Société anonyme (public limited company) with a Board of Directors and capital of €3,260,056.10 Registered office: Biopôle Clermont-Limagne – 3 rue Emile Duclaux – 63360 Saint-Beauzire, France

REGISTRATION DOCUMENT COMPRISING THE ANNUAL FINANCIAL REPORT, MANAGEMENT REPORT AND 2018 CORPORATE GOVERNANCE REPORT

This Registration Document was filed with the Autorité des Marchés Financiers on April 8, 2019, in accordance with Article 212-13 of the AMF General Regulation. It may be used in support of a financial transaction if it is supplemented with a transaction memorandum approved by the AMF. This document was drawn up by the issuer and is binding upon its signatories.

Copies of this Registration Document are available free of charge at CARBIOS registered office, Biopôle Clermont-Limagne – 3 rue Emile Duclaux – 63360 Saint-Beauzire, the Company's website (www.carbios.fr) and the AMF's website (www.amf-france.org).

Document translated by LABRADOR TRANSLATIONS SAS – 8, rue Lantiez 75017 PARIS – RCS Paris 518 206 255 – APE 7430Z

Translation for information purpose only. In case of discrepancy between the French and the English version of this Registration Document, the French version should prevail.

In this Registration Document, the terms "**CARBIOS**" or "**the Company**" refer to CARBIOS.

This 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 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 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.

1. PERSONS RESPONSIBLE

Persons responsible

Jean-Claude LUMARET

Chief Executive Officer

Parc d'activités du Biopôle Clermont-Limagne

3 rue Emile Duclaux

63360 Saint-Beauzire

Tel: +33 (0)4 73 86 51 76

Fax: +33 (0)4 73 86 62 37

Declaration by persons responsible

I certify, after taking all reasonable steps to that effect, that the information contained in this Registration Document is, to the best of my knowledge, correct and does not contain any omissions that would alter the scope thereof.

I certify that, to my knowledge, the financial statements were prepared in accordance with applicable accounting standards and provide a true and fair view of the Company's assets, financial position and results, and that the management report, whose information is referenced in the cross-reference table available in Chapter 26, presents a true picture of the Company's business, results and financial position and describes the principal risks and uncertainties that it faces.

I have obtained from the Statutory Auditors a letter of completion, in which they states that they have verified the information relating to the financial position and the financial statements appearing in this Registration Document and read the entire document.

Saint-Beauzire, April 8, 2019

Jean-Claude LUMARET

Chief Executive Officer

2. STATUTORY AUDITORS

2.1. Statutory Auditors

Principal Statutory Auditor

PricewaterhouseCoopers Audit

Represented by Thierry Charron

63 Rue de Villiers – 92200 Neuilly Sur Seine

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 Auditor

Patrice Morot

63 Rue de Villiers – 92200 Neuilly Sur Seine

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 Alternate Statutory Auditor, Yves Nicolas, 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. You are advised that since the Combined General Meeting of June 14, 2018, Yves Nicolas has retired and been replaced by Patrice Morot. This will be duly recorded at the next Shareholders' Meeting of the Company that will be convened to approve the financial statements for the year ending December 31, 2018.

Patrice Morot is a member of the Compagnie Régionale des Commissaires aux Comptes of Versailles.

2.2. Statutory Auditors who have resigned or been dismissed

None.

3. SELECTED FINANCIAL INFORMATION

The selected financial information presented in this section is derived from the financial statements of the Company for the fiscal years ended December 31, 2017 and December 31, 2018.

3.1. Simplified balance sheet

Audited parent company financial statements – French standards (In thousands of euros)	12/31/2017	12/31/2018
Intangible assets	565	691
Property, plant and equipment	1,106	971
Financial assets	9,679	10,802
FIXED ASSETS	**11,350**	**12,464**
Receivables	1,455	1,478
Laboratory raw material inventories	14	15
Cash, cash equivalents and marketable securities	7,547	5,149
Prepaid expenses	155	38
CURRENT ASSETS	**9,171**	**6,680**
Expense to be spread over the loan		6
TOTAL ASSETS	**20,521**	**19,149**

Audited parent company financial statements – French standards (In thousands of euros)	12/31/2017	12/31/2018
Capital	3,200	3,260
Issue, merger and contribution premiums	18,588	19,129
Retained earnings	- 3,319	-7,256
Investment subsidies	17	15
Profit and loss for the period	-3,936	-3,110
EQUITY CAPITAL	**14,550**	**12,038**
Conditional advances (*)	3,707	3,707
OTHER EQUITY CAPITAL	**3,707**	**3,707**
Loans	339	1,866
Trade payables and related accounts	1,432	1,061
Tax and social liabilities	455	475
Other liabilities	37	2
Subsidies received in advance		
DEBT	**2,264**	**3,404**
TOTAL LIABILITIES	**20,521**	**19,149**

(*) Although classified as quasi-equity, the amount of conditional advances received under the THANAPLAST™ agreement may need to be repaid in accordance with that agreement, the terms of which are presented in section 4.6.1 of this Registration Document.

3.2. Simplified income statement

Audited parent company financial statements – French standards (In thousands of euros)	12/31/2017	12/31/2018
Operating revenue (*)	983	1,083
Operating expenses	5,635	5,323
OPERATING INCOME	**-4,652**	**-4,240**
Financial income	24	-25
CURRENT INCOME BEFORE TAXES	**-4,628**	**-4,265**
Extraordinary gain or loss	-11	-37
Income tax (research tax credit)	-702	- 1,191
PROFIT OR LOSS	**- 3,936**	**- 3,110**

3.3. Simplified net cash flows

Audited parent company financial statements – French standards (In thousands of euros)	12/31/2017	12/31/2018
Net cash flows related to operations	**- 2,221**	**- 3,078**
Of which self-financing capacity	-3,705	2,785
Of which changes in working capital requirements for operations	1,485	-293
Net cash flow related to investments	**- 312**	**- 1,441**
Net cash flow related to financing activities	**6,092**	**2,122**
Change in cash and cash equivalents	**3,560**	**-2,398**
Cash and cash equivalents at the beginning of the period	**3,987**	**7,547**
Cash and cash equivalents at the end of the period	**7,547**	**5,149**

4. RISK FACTORS

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

More specifically, investors are invited to take the stage of development of the Company's bioprocesses into consideration.

Similarly, despite the scientific recognition provided by its academic partners on its bioprocesses, the conclusive results obtained and the agreements already entered into with industrial partners for an initial license (Carbiolice), no assurances can be given as to the results of the R&D, which is still subject to the usual uncertainties inherent in research, or to the Company's ability to license its bioprocesses for the production and marketing phases.

Finally, it should be noted that the development of the Company's existing projects and the pre-industrialization phases of the bioprocesses will require increasing financing. The Company believes that expenditure on commitments with its current partners is funded but that additional financing will need to be obtained for any extension to its existing projects.

On April 8, 2019, the Company reviewed the risks that could have a material adverse effect on its business, outlook, financial position or results and is of the opinion that there are no other significant risks apart from those presented below.

The attention of investors is drawn to the fact that other risks not identified as at April 8, 2019 or whose occurrence was not considered, on that date, to be likely to have a significant adverse effect on the Company, its business, outlook, financial position and results may exist or arise.

Index		Types of risk	Risk described
4.1 Risks associated with the operations of the Company	4.1.1	Risks associated with the Company's business model	The success of CARBIOS's business development model lies in its ability to build industrial partnerships. Green Chemistry companies need validation of a large number of technical and economic elements before engaging in such structuring partnerships, which often require investments that can be significant.
	4.1.2	Risks of dependence on key personnel	The Company could lose key employees or face recruitment difficulties.
	4.1.3	Risks associated with the management of internal growth	The Company's expansion will depend in particular on its ability to manage its internal growth.
	4.1.4	Risks associated with the management of external growth	The Company cannot guarantee the successful completion of acquisition projects.
4.2 Risks associated with the activities of the Company	4.2.1	Risks associated with protection of technology	The Company continues to enhance its patent portfolio.
	4.2.2	Risks associated with delays in the development of bioprocesses	The Company acknowledges that the bioprocesses are currently at different stages of development and present various degrees of scientific complexity, and this could result in delays.
	4.2.3	Risks of failure of research and development projects	The abandoning of an R&D 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.
	4.2.4	Risks of technological breakthroughs	There is a risk that innovative technologies under development that are potentially more efficient, safer and/or less expensive, or other techniques not yet known to date, will be marketed, which could make the Company's products obsolete.

	4.2.5	Risks associated with changes in prices of raw materials	It is possible that the future purchase prices of the raw materials in question will change unexpectedly.
	4.2.6	Risks associated with the emergence of competing technologies	The bioprocesses market is marked by intense competition among many actors and a high and constantly improving level of basic and applied scientific knowledge.
	4.2.7	Risks associated with competition	Any intensification of competition could have an adverse impact on the Company's performance.
	4.2.8	Industrial risks associated with the environment	Since industrial risk regulations change regularly, the Company may not be able to comply with them. The Company believes that its business activities do not include any direct major environmental risks.
4.3 Legal risks	4.3.1	Risks associated with patent litigation	The Company cannot guarantee that there will be no infringement of intellectual property rights by it or by third parties.
	4.3.2	Risks associated with uncertain protection of patents and other intellectual property rights	Despite the measures taken by the Company, the intellectual property protection desired may not be obtained.
	4.3.3	Risks associated with the inability to protect the confidentiality of the Company's information and know-how	Unpatented and/or unpatentable technologies, processes, know-how and proprietary data are considered trade secrets that the Company attempts to protect through confidentiality agreements.
	4.3.4	Risks related to regulatory authorizations and in particular the use of GMOs	Since the regulations applicable to it change regularly, the Company may not be able to comply with them.
	4.3.5	Litigation risk	The Company cannot guarantee that there will be no new litigation.
4.4 Risks associated with partnerships	4.4.1	Dependence on technologies owned by third parties	The Company is partially dependent on third parties for the research, development and marketing of certain technologies developed jointly.
	4.4.2	Conditions governing the Company's liability for defective products	The Company cannot guarantee that all of its products are free of quality, compliance or safety defects.
4.5 Insurance and coverage of risks			The Company cannot guarantee that its risk insurance coverage is sufficient.
4.6 Financial risks	4.6.1	Liquidity risk	At December 31, 2018, the cash and marketable securities held by the Company totaled €5,1 million.
	4.6.2	Operating loss history - Risks associated with projected losses and financing needs	Since CARBIOS has not yet started to market the technologies that it is developing, its revenues have mainly consisted of operating subsidies from public grants.
	4.6.3	Risks associated with public subsidies and the research tax credit	The Company hopes to continue to seek out grants or subsidies to accelerate its development.
	4.6.4	Risks associated with the pledging of the Company's assets	The Company has not granted any pledges on its assets.
	4.6.5	Dilution risk	There is a risk of dilution associated with the exercise of share subscription warrants and/or founder share subscription warrants.

4.7 Risks associated with the market	4.7.1	Interest rate risks	The Company is not exposed to interest rate risk.
	4.7.2	Counterparty credit risks	The Company believes that it does not bear any significant credit risk.
	4.7.3	Equity risks	The Company is not exposed to any equity risk.
	4.7.4	Foreign exchange risk	Since the Company has no significant expenses denominated in a currency other than the euro, it is not exposed to foreign exchange risk.
	4.7.5	Off-balance sheet commitments	The Company has not given or received any significant off-balance sheet commitments.

4.1. Risks associated with the operations of the Company

4.1.1. Risks associated with the Company's business model

CARBIOS' business development model is based on the industrialization and commercialization of its products and/or enzymes, technologies and bioprocesses, in particular through the granting of operating licenses for its know-how and its intellectual property, directly or via joint ventures, to major manufacturing companies in the sectors impacted by the Company's innovations. To that end, the Company has created a consortium of leading end-users of plastic materials to support the launch of its innovative biorecycling process on the market. The direct sale of products or the licenses granted will generate revenue in the form of upfront payments, license fees or dividends.

The success of CARBIOS's business development model therefore lies in its ability to build such industrial partnerships. Green Chemistry companies need validation of a large number of technical and economic elements before engaging in such structuring partnerships, which often require investments that can be significant.

To support potential industrial partners and facilitate their decision-making, before it enters into more structured agreements, the Company prefers to sign Joint Business Development agreements, which combine R&D cooperation and business analysis. Nevertheless, the signing of this type of agreement requires time, between six and 18 months.

The Company is aware of this risk and difficulty, and it actively seeks out industrial partners for each of its areas of development, whether in Europe, Asia or the United States.

If its partnership strategy fails, the Company would then have to consider the optimal way to extract value from its assets. Measures such as the partial or total disposal of its assets could be considered to limit the impact on its shareholders of such a situation.

4.1.2. Risks of dependence on key personnel

The success of the Company depends largely on the work and expertise of its executives and its key scientific and business development personnel. This includes the Chief Executive Officer, Jean-Claude Lumaret, the Deputy Chief Executive Officer, Martin Stephan, and the Chief Scientific Officer, Professor Alain Marty.

The loss of their skills could affect the Company's ability to achieve its objectives.

Since the admission of its shares to trading on the Euronext Growth Paris market in 2013, the Company's headcount has grown from eight to 21 employees. Since the Company anticipates significant growth in its business, it will need to recruit additional employees to expand its operational activities. This includes qualified scientific and technical employees to assist in its growth and carry out pre-industrialization.

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. This strong competition in the field of Green Chemistry means that the Company may not be able to attract or retain these key personnel under economically acceptable conditions.

The Company's inability to attract and retain these key individuals could prevent it from achieving its growth objectives and thereby have a material adverse effect on its business, outlook, financial position, results and growth.

To reduce this risk, the Company has in particular set up systems to share the rise in value of the Company via share subscription warrants (BSAs) and founder share subscription warrants (BSPCEs), which motivate key beneficiaries to stay in the company and collaborate on its success.

4.1.3. Risks associated with the management of internal growth

The Company has already identified the need for additional skills in key areas such as industrial engineering, plastics processing and fermentation action to accelerate the development of its bioprocesses.

As a result, the Company will have to mobilize its internal resources, and in particular:

- Training, managing, motivating and retaining a growing number of employees;
- Anticipating expenses and investments related to this growth, along with the associated financing needs;
- Anticipating, for its products, the revenue that they may generate;
- Increasing the size of its existing operational, financial and management IT systems.

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.

4.1.4. Risks associated with the management of external growth

If opportunities arise, the Company may conduct selective acquisitions of technologies, new or additional products, raw materials or even equity investments in other companies. The implementation of this strategy would depend, in part, on the Company's ability to identify attractive targets, make those acquisitions on satisfactory terms and successfully integrate them into its operations or technologies.

In such situations, it cannot guarantee that it will successfully integrate the technologies or companies that it has acquired. Any problems encountered by the Company in the integration of other companies or technologies may have a material adverse effect on the Company's business, financial position, results, growth and outlook.

It should be noted that during fiscal year 2016, the Company acquired equity interests in the simplified joint stock company CARBIOLICE[1] for €9.5 million. Building on the momentum from CARBIOLICE's accelerated growth in 2018, a second round of financing of €3.35 million by the shareholders, of which €1.1 million was contributed by CARBIOS, took place in July 2018. These transactions went smoothly.

4.2. Risks associated with the activities of the Company

The innovative technologies developed by the Company served as the basis for the proofs of concept that, in turn, allowed the pre-industrialization phases to begin, in particular for the plastics pilot on the CARBIOS site or through the various academic partnerships established for the production of enzymes or the recycling of PET and PLA. These technologies also led to the creation of the CARBIOLICE[2] 2016 joint venture, which has been operational since September 2016. This joint venture, which was created with Limagrain Céréales Ingrédients and the SPI (Sociétés de Projets Industriels) fund operated by Bpifrance, has been tasked with conducting the industrial and commercial demonstration of the technology for enzymatic biodegradation of plastics developed by CARBIOS. This technology, whose commercial launch is slated for 2020, will be implemented in the form of an enzymatic additive that accelerates the biodegradation of PLA-based plastics to make them compostable regardless of the conditions and thus achieve "zero waste".

However, developments in the bioplastics markets and changes in biodegradable plastics and plastic recycling regulations may not correspond to the solutions provided by the bioprocesses developed by the Company and make the agreements concluded by the Company unsuitable.

4.2.1. Risks associated with protection of technology

Having signed cooperation agreements with academic and scientific partners as well as research services agreements, CARBIOS owns the exclusive worldwide rights to the use of the results obtained from the THANAPLAST™ research and development program, which successfully ended in 2017, and also owns, or at least jointly owns, the intellectual property rights to these results. To further develop the results obtained by the program, the Company entered into several agreements with INRA and other service providers in 2018, under which the Company is the sole owner of the results obtained by those projects. In 2018, the Company entered into three competitive research agreements with Toulouse White Biotechnology (TWB) (INRA) for the optimization of enzymes, the adaptation of recycling processes to fiber applications and the adaptation of the biodegradation process to medical applications. These three agreements stipulate that the results and intellectual property from work done as part of these agreements are wholly owned by CARBIOS. It

[1] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[2] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

should be noted that each of these three agreements provides, subject to certain conditions, for a financial return for the benefit of TWB (INRA) in the event of commercial exploitation of the results obtained as part of these agreements.

Since July 1, 2018, the enzyme optimization work performed by the Biological Systems and Process Engineering Laboratory (LISBP) has been eligible for funding from the General Secretariat for Investment (SGPI) under the Future Investments Program (PIA) operated by the French Environment and Energy Management Agency (ADEME) as part of the CE-PET[3] project, for which CARBIOS received notification of financing on January 10, 2019[4]. In the context of this project, the relationship and distribution of intellectual property for the results achieved between CARBIOS and TWB will be governed by a consortium agreement that is expected to be signed in 2019. However, in accordance with TWB competitive agreements rules, CARBIOS should have full ownership of the results obtained from this project.

In 2017, the Company also entered into an engineering services agreement with TechnipFMC for the definition of a unit to produce Ethylene Glycol (EG) and Terephthalic Acid (TA) monomers through the recycling of used PET. The agreement states that all data transmitted by TechnipFMC under its provisions is the exclusive property of the Company.

As a result, CARBIOS continues to strengthen its patent portfolio and now holds 29 patent families that cover the Company's development areas (Biodegradation, Biorecycling, Bioproduction and Biodiversity) and a new Innovation axis:

- CARBIOS has filed 27 proprietary patent applications, including five in fiscal 2018; these new applications concern the biodiversity associated with the degradation of PET and the biorecycling process;
- CARBIOS has also acquired worldwide exclusive licensing rights for a family of patents filed by the CNRS, the University of Poitiers and Valagro (WO 2013/093355);
- In 2015, CARBIOS also acquired a patent application previously held by Setup Performance (WO 2011/128536A1).

Of the 29 patent families in the CARBIOS portfolio, seven of them have at least one patent granted in one country (notably France, Europe, China, Japan, Canada and/or the United States).

Despite these agreements, the Company remains exposed to the risk of infringement.

4.2.2. Risks associated with delays in the development of bioprocesses

The Company has chosen as its primary development priority the creation of bioprocesses applied to the management of the end-of-life of plastics. This is a radical departure from the current technology in existence, and is based on the use of enzymes and the development of bioprocesses until industrial validation.

The focus is on three bioprocesses in particular. The first consists in developing new biodegradable plastics with a controlled lifespan, the second permits the recycling of plastics in order to achieve polymers with properties identical to those of the original, and the third is more forward-looking and aims to produce biopolymers in a competitive manner and in compliance with environmental requirements.

The Company's original structure enables it to assert that it can minimize the impact of a delay in the development of one of these bioprocesses. The Company has taken care to minimize the interdependence between these processes in terms of scientific and technical results. The project calendar shows that any potential delay in the development of one of the projects in no way hinders the timely industrial and commercial development of the other bioprocesses.

Nevertheless, the Company acknowledges that the bioprocesses are currently at different stages of development and present various degrees of scientific complexity. The Company has defined objectives that determine the economic competitiveness of the bioprocesses. The Company may find itself unable to achieve these objectives, particularly if the production cost of the enzymes used in the processes, and processes in general, both in terms of operating costs and investment costs, proves too high to achieve the envisaged level of competitiveness.

Any delay in the development of the bioprocesses would result in a postponement of the current research and development studies that could delay the validation and establishment of the corresponding pre-industrial pilots. A setback at an intermediary stage could result in the process losing its competitive advantage and accordingly, its opportunity to be marketed on a large scale. The use of the process may then have to be abandoned.

[3] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

[4] Please refer to the January 17, 2019 press release: https://carbios.fr/en/carbios-and-twb-receive-e7-5-million-funding-to-accelerate-the-industrialization-of-the-biorecycling-of-pet-plastics-and-fibers/

4.2.3. Risks of failure of research and development projects

The Company invests significant amounts in product research and development (bioprocesses, enzymes, technologies, etc.). When an R&D project starts, 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 those planned by the Company, 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 difficult to manufacture certain new products on an industrial scale or find the necessary supplies to manufacture and market them;
- 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 abandoning of an R&D 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 scientific development priority that could pose a definitive challenge to the viability of the Company's business model, it would become necessary to ascertain the best method for valuing the assets accumulated by the Company as of the date of such an event and to take measures, such as the partial or total disposal of these assets, in order to minimize the impact of such a situation on shareholders. In such an event, the long-term survival of the Company could be brought into question.

4.2.4. Risks of technological breakthroughs

Innovative technologies in the process of development that are potentially more effective, safer and/or less expensive than the bioprocesses developed by CARBIOS (such as the chemical recycling of plastics or new biodegradable plastics) or other techniques not yet known to date could be marketed in the future, either sooner or later.

At the date of the Registration Document, a team within the Company is responsible for overseeing competitive intelligence, technology and patents. This two-person team is assisted by the Company's scientific teams, which analyze this oversight and also provide technology intelligence on their subjects. In addition, the Company's employees regularly attend seminars and conferences and encourage the creation of partnerships with other Green Chemistry professionals. In this way, the Company remains informed of recent research and the latest progress in its areas of activity.

However, the Company may not be able to properly evaluate the technological, industrial and commercial opportunities that these new technologies could offer, and could potentially be left behind by the competition. Even if the Company devotes significant efforts to perfecting its existing technologies, there is no guarantee that it will maintain its technological advances in the long term, which could hinder the growth of the Company or slow down the adoption of its products.

4.2.5. Risks associated with changes in prices of raw materials

The Company is indirectly exposed to the risk of changes in prices of raw materials, in particular plastic materials (including plastic waste), because the levels of those prices can affect the competitiveness of the products manufactured according to the bioprocesses developed by the Company and marketed by its customers, as well as the competitiveness and economic profitability of the bioprocesses developed by the Company.

