-Claude Lumaret as Chief Executive Officer

• *Type and purpose:*

Carbios awarded Jean-Claude LUMARET additional compensation in the form of a severance payment in the total amount of €849,500, representing two years of salary (including the annual salary, awards and bonus). The signature of this agreement is justified by the quality of the services provided by Jean-Claude LUMARET as Chief Executive Officer and by the positive results of his management duties.

The terms of this agreement were authorized by the Board of Directors on November 5, 2021.

• *Modalities and financial implications:*

The total amount of the severance payment for the function of Chief Executive Officer recorded in expenses and paid to Jean-Claude LUMARET in respect of the 2021 fiscal year amounts to €849,500.

AGREEMENTS ALREADY APPROVED BY THE SHAREHOLDERS' MEETING

Agreements approved in previous fiscal years

Pursuant to Article R. 225-30 of the French Commercial Code, we have been informed that the following agreements, already approved by the Shareholders' Meeting in previous fiscal years, continued during the past fiscal year.

> Amendment to the patent license agreement between Carbios and Carbiolice

• *Type and purpose:*

On June 28, 2018, Carbios signed an amendment to the license agreement in order to extend the scope of the license to new patent families, applications and products. This agreement provides for the payment of an additional lump sum of one million euros in the form of a capital increase, subject to the achievement by Carbiolice of a defined revenue.

The terms of these contracts were authorized by the Board of Directors on September 20, 2018.

• *Modalities and financial implications:*

No income or expense was recorded during the fiscal year in respect of this contract.



> Letter of agreement on the rebilling of services between Carbios and Carbiolice

- *Type and purpose:*

Carbios signed a letter of agreement on the rebilling of expenses related to regulatory matters and work related to enzymes with Carbiolice on September 17, 2018.

The terms of this letter were authorized by the Board of Directors on September 20, 2018.

- *Modalities and financial implications:*

During the 2021 fiscal year, Carbios recorded income of €27,217 in respect of the rebilling of expenses incurred in 2021 and received an amount of €59,600 in respect of expenses rebilled in 2020 and 2021.

> Patent license agreement between Carbios and Carbiolice

- *Type and purpose:*

Carbios has entered into a secondary option to the patent and know-how license agreement (option for the concession of an exclusive worldwide exploitation right in the field of New Developments as notified by Carbios). The patent and know-how license agreement was signed on August 30, 2016.

The terms of this agreement were authorized by the Board of Directors on June 21, 2016.

- *Modalities and financial implications:*

This patent and know-how license agreement is established for a period up to the expiry of the last of the granted patents and provides for flat-rate compensation of €8 million at the signing (2016) and a variable amount on net sales of the products covered by the patents. During the 2021 fiscal year, Carbios recorded income of €280 and received the same amount.

> Research services agreement between Carbios and Carbiolice

- *Type and purpose:*

On February 15, 2017, Carbios signed a research services contract for the development of main and secondary products using biodegradation technology.

The terms of this agreement were authorized by the Board of Directors on March 21, 2017.

- *Modalities and financial implications:*

The contract was signed for a period of two years starting on February 15, 2017. This contract is renewable by mutual agreement subject to a 3-month notice period. The compensation for this contract is €1,248,317. It was renewed by amendment for 2 years, i.e., until February 15, 2021, with a total compensation of €2,499,966.

The contract ended on February 15, 2021.

No income was recorded during the fiscal year.

> Employment contract between Carbios and Jean-Claude Lumaret

- *Type and purpose:*

Since April 1, 2011, Jean-Claude LUMARET, appointed Chief Executive Officer by the bylaws, has held a permanent employment contract which defines his terms of employment as Research and Development Director with the status of senior executive. Under this contract, Mr. LUMARET receives annual fixed compensation and an annual bonus of an amount guaranteed until March 31, 2012, then subject to the actual achievement of contractually-defined professional objectives within the time frame. These items are reassessed each year. The contract also provides for a benefit in kind in the form of a company car.

The employment contract was signed on April 1, 2011.

The terms of this agreement were authorized at the Board of Directors meeting of February 20, 2013.

- *Modalities and financial implications:*

In accordance with the commitments made by Carbios, Jean-Claude LUMARET could receive an annual bonus equal to 40% of his annual compensation, both for his corporate office and for his salaried duties, subject to the cumulative achievement of defined professional objectives within the set time frame. The annual bonus N is paid in January N+1.

Exceptional compensation is an item granted by the Board of Directors on the basis of a proposal by the Compensation and Appointments Committee and relating to achievements not planned within the framework of the annual objectives initially set.

For the 2021 fiscal year, the Company recognized the following compensation items for Jean-Claude LUMARET as expenses:

- Fixed compensation (2021): €114,967
- Benefits in kind (2021): €14,405
- Bonus (2021 pro rata temporis over 11/12 months of the year): €91,973
- Exceptional bonus (2021): €83,613
- Retirement indemnity: €64,952

The components of compensation paid to Jean-Claude LUMARET in 2021 are as follows:

- Fixed compensation (2021): €114,967
- Benefits in kind (2020 and 2021): €29,422
- Bonus (2020): €88,531
- Exceptional bonus (2021): €83,613
- Retirement indemnity: €64,952

Neuilly-Sur-Seine, March 31, 2022

The Statutory Auditor
PricewaterhouseCoopers Audit
Flora Camp



4.3.2.2 Statutory Auditors' special report on regulated agreements (fiscal year ended December 31, 2022)

Carbios
Cataroux site
8 rue de la Grollière
63100 Clermont-Ferrand, France

To the Shareholders' Meeting,

In our capacity as Statutory Auditors of your Company, we hereby present our report on regulated agreements.

It is our responsibility to inform you, on the basis of the information provided to us, of the characteristics, the main terms and conditions as well as the reasons justifying the interest for the Company of the agreements of which we have been informed or that we have discovered during our mission, without having to comment on their usefulness and merits nor to seek the existence of other agreements. It is your responsibility, under the terms of Article R. 225-31 of the French Commercial Code, to assess the interest in signing these agreements in order to approve them.

In addition, it is our responsibility, where applicable, to provide you with the information provided for in Article R. 225-31 of the French Commercial Code relating to the execution, during the past fiscal year, of agreements already approved by the Shareholders' Meeting.

We have conducted our review in accordance with the procedures that we considered necessary with regard to the professional standards of the Compagnie Nationale des Commissaires aux Comptes [French National Company of Statutory Auditors] relating to this mission. These procedures consisted in verifying that the information provided to us was consistent with the source documents from which it was taken.

AGREEMENTS SUBJECT TO APPROVAL OF THE SHAREHOLDERS' MEETING

We hereby inform you that we have not been given notice of any authorized agreement entered into during the past fiscal year to be submitted to the Shareholders' Meeting for approval pursuant to the provisions of Article L. 225-38 of the French Commercial Code.

AGREEMENTS ALREADY APPROVED BY THE SHAREHOLDERS' MEETING

Agreements approved in previous fiscal years

Pursuant to Article R. 225-30 of the French Commercial Code, we have been informed that the following agreements, already approved by the Shareholders' Meeting in previous fiscal years, continued during the past fiscal year.

> Letter of agreement on the rebilling of services between Carbios and Carbiolice

• *Type and purpose:*

Carbios signed a letter of agreement on the rebilling of expenses related to regulatory matters and work related to enzymes with Carbiolice on September 17, 2018.

The terms of this letter were authorized by the Board of Directors on September 20, 2018.

• *Modalities and financial implications:*

During the 2022 fiscal year, Carbios recorded income of €45,309 in respect of the rebilling of expenses incurred in 2022 and received an amount of €19,820 in respect of expenses rebilled in 2022.

> Patent license agreement between Carbios and Carbiolice

• *Type and purpose:*

A patent and know-how license agreement was signed on August 30, 2016 at the creation of the company Carbiolice, including an option for the concession of a worldwide and exclusive exploitation right in the field of new developments as notified by Carbios.

The terms of this agreement were authorized by the Board of Directors on June 21, 2016.

In 2018, Carbios signed an amendment to the license agreement in order to extend the scope of the license to new families of patents, applications and products.

The terms of this letter were authorized by the Board of Directors on September 20, 2018.

• *Modalities and financial implications:*

This patent and know-how license agreement is established for a period up to the expiry of the last of the granted patents and provides for flat-rate compensation of €8 million in capital upon signing the agreement and a variable amount on net sales of the products covered by the patents.

The amendment signed in 2018 provides for the payment of an additional lump sum in the form of a capital increase, subject to the achievement by Carbiolice of a cumulative amount of income.

No income or expense was recorded during the fiscal year in respect of this contract.



> Employment contract between Carbios and Jean-Claude Lumaret, Chief Executive Officer

- *Type and purpose:*

Jean-Claude Lumaret, director, was bound to the Company by an employment contract in respect of his duties as Chief Executive Officer until November 30, 2021.

Under his employment contract, Jean-Claude Lumaret receives a fixed annual compensation and an annual bonus.

The employment contract was signed on April 1, 2011.

The terms of this agreement were authorized at the Board of Directors meeting of February 20, 2013.

- *Modalities and financial implications:*

In accordance with the commitments made by Carbios, Jean-Claude Lumaret may receive an annual bonus equal to 40% of his annual compensation. The annual bonus is paid in January of the following year.

Exceptional compensation is an item granted by the Board of Directors on the basis of a proposal by the Compensation and Appointments Committee and relating to achievements not planned within the framework of the annual objectives initially set.

The components of compensation paid to Jean-Claude Lumaret during the fiscal year in respect of his position as Chief Executive Officer are as follows:

- Bonus (2021): €91,974

> Employment contract between Carbios and Jean-Claude Lumaret, industrial Director

- *Type and purpose:*

Jean-Claude Lumaret, director, has been bound by an employment contract with the Company in respect of his duties as Industrial Director since December 1, 2021.

Under his employment contract, Jean-Claude Lumaret receives a fixed annual compensation and an annual bonus conditional on the cumulative achievement, within the stipulated timeframe, of defined professional objectives.

The employment contract was signed on December 1, 2021.

The terms of the contract were approved at the Board of Directors meeting of November 5, 2021.

- *Modalities and financial implications:*

In accordance with the commitments made by Carbios, Jean-Claude Lumaret may receive an annual bonus equal to 40% of his annual compensation.

Exceptional compensation is an item granted by the Board of Directors on the basis of a proposal by the Compensation and Appointments Committee and relating to achievements not planned within the framework of the annual objectives initially set.

The components of compensation paid to Jean-Claude Lumaret during the fiscal year in respect of his position as Industrial Director are as follows:

- Fixed compensation (2022): €144,947

- Bonus (2021): €8,361

It should be noted that the employment contract of Jean-Claude Lumaret in respect of his position as Industrial Director expired on March 31, 2022.

Lyon, April 12, 2023

The Statutory Auditor

PricewaterhouseCoopers Audit

Gonzague Van Royen





5. FINANCIAL STATEMENTS

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Pursuant to Article 19 of (EU) Regulation No. 2017/1129, the following elements are included by reference in this Universal Registration Document:

- the separate financial statements for the fiscal year ended December 31, 2020 and the related Statutory Auditors' report as presented in sections 5.1 (pages 80 to 105) and 5.2 (pages 106 to 107) of the Universal Registration Document filed with the AMF on April 14, 2021 under the number D. 21-0306;
- the separate financial statements for the fiscal year ended December 31, 2021 and the related Statutory Auditors' report as presented in sections 5.1 (pages 98 to 122) and 5.2 (pages 123 to 124) of the Universal Registration Document filed with the AMF on April 20, 2022 under the number D. 22-0317;
- the simplified consolidated pro forma financial information for the fiscal year ended December 31, 2021 and the related Statutory Auditors' report as presented in sections 5.4 (pages 128 to 130) and 5.5 (page 131) of the Universal Registration Document filed with the AMF on April 20, 2022 under the number D. 22-0317; and
- the consolidated financial statements under IFRS for the fiscal year ended December 31, 2021 and the related Statutory Auditors' report as presented in sections 5.6 (pages 132 to 182) and 5.7 (page 183) of the Universal Registration Document filed with the AMF on April 20, 2022 under the number D. 22-0317.

5.1 ANNUAL SEPARATE FINANCIAL STATEMENTS

5.1.1 STATEMENT OF FINANCIAL POSITION

ASSETS		12/31/2022			12/31/2021
		Gross	Amort./ Deprec.	Net	Net
Audited separate financial statements - French standards (In thousands of euros)	Note				
FIXED ASSETS					
Intangible assets	5	4,591	1,215	3,376	1,785
Concessions, patents, licenses, software		2,895	1,215	1,681	1,372
Other intangible assets		1,696	-	1,696	413
Property, plant and equipment	5	24,663	3,012	21,651	15,168
Other property, plant and equipment		18,042	3,012	15,030	9,139
Assets under construction		6,621	-	6,621	6,030
Advances on assets under construction		-	-	-	-
Financial assets		43,185	2	43,183	38,878
Equity interests	5	38,382	-	38,382	38,371
Receivables related to equity investments		3,785	-	3,785	-
Other non-current financial assets		1,019	2	1,017	507
TOTAL FIXED ASSETS		72,440	4,229	68,211	55,831
CURRENT ASSETS					
Laboratory raw material inventories	7	52		52	94
Trade receivables and related accounts	7	419		419	96
State receivables	7	3,548		3,548	3,898
Subsidies receivable	7 & 13	207		207	0
Other receivables	7	1,218		1,218	535
Subscribed capital - called up, not paid up		233		233	121
Cash, cash equivalents and marketable securities	10 & 11	101,041		101,041	100,884
Prepaid expenses	7	183		183	440
TOTAL CURRENT ASSETS		106,900		106,900	106,068
Expense to be spread over the loan		448		448	13
OVERALL TOTAL		179,788	4,229	175,559	161,912



LIABILITIES

Audited separate financial statements – French standards (In thousands of euros)	Note	12/31/2022	12/31/2021
EQUITY	12		
Share capital		7,870	7,826
Issue, merger and contribution premiums		146,967	146,337
Retained earnings		(11,136)	0
Investment subsidies	13	249	8
Profit and loss for the period		(17,127)	(11,136)
TOTAL EQUITY		126,823	143,035
OTHER EQUITY CAPITAL			
CONDITIONAL ADVANCES	13	3,707	3,707
PROVISIONS FOR CONTINGENCIES AND EXPENSES			
PROVISIONS FOR EXPENSES	6	292	-
DEBT			
Loans	13	35,974	6,490
Bank overdrafts	11	750	-
Trade and other payables	8	4,534	5,585
Tax and social liabilities	8	2,680	1,728
Other liabilities	8	180	121
Deferred income	8	618	1,246
TOTAL LIABILITIES		44,736	15,170
OVERALL TOTAL		175,559	161,912

5.1.2 INCOME STATEMENT

Audited separate financial statements – French standards (in thousands of euros)	Note	France	Exports	12/31/2022	12/31/2021
Sales of goods				-	-
Production sold, goods				-	-
Production sold, services		778	449	1,227	968
Net revenue	14	778	449	1,227	968
Stored production				-	-
Capitalized production	5			1,287	409
Operating subsidy	13			989	339
Reversals of depreciation, amortization and provisions, expense transfers				3,297	77
Other income				0	-
Total operating revenues	14			6,800	1,793
Purchases of goods				-	-
Inventory change (goods)				-	-
Purchases of raw materials and other supplies				273	185
Inventory change (raw materials and supplies)				42	(54)
Other purchases and external expenses				13,595	6,524
Taxes and similar payments				138	126
Salaries and wages				6,580	5,277
Social security contributions				2,510	2,077
Depreciation of fixed assets	5			1,910	764
Provisions for fixed assets	5			-	-
Provisions on current assets	5			-	-
Provisions for contingencies and charges	5			-	-
Other expenses				191	225
Total operating expenses	15			25,239	15,123
OPERATING INCOME (LOSS)				(18,440)	(13,330)



Audited separate financial statements – French standards (in thousands of euros)	Note	France	Exports	12/31/2022	12/31/2021
Profit allocated or loss transferred				-	-
Loss incurred or profit transferred				-	-
Financial income from investments				-	-
Income from other securities and fixed asset receivables				-	-
Other interest and similar income				133	42
Reversals of provisions and expense transfers				-	-
Positive exchange rate differences				1	-
Net income on sales of marketable securities				-	-
Total financial income				134	43
Depreciation, amortization and provisions	5			293	2
Interest and similar expenses				897	120
Negative exchange rate differences				4	2
Net expenses on sales of marketable securities				-	-
Total financial expenses				1,194	124
FINANCIAL INCOME	19			(1,060)	(81)
CURRENT INCOME BEFORE TAXES				(19,500)	(13,411)
Extraordinary income on management transactions				10	12
Extraordinary income on equity transactions				1,577	248
Reversals of provisions and expense transfers				-	-
Total extraordinary income				1,588	260
Extraordinary expenses on management transactions				6	15
Extraordinary expenses on capital transactions				1,746	235
Extraordinary depreciation and provisions	5			-	-
Total extraordinary expenses				1,752	250
EXTRAORDINARY GAIN OR LOSS	20			(165)	10
Employee profit-sharing				-	-
Income tax	21			(2,538)	(2,265)
TOTAL INCOME				8,521	2,096
TOTAL EXPENSES				25,648	13,232
PROFIT OR LOSS				(17,127)	(11,136)



5.1.3 CASH FLOW STATEMENT

Audited separate financial statements - French standards (In thousands of euros)	12/31/2022	12/31/2021
CASH FLOW FROM OPERATING ACTIVITIES		
Profit and loss for the period	(17,127)	(11,136)
Depreciation, amortization and impairment (including investment subsidies)	2,201	763
Gains or losses on asset disposals	141	47
Changes in working capital requirements	1,732	237
Net cash absorbed by operations	(13,053)	(10,089)
NET CASH FLOW FROM INVESTMENT ACTIVITIES		
Acquisitions of fixed assets	(11,639)	(12,069)
Acquisition of non-current financial assets	(4,368)	(17,973)
Disposals of fixed assets	1,575	188
Changes in fixed asset liabilities	(2,289)	2,313
Net cash from (absorbed by) investments	(16,721)	(27,541)
CASH FLOW FROM FINANCING ACTIVITIES		
Net proceeds from the issuance of shares and BSAs	670	109,039
Inflows from loans	30,000	0
Reimbursement of loans	(548)	(245)
Expense to be spread over the loan	(434)	4
Inflows from repayable advances and investment subsidies	243	620
Net cash from financing activities	29,931	109,418
Change in cash and cash equivalents	158	71,788
Cash and cash equivalents at the beginning of the period	100,884	29,097
CASH AND CASH EQUIVALENTS AT END OF PERIOD	101,041	100,885

5.1.4 NOTES TO THE ANNUAL FINANCIAL STATEMENTS

NOTE 1 • THE COMPANY

Carbios (“the Company”) is an innovative green chemistry company, developing cutting-edge technologies for the recovery of plastic waste and the production of biopolymers.

The Company was created in April 2011 as a société par actions simplifiée (simplified joint stock company) and became a société anonyme (public limited company) on February 20, 2013.

The Company’s shares have been listed on the Euronext Growth Paris market since December 19, 2013. Euronext Growth is an organized multilateral trading system that does not require the application of IFRS. The accounting principles applied in the statutory financial statements are those generally accepted in France. These financial statements cover the fiscal year ended December 31, 2022, it being the Company’s eleventh accounting period.

NOTE 2 • HIGHLIGHTS OF THE FISCAL YEAR

With new patent applications filed during the fiscal year, the intellectual property portfolio of Carbios and Carbiolice at the end of 2022 included 53 patent families (including one under an exclusive worldwide license with the CNRS and University of Poitiers), representing 336 patents filed across the world’s key regions and covering the Company’s areas of development (biodiversity, enzymatic recycling process, biodegradable plastic production process and bioproduction).

The key events for 2022 were as follows:

- The creation of its subsidiary Carbios 54 with the aim of building and operating its Reference Unit with a view to industrializing its PET biorecycling process. During 2022, the Company committed €3.8 million on behalf of said subsidiary;
- On June 29, 2022, the Company obtained an amount of €30 million (€29.55 million net of fees) after obtaining a loan from the European Investment Bank;
- The Company continued to invest in its demonstration plant at the Cataroux industrial site in Clermont-Ferrand, and thus made gross investments of nearly €6.2 million (€4.7 million net of lease-back refinancing).
- Carbios joined the WhiteCycle project, coordinated by Michelin, launched in July 2022 for a period of four years and in partnership with 16 entities. Its main objective is to develop a circular solution to transform complex textile-based plastic waste into high value-added products. WhiteCycle has a total budget of nearly €9.6 million, of which €0.8 million from Carbios, and benefits from European funding of nearly €7.1 million, of which approximately €0.6 million for Carbios.
- On July 6, 2022, the Company announced the creation of the Fiber-to-Fiber Consortium with On, Patagonia, PUMA and Salomon and joined by PVH on February 18, 2023, to advance the circularity of the textile industry; and
- At the end of 2022, the Company validated key stage 4 and thus the complete success of the CE-PET project co-financed by ADEME, and should receive the remainder of the aid (€0.8 million) during the first half of 2023.



Consequences of the COVID-19 event

In accordance with Article L. 833-2 of the French General Accounting Plan, the annual financial statements of the entity at December 31, 2022 were closed without any adjustment related to the Coronavirus epidemic.

The entity's financial statements were prepared on a going concern basis. The Company's resilience, organization and prudence meant that the COVID-19 event did not have a significant impact on the Company's portfolio, financial position (an EMP was obtained to strengthen cash flow) and results. As it is still ongoing at the date of preparation of the annual financial statements, the Company is not in a position to assess the precise consequences for future years if the situation were to continue.

Consequences of the conflict in Ukraine

Since the beginning of the conflict in Ukraine, the Company has not, as of the date of publication of this document, encountered any difficulties in pursuing its activities or its planned investments. To date, the Company has no direct or indirect relations with Ukraine or Russia, and the Company has managed to limit any delays directly related to this crisis in the industrial and commercial deployment of its technologies.

However, if this crisis were to continue and/or generate lasting economic consequences, the Company could have difficulties in containing the adverse effects of these measures and, in particular, the increase in the cost as well as the extension to the lead times of supplies of certain materials, equipment and products necessary for the construction of its Reference Unit. This extension of lead times and the increase in prices could delay the construction of the first industrial and commercial unit using the PET recycling technology developed by the Company. In addition, the negative impact of this conflict on the financial markets and potentially on the Company's share price could intensify if the conflict continues.

In view of the current situation between Russia and Ukraine, the Company specifies that its economic and balance sheet exposure to these two countries is not significant. In 2022, Carbios did not record any expenses with suppliers based in Russia and Ukraine.

Going concern

The going concern assumption is used to the extent that the financial resources of the Company enable it to continue its Research and Development work for at least the next 12 months. Nevertheless, the management of the ongoing developments until the final marketing stage (including the complete construction of the Reference Unit) or even the application of Carbios processes to other markets may require new financing to be sought from institutional entities or industrial partners.

NOTE 3 • EVENTS AFTER THE REPORTING PERIOD

On January 12, 2023, Carbios and Novozymes, the world leader in biological solutions, announced an exclusive long-term partnership. This major agreement guarantees the production and supply of Carbios' proprietary PET-degrading enzymes on an industrial scale for the world's first plant due to be operational in 2025 in Longlaville (France), as well as Carbios' future licensee customers.

NOTE 4 • ACCOUNTING PRINCIPLES AND METHODS

General principles and conventions

The financial statements for the fiscal year ended were prepared and presented in accordance with the accounting rules in compliance with the principles set out in Articles 121-1 to 121-5 et seq. of the French General Accounting Plan.

The general accounting conventions have been applied in compliance with the principle of prudence, in accordance with the basic assumptions: going concern, consistency of accounting methods from one fiscal year to the next, independence of fiscal years and in accordance with the general rules for preparing and presenting annual financial statements.

The basic method used to measure the items recorded in the accounts is the historical cost method.

The accounting conventions have been applied in accordance with the provisions of the French Commercial Code, the accounting decree of November 29, 1983, as well as the ANC regulation 2014-03 and the ANC regulation 2018-07 relating to the rewriting of the French General Accounting Plan applicable to the closing of fiscal years.

Consistency of methods

As of this fiscal year, the Company has opted to recognize financial aid for R&D capitalized as an investment subsidy.

The information communicated below is an integral part of the 2022 financial statements, which were approved on April 5, 2023 by the Board of Directors.

Financial information is accordingly compared to that of the Company's tenth fiscal year, ended on December 31, 2021, for a period of 12 months.



NOTE 5 • PROPERTY, PLANT AND EQUIPMENT, INTANGIBLE AND FINANCIAL ASSETS

The movements with an impact on fixed assets were the following:

Fiscal year 2022 (In euros)	At the beginning of the period 01/01/2022	Increase	Decrease	At the end of the period 12/31/2022
FIXED ASSETS				
INTANGIBLE ASSETS	2,698,214	2,004,399	111,585	4,591,028
Software, website	25,641	-	-	25,641
Patents	2,049,452	707,395	107,045	2,649,802
Patents licensed	209,932	9,841	-	219,773
Pending patents	4,540	-	4,540	-
Development costs	408,650	1,287,163	-	1,695,812
PROPERTY, PLANT AND EQUIPMENT	16,809,817	11,315,984	3,462,713	24,663,088
Fixtures and fittings	8,160,948	5,782,741	181,857	13,761,832
Laboratory fittings and equipment	2,168,646	1,444,374	62,235	3,550,785
Office and IT hardware	324,858	136,268	-	461,126
Furniture	125,477	142,721	-	268,198
Assets under construction	6,029,888	3,809,880	3,218,620	6,621,148
Advance payments made	-	-	-	-
FINANCIAL ASSETS	38,879,618	4,343,758	37,990	43,185,385
Equity interests	38,371,461	10,000	-	38,381,461
Receivables related to equity investments	-	3,784,740	-	3,784,740
Guarantees and security deposits	283,273	72,850	31,562	324,561
Liquidity contract	86,894	476,168	-	563,062
Treasury shares	137,990	-	6,428	131,561
TOTAL	58,387,649	17,664,141	3,612,289	72,439,501

The methods and terms of depreciation and amortization of assets are the following:

Fiscal year 2022 (In euros)	Depr./amort. period	At the beginning of the period 01/01/2022	Increase	Decrease	At the end of the period 12/31/2022
DEPRECIATION, AMORTIZATION AND PROVISIONS					
INTANGIBLE ASSETS					
Software, website	1 year	25,641	-	-	25,641
Patents	10 years	800,400	358,759	91,808	1,067,352
Patents licensed	10 years	87,351	34,235	-	121,586
PROPERTY, PLANT AND EQUIPMENT					
Fixtures and fittings	7 to 10 years	240,844	1,060,910	76,935	1,224,820
Laboratory fittings and equipment	5 to 10 years	1,122,323	315,109	35,897	1,401,535
Office and IT hardware	3 to 5 years	223,935	75,005	-	298,939
Furniture	3 to 7 years	54,217	32,150	-	86,368
FINANCIAL ASSETS					
Treasury shares		1,627	805	-	2,432
TOTAL		2,556,338	1,876,973	204,640	4,228,672



Movements during the fiscal year affecting expenses spread over several fiscal years (in euros)	At the beginning of the period 01/01/2022	Increase	Decrease	At the end of the period 12/31/2022
Expenses to be spread over several years	13,297	468,704	34,224	447,777

Development costs

These are development expenses for the “PET recycling” project capitalized following the commissioning of the Cataroux site and the inauguration of the industrial demonstration plant on September 30, 2021.

The expenses incurred have been recorded as fixed assets, as the project meets the criteria for capitalization.

Capitalized expenses during the fiscal year amounted to €1,287 thousand and consisted of:

- employee expenses: €663 thousand;
- patents: €191 thousand;
- raw materials and supplies: €315 thousand;
- R&D subcontracting and consultants: €118 thousand.

This asset is scheduled to be commissioned when the expected economic benefits are consumed, i.e., at the start of the marketing phase.

Intangible assets

Intangible assets are valued at their acquisition cost and are amortized on a straight-line basis over the duration of their utilization by the Company. The amortization period for the patents held by the Company is estimated at 10 years, corresponding to the period stipulated for consumption and the economic benefits expected from the industrial property portfolio of the Company.

The licensed patents are capitalized over a 10-year period. The acquisition costs of these patents correspond to the fixed and variable license fees in the signed exclusive licensing agreement.

The expenses for filing patents or industrial property rights acquired during the fiscal year have been capitalized and are amortized from the beginning of their utilization. Additional expenses and later extensions on capitalized patents are amortized (as well as licensed patents) over the remaining period for the application to which they are connected.

The type of expenses for research undertaken by the Company during the fiscal year results in their being recorded entirely as operating expenses.

Impairment is recognized when the current value of an asset is lower than the net carrying amount. In addition, the Company conducts an annual review of its patent portfolio and discards any patents that are not retained.

Property, plant and equipment

Property, plant and equipment are valued at their acquisition cost or their production cost by the Company, taking into account the expenses required for the preparation of these goods for use and after deduction of commercial discounts, rebates and reductions of payments received.

Assets are depreciated on a straight-line basis depending on the actual period of utilization of the asset.

Depreciation periods are between 3 and 20 years depending on the type and lifespan of the assets in question.

Impairment is recognized when the current value of an asset is lower than the net carrying amount.

Assets under construction

The “Assets under construction” item consists mainly of the costs relating to the installation of the Company’s industrial demonstration plant.

These assets are not amortized and will be subject to:

- lease-back financing; or
- a reclassification to “property, plant and equipment” when they are brought into service.

Equity interests

1) Carbios acquired the share capital of Carbiolice (a simplified joint-stock company) when it was created on June 10, 2016 and later subscribed to several share capital increases of its subsidiary during the following fiscal years. As of December 31, 2022, Carbios owned 29,502,000 Carbiolice S.A.S. shares, representing a stake of 100%. Equity interests are assessed at their acquisition value, i.e., €38,371,461. If this value exceeds the value in use, impairment is recognized for the difference.

The value in use is determined by reference to the impairment test, carried out by an external expert, and is based on the discounted cash flow method. To this end, the work is based on the Carbiolice Business Plan approved by its Board of Directors for which annual updates are also approved by the Board of Directors.

Assumptions used during the tests carried out for the annual closing:

- The business plan is projected over an 8-year horizon, to which must be added an additional so-called “normative” year (compared to 10 years previously, which makes it possible to limit the level of risk) and takes into account the achievement of “Food Contact” approval in the United States.
- A terminal value calculated on a normal cash flow basis using an EBITDA margin rate of 25.8%, similar to the rate of comparable mature companies.
- discount rate (WACC) of 13.5% used (compared to 18.5% last year), consisting of: (i) a WACC excluding the additional forecast risk premium, and (ii) an additional forecast risk premium, given the uncertainty of certain assumptions in the plan. This rate of 13.5% is corroborated by academic studies on high-growth companies in the marketing launch phase. The decrease in this rate is due to the more cautious modeling of future economic data. The previous version of the BP was more ambitious, and therefore more risky, hence the use of an additional risk premium integrated into the discount rate.
- Tax rate: draft 2022 Finance Law, i.e., 25.8%.

The impairment tests performed at the end of fiscal year 2022 did not show any unrealized loss on the Carbiolice equity stake. In addition, sensitivity tests were carried out on certain key assumptions. A 2-point increase in the discount rate combined with a decrease in the terminal value of the EBITDA margin to 20% had no impact on the result of the impairment test.



2) Carbios subscribed to the share capital of the simplified joint-stock company Carbios 54 at its incorporation on May 30, 2022. As of December 31, 2022, Carbios owned 10,000 Carbiolice 54 S.A.S. shares, representing a stake of 100%. Equity interests are assessed at their acquisition value, i.e., €10,000. If this value exceeds the value in use, impairment is recognized for the difference.

At this stage, no impairment test has been carried out on the shares of Carbios 54.

Liquidity contract and treasury shares

The transactions connected to the liquidity contract that the Company signed with a financial intermediary are recognized in compliance with Opinion CU CNC No. 98-D and with CNCC Bulletin No. 137 - March 2005, namely:

- treasury shares held are recognized under "Other Non-Current Financial Assets." An impairment is recorded by reference to the average listed share price of the last month of the fiscal year if it is lower than the purchase price. To determine the income from disposal, the "First in, First out" method is used;
- on December 31, 2022, the Company held 3,729 Carbios shares, or a carrying amount of €132 thousand. The closing net asset value was €129 thousand. Since the net asset value was lower than the carrying amount, a provision in the amount of €2.4 thousand was recognized at the closing date.
- The cash paid to the intermediary and not yet used is recognized under "Liquidity contract" and represents €563 thousand. On October 11, 2022, the Company increased the resources allocated to the implementation of this liquidity contract entrusted to ODDO BHF by €500 thousand.

NOTE 6 • PROVISIONS FOR CONTINGENCIES AND CHARGES

Any current obligation resulting from a past event of the Company towards a third party that may be estimated with sufficient reliability, and covering identified risks, is recognized as a provision.

As of December 31, 2022, the Company had made a financial provision of €292 thousand for interest due on the OSEO THANAPLAST debt, of which €234 thousand relating to the period 2018 to 2021.

NOTE 7 • RECEIVABLES AND PREPAID EXPENSES

Statement of receivables

Receivables are valued at their nominal value. Where applicable, the receivables have been written down by means of a provision to take into account the recovery difficulties to which they were likely to give rise.

Statement of receivables at 12/31/2022 (In euros)	Gross amount	At one year	More than one year
Current assets & prepayments			
Customers	418,879	418,879	
Income tax ⁽¹⁾	2,537,656	2,537,656	
Value added tax ⁽²⁾	1,009,926	1,009,926	
Other receivables ⁽³⁾	1,657,416	1,657,416	
Prepaid expenses ⁽⁴⁾	183,207	183,207	
TOTAL	5,807,084	5,807,084	

(1) The income tax receivable corresponds to the research tax credit (CIR) recognized for 2022 at €2,538 thousand. In the absence of taxable income and due to the classification as a Community SME, this receivable is repayable the year following its recognition. At December 31, 2021, €2,265 thousand had been recorded for the 2022 research tax credit. This was repaid on June 20, 2022.

(2) The VAT receivable corresponds to reimbursement requests for the months of November 2022 (€474 thousand) as well as to non-recoverable VAT on services not paid at December 31, 2022, namely: VAT on fixed assets (€134 thousand), VAT on abs (€266 thousand), and intra-community VAT (€44 thousand).

(3) Other receivables include €620 thousand in down payments on orders, €496 thousand in amounts receivable and €233 thousand in unpaid capital, for which the effective payment was made on January 12, 2023 (excluding BSA IEB for €3 thousand).

(4) Prepaid expenses are ordinary operating expenses related to prior fiscal years.

Inventories

Inventories are valued at their acquisition cost using the weighted average cost method. When the present value at closing (market value for goods and value in use for raw materials) is lower than the carrying amount, an impairment loss is recognized for the amount of the difference. The valuation of the inventories at the end of the period did not reveal any impairment.

At December 31, 2022, inventory totaled €52 thousand compared to €94 thousand in 2021.

**NOTE 8 • MATURITY OF LIABILITIES AND DEFERRED INCOME AT THE END OF THE PERIOD**

Statement of debts at 12/31/2022 (In euros)	Total amount	From 0 to 1 year	From 1 to 5 years	More than 5 years
Regional and national funds	4,961,424	1,300,224	3,661,200	
European Fund	30,758,333	758,333	15,000,000	15,000,000
State-guaranteed loan	1,003,765	253,765	750,000	
Associated companies' current accounts	49,309	49,309		
Suppliers	4,534,208	4,534,208		
Tax and social liabilities	2,680,340	2,680,340		
Other liabilities	130,258	130,258		
Deferred income	618,436	618,436		
TOTAL	44,736,073	10,324,873	19,411,200	15,000,000

Debts are recorded at their nominal redemption value and are not discounted.

The "Loans and debts" item includes:

- Public debt, consisting of the ADI BPI (€58 thousand) and ADEME (€2,482 thousand) repayable advances obtained as part of the various research projects carried out by the Company until then, as well as the two loans subscribed from Bpifrance, of which €2.4 million remains due;
- Private debt. In this case, it consists exclusively of the loan of €1 million taken out with a banking institution during the COVID crisis.
- Carbios obtained financing from the European Investment Bank in the amount of €30,000 thousand over 8 years at a rate of 5%.

The "Associated companies' current accounts" corresponds to the current account between Carbios and Carbiolice.

Trade payables include outstanding operating invoices at closing for a total of €1,923 thousand, as well as invoices for capital items for a total of €923 thousand, but also to invoices not yet received related to both the operating cycle (€1,083 thousand) and the investment cycle (€606 thousand).

Social security liabilities consist of balances due to the various funds at the end of the period, provisions for premiums and bonuses, provisions for paid leave and related expenses.

NOTE 9 • ACCRUALS (PREPAYMENTS AND DEFERRED INCOME)

Accruals are shown on the statement of financial position for the fiscal year ended December 31, 2022 in the following amounts:

Statement of accruals (In euros)	Assets	Liabilities
Suppliers, amounts receivable and accrued invoices	495,875	1,688,976
Trade receivables, not yet invoiced	6,460	
Personnel and social welfare organizations, accrued expenses	19,532	1,648,783
State, accrued expenses and accrued income	91,950	30,334
Subsidies receivable	206,800	
Prepaid expenses	183,207	
Deferred income		618,436
Accrued interest income and interest payable	68,982	750,000
Expense to be spread over the loan	447,777	
TOTAL	1,520,583	4,736,529



NOTE 10 • CASH INSTRUMENTS

With the aim of optimizing returns on its available cash, the Company opened term deposit accounts for an overall amount of €45 million during the fiscal year, allowing it to benefit from attractive returns as well as guaranteed capital that is available at any time.

Thus, the Company has:

- €4 million in term accounts, renewable on a monthly basis by tacit agreement;
- €20 million maturing in November 2023; and
- €5 million maturing in September 2026;
- €16 million maturing in December 2027.

They benefit from a progressive rate by tiers, and the funds remain available without conditions within 30 days. The interest resulting from these financial instruments generated income of €133 thousand, of which €69 thousand in accrued interest on term deposit accounts.

NOTE 11 • AVAILABLE CASH

This item includes cash deposited in demand accounts as well as the accrued interest to be paid and cash balances. At December 31, 2022, the Company had €55,952 thousand in demand accounts. "Cash and cash equivalents" also includes the amount of accrued interest of €750 thousand in respect of the loan granted by the EIB to the Company.

In addition, in respect of marketable securities, the Company has BSAs from the company PK-MED for an amount of €20 thousand, for which no impairment is to be recognized at this stage.

NOTE 12 • EQUITY

STATEMENT OF CHANGES IN EQUITY

Audited separate financial statements French standards (In euros)	Share capital	Issue premium	Subscription capital	Investment subsidies (net)	Profit or loss for the period	Retained earnings	Total due to shareholder
12/31/2021	7,825,630	146,335,125	1,958	8,250	(11,136,160)	0	143,034,804
Allocation of earnings N-1					11,136,160	(11,136,160)	0
Increase/decrease in share capital and issue premium	44,236	628,819					673,055
Subscription of BSA/BCE			1,360				1,360
Quasi-equity				243,375			243,375
2022 results				(2,250)	(17,127,009)		(17,129,259)
12/31/2022	7,869,866	146,963,944	3,318	249,375	(17,127,009)	(11,136,160)	126,823,334



12.1 COMPOSITION OF SHARE CAPITAL

Share capital

Capital transactions performed during the period

N/A.

Capital transactions performed during the period

At its meeting of May 5, 2022, the Board of Directors noted the creation of 5,000 new shares resulting from the exercise on April 5, 2022 of 5,000 BCE 2017-1 subscribed at a price of €7.86, i.e., €0.70 in par value and €7.16 in issue premium.

At its meeting on June 29, 2022, the Board of Directors noted:

- The creation of 1,253 new shares from the exercise on June 7, of 1,253 BSA 2011-1, subscribed for €1, i.e., €0.70 in par value and €0.30 in issue premium;
- the creation of 1,548 new shares from the exercise on May 5, 2022 of 1,548 BCE 2012-1, subscribed for €2.25, i.e. €0.70 in par value and €1.55 in issue premium;
- the creation of 20,083 new shares from the exercise of 20,083 BCE 2019-1, subscribed at a price of €5.29, i.e., a par value of €0.70 and an issue premium of €4.59, after respective exercise of 3,000 BCE 2019-1 on May 5, 2022, 1,000 BCE 2019-1 on May 6, 2022, 2,000 BCE 2019-1 on May 10, 2022, 2,000 BCE 2019-1 on May 11, 2022, 2,000 BCE 2019-1 on May 13, 2022, 2,000 BCE 2019-1 on May 17, 2022, 2,000 BCE 2019-1 on May 18, 2022, 2,000 BCE 2019-1 on May 20, 2022, 2,083 BCE 2019-1 on May 23, 2022 and 2,000 BCE 2019-1 on June 13, 2022.

At its meeting on September 29, 2022, the Board of Directors noted:

- the creation of 5,000 new shares from the exercise of 5,000 BCE 2017-1, subscribed for €7.86, i.e., €0.70 in par value and €7.16 in issue premium, after respective exercise of 746 BCE 2017-1 on July 6, 2022, 661 BCE 2017-1 on July 11, 2022 and 3,593 BCE 2017-1 on July 18, 2022;
- the creation of 5,000 new shares from the exercise on July 8, 2022 of 5,000 BCE 2020-3, subscribed for €7.76, i.e. €0.70 in par value and €7.06 in issue premium;
- the creation of 12,563 new shares from the exercise of 12,563 BCE 2020-7, subscribed at a price of €30.29, i.e., a par value of €0.70 and an issue premium of € 29.59, after the respective exercise of 31 BCE 2020-7 on July 21, 2022, 4,969 BCE 2020-7 on July 22, 2022, 53 BCE 2020-7 on August 15, 2022, 2,510 BCE 2020-7 on August 16, 2022 and 5,000 BCE 2020-7 on August 17, 2022; and
- the creation of 6,747 new shares from the exercise on September 9, 2022 of 6,747 BSA 2012-2, subscribed for €2.25, i.e., €0.70 in par value and €1.55 in issue premium;

At its meeting of December 13, 2022, the Board of Directors noted the creation of 6,000 new shares resulting from the exercise of 6,000 BCE 2017-1 subscribed at a price of €7.86, i.e., €0.70 in par value and €7.16 in issue premium.

As a result, as of December 31, 2022, the share capital amounting to €7,869,866.20 consisted of 11,242,666 ordinary shares, with a par value of €0.70 each, entirely subscribed and fully paid up.

Movements of securities	Number	Nominal value	Share capital
Securities at the beginning of the fiscal year	11,179,472	€0.70	€7,825,630.40
Capital reduction	-	-	-
Securities issued	63,194	€0.70	€44,235.80
Securities redeemed or canceled	-	-	-
Shares at year-end	11,242,666	€0.70	€7,869,866.20

Issue premiums

In accordance with the decision made by the sole partner followed by the collective decision of the shareholders and finally, by the Board of Directors based on the delegation of the Shareholders' Meeting, the issue premiums paid as part of the capital increases were recorded under "Liabilities" on the statement of financial position in a special "Issue premium" account to which the former and new shareholders' rights shall be applicable.

In accordance with the reference method (ANC 2018-01), capital issue costs are recognized in the statement of financial position as a deduction from the issue premium.

At December 31, 2022, the issue premiums paid after deducting capital increase costs amounted to €146,963,943.82.



Transaction	Operation date	Issue premiums	Direct costs charged	Exercise of BSA/ BCE against payment ⁽¹⁾	Total issue premium	BSA
At 12/31/2021		€156,224,321.39	(€9,927,390.25)	€38,193.68	€146,335,124.82	€1,958.44
Exercise of BCE 2017-1	04/05/2022	€35,800.00			€35,800.00	
Exercise of BCE 2012-1	05/05/2022	€2,399.40			€2,399.40	
Exercise of BCE 2019-1	05/05/2022	€4,599.99			€4,599.99	
Exercise of BCE 2019-1	05/05/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/06/2022	€4,599.99			€4,599.99	
Exercise of BCE 2019-1	05/10/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/11/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/13/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/17/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/18/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/20/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/23/2022	€9,581.78			€9,581.78	
BSA EIB-1 subscription	06/01/2022				€0.00	€1,484.64
BSA EIB-2 subscription	06/01/2022				€0.00	€1,484.64
Exercise of BSA 2011-1	06/07/2022	€375.90		€125.30	€501.20	(€125.30)
Exercise of BCE 2019-1	06/13/2022	€9,199.98			€9,199.98	
Exercise of BCE 2017-1	07/06/2022	€5,341.36			€5,341.36	
Exercise of BCE 2020-3	07/08/2022	€35,296.70			€35,296.70	
Exercise of BCE 2017-1	07/11/2022	€4,732.76			€4,732.76	
Exercise of BCE 2017-1	07/18/2022	€25,725.88			€25,725.88	
Exercise of BCE 2020-7	07/21/2022	€917.29			€917.29	
Exercise of BCE 2020-7	07/22/2022	€147,032.21			€147,032.21	
Exercise of BCE 2020-7	08/15/2022	€1,568.26			€1,568.26	
Exercise of BCE 2020-7	08/16/2022	€74,270.65			€74,270.65	
Exercise of BCE 2020-7	08/17/2022	€147,949.50			€147,949.50	
Exercise of BSA 2012-2	09/09/2022	€10,457.85		€1,484.34	€11,942.19	(€1,484.34)
Exercise of BCE 2017-1	10/24/2022	€14,320.00			€14,320.00	
Exercise of BCE 2017-1	10/27/2022	€14,320.00			€14,320.00	
Exercise of BCE 2017-1	11/16/2022	€14,320.00			€14,320.00	
AT 12/31/2022		€156,851,530.75	(€9,927,390.25)	€39,803.32	€146,963,943.82	€3,318.08

(1) At December 31, 2021 the amounts of this item came from the exercise of:

- 20,494 BSAs acquired for €0.22 per share, i.e., €4,508.68;
- 2,506 BSAs acquired for €0.10 per share, i.e., €250.60;
- 19,200 BSAs acquired for €0.85 per share, i.e., €16,320;
- 9,600 BSAs acquired for €0.59 per share, i.e., €5,664;
- acquisition of the BSA plan by Kepler Cheuvreux: €500.

These amounts, together with the additional €2,790.40 paid at the subscription of 12,800 BSA warrants acquired for €0.22 (which have now expired) and the additional €8,160.00 paid upon subscription of 9,600 vested BSA warrants for €0.85 (which have now expired), initially recorded under "warrants," were included in the issue premium during the capital increase.

As a reminder, the direct costs associated with the listing of the Company on the Euronext Growth Paris market that took place in 2013 amounted to €1,196,108. The expenses relating to the fundraising carried out in 2019 amounted to €770,395 and those relating to the transactions carried out in 2020 to €1,957,332 and, finally, those for the share capital increase in 2021 to €6,003,554.

The "Issue premiums" item recorded under "Liabilities" on the statement of financial position also includes the sums received at the time of the subscription of the BSAs (see Note 12.3 below), or €3,318.08 at December 31, 2022.

**Earnings per share**

At December 31, 2022, net earnings per share, obtained by dividing the profit or loss for the fiscal year of (€17,127,009) by the number of shares, i.e., 11,242,666, amounted to (€1.52).

12.2 DISTRIBUTION OF SHARE CAPITAL

At December 31, 2022, the 11,242,666 shares comprising the share capital were distributed as follows:

Shareholders	Number of shares	Percentage holding	Number of voting rights	Percentage of voting rights
BOLD Business Opportunities for L'Oréal Development	660,248	5.87%	660,248	5.83%
Copernicus Wealth Management S.A. ⁽¹⁾	658,392	5.86%	658,392	5.82%
Michelin Ventures	486,400	4.33%	486,400	4.30%
L'Occitane Group	263,157	2.34%	263,157	2.32%
Funds managed by Truffle Capital	46,511	0.41%	46,511	0.41%
Management and directors	15,646	0.14%	15,647	0.14%
Treasury shares	3,729	0.03%	N/A	N/A
Free float	9,108,583	81.02%	9,190,003	81.18%
TOTAL	11,242,666	100%	11,320,358	100%

(1) Shares held by funds and/or individuals with Copernicus Wealth Management S.A. as their management company.

By collective decision of shareholders on February 20, 2013, it was decided to allocate a double voting right to all fully paid-up shares documented to have been held in registered form in the name of the same shareholder for at least two years.

At December 31, 2022, one share of Jean-Claude LUMARET (director until February 6, 2023) and 81,420 registered shares included in the free float met these criteria.



12.3 DILUTIVE FINANCIAL INSTRUMENTS

Share subscription warrants (BSAs)

The table below shows the status of the BSAs issued since the creation of the Company that were still outstanding at December 31, 2022, as well as additional information regarding their status as of that date.

When subscribing to the BSA plan, the beneficiary may have to pay a subscription price to the Company. This amount will be recognized in the "Share subscription warrants" account (accounting stem 1045). As soon as the warrants are exercised, the Company will recognize the capital increase (account 101 "Capital") and an issue premium (account 1041 "Issue premium" for the difference between the exercise price and the par value of the share) and will clear the "Share subscription warrants" account to the "Issue premium" account.

In the event that warrants have lapsed, the amount initially recognized in the "Share subscription warrants" account will be transferred to the "Issue premium" account.

	BSA 2013-1	BSA EIB
Date of Shareholders' Meeting	Decision of the Shareholders' Meeting on 07/26/2013	Decision of the Shareholders' Meeting on 02/02/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	14,400	269,928
Jacqueline LECOURTIER	1,600	-
Warrant exercise start date	07/26/2014	05/27/2022
Expiration date	07/26/2023	05/26/2030
Price of subscription or purchase of warrant ⁽¹⁾	0.22	0.01
Warrant exercise method	These warrants are exercisable in the event of the occurrence of an IPO prior to June 30, 2014. Possibility of exercising a number x of warrants per complete monthly period beginning on 07/26/2013, and for the first time from 07/26/2014, calculated according to the following rule: $x = (\text{total nb of BSAs 2013-1 allocated to beneficiary} * \text{nb of months since 07/26/2013}) / 48$.	The subscription must be recognized by a subscription form, which must be given to the Company.
Exercise price (in euros)	80% of IPO price	€40 for 50% of the BSA EIB
€38.8861 for 50% of the BSA EIB	1 xx	1 xx
Number of shares subscribed at December 31, 2022	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	12,800	0
Share subscription warrants that may be exercised at December 31, 2022	1,600	296,928

⁽¹⁾ With the exception of the BSAs for the benefit of the European Investment Bank, the subscription price is determined on the basis of a report prepared and delivered by an independent expert.

At its meeting of February 3, 2022, the Board of Directors implemented the delegation granted by the Combined General Meeting of February 2, 2022 to decide to issue, with cancellation of preferential subscription rights, 296,928 share subscription warrants (BSA), giving the right to subscribe for 296,928 new ordinary Company shares for the benefit of the EIB. The Chairman recalled that under the loan agreement of €30 million signed with the EIB, the Company has committed, under the terms of a share subscription warrants agreement drafted in English (Subscription Agreement for Warrants in the Capital of Carbios S.A.) on December 20, 2021 (the "Issue Agreement"), to issue 296,928 share subscription warrants ("BSA") to the EIB. These share subscription warrants (BSA) would represent 2.5% of the Company's diluted share capital, and could be exercised for a period of eight years from their issue at a price corresponding to:

- €40 for 50% of the BSAs to be issued; and
- an amount equal to the volume-weighted average of the last three (3) trading days preceding the fifth day preceding the signing of the contract relating to the issuance of the share subscription warrants (BSAs), i.e., €38.8861 for the remaining 50% of the BSAs.

During the 2022 fiscal year, 1,253 BSA 2011-1, 6,747 BSA 2012-2 and 170,000 BSA 2012-1 were declared null and void. All warrants were exercised under the BSA 2011-1, BSA 2012-2, BSA 2015-2, BSA 2015-3 and BSA 2016-1 plans.

At December 31, 2022, 298,528 BSAs giving rights to 298,528 shares were still exercisable.



Founder share subscription warrants (BSPCEs)

The table below shows the status of BSPCEs issued since the creation of the Company that were still outstanding at December 31, 2022, as well as additional information regarding their status at that date.

When subscribing to the BSPCE plan, the beneficiary will not have to pay a subscription price to the Company. As soon as the BSPCEs are exercised, the Company will recognize the capital increase (account 101 "Capital") and an issue premium (account 1041 "Issue premium", for the difference between the exercise price and the par value of the share).

If BSPCE has lapsed, no accounting entry will be required.

	BCE 2015-2	BCE-2017-1	BCE 2020-1 to BCE 2020-3	BCE 2020-4 to BCE 2020-6
Date of Shareholders' Meeting	Shareholders' Meeting of 06/24/2015	shareholders' meeting of 06/15/2017	Shareholders' Meeting of 06/19/2019	Shareholders' Meeting of 06/18/2020
Date of Board of Directors' meeting	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/27/2017	Decision of the Board of Directors of 03/12/2020	Decision of the Board of Directors of 07/09/2020
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	31,000	35,000	185,000	115,000
Jean-Claude LUMARET	-	-	92,500	57,500
Warrant exercise start date	06/24/2016	06/27/2018	03/12/2020	07/09/2020
Expiration date	06/24/2025	06/27/2027	03/12/2030	07/09/2030
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	Possibility of exercising a number x of warrants per complete monthly period beginning on 06/24/2015, and for the first time from 06/24/2016, calculated according to the following rule: $x = (\text{total nb of BCEs 2015-2 allocated to the beneficiary} * \text{nb. of months since 06/24/2015})/48$.	Possibility of exercising a number x of warrants per full monthly period beginning on 06/27/2017, and for the first time from 06/27/2018, calculated according to the following rule: $x = (35,000 * \text{nb of months since 06/27/2017})/48$.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise one fourth of the BSPCEs allocated. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise one fourth of the BSPCEs allocated. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share. For the other 14,000 warrants: possibility of exercising y warrants where $y = (\text{number of warrants not yet exercisable}) * \% \text{ determined by the performance of the Carbios share price}$.
Exercise price (in euros)	12.4581	7.86	7.75934	20.6050
Number of shares subscribed at December 31, 2022	16,000	21,000	28,125	14,375
Cumulative number of subscription or purchase warrants canceled or null and void	0	0	104,062	64,687
Share subscription warrants that may be exercised at December 31, 2022	15,000	14,000	52,813	35,938



	BCE 2021-1 to BCE 2021-15	BCE 2021-16	BCE 2021-17	BCE 2022 1 to BCE 2022-2
Date of Shareholders' Meeting	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/22/2022
Date of Board of Directors' meeting	Decision of the Board of Directors of 01/15/2021	Decision of the Board of Directors of 11/5/2021	Decision of the Board of Directors of 11/5/2021	Decision of the Board of Directors of 06/29/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	85,000	36,735	6,390	188,265
Jean-Claude LUMARET	-	-	-	-
Emmanuel LADENT	-	36,735	-	138,265
Warrant exercise start date	01/15/2022	12/01/2022	11/05/2022	06/29/2025
Expiration date	01/15/2032	12/01/2032	11/05/2032	06/29/2032
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	<p>Possibility of exercising a number x of warrants per full monthly period, and for the first time from 01/15/2022, calculated according to the following rule: $x = \text{total number of BCE 2021 granted to the beneficiaries} * (\text{number of months since 01/15/2021})/48$.</p> <p>In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p>	<p>For the first 18,367 warrants: possibility of exercising x warrants per full monthly period beginning on 12/01/2021, and for the first time from 12/01/2022, calculated according to the following rule: $x = 18,367 * (\text{number of months since 12/01/2021})/48$.</p> <p>The remaining 18,368 warrants are subject to four performance conditions to be exercised. Each condition met gives the right to exercise 5,510 warrants, 6,429 warrants, 2,755 warrants and 3,677 warrants, respectively.</p> <p>In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p> <p>In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p>	<p>Possibility of exercising a number x of warrants per full monthly period, and for the first time from 11/05/2022, calculated according to the following rule: $x = \text{total number of BCE 2021 granted to the beneficiaries} * (\text{number of months since 11/05/2021})/48$.</p>	<p>To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.</p>
Exercise price (in euros)	44.5049	37.7340	39.7863	30.1316
Number of shares subscribed at December 31, 2022	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	27,414	0	0	0
Share subscription warrants that may be exercised at December 31, 2022	57,586	36,735	6,390	188,265 ⁽¹⁾

(1) May be exercised from June 29, 2025.



	BCE 2022-3 to BCE 2022-4	BCE 2022-5 to BCE 2022-6 and BCE 2022-13 to BCE 2022-14	BCE 2022 7 to BCE 2022-11	BCE 2022-12
Date of Shareholders' Meeting	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/19/2019	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/22/2022
Date of Board of Directors' meeting	Decision of the Board of Directors of 09/29/2022	Decision of the Board of Directors of 12/13/2022	Decision of the Board of Directors of 12/13/2022	Decision of the Board of Directors of 12/13/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	59,600	104,062	82,413	31,735
Emmanuel LADENT	-	-	2,023	31,735
Warrant exercise start date	09/29/2025	12/13/2025	12/13/2025	12/13/2025
Expiration date	09/29/2032	12/13/2032	12/13/2032	12/13/2032
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.
Exercise price (in euros)	26.59321	33.27455	33.27455	33.27455
Number of shares subscribed at December 31, 2022	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	9,600	0	0	0
Share subscription warrants that may be exercised at December 31, 2022	50,000 ⁽²⁾	104,062 ⁽³⁾	82,413 ⁽³⁾	31,735 ⁽³⁾

(2) May be exercised from September 29, 2025. (3) May be exercised from December 13, 2025.

During the fiscal year 2022, BSPCE issues were carried out:

- at its meeting of June 29, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 22, 2022 (Seventeenth Resolution), decided to issue and award 188,265 BSPCEs (of which 138,265 BCE 2022-1 and 50,000 BCE 2022-2), giving the right to subscribe to 188,265 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €30.1316.
- At its meeting of September 29, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 18, 2020 (Thirteenth Resolution), decided to issue and award 59,600 BSPCEs (of which 9,600 BCE 2022-3 and 50,000 BCE 2022-4), giving the right to subscribe to 59,600 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €26.59321.
- At its meeting of December 13, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 19, 2019 (Fifteenth Resolution), decided to issue and award 104,062 BSPCEs (of which 50,000 BCE 2022-5, 50,000 BCE 2022-6, 1,662 BCE 2022-13 and 2,400 BCE 2022-14), giving the right to subscribe to 104,062 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €33.27455.
- At its meeting of December 13, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 18, 2020 (Thirteenth Resolution), decided to issue and award 82,413 BSPCEs (of which 25,000 BCE 2022-7, 25,000 BCE 2022-8, 20,000 BCE 2022-9, 2,023 BCE 2022-10 and 10,390 BCE 2022-11), giving the right to subscribe to 82,413 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €33.27455.



- Finally, at its meeting of December 13, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 22, 2022 (Seventeenth Resolution), decided to issue and award 31,735 BSPCEs (of which 31,735 BCE 2022-12), giving the right to subscribe to 31,735 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €33.27455.

During the 2022 fiscal year, 1,548 BCE 2012-1, 20,083 BCE 2019-1, 16,000 BCE 2017-1, 5,000 BCE 2020-3 and 12,563 BCE 2020-7 were exercised.

During the 2022 fiscal year, 69,375 BCE 2020-1, 6,856 BCE 2021-2, 10,711 BCE 2021-6, 7,917 BCE 2019-1, 83,437 BCE 2020-7, 34,687 BCE 2020-2 and 21,562 BCE 2020-5 were declared null and void.

At December 31, 2022, 674,937 BSPCEs giving rights to 674,937 shares were still exercisable.

NOTE 13 • LOANS, CONDITIONAL ADVANCES AND SUBSIDIES

Loans

Denomination	Date	Rate	Duration	12/31/2021	New	Repayment	12/31/2022
Bpifrance Innovation loan	11/23/2018	3.21%	7.5 years	€1,350,000	-	€300,000	€1,050,000
Bpifrance Innovation loan	11/20/2019	4.45%	7.5 years	€1,500,000	-	€150,000	€1,350,000
State-guaranteed loan (Société Générale)	08/31/2020	0.25%	6 years	€1,000,000	-	-	€1,000,000
EIB loan	06/29/2022	5.00%	8 years	-	€30,000,000	-	€30,000,000
Accrued interest				€3,765	€12,098	€3,765	€12,098
TOTAL				€3,853,765	€30,012,098	€453,765	€33,412,098

The two Bpifrance loans were subject to guarantee deposit payments of €75 thousand each and are covered by life insurance policies - PTIA underwritten for Alain MARTY (50%) and Martin STEPHAN (50%). Following the departure of Martin STEPHAN at the end of 2022, the Company has taken steps to replace him with Stéphane FERREIRA. The term of loans provides for a 2-year deferred repayment and annual straight-line repayment over the following 5 years.

On August 31, 2020, collection of a state-guaranteed loan for €1,000 thousand from a banking institution for a period of 12 months. In June 2021, the Company negotiated with its bank an additional deferral of one year, i.e., until August 24, 2022 and, thereafter, repayment of the loan over 4 years.

On June 29, 2022, the Company received a loan from the European Investment Bank for an amount of €30 million. The contract provides for an annual repayment at constant capital, from June 29, 2025 until June 29, 2030.

The loan issue expenses are recognized in "Expenses to be spread over several fiscal years" and are spread on a straight-line basis over the total contract term. The Company recognized €490,452 in this respect, with €447,777 remaining to be spread at December 31, 2022.

Repayable advances granted by public entities

The portion of advances received from public entities for the financing of the Company's Research and Development activities, and whose repayment is conditional is presented in "Liabilities" under the heading of other equity capital "Conditional advances."

Denomination	Date	12/31/2021	New	Repayment	Other movements	12/31/2022
Repayable adv. ADI BPI	06/13/2017	€155,000	-	€97,500	-	€57,500
Repayable adv. ADEME	04/08/2019	€2,481,600	€22,324	-	-	€2,503,924
Cond. adv. OSEO THANAPLAST™	12/19/2012	€3,707,214	-	-	-	€3,707,214
TOTAL		€ 6,343,814	€22,324	€97,500	-	€6,268,638

Subsidies received

Subsidies received are recorded as soon as the corresponding receivable becomes certain, taking into account the conditions assigned to the awarding of the grant.

Operational subsidies are recorded under "Current income," taking into account, where applicable, the pace of the corresponding expenses in such a way as to comply with the principle of the matching of expenses with the income of the fiscal year.

Investment subsidies intended for the acquisition of fixed assets are initially recorded as equity, then are recognized as current income according to the pace of the depreciation applied to the corresponding fixed assets.

**Detail of repayable advances and subsidies by project:****Bpifrance grant (formerly known as OSEO-ISI): THANAPLAST™****• Subsidy**

The THANAPLAST™ project has been closed since June 30, 2017.

• Repayable advance

In the event of a successful research program, the Company is committed to reimbursing the repayable advance to Bpifrance for an amount of €4,525 thousand, according to the payment schedule below, upon achieving cumulative income generated by the utilization of the products resulting from the Thanaplast™ project of €10 million.

Year 1* on June 30 at the latest	€300,000
Year 2 on June 30 at the latest	€500,000
Year 3 on June 30 at the latest	€800,000
Year 4 on June 30 at the latest	€975,000
Year 5 on June 30 at the latest	€1,950,000

*Following the crossing of the €10,000 thousand income threshold.

As it is probable that this threshold will be reached, the Company has retroactively provisioned €292 thousand in respect of debt interest in its financial statements since 2018.

In addition, as soon as the reimbursement of the repayable advance has been completed in accordance with the above payment schedule, the agreement stipulates that the Company shall pay a bonus equal to 4% of revenue generated by the utilization of the products, if this exceeds a cumulative amount of €100,000 thousand. This additional payment is, however, subject to a time limit (applicable only for a period of five consecutive years from the date of the end of the reimbursement of the advance) and an amount cap (ceiling of €7,100 thousand).

ADEME grant: CE-PET project

On April 8, 2019, the Company obtained a grant from ADEME for the CE-PET project, composed of repayable advances totaling €3,102 thousand and subsidies of €1,034 thousand spread over a 48-month period from 2018 to 2022. The grants were released according to the project's progress and the submission of reports regarding the completion of each key stage stipulated in the framework agreement signed with ADEME. The agreement provides for a total grant rate of 60% that is applied to total eligible expenditures and used for each key stage, 25% of which is a subsidy and 75% a repayable advance (with conditions).

The contract agreement stipulates that the completion of each key stage (KS) and the associated conditions provide entitlement to the following payments capped based on a maximum % of cumulative grants:

(In euros)	KS1 (35%)	KS2 (60%)	KS3 (80%)	KS4 (100%)	Total
Expected payment year	2019	2020	2021	2022	
Subsidy	361,900	258,500	206,800	206,800	1,034,000
Repayable advance	1,085,700	775,500	620,400	620,400	3,102,000
TOTAL	1,447,600	1,034,000	827,200	827,200	4,136,000

At December 31, 2022, the Company had completed the work for the fourth key stage. Since its creation, the Company has received:

(In euros)	1 st payment	2 nd payment	3 rd payment	4 th payment	Total
Date of payment	06/07/2019	10/21/2019	06/30/2020	12/06/2021	
Subsidy	€155,100	€206,800	€258,500	€206,800	€827,200
Repayable advance	€465,300	€620,400	€775,500	€620,400	€2,481,600
TOTAL	€620,400	€827,200	€1,034,000	€827,200	€3,308,800



• Subsidy

The subsidy rate therefore amounts to 15% of the Industrial Research and Experimental Development expenses incurred by the Company in the context of the CE-PET project.

Eligible expenses incurred between January 31, 2018, the start date of eligibility, and December 31, 2022 are higher than the expenses provided for in the agreement signed with ADEME and make the entire amount of the subsidy to be received eligible.

Since the beginning of the program, the Company has received €827 thousand in ADEME subsidies (see table above). In addition, following the validation of key stage 4 and, more generally, the success of the project by ADEME at the end of 2022, the Company will receive during the first half of 2023 the balance of the expected aid and thus recognized an income (current receivable) in respect of the subsidy receivable for €207 thousand.

• Repayable advance

The amount that Carbios owes ADEME for repayment of the amount of the Repayable Advance Paid (hereinafter the "Total Amount Payable") shall be equal to the following amount:

- an "Amount Ma" that depends on the progress of the Operation.

This amount is subject to specific terms and conditions of repayment as described below.

a) Determination of the Amount Ma

Rate R1 is set at 0.84%.

The Beneficiary shall repay ADEME an amount whose Discounted Value using Rate R1 is equal to 100% of the Discounted Value using Rate R1 of the amount of the Repayable Advance Paid (hereinafter "Amount Ma") under the terms and conditions described below.

Amount Ma may, however, be reduced under the following conditions and by the following proportions:

- Ma is reduced by 75% if Key Stage 1 has not been verified;
- Ma is reduced by 50% if Key Stage 1 has been verified, but Key Stage 2 has not been verified;
- Ma is reduced by 25% if Key Stage 2 has been verified, but Key Stage 3 has not been verified.

b) Terms of repayment of Amount Ma

The operative event for the repayment of Amount Ma (hereinafter the "Ma Operative Event") shall be the End of the Investment Phase.

Repayment of Amount Ma shall be made in four (4) annual installments of the same amount.

The first installment shall be paid six (6) months after the end of the Beneficiary's Fiscal Year in which the Ma Operative Event is recorded.

Since the start of the program, the Company has received €2,482 thousand in conditional advances from ADEME (see table above) and is expected to receive during the first half of 2023 the balance of a repayable advance of €620 thousand for the validation of key stage 4 and the recognition of the complete success of the project.

Given the success of the project and the de facto certainty of repaying the debt, the Company has thus set aside an amount of €22 thousand in its accounts for interest on said repayable advance.

LIFE aid: Life cycle of PET

On October 25, 2021, the Company obtained aid consisting exclusively of subsidies for a total amount of €3,300 thousand for the LIFE CYCLE OF PET project. The program includes the participation of Deloitte and T.EN Zimmer GmbH, whose total share represents €296 thousand. Carbios is the project coordinator.

The total amount of expenses to be incurred by Carbios under the project amounts to €9,777 thousand, of which €7,967 thousand is eligible. Carbios' share of the subsidy is €3,004 thousand (€3,300 thousand - €296 thousand), i.e., a financing rate of 30.72% of total estimated costs and a subsidy rate of 37.7% of eligible expenses.

The payments are planned as follows:

- 1st pre-financing of 40% within 30 days following the signature of the contract, i.e., €1,320 thousand collected on November 5, 2021, of which €119 thousand to partners and €1,201 thousand to Carbios;
- 2nd pre-financing of 40% provided that 100% of the pre-financing deposit previously paid has been used to cover project costs; and
- The balance of 20% at the end of the project.

The expenses incurred for the fiscal year were calculated on the basis of actual expenses, i.e., an amount of €3,337 thousand, of which 24% corresponds to capitalized expenses. The corresponding total theoretical subsidy amounts to €1,025 thousand (€3,337 thousand x 30.72%), of which €243 thousand was allocated as investment subsidies and the remainder, i.e., €782 thousand, as operating subsidies.

Taking into account the income of €132 thousand already recognized in 2021, a deferred income, similar to a current debt, was therefore recognized for an amount of: (€1,201 thousand - €132 thousand - €1,025 thousand) = €45 thousand.



Other public and private grants obtained

The Company also obtained:

- a subsidy from the Auvergne Region (FIAD) of €397 thousand, of which €181 thousand was paid in 2013 and the balance of €216 thousand was paid in November 2015. The remaining portion of the investment subsidy associated with the acquisition of the Setup Performance patent is recorded in income at the rate that the patent is amortized;
- a recoverable advance of €265 thousand from Bpifrance for an innovation project, of which €215 thousand was paid out in 2017 and the balance of €50 thousand in December 2018. Repayments began in 2019. The acknowledgment of program success will make it eligible for the repayment of the full amount. If the program fails, the Company may file a statement of failure and thus reduce the total amount repayable, set at a minimum of €106 thousand. At December 31, 2022, the remaining amount to be repaid was €58 thousand;
- two Innovation Loans from Bpifrance for a total of €3,000 thousand at floating rates to finance the intangible expenses related to its desire to launch the industrialization process. After a period of 8 quarters of deferred amortization, repayments at constant capital of €75 thousand began on September 30, 2021 for the first loan and will begin with a one-year delay for the second, i.e., a total amount remaining due of €2,400 thousand at the closing date;
- a subsidy from the European Commission for the WhiteCycle project, led by Michelin (lead partner), starting on July 1, 2022, for a period of 48 months, with an amount of eligible expenses for Carbios of €805 thousand (total project of €9 million), and for which the Company will be able to obtain a subsidy of up to €564 thousand (out of the €7 million allocated to the complete project). In this respect, the Company received €197 thousand (35%) as an advance, but recognized the entire amount as "Prepaid income" in accordance with the progress of the project.

NOTE 14 • INCOME AND OTHER OPERATING INCOME

Total operating income amounted to €6,800 thousand at December 31, 2022 and mainly consisted of income, other operating income and transfers of operating expenses in the amount of €3,297 thousand.

Income is recognized when goods or services are delivered by the Company. However, in the case of invoicing carried out in advance and for a given period (subscription that would be spread over two separate fiscal years, for example) the amount will be corrected at the closing date by deferred income (in proportion to the portion relating to the given fiscal year) in order to respect the principle of income recognition and that of independence of fiscal years.

Income: €1,227 thousand

Licensing and sub-licensing of patent and know-how licenses

The Company entered into a patent license and know-how agreement with S.A.S. Carbiolice on August 30, 2016 for a period running until the expiry of the last of the patents granted, and an amendment signed on June 28, 2018. Payment for this agreement is scheduled to take the form of an €8 million lump-sum royalty payment and variable royalties based on the revenue generated from Carbiolice's use of the licensed technology. No royalty income was recognized as of December 31, 2022, since the Carbiolice subsidiary did not make any sales in connection with this license.

Other contracts

In addition, the Company obtained €1,227 thousand from other contracts, part of which came from contracts signed with Carbiolice (see Note 17).

Other operating income: €5,573 thousand

R&D capitalization

The income recognized as part of the capitalization of R&D amounted to €1,287 thousand at December 31, 2022. It included all the development costs of the industrial demonstration plant considered to be capitalized from September 30, 2021. From that date, all of the activation conditions were met. The previous stages of research and development (laboratory level) and management (pilot level) are considered as general research and not development.

Operating subsidy

As part of the CE-PET project, the Company recorded an operating subsidy of €207 thousand recognized as accrued income since the validation of key stage 4 was confirmed by the DETI on October 19, 2022.

The LIFE project generated operating income of €650 thousand over the fiscal year, after recognition of deferred income relating to expenses not yet incurred at this stage (see Note 13).

Other operating income

The Company recorded operating income of €3,297 thousand in respect of reversals of depreciation, amortization and provisions and transfers of expenses, mainly consisting of:

- borrowing costs disbursed with the European Investment Bank (€450 thousand), since they are spread over the term of the said loan,
- and also the disbursement note that will be sent to Carbios 54 relating to the expenses incurred on behalf of its newly created subsidiary as part of the project to create the Reference Unit (€2,744 thousand).



NOTE 15 • OPERATING EXPENSES

The Company's operating expenses mainly consist of R&D costs and salaries. For the past two fiscal years, they break down as follows:

(In thousands of euros)	2022	2021
Other costs and external expenses		
External studies, subcontracting and scientific consultations	3,432	1,844
Consumables	315	131
Supplies	354	130
Rentals, maintenance and upkeep expenses	1,878	1,546
Expenses and fees related to industrial property	74	87
Fees	6,317	2,364
Business travel	614	183
Miscellaneous expenses	926	369
Total other expenses and external expenses	13,910	6,654
Taxes, Taxes and similar payments	138	126
Salaries and wages	6,580	5,277
Social security contributions	2,510	2,077
Depreciation of fixed assets	1,910	764
Other expenses	191	225
TOTAL OPERATING EXPENSES	25,239	15,123

In 2022, Carbios spent € 25,239 thousand on operational activities (compared to €15,123 thousand in 2021), of which 54% concerned RDI (Research & Development and Industrialization).

As a result, 42% of operating expenses were devoted directly to research and development (down as a percentage of total expenses, but up 10% compared to 2021). In accordance with the Company's roadmap and priorities, this effort has mainly focused on the development of the enzymatic recycling process for PET plastics and fibers. The sharp increases in external research, subcontracting and scientific consulting expenses, but also in consumables and supplies (which mainly concern the industrial demonstration plant) demonstrate the intensity of the resources that continue to be deployed.

Fees show a sharp increase of €4 million, of which around €3 million directly concerns the Reference Unit project (which mobilized 14% of the Company's operating expenses) and were rebilled to Carbios 54, a subsidiary newly created by the Company in 2022 to build and operate the Reference Unit.

Lastly, personnel expenses (wages and salaries, and social security contributions) continue to increase significantly in line with the significant growth in the Company's headcount, with this growth expected to continue in 2023.

In general, R&D expenses include the expenses related to the following:

- external studies conducted in collaboration with the Company's academic partners and the outsourcing of a certain amount of technological work to its partners for the development of processes dedicated to the end-of-life of plastic materials;
- research personnel costs, including salaries, emoluments and social contributions, as well as environment expenses such as workstations and travel;
- scientific consultancy contracts with scientific experts and advisers who assist the Company in defining and supervising its R&D programs;
- expenses and fees related to industrial property; and
- the structural costs of the Company's R&D department.

**NOTE 16 • AVERAGE HEADCOUNT**

	Average headcount in 2022	Average headcount in 2021
Managers	45	31
Supervisory staff and technicians	21	15
Employees	0	0
TOTAL	66	46

NOTE 17 • RELATED PARTIES

On December 31, 2022, in respect of their participation in the meetings of the Board of Directors and the various Committees and Commissions in 2022, Carbios paid compensation to the members of the Board of Directors in the amount of €155 thousand (excluding social security contributions). Over the full year, the average attendance rate of directors at Board of Directors meetings was 97%.

Related parties	Nature of the relationship with the related party	Amounts of transactions with related parties (amounts due)
Martin STEPHAN – Deputy Chief Executive Officer	Employment contract	Fixed compensation: €237,881 Annual variable bonus: €82,454 Severance payment: €469,885 Exceptional bonus: €0 Benefits in kind: €10,445
Emmanuel LADENT – Chief Executive Officer	Employment contract	Fixed compensation: €330,000 Annual variable bonus: €148,500 Exceptional bonus: €0 Benefits in kind: €14,872

No advances or loans were granted to them, and no other commitments were made on their behalf.

The following transactions were performed during the 2022 fiscal year with the subsidiary Carbiolice:

- licensing and sub-licensing of patents and know-how: See Note 14;
- rebilling of tests and regulatory affairs, and management contract (€165 thousand in operating income): Rebilling of fees related to regulatory issues according to the letters of agreement signed with Carbiolice, as well as a management contract.

The following transactions were performed during the 2022 fiscal year with the subsidiary Carbios 54:

- advance in the current account for a total amount of €3,785 thousand at December 31, 2022, which did not give rise to remuneration.
- rebilling of expenses incurred as part of the project to create the Reference Unit for €2,744 thousand. This includes personnel expenses as well as external services.