The Company's revenue will consist of product sales and royalties based on the revenue generated by its customers on the products manufactured with the technologies to be licensed by the Company. Accordingly, a loss of revenue due to a loss in competitiveness on the part of the customer would have a negative effect on CARBIOS's revenue levels.

4.2.5.1. Raw materials consumed by bioprocesses developed for the production of PLA or other biopolymers

Raw materials of renewable origin such as lignocellulosic biomass from waste (such as wheat bran) or starch biomass or bagasse (sugar cane residue), constitute a significant part of the cost price of products derived from the bioprocesses developed by the Company.

The purchase prices of some of these raw materials of renewable origin are subject to significant fluctuations. Future purchase prices and trends in the relevant renewable raw materials market could change unexpectedly. A significant long-term rise in the purchase price without any upward variation in the price of fossil-based raw materials in competing chemical synthesis processes could jeopardize the profitability of the biotech product in question. Such changes could result in the suspension or permanent cessation of project development or marketing. Conversely, a significant long-

term rise in the cost price of petroleum-based plastics may widen the markets for alternative products, especially bio-sourced ones.

4.2.5.2. Fossil raw materials

The bioprocesses were developed by the Company to enable plastics made from fossil material to be recycled.

Fossil raw materials used to manufacture plastics are subject to significant price fluctuations. Future purchase prices and trends in the relevant renewable raw materials market could change unexpectedly. A significant and lasting reduction in the cost price of petroplastics could undermine the economic competitiveness of the plastics produced through the bioprocesses developed by the Company.

Such changes could result in the suspension or permanent cessation of project development or marketing.

4.2.6. Risks associated with the emergence of competing technologies

The scarcity of fossil resources, the protection of the environment and the preservation of plant resources to meet the growing food needs of human populations are growing concerns for both governments and industry. Furthermore, projects such as the Company's, whose purpose is to improve the preservation of resources, are strongly encouraged.

This being the case, many organizations are actively engaged in bioprocess research, development and marketing. This means that the bioprocesses market is marked by intense competition among many actors and a high and constantly improving level of basic and applied scientific knowledge.

Because of their size and the long history of the products that they offer, the Company's main competitors often possess significant resources and proven experience in development, research and innovation, manufacturing and marketing. The Company cannot guarantee that solutions other than its products will not be developed and marketed in the near future, in particular by actors such as Ioniqa, Loop Industries, Garbo, Teijin, Jeplan, Gr3n, Axens IFP Group Technologies, Galactic, Novamont, Groupe Sphere, Natureworks or Total Corbion.

A competitor may develop similar technologies with characteristics identical or superior, in whole or in part, to the Company's products. Its products may be better adapted to market demand.

Some products could render some of the Company's technologies under development obsolete even before it is able to recover the costs it has incurred in the research and development of those new products.

Generally speaking, it is highly likely that the vast majority of market players will, in the short or medium term, begin to produce instruments similar to the ones developed by the Company (via the buyout of companies with the R&D necessary for the development of bioprocesses). Even though a relatively long time could be required for the development and marketing of a competing technology, notwithstanding the fact that the proposed product might not possess the same technical and technological properties as the Company's, it cannot be guaranteed that these products will not become the benchmark in the field.

4.2.7. Risks associated with competition

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.

For the most part, in either of those areas, the Company is dealing with two types of competition:

- Market competition that mostly includes significant industrial actors targeting a global market. For several years, they have been marketing solutions that provide only a partial or unsatisfactory response to existing and future economic and environmental challenges. CARBIOS hopes to respond to these economic and environmental challenges with its bioprocesses based on innovative breakthrough technologies; and
- More diffuse technological competition consisting of companies of a similar size at a lower or equivalent stage of advancement compared to CARBIOS, most often at an academic stage. To the Company's knowledge, as at April 8, 2019, there are no known risks relating to industrial property with these players.

The Company is in direct competition with other companies, especially with regard to:

FIELDS OF APPLICATION	DIRECT INDUSTRIAL COMPETITORS
Biodegradation	Advanced Enzyme Science Limited and its Enzymoplast® product Manufacturers of compostable plastics for home composting (such as Novamont and its Mater-Bi®, Sphere)
Recycling	Loop Industries*, Ioniqa*, Teijin*, Jeplan*, Gr3n*, Garbo*, Axens IFP Group Technologies* Galactic*, Creacycle*
Production of biopolymers (especially PLA)	NatureWorks, Total Corbion, etc.

* Competitors using chemical and non-biological technologies

This being the case, given the significant growth in these sectors, it is entirely possible that new players, in particular world-class petrochemical, chemical or environmental groups, will decide to invest significantly in these sectors. These groups may acquire competing technologies and processes from universities or any other research center. As a result, these major players may successfully develop processes or technologies more quickly than the Company or develop technologies and processes that are more efficient and less costly than the Company's. This scenario is even more probable since these groups have a network and human and financial resources that are significantly larger than the Company's.

With respect to discontinued products under development by the Company, there is limited competition in this new bioprocesses market. Although the Company has significant assets to penetrate this market and strong protection for its intellectual property[5], it is not able to anticipate changes in the competitive intensity that may occur on the automated antibiogram test preparation market.

Finally, the Company cannot guarantee that its processes will:

- Obtain regulatory approvals, be protected by patents or be marketed faster than its competitors';
- Remain competitive with other processes developed by its competitors that would be safer, more efficient or less costly in their production and marketing;
- Be a commercial success;
- Not be made obsolete or unprofitable by technological advances or other processes developed by its competitors.

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

[5] Refer to Chapter 11 of this Registration Document

4.2.8. Industrial risks associated with the environment

The Company, along with its partners, subcontractors, licensees or customers, are or may in the future be subject to environmental, health and safety laws and regulations, in particular those relating to the storage, use, handling, transport and disposal of hazardous, chemical or biological products, industrial waste and genetically modified organisms.

Generally speaking, the Company is subject to the rules of the French Environmental Code and the environment, health and safety portions of the French Labor Code and to laws and regulations governing the storage, use, handling, transport and disposal of hazardous, chemical, biological and radioactive products, industrial waste (*Grenelle* 1 Law of August 3, 2009, *Grenelle* 2 Law of July 12, 2010, etc.) and/or genetically modified organisms (Article L.531-1 *et seq.* of the French Environmental Code). Levels of regulatory and legal constraints will increase as the Company grows. This environment may slow or even limit the Company's growth.

Regulation (EC) No 1907/2006 of December 18, 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals and restrictions applicable to these substances (REACH) now makes it the responsibility of companies to supply proof of the safety of their products and processes, which results in regulatory compliance procedures that are increasingly costly and complex, particularly for smaller structures.

The purpose of the REACH regulation is to prohibit the marketing of so-called "substances of very high concern" (SVHCs). This could force the Company to redevelop some products or even abandon them if alternative solutions were not to be found.

In addition, Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 requires the Company to provide a safety data sheet for its products that contain dangerous substances and also provides for the classification and labeling of preparations with regard to their effects on the environment. Since the Company is expanding rapidly and sales are increasing, this regulation could generate significant additional costs.

In addition, the Company must comply with the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) and the Transport of Dangerous Goods ("TDG") order applicable to domestic transport. These regulations require specific packaging when transporting hazardous materials and specific equipment for vehicles carrying them. If the Company does not comply, it may be subject to criminal penalties.

If the Company as well as its partners, subcontractors, licensees or customers were subject to these laws and regulations and they did not comply with them or they were to lose the authorizations granted to them, in particular the approvals issued by the public, domestic and/or international authorities for the storage, use, handling, transport and disposal of hazardous, chemical or biological products, industrial waste and genetically modified organisms, it could be forced to pay fines or have all or part of its activities suspended.

At a minimum, the Company would make investments and incur costs to ensure compliance with environmental, health and safety laws and regulations.

More specifically, the Company could be required to purchase new equipment, modify its offices or facilities and, more generally, incur other significant expenses.

4.3. Legal risks

The main legal risks are related to the triggering of the Company's liability because of the research and development associated with processes developed or under development. The Company cannot guarantee that its current insurance coverage is sufficient to meet the liability claims that may be made against it. If the liability of the Company or of its partners, licensees and subcontractors were thus called into question, if the Company or its partners, licensees and subcontractors were not able to obtain and maintain appropriate insurance coverage at an acceptable cost or protect itself in some way against liability claims as a result of its activities, this would have the effect of seriously affecting the marketing of bioprocesses and, more generally, harming the activities, outlook, financial position, results and growth of the Company. The reader is asked to refer to section 4.3.5 for a description of ongoing legal and arbitration proceedings.

4.3.1. Risks associated with patent litigation

The growth of the biotechnology industry and the increasing number of patent applications and patents granted increase the risk that third parties may perceive that the Company's bioprocesses or technologies infringe their intellectual property rights. In general, patent applications are not published until 18 months after the priority application date. For this reason, the Company cannot be certain that third parties were not the first to invent or file patent applications for inventions that are also covered by its own patent applications.

Any litigation or claim against the Company, regardless of the outcome, could result in substantial costs and compromise its reputation. Some competitors with greater resources than the Company may be able to better bear the costs of a complex proceeding. Any such litigation could seriously affect the Company's ability to continue as a going concern. More specifically, intellectual property litigation may require the Company to:

- Stop developing, selling or using the bioprocesses that are dependent on allegedly infringing intellectual property;
- Obtain a license from the holder of the intellectual property rights, which may not be obtained on reasonable terms, if at all.

4.3.2. Risks associated with uncertain protection of patents and other intellectual property rights

To ensure the success of its innovative activities, it is 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 patents and intellectual property rights. Nevertheless, it cannot be excluded that:

- The patent applications currently being reviewed, including certain significant patents in several jurisdictions, may not be issued;
- The extent of the protection granted by a patent may be insufficient for the protection of the relevant invention from competitors;
- Some third parties may claim rights to the patents or other intellectual property rights that the Company owns directly or jointly;
- Some third parties may challenge the validity of the intellectual property rights that the Company owns directly or jointly;
- Some third parties may successfully infringe or circumvent the intellectual property rights of the Company.

The issuance of a patent does not guarantee its validity or its applicability and third parties may challenge these two aspects. The issuance and applicability of a patent in the biotech field are highly uncertain and raise complex legal and scientific issues. A lawsuit may prove necessary to ensure the respect of the intellectual property rights, to protect the commercial trade secrets or to determine the validity and the scope of the intellectual property rights of the Company. Any litigation may result in significant expenditure, reduce profit and fail to provide the protection sought by the Company. Competitors may successfully challenge the patents, which could result in the reduction, or even cancellation, of the scope of the Company's patents. Furthermore, these patents could successfully be counterfeited or circumvented thanks to certain innovations.

Consequently, the Company cannot guarantee that:

- The patent applications that are currently being reviewed will actually result in the issuance of patents;
- The patents issued or granted in license to the Company or its partners will not be challenged by third parties or invalidated by a competent jurisdiction;
- The extent of the protection granted by the patents will be sufficient to protect it from its competitors;
- Its processes do not infringe, or are not accused of infringing, patents belonging to third parties, even if no compelling precedence has been identified to date in the prior studies in this area carried out by the Company and its advisors;
- Third parties will not take legal action or claim a right to the ownership of the patents or other intellectual property rights of the Company.

The occurrence of one of these items regarding one of the patents or intellectual property rights may have a negative impact on the business, outlook, financial position, results or development of the Company.

Given the paramount importance of the patents in its business sector, the Company has formed a non-statutory Intellectual Property commission that meets periodically to define the Company's industrial property strategy, and that benefits internally from the expertise of two experts on industrial property. It also adheres to a policy of filing patent applications at an early stage in order to optimize their priority rights.

4.3.3. Risks associated with the inability to protect the confidentiality of the Company's information and know-how

Under the collaboration agreements put in place by the Company with researchers from academic institutions and with other public or private entities, information and/or materials may be entrusted to them to conduct certain tests. In these cases, the Company requires that confidentiality agreements be signed and/or that equipment be transferred. Unpatented and/or unpatentable technologies, processes, know-how and proprietary data are therefore considered trade secrets that the Company attempts to protect through such agreements.

It is entirely possible that the methods of protecting the agreements and/or know-how put in place by the Company do not provide the protection sought or are violated, that the Company does not have any appropriate solutions or sufficient financial resources to prevent such violations, or that its trade secrets are disclosed to its competitors or developed independently by them.

The occurrence of one or more of these risks could have a material adverse effect on the business, outlook, financial position, results and growth of the Company.

4.3.4. Risks related to regulatory authorizations and in particular the use of GMOs

The Company is subject to various regulations and laws, in particular with regard to the environment, health and safety as these relate to the storage, use, handling, transportation and disposal of hazardous, chemical or biological products, industrial waste and genetically modified organisms (GMOs) (Decree 2007-1467 of October 12, 2007). Morte specifically, the Company's subcontractors must be approved by the Prefecture or by the High Council for Biotechnology with respect to the handling of genetically modified organisms.

The need to comply with these regulations and laws or the consequences of any non-compliance with them could entail costs that the Company has to bear (fines, investments made to ensure compliance with laws and regulations, in particular with respect to the environment, health and safety).

In the event of accidental contamination, injury or damage of any sort whatsoever, the Company could be held liable for damages, which could have a negative effect on its activities and financial position, even if the Company has insurance coverage for certain risks inherent to its activity.

4.3.4.1. Declaration of use of genetically modified microorganisms to the High Committee on Biotechnology for research and development purposes.

The bioprocesses developed by CARBIOS require the use of genetically modified microorganisms, which are used for the process itself or for the production of enzymes, the biological catalysts used in the process. In accordance with Directive 2009/41/EC of May 6, 2009, genetically modified microorganisms require a Class 1 confined environment. Their destruction at the end of production phases must be performed by thermochemical means adapted to minimize the risks that said genetically modified microorganisms will be found in the natural environment. The Company has declared to the High Committee on Biotechnology its use of Class 1 genetically modified microorganisms as part of research project 1: Bioprocess Development for Plastics. Receipt of this declaration (No. 693) was validated on May 27, 2014 and authorizes the use of these microorganisms for a maximum period of five years. As at the date of this Registration Document, an application for renewal of the authorization to use these microorganisms is in progress. During the project, the Company could nevertheless be faced with a tightening of GMO regulations that may slow down developments.

4.3.4.2. Risks associated with the interpretation of the Rio Convention on Biodiversity

The Company hopes that it can collect its strains abroad, as well as in metropolitan France and its overseas territories, in accordance with the Convention on Biodiversity[6].

The Biodiversity Convention signed by over 150 states requires Prior Informed consent for any biological material collection and access to genetic resources in a given country, as well as an agreement governing the terms of transfer of the microbial genetic resource and the conditions for sharing the benefits from the exploitation of that resource.

For the application of these principles, the Company refers to the guidelines and codes of conduct developed in this area of specialty, in particular the "Bonn Guidelines on Access to Genetic Resources and fair and equitable sharing of the benefits arising from their utilization", the MOSAICC code "Micro-Organisms Sustainable use and Access regulation International Code of Conduct" and the guidelines of the association of US biotechnology companies "Guidelines for BIO Members Engaging in Bioprospecting".

In practice, this means that the Company must obtain, directly or through the supplier of the genetic resource, collection permits issued by the local authorities before undertaking any campaign to collect natural samples abroad. In the event that any of the samples collected would enable the Company to develop an exploitable candidate strain, the Company must negotiate an agreement to share the profits deriving from the exploitation of that strain with the local authorities.

The Company could therefore be faced with reluctance or refusal on the part of the local authorities to issue the collection permits or be unable to meet the demands of the local authorities when negotiating a profit-sharing agreement.

4.3.4.3. Risks associated with compliance with the Nagoya Protocol on Access to Genetic Resources

In this context, the Company must comply with EU Regulation No. 511/2014 of April 16, 2014 on "Compliance Measures for Users in the Union with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization" and its Implementing Regulation No. 2015/1866 of October 13, 2015. In addition to the obligation to obtain all information relating to the conditions for the collection of the genetic resources, the user of the genetic resource must also take the necessary measures and make declarations to the Competent Authority on the use of those genetic resources from initial use, at the research stage, and through to the final stage of development of the product developed from the genetic resources used.

Pursuant to this European regulation, Law No. 2016-1087 of August 8, 2016 for the restoration of biodiversity, nature and landscapes and its Implementing Decree No. 2017-848 of May 9, 2017 respecting access to genetic resources and associated traditional knowledge and the sharing of benefits arising from their use include new provisions that deal with

[6] Source: Rio Convention on Biodiversity, June 5, 2002 - http://www.cbd.int/

both the conditions for using genetic resources taken from French territory and the necessary due diligence to be performed should genetic resources be taken from the territories of the signatory states of the Nagoya Protocol.

The Company is thus subject to the rules enacted by this regulation, which strictly regulates the conditions of use of genetic resources when the enzymes and strains exploited by the Company are defined as genetic resources.

However, the Company may encounter difficulties with the suppliers of biological material and/or the authorities of the States in whose territory that material is to be collected in obtaining the necessary information and thus making the declarations required by the regulation.

4.3.5. Litigation risk

There are no governmental, judicial or arbitration proceedings (including any proceedings of which the Company is aware, which are in abeyance or of which it is 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.

4.4. Risks associated with partnerships

4.4.1. Dependence on technologies owned by third parties

The Company's business activity depends on collaboration agreements with academic laboratories and other institutions, which allow it access to technologies as described in this Registration Document. This dependence could have a significant effect on some processes. Access to the expertise developed by the Company's partners for technologies that the Company uses or seeks to use for its products may be revoked if the Company does not comply with certain financial and other conditions. If the Company does not comply with its contractual commitments, it may be forced to stop or delay the projects in question.

The termination of one or more collaboration agreements could have a material adverse effect on the business, outlook, financial position, results and growth of the Company.

4.4.1.1. Academic partnerships:

The Company has entered into partnership agreements as part of the development of the THANAPLAST™ program. The THANAPLAST™ program was closed by a decision dated December 1, 2017, and no particular difficulties were noted by Bpifrance. The legal risks associated with the THANAPLAST™ program are now derived mostly from the conditions under which the technological results obtained during the program will be exploited.

Certain collaboration agreements or amendments to collaboration agreements were signed in 2018 with INRA, acting on behalf of UMS Toulouse White Biotechnology (TWB), to continue certain work initiated during the THANAPLAST™ program.

On January 10, 2019, CARBIOS and TWB also obtained €7.5 million in funding from the SGPI under the PIA (Future Investment Program) run by the ADEME to support, over a period of 39 months, the scaling-up of the CARBIOS industrial and commercial project for the biorecycling of PET plastic and fiber waste. This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in instalments throughout the CE-PET project term[7].

As project leader and coordinator, CARBIOS will strive to accelerate the industrialization of its technology for the biorecycling of PET fibers and plastic. For this, it may obtain up to €4.1 million. The terms and conditions of the agreements to be entered into between CARBIOS and TWB under the terms of this project will be governed by the rules defined by the Toulouse White Biotechnology (TWB) consortium agreement, which is expected to be signed in 2019. However, in accordance with TWB competitive agreements rules, CARBIOS should have full ownership of the results obtained from this project.

4.4.1.2. Industrial partnerships:

On October 27, 2017, the Company announced that on September 30, 2017, it had signed an agreement with L'OREAL to create a consortium for a five-year period to promote the circular economy through innovative plastic recycling solutions. As a follow-up to this agreement, on December 31, 2017, the Company signed an agreement with L'OREAL to create a consortium without any consideration or monetary commitment for 2018 that relates specifically to the biorecycling of PET (the "Consortium"). In the context of this Consortium, to accelerate the industrialization of the process developed by CARBIOS, the partners further agree to support the Company in the structuring of the new value chain for the recycled PET resulting from this innovative process.[8]

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[7] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

[8] Please refer to section 6.1 of this Registration Document for more details on these two agreements.

With this in mind, on February 10, 2017, the Company entered into a one-year agreement for the provision of services with TechnipFMC so that TechnipFMC could conduct a feasibility study to define a demonstration unit for Ethylene Glycol (EG) and Terephthalic Acid (TA) monomers by recycling used PET. When this study was completed, the Company asked TechnipFMC to continue its work through 2018 and 2019 for the ultimate purpose of implementing an industrial demonstration plant operated by CARBIOS as part of its PET plastic and fiber waste recycling project, the CE-PET project[9].

With the intention of constructing an industrial demonstration plant for the biorecycling of PET, on November 20, 2018 CARBIOS signed a letter of intent with KEM ONE under which CARBIOS agrees to study the construction of its demonstration plant on the KEM ONE site in Saint-Fons (Rhône), in Lyon's Chemicals Valley. In return, KEM ONE agrees to do its best to mobilize all stakeholders and assist CARBIOS with the definition of the conditions for providing the land, main utilities and services needed and in its dealings with public authorities.

Furthermore, in January 2019, in the context of the development of the PLA-based single-use plastics enzymatic biodegradation technology licensed by CARBIOS to CARBIOLICE in 2016, CARBIOS and CARBIOLICE entered into a co-development agreement with NOVOZYMES, the world leader in enzyme production. Under the terms of this global multi-year agreement, NOVOZYMES will produce the proprietary enzyme developed by CARBIOS on an industrial scale and agrees to become, in the long term, the exclusive supplier for CARBIOLICE. This new agreement is fully in line with the industrial deployment objective for the enzymatic biodegradation technology designed and developed by CARBIOS. This technology, whose commercial launch is slated for 2020, would generate for CARBIOS the first license revenues paid by CARBIOLICE.

Failure to comply with certain contractual conditions, including commitments entered into by the Company, could result in the total or partial termination of those contracts and the corresponding revenue. If the Company were to fail to meet its commitments, it may be delayed or fail to complete the development of its technologies and processes up to the pre-industrial stage, it may have to make unexpected investments and it may lose some or all of its revenues or industrial property rights described in those agreements.

The partners may not perform their tasks in a timely manner or, more generally, not respect the commitments made by them under those partnership agreements, with the resulting delays or even a reduction in or loss of expected revenue.

The occurrence of one or more of these risks could have a material adverse effect on the business, outlook, financial position, results and growth of the Company.

[9] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

4.4.2. Conditions governing the Company's liability for defective products

Since the Company has not yet entered any marketing phases, no risk of liability for defective products currently exists.

4.5. Insurance and coverage of risks

At the date of this Registration Document, the Company believes that it has insurance coverage that is suitable for its activities. The Company does not foresee any particular difficulties in the future in maintaining adequate levels of insurance within the limits of availability and market conditions.