The Company has issued letters of support to each of its subsidiaries, Carbiolice and Carbios 54, in order to materialize the financial support that it will be ready to provide to ensure the continuity as a going concern of the two companies for the next 12 months.

NOTE 18 • STATUTORY AUDITORS' FEES

The total amount of Statutory Auditors' fees shown in the income statement for the fiscal year (French GAAP, Article 833-14/4) amounts to €178,500 and breaks down as follows:

- Fees related to the certification of the financial statements:
 - Statutory: €99,500 of which €30,000 relating to the previous fiscal year
 - Consolidated: €62,500
- Fees for other services of €16,500



NOTE 19 • FINANCIAL INCOME

The Company's financial income consists of interest on money-market investments and term account deposits. All available cash is placed in risk-free money market products. The Company obtained two loans from Bpifrance for a total of €3,000 thousand at a rate of 3.03% for the first on November 23, 2018 and 4.34% for the second on November 20, 2019. A loan guaranteed by the State was released on August 31, 2020 at the rate of 0.25%. The conditional advances granted by Bpifrance and ADEME also bear interest at the respective discount rates of 2.67% and 0.84%, according to the conditions provided for in the contracts and detailed in Note 13. On June 29, 2022, the Company also contracted a loan of €30,000 thousand with the EIB at a rate of 5%.

Financial income

(In thousands of euros)	2022	2021
Financial income	134	43
Financial expenses	1,194	124
FINANCIAL INCOME/(EXPENSES)	(1,060)	(81)

Financial income mainly comes from investments of available cash amounting to €133 thousand.

Financial expenses in 2022 consisted mainly of interest on the Bpifrance loans for €105 thousand, the State-guaranteed loan for €11 thousand and the EIB loan for €750 thousand. They also include interest on the ADEME debt for €22 thousand and OSEO Thanaplast™ for €292 thousand, of which €234 thousand for the period 2018 to 2021.

NOTE 20 • EXTRAORDINARY GAIN OR LOSS

For the 2022 fiscal year, the extraordinary gain or loss was a negative €165 thousand, mainly composed of a capital loss of €141 thousand, recognized following the scrapping of non-transferable assets (development works) on the former sites of Saint-Beauzire, Riom and La Pardieu. The rest of the loss comes from a loss on treasury shares of €30 thousand.

There was also a sale and leaseback transaction for an amount of € 1,537 thousand relating to investments made on the industrial demonstration plant, which had no impact on extraordinary gain or loss since it did not generate any capital gains or losses.

NOTE 21 • INCOME TAX

Since the Company does not currently generate any profit, it does not have any income tax expenses. The amount recognized for corporate income tax consists solely of the research tax credit and amounted to €2,538 thousand for 2022.

The fiscal deficit carried forward at the end of the fiscal year amounted to €73,711,720.

NOTE 22 • OFF-BALANCE SHEET COMMITMENTS

Commitments given

Retirement indemnity

The Company has not signed any specific agreement on pension commitments, which are therefore limited to the contractual retirement benefit.

No provisions for charges were recognized in respect of this fiscal year.

The retirement benefit is determined by applying a method that takes into account projected end-of-career salaries, employee turnover, life expectancy and the assumption of discounting expected payments.

The rights of employees to retirement indemnities were assessed at €174,818 at December 31, 2022.

This figure was calculated according to the following assumptions:

- voluntary retirement;
- retirement age: 67 years;
- turnover: slow;
- discount rate: 3.77%;
- increase in wages: 2%.

Risk hedging set up for the benefit of funders

The two Bpifrance loans are covered by life insurance policies - PTIA underwritten for Alain MARTY (50%) and, initially, Martin STEPHAN (50%). Following the departure of the latter, the contract is being transferred to Stéphane FERREIRA. The term of loans provides for a 2-year deferred repayment and annual straight-line repayment over the following 5 years.

**Leasing**

The Company's commitments include the sale-leaseback financing of industrial equipment for a total of €2,142 thousand over a period of 5 years (see details in the table below), representing the entire budget allocated by the banking partner for the first contract of €604 thousand, and only part of the second contract, for a total amount of €5.8 million signed with a consortium of banks.

	Land	Buildings	Equipment and Tools	Others	Total
Initial values:			2,142,116		2,142,116
Depreciation:					
Previous aggregations			195,831		195,831
Provisions for the fiscal year			319,750		319,750
TOTAL			515,581		515,581
Fees paid:					
Previous aggregations			216,370		216,370
Fiscal year			351,428		351,428
TOTAL			567,798		567,798
Fees to be paid:					
at maximum 1 year			462,308		462,308
from over 1 year to less than 5 years			1,281,435		1,281,435
over 5 years					
TOTAL			1,743,743		1,743,743
Residual value:					
at maximum 1 year					
from over 1 year to less than 5 years			21,421		21,421
over 5 years					
TOTAL			21,421		21,421

Letters of support to subsidiaries

The Company has issued letters of support to each of its subsidiaries, Carbiolice and Carbios 54, in order to materialize the financial support that it will be ready to provide to ensure the continuity as a going concern of the two companies for the next 12 months.

Commitments received**Repayable advance**

At December 31, 2022, the Company had completed the fourth and final key stage of the agreement signed with ADEME and expects the sum of €620 thousand.

NOTE 23 • TABLE OF SUBSIDIARIES AND EQUITY INTERESTS

Since fiscal year 2021, Carbios has been the consolidating company of the group, which it comprises with its subsidiaries Carbiolice and now Carbios 54.

(In euros)	S.A.S. Carbiolice	S.A.S. Carbios 54
Share capital	28,618,748	10,000
Reserves and carryforwards prior to the allocation of income	(19,371,722)	-
Portion of share capital owned (%)	100%	100%
Book value of securities held	38,371,461	10,000
Loans and advances granted by the Company and not yet repaid	(49,309)	3,784,740
Amount of guarantees given by the Company	-	-
Revenue excluding tax for the most recent fiscal year	25,044	0
Results (profit or loss for the most recent period ended)	(3,931,900)	(3,282,875)
Dividends received by the Company during the fiscal year	-	-
Comments	-	-

At the end of the period, the value in use of the Carbiolice equity interests exceeded their carrying amount. Accordingly, there are no provisions to be recorded at December 31, 2022. Since Carbios 54 is a newly created subsidiary, the value in use is aligned with the carrying amount of the shares.

Additional information is available in Note 5 of this document.



5.2 STATUTORY AUDITORS' REPORT ON THE ANNUAL FINANCIAL STATEMENTS

(Fiscal year ended December 31, 2022)

Carbios
Cataroux site
8 rue de la Grolière
63100 Clermont-Ferrand, France

To the Shareholders' Meeting

Opinion

Pursuant to the mission entrusted to us by your Shareholders' Meeting, we have audited the annual financial statements of Carbios for the fiscal year ended December 31, 2022, as appended to this report.

We certify that in accordance with French accounting principles, the annual financial statements are sincere and provide a true and fair view of the results of operations, financial position and assets of the company at the end of the fiscal year.

Basis of opinion

Audit guidelines

We conducted our audit in accordance with the professional standards applicable in France. We believe that the information we have collected is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under these standards are indicated in the section "Statutory Auditors' responsibilities with regard to the audit of the annual financial statements" in this report.

Independence

We carried out our audit in compliance with the rules of independence provided for by the French Commercial Code and by the Statutory Auditors' Code of Ethics for the period from January 1, 2022 to the date of issue of our report.

Justification for the assessments

In application of the provisions of Articles L. 823-9 and R. 823-7 of the French Commercial Code concerning the justification for our assessments, we would like to draw your attention to the following assessments, which, in our professional judgment, were the most material for the audit of the annual financial statements for the fiscal year.

The assessments made come within the context of the audit of the annual financial statements taken as a whole and the formation of our opinion expressed above. We do not express an opinion on the elements of these annual financial statements taken separately.

Accounting estimates

Equity interests, for which the net amount shown in the statement of financial position at December 31, 2022 was €38,382 thousand, mainly consisted of Carbiolice shares. They are valued at their acquisition cost and impaired on the basis of their value in use according to the methods described in Note 5 to the paragraph "Equity interests." On the basis of the information provided to us, our work consisted in assessing the consistency and justification of the data, assumptions and method on which these values in use are based; in particular, we checked the consistency of the cash flows used with the forecast data from the Carbiolice business plan validated by its Board of Directors and analyzed the sensitivity of the estimates to the various assumptions.

As part of our assessments, we verified the reasonableness of these estimates.

Specific checks

In accordance with professional standards applicable in France, we have also performed the specific verifications required by law and regulations.

Information provided in the management report and in the other documents on the financial position and the annual financial statements addressed to shareholders

We have no matters to report as to the fair presentation and the consistency with the annual financial statements of the information given in the management report of the Board of Directors and in the other documents on the financial position and the annual financial statements sent to the shareholders.

We attest to the fairness and consistency with the annual financial statements of the information relating to payment terms mentioned in Article D. 441-6 of the French Commercial Code.



Corporate governance information

We hereby confirm that the section of the Board of Directors' management report on corporate governance contains the information required by Article L. 225-37-4 of the French Commercial Code.

Other information

In accordance with the law, we have ensured that the various information relating to the acquisition of shareholdings and control and the identity of the holders of share capital or voting rights were communicated to you in the management report.

Responsibilities of management and the people comprising the corporate governance with regard to the annual financial statements

The management team is responsible for preparing annual financial statements that present a true and fair view in accordance with French accounting rules and principles and to implement the internal control that it deems necessary for preparing annual financial statements that do not include material misstatements, whether due to fraud or error.

When preparing the annual financial statements, it is the responsibility of management to assess the company's ability to continue as a going concern, to present in these financial statements, where applicable, the necessary information relating to the going concern and to apply the going concern accounting convention, unless it is planned to liquidate the company or cease operations.

The annual financial statements were approved by the Board of Directors.

Responsibilities of the Statutory Auditors with regard to the audit of the annual financial statements

It is our responsibility to prepare a report on the annual financial statements. Our aim is to obtain the reasonable assurance that the annual financial statements taken as a whole do not include material misstatements. Reasonable assurance corresponds to a high level of assurance, but does not guarantee that an audit conducted in accordance with professional standards will systematically detect all material misstatements. Misstatements may come from fraud or result from errors and are considered as material when we can reasonably expect that they may, taken individually or cumulatively, influence the economic decisions that users of the financial statements may make based on the financial statements.

As stipulated in Article L. 823-10-1 of the French Commercial Code, our certification task for the financial statements does not consist of guaranteeing the viability or quality of your company.

As part of an audit conducted in accordance with the professional standards applicable in France, the Statutory Auditor exercises his/her professional judgment throughout this audit. Moreover:

- he/she identifies and assesses the risks that the annual financial statements include material misstatements, either from fraud or resulting from errors, defines and implements audit procedures to address these risks and collects the elements that he/she considers sufficient and appropriate on which to base his/her opinion. The risk of non-detection of a material misstatement from fraud is higher than for a material misstatement resulting from an error, as fraud may involve collusion, falsification, voluntary omission, false declaration or circumvention of internal control;
- he/she takes note of the relevant internal control for the audit in order to define the appropriate audit procedures and not to express an opinion on the effectiveness of the internal control;
- he/she assesses the appropriate nature of the selected accounting methods and the reasonable nature of the accounting estimates made by management, as well as the information about them provided in the annual financial statements;
- he/she assesses the appropriate nature of management's application of the going concern convention and, depending on the elements collected, whether or not a material uncertainty or circumstances exist that are likely to call into question the company's ability to continue its operations. This assessment is based on the elements collected up to the date of his/her report, it being recalled that subsequent circumstances or events may call into question the going concern. If he/she concludes that a material uncertainty exists, he/she draws the readers' attention to the information provided in the annual financial statements on the subject of this uncertainty or, if this information is not provided or is not relevant, he/she formulates a certification with reserves or refuses the certification;
- he/she assesses the presentation of the annual financial statements as a whole and assesses whether the annual financial statements reflect the underlying operations and events so as to provide a true and fair view.

Lyons, April 12, 2023
The Statutory Auditor
PricewaterhouseCoopers Audit
Gonzague Van Royen



5.3 CONSOLIDATED FINANCIAL STATEMENTS PREPARED UNDER IFRS FOR THE FISCAL YEAR ENDED DECEMBER 31, 2022

5.3.1 CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Consolidated statement of financial position (In thousands of euros)	Notes	12/31/2022	12/31/2021
ASSETS			
Goodwill	5.1	20,583	20,583
Intangible assets	5.1	22,457	23,188
Property, plant and equipment	5.2	24,965	16,466
Rights of use	5.5	6,765	6,989
Equity-accounted securities	3.4	-	-
Financial assets	6	906	388
TOTAL NON-CURRENT ASSETS		75,674	67,614
Trade receivables and related accounts	8	57	16
Other current assets	8	7,670	6,148
Cash and cash equivalents	11	100,557	104,956
TOTAL CURRENT ASSETS		108,284	111,120
TOTAL ASSETS		183,959	178,734

Consolidated statement of financial position (In thousands of euros)	Notes	12/31/2022	12/31/2021
LIABILITIES AND EQUITY			
Share capital		7,870	7,826
Issue and contribution premiums		146,968	146,337
Consolidated reserves		(5,482)	(10,604)
Retained earnings		3,826	(600)
Net income - attributable to shareholders of the parent company		(27,741)	3,780
EQUITY	12	125,441	146,739
Non-current provisions	7 & 22	184	202
Current and non-current borrowings and financial liabilities	14	35,395	11,941
Non-current lease liabilities	5.4	5,142	5,358
Other non-current liabilities	9	546	-
Deferred tax liabilities	20	1,694	1,694
TOTAL NON-CURRENT LIABILITIES		42,961	19,194
Current provisions	7 & 22	-	76
Current borrowings and financial liabilities	14	2,782	1,376
Current lease liabilities	5.4	1,346	1,256
Trade payables and related accounts	9	4,021	5,137
Other current liabilities	9	7,408	4,956
TOTAL CURRENT LIABILITIES		15,557	12,801
TOTAL LIABILITIES AND EQUITY		183,959	178,734



5.3.2 CONSOLIDATED INCOME STATEMENT

Consolidated income statement (In thousands of euros)	Notes	12/31/2022 12 months	12/31/2021 12 months
Income	15	70	105
Research and development expenses	16.1	(12,993)	(7,727)
<i>Research and development expenses</i>	16.1	(19,057)	(11,732)
<i>Subsidies and other operating income</i>	16.1	4,776	3,597
<i>Capitalization of development costs</i>	16.1	1,287	409
Sales and marketing expenses	16.2	(4,373)	(1,976)
General and administrative expenses	16.3	(8,807)	(6,251)
Other operating income and expenses	3.4	2	21,211
OPERATING INCOME/(EXPENSES)		(26,101)	5,363
FINANCIAL INCOME	19	(1,640)	(454)
Share of net income of equity-accounted companies	3.4	-	(1,128)
INCOME/(EXPENSES) BEFORE TAXES		(27,741)	3,780
INCOME TAX	20	-	-
NET INCOME/(LOSS) FOR THE PERIOD		(27,741)	3,780
<i>Basic earnings per share (in euros)</i>	21	(2.47)	0.38
<i>Diluted earnings per share (in euros)</i>	21	(2.47)	0.35

5.3.3 CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Consolidated statement of comprehensive income (In thousands of euros)	12/31/2022 12 months	12/31/2021 12 months
NET INCOME/(LOSS) FOR THE PERIOD	(27,741)	3,780
Actuarial gains or losses	120	(36)
OTHER COMPREHENSIVE INCOME THAT CANNOT BE RECLASSIFIED IN PROFIT OR LOSS	120	(36)
TRANSLATION DIFFERENCES	-	-
OTHER COMPREHENSIVE INCOME THAT CAN BE RECLASSIFIED IN PROFIT OR LOSS	-	-
COMPREHENSIVE INCOME/(LOSS)	(27,621)	3,744



5.3.4 CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Change in consolidated equity (In thousands of euros)	Share capital of Carbios Number of outstan- ding shares	Share capital - ordinary shares	Issue and contri- bution premiums	Consolidated reserves	Retained earnings	Profit or loss for the period	Total equity
AT JANUARY 1, 2021	8,105,297	5,674	59,711	(10,260)	(22,828)	-	32,297
Net income/(loss) for the period						3,780	3,780
Other items of comprehensive income					(36)		(36)
Comprehensive income/(loss)		-	-	-	(36)	3,780	3,743
Capital increase net of transaction costs	3,074,175	2,152	106,891				109,042
Change in treasury shares				(102)			(102)
Share-based payments				1,759			1,759
Other movements			(20,265)	(2,000)	22,265		-
AT DECEMBER 31, 2021	11,179,472	7,826	146,337	(10,604)	(600)	3,780	146,739
Appropriation of income for the past fiscal year					3,780	(3,780)	-
Net income/(loss) for the period						(27,741)	(27,741)
Other items of comprehensive income					120		120
Comprehensive income/(loss)		-	-	-	120	(27,741)	(27,621)
Capital increase net of transaction costs	63,194	44	630				674
Change in treasury shares				7			7
Issue of BSA EIB loan				4,179			4,179
Share-based payments				1,455			1,455
Other movements				(520)	526		6
AT DECEMBER 31, 2022	11,242,666	7,870	146,967	(5,482)	3,827	(27,741)	125,441



5.3.5 CONSOLIDATED CASH FLOW STATEMENT

Consolidated cash flow statement (In thousands of euros)	Notes	12/31/2022 12 months	12/31/2021 12 months
CASH FLOW FROM OPERATING ACTIVITIES			
Net income/(loss) for the period		(27,741)	3,780
(-) Elimination of amortization and depreciation of fixed assets and right-of-use assets	5	5,289	2,763
(-) Gains or losses on asset disposals	5	140	215
(-) Employee provisions and benefits	22	(30)	(181)
(-) Cost of share-based payments	13	1,455	1,759
(-) Financial income	19	1,640	454
(-) Other items with no impact on cash and cash equivalents		-	-
(-) Share of profit (loss) of equity-accounted companies	3.4	-	1,128
(-) Income and expenses related to changes in scope*	3.4	-	(21,202)
Cash flow from operations before cost of net financial debt and taxes		(19,247)	(11,283)
(-) Changes in working capital requirement		(2,574)	2,239
Tax paid			
CASH FLOW FROM OPERATING ACTIVITIES		(21,820)	(9,044)
NET CASH FLOW FROM INVESTMENT ACTIVITIES			
Acquisition of property, plant and equipment and intangible assets	5	(10,426)	(11,796)
Capitalized development costs	5	(1,287)	(409)
Disposal of fixed assets	5	6	188
Acquisition of Carbiolice shares	3.4	(0)	(17,871)
Acquisition of financial assets	6	(604)	(6)
Decrease in financial assets	6	87	-
Change in scope	3.4	-	7,057
Changes in fixed asset liabilities	9	2,897	-
NET CASH FLOW FROM INVESTMENT ACTIVITIES		(9,327)	(22,837)
CASH FLOW FROM FINANCING ACTIVITIES			
Capital increase	12	674	109,038
Treasury shares	12	6	(102)
Issuance of borrowings and financial liabilities	14	30,000	620
Repayments of borrowings and financial liabilities	14	(1,108)	(443)
Payment of lease liabilities	5.5	(1,591)	(1,352)
Net financial interest paid	14	(1,235)	-
CASH FLOW FROM FINANCING ACTIVITIES		26,747	107,761
CHANGE IN CASH POSITION		(4,399)	75,880
Cash and cash equivalents at the beginning of the period	11	104,956	29,077
Cash and cash equivalents at end of period	11	100,557	104,956
CHANGE IN CASH POSITION		(4,399)	75,880

* Elimination of the capital gain related to the change in consolidation for the fiscal year ended 12/31/2021



5.3.6 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(Unless otherwise indicated, the amounts mentioned in this note are in thousands of euros, except for data relating to shares. Certain amounts may be rounded in the calculation of the financial information contained in the consolidated financial statements. As a result, the totals in some tables may not add up exactly to the sum of the previous figures).

NOTE 1 • BUSINESS AND HIGHLIGHTS

Carbios' consolidated financial statements were approved by the Board of Directors on April 5, 2023 and authorized for publication.

1.1 The Company and its business

Carbios ("the Company") is an innovative green chemistry company, developing cutting-edge technologies for the recovery of plastic waste and the production of biopolymers.

The Company was created in April 2011 as a société par actions simplifiée (simplified joint stock company) and became a société anonyme (public limited company) on February 20, 2013. The Company's shares have been listed on the Euronext Growth Paris market since December 19, 2013.

The group formed by Carbios, Carbiolice and Carbios 54 is hereinafter referred to as the "Group."

The first financial statements prepared by the Group in accordance with International Financial Reporting Standards (IFRS) were at 31 December 2021, with a transition date of January 1, 2020.

Registered office address:

*Cataroux site, 8 rue de la Grollière
63100 Clermont-Ferrand, France*

Trade and Companies Register number:

531 530 228 R.C.S. Clermont-Ferrand

1.2 Highlights of the fiscal year

With new patent applications filed during the fiscal year, the intellectual property portfolio of Carbios and Carbiolice at the end of 2022 included 53 patent families (including one under an exclusive worldwide license with the CNRS and University of Poitiers), representing 336 patents filed across the world's key regions and covering the Company's areas of development (biodiversity, enzymatic recycling process, biodegradable plastic production process and bioproduction).

The key events for 2022 were as follows:

- The creation of its subsidiary Carbios 54 with the aim of building and operating its Reference Unit with a view to industrializing its PET biorecycling process. During 2022, the Company committed €3.8 million on behalf of said subsidiary;
- On June 29, 2022, the Company obtained an amount of €30 million (€29.55 million net of fees) after obtaining a loan from the European Investment Bank in 2021;
- During the first half of 2022, the Company continued to invest in its demonstration plant at the Cataroux industrial site in Clermont-Ferrand, and thus made nearly €6.2 million in gross investments (€4.7 million net of lease-back refinancing).
- Carbios joined the WhiteCycle project, coordinated by Michelin, launched in July 2022 for a period of four years and in partnership with 16 entities. Its main objective is to develop a circular solution to transform complex textile-based plastic waste into high value-added products. WhiteCycle has a total budget of nearly €9.6 million, of which €0.8 million from Carbios, and benefits from European funding of nearly €7.1 million, of which approximately €0.6 million for Carbios.
- On July 6, 2022, the Company announced the creation of the Fiber-to-Fiber Consortium with On, Patagonia, PUMA and Salomon, and joined by PVH on February 18, 2023, to advance the circularity of the textile industry; and
- At the end of 2022, the Company validated key stage 4 and thus the complete success of the CE-PET project co-financed by ADEME, and should receive the remainder of the aid (€0.8 million) during the first half of 2023.

1.3 Going concern:

The going concern assumption is used insofar as the financial resources available to the Group enable it to continue its activity over a period of more than 12 months. Nevertheless, the management of the ongoing developments until the final marketing stage (including the complete construction of the Reference Unit) or even the application of the Group's processes to other markets may require new financing to be sought from institutional entities or industrial partners.

1.4 Events after the reporting period

On January 12, 2023, Carbios and Novozymes, the world leader in biological solutions, announced an exclusive long-term partnership. This major agreement guarantees the production and supply of Carbios' proprietary PET-degrading enzymes on an industrial scale for the world's first plant due to be operational in 2025 in Longlaville (France), as well as Carbios' future licensee customers.



NOTE 2 • SEGMENT INFORMATION

Accounting principles

According to IFRS 8, an operating segment is a component of a company:

- that engages in activities likely to generate income and incur expenses;
- for which the operating results are regularly monitored by the main operational decision-maker;
- for which separate financial information is available.

Management considers that the Group's only operating segment is research and development on enzymatic recycling processes and on biodegradation processes, with the ultimate aim of bringing them to an industrial scale and marketing them. The Group benefits from significant R&D synergies, which should continue to increase across all activities following the full consolidation of Carbiolice in the previous fiscal year and the creation of Carbios 54 in 2022. All of the Group's activities and assets are located in France.

NOTE 3 • ACCOUNTING PRINCIPLES AND METHODS

3.1 Principles applied in the preparation of the financial statements

Declaration of compliance

Pursuant to European Regulation 1606/2002 of July 19, 2002, the Group's consolidated financial statements have been prepared in accordance with IFRS as published by the International Accounting Standards Board (IASB) and adopted by the European Union at the date the financial statements were approved by the Board of Directors, which are applicable as of December 31, 2022.

All the texts adopted by the European Union are available on the European Commission website, incorporating international accounting standards (IAS and IFRS) and interpretations of the Interpretation Committees (IFRS Interpretations Committee, or IFRS IC, and Standing Interpretations Committee, or SIC).

The accounting principles and methods set out below have been applied consistently to all periods presented in the consolidated financial statements, after taking into account the new standards and interpretations.

The first financial statements prepared by the Group in accordance with IFRS were at December 31, 2021, with a transition date of January 1, 2020. As a reminder, in accordance with the provisions of IFRS 1 "First-time adoption of International Financial Reporting Standards," the Group retrospectively applied all standards at the transition date with the exception of the following standards:

- In accordance with the IFRS 1 exemption relating to government loans, the Group elected to apply IFRS 9 and IAS 20 prospectively from the transition date to repayable advances and interest-free loans contracted prior to the date of transition.
- With regard to IAS 19 "Employee Benefits," it chose to recognize all cumulative actuarial gains and losses in shareholders' equity at the date of transition to IFRS.
- In accordance with the IFRS 1 exemption relating to share-based compensation plans falling within the scope of IFRS 2, the Group has not restated the BSA and BSPCE plans, which correspond to vested rights at the transition date.
- As part of the accounting for its leases under IFRS 16, the Group has chosen to apply the following exemptions provided for by IFRS 1:
 - Application of the definition of leases under IFRS 16 to existing leases at the transition date, based on the facts and circumstances existing at that date;
 - Valuation using the full retrospective method, which involves an assessment of the lease liability at the transition date as if IFRS 16 had always been applied. This has an impact on the Group's consolidated reserves;
 - No restatement of contracts with a residual term of less than 12 months at the transition date;
 - No restatement of leases of low-value assets (less than €5,000);
 - Use of the knowledge acquired a posteriori to determine the term of a lease that contains extension or termination options.

Principles applied in the preparation of the financial statements

The Group's consolidated financial statements have been prepared in accordance with the historical cost principle, with the exception of items measured at fair value, as mentioned in the notes to the financial statements.



Changes in accounting basis

The following main new standards, amendments to standards and interpretations have been published by the International Accounting Standards Board (IASB) and adopted by the European Union at the date of preparation of the financial statements. They are mandatory for the 2022 fiscal year.

The European Union has adopted the following texts, which are mandatory for the Group for its fiscal year beginning on January 1, 2022 and with no significant impact on the Group's consolidated financial statements:

- Amendments to IFRS 3 - Reference to the conceptual framework

These amendments are of prospective application and mandatory for fiscal years beginning on or after January 1, 2022. They update a reference to the conceptual framework without changing the accounting provisions for business combinations.

- Amendments to IAS 16 - Property, plant and equipment - proceeds before intended use

These amendments are applicable retrospectively from January 1, 2022. They remove the exception to the general principle provided for in paragraph IAS 16.17e, which prohibits the entity from deducting from the cost of an item of property, plant and equipment the net income generated during the functional tests of the asset.

- Amendments to IAS 37 - Onerous contracts - costs of fulfilling a contract
- Amendment related to the 2018-2020 IFRS improvement cycle and in particular:
 - amendment to IFRS 16 dealing with lease incentives,
 - amendment to IFRS 9 dealing with fees and commissions to be included in the 10% test when derecognizing a financial liability,
 - amendment to IFRS 3 referring to the conceptual framework.

These amendments are applicable retrospectively from January 1, 2022. They specify the costs that a company must include to determine whether a contract is onerous.

The main IFRIC decisions published in 2022 concern:

- IAS 38 "Software configuration or customization costs in SaaS mode (cloud computing)";
- IAS 7 "Classification of demand deposits subject to contractual restrictions"
- IAS 37 - Negative credits related to low-emission vehicles
- IFRS 9 and IFRS 16 - Accounting for rent waivers in an operating lease by lessors

The amendments and interpretations listed above did not have an impact on the amounts recognized in previous periods and are not expected to have a significant impact on current or future periods.

New standards, interpretations and amendments to existing standards applicable to accounting periods beginning on or after January 1, 2023 or later have not been adopted in advance by our Group at December 31, 2022. They concern:

- Amendment to IAS 8 - Definition of an accounting estimate
- Amendment to IAS 1 - Description of accounting methods
- Amendments to IAS 1 - Classification of liabilities as current and non-current liabilities
- Amendments to IAS 12 - Deferred tax related to assets and liabilities arising from a single transaction.
- IFRS 17 "Insurance Contracts";

These interpretations and amendments are not expected to have a material impact on the Group's consolidated financial statements.

3.2 Use of estimates and judgments

As part of the preparation of the financial statements in accordance with IFRS, the Group has made judgments and estimates that could affect the amounts presented for assets and liabilities at the date of preparation of the financial statements, and the amounts presented in respect of income and expenses for the period.

These estimates are made by the Group's management on the basis of the going concern assumption based on the information available at the time these judgments and estimates were made. These estimates are evaluated on an ongoing basis and are based on past experience and various other factors considered reasonable that form the basis for assessing the carrying amount of assets and liabilities. Estimates may be revised if the circumstances on which they are based change or as new information becomes available. Actual results may differ materially from these estimates if assumptions or conditions change.

Significant estimates or judgments made by the Group relate in particular to the following items:

- Note 13 "Share-based payments" - IFRS 2 - valuation of share subscription warrants and founders' warrants granted to employees, executives and members of the Board of Directors.
- Note 5.1 "Capitalization of development costs" - IAS 38 - application of capitalization criteria.
- Note 5.5 "Right of use of lease purchases and leases" - IFRS 16 - discount rate.
- Note 14 "Treatment of repayable advances and interest-free loans" - IFRS 9 - discount rate and loan terms.
- Note 5.4 "Impairment tests" - IAS 36 - procedures for performing impairment tests on assets.
- Note 20 "Deferred Taxes" - IAS 12 - procedures for recognizing deferred tax assets.



3.3 Consolidation scope and methods

Accounting principle

According to IFRS 10, subsidiaries are all entities over which the Group has exclusive control. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement in the entity and has the ability to affect those returns through its power over the entity.

Subsidiaries are consolidated using the full consolidation method from the date on which the Group acquires control. They are deconsolidated from the date on which control ceases to be exercised.

According to IAS 28, the Company's interests in a joint venture are accounted for using the equity method. They are initially recognized at cost, which includes transaction costs. After initial recognition, the Company's financial statements include the Company's share in the income and other comprehensive income of the equity-accounted investee until the date on which the joint control ends. Gains arising from transactions with equity-method associates are eliminated by the counterparty of equity-accounted securities to the extent of the Company's interests in the company. Losses are eliminated in the same way as gains, but only to the extent that they do not represent an impairment loss.

As of its creation in June 2022, Carbios 54, wholly owned by Carbios, entered the scope of consolidation. The Carbios Group has also held 100% of Carbiolice since June 3, 2021.

On June 3, 2021, Carbios acquired the entire stake in Carbiolice of the Bpifrance SPI fund. The latter represented 37.29% of the share capital of Carbiolice, i.e., 11 million shares. This transaction increased Carbios' stake in Carbiolice from 62.71% to 100% and enabled Carbios to take control of Carbiolice. As this transaction led to the takeover of Carbiolice by the Company, it was determined that the transaction falls within the scope of IFRS 3 - Business Combinations. Prior to this last transaction, Carbios was not in a position of control over Carbiolice for governance reasons, in particular related to restrictions on decisions on strategic activities under the Shareholders' Agreement. As such, Carbios' stake in Carbiolice is accounted for using the equity method until the effective takeover on June 3, 2021.

Consequently, the scope of consolidation is as follows:

	12/31/2022		12/31/2021	
	Percentage holding	Consolidation method	Percentage holding	Consolidation method
Carbios		Parent company (from a legal point of view)		
Carbiolice	100.00%	Full consolidation ⁽¹⁾	100.00%	Full consolidation ⁽¹⁾
Carbios 54	100.00%	Full consolidation ⁽²⁾		

⁽¹⁾ From the takeover on June 3, 2021 - previously accounted for using the equity method.

⁽²⁾ S.A.S.U. created in the RCS Val de Briey and integrated into the scope from 06/08/2022



3.4 Information relating to the takeover of Carbiolice in 2021

Acquisition price

Acquisition price (in thousands of euros)	06/04/2021
Acquisition price paid (37.29% share)	17,871
Fair value of non-controlling interests (62.71%) ⁽¹⁾	30,039
Loss related to unfavorable portion of pre-existing contracts ⁽²⁾	(1,693)
Acquisition price (100%)	46,217

The acquisition price used for the purchase price allocation exercise thus amounts to €46,217 thousand. This amount includes:

(1) the revaluation of the stake of the 62.71% previously held

(2) the loss relating to the unfavorable portion of pre-existing contracts (see note below on reacquired rights).

3.5 Carbiolice purchase price allocation

Masterbatch Technology:

As part of its development strategy, the Company acquired on June 3, 2021 the remaining 37.29% of the share capital of Carbiolice from the SPI fund, whose management company is Bpifrance Investissement.

Since the creation of Carbiolice in 2016, the close collaboration between the Company and the SPI fund has enabled the development of the Evanesto technology, an innovation aimed at plastics and PLA packaging applications which, by their nature, cannot be recycled. Evanesto® is an enzymatic additive that makes plant-based plastics compostable. Plastics containing Evanesto® are assimilated to biowaste, composted and transformed into compost in less than 200 days.

This solution makes it possible to combat the accumulation of plastic waste in the environment and becomes an effective lever for the deployment of an efficient solution for sorting biowaste at source.

Technology license - Rights reacquired

According to IFRS 3, as part of a business combination, an acquiring company may record a right that it previously granted to the acquired company. The exclusive license agreement on French territory between Carbios and Carbiolice constitutes a pre-existing relationship giving the right to the recognition of an asset with reacquired rights.

This technology, which, in 2016, was the subject of an exclusive license in France from Carbiolice, is used in the form of an enzymatic additive called Evanesto®. This is easily integrated into conventional plastic and packaging manufacturing processes.

The value that represents the off-market portion of the contract corresponds to the unfavorable or favorable part of the contract for the purchaser. In the event that the terms represent a favorable or unfavorable situation for the buyer, the latter must recognize a profit or loss in respect of the contract. Such recognition leads to the recognition of an upward or downward adjustment of the acquisition price to be considered as part of the purchase price allocation exercise. In view of the terms of the contract, it appears that the latter is unfavorable for the Company. The value of the unfavorable portion of the license agreement amounts to €1,693 thousand (see below - Impacts of the change in scope).

**Statement of financial position at the acquisition date and description of the assets Identified by the purchase price allocation (PPA - Purchase Price Allocation) exercise**

The net assets acquired from Carbiolice are detailed below:

Purchase price allocation (in thousands of euros)	06/04/2021
Intangible assets	22,505
<i>Masterbatch technology</i>	9,813
<i>Technology license (rights reacquired)</i>	12,503
<i>Other intangible assets</i>	189
Property, plant and equipment	1,294
Financial assets	17
Total non-current assets	23,817
Trade receivables & other current assets	727
Cash and cash equivalents	7,057
Total current assets	7,784
TOTAL ASSETS	31,601
Non-current provisions	53
Current and non-current borrowings and financial liabilities	3,806
Deferred tax liabilities	1,694
Total non-current liabilities	5,554
Trade payables	321
Other current liabilities	92
Total current liabilities	413
TOTAL LIABILITIES	5,967
NET ASSETS ACQUIRED	25,634
GOODWILL	20,583
ACQUISITION COST	46,217

The 12-month period during which the amounts allocated to the identifiable assets and liabilities acquired and to goodwill are subject to change will end on June 3, 2022, with no changes.

3.6 Impacts of the change in scope on the consolidated income statement for the 2021 fiscal year - non-comparability of the financial statements

In accordance with IFRS 3, the treatment of a step-by-step acquisition was applied and the change in consolidation method for Carbiolice was treated as follows: disposal of equity-accounted securities and recognition of a capital gain on disposal of these shares measured at fair value. This capital gain amounted to €22,895 thousand, offset by the loss relating to the value of the unfavorable portion of the license agreement of €1,693 thousand (see above - purchase price allocation). The share of other operating income and expenses related to the change in scope during the fiscal year amounted to €21,211 thousand.

In addition, the share of income for the period accounted for using the equity method in Carbios' income, corresponding to the period from 01/01/2021 to 06/03/2021, amounted to a loss of €1,128 thousand.



3.7 Presentation currency

The Group's financial statements are prepared in euros (EUR).

3.8 Assessment of the effects of climate change

In view of:

- the nature of the Group's activities and its geographical presence in France;
- the commitments made by the Group in the environmental field, in particular with regard to its process for depolymerizing plastic waste into PET through its enzymatic recycling process.

The Group has not identified any significant effects for the 2022 fiscal year.

In particular:

- its commitments are not material as of December 31, 2022, and no liability is recognized in this respect in the consolidated statement of financial position;
- no provision for environmental risks and charges is included in the consolidated statement of financial position at December 31, 2022;
- in 2022, the Group did not identify any significant effects of the commitments made in this area on the value of its tangible assets. In particular, its production facilities under development take into consideration the Group's environmental commitments from the design stage.

NOTE 4 • RISK MANAGEMENT

Carbios may be exposed to different types of financial risk: market risk, credit risk and liquidity risk. Where applicable, the Group uses simple measures proportionate to its size to minimize the potentially adverse effects of these risks on financial performance.

Carbios' policy is not to subscribe to financial instruments for speculative purposes.

Market risk

Interest rate risk

The Group has no significant exposure to interest rate risk, as no floating-rate debt has been subscribed.

Credit risk

Credit risk is the risk of financial loss for the Group in the event that a customer or counterparty to a financial instrument fails to meet its contractual obligations. The carrying amounts of financial assets represent the maximum exposure to credit risk.

Cash and cash equivalents

The Group's cash and cash equivalents are held with banking counterparties and leading financial institutions. The Group considers that its cash and cash equivalents present a very low credit risk in view of the external credit ratings of its counterparties.

Trade receivables and contract assets

The Group is limited in its exposure to credit risk related to trade receivables. At December 31, 2022, no impairment of receivables had been written off or impaired with actual losses (credit-impaired).

Liquidity risk

Liquidity risk is the risk to which the Group is exposed when it experiences difficulties in meeting its obligations relating to financial liabilities that will be settled by remitting cash or other financial assets. The Group's objective in managing liquidity risk is to ensure, to the extent possible, that it will have sufficient liquidity to honor its liabilities when they fall due under normal or "stressed" conditions, without incurring unacceptable losses or damaging the Group's reputation.

The residual contractual maturities of financial liabilities at the closing date are detailed in Notes 9 and 14. The amounts expressed in gross data and not discounted, include contractual interest payments.

NOTE 5 • PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

5.1 Intangible assets

Accounting principles

Research and development expenses

Research costs are expensed as incurred. Costs incurred on development projects are recognized as intangible assets when the following criteria are met:

- it is technically possible to complete the intangible asset so that it is available for use or sale;
- management plans to complete, use or sell the intangible asset;
- there is a possibility of using or selling the intangible asset;
- it can be demonstrated that the intangible asset will generate probable future economic benefits;
- adequate technical, financial and other resources necessary to complete the development, use or sale of the intangible asset are available; and



- the expenses attributable to the intangible asset during its development can be measured reliably.

Otherwise, the costs are expensed as incurred. After initial recognition, development expenses are recognized at cost less accumulated depreciation and impairment losses.

The Group's capitalized development costs relate to the PET technology. The development costs incurred for the PET technology are capitalized from September 30, 2021, the date of commissioning of the Carbios demonstration plant, thus making it possible to cumulatively achieve the six activation criteria mentioned above.

Patents & software

In accordance with IAS 38 criteria, costs related to the acquisition of software patents and licenses are recognized as assets on the basis of the costs incurred to acquire and use the software in question.

The expenses for filing patents or industrial property rights acquired during the fiscal year have been capitalized and are amortized from the beginning of their utilization and over the duration of use of the patents. Additional costs and subsequent extensions on capitalized patents are amortized over the remaining term for the application to which they relate.

Goodwill

In the event of an acquisition, the assets and liabilities assumed from the subsidiary are recognized at their fair value, and the goodwill or residual difference represents the difference between the acquisition cost of the securities and the Group's share in the measurement of the fair value of the assets and liabilities identified. The standard provides for a period of twelve months after the acquisition date to identify the assets and liabilities assumed from the acquiree that are not recognized at the time of the initial recognition of the business combination and to retroactively modify the values initially allocated. The measurement of the purchase price ("consideration transferred" in IFRS 3R terminology), including, where applicable, the estimated fair value of the earn-out payments and conditional compensation ("contingent consideration" in IFRS 3R terminology), must be finalized within twelve months of the acquisition. In accordance with IFRS 3R, any adjustments to the purchase price beyond the twelve-month period are recognized in the income statement. Direct costs related to the acquisition are recognized as expenses for the period.

The goodwill recognized is the result of the takeover of Carbiolice by the Company in June 2021.

Masterbatch technology

Since the creation of Carbiolice in 2016, the work done has enabled the industrial development of a unique solution: the creation of a new generation of PLA-based plastics that are 100% compostable under universal conditions (industrial, domestic composting or methanization). This innovation solves one of the main problems posed by the end-of-life of plastics: the pollution of our environment. This process developed by Carbiolice consists of introducing enzymes into plastic materials to make them 100% biodegradable.

In accordance with the recommendations of IFRS 3, this asset is an integral part of the net assets acquired from Carbiolice by the Company when it took control in June 2021, and must be valued using the royalty and reconstitution costs method.

Technology license

According to IFRS 3, as part of a business combination, an acquiring company may record a right that it previously granted to the acquired company. The exclusive license agreement on French territory between Carbios and Carbiolice constitutes a pre-existing relationship giving the right to the recognition of an asset with reacquired rights.

In accordance with the recommendations of IFRS 3, this asset held by Carbiolice, and an integral part of the net assets acquired from Carbiolice by the Company when it took control in June 2021, must be valued based on the expected cash flows for the holder of the assets of this contract over the remaining term of the contract, without taking into account the possibility of renewal of the contract.

Depreciation and amortization expense

Depreciation and amortization is calculated on a straight-line basis over the estimated useful lives of the assets. The estimated useful lives for the current period and the comparative period are as follows:

The depreciation and amortization methods, durations of use and residual values are reviewed at each closing date and adjusted, if necessary.

The technology license and the Masterbatch technology are amortized from June 4, 2021, the date of the takeover of Carbiolice, and the recognition of these assets following the purchase price allocation exercise. They are amortized over the remaining life of the patents underlying these technologies.

Development costs relating to the PET technology were not amortized in the 2022 fiscal year. They will be amortized as soon as they are ready for use.

Depreciation and amortization is calculated on a straight-line basis over the estimated useful lives of the assets. The estimated useful lives for the current period and the comparative period are as follows:

Items	Depr./amort. period
Software, website	1 year - straight-line
Patents	10 years - straight-line
Technology license - rights reacquired	13 years - straight-line
Masterbatch technology	13 years - straight-line

The depreciation and amortization methods, durations of use and residual values are reviewed at each closing date and adjusted, if necessary.

Subsequent impairment tests

The goodwill is not amortized but is subject to an impairment test as soon as there is an indication of impairment and at least once a year in accordance with the procedures described in Note 5.4.



Intangible assets break down as follows:

Intangible assets (In thousands of euros)	12/31/2021	Change in scope	Increase	Decrease	Reclassifica- tion	12/31/2022
Goodwill	20,583	-	-	-	-	20,583
PET technology - assets under construction	409	-	571	-	-	980
Masterbatch technology	9,813	-	-	-	-	9,813
Concessions, patents and similar rights	2,330	-	794	(107)	6	3,023
Technology license (rights reacquired)	12,503	-	-	-	-	12,503
Software	68	-	-	(2)	-	66
Other intangible assets in progress	4	-	-	-	(5)	(0)
Advances and advance payments on intangible assets	1	-	4	-	(1)	3
TOTAL GROSS VALUES	45,712	-	1,369	(109)	-	46,972
Goodwill	-	-	-	-	-	-
PET technology - assets under construction	-	-	-	-	-	-
Masterbatch technology	(426)	-	(1,061)	-	-	(1,487)
Concessions, patents and similar rights	(913)	-	(350)	48	-	(1,215)
Technology license (rights reacquired)	(543)	-	(624)	-	-	(1,167)
Software	(58)	-	(7)	2	-	(63)
Other intangible assets in progress	-	-	-	-	-	-
Advances and advance payments on intangible assets	-	-	-	-	-	-
TOTAL DEPRECIATION AND AMORTIZATION	(1,941)	-	(2,042)	50	-	(3,932)
Goodwill	20,583	-	-	-	-	20,583
PET technology - assets under construction	409	-	571	-	-	980
Masterbatch technology	9,387	-	(1,061)	-	-	8,326
Concessions, patents and similar rights	1,416	-	445	(59)	6	1,808
Technology license (rights reacquired)	11,960	-	(624)	-	-	11,336
Software	10	-	(7)	-	-	3
Other intangible assets in progress	4	-	-	-	(5)	(0)
Advances and advance payments on intangible assets	1	-	4	(168)	(1)	3
TOTAL NET VALUES	43,771	-	(673)	(59)	-	43,040

For fiscal year 2022, the increase in intangible assets is mainly due to the Company's continued patent filing policy and the capitalization of the Company's industrial demonstration plant development costs for the PET project.



Intangible assets (In thousands of euros)	12/31/2020	Change in scope	Increase	Decrease	Reclassifica- tion	12/31/2021
Goodwill	-	20,583	-	-	-	20,583
PET technology - assets under construction	-	-	409	-	-	409
Masterbatch technology	-	9,813	-	-	-	9,813
Concessions, patents and similar rights	1,685	-	618	-	27	2,330
Technology license (rights reacquired)	-	12,503	-	-	-	12,503
Software	-	68	-	-	-	68
Other intangible assets in progress	27	-	4	-	(27)	4
Advances and advance payments on intangible assets	-	168	1	(168)	-	1
TOTAL GROSS VALUES	1,712	43,136	1,031	(168)	-	45,712
Goodwill	-	-	-	-	-	-
PET technology - assets under construction	-	-	-	-	-	-
Masterbatch technology	-	-	(426)	-	-	(426)
Concessions, patents and similar rights	(626)	-	(287)	-	-	(913)
Technology license (rights reacquired)	-	-	(543)	-	-	(543)
Software	-	(47)	(11)	-	-	(58)
Other intangible assets in progress	-	-	-	-	-	-
Advances and advance payments on intangible assets	-	-	-	-	-	-
TOTAL DEPRECIATION AND AMORTIZATION	(626)	(47)	(1,268)	-	-	(1,941)
Goodwill	-	20,583	-	-	-	20,583
PET technology - assets under construction	-	-	409	-	-	409
Masterbatch technology	-	9,813	(426)	-	-	9,387
Concessions, patents and similar rights	1,059	-	330	-	27	1,416
Technology license (rights reacquired)	-	12,503	(543)	-	-	11,960
Software	-	21	(11)	-	-	10
Other intangible assets in progress	27	-	4	-	(27)	4
Advances and advance payments on intangible assets	-	168	1	(168)	-	1
TOTAL NET VALUES	1,086	43,089	(236)	(168)	-	43,771

For the 2021 fiscal year, the increase in intangible assets is mainly due to the integration of Carbiolice's assets as part of its entry into the scope of consolidation. These include goodwill (€20,583 thousand), the Masterbatch technology (€9,813 thousand) and the technology license (€12,503 thousand).

5.2 Property, plant and equipment

Accounting principles

Property, plant and equipment are measured at acquisition cost less accumulated depreciation and accumulated impairment losses. The gain or loss on disposal of property, plant and equipment is recognized in net income. Depreciation is calculated on a straight-line basis over the estimated useful life. The estimated useful lives for the current period and the comparative period are as follows:

Items	Depr./amort. period
Fixtures and fittings	7 to 10 years - straight-line
Laboratory fittings and equipment	5 to 10 years - straight-line
Office and IT hardware	3 to 5 years - straight-line
Furniture	3 to 7 years - straight-line

Depreciation methods, useful lives and residual values are reviewed at each closing date and adjusted, if necessary.



Property, plant and equipment can be broken down as follows:

Property, plant and equipment (In thousands of euros)	12/31/2021	Change in scope	Increase	Decrease	Reclassifica- tion	12/31/2022
Buildings	82	-	-	-	-	82
Technical installations, equipment and tooling	4,094	-	109	-	62	4,265
Transport equipment	7	-	-	-	-	7
Office equipment	621	-	279	-	-	900
Other property, plant and equipment	10,467	-	5,296	(244)	1,932	17,451
Assets under construction	6,033	-	2,564	-	(1,954)	6,642
Carbios 54 - assets under construction	-	-	2,095	-	-	2,095
Advances and advance payments on property, plant and equipment	40	-	-	-	(40)	-
GROSS VALUES	21,344	-	10,344	(244)	-	31,442
Buildings	(76)	-	(4)	-	-	(80)
Technical installations, equipment and tooling	(2,938)	-	(198)	-	-	(3,136)
Transport equipment	(13)	-	(1)	-	9	(5)
Office equipment	(429)	-	(113)	-	3	(539)
Other property, plant and equipment	(1,422)	-	(1,441)	156	(13)	(2,719)
Assets under construction	-	-	-	-	-	-
Carbios 54 - assets under construction	-	-	-	-	-	-
Advances and advance payments on property, plant and equipment	-	-	-	-	-	-
TOTAL DEPRECIATION AND AMORTIZATION	(4,878)	-	(1,757)	156	-	(6,479)
Buildings	6	-	(4)	-	-	2
Technical installations, equipment and tooling	1,156	-	(89)	-	62	1,130
Transport equipment	(6)	-	(1)	-	9	2
Office equipment	192	-	166	-	3	361
Other property, plant and equipment	9,045	-	3,856	(88)	(1,919)	14,732
Assets under construction	6,033	-	2,564	-	(1,954)	6,642
Carbios 54 - assets under construction	-	-	2,095	-	-	2,095
Advances and advance payments on property, plant and equipment	40	-	-	-	(40)	-
TOTAL NET VALUES	16,466	-	8,587	(88)	-	24,964

For the 2022 fiscal year, the Group made investments in fixed assets, which are mainly attributable to its demonstration plant on the Cataroux industrial site in Clermont-Ferrand. The Group has also begun construction of its first PET biorecycling plant through Carbios 54.



Property, plant and equipment (In thousands of euros)	12/31/2020	Change in scope	Increase	Decrease	Reclassifica- tion	12/31/2021
Buildings	-	82	-	-	-	82
Technical installations, equipment and tooling	-	3,975	119	-	-	4,094
Transport equipment	7	-	-	-	-	7
Office equipment	355	171	95	-	-	621
Other property, plant and equipment	2,041	143	2,226	(1)	6,057	10,467
Assets under construction	3,369	3	8,718	-	(6,057)	6,033
Advances and advance payments on property, plant and equipment	188	11	40	(199)	-	40
GROSS VALUES	5,961	4,384	11,198	(199)	-	21,344
Buildings	-	(72)	(4)	-	-	(76)
Technical installations, equipment and tooling	-	(2,820)	(118)	-	-	(2,938)
Transport equipment	(1)	-	(12)	-	-	(13)
Office equipment	(209)	(139)	(81)	-	-	(429)
Other property, plant and equipment	(958)	(59)	(405)	-	-	(1,422)
Assets under construction	-	-	-	-	-	-
Advances and advance payments on property, plant and equipment	-	-	-	-	-	-
TOTAL DEPRECIATION AND AMORTIZATION	(1,169)	(3,090)	(620)	-	-	(4,878)
Buildings	-	10	(4)	-	-	6
Technical installations, equipment and tooling	-	1,155	1	-	-	1,156
Transport equipment	6	-	(12)	-	-	(6)
Office equipment	146	32	14	-	-	192
Other property, plant and equipment	1,083	84	1,822	(1)	6,057	9,045
Assets under construction	3,369	3	8,718	-	(6,057)	6,033
Advances and advance payments on property, plant and equipment	188	11	40	(199)	-	40
TOTAL NET VALUES	4,793	1,294	10,578	(199)	-	16,466

For the 2021 fiscal year, investments continued with the aim of setting up and finalizing the Company's industrial demonstration plant. This demonstration plant, recognized under "Assets under construction" for the 2020 fiscal year, was commissioned on September 30, 2021.

In addition, the increase in property, plant and equipment is also due to the reversal of Carbiolice's assets as part of its entry into the scope of consolidation.



5.3 Assets under construction

Accounting principles

The "Assets under construction" item consists of the costs relating to certain equipment of the Company's Industrial Demonstration plant. This equipment will be reclassified to a property, plant and equipment account upon receipt of full invoices and the effective commissioning of the items.

5.4 Impairment test

Accounting principles

Goodwill

The goodwill was recognized in respect of the 2021 fiscal year as part of the takeover of Carbiolice and the purchase price allocation exercise. The 12-month period during which the amounts allocated to the identifiable assets and liabilities acquired and to goodwill are subject to change will end on June 3, 2022, with no changes.

At the end of the fiscal year, an impairment test was carried out based on the following main assumptions:

- The business plan is projected over an 8-year horizon, to which must be added an additional so-called "normative" year (compared to 10 years previously, which makes it possible to limit the level of risk) and takes into account the achievement of Food Contact approval in the United States.
- A terminal value calculated on a normal cash flow basis using an EBITDA margin rate of 25.8%, similar to the rate of comparable mature companies.
- Discount rate (WACC) used of 13.5% (compared to 18.5% last year), consisting of: (i) a WACC excluding the additional forecast risk premium, and (ii) an additional forecast risk premium, given the uncertainty of certain assumptions in the plan. This rate of 13.5% is corroborated by academic studies on high-growth companies in the marketing launch phase. The decrease in this rate is due to the more cautious modeling of future economic data. The previous version of the BP was more ambitious, and therefore more risky, hence the use of an additional risk premium integrated into the discount rate.
- Tax rate: draft 2022 Finance Law, i.e., 25.8%.

The impairment tests performed at the end of fiscal year 2022 did not show any unrealized loss on goodwill.

In addition, sensitivity tests were carried out on certain key assumptions. A 2-point increase in the discount rate combined with a decrease in the terminal value of the EBITDA margin to 20% had no impact on the result of the impairment test.

Other depreciable assets

Pursuant to IAS 36 - Impairment of assets, depreciated assets are tested for impairment when, due to special events or circumstances, the recoverability of their carrying amounts is uncertain. An impairment loss is recognized to the extent of the excess of the carrying amount over the recoverable amount of the asset. The recoverable amount of an asset is the higher of its fair value less disposal costs and its value in use. For non-financial assets that have suffered an impairment loss, the possible reversal of the impairment is reviewed at each annual or interim closing date.

At December 31, 2022, the valuation of amortizable intangible assets resulting from the purchase of Carbiolice was reviewed as part of the purchase price allocation exercise. No indication of impairment was identified.

5.5 Rights of use

Accounting principles

In accordance with IFRS 16, upon signing a contract, the Group determines whether it constitutes, or contains, a lease.

The contract is, or contains, a lease if it confers the right to control the use of an identified asset for a period in exchange for consideration. To assess whether a contract gives the right to control an identified asset throughout the useful life of the asset, the Group assesses whether: i) the contract involves the use of an identified asset, ii) the Group has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period of use, and iii) the Group has the right to decide on the use of the asset.

The Group recognizes a lease asset and a lease liability on the date the leased asset is made available. The asset is initially measured at cost, i.e., the initial amount of the lease liability plus any lease payments already made at the start date of the contract, any initial direct costs incurred and an estimate of the costs of dismantling and removing the underlying asset or of restoring it or the site where it is located, less any lease incentive that may be received.

The asset is then amortized on a straight-line basis from the beginning to the end of the lease, unless the lease provides for a transfer to the Group of the ownership of the underlying asset at the end of the lease or if the cost of the asset takes into account the fact that the Group will exercise a purchase option. In this case, the asset will be amortized over the useful life of the underlying asset, determined on the same basis as that of the property, plant and equipment.

In addition, the value of the asset will be regularly revised downwards in the event of losses due to impairment and will be subject to adjustments for certain revaluations of the lease liability.

The lease liability is initially measured at the present value of the lease payments not yet paid at the start date of the contract. The discount rate used corresponds to the interest rate implicit in the contract or, if it cannot be easily determined, the Group's incremental borrowing rate.

The lease payments included in the measurement of the lease liability include the following items:

- fixed rents, including fixed rents in substance;
- variable rents indexed to an index or rate, initially measured on the basis of the index or rate in question at the start date of the contract;
- amounts payable under the residual value guarantee; and
- the exercise price of a purchase option that the Group is reasonably certain to exercise, the rents paid during the renewal period if the Group is reasonably certain to exercise an extension option and termination penalties for early termination of the lease, unless the Group is reasonably certain not to terminate the lease early;
- net of incentives granted by the lessor.

The lease liability is measured at amortized cost using the effective interest rate method. It is revalued in the event of a change in future rents due to a change in index or rate, in the event of a revaluation by the Group of the amount expected under the residual value guarantee, if the Group reviews its probability of exercising an option to purchase, extend or terminate, or in the event of a revision of a fixed rent in substance.

When the lease liability is revalued, an adjustment is made to the carrying amount of the right-of-use asset or is recognized in profit or loss, if the amount of the right-of-use asset has been reduced to zero.



Lastly, the Group has chosen not to recognize right-of-use assets and lease liabilities for short-term contracts with a lease term of 12 months or less, as well as leases of low-value assets (less than €5,000). These rents are, therefore, recognized as expenses. They represented €72 thousand for the 2022 fiscal year and €131 thousand in 2021.

In the event of renegotiation of a lease (amount of rent and/or term) that goes beyond the initial provisions of the contract, the contract amendments generally lead the lessee to recalculate the lease liability using a revised discount in exchange for a change in the right of use.

In the course of its business, the Group leases premises, vehicles and miscellaneous equipment.

With regard to real estate leases, a 9-year lease term has been used for the 3/6/9 commercial leases, taking into account the reasonably certain nature of the exercise of the realization and renewal options.

Vehicle leases have fixed rents and terms of approximately 3 years. In cases where the contracts provide for a purchase option, it has been assumed that the Group would not exercise them.

Leases relate to equipment used in R&D activities. In the accounts at December 31, 2021, the main contract includes various equipment related to its pilot plant, and was signed in December 2019 for a period of 5 years. In fiscal year 2022, a contract for equipment attached to the demonstration plant at the Cataroux industrial site was signed. At December 31, 2022, the financing covered €1.5 million of equipment amortized over a period of 10 years, and which should eventually be supplemented by an additional €4.3 million.

The lease and lease purchase terms used correspond to the terms of the various contracts, ranging from 3 to 9 years.

Short-term exempt contracts are mainly temporary premises. Contracts exempted for low value mainly correspond to IT equipment.

Rights of use break down as follows:

Changes in right-of-use assets (In thousands of euros)	Premises	Technical installations, equipment & tooling	Vehicles	Total
AT JANUARY 1, 2021	851	332	218	1,402
Change in scope	283	628	47	-
(-) Depreciation expense for the fiscal year	(486)	(255)	(121)	(862)
(+) Reversal of depreciation for the fiscal year	-	-	14	14
(+) Additions to right-of-use assets	5,152	239	128	5,518
(-) Disposals of right-of-use assets	-	-	(41)	(41)
AT DECEMBER 31, 2021	5,800	944	245	6,989
Change in scope	-	-	-	-
(-) Depreciation expense for the fiscal year	(778)	(566)	(151)	(1,495)
(+) Reversal of depreciation for the fiscal year	-	-	-	-
(+) Additions to right-of-use assets	177	1,583	246	2,007
(-) Disposals of right-of-use assets	(693)	-	(43)	(736)
AT DECEMBER 31, 2022	4,506	1,962	297	6,765

The corresponding liability breaks down as follows:

Change in lease liabilities (In thousands of euros)	Current portion of lease liabilities	Non-current portion of lease liabilities	Total lease liabilities
AT JANUARY 1, 2021	360	1,097	1,457
Change in scope	326	658	984
Non-monetary changes - New contracts	1,409	4,116	5,525
Non-monetary changes - Reclassifications and other impacts	514	(514)	-
Repayments lease liabilities	(1,353)	-	(1,353)
AT DECEMBER 31, 2021	1,256	5,358	6,613
Change in scope	-	-	-
Non-monetary changes - New contracts	371	1,141	1,512
Non-monetary changes - Reclassifications and other impacts	1,098	(1,355)	(257)
Repayments lease liabilities	(1,379)	-	(1,379)
AT DECEMBER 31, 2022	1,346	5,142	6,489



NOTE 6 • NON-CURRENT FINANCIAL ASSETS

Financial assets break down as follows:

Financial assets (In thousands of euros)	12/31/2021	Change in scope	Increase	Decrease	Reclassification	12/31/2022
Financial assets	388	-	604	(87)	-	905
TOTAL GROSS VALUES	388	-	604	(87)	-	905
Financial assets	-	-	-	-	-	-
TOTAL DEPRECIATION AND AMORTIZATION	-	-	-	-	-	-
Financial assets	388	-	604	(87)	-	905
TOTAL NET VALUES	388	-	604	(87)	-	905

Financial assets (In thousands of euros)	12/31/2020	Change in scope	Increase	Decrease	Reclassification	12/31/2021
Financial assets	371	17	-	(1)	-	388
TOTAL GROSS VALUES	371	17	-	(1)	-	388
Financial assets	-	-	-	-	-	-
TOTAL DEPRECIATION AND AMORTIZATION	-	-	-	-	-	-
Financial assets	371	17	-	(1)	-	388
TOTAL NET VALUES	371	17	-	(1)	-	388

The Group's financial assets consist of:

- loans and receivables initially recognized at acquisition cost, then measured at amortized cost using the effective interest method;
- guarantee deposits and the liquidity contract.

Financial assets with a maturity of more than one year are classified as "non-current financial assets."

The classification and fair value of financial instruments is described in Note 10.

Liquidity contract

As part of the transactions relating to the liquidity contract that the Company has entered into with an independent financial intermediary, the cash paid to the financial intermediary and not yet used is recognized in the "Liquidity contract" account. It represented €87 thousand at December 31, 2021 and €563 thousand at December 31, 2022. On October 11, 2022, the Company increased the resources allocated to the implementation of this liquidity contract entrusted to ODDO BHF by €500 thousand.

Deposits and guarantees

These represented €283 thousand at December 31, 2021 and €325 thousand at December 31, 2022.

NOTE 7 • PROVISIONS

Accounting principles

A provision is recognized when the Company has a legal or constructive obligation at the closing date that results from a past event that will probably result in an outflow of resources and the amount of which can be reliably estimated.

The amount recognized as a provision corresponds to the best estimate of the expenditure required to settle the present obligation at the closing date.

Apart from provisions for pension commitments (see Note 22), no provision has been recognized.

**NOTE 8 • TRADE RECEIVABLES AND OTHER CURRENT ASSETS****Accounting principles**

Trade receivables and other current assets break down as follows:

Trade receivables & other current assets (In thousands of euros)	12/31/2022	12/31/2021
Trade receivables	57	16
Other current assets	7,670	6,148
<i>Tax & social security receivables</i>	5,613	4,778
<i>Advance payments made on orders</i>	638	553
<i>Prepaid expenses</i>	283	758
<i>Other receivables</i>	1,136	60
OTHER CURRENT ASSETS	7,727	6,164

(1) Trade and other receivables are initially recognized at fair value and then at amortized cost, which generally corresponds to their nominal value due to their short-term maturity. In accordance with IFRS 9, the Company applies the simplified method to measure trade receivables and recognizes expected impairment losses over their lifetime.

(2) Other current assets mainly include the research tax credit (CIR) receivable (€3,193 thousand in 2022, €2,985 thousand in 2021) and the VAT receivable (€1,010 thousand in 2022, €1,510 thousand in 2021).

The fair value classifications of financial instruments are described in Note 10.

NOTE 9 • TRADE PAYABLES AND OTHER CURRENT LIABILITIES**Accounting principles**

Trade payables are initially recognized at their fair value, which generally corresponds to their nominal value.

The fair value of other current liabilities is assimilated to their value in the statement of financial position, given the very short payment terms.

Trade payables and other current liabilities (In thousands of euros)	12/31/2022	12/31/2021
Trade payables	4,021	5,137
Other current liabilities	7,408	4,956
<i>Social security liabilities</i>	2,269	1,785
<i>Tax liabilities</i>	630	274
<i>Debts on fixed assets and related accounts</i>	3,673	690
<i>Other liabilities</i>	12	(1)
<i>Deferred income</i>	825	2,209
TRADE PAYABLES AND OTHER CURRENT LIABILITIES	11,429	10,093

Other current liabilities at December 31, 2022

Other current liabilities concern:

- social security liabilities, including balances due to the various funds at the closing date, as well as provisions for awards and bonuses, paid leave and related social security contributions;
- tax liabilities mainly include VAT liabilities;
- deferred income consists of the following items:
 - Deferred income related to subsidies for €241 thousand;
 - Other deferred income related to rebilling for €421 thousand;
 - Deferred income related to restatements of repayable advances and interest-free loans in accordance with IFRS 9 for €162 thousand.

Other current liabilities at December 31, 2021

Other current liabilities concern:

- social security liabilities, including balances due to the various funds at the closing date, as well as provisions for awards and bonuses, paid leave and related social security contributions;
- tax liabilities mainly include VAT liabilities;
- deferred income consists of the following items:
 - deferred income related to subsidies for €1,146 thousand,
 - other deferred income related to rebilling for €176 thousand,
 - deferred income related to restatements of repayable advances and interest-free loans in accordance with IFRS 9 for €879 thousand.

The classification and fair value of financial instruments are described in Note 10.



NOTE 10 • CLASSIFICATION AND FAIR VALUE OF FINANCIAL INSTRUMENTS

Accounting principles

There are three categories of financial instruments according to the consequences that their characteristics have on their valuation method. This classification is used to set out some of the disclosures required by IFRS 7:

- level 1 category: only quoted prices on an active market for an identical instrument and without any adjustment;
- level 2 category: fair value determined from observable data, either directly (such as a price) or indirectly (i.e., calculated on the basis of another price), but other than a price quoted on an active market falling within level 1;
- level 3 category: fair value determined on the basis of unobservable market data.

The Group's assets and liabilities are valued as follows at the end of the fiscal years presented:

Summary of financial assets and liabilities (In thousands of euros)	12/31/2022				
	Total net carrying amount	Assets carried at amortized cost	Assets recognized at fair value through profit or loss	Liabilities carried at amortized cost	Fair value
Financial assets	906	906			906
Trade receivables and related accounts	57	57			57
Other current assets	7,670	7,670			7,670
Cash and cash equivalents	100,557	100,557			100,557
TOTAL ASSETS	109,190	109,190	-	-	109,190
Current and non-current borrowings and financial liabilities	35,395			35,395	35,395
Other non-current liabilities	546			546	546
Non-current lease liabilities	5,142			5,142	5,142
Current borrowings and financial liabilities	2,782			2,782	2,782
Current lease liabilities	1,346			1,346	1,346
Trade payables and related accounts	4,021			4,021	4,021
Other current liabilities	7,408			7,408	7,408
TOTAL LIABILITIES AND EQUITY	56,641	-	-	56,641	56,641

Summary of financial assets and liabilities (In thousands of euros)	12/31/2022				
	Total net carrying amount	Assets carried at amortized cost	Assets recognized at fair value through profit or loss	Liabilities carried at amortized cost	Fair value
Financial assets	388	388			388
Trade receivables and related accounts	16	16			16
Other current assets	6,148	6,148			6,148
Cash and cash equivalents	104,956	104,956			104,956
TOTAL ASSETS	111,508	111,508	-	-	111,508
Current and non-current borrowings and financial liabilities	11,941			11,941	11,941
Non-current lease liabilities	5,358			5,358	5,358
Current borrowings and financial liabilities	1,376			1,376	1,376
Current lease liabilities	1,256			1,256	1,256
Trade payables and related accounts	5,137			5,137	5,137
Other current liabilities	4,956			4,956	4,956
TOTAL LIABILITIES AND EQUITY	30,024	-	-	30,024	30,024

**NOTE 11 • CASH AND CASH EQUIVALENTS**

Cash and cash equivalents (In thousands of euros)	12/31/2022	12/31/2021
Bank accounts	55,433	39,946
Term deposits	45,124	65,010
TOTAL CASH AND CASH EQUIVALENTS	100,557	104,956

Cash and cash equivalents consist of cash at bank, cash on hand and term deposits. They are held to meet short-term cash commitments, are readily convertible into a known amount of cash and are exposed to an insignificant risk of change in value.

For the purposes of the cash flow statement, "Net cash" includes cash and cash equivalents as defined above.

NOTE 12 • EQUITY**Accounting principles**

The classification in equity depends on the specific analysis of the characteristics of each instrument issued. The Company's ordinary shares are classified as equity instruments. Incidental costs directly attributable to the issue of shares or stock options are recognized, net of tax, as a deduction from equity.

Liquidity contract

The portion of the contract that is invested in the Company's treasury shares is recognized as a deduction from the Company's equity at the acquisition cost.

The gain or loss on the sale of these treasury shares is also recognized directly in equity.

The cash reserve related to the liquidity contract is presented in "Non-current financial assets."



Share capital

	12/31/2022	12/31/2021
Share capital (<i>in thousands of euros</i>)	7,870	7,826
Number of ordinary shares outstanding	11,242,666	11,179,472
Nominal value (<i>in euros</i>)	€0.70	€0.70

Capital transactions carried out during the fiscal year ended December 31, 2022:

At its meeting of May 5, 2022, the Board of Directors noted the creation of 5,000 new shares resulting from the exercise of 5,000 BCE 2017-1 subscribed at a price of €7.86, i.e., €0.70 in par value and €7.16 in issue premium.

At its meeting on June 29, 2022, the Board of Directors noted:

- the creation of 1,253 new shares from the exercise of 1,253 BSA 2011-1, subscribed for €1, i.e., €0.70 in par value and €0.30 in issue premium;
- the creation of 1,548 new shares from the exercise of 1,548 BCE 2012-1, subscribed for €2.25, i.e., €0.70 in par value and €1.55 in issue premium;
- the creation of 20,083 new shares from the exercise of 20,083 BCE 2019-1, subscribed at a price of €5.29, i.e., a par value of €0.70 and an issue premium of €4.59, after respective exercise of 3,000 BCE 2019-1 on May 5, 2022, 1,000 BCE 2019-1 on May 6, 2022, 2,000 BCE 2019-1 on May 10, 2022, 2,000 BCE 2019-1 on May 11, 2022, 2,000 BCE 2019-1 on May 13, 2022, 2,000 BCE 2019-1 on May 17, 2022, 2,000 BCE 2019-1 on May 18, 2022, 2,000 BCE 2019-1 on May 20, 2022, 2,083 BCE 2019-1 on May 23, 2022 and 2,000 BCE 2019-1 on June 13, 2022.

At its meeting on September 29, 2022, the Board of Directors noted:

- the creation of 5,000 new shares from the exercise of 5,000 BCE 2017-1, subscribed for €7.86, i.e., €0.70 in par value and €7.16 in issue premium, after respective exercise of 746 BCE 2017-1 on July 6, 2022, 661 BCE 2017-1 on July 11, 2022 and 3,593 BCE 2017-1 on July 18, 2022;
- the creation of 5,000 new shares from the exercise of 5,000 BCE 2020-3, subscribed for €7.76, i.e., €0.70 in par value and €7.06 in issue premium;
- the creation of 12,563 new shares from the exercise of 12,563 BCE 2020-7, subscribed at a price of €30.29, i.e., a par value of €0.70 and an issue premium of € 29.59, after the respective exercise of 31 BCE 2020-7 on July 21, 2022, 4,969 BCE 2020-7 on July 22, 2022, 53 BCE 2020-7 on August 15, 2022, 2,510 BCE 2020-7 on August 16, 2022 and 5,000 BCE 2020-7 on August 17, 2022; and
- the creation of 6,747 new shares from the exercise of 6,747 BSA 2012-2,25, subscribed for €2.25, i.e., €0.70 in par value and €1.55 in issue premium;

At its meeting of December 13, 2022, the Board of Directors noted the creation of 6,000 new shares resulting from the exercise of 6,000 BCE 2017-1 subscribed at a price of €7.86, i.e., €0.70 in par value and €7.16 in issue premium.

As a result, as of December 31, 2022, the share capital amounting to €7,869.866,20 consisted of 11,242,666 ordinary shares, with a par value of €0.70 each, entirely subscribed and fully paid up.

Movements of securities	Number	Nominal value	Share capital
Securities at the beginning of the fiscal year	11,179,472	€0.70	€7,825,630.40
Capital reduction	-	-	-
Securities issued	63,194	€0.70	€44,235.80
Securities redeemed or canceled	-	-	-
Shares at year-end	11,242,666	€0.70	€7,869,866.20

**Capital transactions carried out during the fiscal year ended December 31, 2021:**

At its meeting of January 15, 2021, the Board of Directors noted the creation of 9,600 new shares resulting from the exercise of 9,600 BSA 2015-2 subscribed at a price of €12.4581, i.e., €0.70 in nominal value and €11.7581 in issue premium.

At its meeting on March 11, 2021, the Board of Directors noted:

- the creation of 16,000 new shares from the exercise of 16,000 BCE 2015-2, subscribed at a price of €12.4581, i.e., €0.70 in nominal value and €11.7581 in issue premium;
- the creation of 14,375 new shares from the exercise of 14,375 BCE 2020-4, subscribed at a price of €20.0650, i.e., €0.70 in nominal value and €19.9050 in issue premium;
- the creation of 9,600 new shares from the exercise of 9,600 BSA 2016-1, subscribed at a price of €8.2837, (€0.70 in nominal value and €7.5837 in issue premium); and
- the creation of 9,600 new shares from the exercise of 9,600 BSA 2015-3, subscribed at a price of €12.4581, i.e., €0.70 in nominal value and €11.7581 in issue premium.

At its meeting of May 10, 2021, the Board of Directors, acting under the delegation of authority granted by the Combined Shareholders' Meeting of January 8, 2021 (Fifth Resolution), decided to increase the Company's share capital for a nominal amount of €2,100,000, from €5,715,130.40 to €7,815,130.40, through the issue with cancellation of preferential subscription rights, by way of a public offering with an irreducible priority period for the benefit of existing shareholders, of 3,000,000 new ordinary shares, at a price of €38 each, i.e., a par value of €0.70 and an issue premium of €37.30. The Chief Executive Officer took note of this capital increase on May 12, 2021.

At its meeting on November 5, 2021, the Board of Directors noted:

- the creation of 5,000 new shares from the exercise of 5,000 BCE 2017-1, subscribed for €7.86, i.e., €0.70 in par value and €7.16 in issue premium;
- the creation of 6,000 new shares from the exercise of 6,000 BCE 2013-1, subscribed for €11.2240, i.e., €0.70 in nominal value and €10.5240 in issue premium.

At its meeting on December 16, 2021, the Board of Directors noted:

- the creation of 2,000 new shares from the exercise of 2,000 BCE 2020-7, subscribed at a price of €30.2899, i.e., €0.70 in nominal value and €29.5899 in issue premium;
- the creation of 2,000 new shares from the exercise of 2,000 BCE 2020-7, subscribed at a price of €30.2899, i.e., €0.70 in par value and €29.5899 in issue premium;

As a result, as of December 31, 2021, the share capital stood at €7,825,630.40 divided into 11,179,472 ordinary shares, each with a par value of €0.70, fully subscribed and fully paid up.

Share capital composition:

At December 31, 2022, the 11,242,666 shares comprising the share capital were distributed as follows:

Shareholders	Number of shares	Percentage holding	Number of voting rights	Percentage of voting rights
BOLD Business Opportunities for L'Oréal Development	660,248	5.87%	660,248	5.83%
Copernicus Wealth Management S.A. ⁽¹⁾	658,392	5.86%	658,392	5.82%
Michelin Ventures	486,400	4.33%	486,400	4.30%
L'Occitane Group	263,157	2.34%	263,157	2.32%
Funds managed by Truffle Capital	46,511	0.41%	46,511	0.41%
Management and directors	15,646	0.14%	15,647	0.14%
Treasury shares	3,729	0.03%	N/A	N/A
Free float	9,108,583	81.02%	9,190,003	81.18%
TOTAL	11,242,666	100%	11,320,358	100%

(1) Shares held by funds and/or individuals with Copernicus Wealth Management S.A. as their management company.

By collective decision of shareholders on February 20, 2013, it was decided to allocate a double voting right to all fully paid-up shares documented to have been held in registered form in the name of the same shareholder for at least two years.

At December 31, 2022, one of Jean-Claude LUMARET's shares, as well as 81,820 registered shares included in the free float met these criteria.



Issue premiums

In accordance with the decision made by the sole partner followed by the collective decision of the shareholders and, finally, by the Board of Directors based on the delegation of the Shareholders' Meeting, the issue premiums paid as part of the capital increases were recorded under "Liabilities" on the statement of financial position in a special "Issue premium" account, to which the former and new shareholders' rights shall be applicable.

Capital issue costs are recognized in the statement of financial position as a deduction from the issue premium.