For its Saint-Beauzire registered office (Biopôle Clermont-Limagne, 3 rue Emile Duclaux 63360 Saint-Beauzire, France), the Company has purchased a "*Professional Multi-Risk*" insurance policy from Allianz whose main provisions are as follows:

- Insurance of property against the risk of fire, explosions, natural disasters, weather events, water damage, electrical damage, theft, vandalism, demonstrations, riots, machinery breakdowns, glass breakage, re-archiving expenses for previous events at the Company's offices;
- Insurance for the financial consequences of work stoppages; and
- Civil Liability Insurance, which covers the civil liability that the Company may incur due to its operations.

This insurance extends to the Company's business activity performed in premises made available by public laboratories. The policy covers the financial consequences of the civil liability that the Company may incur due to the physical and non-physical damage suffered by property entrusted to the Company in the course of its business activity.

In addition, the Company has purchased a second insurance policy to insure the premises of its new technical center in Riom (Puy-de-Dôme) dedicated to the piloting of its PET plastic and fiber biorecycling technology. Nevertheless, since the premises have not yet been equipped as of December 31, 2018, the level of coverage of the policy is lower than that of the Company's head office.

During the year ended December 31, 2018, the Company recognized €25,000 in premiums for all of the insurance policies that it purchased.

The status of the insurance policies purchased by the Company is summarized as follows:

Insurance purchased:

Policy No.	Company	Effective Date	Coverage	2017 Premiums	2018 Premiums
0007917006/0000	Chartis / AIG	01/01/2012	Executive Civil Liability	€4,959.50	€4,959.50
48697339	Allianz	04/27/2012	Service activity Civil Liability	€650.20/month	€699,74/month
AM970780	Generali	10/10/2012	Fleet / employee vehicle insurance	€914	€850
48452207	Allianz	05/02/2012	Premises insurance	€516.51/month	€538,99/month
59325114	Allianz	06/01/2018	Premises insurance		€55.34
48563942	Allianz	06/15/2012	Private vehicle insurance	€85.61/month	€154,71/month
6490E13/69492 and 6490E13/69497	Bpifrance	11/23/2018	Death/Total and IrreversibleLoss of Autonomy*	-	€2,625/year/ person

* Policy purchased as part of the Bpifrance Innovation Loan, and whose beneficiaries are Alain MARTY and Martin STEPHAN

Healthcare/Death and disability insurance purchased:

Policy No.	Company	Effective Date	Coverage	2017 Premiums	2018 Premiums
C13280	GSC	07/01/2011	Executive unemployment insurance	€9,302.63	€12,891.05
65279 RB	Ciprès Vie	01/01/2016	Non-manager health	1.40% Annual Salary	1.48% Annual Salary
65272 RB	Ciprès Vie	01/01/2016	Manager health	1.76% Annual Salary	1.86% Annual Salary

65242 RB	Ciprès Vie	01/01/2016	Manager Health Coefficient > 660	5.02% Annual Salary	5.25% Annual Salary

As at January 1, 2019, the policies mentioned in the table above are no longer in force as the Company has purchased new healthcare/death and disability policies with new providers, namely CPMS for "Manager Health Coefficient > 660" coverage and Eovi for "Non-Manager Health" and "Manager Health" coverage.

4.6. Financial risks

4.6.1. Liquidity risk

Since its founding in 2011, the Company has been financed primarily by:

- The issuance of new shares as part of capital increases, including the Company's initial public offering on the Euronext Growth Paris market in December 2013, which raised nearly €13.1 million. It was also able to raise €2 million under the equity financing agreement with Kepler Cheuvreux in March 2017, and increased its capital via a private investment, raising €3.6 million. in July 2017;
- Convertible bonds;
- Subsidies, conditional grants and loans received from various public bodies including Bpifrance;
- Reimbursement of the research tax credit for a total amount of €5,519 thousand, of which €702 thousand for the 2017 fiscal year; and
- VAT refunds because the Company is still currently owed a VAT credit.

At December 31, 2018, the cash and marketable securities held by the Company totaled €5.1 million.

The only financial debt the Company held as at December 31, 2018 corresponds to:

- An innovation loan granted by Bpifrance: €1,500 thousand (subscribed for €1,500 thousand and reimbursable with a two-year grace period);
- The interest-free loan granted by the Auvergne Region (FIAD): €91 thousand (subscribed for €152 thousand and reimbursed in the amount of €61 thousand in 2018);
- The repayable advance granted by the Auvergne Chamber of Commerce and Industry tied to the Mutualized Fund for Puy-de-Dôme Revitalization (FMR 63): €33 thousand (subscribed for €70 thousand and reimbursed €60 thousand in 2018); and
- The repayable Innovation Development Grant advance from Bpifrance: €265 thousand, reimbursable starting in 2019 (of which €159 thousand was made conditional on the success of the PET pre-pilot project, a point that was validated when it was closed on July 27, 2018).

Please refer to section 20.1.5.1 in Note 11 for an overview of the Company's debt schedule as at December 31, 2018.

The breakdown of financial liabilities corresponding to Bpifrance assistance as part of the THANAPLAST™ project, by contractual due date, is as follows:

In euros	Year 1*	Year 2	Year 3	Year 4	Year 5
Repayable 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 revenue threshold.**

If the research program is successful, the Company has agreed to repay the repayable advance to Bpifrance in the amount of €4.5 million once revenue generated by the exploitation of the products of the THANAPLAST™ program reaches €10 million. Of the €8 million upfront for the license agreement granted to CARBIOLICE[10], €5,7 million was taken into account in calculating this revenue, as agreed with Bpifrance. 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

[10] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

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 is capped at €7.1 million[11].

Existing financial liabilities are not subject to any specific clause that could significantly change the terms.

Furthermore, the Company's historical deficit may be explained by the fact that it is still in its development phase, during which research expenses are increasing even though no recurring revenue can be generated. This may create a liquidity risk for the Company, excluding subsidies or additional fundraising.

The cash flow forecasts for fiscal year 2019, excluding additional fundraising, take the following items into consideration:

- Available cash of €5.1 million as at December 31, 2018; and
- The planned receipt of a Research Tax Credit (CIR) of €1.2 million (amount recognized as at December 31, 2018).

In addition, on March 28, 2017, the Company had set up equity line financing with Kepler Cheuvreux. In accordance with the terms of that agreement, Kepler Cheuvreux agreed to subscribe 380,000 shares on its own initiative over a maximum of two years, provided that the contractual conditions are fulfilled. CARBIOS retains the option of suspending or ending this agreement at any time. At the date of this Registration Document, Kepler Cheuvreux had subscribed for 280,000 shares, and the Company has increased its cash flow by approximately €2 million. When the agreement expired on March 28, 2019, the 100,000 BSAs subscribed but not yet exercised expired.

In addition, on November 22, 2017 (see press release[12]), the Company announced the launch of a scheme for the free award of redeemable equity warrants (BSARs) to all shareholders. This operation provided for the award of one (1) BSAR per share held, with an exercise price set at €10.40, representing a discount of 10.40% compared to the closing price on November 20, 2017. At the end of the BSAR exercise period (November 30, 2018), 104,118 BSARs had been exercised by their holders out of 4,556,469 issued in 2018, resulting in the creation of 9,916 new shares at a price of €10.40. The total dilution generated by the exercise of the 104,118 BSARs was 0.22%, for a total of €103,126 raised. The 4,452,351 BSARs that were not exercised were declared to have expired by the Board of Directors at its meeting on December 6, 2018 and were removed from the listing.

On April 8, 2019, the Company conducted a special review of its liquidity risk, and, on the basis of cash items, which amounted to €3.1 million as at March 31, 2019, and its investments and current operating expenses, it believes that it will be able to meet its future payments until at least mid-2020. However, the Company hopes to accelerate its growth, in particular through the construction of an industrial demonstration plant operated by the Company itself. To be completed, this project will require new funding from institutional or industrial partners.

4.6.2. Operating loss history - Risks associated with projected losses and financing needs

As at December 31, 2015, since CARBIOS had not yet started marketing the technologies that it is developing, its revenues mainly consisted of operating subsidies from public grants.

In 2016, the Company obtained its first operating revenue with the granting of a license to exploit one of its technologies to CARBIOLICE13 in exchange[13] for the payment of an upfront fee of €8 million for the license granted. The Company's accounting result, which was positive for the first time, meant that the balance of the "retained earnings" line item could be reduced. As a result, on the Company's balance sheet as at December 31, 2017, the balance of the "retained earnings" item amounted to -€3.3 million, which corresponds to the total losses accumulated during fiscal years 2012 to 2015 and partially offset by 2016's profits.

For 2017 and 2018, the Company once again recognized negative results, which again reflects its research and development policy, in the absence of other marketing revenue from its technologies.

The funds raised on its initial public offering in December 2013 for a total of €13.1 million, the capital increase carried out in July 2018 in the amount of €3.6 million, the equity financing line set up with Kepler Cheuvreux In March 2017 and the public grants received, mean that, as at December 31, 2017, CARBIOS has a positive net financing position of €5.1 million.

To meet the industrialization targets for its processes in the coming years, CARBIOS will have to resort to new financing from institutional or industrial partners.

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[11] Please refer to Chapter 22 of this Registration Document for the return commitments made to the project's partner companies

[12] Refer to the November 22, 2017 press release: https://carbios.fr/en/carbios-free-allocation-of-redeemable-stock-warrants-for-the-benefit-of-shareholders-of-the-company/

[13] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

4.6.3. Risks associated with public subsidies and the research tax credit

On December 19, 2012, the Company obtained a grant from Bpifrance for the THANAPLAST™ project, composed of conditional advances totaling €3,707 thousand and subsidies of €3,108 thousand spread over a 60-month period 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. As of the date of this Registration Document, the grants relating to this project had all been received by the Company.

Over the entire duration of the THANAPLAST™ project, the Company successfully completed each of the key stages and received the following amounts:

In euros	1st payment	2nd payment	3rd payment	4th payment	5th payment	Payment of the balance	Total
Date of payment	**12/21/2012**	**09/27/2013**	**11/28/2014**	**11/13/2015**	**12/14/2016**	**12/05/2017**	
SUBSIDY	709,000	923,000	166,184	543,816	300,000	465,657	**3,107,657**
REPAYABLE ADV.	644,000	757,048	546,450	1,060,502	143,000	556,214	**3,707,214**
TOTAL	**1,353,000**	**1,680,048**	**712,634**	**1,604,318**	**443,000**	**1,021,871**	**6,814,871**

Even if all of the payments have been made, the Company remains temporarily exposed to the risk of repayment of all or part of those grants. This could have a material adverse effect on the Company's business, outlook, financial position, results and growth.

In the event that the research program is successful, the Company has undertaken to reimburse the repayable advance to Bpifrance in the amount of €4,525 thousand (with an annual discount rate of 2.67%) upon achieving cumulative revenue of €10 million generated by the exploitation of products resulting from the THANAPLAST™ program, according to the following schedule:

Due date (no later than June 30 of each year)	Amount repayable
Year 1*	€300,000
Year 2	€500,000
Year 3	€800,000
Year 4	€975,000
Year 5	€1,950,000
TOTAL	**€4,525,000**

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

In addition, as soon as the reimbursement of the 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 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 €7,100 thousand).

The Company also obtained other public grants:

1. A grant from Bpifrance on November 9, 2011 of €40 thousand for the development of a Strategic Industrial Innovation (ISI) project;
2. A subsidy from the Auvergne Region (FIAD) of €397 thousand, received in full and consisting of:
    - An intangible investment grant of €90 thousand for the acquisition of licenses from external sources valued at €200 thousand;
    - An external intellectual services grant of €45 thousand for a study on legal strategy and a strategic study in the field of information technology, valued at €90 thousand; and
    - A job creation subsidy of €262 thousand for the creation of 10 full-time jobs.
3. An interest-free loan from the Auvergne Region (FIAD) of €152 thousand for the acquisition of a pre-pilot laboratory with two platforms (fermentation and plastics), received in December 2014;

4. An Auvergne Chamber of Commerce and Industry repayable advance tied to the Mutualized Fund for Puy-de-Dôme Revitalization (FMR 63) of €70 thousand for the creation of 14 jobs;
5. Total financing of €265 thousand from Bpifrance for an Innovation Development Grant (ADI), of which €215 thousand was paid in 2017 and the balance of €50 thousand was paid in 2018. The contract provided for a minimum repayment of €106 thousand, with the remainder being conditional on the success of the project. Since the project was determined to be a success in July 2018, the Company must repay the entire grant starting in March 2019.
6. A Bpifrance subsidy of €24 thousand for a Technology Partnership Grant, received in 2018;
7. A subsidy from ADEME of €70 thousand for a feasibility study for the enzymatic recycling of PET fibers, received in 2018;
8. In January 2019, CARBIOS and TWB announced that they had obtained €7.5 million in funding from the General Secretariat for Investment (SGPI) under the Future Investments Program (PIA) operated by the French Environment and Energy Management Agency (ADEME) to support, over a period of 39 months, the scaling-up of the CARBIOS industrial and commercial project for the biorecycling of PET plastic and fiber waste. This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in installments, including an initial installment of 15%. CARBIOS may receive up to €4,100 thousand.

Since 2012, the Company has been eligible for the French Research Tax Credit (CIR) to help finance its activities.

The CIR is a major source of funding for the Company. This source could be called into question by a change in regulations or a challenge from the tax authorities even though the Company complies with the documentation and eligibility requirements for expenses. However, it should be noted that as of the date of this Registration Document, the Company has not been given any notice of a challenge.

4.6.4. Risks associated with the pledging of the Company's assets

As at the date of this Registration Document, the Company has not granted any pledges on its assets.

4.6.5. Dilution risk

In the context of its policy to motivate its executives, employees and consultants, since its inception, the Company has regularly issued and granted founder share subscription warrants (BSPCEs) and share subscription warrants. (BSAs). In addition, the Company has issued convertible bonds to an investment fund managed by Truffle Capital. By a decision of the Chief Executive Officer dated March 28, 2017, the Company had set up equity line financing with Kepler Cheuvreux, issuing 380,000 warrants (BSAs) for subscription to 380,000 shares should all of the warrants be exercised. At the date of this Registration Document, 280,000 BSAs had been exercised in the context of this equity financing line and the 100,000 BSAs subscribed but not yet exercised when the agreement ended on March 28, 2019 expired. In addition, in November 2017, the Company decided to award free BSARs to all shareholders, with 21 BSARs entitling the holder to two shares of the Company, for a BSAR exercise price of €10.40. At the end of the BSAR exercise period (November 30, 2018), 104,118 BSARs had been exercised by their holders out of 4,556,469 issued in November 2017, resulting in the creation of 9,916 new shares at a price of €10.40. The total dilution generated by the exercise of the 104,118 BSARs was 0.22%, for a total of €103,126 raised. The 4,452,351 BSARs that were not exercised were declared to have expired by the Board of Directors at its meeting on December 6, 2018 and were removed from the listing.

The Company may, in the future, issue and grant new instruments giving access to capital.

At the date of this Registration Document, the exercise of all of the Company's instruments that give access to the capital that have been or will be issued would result in the subscription of a number of approximately 398,630 new shares, representing a dilution of 8.56% on an undiluted basis and 7.88% on a diluted basis. The exercise of outstanding instruments giving access to capital and any new issues or grants would result in a dilution for shareholders.

4.7. Risks associated with the market

4.7.1. Interest rate risks

To date, the Company only has an interest-free loan granted by the Auvergne Sustainable Investment Fund, a repayable advance from FMR 63 (*Fonds Mutualisé de Revitalisation 63*), a repayable advance and an innovation loan from Bpifrance. Consequently, the Company is not exposed to interest rate risk.

4.7.2. Credit and counterparty risks

At the date of this Registration Document, given the absence of commercial activity at this stage, CARBIOS has no exposure to customer credit (outstanding receivables).

4.7.3. Equity risks

At the date of this Registration Document, the Company does not hold any interests in listed companies and is therefore not exposed to equity risk.

4.7.4. Foreign exchange risk

Since the Company has no significant expenses denominated in a currency other than the euro, it is not exposed to foreign exchange risk.

The Company's exposure to foreign exchange risk will depend primarily on the currency in which it receives its revenue and will bear some or all of its expenses. The significance of this risk will depend on the countries in which the Company expands, its future partners, and the currency in which it will pay its operating expenses. If the Company is able to expand its industrial and commercial activities in countries outside the euro area, it is likely that it will earn revenue and incur expenses in other currencies. The Company will then consider the most appropriate method to monitor and manage its foreign exchange risk.

4.7.5. Off-balance sheet commitments

At the date of this Registration Document, the Company has not given or received any significant off-balance sheet commitments.

5. INFORMATION CONCERNING THE ISSUER

5.1. History of the Company

5.1.1. Company name and business name

The Company's name is CARBIOS.

5.1.2. Location and registration number

The Company is registered in the Trade and Company Register of Clermont-Ferrand under number 531 530 228.

5.1.3. Date of incorporation and duration

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.

5.1.4. Registered office, legal form and applicable law

CARBIOS is a *société anonyme* (public limited company) with a Board of Directors.

Its registered office is located at Biopôle Clermont-Limagne, 3 rue Emile Duclaux – 63360 Saint-Beauzire, 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.

5.1.5. Significant events in the Company's history

April 2011:	Creation of CARBIOS SAS 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)
July 2011:	Negotiation of the acquisition of exclusive options for exclusive licenses for two key patent applications for the biodegradation of biopolymers (CNRS/Univ Poitiers and CNRS/Univ Poitiers/VALAGRO)
Sept. 2011 – Feb. 2012:	Implementation of the THANAPLAST™ innovative collaborative project with a total budget of €22 million over five 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 provided itself)
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
July - Dec. 2012:	Signature of THANAPLAST™ collaboration agreements with INRA, Deinove, Limagrain, Barbier and the THANAPLAST™ consortium agreement
Sept. 2012:	€550 thousand in aid granted by the Auvergne Region as part of the F.I.A.D. (Auvergne Sustainable Development Fund)
Oct. 2012:	Initial purchase by Deinove of a stake in CARBIOS, which has exclusive access to the Deinove polymer collection of cultures
Dec. 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
Feb. 2013:	Transformation into a public limited company (société anonyme) with a Board of Directors
Aug. 2013:	Payment by Truffle Capital of the third tranche of funds raised in the form of convertible bonds (€800 thousand)
	CARBIOS joins the consortium of the Austrian Centre of Industrial Biotechnology (ACIB), an Austrian research center, and signs a five-year research agreement

Sept. 2013:	Completion of Key Stage 1 of the THANAPLAST™ program and receipt from Bpifrance of an initial tranche of €1.7 million
Dec. 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
Jan. 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
Dec. 2014:	Completion of Key Stage 2 of the THANAPLAST™ program and receipt from Bpifrance of a second tranche of €700 thousand
May 2015:	Signature of a strategic partnership with TWB (INRA) for close collaboration with the Bio-industries CRITT of the INSA Toulouse
Nov. 2015:	Completion of Key Stage 3 of the THANAPLAST™ program and receipt from Bpifrance of a third tranche of €1.6 million
April 2016:	Appointment of Jean Falgoux as Chairman of the Board of Directors of the Company
June 2016:	Partnership with Limagrain Céréales Ingrédients and the investment fund SPI *"Sociétés de Projets Industriels"* operated by Bpifrance to create the CARBIOLICE joint venture
Sept. 2016:	Operational launch of the CARBIOLICE joint venture
Dec. 2016:	Completion of Key Stage 4 of the THANAPLAST™ program and receipt from Bpifrance of a fourth tranche of €443 thousand
Mar. 2017:	Establishment of equity line financing with Kepler Cheuvreux
June 2017:	CARBIOS and TechnipFMC sign an agreement for the enzymatic recycling of PET
July 2017:	Success of a reserved offer of new and existing shares for €4.2 million at a unit price of €7.75
Oct. 2017:	L'OREAL and CARBIOS sign an agreement to create a consortium to industrialize plastic biorecycling
November 2017:	Free allocation of redeemable share subscription warrants (BSARs) to all CARBIOS shareholders
Dec. 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
July 2018:	Acceleration of CARBIOLICE developments and second round of financing of €3.35 million by the shareholders, of which €1.1 million was contributed by CARBIOS
	Optimization of the PET plastic biorecycling process with a reduced hydrolysis time, resulting in a 97% conversion after 16 hours of reaction
Nov. 2018:	CARBIOS and KEM ONE sign a Letter of Intent for the construction of an industrial demonstration plant operated by CARBIOS for enzymatic biorecycling of PET
Dec. 2018:	Appointment of Ian HUDSON as Chairman of the Board of Directors of CARBIOS
Jan. 2019:	CARBIOS and TWB obtain €7.5 million in funding from the Future Investments Program (PIA) operated by the ADEME to accelerate industrialization of the biorecycling of PET plastic and fiber waste
Jan. 2019:	CARBIOS and CARBIOLICE enter into a co-development agreement with NOVOZYMES for the production and supply of enzymes on an industrial scale

5.2. Investments

The Company has financed all of its investments through its equity capital and has also received an interest-free loan from the FIAD of €152 thousand[14] for the acquisition of a pre-pilot laboratory.

5.2.1. Main investments made by the Company in recent years

5.2.1.1. Laboratory

The largest investments made by CARBIOS since 2013 have mainly been for the laboratory that the Company established in 2014. These facilities were commissioned on July 1, 2014 (for an amount of €680 thousand at the end of 2014) and acquisitions have continued since then.

As at December 31, 2018, the following investments have been made:

- General equipment for €234 thousand, of which €18 thousand in 2018;

[14] Please refer to paragraph 4.6.3 of this Registration Document

- The analytical platform for approximately €89 thousand;
- The enzymology platform for €58 thousand;
- The fermentation platform for €326 thousand;
- The microbiology platform for €90 thousand;
- The plastics platform for €632 thousand;
- Laboratory development work for €35 thousand, of which €7 thousand was used in 2018.

5.2.1.2. 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.

As of December 31, 2018, CARBIOS had filed 27 proprietary patent applications, including five in 2018. CARBIOS previously acquired worldwide exclusive licensing rights for two patent applications (in 2012) and a patent application previously held by Setup Performance (in 2015).

In 2017, CARBIOS also acquired two enzymes of interest that were selected for their PET degradation activity from a German university research laboratory. Due to the development of new enzymes that are much more efficient and better suited to the CARBIOS process, in 2018, the Company waived the exclusive license for one of the families of patents filed by the CNRS and the University of Poitiers whose licensing rights had been acquired in 20122012.[15]

As at December 31, 2018, gross investments made by CARBIOS in patents amounted to €964 thousand, of which €317 thousand in 2018.

5.2.1.3. Equity interests

As at December 31, 2018, the Company holds 56.23% of the capital of CARBIOLICE[16], which was created in 2016.

5.2.1.4. Other investments

During 2018, the Company made other investments, including:

- various fixtures and fittings for €10 thousand;
- furniture and computer equipment for €13 thousand; and
- in addition, as of December 31, 2018, the Company initiated the standard procedures for the filing of patents for which €16 thousand was invoiced after the closing date.