At December 31, 2022, the issue premiums paid after deducting capital increase costs amounted to €146,963,943.82.

Transaction	Operation date	Issue premiums	Direct costs charged	Exercise of BSA/BCE against payment ⁽¹⁾	Total issue premium	BSA
At 12/31/2021		€156,224,321.39	-€9,927,390.25	€38,193.68	€146,335,124.82	€1,958.44
Exercise of BCE 2017-1	04/05/2022	€35,800.00			€35,800.00	
Exercise of BCE 2012-1	05/05/2022	€2,399.40			€2,399.40	
Exercise of BCE 2019-1	05/05/2022	€4,599.99			€4,599.99	
Exercise of BCE 2019-1	05/05/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/06/2022	€4,599.99			€4,599.99	
Exercise of BCE 2019-1	05/10/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/11/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/13/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/17/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/18/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/20/2022	€9,199.98			€9,199.98	
Exercise of BCE 2019-1	05/23/2022	€9,581.78			€9,581.78	
BSA EIB-1 subscription	06/01/2022				€0.00	€1,484.64
BSA EIB-2 subscription	06/01/2022				€0.00	€1,484.64
Exercise of BSA 2011-1	06/07/2022	€375.90		€125.30	€501.20	(€125.30)
Exercise of BCE 2019-1	06/13/2022	€9,199.98			€9,199.98	
Exercise of BCE 2017-1	07/06/2022	€5,341.36			€5,341.36	
Exercise of BCE 2020-3	07/08/2022	€35,296.70			€35,296.70	
Exercise of BCE 2017-1	07/11/2022	€4,732.76			€4,732.76	
Exercise of BCE 2017-1	07/18/2022	€25,725.88			€25,725.88	
Exercise of BCE 2020-7	07/21/2022	€917.29			€917.29	
Exercise of BCE 2020-7	07/22/2022	€147,032.21			€147,032.21	
Exercise of BCE 2020-7	08/15/2022	€1,568.26			€1,568.26	
Exercise of BCE 2020-7	08/16/2022	€74,270.65			€74,270.65	
Exercise of BCE 2020-7	08/17/2022	€147,949.50			€147,949.50	
Exercise of BSA 2012-2	09/09/2022	€10,457.85		€1,484.34	€11,942.19	(€1,484.34)
Exercise of BCE 2017-1	10/24/2022	€14,320.00			€14,320.00	
Exercise of BCE 2017-1	10/27/2022	€14,320.00			€14,320.00	
Exercise of BCE 2017-1	11/16/2022	€14,320.00			€14,320.00	
AT 12/31/2022		€156,851,530.75	(€9,927,390.25)	€39,803.32	€146,963,943.82	€3,318.08

(1) The amounts in this item come from the exercise of:

- 20,494 BSAs acquired for €0.22 per share, i.e., €4,508.68;
- 2,506 BSAs acquired for €0.10 per share, i.e., €250.60;
- 19,200 BSAs acquired for €0.85 per share, i.e., €16,320;
- 9,600 BSAs acquired for €0.59 per share, i.e., €5,664;
- acquisition of the BSA plan by Kepler Cheuvreux: €500.

In addition, in 2022:

- 1,253 BSAs acquired for €0.10 per share, i.e., €125.30;
- 6,747 BSAs acquired for €0.22 per share, i.e., €1,484.34;

These amounts, together with the additional €2,790.40 paid at the subscription of 12,800 BSA warrants acquired for €0.22 (which have now expired) and the additional €8,160.00 paid upon subscription of 9,600 vested BSA warrants for €0.85 (which have now expired), initially recorded under "warrants," were included in the issue premium during the capital increase.



As a reminder, the direct costs associated with the listing of the Company on the Euronext Growth Paris market that took place in 2013 amounted to €1,196,108. The expenses relating to the fundraising carried out in 2019 amounted to €770,395 and those relating to the transactions carried out in 2020 to €1,957,332 and, finally, those for the share capital increase in 2021 to €6,003,554.

The "Issue premiums" item recorded under "Liabilities" on the statement of financial position also includes the sums received at the time of the subscription of the share subscription warrants (see Note 12.3 below), €3,318.08 at December 31, 2022 and €1,958.44 at December 31, 2021.

Capital management

The Group's policy is to maintain a sufficient financial base to preserve the confidence of investors and creditors and to support the Company's future growth.

Following the IPO of the Company on EURONEXT GROWTH, the Company entered into a liquidity contract in order to limit the intra-day volatility of the Company's shares.

Under this agreement, 3,729 treasury shares representing €132 thousand were recognized as a deduction from equity at December 31, 2022 (3,648 shares representing €138 thousand were recognized at December 31, 2021).

Cash paid to the intermediary and not yet used is recognized as non-current financial assets and represented €563 thousand at December 31, 2022 (€87 thousand at December 31, 2021).

Dividends

The Group did not pay any dividends for the fiscal years presented.

NOTE 13 • SHARE-BASED PAYMENTS

Accounting principles

The Company has set up several equity-settled compensation plans in the form of share subscription warrants ("BSA") and founders' warrants ("BSPCE" or "BCE") allocated to employees and directors.

In accordance with IFRS 2, the grant-date fair value of equity-settled share-based payments is recognized as an expense with a corresponding increase in equity over the vesting period of the awards.

For plans whose vesting is not linked to the achievement of a market performance condition, the valuation model used is that of Black & Scholes.

For plans whose vesting is linked to the achievement of a market performance condition, Monte Carlo simulations were carried out in order to project the Carbios share price and thus estimate the fair value of the options.

The valuation methods used to estimate the fair value of the options are described below:

- the maturity of plans with only a presence condition was estimated by tranche by considering an exercise half-life (corresponding to the mid-period between the vesting date of the tranche and the plan's end-of-life date). That of plans with performance conditions was estimated based on the most likely date of the achievement of each performance condition for the vesting date, plus the remaining half-life of the exercise;
- for plans granted prior to 2019, the expected volatility was determined on the basis of a panel of comparable listed companies in the sector, over a period equivalent to the expected duration of the option. For plans granted after 2019, the expected volatility was determined on the basis of the Carbios price history restated for values deemed not representative of future volatility.



13.1 Share subscription warrants (BSAs)

The table below shows the status of the BSAs issued since the creation of the Company that were still outstanding at December 31, 2022, as well as additional information regarding their status as of that date.

	BSA 2013-1	BSA EIB
Date of Shareholders' Meeting	Decision of the Shareholders' Meeting on 07/26/2013	Decision of the Shareholders' Meeting on 02/02/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	14,400	296,928
Jacqueline LECOURTIER	1,600	-
Warrant exercise start date	07/26/2014	05/27/2022
Expiration date	07/26/2023	05/26/2030
Price of subscription or purchase of warrant ⁽¹⁾	0.22	0.01
Warrant exercise method	These warrants are exercisable in the event of the occurrence of an IPO prior to June 30, 2014. Possibility of exercising a number x of warrants per complete monthly period beginning on 07/26/2013, and for the first time from 07/26/2014, calculated according to the following rule: $x = (\text{total nb of BSAs 2013-1 allocated to beneficiary} * \text{nb of months since 07/26/2013})/48$.	The subscription must be recognized by a subscription form, which must be given to the Company.
Exercise price (in euros)	80% of IPO price	€40 for 50% of the BSA EIB €38.8861 for 50% of the BSA EIB
Number of shares subscribed at December 31, 2022	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	12,800	0
Share subscription warrants that may be exercised at December 31, 2022	1,600	296,928

(1) Subscription price determined on the basis of a report prepared and delivered by an independent expert.

During the 2021 fiscal year, no share subscription warrants (BSA) were issued.

During the 2021 fiscal year, 9,600 BSA 2015-2, 9,600 BSA 2015-3 and 9,600 BSA 2016-1 were exercised. All warrants were exercised under the BSA 2015-2, BSA 2015-3 and BSA 2016-1 plans.

At December 31, 2021, there were 179,600 share subscription warrants (BSAs) that could be exercised, giving entitlement to 179,600 shares.

At its meeting of February 3, 2022, the Board of Directors implemented the delegation granted by the Combined General Meeting of February 2, 2022 to decide to issue, with cancellation of preferential subscription rights, 296,928 share subscription warrants (BSA), giving the right to subscribe for 296,928 new ordinary Company shares for the benefit of the EIB. The Chairman recalled that under the loan agreement of €30 million signed with the EIB, the Company has committed, under the terms of a share subscription warrants agreement drafted in English (Subscription Agreement for Warrants in the Capital of Carbios S.A.) on December 20, 2021 (the "Issue Agreement"), to issue 296,928 share subscription warrants ("BSA") to the EIB. These share subscription warrants (BSA) would represent 2.5% of the Company's diluted share capital, and could be exercised for a period of eight years from their issue at a price corresponding to:

- €40 for 50% of the BSAs to be issued; and
- an amount equal to the volume-weighted average of the last three trading days preceding the fifth day preceding the signing of the contract relating to the issuance of the share subscription warrants (BSAs), i.e., €38.8861 for the remaining 50% of the BSAs.

During the 2022 fiscal year, 1,253 BSA 2011-1, 6,747 BSA 2012-2 were exercised and 170,000 BSA 2012-1 were declared null and void. All warrants were exercised under the BSA 2011-1, BSA 2012-2, BSA 2015-2, BSA 2015-3 and BSA 2016-1 plans.

As of December 31, 2022, 298,528 BSAs giving rights to 298,528 shares were still exercisable.



13.2 Founder share subscription warrants (BSPCEs)

The table below shows the status of BSPCEs issued since the creation of the Company that were still outstanding at December 31, 2022, as well as additional information regarding their status at that date.

	BCE 2015-2	BCE-2017-1	BCE 2020-1 to BCE 2020-3	BCE 2020-4 to BCE 2020-6
Date of Shareholders' Meeting	Shareholders' Meeting of 06/24/2015	shareholders' meeting of 06/15/2017	Shareholders' Meeting of 06/19/2019	Shareholders' Meeting of 06/18/2020
Date of Board of Directors' meeting	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/27/2017	Decision of the Board of Directors of 03/12/2020	Decision of the Board of Directors of 07/09/2020
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	31,000	35,000	185,000	115,000
Jean-Claude LUMARET	-	-	92,500	57,500
Warrant exercise start date	06/24/2016	06/27/2018	03/12/2020	07/09/2020
Expiration date	06/24/2025	06/27/2027	03/12/2030	07/09/2030
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	Possibility of exercising a number x of warrants per complete monthly period beginning on 06/24/2015, and for the first time from 06/24/2016, calculated according to the following rule: $x = (\text{total nb of BCEs 2015-2 allocated to the beneficiary} * \text{nb. of months since 06/24/2015})/48$.	Possibility of exercising a number x of warrants per full monthly period beginning on 06/27/2017, and for the first time from 06/27/2018, calculated according to the following rule: $x = (35,000 * \text{nb of months since 06/27/2017})/48$.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise one fourth of the BSPCEs allocated. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise one fourth of the BSPCEs allocated. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share. For the other 14,000 warrants: possibility of exercising y warrants where $y = (\text{number of warrants not yet exercisable}) * \% \text{ determined by the performance of the Carbios share price}$.
Exercise price (in euros)	12.4581	7.86	7.75934	20.6050
Number of shares subscribed at December 31, 2022	16,000	21,000	28,125	14,375
Cumulative number of subscription or purchase warrants canceled or null and void	0	0	104,062	64,687
Share subscription warrants that may be exercised at December 31, 2022	15,000	14,000	52,813	35,938



	BCE 2021-1 to BCE 2021-15	BCE 2021-16	BCE 2021-17	BCE 2022 1 to BCE 2022-2
Date of Shareholders' Meeting	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/22/2022
Date of Board of Directors' meeting	Decision of the Board of Directors of 01/15/2021	Decision of the Board of Directors of 11/5/2021	Decision of the Board of Directors of 11/5/2021	Decision of the Board of Directors of 06/29/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	85,000	36,735	6,390	188,265
Emmanuel LADENT	-	36,735	-	138,265
Warrant exercise start date	01/15/2022	12/01/2022	11/05/2022	06/29/2025
Expiration date	01/15/2032	12/01/2032	11/05/2032	06/29/2032
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	<p>Possibility of exercising a number x of warrants per full monthly period, and for the first time from 01/15/2022, calculated according to the following rule: $x = \text{total number of BCE 2021 granted to the beneficiaries} * (\text{number of months since 01/15/2021})/48$. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p>	<p>For the first 18,367 warrants: possibility of exercising x warrants per full monthly period beginning on 12/01/2021, and for the first time from 12/01/2022, calculated according to the following rule: $x = 18,367 * (\text{number of months since 12/01/2021})/48$. The remaining 18,368 warrants are subject to four performance conditions to be exercised. Each condition met gives the right to exercise 5,510 warrants, 6,429 warrants, 2,755 warrants and 3,677 warrants, respectively. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p>	<p>Possibility of exercising a number x of warrants per full monthly period, and for the first time from 11/05/2022, calculated according to the following rule: $x = \text{total number of BCE 2021 granted to the beneficiaries} * (\text{number of months since 11/05/2021})/48$.</p>	<p>To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.</p>
Exercise price (in euros)	44.5049	37.7340	39.7863	30.1316
Number of shares subscribed at December 31, 2022	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	27,414	0	0	0
Share subscription warrants that may be exercised at December 31, 2022	57,586	36,735	6,390	188,265 ⁽¹⁾

(1) May be exercised from June 29, 2025.



	BCE 2022-3 to BCE 2022-4	BCE 2022-5 to BCE 2022-6 and BCE 2022-13 to BCE 2022-14	BCE 2022 7 to BCE 2022-11	BCE 2022-12
Date of Shareholders' Meeting	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/19/2019	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/22/2022
Date of Board of Directors' meeting	Decision of the Board of Directors of 09/29/2022	Decision of the Board of Directors of 12/13/2022	Decision of the Board of Directors of 12/13/2022	Decision of the Board of Directors of 12/13/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	59,600	104,062	82,413	31,735
Emmanuel LADENT	-	-	2,023	31,735
Warrant exercise start date	09/29/2025	12/13/2025	12/13/2025	12/13/2025
Expiration date	09/29/2032	12/13/2032	12/13/2032	12/13/2032
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.
Exercise price (in euros)	26.59321	33.27455	33.27455	33.27455
Number of shares subscribed at December 31, 2022	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	9,600	0	0	0
Share subscription warrants that may be exercised at December 31, 2022	50,000 ⁽²⁾	104,062 ⁽³⁾	82,413 ⁽³⁾	31,735 ⁽³⁾

(2) May be exercised from September 29, 2025.

(3) May be exercised from December 13, 2025.

During the fiscal year 2021, BSPCE issues were carried out:

- at its meeting on January 15, 2021, the Board of Directors, acting pursuant to the delegation of authority conferred by the Combined Shareholders' Meeting of June 18, 2020 (Thirteenth Resolution), decided to issue and award 85,000 BSPCEs ("BCE 2021-1", "BCE 2021-2", "BCE 2021-3", "BCE 2021-4", "BCE 2021-5", "BCE 2021-6", "BCE 2021-7", "BCE 2021-8", "BCE 2021-9", "BCE 2021-10", "BCE 2021-11", "BCE 2021-12", "BCE 2021-13", "BCE 2021-14" and "BCE 2021-15"), giving the right to subscribe for 85,000 ordinary shares with a par value of €0.70 at a unit price equal to the volume-weighted average share price of the last twenty trading days preceding the warrant award date, i.e., a price equal to €44.5047;
- at its meeting of November 5, 2021, the Board of Directors, acting pursuant to a delegation of authority granted by the Combined Shareholders' Meeting of June 18, 2020 (Thirteenth Resolution), decided to issue and award 43,125 BSPCE (including 36,735 "BCE 2021-16" and 6,390 "BCE 2021-17"), giving the right to subscribe to 43,125 ordinary shares with a par value of €0.70, at a unit price equal to the volume-weighted average of the last twenty trading days preceding the warrant award date, i.e., a price of €37.734 for the BCE 2021-16 and a price of €39.7863 for the BCE 2021-17.

During the 2021 fiscal year, 16,000 BCE 2015-2, 14,375 BCE 2020-4, 5,000 BCE 2017-1, 6,000 BCE 2013-1 and 4,000 BCE 2020-7 were exercised.

At December 31, 2021, 518,048 BSPCEs remained likely to be exercised, giving entitlement to 518,048 shares.



During the fiscal year 2022, BSPCE issues were carried out:

- At its meeting of June 29, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 22, 2022 (Seventeenth Resolution), decided to issue and award 188,265 BSPCEs (of which 138,265 BCE 2022-1 and 50,000 BCE 2022-2), giving the right to subscribe to 188,265 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €30.1316.
- At its meeting of September 29, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 18, 2020 (Thirteenth Resolution), decided to issue and award 59,600 BSPCEs (of which 9,600 BCE 2022-3 and 50,000 BCE 2022-4), giving the right to subscribe to 59,600 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €26.59321.
- At its meeting of December 13, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 19, 2019 (Fifteenth Resolution), decided to issue and award 104,062 BSPCEs (of which 50,000 BCE 2022-5, 50,000 BCE 2022-6, 1,662 BCE 2022-13 and 2,400 BCE 2022-14), giving the right to subscribe to 104,062 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €33.27455.
- At its meeting of December 13, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 18, 2020 (Thirteenth Resolution), decided to issue and award 82,413 BSPCEs (of which 25,000 BCE 2022-7, 25,000 BCE 2022-8, 20,000 BCE 2022-9, 2,023 BCE 2022-10 and 10,390 BCE 2022-11), giving the right to subscribe to 82,413 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €33.27455.
- Finally, at its meeting of December 13, 2022, the Board of Directors, acting under a delegation of authority granted by the Combined Shareholders' Meeting of June 22, 2022 (Seventeenth Resolution), decided to issue and award 31,735 BSPCEs (of which 31,735 BCE 2022-12), giving the right to subscribe to 31,735 ordinary shares with a par value of €0.70, at a unit price equal to the weighted average by volume of the last twenty trading days preceding the grant date of the warrants, i.e., a price of €33.27455.

During the 2022 fiscal year, 1,548 BCE 2012-1, 20,083 BCE 2019-1, 16,000 BCE 2017-1, 5,000 BCE 2020-3 and 12,563 BCE 2020-7 were exercised.

During the 2022 fiscal year, 69,375 BCE 2020-1, 6,856 BCE 2021-2, 10,711 BCE 2021-6, 7,917 BCE 2019-1, 83,437 BCE 2020-7, 34,687 BCE 2020-2 and 21,562 BCE 2020-5 were declared null and void.

At December 31, 2022, 674,937 BSPCEs giving rights to 674,937 shares were still exercisable.

13.3 Breakdown of expense recognized in accordance with IFRS 2 during the periods presented

(In thousands of euros) Type	12/31/2022				12/31/2021			
	Probabilized cost of the plan to date	Cumulative expense at the beginning of the period	Expense for the period	Cumulative expense to date	Probabilized cost of the plan to date	Cumulative expense at the beginning of the period	Expense for the period	Cumulative expense to date
BSA 2016-1	31	31	-	31	31	31	-	31
BCE 2015-2	175	175	-	175	175	175	-	175
BCE 2016-1	69	69	-	69	69	69	-	69
BCE 2017-1	148	148	-	148	148	147	1	148
BCE 2019-1	52	45	7	52	52	35	10	45
BCE 2020	2,312	1,113	333	1,445	2,312	302	810	1,113
BCE 2021	2,096	926	655	1,581	2,267	-	926	926
AGM	148	148	-	148	148	138	11	148
BCE 2022	6,792	-	460	460	-	-	-	-
TOTAL	11,825	2,655	1,455	3,203	5,202	897	1,759	2,655



NOTE 14 • BORROWINGS AND FINANCIAL LIABILITIES

Accounting principles

Unless otherwise indicated, borrowings and financial liabilities are recognized, after their initial recognition at fair value, at amortized cost calculated using the effective interest rate in accordance with IFRS 9.

The portion of borrowings at less than one year is presented under "Current borrowings."

Current and non-current borrowings and financial liabilities (In thousands of euros)	12/31/2022	12/31/2021
Loans from credit institutions	29,841	5,870
Conditional advances	5,553	6,071
Lease liabilities ⁽¹⁾	5,142	5,358
CURRENT AND NON-CURRENT BORROWINGS AND FINANCIAL LIABILITIES	40,537	17,298
Loans from credit institutions	1,943	1,041
Conditional advances	838	335
Lease liabilities ⁽¹⁾	1,346	1,256
CURRENT BORROWINGS AND FINANCIAL LIABILITIES	4,128	2,632
TOTAL BORROWINGS AND FINANCIAL LIABILITIES	44,665	19,930

(1) Information on lease liabilities is discussed in Note 5.5 "Right of use."

The classification and fair value of financial instruments are described in Note 10.

14.1 Loans from credit institutions

Loans (In thousands of euros)	Fixed/ floating rate	Nominal value	Year of maturity	12/31/2022	12/31/2021
Bpifrance Innovation loan	Fixed	1,500	2025	1,050	1,350
Bpifrance Innovation loan	Fixed	1,500	2026	1,350	1,500
State-guaranteed loan (PGE)	Fixed	1,000	2026	966	961
Loan from TZ BPI DOS0068879/00	Fixed	500	2025	286	376
Loan from TZ BPI DOS0096740/00	Fixed	250	2027	199	230
Loan from TZ BPI (Region) DOS0096739/00	Fixed	250	2027	199	230
CEPAL loan €177 thousand O31231E	Fixed	177	2024	87	123
CEPAL loan €334 thousand 278044E	Fixed	334	2026	230	295
CEPAL loan PGE €950 thousand 189838E	Fixed	950	2026	807	908
BPI loan PGE €950 thousand	Fixed	950	2026	876	927
EIB loan €30,000 thousand - Debt component	Fixed	30,000	2030	25,717	-
Accrued interest	N/A	N/A	N/A	16	11
TOTAL		37,411		31,784	6,911



Bpifrance Innovation loans

Two innovation loans were granted by Bpifrance in 2018 and 2019. The two loans provide for a payment deferral of two 2, and annual straight-line repayment over the following 5 years.

They bear interest at 3.21% and 4.45% respectively and were subject to a guarantee deposit of €75 thousand each, recognized in financial assets.

State-guaranteed loan (PGE)

On August 31, 2020, receipt of a loan guaranteed by the French State in the amount of €1,000 thousand for a period of 12 months. On June 26, 2021, the Company decided to extend the PGE for an additional 5 years.

The PGE bears interest at the rate of 0.25% and will be repaid in 8 equal and consecutive half-yearly installments of principal of €125 thousand from 2023.

EIB loan

In June 2022, CARBIOS received the loan of €30 million granted by the European Investment Bank (EIB) to the Company, as announced on December 20, 2021. Supported by the European Commission's InnovFin energy demonstration program, the contract provides for annual repayments at constant capital, from June 29, 2025 to June 29, 2030.

As a reminder, the objective of this type of financing is to support innovative projects with high potential, developed by companies aiming to achieve major changes in line with the EU's climate objectives and contributing to the leadership of European industry in the development of sustainable technologies. This loan of €30 million, disbursed in a single tranche by the EIB, carries a fixed annual interest of 5%, with a maturity of 8 years and an annual repayment at constant capital to begin in 2025. This agreement is supplemented by a warrant issuance agreement where Carbios will issue 2.5% of the fully diluted share capital in warrants to the benefit of the EIB, of which 1.25% with an exercise price of €40 per share, and 1.25% with an exercise price of €38.8861 per share, corresponding to the volume-weighted average of the trading price of an ordinary share of the Company over the last three (3) trading days preceding the fifth day prior to the signing date. The creation and issue of these EIB share subscription warrants, and therefore the disbursement of the loan of €30 million, were subject to a vote by Carbios' Extraordinary Shareholders' Meeting of February 2, 2022 of a delegation of authority to the Board of Directors, and a decision of the Company's Board of Directors using this delegation of authority.

Moreover, after analysis of the plan and its characteristics, given that these are instruments with a fixed parity, (1 BSA for 1 Ordinary Share with a fixed exercise price) where the issuer has the unconditional right not to ever pay cash, such as a preferred dividend or a repurchase obligation (in the context of a put/call), the share subscription warrants issued are qualified as equity instruments.

Instruments should, therefore, be valued on the issue date and not subsequently revalued at each reporting date.

The calculation of the fair value is as follows:

Plan features	BSA EIB-1	BSA EIB-2
Grant date	05/27/2022	05/27/2022
Plan end-of-life date	06/29/30	06/29/30
Vesting date	Immediately, at the grant date	Immediately, at the grant date
Start date of exercise period	From the disbursement date, i.e., 06/29/2022	From the disbursement date, i.e., 06/29/2022
Number of options granted	148,464	148,464
Exercise price	€40.00	€38.8861
Price of the underlying	€34.12	€34.12
Estimated maturity	8.09 years	8.09 years
Volatility	39.35%	39.35%
Dividend rate	0.00%	0.00%
Risk-free rate	1.258%	1.258%
Subscription price	€0.01	€0.01
Fair value	€13.9	€14.18
Total expenses	€2,064 thousand	€2,105 thousand



As the instruments are classified as equity, the fair value is not intended to be updated at the next closing dates.

The total fair value of the following instruments is to be taken as a deduction from the total debt which will be recognized at amortized cost:

In thousands of euros	12/31/2022	TOTAL
BSA EIB-1	2,064	2,064
BSA EIB-2	2,105	2,105
Total	4,169	4,169

Interest-free loans

Subscription of three interest-free loans for a total amount of €1,000 thousand with BPI France. These loans were received in 2018 for €500 thousand and then in 2019 for €500 thousand. They entered into the scope of consolidation with the takeover of Carbiolice in June 2021.

Investment loans

Subscription of two investment loans with CEPAL for €177 thousand and €334 thousand respectively. The amounts were received in 2019 and 2020 respectively. These loans bear interest at a rate of 1%. They entered into the scope of consolidation with the takeover of Carbiolice in June 2021.

State-guaranteed loans (PGE) CEPAL and BPI (€950 thousand each)

Subscription of two State-guaranteed loans (PGE) in 2020 in the amount of €950 thousand each. The first one bears interest at the rate of 1.09% with a two-year grace period. The second bears interest at a rate of 2.09% with a two-year grace period. They entered into the scope of consolidation with the takeover of Carbiolice in June 2021.

CHANGE IN CASH FLOWS ON BORROWINGS

LOANS FROM CREDIT INSTITUTIONS (Amounts in thousands of euros)	Current portion												Total	
	FIAD	Bpifrance Innovation loan	Bpifrance Innovation loan	State-guaranteed loan (PGE)	Bpifrance Innovation loan	Bpifrance Innovation loan	Bpifrance Innovation loan	CEPAL loan	CEPAL loan	CEPAL PGE loan	Bpifrance Innovation loan	EIB loan		
At January 1, 2021	29			936										965
Change in scope					99	41	41	35	68	132	67			483
Cash flows - receipt of new debts														-
Cash flows - repayment of debts	(30)													(30)
Non-monetary changes	1	300	225	(903)										(376)
At December 31, 2021	-	300	225	33	99	41	41	35	68	132	67			1,041
Change in scope														-
Cash flows - receipt of new debts														-
Cash flows - repayment of debts		(300)	(150)		(100)	(37)	(37)	(36)	(65)	(117)	(59)			(901)
Non-monetary changes		300	225	206	94	40	40	37	66	208	223	347		1,787
At December 31, 2022	-	300	300	240	93	45	45	36	68	223	231	347		1,926



LOANS FROM CREDIT INSTITUTIONS	Non-current portion													
	(Amounts in thousands of euros)	FIAD	Bpifrance Innovation loan	Bpifrance Innovation loan	State- guaranteed loan (PGE)	Bpifrance Innovation loan	Bpifrance Innovation loan	Bpifrance Innovation loan	CEPAL loan	CEPAL loan	CEPAL PGE loan	Bpifrance Innovation loan	EIB loan	Total
At January 1, 2021	-	1,500	1,500	-	-	-	-	-	-	-	-	-	-	3,000
Change in scope						376	209	209	108	266	818	883		2,869
Cash flows - receipt of new debts														-
Cash flows - repayment of debts		(150)			(75)			(21)	(38)					(284)
Non-monetary changes		(300)	(225)	936	(24)	(20)	(20)		2	(40)	(23)			286
At December 31, 2021	-	1,050	1,275	936	277	189	189	87	230	778	860			5,872
Change in scope														-
Cash flows - receipt of new debts												30,000	30,000	
Cash flows - repayment of debts														-
Non-monetary changes		(300)	(225)	(210)	(84)	(34)	(34)	(36)	(69)	(194)	(215)	(4,629)	(6,031)	
At December 31, 2022	-	750	1,050	726	194	154	154	51	161	584	645	25,371	29,840	

14.2 Repayable advances

Accounting principles

The Group benefits from public subsidies granted in the form of subsidies or conditional advances.

They were recognized in accordance with IAS 20 Accounting for government subsidies. As these financial advances are granted at interest rates below the market rate, they are remeasured in accordance with IFRS 9 at amortized cost. The treatment is as follows:

- the initial difference between the advance received and its amortized cost is a subsidy recognized in the income statement in accordance with IAS 20;
- the financial cost of repayable advances calculated at the effective interest rate is then recorded in financial expenses.

If the project benefiting from the repayable advance fails, the repayable advance is generally canceled.

Loans (In thousands of euros)	Fixed/ floating rate	Nominal value	Year of maturity	12/31/2022	12/31/2021
Repayable adv.ADI BPI	/	265	2023	57	151
Repayable adv. + Cond. ADEME	Fixed	2,482	2026	2,433	2,360
Cond. OSEO Thanaplast™	Fixed	3,707	2031	3,671	3,558
Repayable advance BPI €500 thousand (DOS0060297)	/	400	2024	230	337
TOTAL		6,854		6,393	6,406

**Detail of repayable advances and subsidies by project**

Bpifrance grant (formerly known as OSEO-ISI): Thanaplast™

- **Subsidy**

The Thanaplast™ project has been closed since June 30, 2017.

- **Repayable advance**

In the event of a successful research program, the Company is committed to reimbursing the repayable advance to Bpifrance for an amount of €4,525 thousand, according to the payment schedule below, upon achieving cumulative income generated by the utilization of the products resulting from the Thanaplast™ project of €10 million.

Year 1* on June 30 at the latest	€300,000
Year 2 on June 30 at the latest	€500,000
Year 3 on June 30 at the latest	€800,000
Year 4 on June 30 at the latest	€975,000
Year 5 on June 30 at the latest	€1,950,000

*Following the crossing of the €10,000 thousand income threshold.

According to the Company's forecasts, this threshold is not expected to be reached before 2026.

In addition, as soon as the reimbursement of the repayable advance has been completed in accordance with the above payment schedule, the agreement stipulates that the Company shall pay a bonus equal to 4% of revenue generated by the utilization of the products, if this exceeds a cumulative amount of €100,000 thousand. This additional payment is, however, subject to a time limit (applicable only for a period of five consecutive years from the date of the end of the reimbursement of the advance), and an amount cap (ceiling of €7,100 thousand).

ADEME grant: CE-PET project

On April 8, 2019, the Company obtained a grant from ADEME for the CE-PET project, composed of repayable advances totaling €3,102 thousand and subsidies of €1,034 thousand spread over a 48-month period from 2018 to 2022. The grants were released according to the project's progress and the submission of reports regarding the completion of each key stage stipulated in the framework agreement signed with ADEME. The agreement provides for a total grant rate of 60% that is applied to total eligible expenditures and used for each key stage, 25% of which is a subsidy and 75% a repayable advance (with conditions).

The contract agreement stipulates that the completion of each key stage (KS) and the associated conditions provide entitlement to the following payments capped based on a maximum % of cumulative grants:

(In euros)	KS1 (35%)	KS2 (60%)	KS3 (80%)	KS4 (100%)	Total
Payment year	2019	2020	2021	2022	
Subsidy	361,900	258,500	206,800	206,800	1,034,000
Repayable advance	1,085,700	775,500	620,400	620,400	3,102,000
TOTAL	1,447,600	1,034,000	827,200	827,200	4,136,000

At December 31, 2022, the Company has completed all work on the project. Since its creation, the Company has received:

(In euros)	1st payment	2nd payment	3rd payment	4th payment	Total
Date of payment	06/07/2019	10/21/2019	06/30/2020	12/06/2021	
Subsidy	€155,100	€206,800	€258,500	€206,800	€827,200
Repayable advance	€465,300	€620,400	€775,500	€620,400	€2,481,600
TOTAL	€620,400	€827,200	€1,034,000	€827,200	€3,308,800



• Subsidy

The subsidy rate therefore amounts to 15% of the Industrial Research and Experimental Development expenses incurred by the Company in the context of the CE-PET project.

Eligible expenses incurred between January 31, 2018, the start date of eligibility, and December 31, 2022 are higher than the expenses provided for in the agreement signed with ADEME and make the entire amount of the subsidy to be received eligible.

Since the beginning of the program, the Company has received €827 thousand in ADEME subsidies (see table above). In addition, following the validation of key stage 4 and, more generally, the success of the project by ADEME at the end of 2022, the Company will receive during the first half of 2023 the balance of the expected aid and thus recognized an income (current receivable) in respect of the subsidy receivable for €207 thousand.

• Repayable advance

The amount that Carbios owes ADEME for repayment of the amount of the Repayable Advance Paid (hereinafter the "Total Amount Payable") shall be equal to the following amount:

- an "Amount Ma" that depends on the progress of the Operation.

This amount is subject to specific terms and conditions of repayment as described below.

a) Determination of the Amount Ma

Rate R1 is set at 0.84%.

The Beneficiary shall repay ADEME an amount whose Discounted Value using Rate R1 is equal to 100% of the Discounted Value using Rate R1 of the amount of the Repayable Advance Paid (hereinafter "Amount Ma") under the terms and conditions described below.

Amount Ma may, however, be reduced under the following conditions and by the following proportions:

- Ma is reduced by 75% if Key Stage 1 has not been verified;
- Ma is reduced by 50% if Key Stage 1 has been verified, but Key Stage 2 has not been verified;
- Ma is reduced by 25% if Key Stage 2 has been verified, but Key Stage 3 has not been verified;

b) Terms of repayment of Amount Ma

The operative event for the repayment of Amount Ma (hereinafter the "Ma Operative Event") shall be the End of the Investment Phase.

Repayment of Amount Ma shall be made in four (4) annual installments of the same amount.

The first installment shall be paid six (6) months after the end of the Beneficiary's Fiscal Year in which the Ma Operative Event is recorded.

Since the start of the program, the Company has received €2,482 thousand in conditional advances from ADEME (see table above) and is expected to receive during the first half of 2023 the balance of a repayable advance of €620 thousand for the validation of key stage 4 and the recognition of the complete success of the project. The entire repayable advance will therefore have to be repaid definitively.

BPI repayable advance

This repayable advance entered into the scope of consolidation with the takeover of Carbiolice in June 2021.

A repayable advance obtained from Bpifrance to finance an innovation project for a total amount of €500 thousand, of which €400 thousand paid in November 2017 and the balance of €100 thousand in October 2018. The acknowledgment of program success will make it eligible for the repayment of the full amount. With an initial repayment period of 5 years with deferral, and a deferral of maturities of 6 months following the COVID-19 government provisions, the quarterly repayments began on March 31, 2019 and will end on June 30, 2024. At December 31, 2021, the remaining amount to be repaid was €350 thousand;

This repayable advance entered into the scope of consolidation with the takeover of Carbiolice in June 2021.

LIFE aid: Life cycle of PET

On October 25, 2021, the Company obtained aid consisting exclusively of subsidies for a total amount of €3,300 thousand for the LIFE CYCLE OF PET project. The program includes the participation of DELOITTE and TECHNIP ZIMMER, whose total share represents €296 thousand. Carbios is the project coordinator.

The amount of eligible expenses amounts to €8,489 thousand and the subsidy rate is therefore 38.88%. The program starts on October 1, 2021 and ends on June 30, 2025.

The payments are planned as follows:

- 1st pre-financing of 40% within 30 days following the signature of the contract, i.e., €1,320 thousand received on December 5, 2021, of which €119 thousand goes to the partners and €1,201 thousand to Carbios;
- 2nd pre-financing of 40% provided that 100% of the pre-financing deposit previously paid has been used to cover project costs; and
- the balance of 20% at the end of the project.

Expenses incurred for the fiscal year were calculated on the basis of actual expenses, i.e., €3,337 thousand. The corresponding theoretical subsidy amounts to €1,025 thousand (€3,337 thousand x 30.72%), of which €782 thousand was used to finance operating expenses and are recognized in the income statement and €243 thousand to finance capitalized development costs and are recognized as a deduction from the fixed asset. This portion of the subsidy will be recognized in the income statement at the same rate as the depreciation of the underlying asset.

Taking into account the income of €132 thousand already recognized in 2021, a deferred income, similar to a current debt, was therefore recognized for an amount of: (€1,201 thousand - €132 thousand - €1,025 thousand) = €45 thousand.



Other public and private grants obtained

The Company also obtained:

- a subsidy from the Auvergne Region (FIAD) of €397 thousand, of which €181 thousand was paid in 2013 and the balance of €216 thousand was paid in November 2015. The remaining portion of the investment subsidy associated with the acquisition of the Setup Performance patent is recorded in income at the rate that the patent is amortized;
- an interest-free loan from the Auvergne Region (FIAD) for €152 thousand to finance the installation of the laboratory. The investments having been made in 2014, the corresponding capital was paid to the Company on December 12, 2014. This loan is repayable in five annual installments in the amount of €30 thousand; the repayment began on December 30, 2016 and ended in the course of 1st half-year 2021;
- a recoverable advance of €265 thousand from Bpifrance for an innovation project, of which €215 thousand was paid out in 2017 and the balance of €50 thousand in December 2018. Repayments began in 2019. The acknowledgment of program success will make it eligible for the repayment of the full amount. If the program fails, the Company may file a statement of failure and thus reduce the total amount repayable, set at a minimum of €106 thousand. At December 31, 2022, the remaining amount to be repaid was €58 thousand;
- two Innovation Loans from Bpifrance for a total of €3,000 thousand at floating rates to finance the intangible expenses related to its desire to launch the industrialization process. After a period of 8 quarters of deferred amortization, repayments at constant capital of €75 thousand began on September 30, 2021 for the first loan and will begin with a one-year delay for the second, i.e., a total amount remaining due of €2,400 thousand at the closing date;
- a subsidy from the European Commission for the WhiteCycle project, led by Michelin (lead partner), starting on July 1, 2022, for a period of 48 months, with an amount of eligible expenses for Carbios of €805 thousand (total project of €9 million), and for which the Company will be able to obtain a subsidy of up to €564 thousand (out of the €7 million allocated to the complete project). In this respect, the Company received €197 thousand (35%) as an advance, but recognized the entire amount as prepaid income in accordance with the progress of the project;

• PRESERVE subsidy:

- aid obtained from the European Commission in the total amount of €8,000 thousand, including €331 thousand for Carbiolice, to finance the collaborative R&D project named PRESERVE,
- the amount of eligible expenses amounts to €331 thousand and the subsidy rate granted is therefore 100%. The project began on January 1, 2021 for a period of 48 months,
- the payments are planned as follows:
 - 85% of the net pre-financing of 48.33% (53.33% gross less 5% transferred to the European guarantee fund), i.e., €136 thousand received on February 4, 2021,
 - 15% of the net pre-financing of 48.33% (53.33% gross less 5% transferred to the European guarantee fund), i.e., €24 thousand to be received before the 18th month of the project, i.e., before June 30, 2022,
 - interim payments based on the actual progress of expenses incurred,
 - the balance and amounts withheld from the European guarantee fund at the end of the project;
- the expenses incurred at December 31, 2022 amounted to €344 thousand, corresponding to the theoretical subsidy (€344 thousand x 100%). Deferred income was therefore recognized for an amount of: €331 thousand - €136 thousand = €195 thousand.