5.2.2. Main investments in progress

Since December 31, 2018, CARBIOS has continued to invest in general equipment for the laboratory and its new technical center in Riom (Puy-de-Dôme) dedicated to the pilot for its PET plastic and fiber biorecycling technology.

5.2.3. Main planned investments

At the date of this Registration Document, the Company had made a commitment to TechnipFMC[17] to conduct preliminary engineering work for the construction of an industrial demonstration plant for its biorecycling technology for PET plastics and fibers at the KEM ONE industrial site in Saint-Fons (Rhône)[18]. However, the Company has not yet made a firm commitment for the actual construction of the industrial demonstration plant.

Please refer to section 10.5 of this Registration Document for the expected sources of funding of the Company.

[15] Refer to Chapter 22 of this Registration Document

[16] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[17] Refer to Chapter 22 of this Registration Document

[18] See November 28, 2018 press release: https://carbios.fr/en/carbios-and-kem-one-sign-a-letter-of-intent-to-implement-a-pet-biorecycling-demonstration-plant-operated-by-carbios-in-the-french-chemical-valley//

6. OVERVIEW OF ACTIVITIES

6.1. INTRODUCTION

CARBIOS is a green chemistry company whose innovations meet the environmental and sustainable development challenges facing manufacturers. Since its creation in 2011, the Company has specialized in the development of industrial bioprocesses in the field of biodegradation, biorecycling and bioproduction of polymers. From July 2012 to June 2017, the Company established and managed a collaborative research and development project that brought together the best academic and private experts within the THANAPLAST™ consortium with the support of Bpifrance. In this five-year consortium, the Company entered into collaborative research agreements that enabled it to mobilize nearly 60 researchers to identify microorganisms and/or enzymes that could degrade 10 polymers selected from among the thermoplastic families most used in plastics (aliphatic and aromatic polyesters such as PLA, PET, PBAT, etc., polyolefins such as PE and PP and polyamides such as PA6) and develop three innovative bioprocesses to rethink the lifecycle of plastics according to the following three independent and complementary criteria:

- BIODEGRADATION: Include enzymes in a plastic material, of fossil origin or bio-sourced, to make it biodegradable. This is the creation of a new generation of biodegradable plastics whose lifespan is controlled and adapted to use.
- BIORECYCLING: An enzymatic process for recycling plastic waste by returning itto its original monomers. The monomers obtained are identical to the virgin monomers and are repolymerized to produce new plastics of the same quality.
- BIOPOLYMERIZATION: A complementary process for biorecycling, that biologically repolymerizes monomers into polymers of interest to industry. This method addresses an entirely new market and makes it possible to envisage an alternative route for producing PLA from lactic acid.

On the basis of the objectives set during the CARBIOS initial public offering in December 2013, the Company has conducted the development of its processes in accordance with the provisional timetable and has completed key stages in biodegradation, biorecycling and bioproduction. The Company has achieved a large portion of its objectives now that it has microorganisms and/or proprietary enzymes that degrade some aromatic and aliphatic polyesters of which common plastics are partially or totally comprised.

The THANAPLAST™ collaborative project was successfully completed in 2017 in line with objectives. It discovered new end-of-life recovery methods for plastics that came about through:

1: The creation of CARBIOLICE[19], which since September 1, 2016 has been in charge of the industrialization of the PLA biodegradation process developed by CARBIOS and its partners within THANAPLAST™. As at December 31, 2018, CARBIOS still held a 56.23% stake in CARBIOLICE. However, it does not consolidate this subsidiary, given that CARBIOS is exempt from the obligation to produce consolidated financial statements as provided under Article L.233-15 et seq. of the French Commercial Code.

2: A collaboration with L'OREAL, with no monetary compensation or commitment, for the purpose of supporting the industrial development of the technology developed by CARBIOS and its partners within THANAPLAST™ for the biorecycling of PET and other plastics.

Within the context of its research and development, CARBIOS has been supported by the academic world to a considerable degree. In accordance with the various agreements put in place[20], exploitation of the technologies resulting from these research collaborations may give rise to the payment of contractually agreed amounts.

The details of the stage of development of the processes and areas of application are given in the table below.

[19] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[20] Refer to Chapter 22 of this Registration Document for details of the terms of past and current collaboration agreements.

Summary table of CARBIOS processes, their applications and their stage of development:

Processes	Biodegradation			Biorecycling			Biopolymerization
Polymers	PCL	PLA	PE	PET (plastics)	PET (textiles)	PLA	PLA
Applications	Mulching film and bags	Packaging, mulching films, bags, bag manufacturing, industrial films, disposable tableware	All soft plastics	Rigid packaging (bottles, trays, films)	Clothing, household linens and furnishings (duvets, pillows, etc.)	Packaging	Packaging and textiles
Stage of development	Pilot	Demonstration	Approval of concept	Pilot	Laboratory	Pilot	Laboratory
Estimated date of first revenues for the industrial exploitation of the processes developed by CARBIOS		2016*		2019**			
Estimated date of marketing to end customers of processes developed by CARBIOS		2019		2021			
Industrial development partners		Carbiolice Novozymes		L'Oréal			

* Fixed fee of €8 million received in 2016 under a patent and know-how license agreement signed with CARBIOLICE SAS.

** Previously estimated for 2017, the first revenues from the PET biorecycling technology are subject to the implementation of the technical program in the "Consortium" agreement entered into in December 2017 by CARBIOS and L'OREAL. It will be implemented when three other industrial and/or commercial companies join the Consortium.

The developments undertaken by CARBIOS have resulted in the filing of numerous families of patents, which are broken down by field in the table below.

Summary table of areas of Intellectual Property where CARBIOS has made advances:

Area:	Distribution of intellectual property
Biodiversity	9 patent families, 7 of which are fully owned
Biodegradation	7 patent families, 5 of which are fully owned[(1)]
Biorecycling	6 fully-owned patent families[(2)]
Bioproduction	5 patent families, 4 of which are fully owned
Innovation	2 wholly owned patent families

[(1)] In the 2017 Registration Document, 11 patent families were indicated for biodegradation. These patent families included 4 biodiversity patent families related to the biodegradation process, which is not the case in this table.

[(2)] In the 2017 Registration Document, 10 patent families were indicated for biodegradation. These patent families included 6 biodiversity patent families related to the biorecycling process, which is not the case in this table.

Biodegradation process:

On September 1, 2016, CARBIOS began the industrial development of its biodegradation process with the operational start-up of CARBIOLICE[21], a joint venture created in partnership with Limagrain Céréales Ingrédients and the SPI "Sociétés de Projets Industriels" fund of Bpifrance. This project provides oversight and industrial and commercial demonstration of the enzymatic biodegradation process developed by the Company and licensed to CARBIOLICE for the production of master batches used to manufacture a new generation of fully compostable (home composting) disposable plastics that meet the requirements of the Energy Transition Law for Green Growth. This license covered seven patent families that are related to the biodegradation process developed by CARBIOS whose exploitation by CARBIOLICE covered the following areas of application: flexible film markets, rigid applications in the agriculture and horticulture sector and disposable plastic tableware. With the acceleration of CARBIOLICE's developments in 2018, namely the introduction of a new business plan and the filing of several patent applications that confirm the achievement of new milestones, a second round of funding was accompanied by an extension of the scope of the license granted to rigid packaging and two additional patent families (bringing the total to nine), subject to the payment of an additional lump sum conditional upon the achievement by CARBIOLICE of a defined revenue goal.

This project amounts to €29.5 million with the contribution of assets from LCI (€3.5 million), the license granted by CARBIOS in 2016 (the Company recorded non-monetary operating revenue of €8 million, for which the counterparty was a receivable from CARBIOLICE[22] - in which the Company then held a 99% stake - subsequently converted into an equity interest in that company), which was extended on June 28, 2018, and the cash contribution of the three partners (€18 million) for which investment is planned in four phases over four years. 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 €3.35 million, initially scheduled for payment in 2019, was released early in July 2018[23] (including €1.1 million from CARBIOS) given the acceleration of developments on the part of CARBIOLICE, namely the introduction of a new business plan and the filing of several patent applications that confirm the achievement of new milestones. Depending on the achievement of industrial and commercial objectives, a third tranche of funding amounting to €3.35 million (including €1.1 million from CARBIOS) will be released in 2019, followed by a fourth tranche in 2020 amounting to €7.3 million (including €2.3 million provided by CARBIOS). CARBIOLICE will, over the long term, make it able to meet the growing requirements of the Energy Transition Law for Green Growth, which provides for a gradual increase in the minimum bio-sourced content of single-use plastic bags.
At the date of this Registration Document, CARBIOLICE is 56.23% controlled by CARBIOS. CARBIOS does not consolidate CARBIOLICE, however, pursuant to the exemptions from the obligation to prepare consolidated financial statements described in Articles L.233-15 et seq. of the French Commercial Code. Given the respective contributions expected from the three partners of CARBIOLICE as detailed above, CARBIOS should be diluted so that it holds no more than 47.5% of the capital of this company in 2020.

Finally, in January 2019, in the context of the development of the PLA-based single-use plastics enzymatic biodegradation technology licensed by CARBIOS to CARBIOLICE in 2016, CARBIOS and CARBIOLICE entered into a co-development agreement with NOVOZYMES[24], the world leader in enzyme production. Under the terms of this global multi-year agreement, NOVOZYMES will produce the proprietary enzyme developed by CARBIOS on an industrial scale and agrees to become, in the long term, the exclusive supplier for CARBIOLICE. This new agreement is fully in line with the industrial deployment objective for the enzymatic biodegradation technology designed and developed by CARBIOS. This technology, whose commercial launch is slated for 2020, would generate for CARBIOS the first license revenues paid by CARBIOLICE.

Biorecycling process:

On October 27, 2017, the Company announced the signature of a five-year agreement with L'OREAL on September 30, 2017, with no counterparty or monetary commitment, for the creation of a consortium for the industrialization of the biorecycling technology designed and developed by CARBIOS. This collaboration, in which there is no transfer of intellectual property rights, is intended to bring together various manufacturers that are keen to engage in the biorecycling of their products to develop and industrialize CARBIOS' recycling processes for various types of polymers. It is an important step in supporting the next phases of development planned by the Company and encourages a collective

[21] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[22] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[23] Refer to the July 6, 2018 press release: https://carbios.fr/5363/

[24] Please refer to the January 29, 2019 press release: https://carbios.fr/en/carbios-and-carbiolice-enter-into-a-joint-development-agreement-with-novozymes-for-long-term-supply-of-enzymes-at-industrial-scale/

momentum toward the circular economy so that new sustainable solutions can be brought to the recycling of polymers. CARBIOS and L'OREAL, with the help of a consulting firm, are actively pursuing joint research work with other manufacturers likely to be interested by the arrival of the CARBIOS technology on the market. As at the date of the Registration Document, numerous contacts have been made, translating into many expressions of interest that have yet to result in contractual commitments.

As a follow-up to this agreement, on December 31, 2017, the Company signed a consortium agreement with L'OREAL without any consideration or monetary commitments for 2018 that relate specifically to the biorecycling of PET (the "Consortium"). This Consortium's technical program will be implemented as soon as three other industrial and/or commercial companies join the Consortium. The implementation of the technical program will involve the payment by the Consortium partners of an annual lump-sum contribution to support CARBIOS's developments to meet the expectations of its partners in terms of the recyclability of their products using the enzymatic biorecycling technology designed and developed by CARBIOS. In the context of this Consortium, to accelerate the industrialization of the process developed by CARBIOS, the partners further agree to support the Company in the structuring of the new value chain for the recycled PET resulting from this innovative process.

On November 28, 2018, the Company announced that it had signed a letter of intent with KEM ONE on November 20, 2018 without any consideration or monetary commitments for a project to construct an industrial demonstration plant operated by the Company in Lyon's Chemicals Valley to secure the value associated with its PET plastic and fiber biorecycling technology. Under the terms of this six-month agreement, CARBIOS agreed to study the construction of its demonstration plant at the KEM ONE industrial site in Saint-Fons (Rhône). KEM ONE agreed to do its best to mobilize all stakeholders and assist CARBIOS with the definition of the conditions for providing the land, main utilities and services needed and in its dealings with public authorities[25].

On January 10, 2019, CARBIOS and TWB obtained €7.5 million in funding from the SGPI under the PIA (Future Investment Program) run by the ADEME to support, over a period of 39 months, the scaling-up of the CARBIOS industrial and commercial project for the biorecycling of PET plastic and fiber waste. This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in instalments throughout the CE-PET project term[26]. As project leader and coordinator, CARBIOS will strive to accelerate the industrialization of its technology for the biorecycling of PET fibers and plastic. For this, it may obtain up to €4.1 million. The terms and conditions of the agreements to be entered into between CARBIOS and TWB under the terms of this project will be governed by the rules defined by the Toulouse White Biotechnology (TWB) consortium agreement, which is expected to be signed in 2019. However, in accordance with TWB competitive agreements rules, CARBIOS should have full ownership of the results obtained from this project.

On February 27, 2019, CARBIOS announced that it had produced the first PET bottles with 100% Purified Terephthalic Acid (rPTA) from the enzymatic biorecycling of used plastics. This major step is a world first that confirms CARBIOS technology's potential to engage industry in a responsible transition to a circular economy model[27].

In accordance with the strategy implemented to ensure the best potential for the exploitation of its innovations, the Company plans to continue the deployment of its technologies through licensing to industrial players in the sector and/or licensing agreements as part of joint industrialization.

Processes related to polymers other than those mentioned above (such as other polyamides, polyolefins, or polyesters, etc.) may be developed as part of the Company's ongoing R&D work.

CARBIOS has been listed on the Euronext Growth Paris market since December 19, 2013.

The following acronyms are used throughout this chapter to refer to the various types of polymers:

PLA: polylactic acid

PHA: polyhydroxyalkanoate

PET: Polyethylene terephthalate

PCL: polycaprolactone

PE: polyethylene

PET: polyethylene terephthalate

PBAT: polybutylene adipate-co-terephthalate

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[25] Refer to the November 28, 2018 press release: https://carbios.fr/en/carbios-and-kem-one-sign-a-letter-of-intent-to-implement-a-pet-biorecycling-demonstration-plant-operated-by-carbios-in-the-french-chemical-valley//

[26] For more information on the stages of the CE-PET project, refer to section 6.6.3 of this Registration Document.

[27] Refer to the February 27, 2019 press release: https://carbios.fr/en/carbios-produces-first-pet-bottles-from-100-recycled-plastic-waste-using-companys-breakthrough-technology/

6.1.1. "Bioplasturgy"[28]: revolutionizing the world of thermoplastics

CARBIOS, creator of "bioplasturgy", designs and develops biological processes to improve the environmental and economic performance of the lifecycle of plastic and textile polymers.

These bioprocesses, which combine industrial biology and plasturgy for the first time, rely on the use of enzymes produced by micro-organisms selected for their ability to degrade the polymers that make up plastic and textile materials. The exceptional properties of these enzymes, never previously used in plastics, are leading the way to a new ecologically-sound and sustainable approach to:

- **enzymatic biodegradation** with the creation of a new generation of biodegradable plastics whose lifespan is controlled and adapted to use;
- **enzymatic biorecycling** of plastic and textile waste, facilitating the production of new plastics or textiles of the same quality as the original;
- **biopolymerization**, a process complementary to biorecycling which opens an alternative route for the production of **PLA.**

Plastics are the third most-manufactured material behind cement and steel[29], and at least 348 million metric tons[30] were produced worldwide in 2017. Plastics are present in most of the objects in our daily lives, and the way in which we use these materials has major environmental impacts and poses a growing threat to our ecosystems.

Over 125 million metric tons[31] of plastic waste are generated each year, including some 9 million metric tons that ultimately end up in the natural environment[32], particularly in our seas and oceans.
Reinventing the end-of-life of plastics-based products is currently one of the major challenges to achieving a more sustainable and eco-friendly society.

Through its innovative approach, CARBIOS aims to implement a circular economic model[33] that will transform this environmental threat into a genuine societal and industrial opportunity, making plastic waste the renewable raw material of tomorrow's chemical industry.

6.1.2. CARBIOS's strategy

The introduction of enzymes in the value chain of the plastics industry is a world first by CARBIOS, whose technological advances in this field have brought about unique know-how. In light of the results already achieved, CARBIOS intends to become a major player in the worldwide plasturgy and recycling markets by providing reliable and innovative solutions while meeting the challenges of our time and creating long-term value for its shareholders.

CARBIOS' economic development model is based on the industrialization and sale of its products and/or enzymes, technologies and bioprocesses through the granting of operating licenses for its know-how and its intellectual property, directly or via joint ventures, to major manufacturing companies in the sectors impacted by the Company's innovations. The licenses granted will generate revenue in the form of upfront payments, license fees or dividends.

At the end of 2018, the CARBIOS intellectual property portfolio included 29 patent families, of which 24 were wholly owned by the Company, four were jointly owned with exclusive exploitation rights for CARBIOS and one was under an exclusive worldwide license. CARBIOS has thus ensured that it can guarantee a strategic competitive advantage over sizeable markets to its current and future industrial partners.

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[28] Associating industrial biology and plasturgy

[29] Source: Science Advances magazine, July 19, 2017

[30] Source: PlasticsEurope Market Research Group/Conversio Market & Strategy in 2018

[31] Source: PlasticsEurope in 2015, Environmental Protection Agency in 2013, Plastic Waste Management Institute Japan in 2012, Central Pollution Control Board in 2013, Mc Kinsey & Ocean Conservancy in 2015, Expedition 7th Continent association in 2015, Jenna Jambeck in 2015 and Ademe in 2012

[32] Source: Expedition 7th Continent association in 2015, Jenna Jambeck in 2015 and ADEME in 2012

[33] In France, the concept of the circular economic received much media coverage at the time of the Grenelle environmental initiative in 2007, and draws its inspiration from the "Cradle to Cradle" theory postulated by M. Braungart and W. McDonough in 2002.

CARBIOLICE[34]: Challenges of the industrial and commercial development project for the patented plastic enzymatic biodegradation technology developed by CARBIOS

Created in September 2016 in partnership with Limagrain Céréales Ingrédients (LCI) and the SPI "Sociétés de Projets Industriels" fund operated by Bpifrance, CARBIOLICE conducts the industrial and commercial demonstration of the patented plastic enzymatic biodegradation technology developed by CARBIOS, through its pilot unit and production unit with a capacity of 4,000 metric tons a year. This scaling-up of the process, which was accelerated in 2018, should result in the industrial and commercial production of enzymed granules (compounds and master batches) for the manufacturing of bio-sourced, biodegradable plastics by 2020. The total funding for this project is €29.5 million with the contribution of LCI assets (€3.5 million), the CARBIOS license (€8 million), which was extended in June 2018, and the cash contribution of the three partners (€18 million), whose investment is scheduled in four phases over four years. 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 €3.35 million was released early in July 2018 (including €1.1 million from CARBIOS) given the acceleration of developments on the part of CARBIOLICE, namely the introduction of a new business plan and the filing of several patent applications that confirm the achievement of new milestones. Depending on the achievement of industrial and commercial objectives, a third tranche of funding amounting to €3.35 million (including €1.1 million for CARBIOS) will be released in 2019, followed by a fourth tranche in 2020 amounting to €7.3 million (including €2.3 million provided by CARBIOS).

This company, which is currently 56.23% controlled 56,23[35] by CARBIOS, will make it possible in the future to meet the growing requirements of the Energy Transition Law for Green Growth, which provides for a gradual increase in the minimum bio-sourced content of single-use plastic bags56,23[36].

Given the respective contributions expected from the three partners of CARBIOLICE as detailed above, CARBIOS should be diluted so that it holds no more than 47.5% of the capital of this company in 2020.

Structuring partnerships: Challenges

In addition to the structuring industrial partnership with CARBIOLICE, CARBIOS has close relationships with several major industrial groups that have also shown a strong strategic interest in the bioprocesses developed by CARBIOS, thus strengthening the outlook for recovery envisaged for the bioprocesses being developed within the Company.

Accordingly, on October 27, 2017, the Company announced that on September 30, 2017, it had signed an agreement with L'OREAL to create a consortium for a five-year period to promote the circular economy through innovative plastic recycling solutions. As a follow-up to this agreement, on December 31, 2017, the Company signed an agreement with L'OREAL to create a consortium without any consideration or monetary commitment for 2018 that relates specifically to the biorecycling of PET[37]. In the context of this Consortium, to accelerate the industrialization of the process developed by CARBIOS, the partners further agree to support the Company in the structuring of the new value chain for the recycled PET resulting from this innovative process.

The collaboration established with L'OREAL under these agreements continued in 2018.

On November 28, 2018, the Company also announced that on November 20, 2018, it signed a six-month letter of intent with KEM ONE as part of a project to construct an industrial demonstration plant operated by the Company on the KEM ONE site in Saint-Fons (Rhône) to secure the value associated with its PET plastic and fiber biorecycling technology[38].

In addition, the Company announced in January 2019 that it and its partner TWB had obtained €7.5 million in funding from the SGPI under the PIA operated by the ADEME to support, over a period of 39 months, the scaling-up of the Company's industrial and commercial project for the biorecycling of PET plastic and fiber waste[39]. To that end, TWB and

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[34] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[35] For the history of capital contributions to CARBIOLICE, refer to section 6.5.4 of this Registration Document

[36] For the contractual aspects of the license granted by CARBIOS to CARBIOLICE, refer to Chapter 22 of this Registration Document

[37] Please refer to section 6.1 of this Registration Document for more details on these two agreements.

[38] Refer to the November 28, 2018 press release: https://carbios.fr/en/carbios-and-kem-one-sign-a-letter-of-intent-to-implement-a-pet-biorecycling-demonstration-plant-operated-by-carbios-in-the-french-chemical-valley//

[39] Please refer to the January 17, 2019 press release: https://carbios.fr/en/carbios-and-twb-receive-e7-5-million-funding-to-accelerate-the-industrialization-of-the-biorecycling-of-pet-plastics-and-fibers/

CARBIOS are expected to sign an agreement in fiscal year 2019 to govern the terms and rules applicable under the partnership.

Finally, in January 2019, in the context of the development of the PLA-based single-use plastics enzymatic biodegradation technology licensed by CARBIOS to CARBIOLICE in 2016, CARBIOS and CARBIOLICE entered into a co-development agreement with NOVOZYMES[40], the world leader in enzyme production. Under the terms of this global multi-year agreement, NOVOZYMES will produce the proprietary enzyme developed by CARBIOS on an industrial scale and agrees to become, in the long term, the exclusive supplier for CARBIOLICE. This new agreement is fully in line with the industrial deployment objective for the enzymatic biodegradation technology designed and developed by CARBIOS. This technology, whose commercial launch is slated for 2020, would generate for CARBIOS the first license revenues paid by CARBIOLICE.

6.2. CARBIOS'S AIM: RETHINK THE LIFECYCLE OF PLASTIC POLYMERS

6.2.1. A market opportunity

A symbol of the consumption society, plastics have invaded our daily lives and have become unavoidable.

Worldwide plastics production is currently concentrated in Asia (50%), particularly China[41], and generates a quantity of waste that represents a reservoir of raw materials that are still insufficiently recycled. Around 40%[42] of this plastic waste is still sent to landfill worldwide.

Taking into account only the countries that produce the most waste and are its largest importers/exporters (the European Union, the United States, Japan, India and China), as well as plastic pollution in seas and oceans, global production of plastic waste can be estimated at about 125 million metric tons[43] per year or 36% of annual global plastic production[44].

It should be noted that the pollution of the seas and oceans represents nearly 10 million metric tons of waste per year[45], of which 90% or about 9 million metric tons[46] is plastics (bags, water bottles, plastic waste from agriculture and fishing, etc.) that come for the most part from continents.

In light of this situation, new regulatory provisions are being implemented in numerous countries. This is particularly the case in France with the Law on Energy Transition for Green Growth prohibiting all single-use plastic bags that cannot be composted in home composting facilities and that are not made all or in part from bio-sourced materials, since January 1, 2017. Europe has also made undertakings in this field with the adoption of the European Commission's legislative "Circular Economy Package" establishing common objectives for waste management among member states. Since January 1, 2018, China has also banned the importation of 24 types of waste from third countries, particularly certain types of plastic waste[47]. This ban already has multiple repercussions for the waste-exporting countries, which are now obliged to implement alternative solutions for the treatment of previously exported waste. It should be noted that in 2016, China imported 7.3 million metric tons of plastic[48] from third countries, including the United States, Great Britain and Japan.

These provisions show an intensification in the fight against environmental pollution and reflect a more global trend aimed at initiating a transition to more sustainable solutions with a neutral environmental impact. In addition, they represent powerful backing for innovation in the fields of recycling and biodegradation, the core of the bioprocesses developed by CARBIOS.

The world's major industrial groups also have a growing need to offer the market products made of recycled materials, but are confronted with the technical limitations of existing processes, which do not fully meet that need. The enzymatic biorecycling processes developed by CARBIOS – which allow a return to the initial monomers and, ultimately, the

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[40] Please refer to the January 29, 2019 press release: https://carbios.fr/en/carbios-and-carbiolice-enter-into-a-joint-development-agreement-with-novozymes-for-long-term-supply-of-enzymes-at-industrial-scale//

[41] Source: PlasticsEurope Market Research Group/Conversio Market & Strategy in 2018

[42] Source: PlasticsEurope in 2015, Plastic Waste Management Institute Japan in 2012, Plastics Recycling Committee in 2014, International Solid Waste Association in 2014, and China Scrap Plastics Association in 2014

[43] Source: PlasticsEurope en 2015, Environmental Protection Agency en 2013, Plastic Waste Management Institute Japan en 2012, Central Pollution Control Board en 2013, Mc Kinsey & Ocean Conservancy en 2015, Association Expédition 7ème continent en 2015, Jenna Jambeck en 2015 et Ademe en 2012

[44] Source: PlasticsEurope en 2016

[45] Source: Expedition 7th Continent association in 2015 and Jenna Jambeck in 2015

[46] Source: Ademe in 2012

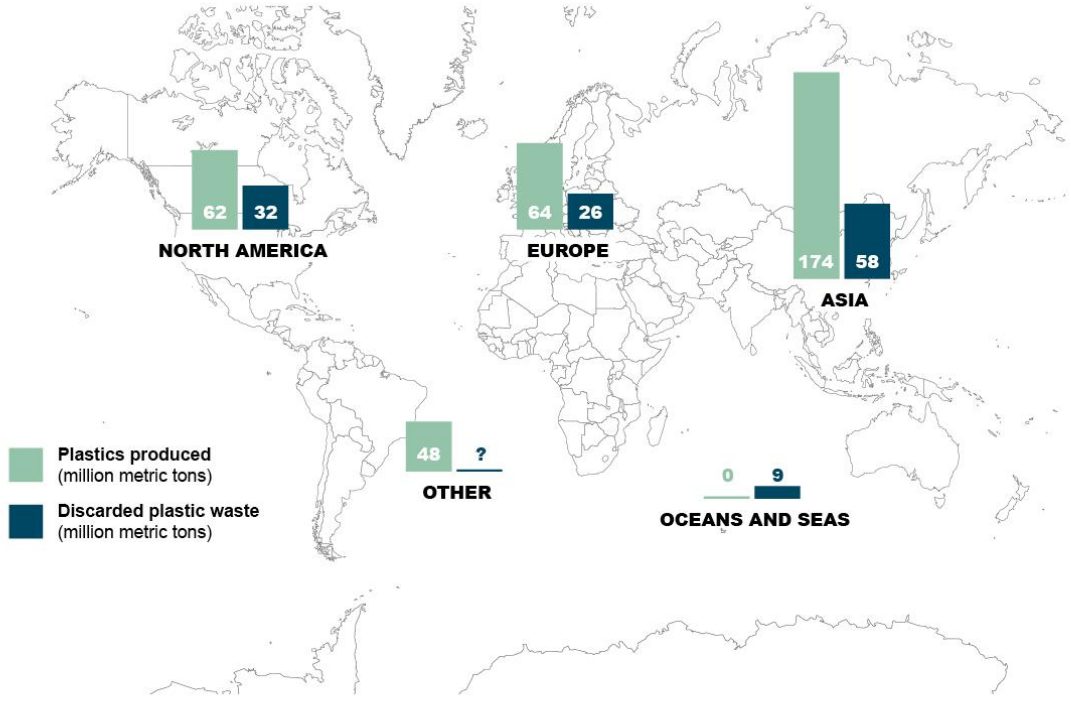
[47] Source: China Daily, July 21, 2017 issue, http://www.chinadaily.com.cn/cndy/2017-07/21/content_30197305.htm

[48] Source: The Guardian – édition du 02 janvier 2018 - article "Rubish already building up at UK recycling plants due to China import ban"

production of new plastics of the same quality as the original products – provide an ideal solution to meet market needs and fulfill the expectations of manufacturers, who will order from polymer producers, who in turn will use CARBIOS' bioprocesses.

Today, management of plastic and textile waste represents a real societal challenge because of the environmental impact of plastics and the need to develop solutions that finally control flows. The introduction of a genuine circular economy principle would make it possible to limit both the use of fossil resources and the loss of deposits with high added value for the sector.

GEOGRAPHICAL DISTRIBUTION OF PLASTIC PRODUCTION AND WASTE IN 2017
348 million metric tons[1] and 125 million metric tons[2]



[1] Source: PlasticsEurope Market Research Group/Conversio Market & Strategy in 2018
[2] Source: PlasticsEurope in 2015, Environmental Protection Agency in 2013, Plastic Waste Management Institute Japan in 2012, Central Pollution Control Board in 2013, Mc Kinsey & Ocean Conservancy in 2015, Association 7th continent in 2015, Jenna Jambeck in 2015 and Ademe in 2012

Various actions to treat or reduce the share of this waste are now being implemented:

- Preventive actions upstream (reduction of packaging during production, responsible purchasing by consumers, stricter regulations, etc.);
- Actions to encourage the reuse of used products (reusable bags);
- Plus actions downstream from the use of the products, which mainly involve landfills or incineration, as well as recycling, thus making it possible to offer solutions to treat this quantity of waste that is hardly exploited, if at all.

The introduction of better capturing and optimized treatment of plastic waste would further direct these flows toward recycling wherever possible or toward biodegradation in the case of plastic waste for which entry to collection channels after use is more difficult (single-use bags, films, etc.). This would both increase the attractiveness and competitiveness of the sector while stimulating supply and demand and interactions between the various actors.

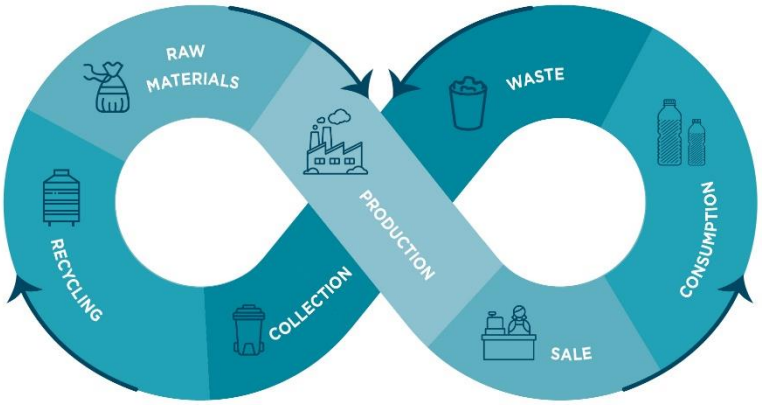
The industrial bioprocesses developed by CARBIOS offer competitive alternatives for the recovery of end-of-life plastic materials and the production of new renewable raw materials with high added value for the plastics industry. CARBIOS gives life to these innovations by creating new biodegradable plastics with programmed lifespans that are appropriate for use, generate no waste and do not require any specific composting conditions. In recycling, CARBIOS is developing bioprocesses that make it possible to recover plastic and textile waste to produce new products with the same performance as the original ones, thus paving the way for the infinite recycling of these materials.

The circular economy: an essential transition

The circular economy is by nature restorative and regenerative. It aims to preserve the value and intrinsic quality of products and materials at every stage of their use. In contrast to the 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 a more efficient use of fossil resources, reduction of waste and lower energy consumption, the guidelines for the strategic development of a new, efficient and sustainable industrial ecology.

CARBIOS is fully committed to this circular economy and positive recovery approach through the development of biological processes that represent a radical technological and industrial breakthrough, namely an innovative type of chemistry based on the use of enzymes to reinvent the plastic polymers and textiles lifecycle.



6.2.2. Plastics: a challenge and an opportunity for the circular economy

In light of the environmental consequences of growing global demand for plastics and the difficulty that companies have with controlling their end-of-life through conventional processes, turning plastic 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.

An environmental challenge: mastering the end of life of plastics

Plastics, which today are still mainly of fossil origin, take an average of 200 to 400 years to degrade under natural conditions. With the development of our industrial companies, the generation of plastic waste has continued to grow and has led to an accumulation of plastic in the environment, creating multiple nuisances. In addition to landfill congestion and soil pollution, maritime and river environments continue to be affected by this pollution to a considerable degree.

Based on this observation, a legislative framework has been developed to require manufacturers to develop solutions for better control of the end of life of plastics. In particular, the European Union has set its guidelines in the context of the "Circular Economy Package" so that 70% of packaging waste is prepared for reuse and recycled by 20302030[49]. Some countries, such as Switzerland, Denmark, Finland, Germany and Belgium, have now completely banned the landfilling of their waste, which is now largely recovered through incineration for the production of energy.

An industrial and economic opportunity: toward a new business model for the plastics industry

Faced with the commercial tug of war between the United States and China that is shaking the world economy, the economic balance of industry leaders is being disrupted and they must now handle a drop in their margins and a lack of visibility. In order to better control their raw material supply costs and adapt their production to the new regulatory challenges, industry leaders are resolutely moving towards green chemistry to defend their positions while reducing their environmental footprint.

In this competitive battle between industry players, value creation therefore involves innovation and the development of new, more environmentally friendly ways to produce and recycle plastics. This involves developing alternative processes

[49] Source: European Commission in 2015 – Revision of Directives 2008/98/EC and 94/62/EC

to improve the quality of recycled raw materials and enable their use in higher value-added applications. The creation of high-performance recycled plastics is therefore a real industrial challenge that conventional recycling processes do not fully address.

Legislation in France and Europe is constantly evolving, and the industry has begun making changes in the sector to support these new provisions and propose more ecologically responsible solutions while controlling its costs. This translates into, among other things, the introduction of a supply of bio-sourced and other types of renewable raw materials. The use of these bio-sourced raw materials nevertheless raises several issues:

- The biomasses currently used for the production of bio-sourced plastics come mainly from food crops, which places them in competition with agribusiness and creates the necessity of finding biomasses specifically dedicated to the plastics industry;
- The volumes to be supplied are large enough to satisfy the needs of the world market and impose a cost price that is at least equivalent to petroleum-based plastics, which implies sufficient and available biomass volumes as well as particularly efficient transformation processes; and
- Biopolymers from bio-sourced raw materials sometimes differ from biopolymers from petroleum. For it to be conceivable that they can eventually replace petroplastics, they must be able to be integrated into current industrial facilities and will have to offer technical performance adapted to the needs of the market.

In summary, in order for their ecological and industrial transition to be successful, plastics manufacturers will have to demonstrate their capacity to create value by developing a new sector based on the exploitation of renewable raw materials that can meet market needs in terms of performance. In this regard, plastics that are more respectful of the environment become an additional differentiating feature for consumers and for major customers that are concerned about the environmental impact of their activities.

The bioprocesses developed by CARBIOS aim to offer technological breakthroughs that can handle these environmental challenges and the economic and industrial opportunities of the sector.

6.2.3. The advantage of bioprocesses developed by CARBIOS

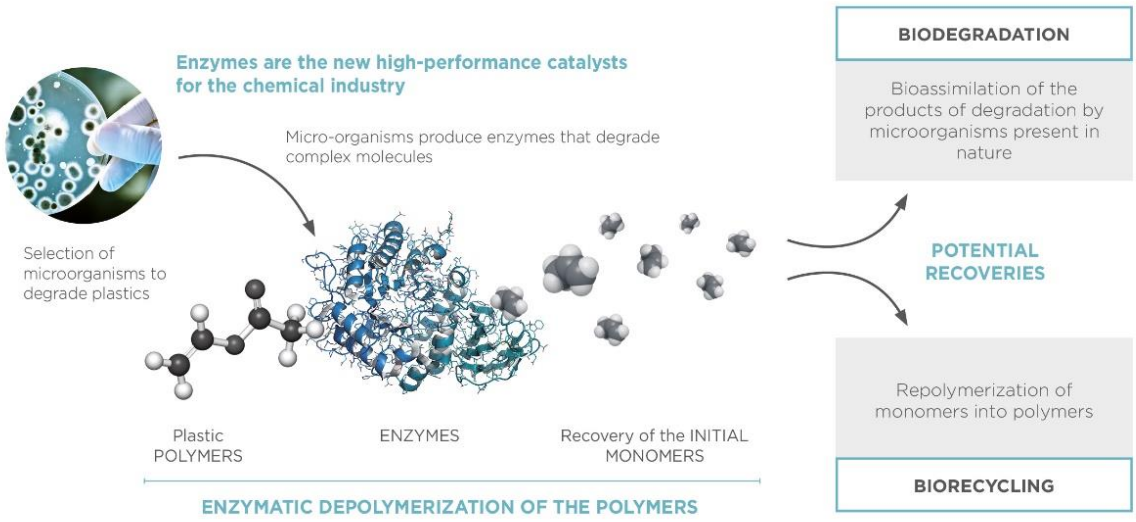
In nature, micro-organisms degrade the more or less complex compounds present in their immediate environment and use them as a source of carbon for their growth. When the carbon sources present are comprised mainly of plastics, the only microorganisms able to survive in these complex environments are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

To degrade these complex materials, microorganisms produce biocatalysts called enzymes, which act as pairs of scissors specific to 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 under conditions that are less demanding and costly than chemical processes in terms of energy, and to use a level of selectivity that limits undesirable byproducts. Enzymes are currently used in numerous applications (detergents, biofuels, food processing, textiles, paper), but using them for the biodegradation and biorecycling of polymers that make up plastic materials and fibers had never been considered. The enzymes used industrially today are either provided by enzyme producers such as Novozymes, DuPont Genencor Science, ABF Ingrédients (via AB Enzymes) or DSM, or produced onsite to be directly integrated into industrial production processes.

CARBIOS has chosen to develop industrial processes that use the exceptional properties of these catalytic tools, the enzymes. CARBIOS therefore selected micro-organisms from natural biodiversity that can degrade the polymers of interest, namely the polymers that are most commonly used in plastics (polyesters, polyamides or polyolefins) and those that are most likely to be used. CARBIOS then identified the enzymes responsible for the degradation of the polymers in these microorganisms and optimized them to satisfy the pre-industrial development needs of the relevant applications.

The green chemistry applied by CARBIOS reaps the benefits of the experience gained in several industrial sectors that already use enzymatic processes. The introduction of enzymes by CARBIOS in the value chains of the plasticsindustry, in particular for the recovery of end-of-life plastics, is a world first whose potential and relevance in the target markets are supported by the results already achieved and the partnerships established with several industry leaders in their fields, including with Novozymes, the world's largest manufacturer of enzymes.



The three areas of development of CARBIOS' bioprocesses and their main competitive advantages are:

- BIODEGRADATION: Include enzymes in a plastic material, of fossil origin or bio-sourced, to make it biodegradable. This is the creation of a new generation of biodegradable plastics whose lifespan is controlled and adapted to use.
- BIORECYCLING: An enzymatic process for recycling plastic and textile waste bydepolymerizing it to release its original monomers. The monomers obtained are purified and repolymerized to produce new products of the same quality as virgin plastics and textiles.
- BIOPOLYMERIZATION: A complementary process for biorecycling, that biologicallyrepolymerizes monomers into polymers of interest to industry. This method addresses an entirely new market and makes it possible to envisage an alternative route for producing PLA from lactic acid.

For each of its processes, CARBIOS can claim the following competitive advantages:

- BIODEGRADATION:

CARBIOS's innovative alternative offers a positive response to some disadvantages of the biodegradable plastics currently developed:

(i) the development of new biodegradable plastics with a real capacity for biodegradation in natural environments, unlike the majority of currently so-called biodegradable products that biodegrade under industrial composting conditions only (temperature above 50° C);

(ii) the development of new plastics whose programmed life is customized according to their applications; and

(iii) new plastics designed to be competitive and which can replace all of the most common fossil polymers.

- BIORECYCLING:

The enzymatic biorecycling process developed by CARBIOS aims to eliminate the constraints of the current processes by taking advantage of the exceptional specificity of the enzymes, enabling:

(i) recycling of plastics without the need for sophisticated sorting, in particular making it possible to recycle multi-layer, colored and/or opaque plastics and polyester fibers;

(ii) recycling of plastics according to circular economy principles, through the recovery of the purified monomers, which can then be repolymerized into plastic polymers of a quality equivalent to the original polymer (no loss of value unlike mechanical recycling); and

(iii) independence from the pricing of the initial petroleum raw materials.

- BIOPOLYMERIZATION:

CARBIOS opens a new biological pathway for PLA production directly from lactic acid. The process put in place consists of a single-stage enzymatic polymerization of lactic acid (unlike current methods, which require two stages) that makes it possible to obtain a PLA homopolymer with a high molecular weight.

6.3. AN INNOVATION MODEL CENTERED ON THE CREATION OF INDUSTRIAL VALUE

6.3.1. An innovative industrial concept

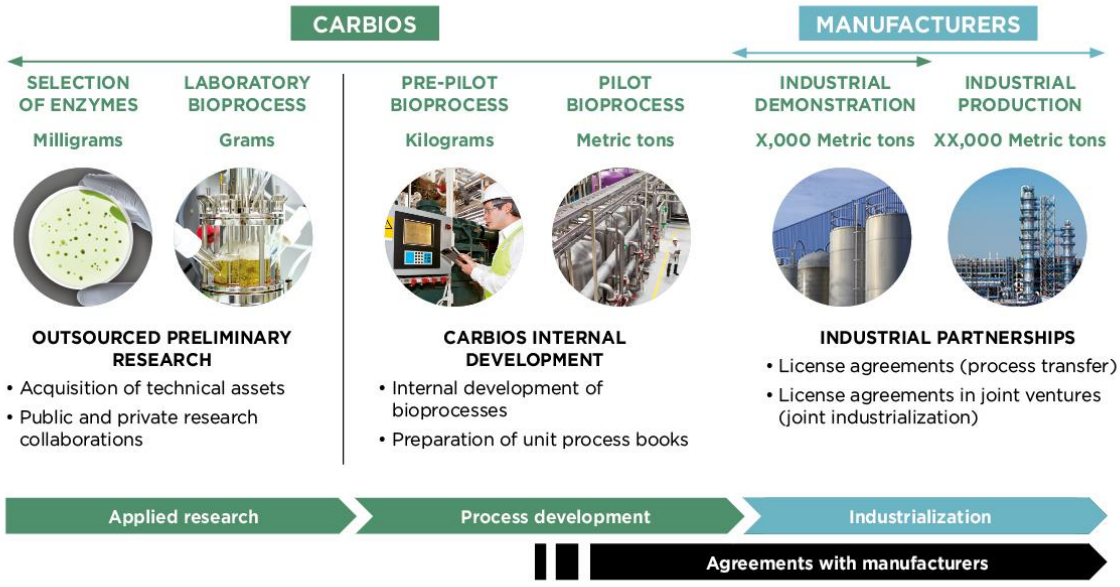
Since its creation, CARBIOS has had a pragmatic innovation model in place that focuses on the creation of industrial value to provide manufacturers with "turnkey" biological processes for specific areas of application.

To take its development up to the industrialization of its bioprocesses, CARBIOS has structured its model starting with the upstream phase, bringing together the best public and private experts into a collaborative research and development consortium that successfully ended operations in 2017 and whose results made it possible to discover new recovery methods for plastic and textile polymers at end-of-life. The application development of these bioprocesses is currently conducted internally or through partnerships up to the pre-industrial stage. In this way CARBIOS secures its technological know-how and defines unit process books for each given application.

Building on its results in the field of biodegradation, in 2016, CARBIOS created CARBIOLICE50, a joint venture[50] created in partnership with Limagrain Céréales Ingrédients and Bpifrance's SPI fund "Sociétés de Projets Industriels". This project provides oversight and industrial and commercial demonstration of the biodegradation process developed by the Company and licensed to CARBIOLICE to create a new generation of fully compostable (home composting) disposable plastics that meet the requirements of the Energy Transition Law for Green Growth. This implies that the minimum bio-sourced content of compostable plastic bags will increase gradually: 40% since January 2018, 50% in January 2020 and 60% in January 2025. These provisions of Article R. 543-72-2 of the French Environmental Code, created by Decree No. 2016-379 of March 30, 2016, require all industrial players in the sector to adapt to these regulatory changes. At the same time, they open up enormous opportunities for the deployment of CARBIOS' innovation in the single-use plastics market.