• SISTERS subsidy:

- aid obtained from the European Commission in the total amount of €8,340 thousand, of which €86 thousand for Carbiolice, to finance the collaborative R&D project named SISTERS,
- the amount of eligible expenses amounts to €123 thousand and the subsidy rate granted is therefore 70%. The project began on November 1, 2021 for a period of 54 months,
- payments are planned as follows:
 - 50% of the net pre-financing of 48.33% (53.33% gross less 5% transferred to the European guarantee fund), i.e., €21 thousand received on October 28, 2021,
 - 50% of the net pre-financing of 48.33% (53.33% gross less 5% transferred to the European guarantee fund), i.e., €21 thousand to be received 9 months after the first payment, i.e., in July 2022,
 - interim payments based on the actual progress of expenses incurred,
 - the balance and amounts withheld from the European guarantee fund at the end of the project;
- the expenses incurred at December 31, 2022 amounted to €5 thousand, corresponding to a theoretical subsidy of €4 thousand (€5 thousand x 70%). Deferred income was therefore recognized for an amount of: €42 thousand - €4 thousand = €38 thousand.



CHANGE IN CASH FLOWS ON REPAYABLE ADVANCES*

Repayable advance (In thousands of euros)	Re-payable adv. ADI BPI	ADV. ADEME (REPAY. + COND.)	Cond. adv. OSEO Thanaplast™	BPI repayable advance	Total	Re-payable adv. ADI BPI	Adv. ADEME (Repay. + Cond.)	Cond. av. OSEO Thanaplast™	BPI repayable advance	Total
AT JANUARY 1, 2021	64	37	58	-	159	146	1,688	3,387	-	5,221
Change in scope				108	108				310	310
Cash flows - receipt of new debts							620			620
Cash flows - repayment of debts						(65)			(68)	(133)
Non-monetary changes	32	37			69	(27)	(22)	113	(13)	51
AT DECEMBER 31, 2021	96	74	58	108	336	55	2,286	3,500	229	6,070
Change in scope					-					-
Cash flows - receipt of new debts					-					-
Cash flows - repayment of debts	(97)			(115)	(212)					-
Non-monetary changes	58	502	2	153	714	(55)	(428)	112	(145)	(515)
AT DECEMBER 31, 2022	57	576	60	146	838	-	1,858	3,612	84	5,555

NOTE 15 • INCOME

Accounting principles

The principle of IFRS 15 “Revenue from Contracts with Customers” is based on the transfer of control of goods and services to the customer.

The standard defines a general approach for revenue recognition in five stages:

- step 1: Contract identification;
- step 2: Identification of “performance obligations” within the contract. “Performance obligations” serve as a unit of account for revenue recognition;
- step 3: Evaluation of the contract price;
- step 4: Allocation of the contract price to each “performance obligation”;
- step 5: Recognition of revenue when the “performance obligation” is satisfied, either on a given date or on a percentage-of-completion basis.

For the 2020 fiscal year, the revenue recorded concerns contracts for the occasional delivery of samples under contracts with Carbios’ partners.

For the 2021 and 2022 fiscal years, the income recognized concerns:

- on the one hand, feasibility studies, tests and research services with a performance obligation: income is recognized when the study report is submitted; and
- on the other hand, deliveries of raw materials and Masterbatch samples to various customers: income is recognized upon delivery.

The revenue recognized for the 2021 fiscal year includes the revenue of the Carbiolice entity for the period from June 4, 2021 to December 31, 2021.

NOTE 16 • BREAKDOWN OF INCOME AND EXPENSES BY FUNCTION

Accounting principles

The Group presents its income statement by function in the following categories:

- research and development expenses;
- sales and marketing expenses;
- general and administrative expenses;
- other operating income and expenses.

The research tax credit and other operating subsidies are presented as a deduction from the expenses to which they are related.

In addition, the Company entered into contracts with its subsidiary Carbiolice (before the takeover and the transition to full consolidation) and industrial partners for various rebilling and research services. These products are analyzed as contributions to the Company’s expenses. They do not fall within the definition of revenue (see Note 15) insofar as they do not involve any performance obligation. Carbios recognizes as expenses the costs that these rebillings are intended to offset. All these income items are identified in the details below under “Other rebillings.”

**16.1 Research and development expenses**

Research and development (In thousands of euros)	12/31/2022	12/31/2021
Raw materials and consumables	(1,142)	(622)
Stored production	-	(220)
Studies and research	(3,778)	(1,853)
Subcontracting	(11)	(19)
Employee expenses	(5,206)	(5,405)
Maintenance and repairs	(382)	(171)
Depreciation, amortization and impairment	(4,703)	(2,394)
Others ⁽¹⁾	(3,835)	(1,048)
RESEARCH AND DEVELOPMENT EXPENSES	(19,057)	(11,732)
Research tax credit	2,720	2,642
Subsidies	1,461	573
Other rebillings	595	382
SUBSIDIES AND OTHER OPERATING INCOME	4,776	3,597
CAPITALIZATION OF DEVELOPMENT COSTS	1,287	409
RESEARCH AND DEVELOPMENT EXPENSES	(12,993)	(7,727)

(1) At December 31, 2022, this item includes intermediary fees for €3,191, assignment fees for €279 thousand and asset disposals for €111 thousand. At December 31, 2021, this item includes intermediary payments and fees for €249 thousand and asset disposals for €235 thousand.

For the 2021 fiscal year, research and development costs include the costs of the Carbiolice entity from June 4, 2021.

In accordance with its objectives, the Group continued its research and development efforts on all its innovation themes, and in particular on the enzymatic recycling of PET plastics and fibers. Net research and development expenses amounted to €12,993 thousand in 2022 compared to €7,727 thousand in 2021.

For the 2021 fiscal year:

- concerning Research and Development costs, the Group incurred €11,732 thousand in expenses, in line with its industrialization ambitions. The significant increase in R&D costs is mainly related to the commissioning of its industrial demonstration plant and, to a lesser extent, to the consolidation of Carbiolice from June 4, 2021. The main changes are due to the increase in personnel costs, with a strong growth in the number of employees in the industrial demonstration plant, as well as the use of external services;
- concerning “Subsidies and other income from operations,” the Group recorded €3,597 thousand, partially offsetting its R&D expenses. This item includes research tax credits of €2,265 thousand for Carbios and €721 thousand for Carbiolice for the 2021 fiscal year;
- lastly, the Group capitalized “Development costs” relating to the PET enzymatic recycling project in the amount of €409 thousand from October 1, 2021, in accordance with the activation criteria of IAS 38.

For the year 2022:

- concerning “Research and Development costs,” the Group incurred €19,057 thousand in expenses, in line with its industrialization goals. The very significant increase in R&D expenses is mainly related to the work undertaken following the installation of the industrial demonstration plant, the various studies (including engineering) for the construction of the Company’s Reference Unit, and lastly, Carbiolice’s R&D expenses (for the full year in 2022). The main changes are due to the continued use of external services, mainly as part of the Reference Unit project;
- concerning “Subsidies and other income from operations,” the Group recorded €4,776 thousand, partially offsetting its R&D expenses. This item includes research tax credits of €2,538 thousand for Carbios and €655 thousand for Carbiolice for the 2022 fiscal year (as opposed to respectively €2,265 thousand and €721 thousand in 2021, these amounts having been received in 2022);
- finally, the Group has capitalized €1,287 thousand in “Development costs” related to the Company’s PET enzymatic recycling project.



16.2 Sales and marketing expenses

Sales and marketing expenses (In thousands of euros)	12/31/2022	12/31/2021
Purchases and supplies not held in inventories	(13)	(3)
Employee expenses	(3,068)	(1,489)
Rental expenses	1	(6)
Maintenance and repairs	(4)	(2)
Consulting fees	(1,437)	(861)
Advertising	(36)	(71)
Transport, travel	(149)	(27)
Depreciation, amortization and impairment	(48)	(12)
Other rebillings	381	495
SALES AND MARKETING EXPENSES	(4,373)	(1,976)

For the 2021 fiscal year, sales and marketing expenses include the costs of the Carbiolice entity from June 4, 2021.

Sales and marketing expenses amounted to €4,373 thousand for the 2022 fiscal year compared to €1,976 thousand in 2021. This increase of €2,397 thousand is mainly due, on the one hand, to the full consolidation of Carbiolice over a full year (expenses taken into account from June 4, 2021 for the 2021 fiscal year) and, on the other, the Group's sales teams to support the acceleration of its developments and be able to meet market expectations by offering an effective and widely available recycling solution.

16.3 General and administrative expenses

General and administrative expenses (In thousands of euros)	12/31/2022	12/31/2021
Travel expenses and missions	(309)	(141)
Fees	(3,016)	(1,453)
Insurance	(86)	(72)
Taxes and duties	(151)	(136)
Employee expenses	(3,763)	(3,603)
Depreciation, amortization and impairment	(548)	(261)
Others	(934)	(585)
GENERAL AND ADMINISTRATIVE EXPENSES	(8,807)	(6,251)

For the 2021 fiscal year, general and administrative expenses include the costs of the Carbiolice entity from June 4, 2021.

General and administrative expenses amounted to €8,807 thousand for the 2022 fiscal year compared to €6,251 thousand in 2021. This increase of €2,556 thousand is mainly due to the increase in consulting services and fees.

**NOTE 17 • RELATED PARTIES****Executive compensation**

The compensation recognized as expenses for the main executives, corresponding to the members of the Board of Directors and the Executive Management, is as follows:

Executive compensation (In thousands of euros)	12/31/2022	12/31/2021
Short-term employee benefits	1,294	1,656
Post-employment benefits	9	15
Share-based payments	392	270
TOTAL EXECUTIVE COMPENSATION	1,695	1,940

Compensation recognized as expenses for the Company's main executives includes their salaries and bonuses, benefits in kind and Directors' fees. In addition, compensation includes post-employment benefits (Note 22) as well as share-based compensation (Note 13).

License agreement with Carbiolice

The Company entered into a patent license and know-how agreement with Carbiolice on August 30, 2016 for a period running until the expiry of the last of the patents granted, and an amendment signed on June 28, 2018.

Payment for this agreement is scheduled to take the form of an €8 million lump-sum royalty payment and variable royalties based on the revenue generated from Carbiolice's use of the licensed technology. No royalty income was recognized for the 2021 and 2022 fiscal years.

From June 4, 2021, this license agreement was reassessed and taken into account in the Group's assets (see Note 3.5).

NOTE 18 • STATUTORY AUDITORS' FEES

Statutory Auditors' fees (Amounts in thousands of euros excl. tax)	12/31/2022 PWC	12/31/2021 PWC
Statutory audit	100	43
Other services and due diligence directly related to the Statutory Auditors' assignment	-	-
Services other than certification of financial statements	79	236
SUB-TOTAL	179	279
Other services rendered	-	-
Tax	-	-
Others	-	-
SUB-TOTAL	-	-
TOTAL	179	279



NOTE 19 • NET FINANCIAL INCOME

Accounting principles

Financial income includes:

- expenses related to the Company's financing: interest paid and accretion of repayable advances and financial liabilities;
- income related to interest on term deposits and the capitalization contract;
- income related to repayable advances.

Net financial income/(expenses) (In thousands of euros)	12/31/2022	12/31/2021
Foreign exchange gains	1	-
Other financial income	133	42
FINANCIAL INCOME	134	43
Cost of borrowing	(1,724)	(493)
<i>Interest expense on borrowings</i>	<i>(1,224)</i>	<i>-</i>
<i>Interest expense on EIB loans</i>	<i>(375)</i>	<i>-</i>
<i>Interest expense on repayable advances</i>	<i>50</i>	<i>(237)</i>
<i>Interest expense on lease liabilities IFRS 16</i>	<i>(171)</i>	<i>(116)</i>
<i>Interest expense on employee benefit obligations IAS 19</i>	<i>(4)</i>	<i>(1)</i>
Other financial expenses	(49)	(4)
FINANCIAL EXPENSES	(1,774)	(497)
NET FINANCIAL INCOME/(EXPENSES)	(1,640)	(454)

The Company's financial income consists of interest on money-market investments and term account deposits. All available cash is placed in risk-free money market products.

Financial expenses come from interest expenses on loans and repayable advances.

NOTE 20 • INCOME TAX

Accounting principles

Tax assets and liabilities due in respect of the fiscal year and prior years are measured at the amount expected to be recovered or paid to the tax authorities. The tax rates and tax rules applied to determine these amounts are those adopted or substantially adopted at the closing date.

The income tax expense for the fiscal year includes current tax payable and deferred tax. Tax is recognized in the income statement, unless it is related to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in "Other comprehensive income" or directly in "Equity", respectively.

Current taxes

Current tax is calculated on the basis of tax regulations enacted or substantively enacted at the closing date in the countries where the Company's subsidiaries operate and generate taxable profits.

Deferred taxes

Deferred taxes are recognized according to the balance sheet approach of the liability method, for all temporary differences between the carrying amount of assets and liabilities and their tax bases. The valuation of deferred tax assets and liabilities is based on the way in which the Group expects their repayment using the tax rates that have been enacted or substantively enacted at the closing date.

In accordance with IAS 12, deferred tax assets and liabilities are not discounted.

The main temporary differences are related to tax losses carried forward.

Deferred tax assets are recognized for unused tax loss carryforwards to the extent that taxable temporary differences are available, and beyond that, when it is probable that the Company will have future taxable profits on which these unused tax losses may be allocated. The determination of the amount of deferred tax assets that may be recognized requires Management to make estimates both on the period of consumption of tax loss carryforwards, and on the level of future taxable profits, with regard to tax management strategies.

Deferred tax liabilities are recognized for all temporary taxable differences, except if the Group is able to control the date on which the temporary difference will reverse and it is probable that the temporary difference will not reverse in a foreseeable future.

The deferred tax calculations carried out on Carbios, Carbiolice and Carbios 54 show a deferred tax asset position of €567 thousand. These amounts were not recognized.

**Deferred tax liabilities recognized as part of the Carbiolice purchase price allocation exercise:**

For Carbiolice, deferred tax liabilities were recognized as follows in connection with the purchase price allocation exercise:

Recognition of deferred tax liabilities (In thousands of euros)	12/31/2022	12/31/2021
Tax losses	2,242	2,677
Rights of use	11	9
Provision - employee benefits	5	25
DEFERRED TAX ASSETS	2,258	2,710
Intangible assets	(3,952)	(4,404)
DEFERRED TAX LIABILITIES	(3,952)	(4,404)
DEFERRED TAX LIABILITIES RECOGNIZED	(1,693)	(1,693)

Tax rate and tax loss carryforwards

The income tax rate applicable to the Group is the rate currently in force in France, i.e., 25.83%.

The Group has tax losses that can be carried forward indefinitely in France. At December 31, 2022, they amounted to:

- €73,712 thousand for Carbios;
- €27,606 thousand for Carbiolice;
- €3,283 thousand for Carbios 54.

The Company recorded tax losses in the 2022 and 2021 fiscal years. As the recoverability of these tax losses is not considered probable over the coming periods due to the uncertainties inherent to the Group's business, no deferred tax assets were recognized in this respect at December 31, 2022 and 2021.

Carbiolice also recorded tax losses in the 2022 fiscal year. As the recoverability of these tax losses is not considered probable over the coming periods due to the uncertainties inherent in the business, Carbiolice has recognized deferred tax assets up to the cap on the use of tax losses carried forward as part of the purchase price allocation exercise. At December 31, 2022, the amount of tax losses relating to unrecognized deferred tax assets amounted to €17,243 thousand.

RECONCILIATION OF THEORETICAL AND EFFECTIVE TAX

Tax proof (In thousands of euros)	12/31/2022	12/31/2021
INCOME/(EXPENSES) BEFORE TAXES	(27,741)	3,780
Current tax rate	25.8%	26.5%
THEORETICAL TAX AT THE CURRENT RATE	6,935	(1,002)
Research tax credit (CIR)	798	700
Permanent differences	(26)	1,574
Non-capitalized tax loss	(6,781)	(6,086)
Deferred tax assets not capitalized	(562)	(40)
Impact of share-based payments	(364)	(466)
Impact of the equity method of Carbiolice	-	5,320
INCOME TAX	-	-
Effective tax rate	0.00%	0.00%

Tax credits correspond to the research tax credit (CIR), non-taxable income, recognized as a deduction from research and development costs (see Note 16.1 "Research and development expenses").



NOTE 21 • EARNINGS PER SHARE

Accounting principles

Basic earnings per share are calculated by dividing the earnings attributable to equity holders of the Company's shares by the weighted average number of shares outstanding during the period.

Diluted earnings per share are determined by adjusting the income attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding for the effects of all potentially dilutive ordinary shares.

If an anti-dilutive effect is generated by taking into account the instruments giving entitlement to deferred capital (BSA, BSPCE) for the calculation of the diluted earnings per share, these instruments are not taken into account.

Earnings per share	12/31/2022	12/31/2021
Weighted average number of shares outstanding	11,242,666	10,077,677
Number of diluted shares	12,216,131	10,775,325
Net income for the period - attributable to shareholders of the parent company (in thousands of euros)	(27,741)	3,780
BASIC EARNINGS PER SHARE (€/SHARE)	(2.47)	0.38
DILUTED EARNINGS PER SHARE (€/SHARE)*	(2.47)	0.35

* For the 2022 fiscal year, diluted earnings per share are identical to basic earnings per share. Potentially dilutive shares for the 2022 fiscal year (934,855 shares - 298,528 BSAs and 636,327 BSPCEs) were excluded from the calculation of diluted earnings per share, as these shares had an anti-dilutive effect due to the reported losses. For the 2021 fiscal year, the 697,648 potentially dilutive securities (179,600 BSAs and 518,048 BSPCEs) were included in the calculation of dilutive income.

NOTE 22 • EMPLOYEE BENEFIT OBLIGATIONS

Accounting principles

Defined benefit plans

The Group's defined benefit plans correspond to retirement benefits paid to employees in France.

The Group's obligation under this plan is recognized as a liability and measured using an actuarial method that takes into account the employee turnover rate, their life expectancy, the employee progression rate and a discount rate. The calculation is based on the projected unit credit method with final salary.

The cost of services is recognized in personnel expenses and includes:

- the cost of services rendered during the period;
- the cost of past services resulting from the amendment or reduction of the plan (fully recognized in profit or loss for the period in which it occurred); and
- gains and losses resulting from liquidations.

The interest expense, corresponding to the effect of unwinding the discount on commitments, is recognized in financial expenses.

Revaluations of the liability (actuarial difference) are recognized in other items that cannot be reclassified to comprehensive income.

**Defined contribution plans**

The contributions to be paid to a defined contribution plan are recognized as expenses when the corresponding service is rendered. Prepaid contributions are recognized as assets to the extent that a cash repayment or a reduction in future payments is possible. This is the general social security pension scheme and supplementary schemes.

The main actuarial assumptions used to measure retirement benefits are as follows:

ACTUARIAL ASSUMPTIONS	12/31/2022	12/31/2021
Retirement age	63 years	63 years
Collective bargaining agreement	Chemicals: Industry	
Discount rate	3.75%	1.00%
Mortality table	INSEE 2016-2018	INSEE 2016-2018
Rate of salary increases	3.00%	3.00%
Turnover rate	18 to 29 years old from 6.22% to 2.77% 30 to 39 years old from 2.77% to 2.18% 40 to 49 years old from 2.04% to 0.15% 50 to 54 years old 0.1% 55 to 64 years old 0.05% Over 65 years old 0%	
Social security contribution rate		
Carbios	45%	45%
Carbiolice	40%	40%

The provision for retirement commitments changed as follows:

(In thousands of euros)	Pension commitment
AT JANUARY 1, 2021	159
Change in scope	53
Cost of services rendered	28
Interest expense	1
Actuarial gains or losses	36
AT DECEMBER 31, 2021	278
Change in scope	0
Cost of services rendered	23
Interest expense	4
Actuarial gains or losses	(120)
AT DECEMBER 31, 2022	184

NOTE 23 • OFF-BALANCE SHEET COMMITMENTS

23.1 Risk hedging set up for the benefit of funders

The two Bpifrance loans are covered by life insurance policies - PTIA underwritten for Alain MARTY (50%) and, initially, Martin STEPHAN (50%). Following the departure of the latter, the contract is being transferred to Stéphane FERREIRA. The term of loans provides for a 2 year deferred repayment and annual straight-line repayment over the following 5 years.

23.2 Other commitments

Due to the impact of IFRS 16, the off-balance sheet commitments existing at December 31, 2022 and December 31, 2021 are not considered to be significant.



5.4 STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS OF CARBIOS SA PREPARED IN ACCORDANCE WITH IFRS AS ADOPTED BY THE EUROPEAN UNION

(Fiscal year ended December 31, 2022)

Carbios
Cataroux site
8 rue de la Groliere
63100 Clermont-Ferrand, France

To the Shareholders' meeting

Opinion

Pursuant to the mission entrusted to us by your Shareholders' Meeting, we have audited the consolidated financial statements of Carbios for the fiscal year ended December 31, 2022, as appended to this report.

We certify that the consolidated financial statements are, in accordance with IFRS as adopted by the European Union, regular and fair and give a true and fair view of the results of operations for the past fiscal year as well as of the financial position and assets, at the end of the fiscal year, of the group consisting of the persons and entities included in the consolidation.

Basis of opinion

Audit guidelines

We conducted our audit in accordance with the professional standards applicable in France. We believe that the information we have collected is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under these standards are indicated in the section "Statutory Auditors' responsibilities with regard to the audit of the consolidated financial statements" in this report.

Independence

We carried out our audit in compliance with the rules of independence provided for by the French Commercial Code and by the Statutory Auditors' Code of Ethics for the period from January 1, 2022 to the date of issue of our report.

Justification for the assessments

In application of the provisions of Articles L. 823-9 and R. 823-7 of the French Commercial Code relating to the justification of our assessments, we bring to your attention the following assessments, which, in our professional judgment, were the most important for the audit of the consolidated financial statements for the fiscal year.

The assessments made come within the context of the audit of the consolidated financial statements taken as a whole and the formation of our opinion expressed above. We do not express an opinion on the elements of these consolidated financial statements taken separately.

Accounting estimates

The goodwill resulting from the takeover of Carbiolice, the net amount of which appears in the consolidated statement of financial position December 31, 2022 and stands at €20,583 thousand, is tested for impairment as soon as an indication of impairment appears and at least annually, in accordance with the procedures described in Notes 5.1 "Subsequent impairment tests" and 5.4 "Impairment tests" in the notes to the financial statements. We examined the methods used to implement the impairment test and verified the consistency of the assumptions used with the forecast data from the Carbiolice business plan and verified that Note 5.4 provides appropriate information.

As part of our assessments, we verified the reasonableness of these estimates.

Specific checks

In accordance with professional standards applicable in France, we have also performed the specific verifications required by laws and regulations of the information relating to the Group provided in the Board of Directors management report.

We have no matters to report as to its fair presentation and consistency with the consolidated financial statements.



Responsibilities of management and the people comprising the corporate governance with regard to the consolidated financial statements

The management team is responsible for preparing consolidated financial statements that present a true and fair view in accordance with IFRS, as adopted by the European Union, and to implement the internal control that it deems necessary for preparing consolidated financial statements that do not include material misstatements, whether due to fraud or error.

When preparing the consolidated financial statements, it is the responsibility of management to assess the company's ability to continue as a going concern, to present in these financial statements, where applicable, the necessary information relating to the going concern and to apply the going concern accounting convention, unless it is planned to liquidate the company or cease operations.

The consolidated financial statements were approved by the Board of Directors.

Responsibilities of the Statutory Auditors with regard to the audit of the consolidated financial statements

It is our responsibility to prepare a report on the consolidated financial statements. Our aim is to obtain the reasonable assurance that the consolidated financial statements taken as a whole do not include material misstatements. Reasonable assurance corresponds to a high level of assurance, but does not guarantee that an audit conducted in accordance with professional standards will systematically detect all material misstatements. Misstatements may come from fraud or result from errors and are considered as material when we can reasonably expect that they may, taken individually or cumulatively, influence the economic decisions that users of the financial statements may make based on the financial statements.

As stipulated in Article L. 823-10-1 of the French Commercial Code, our certification task for the financial statements does not consist of guaranteeing the viability or quality of your company.

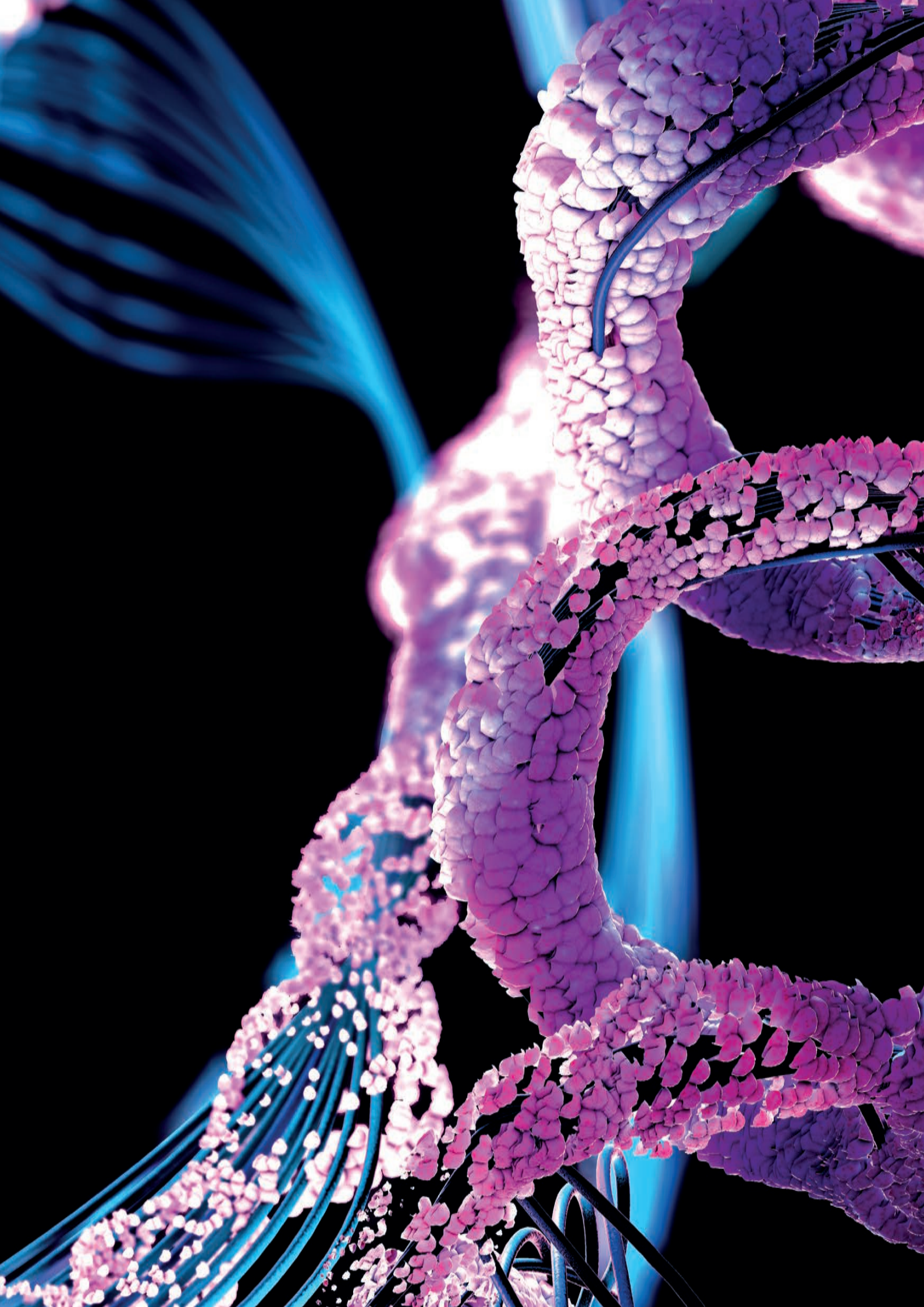
As part of an audit conducted in accordance with the professional standards applicable in France, the Statutory Auditor exercises his/her professional judgment throughout this audit.

Moreover:

- he/she identifies and assesses the risks that the consolidated financial statements include material misstatements, either from fraud or resulting from errors, defines and implements audit procedures to address these risks and collects the elements that he/she considers sufficient and appropriate on which to base his/her opinion. The risk of non-detection of a material misstatement from fraud is higher than for a material misstatement resulting from an error, as fraud may involve collusion, falsification, voluntary omission, false declaration or circumvention of internal control;
- he/she takes note of the relevant internal control for the audit in order to define the appropriate audit procedures and not to express an opinion on the effectiveness of the internal control;
- he/she assesses the appropriate nature of the selected accounting methods and the reasonable nature of the accounting estimates made by management, as well as the information about them provided in the consolidated financial statements;
- he/she assesses the appropriate nature of management's application of the going concern convention and, depending on the elements collected, whether or not a material uncertainty or circumstances exist that are likely to call into question the company's ability to continue its operations. This assessment is based on the elements collected up to the date of his/her report, it being recalled that subsequent circumstances or events may call into question the going concern. If he/she concludes that a material uncertainty exists, he/she draws the readers' attention to the information provided in the consolidated financial statements on the subject of this uncertainty or, if this information is not provided or is not relevant, he/she formulates a certification with reserves or refuses the certification;
- he/she assesses the presentation of the consolidated financial statements as a whole and assesses whether the consolidated financial statements reflect the underlying operations and events so as to provide a true and fair view.
- concerning the financial information of the persons or entities included in the scope of consolidation, he/she collects the elements that he/she considers sufficient and appropriate to express an opinion on the consolidated financial statements. He/she is responsible for the management, supervision and performance of the audit of the consolidated financial statements as well as the opinion expressed thereon.

Lyon, April 12, 2023
The Statutory Auditor
PricewaterhouseCoopers Audit
Gonzague Van Royen







6. SHARE CAPITAL AND SHAREHOLDING STRUCTURE

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6.1 SHAREHOLDING STRUCTURE

6.1.1 DISTRIBUTION OF SHARE CAPITAL

6.1.1.1 Distribution of share capital over the last three fiscal years

Shareholders	Capital as of 12/31/2022			Capital as of 12/31/2021			Capital as of 12/31/2020		
	Number of shares	% of share capital	% of voting rights	Number of shares	% of share capital	% of voting rights	Number of shares	% of share capital	% of voting rights
Truffle Capital Funds	46,511	0.41%	0.41%	46,511	0.42%	0.42%	162,227	2.00%	2.00%
Directors ⁽¹⁾	15,646	0.14%	0.14%	15,804	0.14%	0.14%	199	0.00%	0.00%
Copernicus Wealth Management S.A. ⁽²⁾	658,392	5.86%	5.86%	658,392	5.89%	5.88%	635,392	7.84%	7.82%
Business Opportunities for L'Oréal Development (BOLD)	660,248	5.87%	5.87%	660,248	5.91%	5.90%	482,834	5.96%	5.95%
Michelin Ventures	486,400	4.33%	4.33%	486,400	4.35%	4.35%	363,410	4.48%	4.48%
L'Occitane Group	263,157	2.34%	2.32%	263,157	2.35%	2.35%	0	0.00%	0.00%
Treasury shares	3,729	0.03%	N/A	3,648	0.03%	N/A	1,600	0.02%	N/A
Free float	9,108,583	81.02%	81.18%	9,045,712	80.91%	80.89%	6,459,635	79.70%	79.75%
TOTAL	11,242,666	100.0%	100.0%	11,179,472	100.0%	100.0%	8,105,297	100.0%	100.0%

(1) The "directors" line of the table does not take into account holdings of BOLD or Michelin Ventures. Specific lines will be dedicated to these directors.

(2) Shares held by funds and/or individuals with Copernicus Wealth Management S.A. as their management company.

To the best of its knowledge, the Company does not have any collateral on a significant portion of its capital.

6.1.1.2 Breakdown of share capital at the date of this Universal Registration Document

The table below indicates the breakdown of Carbios' share capital and voting rights, to the best of the Company's knowledge, at March 31, 2023 as well as the breakdown of share capital if all the financial instruments issued or to be issued giving access to the capital were to be exercised:

Shareholders	Existing share capital					Breakdown of share capital in the event of the exercise of all financial instruments giving access to the share capital				
	Number of shares	% of share capital	Theoretical number of voting rights	Number of voting rights exercisable	% of voting rights exercisable	Number of shares	% of share capital	Theoretical number of voting rights	Number of voting rights exercisable	% of voting rights exercisable
BOLD	660,248	5.86%	660,248	660,248	5.82%	660,248	5.40%	660,248	660,248	5.37%
Copernicus Wealth Management S.A. ⁽¹⁾	658,392	5.84%	658,392	658,392	5.80%	658,392	5.39%	658,392	658,392	5.35%
Michelin Ventures	486,400	4.32%	486,400	486,400	4.29%	486,400	3.98%	486,400	486,400	3.96%
L'Occitane Group	263,157	2.34%	263,157	263,157	2.32%	263,157	2.15%	263,157	263,157	2.14%
Truffle Capital Funds	46,511	0.41%	46,511	46,511	0.41%	46,511	0.38%	46,511	46,511	0.38%
EIB	0	0.00%	0	0	0.00%	296,928	2.43%	296,928	296,928	2.41%
Directors ⁽²⁾	0	0.00%	0	0	0.00%	0	0.00%	0	0	0.00%
Treasury shares	7,323	0.06%	7,323	N/A	N/A	7,323	0.06%	7,323	N/A	N/A
Free float	9,145,298	81.17%	9,233,226	9,233,226	81.36%	9,797,172	80.20%	9,885,100	9,885,100	80.39%
Total	11,267,329	100.00%	11,355,257	11,347,934	100.00%	12,216,131	100.00%	12,304,059	12,296,736	100.00%

(1) Shares held by funds and/or individuals with Copernicus Wealth Management SA as their management company.

(2) The "directors" line of the table does not take into account holdings of BOLD or Michelin Ventures. Specific lines will be dedicated to these directors. BOLD, Business Opportunity for L'Oréal Development, represented by Laurent SCHMITT and Michelin Ventures, represented by Nicolas SEEBOTH, have been members of the Board of Directors since June 23, 2021.



Carbios' main shareholders include:

- Copernicus Wealth Management, a manager of private and public investment funds. It is based in Switzerland and recognized by the local supervisory body FINMA, the CSSF in Luxembourg and the CBI in Ireland. Through the investment vehicles it manages, Copernicus Wealth Management favors investments in innovative companies with high growth potential that can improve social well-being and address important issues such as the environment;
- Business Opportunities for L'Oréal Development (BOLD), a venture capital fund created by L'Oréal to support the development of innovative start-ups with high growth potential by purchasing minority stakes in their share capital and providing them with expertise, networks and mentoring;
- the Michelin Ventures Fund, created by Michelin and launched in 2018 to give concrete expression to Michelin's Open Innovation approach. The purpose of this fund is to invest in high-tech materials that include sustainable development, new experiences and digital solutions that improve the mobility of goods and people. The purpose of the fund is to promote safer, more pleasant and environmentally responsible mobility;
- L'Occitane International S.A. (Switzerland), a wholly-owned subsidiary of L'Occitane International SA (LOI) and head office of L'Occitane Group, a retailer of cosmetic well-being products based on natural and organic ingredients, which has more than 3,000 points of sale in 90 countries; and
- Truffle Capital, a major independent player in the European private equity market. Truffle Capital aims to build and support high-potential companies developing breakthrough technologies in two business sectors: Life Sciences and Information Technologies. Today, Truffle Capital manages more than €700 million in vehicles for natural persons (FCPIs, management mandates and holdings) as well as institutional funds (FPCIs), and has built a solid portfolio of rapidly growing innovative companies.

Dilution generated by the exercise of various BSA and BCE plans based on the number of shares as at the date of this Universal Registration Document

- 651,874 BCEs. If all of these BCEs were exercised, they would give rights to 651,874 new shares.
- 296,928 BSAs. If all of these BSAs were exercised, they would give rights to 296,928 new shares.

	Existing securities	In the event of exercising BCEs	In the event of exercising BSAs	In the event of exercising BSAs and BCEs
Number of shares	11,267,329	651,874	296,928	948,802
Total number of shares after exercising warrants		11,919,203	11,564,257	12,216,131
Dilution (on an undiluted basis)		5.79%	2.64%	8.42%

6.1.2 DOUBLE VOTING RIGHTS

Double voting rights compared to the percentage of share capital they represent are granted to all fully paid-up shares, for which proof is provided of registration in the name of the same shareholder for at least two years.

At the date of this Universal Registration Document, on March 31, 2023, among the shareholders, the registered shareholders included in the free float hold double voting rights for 87,928 of their shares.

At the date of this Universal Registration Document, 97,928 Company shares carried double voting rights. These shares represent 0.78% of the share capital and 1.55% of exercisable voting rights.

6.1.3 CONTROL OF THE ISSUER

Given the capitalization table and the table showing the breakdown of voting rights set out in section 6.1.1 above, it is clear that capital and voting rights are distributed in such a way that no shareholder holds either a majority of securities or votes, or a minority that could block certain decisions.

The Company believes, therefore, that there is no risk that control be exercised in an abusive manner by any of its shareholders. It should be noted that 4 of the 10 directors on the Company's Board of Directors are independent, that the positions of Chairman and Chief Executive Officer are separate within the Company and that the latter has put in place statutory committees (Scientific Committee and Audit Committee) and non-statutory committees (Intellectual Property Committee, Compensation and Appointments Committee and Strategy Committee), as described earlier in sections 4.1.5.2.1 and 4.1.5.2.2 of this Universal Registration Document.

The Company has not taken any other measures to ensure that control is not exercised in an abusive manner.