In accordance with the strategy implemented to ensure the best potential for the exploitation of its innovations, the Company plans to continue the deployment of its other technologies under development through licensing to industrial players in the sector and/or licensing agreements as part of joint industrialization.

The CARBIOS innovation model:



6.3.2. Collaborative "upstream" research: from concept to pre-pilot process

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, plastics engineering and process engineering.

CARBIOS was initially supported by over ten years of research and development (patents, results, know-how) brought by academic laboratories since the creation of the Company.

[50] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

To accelerate the development of its innovative technologies, in 2012, CARBIOS signed research collaboration agreements with the best teams of academic experts (INRA, TWB, INSA Toulouse (LISBP), CNRS and the University of Poitiers) and private experts (Limagrain, Barbier group, Deinove) in targeted areas. CARBIOS integrated these collaborations into a joint research and development program called THANAPLAST™ and made sure thatit had worldwide exclusivity for all of the results obtained through this project, which was successfully completed in 2017. This strategy enabled CARBIOS to mobilize significant scientific and technical resources from July 2012 to June 2017 to ensure the best chances of success in the development of its industrial bioprocesses.

In addition, CARBIOS's daily in-depth strategic oversight identifies emerging work, expertise and patents in the areas of interest, taking them into consideration or acquiring them, thus strengthening the potential of its innovations.

Thanks to the results obtained from its collaborations, in 2018, CARBIOS strengthened its partnership with Toulouse White Biotechnology (TWB) via the implementation of the CE-PET[51] project dedicated to the biorecycling of PET plastic and fiber waste. This 39-month project has €7.5 million in funding from the General Secretariat for Investment (SGPI) under the Future Investments Program (PIA) operated by the ADEME[52].

6.3.3. Application development of bioprocesses: from the pre-pilot stage to industrial demonstration

At its own facilities, CARBIOS develops bioprocesses from the pre-pilot phase to the pre-industrial phase, namely the creation of unit process books and the demonstration of industrial feasibility.

CARBIOS has had its own process development platform, which includes fermentation for enzyme production and a plastics processing pilot for formula development and production of plastic product pre-series. These installations make it possible to meet the application objectives for CARBIOS processes with the development of products and processes that meet industry specifications and enhance the intellectual property and unique know-how of CARBIOS.

In this phase of development, CARBIOS also works in collaboration with technical and engineering centers to optimize the performances and efficiency of the bioprocesses developed.

Bioprocess application development consists of three successive stages:

1. The pre-pilot stage, in which the results obtained in the laboratory are validated and future industrial technologies to be evaluated are selected. Production of the first batches of product at kg scale.
2. A unit process book is prepared at the pilot stage, with the production of batches of a few dozen kg and the validation of the quality of the finished product. In this stage, the basic process is also defined and the data needed to design a demonstration plant are produced.
3. The industrial demonstration plant, to validate the technical and economic performance of the process in industrial operating mode with validation of the process book and production of batches in sufficient quantities to validate the applications.

CARBIOS is currently concentrating its efforts internally on stages 2 and 3 of this development phase to optimize the parameters of its bioprocesses and to ensure control of the related know-how, so that it can then license industrial partners or co-develop application bioprocesses validated for exploitation with them.

6.3.4. Industrialization of bioprocesses

The management by a major partner or joint industrial development of a bioprocess developed by CARBIOS results in:

- the granting of an exploitation license to an industrial partner for a specific area in which it will provide industrial production and marketing; or
- a license agreement for a joint industrial development project for a specific area in which CARBIOS and the partners will provide industrial production and marketing.

For the manufacturer, this industrialization phase consists of setting up industrial production and its marketing. CARBIOS develops processes that are designed to be integrated into existing industrial facilities.

6.3.5. Industrial agreements and business model

Since its creation, CARBIOS has held numerous discussions with various actors in all relevant industries, namely plastics, agribusiness, waste treatment and industrial enzyme production.

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[51] For more information on the stages of the CE-PET project, refer to section 6.6.3 of this Registration Document.

[52] Please refer to the January 17, 2019 press release: https://carbios.fr/en/carbios-and-twb-receive-e7-5-million-funding-to-accelerate-the-industrialization-of-the-biorecycling-of-pet-plastics-and-fibers/

These discussions made it possible to master the specific requirements of each of these industries and define the value chains into which CARBIOS' bioprocesses will be integrated and the actors best positioned for the exploitation and deployment of those technologies.

This entity is responsible for the industrialization of the PLA biodegradation process developed by CARBIOS. In line with the respective contributions expected from the three CARBIOLICE partners, CARBIOS should be diluted so that it holds no more than 47.5% of the capital of this company in 2020.

In 2016, CARBIOS entered into a partnership with Limagrain Céréales Ingrédients and the Bpifrance SPI fund "*Sociétés de Projets Industriels*" to create the CARBIOLICE[53] joint venture. This entity is responsible for the industrialization of the PLA biodegradation process developed by CARBIOS. In line with the respective contributions expected from the three CARBIOLICE partners, CARBIOS should be diluted so that it holds no more than 47.5% of the capital of this company in 2020.

In 2017, CARBIOS and L'OREAL signed a five-year agreement involving the creation of a consortium for the industrialization of the biorecycling technology designed and developed by CARBIOS. As a follow-up to this agreement, on December 31, 2017, the Company signed an agreement with L'OREAL to create a consortium without any consideration or monetary commitment for 2018 that relates specifically to the biorecycling of PET. In the context of this Consortium, to accelerate the industrialization of the process developed by CARBIOS, the partners further agree to support the Company in the structuring of the new value chain for the recycled PET resulting from this innovative process[54]. CARBIOS and L'OREAL continued their collaboration in 2018.

On November 28, 2018, the Company announced that it had signed a letter of intent with KEM ONE on November 20, 2018 without any consideration or monetary commitments for a project to construct an industrial demonstration plant operated by the Company in Lyon's Chemicals Valley to secure the value associated with its PET plastic and fiber biorecycling technology. Under the terms of this six-month agreement, CARBIOS agreed to study the construction of its demonstration plant at the KEM ONE industrial site in Saint-Fons (Rhône). KEM ONE agreed to do its best to mobilize all stakeholders and assist CARBIOS with the definition of the conditions for providing the land, main utilities and services needed and in its dealings with public authorities[55].

In January 2019, the Company and its subsidiary CARBIOLICE announced that they entered into a co-development agreement with NOVOZYMES[56], the global leader in enzyme production. Under the terms of this global multi-year agreement, NOVOZYMES will produce the proprietary enzyme developed by CARBIOS on an industrial scale and agrees to become, in the long term, the exclusive supplier for CARBIOLICE. This new agreement is fully in line with the industrial deployment objective for the enzymatic technology developed by CARBIOS. This technology, whose commercial launch is slated for 2020, would generate for CARBIOS the first license revenues paid by CARBIOLICE.

At each stage of its development, CARBIOS seeks to enter into agreements with industrial partners to consolidate the maturing of its innovative bioprocesses and ensure their future utilization.

CARBIOS also maintains close relationships with several major industrial groups that are world leaders in these sectors and have shown a strong strategic interest in the bioprocesses developed by CARBIOS, thus strengthening the recovery prospects projected for all of the bioprocesses under development within the Company.

6.3.6. Industrial property

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 through 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 necessary for the industrial implementation of the innovation developed.

In 2018, the CARBIOS intellectual property portfolio was enriched with five new proprietary patent applications and, due to the development of new and much more efficient enzymes adapted to the CARBIOS process, the Company waived a family of patents held under exclusive license with the CNRS and the University of Poitiers. The new applications

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[53] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

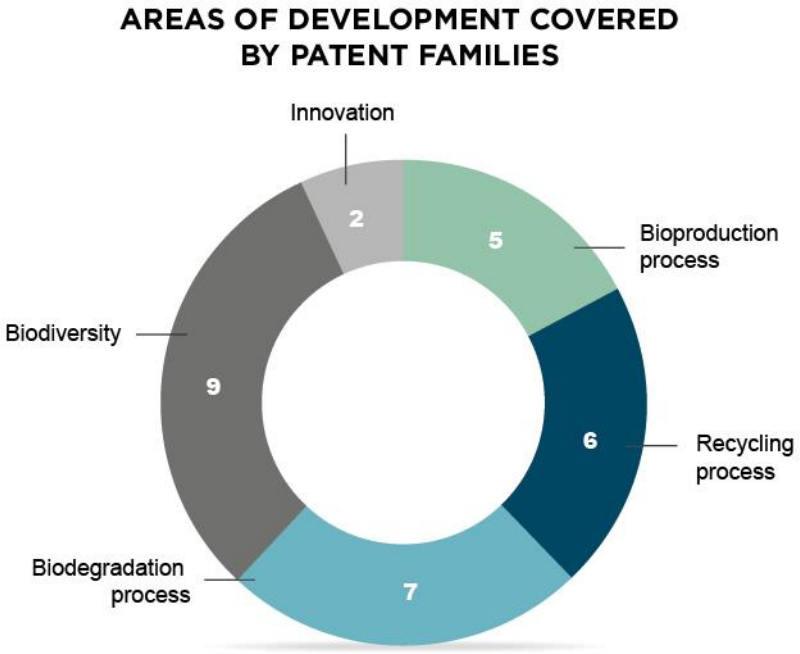
[54] Refer to the November 28, 2018 press release: https://carbios.fr/en/carbios-and-kem-one-sign-a-letter-of-intent-to-implement-a-pet-biorecycling-demonstration-plant-operated-by-carbios-in-the-french-chemical-valley/

[55] Refer to the November 28, 2018 press release: https://carbios.fr/en/carbios-and-kem-one-sign-a-letter-of-intent-to-implement-a-pet-biorecycling-demonstration-plant-operated-by-carbios-in-the-french-chemical-valley/

[56] Please refer to the January 29, 2019 CARBIOS press release: https://carbios.fr/en/carbios-and-carbiolice-enter-into-a-joint-development-agreement-with-novozymes-for-long-term-supply-of-enzymes-at-industrial-scale/

submitted concern the biodiversity associated with the degradation of PET and the specific implementation of the recycling process designed and developed by the Company.

At the end of 2018, the CARBIOS intellectual property portfolio included 29 patent families (including one under an exclusive worldwide license) representing 98 patents that cover the Company's areas of development (Biodegradation, Biorecycling, Bioproduction, Biodiversity and Innovation). CARBIOS has thus ensured that it can guarantee a strategic competitive advantage over sizeable markets to its current and future industrial partners.



6.4. THANAPLAST™: A SUCCESSFUL AND INNOVATIVE R&D MODEL

6.4.1. A collaborative research and development model

THANAPLAST™ was a collaborative Research and Development project designed and directed by CARBIOS from July 2012 to June 2017. With the support of Bpifrance, this program, with a budget pf €22 million, brought together academic partners (INRA/TWB/INSA Toulouse (LISBP), the CNRS/University of Poitiers) and industrial partners (Deinove, Limagrain Céréales Ingrédients and the Barbier Group).

This collaborative project was successfully completed in 2017 in line with the objectives and the initial timetable, and resulted in the discovery of new end-of-life recovery methods for plastics. In accordance with the various agreements put in place[57], exploitation resulting from these collaborations has resulted or will result in the payment of contractually agreed amounts.

For this reason, it should be noted that out of the nine families licensed to CARBIOLICE, six came directly from the THANAPLAST™ project, including one family jointly owned by INRA/INSA/CNRS and one family jointly owned by the CNRS and the University of Poitiers, which has resulted or will result in a retrocession in the form of lump-sum amounts or royalties. In addition, six patent families fully owned by CARBIOS were filed under THANAPLAST™ for the biorecycling process for polyesters and in particular PET. In the event that these families are licensed for a future exploitation of the process, they could result in a retrocession to INRA in the form of lump sums since three of them came from work conducted under the research services agreement with INRA.

6.4.2. Stages and challenges of the THANAPLAST™ project

Key stages of the Research and Development phase

This five-stage project began on July 1, 2012 and was successfully completed on June 30, 2017.

The main research themes of the THANAPLAST™ project were:

[57] Refer to Chapter 22 of this Registration Document for details of the terms of past and current collaboration agreements.

- Identification of microorganisms capable of degrading 10 polymers of interest chosen from among polyesters, polyamides and polyolefins, characterization of the strains thus obtained, identification, purification and characterization of the enzymes involved in the polymer degradation process;
- Development of enzyme production and recycling processes for two polymers of interest (PLA and PET); and
- Development of biodegradable plastics with controlled lifespans.

Financial oversight

The THANAPLAST™ project represented an overall expenditure budget of €22 million over five years, of which €14.3 million was provided by CARBIOS itself.

The project was financed by:

- CARBIOS' equity of €22.3 million, prior to the recognition of losses since creation (€12.0 million remain available as of December 31, 2018);
- the innovation grant from Bpifrance of €6.8 million (the total amount of which had been paid as at December 31, 2017).

6.5. BIODEGRADATION OF PLASTICS AT END-OF-LIFE

6.5.1. Context and regulations

With the gradual development of plastics from renewable resources, the plastics industry remains without doubt a promising sector for the future.

Regulatory and societal pressures to improve plastic lifecycle management will continue to increase, especially for single-use plastics and those with a short lifespan.

After use, this plastic waste is mainly disposed of in landfill (40% for the European Union, Japan and China) or incinerated (33% for the European Union, Japan and China)[58]. This waste also accounts for a significant part of the plastic waste that ends up strewn across the countryside every year and generates lasting pollution of land and marine environments.

To tackle this issue, the European Commission has launched ambitious measures aimed at reducing landfill to a maximum of 10% of all waste by 2030[59]. Moreover, numerous countries, regions and cities have introduced stringent regulatory measures ranging from a ban on the use of non-biodegradable single-use plastic bags (e.g. in Italy) to taxes on plastic bags (e.g. in England).

In France, decrees implementing the Law on Energy Transition for Green Growth came into force on July 1, 2016. This law, which lays down the requirements concerning the composition and use of plastic bags, supports the emergence of innovative, more environmentally-friendly technologies such as the bioprocesses developed by CARBIOS.

To meet these new legal requirements, and to address the need for new, alternative solutions, biodegradable plastics have emerged. These are fully assimilated by environmental microbial populations within a short period of time.

However, despite the fact that they have been commercially available for more than two decades, biodegradable plastics still hold only a small share of the market. In 2017 they accounted for less than 1% of global demand, with estimated production standing at 2.1 metric tons[60] (including starch-based plastics, PLA, PHAs, PCL and PBS). Bio-sourced biodegradable plastics accounted for less than 43% of total bioplastic production[61].

This is due to several factors:

(i) the high price of biodegradable polymers compared with conventional petroleum-based plastics;

(ii) the fact that they cannot replace all of the most widely used fossil-based polymers;

(iii) and, most importantly, the fact that so-called biodegradable products actually have a low biodegradation capacity in natural environments.

Indeed, today, the vast majority of commercially available materials identified as biodegradable are only biodegradable under specific conditions, i.e. under industrial composting conditions (temperatures above 50° C) which require

[58] Source: PlasticsEurope in 2015, Plastic Waste Management Institute Japan in 2012, International Solid Waste Association in 2014, Plastics Recycling Committee in 2014, and China Scrap Plastics Association in 2014

[59] Source: European Commission in 2015

[60] Source: European Bioplastics and Nova Institute in 2018

[61] Source: European Bioplastics et Nova Institute en 2018

dedicated infrastructures. Such plastics comply with standard EN13432, equivalent to the "OK Compost" label (TÜV Austria Group).

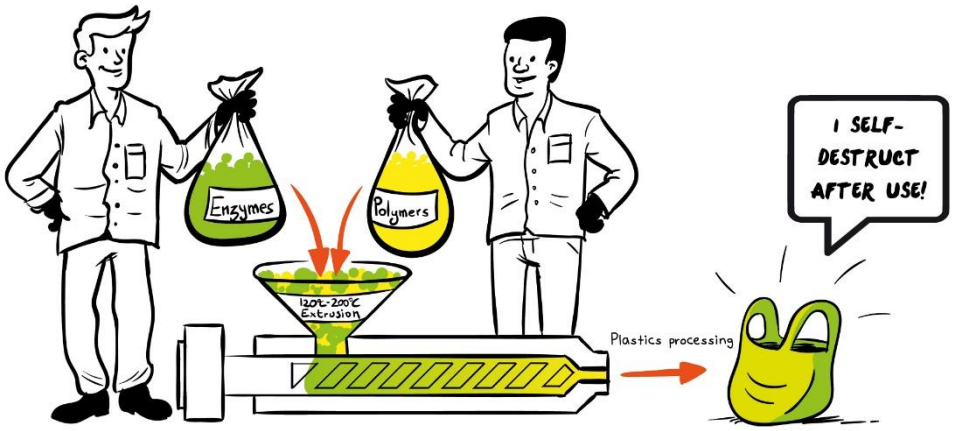
Only a small number of these plastics are biodegradable under domestic conditions, i.e. at temperatures between 20° and 30° C, as required for compliance with standard NF T51-800, equivalent to the "Home Compost" label (TÜV Austria Group).

Nevertheless, the growing demand for solutions with a neutral environmental impact and the stiffening of regulations have been a growing trend across the industry. Such factors should continue to stimulate growth in the biodegradable polymer industry in the coming years. The global growth of biodegradable polymers is estimated at 4-5% a year[62] and could reach around 2.6 million metric tons in 2023[63].

CARBIOLICE[64] intends to meet that challenge, with the technology licensed by CARBIOS, by offering an innovative alternative enabling the development of new controlled-lifespan plastics whose biodegradability (i) does not require specific conditions, (ii) is suited to domestic or environmental conditions, and (iii) meets the increasingly stringent requirements of the French Law on Energy Transition for Green Growth.

6.5.2. CARBIOS innovation: Single-use self-destructible plastics

The innovation of the biodegradation bioprocess developed by CARBIOS consists in introducing biological catalysts inside plastics that render them biodegradable.



INCORPORATION OF ENZYMES INTO THE PLASTIC MATRIX ZERO WASTE

CARBIOS' controlled-lifespan plastics are biodegradable under natural environmental conditions. They are mainly intended for markets requiring single-use or short lifespan plastics (plastic bags, packaging, wrappers, mulching film for agriculture, etc.).

After use, or when the plastics end up dispersed in the environment, CARBIOS enzymes – which are incorporated in the plastics upon creation of the polymer matrix – break down the plastics into basic molecules that can be assimilated by environmental microorganisms.

Complete biodegradation takes only three months (versus 200 to 400 years for ordinary plastics). CARBIOS' enzymed formulas are suited to plasturgy equipment and standard extrusion conditions. They do not alter the polymers' industrial performance or utilization properties.

This technology is applicable to bio-sourced plastics (still only a small share of the market but growing rapidly), as well as to synthetic hydrocarbon-based polymers. CARBIOS' research works to regularly identify new enzyme/polymer pairs to broaden its technology's field of application, while CARBIOS' plasturgy and enzymology development teams help

[62] Source: European Bioplastics and Nova Institute in 2018

[63] Source: European Bioplastics and Nova Institute in 2018

[64] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

CARBIOLICE[65] to optimize formulations for the industrial production of enzymatic granules for the industrial production of films and flexible or rigid objects with controlled biodegradation kinetics suited to specific uses.

6.5.3. Technology progress report

Having entered the laboratory stage in 2013, CARBIOS' biodegradation processes are currently in the industrial development phase, in line with the objectives set upon the Company's initial public offering.

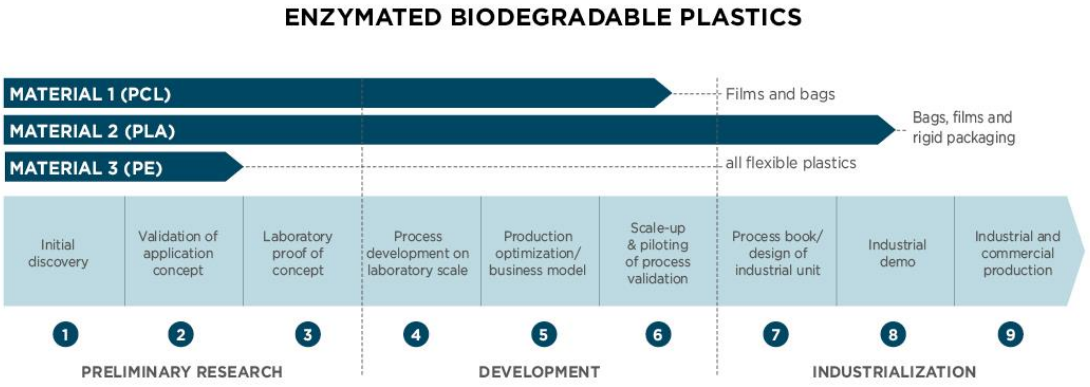
The development of these bioprocesses has been marked by the following achievements: in July 2014, CARBIOS reached the first key milestone in the development of its technology aimed at producing biodegradable plastics with a controlled lifespan by producing a plastic material **which has been rendered totally biodegradable under domestic conditions through the action of the enzyme embedded in the material**. This first material produced using polycaprolactone (PCL) – a biodegradable, fossil-based industrial polymer – and an enzyme is characterized by the loss of 50% of its mass in 15 days and complete biodegradation in less than 3 months. With this result, CARBIOS demonstrated that its technology can accelerate the biodegradation rate in a controlled way, thereby providing a relevant industrial solution to changing regulatory requirements for the end-of-life of single-use and short lifespan plastic materials.

CARBIOS had previously demonstrated that the enzyme remained active after extrusion at 170° C, and that its inclusion did not alter the properties of the plastic in any way. For the plastics processing industry, the technical challenge consisted in protecting the biological catalysts during the processing stages in order to delay the temperature effect and limit any shearing while maintaining the catalytic properties of the enzymes to ensure the complete biodegradation of the material after use.

The successful results achieved in July 2014 with the total biodegradation of a plastic composed of a fossil-based polymer (PLC) in less than 3 months, and then in June 2015 with a second bio-sourced polymer (PLA), confirmed the performance and feasibility of the production of a range of biodegradable materials with variable degradation kinetics.

In 2016, CARBIOS embarked on an industrial deployment phase for this technology with the creation of the joint venture CARBIOLICE[66], in partnership with Limagrain Céréales Ingrédients and the SPI "Sociétés de projets industriels" investment fund operated by Bpifrance. This company, which started operations on September 1, 2016, holds the first innovation licensed by CARBIOS in the industrial and commercial demonstration phase.
Its bioplastics production will integrate the technology created and developed by CARBIOS for the inclusion of degradation enzymes to the polymer matrix. This technology will be implemented in the form of an enzymatic additive that accelerates the biodegradation of PLA-based plastics to make them compostable under all conditions and thus achieve "zero waste". Its commercial launch is slated for 2020 under the EVANESTO® trademark and will target the single-use plastics market for which biodegradation provides an ecological and responsible response, in line with the requirements of the Energy Transition Law for Green Growth.