6.2 STOCK MARKET DATA

The Company's shares have been listed on the Euronext Growth Paris market since December 19, 2013.

6.2.1 GENERAL INFORMATION

Number of shares listed as at 12/31/2022	11,242,666
Highest price over one year (in 2022)	€41.96
Lowest price over one year (in 2022)	€19.08
Year's average daily volume (in 2022)	59,835 shares
ISIN	FR0011648716
Stock market indices	Euronext Growth All-share, Euronext Growth Bpifrance Innovation, Euronext Tech Croissance, Euronext Tech Leaders, CAC PME and Euronext PEA PME 150

6.2.2 CHANGE IN SHARE PRICE SINCE JANUARY 1, 2022

	Price per share (in euros)	
	Highest	Lowest
2022	41.96	19.08
January	41.96	36.22
February	39.50	31.00
March	37.36	27.30
April	34.96	30.84
May	35.82	30.22
June	35.16	26.80
July	32.82	27.92
August	33.70	28.02
September	29.44	20.20
October	33.20	19.08
November	35.14	30.40
December	37.80	31.44
2023	41.00	31.62
January	41.00	34.20
February	40.30	36.06
March	40.22	31.62

6.3 DIVIDEND POLICY

The Company declares that it has no dividend policy in place.



6.4 OTHER INFORMATION ON SHARE CAPITAL

6.4.1 SHARE CAPITAL

6.4.1.1 Amount of share capital

At the date of this Universal Registration Document, the Company's share capital stood at €7,887,130.30 divided into 11,267,329 ordinary shares with a par value of €0.70 each, all in the same class, fully subscribed and fully paid up.

To the best of its knowledge, the Company does not have any collateral on a significant portion of its capital.

6.4.1.2 Non-equity shares

At the date of this Universal Registration Document, there are no non-equity shares.

6.4.1.3 Treasury stock

The Company concluded a liquidity agreement with Oddo BHF and Natixis on June 12, 2020, taking effect on July 1, 2020 in the evening, for a period of 12 months and renewable by tacit agreement. The purpose of this agreement is to favor the liquidity of transactions and the price stability of Carbios shares without hindering the regular functioning of the market.

We inform you that on December 31, 2022, the following resources were allocated to the liquidity account:

- number of shares: 3,729 securities;
- cash balance of the liquidity account: €563,058.69;
- carrying amount of the shares: €131,560.91

During the 2nd half of 2022, the following total was traded:

Purchase	121,664 shares	€3,628,198.45	3,611 transactions
Sale	120,735 shares	€3,565,927.25	3,795 transactions

Please note that, when the agreement was drafted with Oddo BHF and Natixis, the following funds were included in the dedicated liquidity account:

- 2,048 shares transferred from the former liquidity agreement;
- €151,529.34 in cash transferred from the former liquidity agreement.

6.4.1.4 Potential share capital

The table below summarizes all of the BSAs and BSPCEs issued by the Company for the benefit of its corporate officers, employees and consultants, and not exercised as at the date of this Universal Registration Document:

Holders	BCE 2015	BCE 2020	BCE 2021	BCE 2022	BSA 2022
Emmanuel LADENT	-	-	36,735	172,023	
Other employees	15,000	68,500	63,976	284,452	
Former employees	-	11,188	-	-	
Others					296,928
TOTAL	15,000	79,688	100,711	456,475	296,928

At the date of this Universal Registration Document, the various BSA and BSPCE plans allow the subscription of new ordinary shares, potentially representing a total of 948,802 shares to be issued, i.e., a dilution of 8.42% on an undiluted basis (amounting at the date of this Universal Registration Document to 11,267,329 shares) and 7.77% on a diluted basis.

Details of the various allocation plans are set out in section 6.4.2 of this Universal Registration Document.



6.4.1.5 Unissued authorized share capital

The table below presents the various current financial delegations granted to the Board of Directors by the Combined Shareholders' Meeting of the Company:

Purpose of the resolution	Resolution	Period of validity and expiration date	Issue price	Ceiling (maximum nominal amount in euros)	Implementation of delegations of authority/proxies during the 2020 fiscal year
Delegation of authority to the Board of Directors to decide to issue, on one or more occasions, a maximum number of 300,000 founder share subscription warrants (BSPCEs) granting rights to the subscription of 300,000 new ordinary Company shares, this issuance being reserved for the benefit of a specific category of persons (employees and management team of the Company subject to the Company employee tax regime)	GM of June 18, 2020 Thirteenth resolution	This delegation expired on December 17, 2021.	BSPCEs issued without consideration. The subscription price of shares on the exercise of the BSPCE: set by the Board of Directors, it being understood that if the Company has carried out a capital increase through the issue of securities giving rights equivalent to those resulting from the exercise of the warrant within six months prior to the warrant allocation, this price must be at least equal to the issue price, set at the time of issue, of the securities in question. If such a capital increase has not taken place within six months prior to the allocation of the BSPCEs, the subscription price of the underlying shares shall be set by the Board of Directors, and shall be at least equal to the average volume-weighted price of the last twenty (20) trading days prior to the allocation of the aforementioned BSPCEs by the Board of Directors	Nominal amount of the maximum capital increase: €210,000 This amount will be deducted from the total authorized ceiling, set at the 15th resolution of the Shareholders' Meeting of June 18, 2020 ⁽¹⁾	Meeting of the Board of Directors of January 15, 2021: Issuance of 85,000 BCE-2021 Meeting of the Board of Directors of November 5, 2021: Issuance of 43,125 BCE-2021
Delegation of authority to the Board of Directors to decide on the issuance of shares and/or securities giving access, immediately or in the future, to the share capital or giving rights to debt securities, with cancellation of preferential subscription rights without naming beneficiaries and by public offering	GM of January 8, 2021 Fifth resolution	This delegation is no longer valid due to the vote of a delegation for the same purpose at the Shareholders' Meeting of February 2, 2022.	At least equal to the volume-weighted average of the last five trading sessions prior to setting the issue price for new shares, reduced, as the case may be, by a maximum discount of 20% after correction of this average, in the event of any difference in dividend entitlement dates.	The nominal amount of capital increases is set at €2,100,000(2) Nominal amount of securities representing debt: €100,000,000 ⁽³⁾	Board of Directors meeting of April 29, 2021: Implementation of the delegation of authority. Decision of the Chief Executive Officer on May 12, 2021: The Chief Executive Officer made use of the delegation granted to him by the Board of Directors at its meeting of May 10, 2021 and noted a capital increase in the amount of €2,100,000 through the issue of 3,000,000 new Company shares.
Authorization granted to the Board of Directors for the purchase by the Company of its own shares in accordance with Article L. 22-10-62 of the French Commercial Code	GM of February 2, 2022 Third resolution	18 months from the GM, i.e., until August 1, 2023		10% of the share capital	None



Purpose of the resolution	Resolution	Period of validity and expiration date	Issue price	Ceiling (maximum nominal amount in euros)	Implementation of delegations of authority/proxies during the 2020 fiscal year
Delegation of authority to the Board of Directors to decide on either the issuance, with preferential subscription rights, of shares and/or securities giving access, immediately or in the future, to the share capital or giving rights to debt securities, or the incorporation into the share capital of profits, reserves or share premiums	GM of February 2, 2022 Second resolution	26 months from the GM, i.e., until April 1, 2024		The nominal amount of capital increases is set at €3,906,000 ⁽⁴⁾ Nominal amount of securities representing debt: €223,000,000 ⁽⁵⁾	None.
Authorization to the Board of Directors, for the purpose of increasing the number of securities issued in accordance with the provisions of Article L. 225-135-1 of the French Commercial Code, in the event of the implementation of the delegation of authority referred to in the previous resolution with preferential subscription rights maintained	GM of February 2, 2022 Third resolution	26 months (it being specified that this authorization shall be implemented within thirty (30) days of the close of the subscriptions for each capital increase determined under the previous resolution).	Same price as the initial issue	The nominal amount of capital increases is set at €3,906,000 ⁽⁴⁾ Nominal amount of securities representing debt: €223,000,000 ⁽⁵⁾	None.
Delegation of authority to the Board of Directors to decide on the issuance of shares and/or securities giving access, immediately or in the future, to the share capital or giving rights to debt securities, with cancellation of preferential subscription rights without naming beneficiaries and by public offering	GM of February 2, 2022 Third resolution	26 months from the GM, i.e., until April 1, 2024	At least equal to the volume-weighted average of the last five trading sessions prior to setting the issue price for new shares, reduced, as the case may be, by a maximum discount of 20%, after correction of this average in the event of any difference in dividend entitlement dates	The nominal amount of the capital increases is set at €780,000, which may be increased to €1,560,000 in the event of a priority period for shareholders ⁽⁴⁾ Nominal amount of securities representing debt: €45,000,000 ⁽⁵⁾	None.
Delegation of authority to the Board of Directors to decide to issue, with cancellation of preferential subscription rights, 296,928 share subscription warrants ("BSA") giving the right to subscribe to 296,928 new ordinary Company shares, for the benefit of the European Investment Bank	GM of February 2, 2022 Eighth Resolution	18 months from the GM, i.e., until August 1, 2023	Issue price of the share subscription warrants (BSAs): €0.01 Exercise price of the BSAs: - for 50% of the BSAs, €40; - for 50% of the BSAs, an amount equal to the volume-weighted average of the last 3 trading days preceding the 5th day preceding the signature of the contract relating to the issuance of the BSAs, i.e., €38.8861.	Maximum nominal amount of capital increases resulting from the exercise of the share subscription warrants (BSA): €207,849.60	Meeting of the Board of Directors of February 3, 2022: Implementation of the delegation of authority.



6. SHARE CAPITAL AND SHAREHOLDING STRUCTURE

Purpose of the resolution	Resolution	Period of validity and expiration date	Issue price	Ceiling (maximum nominal amount in euros)	Implementation of delegations of authority/proxies during the 2020 fiscal year
Authorization to the Board of Directors to reduce the Company's share capital by means of canceling shares	GM of January 8, 2021 Eleventh resolution	18 months, effective from the GM, i.e., until July 7, 2022		10% of the share capital per period of 24 months	None
Delegation of powers to the Board of Directors to decide on a capital increase in cash reserved for employees who are members of a company savings plan in accordance with the provisions of articles L. 225-129-6 of the French Commercial Code and L. 3332-18 et seq. of the French Labor Code, with cancellation of preferential subscription rights reserved for the benefit of Company employees	GM of January 8, 2022 Eleventh resolution	26 months from the GM, i.e., until April 1, 2025	At most equal to the average of the listed prices for the last twenty trading sessions preceding the day of the decision setting the opening date of the subscription, less a maximum discount of 30% (or 40% if the lock-up period provided for by the plan is greater than or equal to 10 years)	Nominal amount of the maximum capital increase: €5,000	None

(1) This amount is deducted from the overall ceiling of capital increases provided for in the Fifteenth Resolution of the Shareholders' Meeting of June 18, 2020, set at €1,810,000.

(2) This amount is deducted from the overall ceiling of capital increases provided for in the Tenth Resolution of the Shareholders' Meeting of January 8, 2021, set at €2,100,000.

(3) This amount is deducted from the overall ceiling of issues of debt securities provided for in the Tenth Resolution of the Shareholders' Meeting of January 8, 2021, set at €100,000,000.

(4) This amount is deducted from the overall ceiling of capital increases provided for in the Twelfth Resolution of the Shareholders' Meeting of February 2, 2022, set at €3,906,000.

(5) This amount is deducted from the overall ceiling of issues of debt securities provided for in the Twelfth Resolution of the Shareholders' Meeting of February 2, 2022, set at €223,000,000.



6.4.1.6 Table of changes in share capital

The table below presents the changes in the Company's share capital since its creation.

Date	Nature of the transaction	Nominal value per share	Issue premium per share	Number of shares issued/ canceled	Total number of shares	Share capital after transaction
Bylaws	Creation	€1.00	-	500,000	500,000	€500,000.00
01/17/2012	Increase	€1.00	-	300,000	800,000	€800,000.00
05/10/2012	Increase	€1.00	-	700,000	1,500,000	€1,500,000.00
07/09/2012	Increase	€1.00	€1.25	577,780	2,077,780	€2,077,780.00
09/28/2012	Increase	€1.00	€1.25	75,555	2,153,335	€2,153,335.00
12/04/2012	Increase	€1.00	€1.25	533,332	2,686,667	€2,686,667.00
02/20/2013	Decrease	€0.70	-	-	2,686,667	€1,880,666.90
12/13/2013	Increase	€0.70	€6.315	116,647	2,803,314	€1,962,319.80
12/13/2013	Increase	€0.70	€13.33	934,959	3,738,273	€2,616,791.10
01/13/2014	Increase	€0.70	€13.33	11,400	3,749,673	€2,624,771.10
03/04/2015	Increase	€0.70	€1.55	3,500	3,753,173	€2,627,221.10
03/04/2015	Increase	€0.70	€0.30	5,000	3,758,173	€2,630,721.10
03/22/2016	Increase	€0.70	€0.30	30,000	3,788,173	€2,651,721.10
03/22/2016	Increase	€0.70	€1.55	10,000	3,798,173	€2,658,721.10
03/21/2017	Increase	€0.70	€0.30	7,614	3,805,787	€2,664,050.90
03/21/2017	Increase	€0.70	€1.55	29,000	3,834,787	€2,684,350.90
07/21/2017	Increase	€0.70	€7.05	466,182	4,300,969	€3,010,678.30
09/19/2017	Increase	€0.70	€5.30	20,000	4,320,969	€3,024,678.30
09/19/2017	Increase	€0.70	€5.50	15,000	4,335,969	€3,035,178.30
09/19/2017	Increase	€0.70	€5.90	15,000	4,350,969	€3,045,678.30
09/19/2017	Increase	€0.70	€5.79	10,000	4,360,969	€3,052,678.30
09/19/2017	Increase	€0.70	€6.45	30,000	4,390,969	€3,073,678.30
09/19/2017	Increase	€0.70	€6.55	15,000	4,405,969	€3,084,178.30
09/19/2017	Increase	€0.70	€7.70	35,000	4,440,969	€3,108,324.10
09/19/2017	Increase	€0.70	€1.55	49,494	4,490,463	€3,143,678.30
09/19/2017	Increase	€0.70	€0.30	2,506	4,492,969	€3,145,078.30
11/20/2017	Increase	€0.70	€ 8.30	20,000	4,512,969	€3,159,078.30
11/20/2017	Increase	€0.70	€8.40	30,000	4,542,969	€3,180,078.30
11/20/2017	Increase	€0.70	€8.55	10,000	4,552,969	€3,187,078.30
11/20/2017	Increase	€0.70	€1.55	3,500	4,556,469	€3,189,528.30
12/12/2017	Increase	€0.70	€1.55	10,838	4,567,307	€3,197,114.90
03/27/2018	Increase	€0.70	€9.70	5,688	4,572,995	€3,201,096.50
05/03/2018	Increase	€0.70	€9.70	116	4,573,111	€3,201,177.70
06/27/2018	Increase	€0.70	€9.70	168	4,573,279	€3,201,295.30
09/20/2018	Increase	€0.70	€9.70	588	4,573,867	€3,201,706.90
09/20/2018	Increase	€0.70	€ 7.60	40,000	4,613,867	€3,229,706.90
12/06/2018	Increase	€0.70	€9.70	3,356	4,617,223	€3,232,056.10
12/06/2018	Increase	€0.70	€4.40	20,000	4,637,223	€3,246,056.10
12/06/2018	Increase	€0.70	€4.85	20,000	4,657,223	€3,260,056.10
06/28/2019	Increase	€0.70	€5.75	2,245,886	6,903,109	€4,832,176.30



6. SHARE CAPITAL AND SHAREHOLDING STRUCTURE

Date	Nature of the transaction	Nominal value per share	Issue premium per share	Number of shares issued/ canceled	Total number of shares	Share capital after transaction
12/04/2019	Increase	€0.70	€1.55	1,500	6,904,609	€4,833,226.30
06/17/2020	Increase	€0.70	€10.81	18,991	6,923,600	€4,846,520.00
06/17/2020	Increase	€0.70	€10.52	30,000	6,953,600	€4,867,520.00
07/22/2020	Increase	€0.70	€25.55	1,028,572	7,982,172	€5,587,520.40
10/09/2020	Increase	€0.70	€34.30	100,000	8,082,172	€5,657,520.40
01/15/2021	Increase	€0.70	€7.06	23,125	8,105,297	€5,673,707.90
01/15/2021	Increase	€0.70	€11.75	9,600	8,114,897	€5,680,427.90
03/11/2021	Increase	€0.70	€11.75	11,000	8,125,897	€5,688,127.90
03/11/2021	Increase	€0.70	€19.91	14,375	8,140,272	€5,698,190.40
03/11/2021	Increase	€0.70	€7.58	9,600	8,149,872	€5,704,910.40
03/11/2021	Increase	€0.70	€11.76	9,600	8,159,472	€5,711,630.40
03/11/2021	Increase	€0.70	€11.76	5,000	8,164,472	€5,715,130.40
05/12/2021	Increase	€0.70	€37.30	3,000,000	11,164,472	€7,815,130.40
06/23/2021	RAN allocation	-	-	-	11,164,472	€7,815,130.40
11/05/2021	Increase	€0.70	€7.16	5,000	11,169,472	€7,818,630.40
11/05/2021	Increase	€0.70	€10.52	6,000	11,175,472	€7,822,830.40
12/16/2021	Increase	€0.70	€29.59	2,000	11,177,472	€7,824,230.40
04/05/2022	Increase	€0.70	€7.16	5,000	11,184,472	€7,829,130.40
05/05/2022	Increase	€0.70	€1.55	1,548	11,186,020	€7,830,214.00
05/05/2022	Increase	€0.70	€4.59999	1,000	11,187,020	€7,830,914.00
05/05/2022	Increase	€0.70	€4.59999	2,000	11,189,020	€7,832,314.00
05/06/2022	Increase	€0.70	€4.59999	1,000	11,190,020	€7,833,014.00
05/10/2022	Increase	€0.70	€4.59999	2,000	11,192,020	€7,834,414.00
05/11/2022	Increase	€0.70	€4.59999	2,000	11,194,020	€7,835,814.00
05/13/2022	Increase	€0.70	€4.59999	2,000	11,196,020	€7,837,214.00
05/17/2022	Increase	€0.70	€4.59999	2,000	11,198,020	€7,838,614.00
05/18/2022	Increase	€0.70	€4.59999	2,000	11,200,020	€7,840,014.00
05/20/2022	Increase	€0.70	€4.59999	2,000	11,202,020	€7,841,414.00
05/23/2022	Increase	€0.70	€4.59999	2,083	11,204,103	€7,842,872.10
06/07/2022	Increase	€0.70	€0.30	1,253	11,205,356	€7,843,749.20
06/13/2022	Increase	€0.70	€4.59999	2,000	11,207,356	€7,845,149.20
07/06/2022	Increase	€0.70	€7.16	746	11,207,356	€7,845,671.40
07/08/2022	Increase	€0.70	€7.06	5,000	11,208,102	€7,849,171.40
07/11/2022	Increase	€0.70	€7.16	661	11,213,102	€7,849,634.10
07/18/2022	Increase	€0.70	€7.16	3,593	11,213,763	€7,852,149.20
07/21/2022	Increase	€0.70	€29.5899	31	11,217,356	€7,852,170.90
07/22/2022	Increase	€0.70	€29.5899	4,969	11,217,387	€7,855,649.20
08/15/2022	Increase	€0.70	€29.5899	53	11,222,356	€7,855,686.30
08/16/2022	Increase	€0.70	€29.5899	2,510	11,222,409	€7,857,443.30
08/17/2022	Increase	€0.70	€29.5899	5,000	11,224,919	€7,860,943.30
09/09/2022	Increase	€0.70	€1.5500	6,747	11,229,919	€7,865,666.20
10/24/2022	Increase	€0.70	€7.16	2,000	11,238,666	€7,867,066.20
10/27/2022	Increase	€0.70	€7.16	2,000	11,240,666	€7,868,466.20



Date	Nature of the transaction	Nominal value per share	Issue premium per share	Number of shares issued/ canceled	Total number of shares	Share capital after transaction
11/16/2022	Increase	€0.70	€7.16	2,000	11,242,666	€7,869,866.20
01/13/2023	Increase	€0.70	€7.16	2,000	11,244,666	€7,871,266.20
01/13/2023	Increase	€0.70	€7.16	2,000	11,246,666	€7,872,666.20
01/23/2023	Increase	€0.70	€10.5240	1,600	11,248,266	€7,873,786.20
02/03/2023	Increase	€0.70	€7.16	2,000	11,250,266	€7,875,186.20
02/06/2023	Increase	€0.70	€7.16	2,000	11,252,266	€7,876,586.20
02/09/2023	Increase	€0.70	€7.05934	1,500	11,253,766	€7,877,636.20
02/20/2023	Increase	€0.70	€7.16	2,000	11,255,766	€7,879,036.20
02/28/2023	Increase	€0.70	€7.16	6	11,255,772	€7,879,040.40
03/01/2023	Increase	€0.70	€7.16	1,994	11,257,766	€7,880,436.20
03/02/2023	Increase	€0.70	€7.16	2,000	11,259,766	€7,881,836.20
03/06/2023	Increase	€0.70	€7.05934	1,563	11,261,329	€7,882,930.30
03/14/2023	Increase	€0.70	€7.05934	2,000	11,263,329	€7,884,330.30
03/28/2023	Increase	€0.70	€7.05934	2,000	11,265,329	€7,885,730.30
03/30/2023	Increase	€0.70	€7.05934	2,000	11,267,329	€7,887,130.30

6.4.2 EQUITY INVESTMENTS AND SECURITIES GIVING ACCESS TO THE SHARE CAPITAL OF EXECUTIVE CORPORATE OFFICERS AND EMPLOYEES

At the date of this Universal Registration Document and to the best of the Company's knowledge:

- employees¹ do not hold any shares in the Company but hold 431,452 BSPCEs; and
- executive corporate officers do not hold any shares in the Company but hold 208,758 BSPCEs.

At the date of this Universal Registration Document, the various BSA and BSPCE plans allow the subscription of new ordinary shares, potentially representing a total of 948,802 shares to be issued, i.e., a dilution of 8.42% on an undiluted basis (amounting at the date of this Universal Registration Document to 11,267,329 shares) and 7.77% on a diluted basis.

6.4.2.1 Features of BSA plans

TABLE 8 OF APPENDIX 2 OF THE AMF POSITION-RECOMMENDATION NO. 2021-02: HISTORY OF SHARE SUBSCRIPTION OR PURCHASE ALLOCATIONS

	BSA EIB
Date of Shareholders' Meeting	Decision of the Shareholders' Meeting of 02/02/2022
Number of shares that may be subscribed or purchased	296,928
Warrant exercise start date	05/27/2022
Expiration date	05/26/2030
Price of subscription or purchase of warrant	€0.01
Warrant exercise method	The subscription must be recognized by a subscription form which must be given to the Company.
Exercise price (in euros)	€40 for 50% of the BSA EIB €38.8861 for 50% of the BSA EIB
Number of shares subscribed at the date of this Universal Registration Document	0
Cumulative number of subscription or purchase warrants canceled or null and void	0
Share subscription warrants that may be exercised at the date of this Universal Registration Document	296,928

At the date of this Universal Registration Document, there were 296,928 BSAs exercisable, granting rights to 296,928 shares.

¹ With the exception of Emmanuel LADENT, whose shares and securities are included in those of the executive corporate officers.



6.4.2.2 Features of BSPCE plans

TABLE 8 OF APPENDIX 2 OF THE AMF POSITION-RECOMMENDATION NO. 2021-02:
HISTORY OF SHARE SUBSCRIPTION OR PURCHASE ALLOCATIONS

	BCE 2015-2	BCE 2020-1 to BCE 2020-3	BCE 2020-4 to BCE 2020-6
Date of Shareholders' Meeting	Shareholders' Meeting of 06/24/2015	Shareholders' Meeting of 06/19/2019	Shareholders' Meeting of 06/18/2020
Date of Board of Directors' meeting	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 03/12/2020	Decision of the Board of Directors of 07/09/2020
Number of shares that may be subscribed or purchased	31,000	185,000	115,000
Warrant exercise start date	06/24/2016	03/12/2020	07/09/2020
Expiration date	06/24/2025	03/12/2030	07/09/2030
Price of subscription or purchase of warrant	Free	Free	Free
Warrant exercise method	Possibility of exercising a number x of warrants per complete monthly period beginning on 06/24/2015, and for the first time from 06/24/2016, calculated according to the following rule: $x = (\text{total nb of BCEs 2015-2 allocated to the beneficiary} * \text{nb. of months since 06/24/2015}) / 48.$	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise one fourth of the BSPCEs allocated. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise one fourth of the BSPCEs allocated. In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share. For the other 14,000 warrants: possibility of exercising y warrants where $y = (\text{number of warrants not yet exercisable}) * \% \text{ determined by the performance of the Carbios share price.}$
Exercise price (in euros)	12.4581	7.75934	20.6050
Number of shares subscribed at the date of this Universal Registration Document	16,000	37,188	14,375
Cumulative number of subscription or purchase warrants canceled or null and void	0	104,062	64,687
Share subscription warrants that may be exercised at the date of this Universal Registration Document	15,000	43,750	35,938



	BCE 2021-1 to BCE 2021-15	BCE 2021-16	BCE 2021-17	BCE 2022-1 to BCE 2022-2
Date of Shareholders' Meeting	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/22/2022
Date of Board of Directors' meeting	Decision of the Board of Directors of 01/15/2021	Decision of the Board of Directors of 11/5/2021	Decision of the Board of Directors of 11/5/2021	Decision of the Board of Directors of 06/29/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	85,000	36,735	6,390	188,265
Emmanuel LADENT	-	36,735	-	138,265
Warrant exercise start date	01/15/2022	12/01/2022	11/05/2022	06/29/2025
Expiration date	01/15/2032	12/01/2032	11/05/2032	06/29/2032
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	<p>Possibility of exercising a number x of warrants per full monthly period, and for the first time from 01/15/2022, calculated according to the following rule: x = total number of BCE-2021 granted to the beneficiaries * (number of months since 01/15/2021)/48.</p> <p>In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p>	<p>For the first 18,367 warrants: possibility of exercising x warrants per full monthly period beginning on 12/01/2021, and for the first time from 12/01/2022, calculated according to the following rule: x = 18,367 * (number of months since 12/01/2021)/48.</p> <p>The remaining 18,368 warrants are subject to four performance conditions to be exercised. Each condition met gives the right to exercise 5,510 warrants, 6,429 warrants, 2,755 warrants and 3,677 warrants, respectively.</p> <p>In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p> <p>In the event of acquisition of the entire Company by a manufacturer, an accelerated vesting is provided for according to the acquisition price per share.</p>	<p>Possibility of exercising a number x of warrants per full monthly period, and for the first time from 11/05/2022, calculated according to the following rule: x = total number of BCE-2021 granted to the beneficiaries * (number of months since 11/05/2021)/48.</p>	<p>To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.</p>
Exercise price (in euros)	44.5049	37.7340	39.7863	30.1316
Number of shares subscribed at the date of this Universal Registration Document	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	27,414	0	0	0
Share subscription warrants that may be exercised at the date of this Universal Registration Document	57,586	36,735	6,390	188,265 ⁽¹⁾

(1) May be exercised from June 29, 2025.



6. SHARE CAPITAL AND SHAREHOLDING STRUCTURE

	BCE 2022-3 to BCE 2022-4	BCE 2022-5 to BCE 2022-6 and BCE 2022-13 to BCE 2022-14	BCE 2022-7 to BCE 2022-11	BCE 2022-12
Date of Shareholders' Meeting	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/19/2019	Shareholders' Meeting of 06/18/2020	Shareholders' Meeting of 06/22/2022
Date of Board of Directors' meeting	Decision of the Board of Directors of 09/29/2022	Decision of the Board of Directors of 12/13/2022	Decision of the Board of Directors of 12/13/2022	Decision of the Board of Directors of 12/13/2022
Total number of shares that may be subscribed or purchased, of which the number that may be subscribed or purchased by:	59,600	104,062	82,413	31,735
Emmanuel LADENT	-	-	2,023	31,735
Warrant exercise start date	09/29/2025	12/13/2025	12/13/2025	12/13/2025
Expiration date	09/29/2032	12/13/2032	12/13/2032	12/13/2032
Price of subscription or purchase of warrant	Free	Free	Free	Free
Warrant exercise method	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.	To be exercised, these warrants must satisfy four performance conditions. Each condition met gives the right to exercise 40%, 20%, 20% and 20% of the warrants respectively.
Exercise price (in euros)	26.59321	33.27455	33.27455	33.27455
Number of shares subscribed at the date of this Universal Registration Document	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	9,600	0	0	0
Share subscription warrants that may be exercised at the date of this Universal Registration Document	50,000 ⁽²⁾	104,062 ⁽³⁾	82,413 ⁽³⁾	31,735 ⁽³⁾

(2) May be exercised from September 29, 2025.

(3) May be exercised from December 13, 2025.

At the date of this Universal Registration Document, there were 651,874 BCEs exercisable, granting rights to 651,874 shares.







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7.1 INFORMATION ABOUT THE ISSUER

7.1.1 LEGAL AND COMMERCIAL NAME

The Company's name is Carbios.

7.1.2 REGISTRATION WITH THE TRADE AND COMPANIES REGISTER AND LEI

The Company is registered in the Trade and Company Register of Clermont-Ferrand under number 531 530 228. The Company is registered under legal entity identifier (LEI) 969500M2RCIWO4NO5F08.

7.1.3 DATE OF INCORPORATION AND LENGTH OF LIFE

The Company has been registered with the Commercial Court of Paris since April 5, 2011. Since the transfer of the registered office on November 19, 2012, the Company is registered with the Commercial Court of Clermont-Ferrand. The duration of the Company is fixed at 99 years from its registration in the Trade and Companies Register, i.e., until April 5, 2110, unless it is dissolved early or extended.

The accounts closing date is December 31 of each year.

7.1.4 REGISTERED OFFICE, LEGAL FORM, APPLICABLE LEGISLATION AND WEBSITE

Carbios is a société anonyme (public limited company) with a Board of Directors.

Its registered office is located at the Cataroux site - 8 rue de la Grolière - 63100 Clermont-Ferrand, France.

The Company is subject to French law and governed by its bylaws as well as the laws and regulations of the French Commercial Code for commercial companies.

The telephone number of the registered office is +33 (0)4 73 86 51 76.

The Company has a website: www.carbios.com

Please note that the information appearing on the website does not form part of the Universal Registration Document, unless such information is incorporated by reference in said document.

7.1.5 IMPORTANT EVENTS IN THE DEVELOPMENT OF THE BUSINESS

April 2011: Creation of Carbios S.A.S. by Holding Incubatrice Chimie Verte (a holding company that supports SMEs that develop breakthrough technologies in sectors with high industrial and social potential, advised by Truffle Capital).

September 2011 - February 2012: Creation of the innovative collaborative project Thanaplast™ for a total budget of €22 million over 5 years.

June 2012: OSEO-ISI grant agreement for the Thanaplast™ Project (€9.8 million in grants for overall budget of €22 million, including €6.8 million in grants allocated to Carbios for €15 million from the Company's own funds).

July 2012: Launch of the Thanaplast™ project.

Announcement of €3.3 million in funds raised with Truffle Capital, with the payment of an initial tranche of €1.3 million.

December 2012: Payment by Truffle Capital of the second tranche of funds raised (€1.2 million).

Finalization of the OSEO ISI validation process, signature of the financing agreement and payment of the first tranche for the Thanaplast™ program.

August 2013: Payment by Truffle Capital of the third tranche of funds raised in the form of convertible bonds (€800 thousand).

September 2013: Completion of key stage 1 of the Thanaplast™ program and receipt from Bpifrance of an initial tranche of €1.7 million.

December 2013: Initial public offering on the Euronext Growth Paris market, which raised nearly €13.1 million, not including the partial exercise of the over-allotment option in January 2014.

January 2014: Partial exercise of the over-allotment option, bringing the total number of shares offered as part of the Carbios initial public offering to 946,359 new shares.

December 2014: Completion of key stage 2 of the Thanaplast™ program and receipt from Bpifrance of a second tranche of €700 thousand.

November 2015: Completion of key stage 3 of the Thanaplast™ program and receipt from Bpifrance of a third tranche of €1.6 million.

September 2016: Operational launch of the Carbiolice joint venture, in partnership with Limagrain Ingrédients and the SPI fund operated by Bpifrance Investissement.

December 2016: Completion of key stage 4 of the Thanaplast™ program and receipt from Bpifrance of a fourth tranche of €443 thousand.

July 2017: Success of a reserved offer of new and existing shares for €4.2 million at a unit price of €7.75.

October 2017: L'Oréal and the Company sign an agreement to create a Consortium to industrialize Carbios technology for enzymatic plastic recycling.

December 2017: Completion of key stage 5 (the final stage) of the Thanaplast™ program and receipt from Bpifrance of the final tranche of €1,021 thousand.

January 2019: Carbios and TWB obtain €7.5 million in funding from the Programme d'Investissements d'Avenir ("Investments in the Future Program" - PIA) operated by the ADEME to accelerate industrialization of the enzymatic recycling of PET plastic and fiber waste.

January 2019: Carbios and Carbiolice enter into a joint development agreement with Novozymes for the production and supply of PLA degradation enzymes at industrial scale.



June 2019: Carbios successfully completes a capital increase of €14.5 million at a unit price of €6.45 per share.

January 2020: Carbios enters into another joint development agreement with Novozymes for the production and supply of PET degradation enzymes at industrial scale.

April 2020: Publication of an article co-authored by Carbios and TBI in the prestigious scientific journal Nature entitled: "An engineered PET-depolymerase to break down and recycle plastic bottles."

July 2020: Carbios successfully completes a capital increase of €27 million through a placement with qualified investors.

October 2020: Carbios acquires all of its 18.02% stake in Carbiolice from Limagrains Ingrédients.

November 2020: Carbios produces the first clear plastic bottles from enzymatically recycled textile waste.

April 2021: Carbios announces a project to build a Reference Unit using its 100% PET recycling technology.

May 2021: As part of a Global Offer, Carbios carries out a capital increase of €114 million at a unit price of €38 per share.

June 2021: Carbios acquires the entire 37.29% stake in Carbiolice from the SPI fund.

September 2021: Carbios announces the operational start of its industrial demonstration plant using its C-ZYME™ enzymatic recycling technology.

November 2021: Carbios and its partners T. EN Zimmer GmbH and Deloitte obtain a subsidy of €3.3 million from the European Commission through the LIFE program.

December 2021: Carbios announces that it has obtained a loan of €30 million from the European Investment Bank.

February 2022: Carbios and Indorama Ventures announce their collaboration for the construction, in France, of a Reference Unit using Carbios' PET biorecycling technology.

April 2022: Appointment of Philippe Pouletty as Chairman of the Board of Directors of Carbios.

July 2022: Carbios, On, Patagonia, PUMA and Salomon join forces to advance the circularity of the textile industry.

December 2022, Carbios hosts the world's first PET Biorecycling Summit with Bertrand Piccard, Initiator and Chairman of the Solar Impulse Foundation, as keynote speaker.

December 2022: Carbios publishes its first sustainability report and highlights its commitment to circularity and environmental responsibilities.

January 2023: Carbios and Novozymes strengthen their collaboration through a strategic, exclusive and long-term partnership to ensure global leadership in PET biorecycling

February 2023: PVH Corp group joins the Fiber-to-Fiber Consortium founded in July 2022 by Carbios, On, Patagonia, PUMA and Salomon

7.2 ARTICLES OF INCORPORATION AND BYLAWS

The Company's bylaws were developed in accordance with the provisions applicable to a Société Anonyme (public limited company) under French law.

The main provisions described below are taken from the Company's bylaws in force as at the date of this Universal Registration Document.

7.2.1 ENTRY IN THE REGISTER AND CORPORATE PURPOSE (ARTICLE 4 OF THE BYLAWS)

The purpose of the Company is, directly or indirectly, in France as well as abroad:

- the exercise of any research, development, production, marketing activity in France and abroad relating to biotechnologies and, in particular, technologies, processes and products in the field of transformation of biomass and bioremediation;
- the exercise of any activity related to green chemistry, and in particular technologies, processes and products in the field of green chemistry;

- the acquisition, subscription, holding, management or disposal in any form whatsoever of all shares or securities in all French or foreign legal companies or entities, created or to be created, and more generally, the management of holdings in the Company's sector of activity;
- the direct or indirect holding of equity in any operations that may be related to any one of the above-mentioned purposes, or likely to promote them, by means of the creation of new companies, contributions or the subscription or purchase of securities or company rights, mergers, partnerships, equity holdings or other;
- and, more generally, any moveable or immovable, industrial, commercial or financial transactions related, directly or indirectly, to this purpose or to any similar or connected purposes, or that may be useful for this purpose or may facilitate its realization.



7.2.2 PROVISIONS OF THE COMPANY'S BYLAWS, A CHARTER OR REGULATIONS CONCERNING MEMBERS OF THE BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT

7.2.2.1 Board of Directors (Articles 13 to 16 and 18 of the bylaws)

Board of Directors (Article 13 of the bylaws)

The Company is governed by a Board of Directors composed of a minimum of three (3) members and a maximum of eighteen (18) members, subject to the exemptions provided by law in the event of a merger.

Appointment and dismissal of directors (Article 14.1 of the bylaws)

Throughout the life of the Company, the directors are appointed by the Ordinary Shareholder's Meeting. However, in the event of a merger or spin-off, they may be appointed by the Extraordinary Shareholders' Meeting. The directors' term of office is four (4) years. It ends at the close of the Ordinary Shareholders' Meeting convened to approve the financial statements for the fiscal year just ended and held during the year in which said director's term of office expires.

Any exiting director is eligible for reappointment provided he/she meets the conditions of this Article.

Directors may be dismissed and replaced at any time by the Ordinary Shareholders' Meeting.

Natural persons over the age of eighty-five (85) years may not be directors; when they come to exceed this age during a term in office, they shall automatically be deemed to have resigned at the next Shareholders' Meeting. Any appointment made in breach of the above provisions shall be null and void, with the exception of those which may be made on an interim basis.

Any natural person appointed as a director shall, at the time of their appointment and throughout their term of office, comply with the legal requirements concerning the number of directorships that a natural person can hold in joint stock companies with their registered office in mainland France, save as otherwise provided for by law.

A Company employee may only be appointed director if his or her employment contract corresponds to a genuine job. The number of directors tied to the Company by an employment contract may not exceed one-third of the number of directors in office.

Legal entity director (Article 14.2 of the bylaws)

Directors may be natural persons or legal entities. In the latter case, upon appointment, the legal entity is required to designate a permanent representative who is subject to the same terms and conditions and who incurs the same civil and legal liabilities as if he/she were a director in his/her own name, without prejudice to the joint and several liability of the legal entity he/she represents. The permanent representative of a legal entity appointed as director is subject to the same age conditions that apply to directors who are natural persons.

The term of office of the permanent representative appointed by the legal entity shall be the same as that of the legal entity he/she represents.

If the legal entity revokes the term of its permanent representative, it must notify the Company of this revocation without delay, by registered letter, also providing the identity of its new permanent representative. The same applies in the event of the death or resignation of the permanent representative.

Designation of the permanent representative as well as the termination of his/her term of office are subject to the same formalities of disclosure as if he/she were a director in his/her own name.

Vacancy, death, resignation (Article 14.3 of the bylaws)

In the event of vacancy due to death or resignation of one or several directors, the Board of Directors may make appointments on an interim basis between two Shareholders' Meetings.

When the number of directors has fallen below the minimum legal requirement, the remaining directors must immediately convene an Ordinary Shareholders' Meeting to make up the required number of Board members.

Temporary appointments made by the Board are subject to ratification at the first Ordinary Shareholders' Meeting thereafter. Failing ratification, resolutions adopted and acts performed by the Board at an earlier date nonetheless remain valid.

Chairman of the Board of Directors (Article 15.1 of the bylaws)

The Board of Directors elects from among its members a Chairman who is, in order for the nomination to be valid, a natural person. The Board of Directors determines his/her compensation.

The Chairman of the Board of Directors organizes and directs the Board's work, on which he/she reports to the Shareholders' Meeting. He/she oversees the proper functioning of the Company's governance bodies and ensures, in particular, that directors are capable of fulfilling their mission.

In order to exercise his/her duties, the Chairman of the Board of Directors must be less than eighty-five (85) years old. Should this age limit be reached while holding such position, the Chairman of the Board of Directors shall be deemed to have automatically resigned and a new Chairman shall be appointed under the conditions provided for in this Article.

The Chairman is appointed for a term that may not exceed his/her term of office as director. He/she may be re-elected.

The Board of Directors may remove him/her at any time.

In the event of temporary impediment or the death of the Chairman, the Board of Directors may delegate the duties of Chairman to a director.

In the event of temporary impediment, this delegation is granted for a limited duration; it is renewable. In the event of death, it is valid until the election of a new Chairman.

Board of Directors' meetings (Article 15.2 of the bylaws)

The Board of Directors meets as often as required in the Company's interest, at the request of the Chairman or two directors.

When it has not met for more than two (2) months, at least one-third of the members of the Board of Directors may request the Chairman to convene the Board for a predetermined agenda.

The Chief Executive Officer may also request the Chairman to convene the Board of Directors for a predetermined agenda.



The Chairman is bound by the requests that are addressed to him/her by virtue of the two preceding subparagraphs. The meetings may be convened by any means, even orally.

The Board meets at the Company's registered office or at any other place (in France or abroad) designated in the notice of meeting, under the chairmanship of its Chairman or, in case of impediment, a member appointed by the Board to chair the meeting.

The meetings are chaired by the Chairman of the Board of Directors. In case of impediment of the Chairman, at each session, the Board appoints a session Chairman from among its members present.

The Board may appoint a Secretary at each session, even from outside of its members. An attendance register shall be kept and signed by the directors participating in the Board meeting.

Directors, as well as any person convened to meetings of the Board of Directors, shall exercise discretion with respect to information of a confidential nature and presented as such by the Chairman.

Quorum and majority (Article 15.3 of the bylaws)

The Board may deliberate validly only if at least half of the directors are present or deemed present, subject to arrangements introduced by internal rules in the event of recourse to videoconferencing or other means of telecommunication.

Unless otherwise stipulated by these bylaws, and subject to arrangements introduced in the event of recourse to videoconferencing or other means of telecommunication, decisions are reached by a majority vote of members present or represented, or deemed present.

For calculating the quorum and majority, directors who attend a Board meeting by means of video conferencing or other means of telecommunication within the terms defined in the internal rules of the Board of Directors are deemed present. However, actual presence or presence through representation shall be necessary for any deliberations of the Board concerning the approval of the annual and consolidated financial statements, as well as for approval of the management report and the Group's management report and for decisions related to removal of the Chairman of the Board of Directors, the Chief Executive Officer and the Deputy Chief Executive Officer.

Furthermore, half of the directors in office may oppose holding a meeting of the Board of Directors by means of videoconferencing or telecommunication. This opposition must be notified in the manner and within the time periods that shall be determined in the internal rules and/or those laid down by legal or regulatory provisions.

Representation (Article 15.4 of the bylaws)

Any director may grant proxy, in writing, to another director to represent him/her at a session of the Board of Directors.

Each director may hold only one proxy per meeting by virtue of the foregoing paragraph.

These provisions are applicable to the permanent representative of a legal entity director.

Powers of the Board of Directors (Article 16 of the bylaws)

The Board of Directors determines the Company's business strategy and oversees its implementation.

With the exception of powers expressly assigned to the Shareholders' Meetings and within the limits of the corporate purpose, the Board of Directors handles all matters pertaining to the proper running of the Company and settles matters of concern through its deliberations.

In its relationships with third parties, the Company shall be bound even by acts of the Board of Directors that do not fall within the scope of its corporate purpose, unless it can prove that the third party knew that the act exceeded this purpose or that it could not have been unaware given the circumstances; disclosure of the bylaws shall not of itself be sufficient proof thereof.

The Board of Directors carries out any checks and verifications that it deems appropriate.

Each director must receive the information necessary for carrying out his/her duties and may obtain from Executive Management any documents that he/she deems useful.

The Board may decide to create committees with a consultative role, particularly Strategy, Audit and Compensation Committees, as well as a Scientific Committee whose members, chosen from the Board of Directors or from outside the Company, shall have an advisory function and shall report to the Board of Directors.

Compensation (Article 18 of the bylaws)

The Shareholders' Meeting may grant to directors, as compensation for their work, a fixed annual sum in respect of directors' fees, as determined by the Shareholders' Meeting, without being bound by previous decisions. This amount shall be charged to operating expenses.

The Board of Directors shall freely allocate to its members the overall sum granted to directors as attendance fees; it may, in particular, allocate to directors who are members of advisory committees a share that is greater than that of other directors.

The Board of Directors may allocate special compensation for tasks or mandates entrusted to directors.

The Board of Directors may authorize reimbursement of travel and related expenses and expenses incurred by directors in the interest of the Company.

7.2.2.2 Non-voting directors (Article 15.6 of the bylaws)

Throughout the life of the Company, the Ordinary Shareholders' Meeting may appoint non-voting directors chosen from among the shareholders or outside them.

The number of non-voting directors may not exceed three (3).

The non-voting directors are appointed for a term of one (1) year. Their duties end at the end of the Ordinary Shareholders' Meeting called to approve the financial statements for the previous fiscal year and held during the year in which their duties expire.

Any exiting non-voting director is eligible for reappointment provided he/she meets the conditions of this Article.



Non-voting directors may be dismissed and replaced at any time by the Ordinary Shareholders' Meeting, without any compensation being due to them. The functions of non-voting directors also end by death or incapacity of non-voting directors who are natural persons, or by dissolution or judicial reorganization for non-voting directors that are legal entities, or by resignation.

Directors may be natural persons or legal entities. In the latter case, upon appointment, the legal entity is required to designate a permanent representative who is subject to the same terms and conditions and who incurs the same civil and legal liabilities as if he/she were a non-voting director in his/her own name, without prejudice to the joint and several liability of the legal entity he/she represents.

The non-voting directors are responsible for ensuring the strict application of the bylaws and presenting their observations to Board of Directors meetings. The non-voting directors perform a general and permanent advisory and supervisory role for the Company. However, they may not, under any circumstances, interfere in the management of the Company, or generally take the place of its legal bodies.

In the performance of their duties, the non-voting directors may, in particular:

- report observations to the Board of Directors;
- ask to be informed, at the registered office of the Company, of all corporate books, registers and documents;
- request and collect all information useful for their work from the Company's general management and Statutory Auditors;
- be required, at the request of the Board of Directors, to present a report on a specific issue to the Shareholders' Meeting.

The non-voting directors must be convened to each meeting of the Board of Directors in the same way as the directors. Non-voting directors will be entitled to receive the same level of information as the directors.

The non-voting directors shall only have advisory powers, individually or collectively, and shall not have voting rights on the Board.

Failure to convene a meeting or to transmit documents prior to the meeting of the Board of Directors to the non-voting director(s) may in no case constitute grounds for nullifying the decisions taken by the Board of Directors.

7.2.2.3 Executive Management (Article 17 of the bylaws)

Organizational principle (Article 17.1 of the bylaws)

In accordance with legal provisions, either the Chairman of the Board of Directors or another individual appointed by the Board of Directors and bearing the title of Chief Executive Officer is responsible for the Executive Management of the Company.

The choice between these two methods of Executive Management is made by the Board of Directors, which must inform the shareholders and third parties accordingly, in accordance with regulatory requirements.

The Board's decision concerning the Executive Management model is taken by a majority vote of the directors present or represented, subject to the special provisions of Article 15.3 above in the event of the directors' participation in the Board meeting by videoconferencing or any other means of telecommunication.

A change in the Executive Management model does not entail a modification of the bylaws.

When the Chairman of the Board of Directors is responsible for the Company's Executive Management, the following provisions relating to the Chief Executive Officer apply to him/her.

Executive Management – Chief Executive Officer (Article 17.2 of the bylaws)

Depending on the decision made by the Board of Directors, in accordance with the provisions set out above, the Company's Executive Management is either discharged by the Chairman of the Board of Directors, or by a natural person (who may or may not be a director or a shareholder) appointed by the Board of Directors and bearing the title of Chief Executive Officer.

When the Board of Directors opts for the separation of the duties of Chairman of the Board of Directors and Chief Executive Officer, it appoints the Chief Executive Officer, sets the duration of his/her term of office, determines his/her compensation and, where relevant, the limits to his/her powers.

No one may be appointed Chief Executive Officer if he/she is over eighty-five (85) years old. Moreover, if a Chief Executive Officer in office comes to exceed that age, he/she shall be deemed to have automatically resigned.

The Chief Executive Officer may be removed at any time by the Board of Directors. When the Chief Executive Officer is not the Chairman of the Board of Directors, his/her removal may give rise to damages if it is unjustified.

The Chief Executive Officer has the widest powers to act in the Company's name in all circumstances. He/she exercises these powers within the limits of the corporate purpose and subject to the powers expressly granted by law to Shareholders' Meetings and the Board of Directors.

He/she represents the Company in its relations with third parties. The Company is bound by the actions of the Chief Executive Officer even if they are outside the Company's corporate purpose, unless the Company can prove that the third party was aware that the action was outside the Company's corporate purpose, or that the third party could not be unaware of this in view of the circumstances. Publication of the bylaws does not, of itself, constitute such proof.

Deputy Chief Executive Officers

On the proposal of the Chief Executive Officer, whether this office is held by the Chairman of the Board of Directors or by another person, the Board of Directors may appoint one or more natural persons as Deputy Chief Executive Officer(s), who may or may not be Board members or shareholders, to assist the Chief Executive Officer. The number of Deputy Chief Executive Officers is limited to five (5). If a Deputy Chief Executive Officer is a Board member, his/her term of office cannot exceed that of his/her directorship.

No one may be appointed Deputy Chief Executive Officer if he/she is over eighty-five (85) years old. Should a Deputy Chief Executive Officer come to exceed that age while in office, he/she will be deemed to have automatically resigned.

Deputy Chief Executive Officers may be removed at any time by the Board of Directors, on recommendation of the Chief Executive Officer. Their removal without just cause may give rise to the payment of damages.

By agreement with the Chief Executive Officer, the Board of Directors determines the scope and duration of the powers granted to the Deputy Chief Executive Officers. Deputy Chief Executive Officers have the same powers with respect to third parties as the Chief Executive Officer.



Should the Chief Executive Officer cease to perform his/her duties, or be prevented from doing so, unless decided otherwise by the Board of Directors, the Deputy Chief Executive Officers shall remain in office and will retain their powers until the new Chief Executive Officer is appointed.

The Board of Directors determines the Deputy Chief Executive Officers' compensation.

Delegation of powers (Article 17.3 of the bylaws)

The Board of Directors may entrust persons, whether they are Board members or not, with permanent or temporary duties, as it sees fit, delegate powers to them and set their compensation as it deems appropriate.

7.2.3 EXISTING SHARE CLASSES (ARTICLES 10 AND 11 OF THE BYLAWS)

7.2.3.1 Form of shares (Article 10 of the bylaws)

Shares are issued in registered or bearer form, at the shareholder's discretion, with the exception of securities that must necessarily be created in registered form pursuant to laws and regulations in force; this is particularly true for shares issued for cash until they are fully paid up.

Any holder of securities that are part of an issue including both bearer shares and registered shares has the possibility of converting these securities to the other form.

Registered shares give rise to registration in an individual account under the conditions and according to the terms provided for in the laws and regulations in force. These individual accounts may be pure registered accounts or administered registered accounts, at the shareholder's discretion.

Bearer shares give rise to registration in an account held by an authorized financial intermediary.

For the purposes of identifying the holders of bearer shares, the Company has the right to request at any time, at its own expense, from the central custodian that manages the Company's securities issue account, the name or company name, nationality, year of birth or year of incorporation and address of the security holders, as well as the quantity of securities held by each of them, and where appropriate, any restrictions that may apply to the securities. This information is gathered by the central custodian and then communicated to the Company under conditions laid down by applicable laws and regulations.

7.2.3.2 Transfer of shares (Article 11.1 of the bylaws)

Shares are freely transferable from their issuance in the manner prescribed by law. They remain transferable after dissolution of the Company and until the close of liquidation proceedings.

They are registered in an account and may be transferred by account transfer in accordance with the terms and conditions provided for by law and applicable regulations.

The provisions of this Article are generally applicable to all securities issued by the Company.

7.2.3.3 Rights and obligations attached to shares (Article 11.2 of the bylaws)

1 - Each share entitles the holder to a net share of profits, corporate assets or liquidation surplus proportionate to the percentage of capital it represents.

It entitles the holder to participate, under the conditions laid down by law and these bylaws, in Shareholders' Meetings and to vote on resolutions.

2 - Shareholders' liabilities do not exceed the amount of their initial investment. The rights and obligations attached to a share follow ownership of the share regardless of the holder.

Ownership of a share automatically entails acceptance of the bylaws and decisions of the Shareholders' Meeting.

3 - Each time that it is necessary to possess several shares to exercise any right, in case of exchange, grouping, allocation of shares, capital increase or decrease, merger or any corporate operation, the owners of isolated shares, or of a number below that required, may only exercise those rights on the condition that they personally see to the pooling and, where appropriate, the purchase or sale of the necessary number of shares.

7.2.3.4 Indivisibility of shares - Bare ownership - Usufruct (Article 11.4 of the bylaws)

1) Shares are indivisible with regard to the Company. Co-owners of undivided shares are represented at Shareholders' Meetings by one of them or by a single representative. In case of disagreement, the representative shall be appointed by a court upon the request of the most diligent co-owner.

2) The right to vote belongs to the usufructuary in Ordinary Shareholders' Meetings and to the bare owner in Extraordinary Shareholders' Meetings. Nevertheless, shareholders may agree to any other distribution for exercising voting rights at Shareholders' Meetings. The Company shall be informed of this agreement by registered letter and shall be bound to respect it for all meetings which convene following expiration of a one-month period after mailing of the letter.

The right to vote is exercised by the owner of pledged securities.

7.2.4 CONDITIONS FOR AMENDING THE RIGHTS OF SHAREHOLDERS

Company bylaws do not provide for any particular rules that derogate from ordinary corporate law.

7.2.5 SHAREHOLDERS' MEETINGS (ARTICLES 22 TO 29 OF THE BYLAWS)

7.2.5.1 Quorum and majority (Article 22 of the bylaws)

Shareholders' Meetings deliberate under the conditions set by law.

The Ordinary Shareholders' Meeting makes all decisions other than those which, by law and these bylaws, fall within the exclusive competence of an Extraordinary Shareholders' Meeting. The Ordinary Shareholders' Meeting can only conduct business validly at first notice if the shareholders present or represented hold at least one-fifth of the shares with voting rights. Upon second notice, no quorum is required. The meeting issues decisions by a simple majority vote of shareholders present or represented. The votes expressed do not include those attached to shares for which the shareholder has not taken part in the vote, has abstained or has returned a blank or invalid vote.

The Extraordinary Shareholders' Meeting is vested with sole competence to amend any provisions of the bylaws. The Extraordinary Shareholders' Meeting can only conduct business validly if the shareholders present or represented, on first notice, hold at least one-quarter, and on second notice, one-fifth of the shares with voting rights. Failing this latter quorum, the second meeting may be postponed to a date no later than two months from the date of the meeting originally convened. The meeting issues decisions by a two-thirds vote of shareholders present or represented. The votes expressed do not include those attached to shares for which the shareholder has not taken part in the vote, has abstained or has returned a blank or invalid vote.



In the event of the use of videoconferencing or other means of telecommunication permitted by law under conditions laid down in Article 23 below, shareholders who attend the meeting by videoconferencing or by means of telecommunication are deemed present for the purposes of calculating a quorum and majority.

7.2.5.2 Notice of meeting (Article 23 of the bylaws)

Shareholders' Meetings are convened either by the Board of Directors, by the Statutory Auditors or by a representative designated by a court under terms and conditions provided for by law.

Meetings are held at the Company's registered office or at any other place designated in the notice of meeting.

When company shares are admitted for trading on a regulated market or if its shares are not all registered shares, the Company is required to publish a notice of meeting in the Bulletin des Annonces Légales Obligatoires (Bulletin of Mandatory Legal Announcements - BALO) at least thirty-five (35) days before any Shareholders' Meeting.

Convocation of Shareholders' Meetings takes place by publication in a newspaper empowered to publish legal notices in the administrative district (département) of the Company's registered office and, furthermore, in the Bulletin des Annonces Légales et Obligatoires (Bulletin of Mandatory Legal Announcements - BALO).

Nevertheless, the notices provided for in the previous subparagraph may be replaced by an invitation, at the Company's expense, in a simple letter or registered letter addressed to each shareholder. This invitation may also be transmitted by means of electronic telecommunication implemented under applicable regulatory conditions.

Any shareholder may also, if decided by the Board at the time the meeting is convened, attend and vote by videoconferencing or other means of telecommunications that allows them to be identified, under the conditions and in accordance with the provisions laid down by applicable laws and regulations.

Any meeting improperly convened may be deemed invalid. Nevertheless, an action for invalidity shall be inadmissible where all shareholders were present or represented.

7.2.5.3 Agenda (Article 24 of the bylaws)

The agenda of meetings is decided by the author of the notice of meeting.

Nevertheless, one or more shareholders representing at least 5% of the share capital (or a group of shareholders meeting legal conditions) may request, under conditions provided for by law, that draft resolutions be placed on the agenda. The request shall be accompanied by the text of the draft resolutions, which may include a short explanation of the purpose.

These draft resolutions, which must be brought to the attention of shareholders, shall be included on the agenda and submitted to the vote of the meeting.

The meeting may not deliberate on an issue that is not included on the agenda. Nevertheless, it may, in any circumstances, remove one or more directors and move to replace them.

The meeting agenda may not be modified on the second convening.

When the meeting is called to deliberate on changes to the business or legal organization of the Company on which the Works Council has been consulted in accordance with Article L. 2323-6 of the French Labor Code, the opinion of the Council is provided to the meeting.

7.2.5.4 Admission (Article 25 of the bylaws)

Any shareholder may personally attend Shareholders' Meetings in person, by proxy or by correspondence, irrespective of the form they take.

Shareholders shall be entitled to attend Shareholders' Meetings:

- for registered shares, by their registration in a registered share account held by the Company, on the second business day prior to the meeting at midnight, Paris time;
- for bearer shares, by their recording in the bearer share accounts held by an authorized intermediary, on the second business day prior to the meeting at midnight, Paris time.

The registration of shares in bearer share accounts held by an authorized intermediary shall be ascertained by a shareholding certificate issued by the latter.

Shareholders whose shares are not fully paid up are not entitled to attend meetings.

7.2.5.5 Shareholder proxy and voting by correspondence (Article 26 of the bylaws)

Shareholder proxy

A shareholder may be represented by another shareholder, a spouse, a civil partner or any other person, natural or legal, of his/her choice.

Any shareholder may receive powers from other shareholders to represent them at a Shareholders' Meeting, without any restrictions other than those resulting from statutory provisions setting the maximum number of votes that any one person may have in both his/her own name and as a proxy.

Vote by correspondence

Once the notice of meeting is issued, a voting by correspondence form and enclosures may be given or sent, at the Company's expense, to any shareholder who requests such documents in writing.

The Company must comply with any request filed or received at the registered office no later than six (6) days before the date of the meeting.

7.2.5.6 Officiating committee of the meeting (Article 27 of the bylaws)

Shareholders' Meetings are chaired by the Chairman of the Board of Directors or, in his/her absence, by a director appointed by the Board for this purpose. Failing that, the meeting itself elects its Chairman.

In the event of convocation by the Statutory Auditors, a court officer or by liquidators, the meeting is chaired by the person or one of the people who convened the meeting.

Tellers for the meeting are the two members of the aforementioned meeting who hold the greatest number of votes and who accept the role.

The Shareholders' Meeting Committee appoints a Secretary, who may be chosen from outside the shareholders.



7.2.5.7 Minutes of deliberations (Article 28 of the bylaws)

Deliberations of Shareholders' Meetings are recorded in minutes drafted by members of the committee and signed by them.

They include the date and place of the meeting, the mode of convening, the agenda, the composition of the committee, the number of shares participating in the vote and the quorum reached, documents and reports submitted to the meeting, a summary of the discussions, the text of resolutions put to a vote and the results of the voting.

The minutes are entered into a special register held at the registered office under regulatory conditions.

If, for lack of a required quorum, a meeting cannot properly deliberate, this shall be recorded by the committee in the minutes of the aforementioned meeting.

7.2.5.8 Shareholders' right to information and oversight (Article 29 of the bylaws)

Prior to each Shareholders' Meeting, the Board of Directors must make the necessary documents available to shareholders to enable them to reach a well-founded decision and make an informed judgment about management and the Company's business activities.

Following the communications referred to above, any shareholder is entitled to ask, in accordance with legal and regulatory requirements, written questions to which the Board of Directors shall be bound to answer during the Shareholders' Meeting.

All shareholders have the right at any period to obtain the documents that the Board of Directors is required, as the case may be, to make available to them at the registered office, or to send to them, in accordance with applicable laws and regulations.

7.2.6 PROVISIONS IMPACTING A CHANGE OF CONTROL

The Company's bylaws do not contain any provisions that could have the effect of delaying, deferring or preventing a change in its control.

7.2.7 THRESHOLD CROSSINGS (ARTICLE 11.3 OF THE BYLAWS)

Any natural or legal person, acting alone or in concert, within the meaning of Article L. 233-10 of the French Commercial Code, who holds or ceases to hold a number of shares representing a fraction equal to 5%, 10%, 15%, 20%, 25%, 30%, 33.33%, 50%, 66.66%, 90% or 95% of the share capital or voting rights, is required to inform the Company at the latest before the close of trading on the fourth trading day following the day on which the aforementioned shareholding threshold is crossed, specifying the number of shares and voting rights held. The person required to supply this information shall specify the number of shares that he/she holds giving future access to the share capital, as well as the attached voting rights, along with any other information required by law. In addition, if the 10%, 15%, 20% and 25% thresholds are crossed, the person required to provide the information provided for above must attach a statement of intent to their declaration of crossing of thresholds in addition to the aforementioned details.

In addition, any natural or legal person, acting alone or in concert, who holds or ceases to hold a number of shares representing a fraction equal to 50% or 95% of the share capital or voting rights is required to inform the Autorité des Marchés Financiers at the latest before the close of trading on the fourth trading day following the day on which the aforementioned shareholding threshold is crossed, under the conditions set by the general regulations of the Autorité des Marchés Financiers.

If they have not been declared in accordance with the above conditions, shares exceeding the fraction that should have been declared are deprived of voting rights under the conditions provided for by the French Commercial Code.

7.2.8 CHANGE IN SHARE CAPITAL (ARTICLE 7 OF THE BYLAWS)

1) The share capital may be increased by any means and under any terms and conditions provided for by law.

The Extraordinary Shareholders' Meeting is the sole body authorized to decide, based on a report by the Board of Directors, on a capital increase.

Shareholders have, in proportion to the amount of their shares, a preferential subscription right for shares issued for cash as part of a capital increase, a right that they may waive on an individual basis. The Ordinary Shareholders' Meeting may decide to cancel this preferential subscription right under conditions established by law.

2) A capital reduction may be authorized or decided by the Extraordinary Shareholders' Meeting; in no case may it undermine the equality of the shareholders.

The reduction of capital to an amount below the legal minimum may only be decided under the condition precedent of a capital increase intended to bring capital to at least the legal minimum, unless the Company is transformed into another form that does not require a capital amount exceeding the share capital after its reduction.

Failing that, any interested party may ask the courts to dissolve the Company. Dissolution may not be declared if, on the day the Court rules on the merits, the situation has been rectified.

7.2.9 DIVIDEND RIGHTS (ARTICLE 32 OF THE BYLAWS)

If the financial statements for the fiscal year approved by the Shareholders' Meeting show a distributable profit as defined by law, the Shareholders' Meeting shall decide whether to appropriate it to one or more reserve accounts, of which it controls the appropriation or use, to appropriate it to retained earnings, or to distribute it.

The Shareholders' Meeting may allow shareholders the option to receive all or part of dividends or interim dividends distributed in either cash or shares, in accordance with the law.

Any losses are carried forward after the approval of the financial statements by the Shareholders' Meeting as retained losses to be offset against future retained earnings until they are fully compensated.

Each shareholder receives a share of the profits or contributes to the losses in proportion to his/her share in the capital.



7.3 PERSON RESPONSIBLE

Person responsible of the Universal Registration Document

Emmanuel LADENT
Chief Executive Officer
Cataroux site
8 rue de la Grolière
63100 Clermont-Ferrand, France
Tel: +33 (0)4 73 86 51 76

Declaration by the person responsible

I certify that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and provide a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and of all the companies included in the consolidation, and that the management report, whose information is referenced in the cross-reference table available in section 7.7.1, presents a true and fair picture of the business development, profit or loss, and financial position of the Company and of all the companies included in the consolidation, and describes the principal risks and uncertainties that they face.

In Clermont-Ferrand, on April 12, 2023

Emmanuel LADENT

Chief Executive Officer

7.4 PERSONS RESPONSIBLE FOR AUDITING THE FINANCIAL STATEMENTS

7.4.1 STATUTORY AUDITORS

Principal Statutory Auditors

PricewaterhouseCoopers Audit

Represented by Gonzague Van Royen

63, rue de Villiers - 92200 Neuilly Sur Seine, FRANCE

Appointed at the founding of the Company on April 5, 2011. The Combined General Meeting of June 14, 2018 decided to renew the term of office of the Principal Statutory Auditor for a period of six years expiring at the close of the annual Ordinary Shareholders' Meeting to be held during 2024 that will be convened to approve the financial statements for the year ending December 31, 2023.

PricewaterhouseCoopers Audit is a member of the Compagnie Régionale des Commissaires aux Comptes of Versailles.

Alternate Statutory Auditors

Patrice Morot
63, rue de Villiers - 92200 Neuilly Sur Seine, FRANCE

The Combined Shareholders' Meeting of June 19, 2019 ratified the replacement of Yves Nicolas, who retired, by Patrice Morot as Alternate Statutory Auditor for the remainder of Yves Nicolas' term of office, i.e., until 2024, at the end of the Ordinary Shareholders' Meeting to be held during 2024 that will be convened to approve the financial statements for the fiscal year ended on December 31, 2023.

Patrice Morot is a member of the Compagnie Régionale des Commissaires aux Comptes of Versailles.

7.4.2 STATUTORY AUDITORS WHO HAVE RESIGNED OR BEEN DISMISSED

None.



7.5 DECLARATION OF APPROVAL FROM THE COMPETENT AUTHORITY

This Universal Registration Document has been filed with the Autorité des Marchés Financiers, as the competent authority under (EU) Regulation No. 2017/1129, without prior approval in accordance with Article 9 of said Regulation.

This Universal Registration Document may be used in support of a public offering of securities or the admission to trading of financial securities on a regulated market if it is approved by the Autorité des Marchés Financiers (AMF) and if it is supplemented by any amendments, a securities note and the summary note approved in accordance with (EU) Regulation No. 2017/1129.

7.6 DOCUMENTS AVAILABLE TO THE PUBLIC

During the period of validity of this Universal Registration Document, the following documents (or copies of these documents) may be consulted, on physical media, at the Company's registered office, Cataroux Site, 8 rue de la Grolière, 63100 Clermont-Ferrand, France:

- the Articles of Incorporation and Company bylaws;
- all reports, letters and other documents, historical financial information, appraisals and statements made by an expert at the request of the Company, of which a portion is included or referred to in this Universal Registration Document;
- the Company's historical financial information for each of the three fiscal years prior to publication of this Universal Registration Document.

Regulated information within the meaning of the AMF General Regulation shall be available on the Company's website (www.carbios.com).

7.7 CROSS-REFERENCE TABLES

7.7.1 CROSS-REFERENCE TABLE WITH THE INFORMATION REQUIRED IN THE ANNUAL FINANCIAL REPORT, THE MANAGEMENT REPORT ON THE SEPARATE FINANCIAL STATEMENTS, THE MANAGEMENT REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS AND THE CORPORATE GOVERNANCE REPORT

Annual report	Chapter/section of the Universal Registration Document
Separate financial statements	5.1
Consolidated financial statements	5.3
Management report on the separate financial statements	
Information on the Company's business activity	Chapter 1; 2.4; 7.1.5
Risk factors	Chapter 3
Legal information and shareholding	1.1.3; 6.1; 6.4; 7.1; 7.2
Financial and fiscal information on the Company	2.1 to 2.3; 5.1; 6.3
Social, societal and environmental information on the Company	1.1.4; 2.2.4.4
Management report on the consolidated financial statements	
Information on the Group's activity	Chapter 1; 2.6; 7.1.5
Risk factors	Chapter 3
Legal information and shareholding	1.1.3; 6.1; 6.4; 7.1; 7.2
Group financial and tax information	2.3 to 2.5; 5.1; 6.3
Group social, societal and environmental information	1.1.4; 2.4.4.4
Corporate governance report	
Directors' terms of office and duties	4.1.1.1; 4.1.5.1; 4.1.5.4
Regulated agreements	4.3
Current delegations	6.4.1.5
Declaration of natural persons responsible for the annual report	7.3
Statutory Auditors' report on the separate financial statements	5.2
Statutory Auditors' audit report on the consolidated financial statements	5.4



7.7.2 CROSS-REFERENCE TABLE WITH THE INFORMATION REQUIRED BY ANNEXES 1 AND 2 OF COMMISSION DELEGATED REGULATION (EU) 2019/980 OF MARCH 14, 2019

The following cross-reference table identifies the information required by Annexes 1 and 2 of the Commission Delegated Regulation (EU) No. 2019/980 of March 14, 2019 in accordance with the layout of the Universal Registration Document:

Annexes 1 and 2 of Delegated Regulation (EU) No. 2019/980	Chapter/section of the Universal Registration Document
1 Persons responsible, third-party information, experts' reports and competent authority approval	
1.1 Name and function of the person responsible	7.3
1.2 Declaration of the person responsible	7.3
1.3 Experts' declarations	N/A
1.4 Third-party information	N/A
1.5 Declaration of the competent authority	Page 1; 7.5
2 Statutory Auditors	
2.1 Principal Statutory Auditors	7.4.1
2.2 Statutory Auditors that resigned or were dismissed	7.4.2
3 Risk factors	
	Chapter 3
4 Information about the issuer	
4.1 Company name and business name of the issuer	7.1.1
4.2 Place of registration, registration number and LEI of the issuer	1.1.3; 7.1.2
4.3 Date of incorporation and length of life of the issuer	7.1.3
4.4 Registered office of the Company and legal form, applicable legislation, website and other	7.1.4
5 Business overview	
5.1 Main activities	1.1 to 1.6
5.1.1 Nature of operations carried out by the issuer	1.4; 1.5
5.1.2 New products and/or services	1.6
5.2 Main markets	1.2; 1.4.1; 1.5.1
5.3 Important events	5.1.4 (Note 2) 5.3.6 (Note 2) 7.1.5
5.4 Strategy and objectives	1.3
5.5 Extent of dependence	3.2.1.4; 3.2.5
5.6 Competitive position of the issuer	1.4.4; 1.5.4; 3.2.1.3
5.7 Investments	
5.7.1 Material investments	2.2.4.1; 2.4.4.1
5.7.2 Material investments in progress	2.2.4.2; 2.4.4.2
5.7.3 Joint ventures and significant shareholdings	2.2.4.3
5.7.4 Environmental impact of the use of property, plant and equipment	2.2.4.4; 2.4.4.3
6 Organizational structure	
6.1 Brief description of the Group	1.1.3
6.2 List of significant subsidiaries	2.2.4.3



Annexes 1 and 2 of Delegated Regulation (EU) No. 2019/980	Chapter/section of the Universal Registration Document
7 Review of the financial position and results	
7.1 Financial position	2.1
7.1.1 Changes in the issuer's results	2.1.3; 5.1; 5.3
7.1.2 Likely future development of the issuer's activities and its R&D activities	1.4.3; 1.5.3; 1.6
7.2 Operating income	2.1.2; 2.1.3.1; 5.1.4 (Note 14)
7.2.1 Key factors	2.1.1
7.2.2 Major changes	N/A
8 Cash and capital resources	
2.2	
8.1 Information concerning the issuer's capital	2.2.1
8.2 Cash flows of the issuer	2.2.2; 5.1.4 (Note 12) 5.1.6 (Note 12)
8.3 Financing needs and financing structure of the issuer	2.2.3
8.4 Restrictions on the use of the issuer's capital resources	N/A
8.5 Expected sources of funding	2.2.3
9 Regulatory environment	
1.2.2; 3.2.6	
10 Trend information	
10.1 Most significant trends Significant change in financial performance	2.5
10.2 Known trends that are reasonably likely to have a material effect on the issuer's prospects	2.6
11 Profit forecasts or estimates	
2.6	
12 Administrative, management and supervisory bodies and Executive Management	
12.1 Information concerning the members of the issuer's administrative and management bodies	4.1.1; 4.1.2
12.2: Conflicts of interest	4.1.4
13 Compensation and benefits	
13.1 Compensation and benefits paid	4.2
13.2 Total amount set aside to provide for pension, retirement or similar benefits	5.3.5 (Note 22)
14 Functioning of the administrative and executive bodies	
14.1 Duration of terms of office	4.1.5.1
14.2 Service contracts	4.1.5.1
14.3 Information concerning committees	4.1.5.2
14.4 Statement related to corporate governance	4.1.5.2.3
14.5 Implications of future changes in the composition of bodies	N/A
15 Employees	
15.1 Human Resources	1.1.4
15.2 Shareholdings and stock options	6.4.2
15.3 Any arrangements for involving the employees in the capital of the issuer	N/A
16 Major shareholders	
16.1 Distribution of share capital	5.1.4 (Note 12) 5.3.6 (Note 12) 6.1.1
16.2 Existence of different voting rights	6.1.2
16.3 Control of the issuer	6.1.3
16.4 Agreements resulting in a change of control	N/A
17 Related-party transactions	
4.3.1	



Annexes 1 and 2 of Delegated Regulation (EU) No. 2019/980	Chapter/section of the Universal Registration Document
18 Financial information concerning the Company's assets and liabilities, financial position and results	
18.1 Historical financial information	Chapter 5
18.1.1 Audited historical financial information	Chapter 5
18.1.2 Date of change of accounting basis	N/A
18.1.3 Accounting standards	preamble Chapter 2; 5.1.4 (Note 4) 5.3.5 (Note 3)
18.1.4 Change in accounting basis	N/A
18.1.5 Breakdown of audited financial information	5.3
18.1.6 Consolidated financial statements	5.3
18.1.7 Date of most recent financial information	5.1; 5.3
18.2 Interim and other financial information	N/A
18.3 Audit of historical annual financial information	5.2; 5.4
18.4 Pro forma financial information	N/A
18.5 Dividend policy	6.3
18.6 Legal and arbitration proceedings	3.3.3
18.7 Significant change in the issuer's financial position	N/A
19 Additional information	
19.1 Share capital	6.4.1
19.1.1 Amount of capital issued by class of shares	6.4.1.1
19.1.2 Non-equity shares	6.4.1.2
19.1.3 Treasury shares	6.4.1.3
19.1.4 Securities	5.1.4 (Note 12) 5.3.6 (Note 12) 6.4.1.4; 6.4.2
19.1.5 Rights of acquisition and/or any obligations	N/A
19.1.6 Options or agreements	N/A
19.1.7 History of share capital	6.4.1.6
19.2 Articles of Incorporation and bylaws	7.2
19.2.1 Entry in the register and corporate purpose	7.2.1
19.2.2 Rights and privileges of shares	7.2.3.3
19.2.3 Provisions impacting a change of control	7.2.6
20 Material contracts	2.5
21 Documents available	7.6



7.8 GLOSSARY

- **Biodegradation**
The decomposition of materials into simple molecules (H₂O, CO₂, humus) through the enzymatic action initiated by microorganisms.
- **Bioprocess**
Production process using microorganisms or enzymes.
- **Depolymerization**
Degradation of a polymer into its constitutive monomers.
- **Enzyme**
A protein that catalyzes, meaning that it increases the speed of the chemical reaction.
- **Microorganism**
Microscopic living organism (bacteria, fungus or yeast), meaning that it is invisible to the naked eye and can only be seen using a microscope.
- **Monomer**
Molecule, a basic unit, which contributes to the formation of a polymer.
- **Polymer**
Large molecule composed of the repetition, a large number of times, of one or several monomers.
- **Polymerization**
Conversion process, through the formation of chains, of a monomer, or of a combination of monomers, into a polymer.
- **PLA – Polylactic Acid**
Biosourced and biodegradable plastic polymer according to standard EN13432 (industrial compost environment). Moreover, it is biocompatible.
- **PET – Polyethylene Terephthalate**
Plastic polymer that is the predominant constituent of water bottles and some textile materials such as polyester fibers.
- **Enzymatic recycling**
Enzymatic process of degrading a polymer into its constituent monomers followed by a conversion process, through the formation of chains, of a monomer, or a mixture of monomers, into a polymer.



Headquarters

Cataroux site - Bâtiment B80
8 rue de la Grolière - 63100 Clermont-Ferrand, France
Tel: +33 (0)4 73 86 51 76 - contact@carbios.com

www.carbios.com