Maturity of the technologies



The Company's development strategy with respect to its targeted markets (mulching films, bags, rigid packaging, industrial films, etc.) currently consists in helping its subsidiary, CARBIOLICE, to develop innovative and competitive

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bioprocess formulations that will be exploited through this joint venture in order to gain a significant share of European and global markets, within the fields covered by the license agreement between CARBIOS and CARBIOLICE.

Other applications/polymers may be the subject of future grants of licenses to other worldwide manufacturers liable to ensure the roll-out of new applications resulting from the processes designed and developed by CARBIOS.

Integration of CARBIOS' bioprocesses in the biodegradable plastics manufacturing value chain:

CARBIOS' bioprocesses are designed to fit into existing industrial facilities.

To address its target markets, CARBIOLICE will cater to the needs of compounders and recyclers through the production of concentrated enzymic plastic granules (master batches) that can subsequently be mixed with the polymer of interest to obtain large volumes of finished products.

In line with its objectives, CARBIOLICE is engaged in the industrial development of the CARBIOS technology licensed out in 2016.

6.5.4. CARBIOLICE: A first industrial achievement

The first industrial achievement of the THANAPLAST™ project took place on September 1, 2016 with the operational launch of the CARBIOLICE joint venture, created in partnership with Limagrain Céréales Ingrédients and the fund SPI "Sociétés de Projets Industriels" operated by Bpifrance.

This company, which, as of the date of this Registration Document, is 56.23% controlled by CARBIOS, took over the production and marketing of granules intended for the production of the bio-sourced and degradable plastics of Limagrain Céréales Ingrédients (producer of Biolice®). It will progressively incorporate the technological innovations licensed by CARBIOS.

Through its production unit with an annual capacity of 4,000 metric tons, CARBIOLICE is in charge of the industrial demonstration of the patented technology for the enzymatic biodegradation of plastics developed by CARBIOS. This will then be scaled up to the industrial and commercial production of enzymed granules. It will address specific fields of application, namely flexible film markets (mulching films, bags and bag manufacturing, industrial films, wrapping films, food packaging), all rigid applications in the agricultural and horticultural sectors and disposable kitchen tumblers, glasses, trays and plates made from plastic.

The shareholders' agreement, signed on August 31, 2016 between CARBIOS, Limagrain Céréales Ingrédients and the SPI (Sociétés de Projets Industriels) investment fund operated by Bpifrance, defines the parties' rights and obligations relative to the creation of CARBIOLICE. Concerning intellectual property, the shareholders' agreement provides for CARBIOS' granting of an exclusive worldwide license to CARBIOLICE on August 30, 2016 for the operation of the enzymatic biodegradation technology for all mixes (plastic compositions and master batches) based on bio-sourced polyesters for limited applications in the aforementioned specific fields.

On February 15, 2017, a non-exclusive option for an exclusive secondary license was signed by CARBIOS and CARBIOLICE in order to broaden the scope of the products allowed under the initial license, while the applications covered remained unchanged. On the same date, CARBIOS undertook, via a service contract with CARBIOLICE, to support the latter for a period of two years in the development of future products to be marketed using the CARBIOS technology. In order to meet CARBIOLICE's new objectives, an amendment to the research services agreement was signed on December 10, 2018 to extend the term to February 15, 2021.

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 through incorporation of the wording of the license option referred to above. The license now covers a total of nine patent families, eight of which belong wholly or partly to CARBIOS (six fully owned and two jointly owned) and one family for which CARBIOS has exclusive rights of exploitation under an exclusive worldwide license. In this respect, it should be noted that out of the nine patent families now licensed to CARBIOLICE, six arise directly from the THANAPLAST™ project, including one family jointly owned with INRA/INSA/CNRS and one family jointly owned with the CNRS and the University of Poitiers. The exploitation of these families resulted or will result in a retrocession in the form of lump sums or royalties.

In terms of intellectual property, CARBIOS is bound by the obligations relating to the management of the intellectual property of the patent families licensed to CARBIOLICE. Moreover, under the terms of the contract, CARBIOS must abstain from commercially exploiting the patents and know-how licensed out, within the bounds of the specific scope defined in the license agreement entered into with CARBIOLICE. However, CARBIOS may use said patents freely in said area for research and development purposes only, and outside this area for commercial and other purposes.

In 2016, for the granting of patent licenses and know-how, the Company recorded non-monetary operating revenue of €8 million, of which the counterparty was a receivable from CARBIOLICE (in which the Company then held a 99% stake), subsequently converted into an equity interest in that company. As at December 31, 2018, CARBIOS holds 56.23% of CARBIOLICE. This structural agreement will be followed by royalties on the sale of products incorporating the enzymatic biodegradation technology patented by CARBIOS. The amendment to the license agreement dated June 28, 2018 also provides, in consideration for the extension of the number of patent families licensed to CARBIOLICE, for the payment to CARBIOS of an additional lump sum conditional upon achievement by CARBIOLICE of a defined amount of revenue. In 2018, CARBIOS did not recognize any operating revenue in respect of this license. The marketing of the first products that include the CARBIOS technology is slated for 2020.

With the transfer of assets from Limagrain Céréales Ingrédients (industrial facilities, business assets, patents and trademarks), along with the CARBIOS license and the cash contributed by the three partners (CARBIOS, LCI and the SPI fund), the CARBIOLICE project totals €29.5 million. The three partners will invest a total of €18 million in the project, released in four phases over a four-year period, on the achievement of technical and commercial milestones. 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 €3.35 million, initially scheduled for payment in 2019, was released early in July 2018 (including €1.1 million from CARBIOS) given the acceleration of developments on the part of CARBIOLICE, namely the introduction of a new business plan and the filing of several patent applications that confirm the achievement of new milestones. Depending on the achievement of industrial and commercial objectives, a third tranche of funding amounting to €3.35 million (including €1.1 million from CARBIOS) will be released in 2019, followed by a fourth tranche in 2020 amounting to €7.3 million (including €2.3 million provided by CARBIOS).

These investments will ensure the growth of the business by gradually increasing industrial capacities and supporting the industrial and commercial development of the new plastic materials stemming from the CARBIOS technology. The production and supply on an industrial scale of the enzymes necessary for the implementation of the technology granted by CARBIOS to CARBIOLICE was secured in January 2019 through the signing of a co-development agreement between CARBIOS, CARBIOLICE and NOVOZYMES, the world leader in enzyme production[67]. These new plastics, which are both bio-sourced and biodegradable, must meet the increasingly stringent requirements of the Law on Energy Transition for Green Growth, which provides for a gradual increase in the minimum content of bio-sourced materials in compostable plastic bags, i.e. 40% in January 2018, 50% in January 2020, and 60% in January 2025. These provisions of Article R.543-72-2 of the French Environmental Code, created by Decree No. 2016-379 of March 30, 2016, require all industrial players in the sector to adapt to these regulatory changes. At the same time, they open up enormous opportunities for the deployment of CARBIOS' innovation in the bio-sourced biodegradable plastics market.

History of equity contributions in CARBIOLICE[68]:

(In euros)	CARBIOS	Limagrain Céréales Ingrédients	SPI
Creation of the entity	1		
Incorporation of the company	98	1	
Initial distribution of share capital	**99**	**1**	
Initial distribution of share capital (%)	*99%*	*1%*	*0%*
CARBIOS cash contribution	1,499,901		
Conversion of CARBIOS receivables into CARBIOLICE equity interests	8,000,000		
Partial transfer of assets of Limagrain Céréales Ingrédients		3,500,000	
SPI cash contribution			2,500,000
Distribution of share capital at December 31, 2016	**9,500,000**	**3,500,000**	**2,500,000**

[67] Please refer to the January 29, 2019 press release: https://carbios.fr/en/carbios-and-carbiolice-enter-into-a-joint-development-agreement-with-novozymes-for-long-term-supply-of-enzymes-at-industrial-scale/

[68] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

Distribution of share capital at December 31, 2016 (%)	*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 (%)	*61,29%*	*22,58%*	*16,13%*
Early cash contribution 2nd 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 (%)	*56,23%*	*19,90%*	*23,87%*

6.5.5. Priority markets and applications

The polymers and biodegradable plastics market mainly concerns products with a short lifespan and products that are difficult to recycle, such as agricultural mulching films, plastic bags and rigid packaging (plastic cups, disposable tableware, food trays, etc.).

Size of targeted markets

SECTOR	DESCRIPTION OF MARKETS	PRODUCTION		WORLDWIDE GROWTH RATE
		World	Europe	
Agriculture	Agricultural mulching films	2M metric tons[1]	210K metric tons[2]	5%[3]
Bags and sacks	Household bags and industrial sacks	15M to 20M metric tons[4]	4.1M metric tons[5]	
Rigid packaging	Plastic cups, disposable tableware, trays, etc.		800K metric tons[6]	
Other application segments accessible using Carbios proprietary technologies				
Packaging	Other packaging (bags, films, sheets, etc.) that eventually needs to be biodegradable			
Textiles	Functionalization of textile fibers by incorporation of biological assets (Polyesters)			

[1] Source: Grand View Research in 2014 and Transparency Market Research in 2014
[2] Source: Grand View Research in 2014
[3] Source: Grand View Research in 2014
[4] Source: European Commission in 2011, Environmental Protection Agency in 2010 and Reportlinker in 2014
[5] Source: European Commission in 2011
[6] Source: Plastics Recyclers Europe in 2014

Agricultural mulching films

The global market for mulching films was valued at 2 million metric tons in 20132013[69] for a market value of around €5 billion[70]. Global population growth and the need to increase per-hectare yields are major growth factors on this market (5% a year)[71].

[69] Source: Grand View Research in 2014 and Transparency Market Research in 2014

[70] Source: *Comité des Plastiques en Agriculture* in 2013 – Average price estimated at €2.50 per kg for polyolefin-based films

[71] Source: Grand View Research in 2014

Today, the mulching films used are either:

- non-degradable and need to be removed after use and sent for recycling (which generates an additional cost for the farmer); or
- oxo-degradable, which means they do not really biodegrade but break down into minuscule pieces of plastic whose effects on the ecosystem are widely criticized.

The biodegradable mulching films markets is hampered by numerous factors, such as excessively high prices, specific soil preparation constraints, and inadequate product biodegradation time (either too rapid or too slow).

However, other factors – including the difficulty in managing the end-of-life of conventional films (difficulty in collection and heavily soiled films) and the introduction of new regulations and taxes – will help biodegradable mulching films to gain market share (+10% a year in Europe[72]).

CARBIOS has developed competitive technology, based on the use of enzymes. This allows real biodegradation of mulching films, i.e. their full assimilation in the soil, thus avoiding the risks of fragments from oxo-degradable films and the cost of plastic removal. It also makes it possible to control the kinetics of the biodegradation process to adapt it to the type of crops.

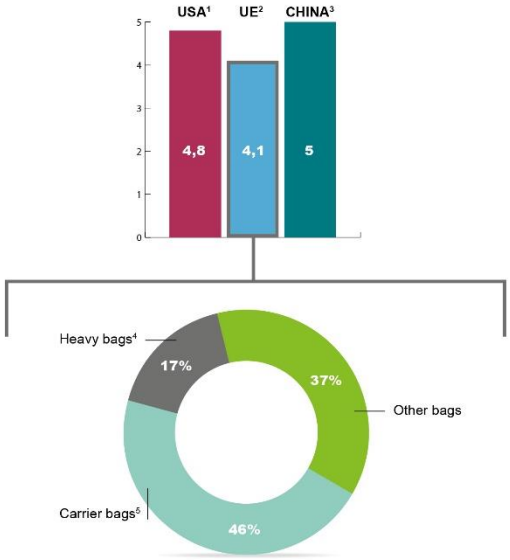
Boosted by the launch of CARBIOLICE[73] in 2016, this is one of the target segments chosen for the deployment of this technology.

Packaging: bags and sacks

In 2012, bag consumption was estimated at between 500,000 billion and 1,000,000 billion bags worldwide[74], i.e. a market estimated at between 15 and 20 million metric tons[75] with a market value of around €30 to 40 billion[76].

In Europe, the consumption of plastic bags amounts to 4.1 million metric tons a year, i.e. 20 to 27% of the global market[77].

GLOBAL BAG MARKET IN 2012 (IN MILLION METRIC TONS)



¹ Source: Environmental Protection Agency in 2010
² Source: European Commission in 2011
³ Source: Reportlinker in 2014
⁴ Source: Applied Market Information in 2012
⁵ Source: European Commission in 2011

[72] Source: AMI Plastics in 2014

[73] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[74] Source: Consoglobe and Florida Sierra Club

[75] Source: European Commission in 2011, Environmental Protection Agency in 2010 and Reportlinker in 2014

[76] Source: *Comité des Plastiques en Agriculture* in 2013 – Average price estimated at €2.50 per kg

[77] Source: European Commission in 2011

It breaks down as follows:

- 1.9 million metric tons of carrier bags[78];
- 0.7 million metric tons of heavy duty bags[79]; and
- 1.5 million metric tons of garbage bags and other bags.

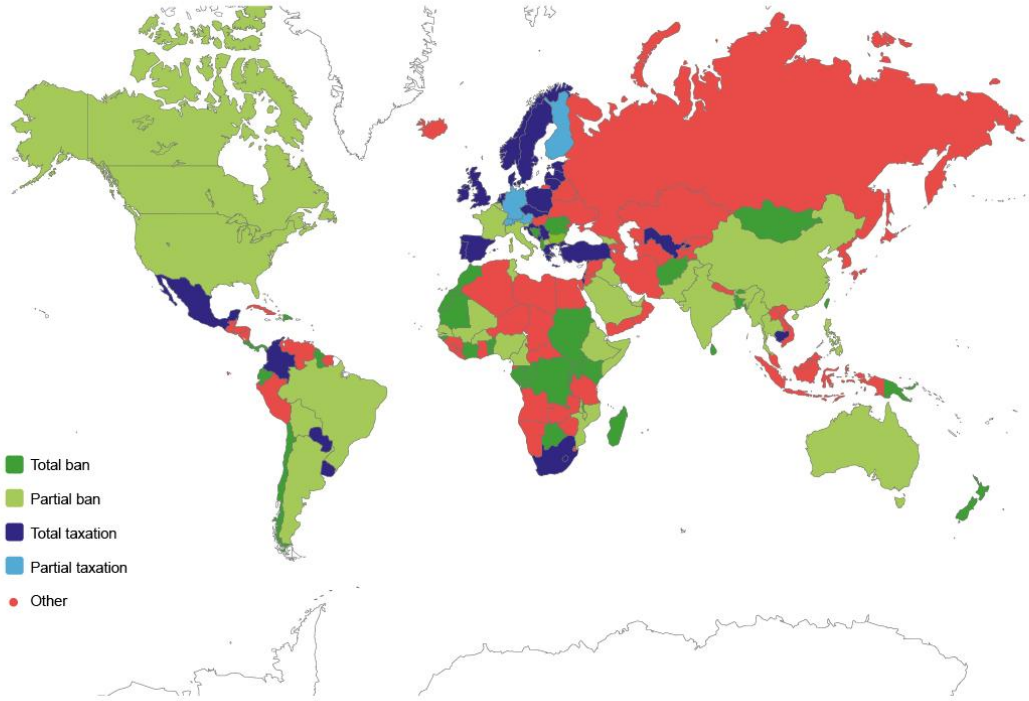
Today, a growing problem with plastic waste is its dissemination in the environment (land and sea). This is particularly the case for products such as plastic bags, due to their abundance and light weight. There is therefore a real interest in the production of biodegradable plastic bags whose lifespan can be shortened and adapted to their use, as opposed to the 200-400 year lifespan of conventional plastic bags.

In view of the abundance of these products with a short useful life but with major negative consequences, numerous countries are tightening their regulations. They are steering towards the taxation of non-biodegradable bags or even their total ban.

On April 29, 2015, the European Commission adopted Directive (EU) 2015/720 aimed at reducing the use of plastic bags within the European Union by obliging Member States to adopt measures aimed at reducing the consumption of lightweight plastic bags. These measures, to be decided on by each State, may consist in the introduction of taxes, national reduction targets or a ban.

France has also made significant commitments in this area via its Law on Energy Transition for Green Growth. On July 1, 2016, it introduced a ban on the supply (whether free or not) of single-use plastic shopping bags. Since January 1, 2017, this ban has also been applicable to single-use plastic bags intended for the packaging of goods (other than shopping bags) unless they can be composted at home and partly or fully made of bio-sourced materials.

GEOGRAPHICAL DISTRIBUTION OF PLASTIC BAG LEGISLATION



The technology developed by CARBIOS reduces the actual lifespan of a plastic bag, so that, if it ends up in the environment, it will biodegrade and be assimilated into the soil or water within a shorter period of time, while performing its function until that time. With its products, CARBIOS is also committed to meeting the new legal requirements introduced in France and elsewhere in the European Union.

Other fields of application:

Polymers and biodegradable plastics have other applications in the field of rigid or flexible packaging (e.g. disposable tableware, plastic cups, food trays, plant pots, sachets, films, etc.). These markets are also a major target for the use of CARBIOS' technologies via its subsidiary CARBIOLICE.

[78] Source: European Commission in 2011

[79] Source: Applied Market Information in 2012

6.5.6. Competitive advantages of biodegradable controlled-lifecycle plastics developed by CARBIOS

CARBIOS' innovations in the field of biodegradation should allow the offering of plastic products for which it will be possible to control the biodegradation rate, in order to ensure the required lifespan, according to the intended use. In this context, combining sustainability and biodegradability under so-called environmental conditions is one of the major challenges of the enzymatic process developed by CARBIOS. These new plastics ensure a significant competitive advantage against currently marketed biodegradable plastics (whose lifespan is not controllable) and should allow them to capture a significant portion of the relevant markets.

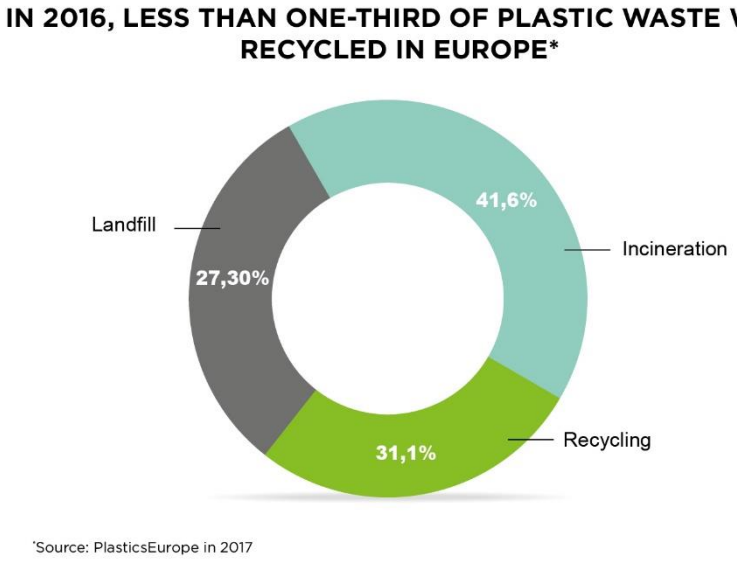
The other innovative aspect of this process concerns the control of the material's lifespan according to its use. For mulching films for example (films used in agriculture or gardening to protect the soil or crops), the length of use can vary according to the type of crop, from a few weeks to several months. To provide a solution to control these materials' lifespan, CARBIOLICE is working on the plastic materials' degradation kinetics by developing formulations of master batches suited to each application.

6.6. THE BIORECYCLING OF PLASTICS AND FIBERS AT END-OF-LIFE

6.6.1. Market environment

Out of the 125 million[80] metric tons80 of plastic waste produced each year worldwide, less than one-third is recycled. The rest of the waste is either landfilled or incinerated for energy recovery.

At the European level, for example, out of the 27.1 million metric tons of plastic waste collected in 2016, only 8.4 million metric tons were recycled and around 11.3 million metric tons were converted into energy through incineration. The rest was sent to landfill, as still permitted by legislation in certain European countries[81].



Over recent years, the recovery of plastic waste has been growing, but it is still insufficient. With a plastic recycling rate of 31.1% in 2016[82], Europe is in a relatively good position compared to the United States (8.8%[83]), or Japan (23%[84]). However, there is still a lot of room for improvement in the recycling of plastics, as an alternative to landfill or incineration.

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[80] Source: PlasticsEurope in 2015, Environmental Protection Agency in 2013, Plastic Waste Management Institute Japan in 2012, Central Pollution Control Board in 2013, Mc Kinsey & Ocean Conservancy in 2015, Expedition 7th Continentassociation in 2015, Jenna Jambeck in 2015 and Ademe in 2012

[81] Source: PlasticsEurope in 2017

[82] Source: PlasticsEurope in 2017

[83] Source: Environmental Protection Agency in 2013

[84] Source: Plastic Waste Management Institute Japan in 2012

New regulations are being implemented in many countries to increase the proportion of plastic waste that is recycled. This is particularly the case in Europe where the European Commission has made strong commitments in this area with the "Circular Economy Package" establishing common objectives for member states so that 70% of packaging waste will be prepared with a view to its reuse and recycling by 2030[85].

However, the treatment processes currently used for the recycling of plastics have numerous limitations, which can result in the mediocre quality of recycled plastics.

The current processes are mainly thermomechanical. They treat plastics stemming from the selective collection of household waste through a sequence of stages (sorting, crushing, washing), followed by the regeneration of the plastic through granulation and its transformation into secondary products.

These processes are limited by four important parameters:

- crushing and regeneration through extrusion break the chains of polymers and reduce the properties of the regenerated plastic;
- the high risk of contamination by other polymers and impurities, hence the need for a very homogeneous material, composed of the same polymer and containing few additives, requiring an increasingly sophisticated and costly sorting process;
- the presence of dirt and/or additives (e.g. colors, opacifying agents) which remain in the recycled plastic and alter its performance; and
- the presence of complex plastics in the recycling flow, combining several layers of polymers, which make the material difficult to recycle.

These processes degrade the properties of the plastic material and only allow the re-use of this recycled material in small proportions for the original purpose (thus in addition to virgin polymers) or for so-called secondary applications (e.g. manufacturing of textile fibers from plastic bottles).

In France, for example, in 2013, only 27% of recycled PET from bottles and vials was transformed into bottles and vials, while 18% of recycled PET was transformed into films and plastic sheets and the bulk of it (52%) was transformed into fibers[86].

As regards fibers, they are currently recovered very rarely because of a lack of structured collection and suitable recycling channels. There are several reasons for this, first and foremost the variety of textile applications (clothing, household linen and footwear (TLC), tire textiles, furniture and bedding, carpets and rugs, geotextiles, fishing lines, ropes, nets, etc.) and the limitation of recycling to textiles consisting of a single type of fiber.

For example, out of the 5.8 million metric tons of garment textile waste produced each year in Europe, only 1.5 million metric tons (25%) are reused or recycled (rags or wiping cloths). The remaining 4.3 million metric tons are systematically landfilled or incinerated[87].

The European Union is aware of these issues, and by 2025, it plans to require the separate collection of textile waste for all of its Member States as part of its circular economy package. Recovery objectives, including material recovery and therefore targets in terms of recycling, will likely follow.

A recycling process such as that developed by CARBIOS, which makes it possible to successively depolymerize the polymers of interest contained in plastic and textile waste, is thus a way of fulfilling the objectives of increasing the recycled share of these products by limiting incineration and landfill, while reducing the share of recycled plastics used for secondary applications. In addition, increasing the share of recycled plastic waste provides significant advantages in terms of energy savings and the reduction of greenhouse gas emissions.

The enzymatic biorecycling process developed by CARBIOS aims to eliminate the constraints of the current processes by taking advantage of the exceptional specificity of the enzymes. The Company thus intends to increase the overall share of recovered waste by significantly increasing recycling and offering a new channel for the supply of monomers to polymer producers.

6.6.2. CARBIOS innovation: Unlimited recycling, recycling without sorting

Unlike the current plastic recycling processes, which are mainly thermomechanical, the recycling process developed by the Company is a biological process.

This bioprocess can take place independently on a single polymer or iteratively on several polymers one after the other. In the first stage, an enzyme is used to specifically depolymerize a single polymer contained in the various plastics or

[85] Source: European Commission in 2018 – Revision of Directives 2008/98/EC and 94/62/EC

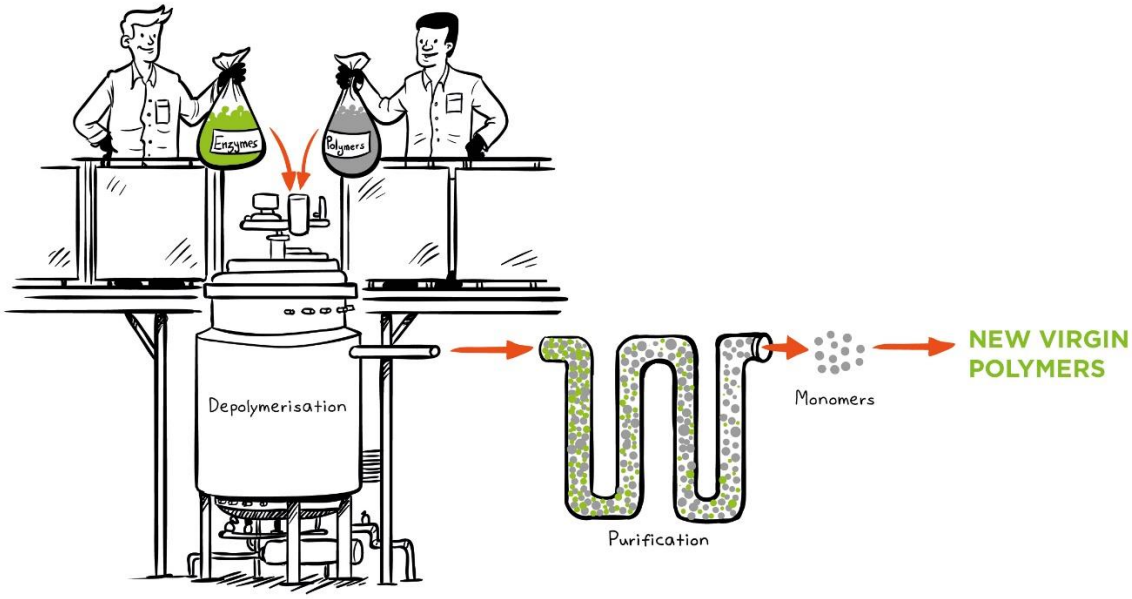
[86] Source: Valorplast in 2016

[87] Source: European Commission in 2012

textiles to be recycled. Following this stage, the monomer(s) stemming from the depolymerization of the polymer will be purified, before being re-polymerized, thus allowing infinite recycling. Following this first stage, any non-degraded plastic or textile residues will go onto a second stage, using enzymes allowing the specific depolymerization of other polymers.

As at the date of this Registration Document, CARBIOS has a biorecycling process that is able to process plastics partly or wholly composed of PET and/or PLA and PET polyester fibers.

Principle of CARBIOS' enzymatic biorecycling process:



For the first time in the industry's history, the infinite recycling of plastic and textile waste into new plastic materials, without any sophisticated prior sorting, has become possible.

CARBIOS' plastic recycling bioprocesses make it possible to:

- recycle plastics and textiles ad infinitum by going back to the initial monomers, which can be re-used in all the applications of the original material;
- retrieve all of the properties of the original materials in the recycled materials.

This is in contrast to the current processes, which reduce the properties and quality of the regenerated polymer, and thus its use in primary application products.

In mixed polymer waste, each of the enzymes used in CARBIOS' bioprocesses only acts on a specific type of polymer, whether in a heterogeneous blend of plastic and/or textile waste or in complex (multi-layer) plastics. It releases the plastic's elementary components, the monomers.

These recycled monomers have the same properties as those stemming from petrochemical or bio-refining processes. They can be re-used for the same applications without any loss in performance, and be recycled indefinitely.

The polymer waste that most interests CARBIOS consists of polyesters (PET, PLA, etc.) and polyamides. These polymers are characterized by chains of monomers with bonds that can be hydrolyzed by enzymes to release the original monomers. CARBIOS has chosen to initially focus on polyesters, in particular PET and PLA.

6.6.3. Technology progress report

As part of its research and development program, CARBIOS focused on the development of biorecycling of two polymers: **PLA and PET**.

In line with the objectives set on the Company's initial public offering, these biorecycling processes went from the collaborative research phase in 2013 to the pre-pilot phase for PLA and the pilot stage for PET in 2018, making it possible to envisage the upscaling of this technology, in particular through the industrial demonstration of the PET biorecycling process. To that end, on November 28, 2018, the Company announced that it had signed a letter of intent with KEM ONE on November 20, 2018 without any consideration or monetary commitments for a project to construct an industrial

demonstration plant operated by the Company in Lyon's Chemicals Valley to secure the value associated with its PET plastic and fiber biorecycling technology.[88]

Concerning PET:

- In December 2015, CARBIOS achieved a key stage in the development of its polyester enzymatic biorecycling process by achieving the full depolymerization of commercial products made of amorphous PET into their original monomers – TPA (terephthalic acid) and EG (ethylene glycol).
- In November 2016, this technology was rendered applicable to crystalline PET and thus to all plastic waste containing PET, i.e. plastic bottles (whether transparent, colored, opaque or multi-layered), packaging and films.

These first results demonstrated that the selective depolymerization of plastic waste containing PET made it possible to return to the original monomers.

- In June 2017, CARBIOS synthesized PET oligomers from terephthalic acid stemming from its PET bottle biorecycling process. This synthesis was the first phase in the production of PET.
- In October 2017, CARBIOS validated the next phase by producing virgin PET from terephthalic acid stemming from its PET bottle biorecycling process.
- In March 2018, CARBIOS made its depolymerization technology applicable to PET polyester fibers from textile waste.
- In April 2018, CARBIOS announced that its work on the optimization of the enzyme used in its PET plastic waste biorecycling process reduced the duration of hydrolysis by three, with 97% conversion achieved after 24 reaction hours.
- In July 2018, CARBIOS announced further advances in the optimization of its plastic waste biorecycling process, reducing hydrolysis time by one-third, with 97% conversion achieved in 16 hours.
- In February 2019, CARBIOS announced that it had produced the first PET bottles with 100% Purified Terephthalic Acid (rPTA) from the enzymatic biorecycling of used plastics. This major step is a world first that confirms CARBIOS technology's potential to engage industry in a responsible transition to a circular economy model[89].

CARBIOS demonstrated that this innovative PET biorecycling process allowed the virtuous cycle of a return to virgin PET. The work conducted in 2018 on the optimization of the enzyme used for the biorecycling of PET contributes to a stronger industrial competitiveness for the technology developed by CARBIOS for the transformation of PET plastic and textile waste into new products of a quality identical to those obtained from virgin PET.

These results highlight the high potential of plastic waste recycling through an enzymatic process in terms of efficiency and respect for the environment. They open up promising prospects for the treatment of a wide variety of this type of waste.

CARBIOS' innovation in the field of biorecycling constitutes a new industrial opportunity, making it possible to consider used plastics as tomorrow's renewable raw material. In addition, this innovation is a response to the increasing presence on the market of packaging made from opaque or multi-layer PET, which is causing disruption in the current recycling channels. This issue should encourage the emergence of new solutions, such as those developed by CARBIOS, to handle this waste, which is currently mainly sent to landfill or recovered through incineration.

For the recycling of complex plastics combining several types of polymers, the CARBIOS innovation, which uses a highly specific PET enzyme, makes it possible to recover the PET part of the material. The other polymers composing the material to be recycled will have to undergo the conventional treatment currently performed by plastic waste recycling firms.

In line with its objectives, CARBIOS is currently accelerating its development through (i) the industrial piloting phase of this technology, which was initiated in 2018 through the CE-PET project[90], with the financial support of the ADEME and (ii) the forthcoming scaling up to the industrial demonstration stage.

To date, the preliminary analysis of the process has been completed and the preliminary study for the construction of an industrial demonstration unit has been conducted since June 2017 with TechnipFMC, to which CARBIOS entrusted the

[88] Refer to the November 28, 2018 press release: https://carbios.fr/en/carbios-and-kem-one-sign-a-letter-of-intent-to-implement-a-pet-biorecycling-demonstration-plant-operated-by-carbios-in-the-french-chemical-valley/

[89] Refer to the February 27, 2019 press release: https://carbios.fr/en/carbios-produces-first-pet-bottles-from-100-recycled-plastic-waste-using-companys-breakthrough-technology/

[90] Circular Economy-PET

initial engineering phases. At the end of this study, the collaboration with TechnipFMC was confirmed and continued for the creation of an industrial demonstration plant operated by CARBIOS.

As part of the pilot phase initiated in 2018 for the biorecycling of PET plastic and fiber waste, the Company set up the CE-PET project[91].

This CE-PET project aims to meet three main technical objectives:

1- Ensure the development of the pilot-scale PET biorecycling process for plastic PET 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 that end, CARBIOS and its academic partner TWB will develop new enzymes whose activity, thermostability and adsorption will be improved compared to the efficient CARBIOS proprietary enzymes to ensure the best yield and productivity possible for the depolymerization stage and fully adapt the biorecycling process to PET polyester fibers.

In this project, CARBIOS will also focus on developing pre-treatment stages for waste (plastics and textiles), depolymerization and monomer purification. Validation of the quality of the monomers obtained will be achieved by CE-PET repolymerization tests PET and transformation into products (bottles and films).

On January 17, 2019, the Company announced that it had obtained €7.5 million in funding from the General Secretariat for Investment (SGPI) under the Future Investments Program (PIA) operated by the ADEME, to support the CE-PET project over a period of 39 months (until June 30, 2021)[92].

The main areas of focus of the CE-PET project will be the following:

Main vectors of development of the CE-PET project	Partners involved
• Production and optimization of PET depolymerases	CARBIOS/TWB
• Development and piloting of the PET plastic waste biorecycling process	CARBIOS/TWB
• Development and piloting of the PET textile waste biorecycling process	CARBIOS/TWB
• Competitiveness of the PET waste biorecycling process and securing the sector	CARBIOS

Concerning PLA:

- As early as 2013, CARBIOS demonstrated its ability to depolymerize PLA to obtain lactic acid;
- These results were boosted by the success of the 90% depolymerization of PLA in 48 hours; the process was then optimized to allow the 90% depolymerization of PLA in 24 hours.
- These results led to the successful launch of the next phase, consisting in the proof of concept of a closed-loop recycling process involving the production of virgin PLA from lactic acid (98% pure) stemming from the PLA biorecycling process.

CARBIOS thus demonstrated the circularity of the process. The catalytic activity of the enzyme used was proven on commercially available items made of PLA (flexible and rigid packaging) whose semi-crystalline state could make work difficult for the enzyme. This demonstration eliminated a major difficulty in the development of the enzymatic recycling process.

For the biorecycling of PLA, CARBIOS is targeting a nascent market since the availability of PLA waste is still low. However, PLA has a bright and promising future and its market is growing sharply. This polymer has the advantage of being 100% bio-sourced while offering interesting mechanical properties.

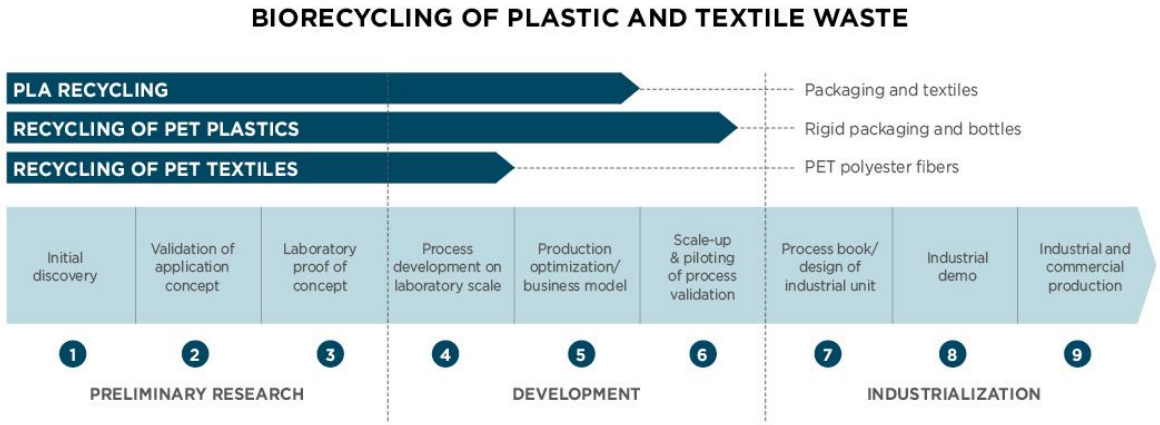
[91] Circular Economy-PET

[92] Please refer to the January 17, 2019 press release: https://carbios.fr/en/carbios-and-twb-receive-e7-5-million-funding-to-accelerate-the-industrialization-of-the-biorecycling-of-pet-plastics-and-fibers/

Empowered by the results already obtained, CARBIOS intends to continue its discussions with industry players in this market to evaluate the opportunity of granting a license at an "upstream" stage of this technology to ensure optimization and exploitation by a partner, in accordance with objectives announced during the Company's initial public offering.

Based on these achievements, the cost model established for proprietary technologies developed by CARBIOS makes it possible to envisage competitive industrial recycling processes.

Maturity of the technologies



The Company's development strategy for its target markets (mainly in PET biorecycling) consists of developing innovative and competitive bioprocesses that will be exploited through agreements (partnership, licensing) involving, either together or separately, a polymer producer, a waste collector and an enzyme producer. The gradual exploitation of these processes will be supported by a consortium of major contractors (specifiers and users of plastic materials and/or textiles), operating across the industry and interested in the set-up of these new technologies. To this effect, CARBIOS and L'OREAL came together in 2017 to sign a five-year agreement involving the creation of a consortium for the industrialization of the biorecycling technology designed and developed by CARBIOS. In accordance with the Company's objectives, this collaboration with L'OREAL continued in fiscal year 2018. The Company is currently in talks with several other global players who could potentially join this consortium to support the industrial development of this proprietary technology.

Today, the world's major industrial groups have a growing need to offer the market products made of recycled materials, but are confronted with the technical limitations of existing processes, which do not fully meet that need. The enzymatic biorecycling processes developed by CARBIOS – which allow a return to the initial monomers and, ultimately, the production of new plastics of the same quality as the original products – provide an ideal solution to meet market needs and fulfill the expectations of manufacturers, who will order from polymer producers, who in turn will use CARBIOS' bioprocesses. This CARBIOS innovation will also give polymer producers the opportunity to diversify their supply of raw materials by enabling them to produce their own monomers and thus move into a circular economy model.

On the strength of the results already achieved, CARBIOS is maintaining its ambition of bringing its enzymatic biorecycling process to the industrial stage in the near future.

This industrialization will take place in three successive phases, namely:

- A modular pilot phase: validation of each stage of the process (pre-treatment, enzymatic depolymerization, purification);
- Validation of the entire chain of modules throughout the industrial demonstration; and
- Industrial exploitation through license agreements.

The technologies currently being developed by CARBIOS rest on the use of considerable intellectual property representing over 10 years of research.

At the end of 2018, CARBIOS secured unique know-how through six patent families for the recycling process and five patent families for PET-related biodiversity.

6.6.4. Priority applications

Upon the launch of its research and development efforts in 2012, CARBIOS had chosen to focus on the recycling of PET and PLA, which are now promising, accessible high-growth markets. The results obtained to date confirm the relevance of the Company's strategy.

Size of targeted markets

PROCESSES	DESCRIPTION OF MARKETS	PRODUCTION		GROWTH RATE	TARGET MARKETS (WASTE)	
		World	Europe		World	Europe
PET recycling (plastics)	PET packaging (bottles, trays and other containers, etc.)	24M metric tons[1]	3.8M metric tons[1]	3.4%[1]	24M metric tons[1]	3.8M metric tons[1]
PET recycling (textiles)	PET textiles (clothing, technical fibers, rugs, carpets, etc.)	42M metric tons[1]	0.1M metric tons[1]	6%[1]	42M metric tons[1]	10M metric tons[1]
PLA recycling (plastics and textiles)		275K metric tons[2]	7 to 9K metric tons[2]	15%[3]	275K metric tons[2]	7 to 9K metric tons2[2]
Other application segments accessible using Carbios proprietary technologies						
Recycling of polyester fibers (PET, PTT, etc.) and polyamides	Textile chains that can be collected specifically for recycling					

[1] Source: IHS Markit in 2018
[2] Source: Forecast from Nova Institute in 2011 and European Bioplastics in 2011
[3] Source: Corbion in 2016, NatureWorks in 2011 and COFCO in 2016

PET recycling

The market of resins and films made of PET (bottles, packaging, etc.) – a polyester of fossil origin widely used by manufacturers – represented global production of around 24 million metric tons in 2018 [93]with an annual growth rate of 3.4%[94]. This production could reach over 25 million metric tons in 2020.

The market for PET fibers (textiles, rugs, carpets, pillows, duvets, etc.) represented an estimated global production of 42 million metric tons in 2017[95] with an annual growth rate of 6%[96].

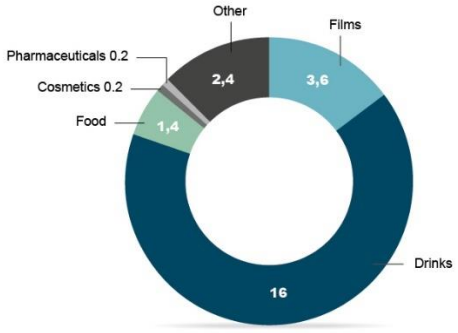
[93] Source: PCI Wood Mackenzie in 2018

[94] Source: IHS Markit in 2018

[95] Source: PCI Wood Mackenzie in 2018

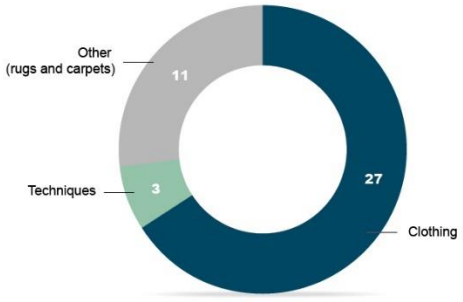
[96] Source: IHS Markit in 2018

BREAKDOWN OF THE VIRGIN PET RESIN CONSUMPTION MARKET BY APPLICATION SEGMENT
24M METRIC TONS in 2017
(IN MILLIONS OF METRIC TONS)



Source: IHS Markit in 2018

BREAKDOWN OF THE VIRGIN PET TEXTILE CONSUMPTION MARKET BY APPLICATION SEGMENT
42M METRIC TONS in 2017
(IN MILLIONS OF METRIC TONS)

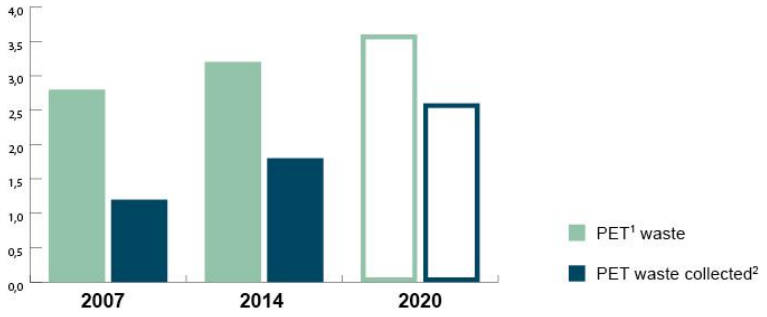


Source: IHS Markit in 2018, PCI supported by Wazir Advisors in 2014 and IHS in 2014

Almost all PET products marketed, whether resins or fibers, turn into waste. This represents about 70 million metric tons[97] per year globally. PET is thus a priority target for recycling. However, the recycling rates for waste vary widely and are greatly hindered by current techniques.

In Europe, the demand for resin-grade virgin PET for use in the manufacture of plastic bottles was estimated at 3 million metric tons in 2017[98] and the share of waste that they generate is 1.9 million metric tons, just over 58%[99].

HISTORY AND FORECAST OF QUANTITIES OF PET WASTE (RESINS AND FILMS) PRODUCED AND COLLECTED IN THE EUROPEAN UNION (IN MILLIONS OF METRIC TONS)



Smoothed growth rate of PET waste: 2%
(calculated between 2007 and 2014 then projected until 2020)
Smoothed growth rate of PET waste collected: 6%
(calculated between 2007 and 2014 then projected until 2020)

¹ Source: PlasticsEurope in 2015
² Source: Petcore Europe in 2015

CARBIOS' PET biorecycling process would make it possible to treat 100% of resin-grade PET waste, representing an additional 1.4 million metric tons in Europe, which is currently incinerated or sent to landfill as it cannot be recycled[100]. Such recycling would save around 4 metric tons of additional CO2 equivalent[101], thereby helping to reduce greenhouse gas emissions.

CARBIOS' PET biorecycling process would also make it possible to increase the proportion of bottles and vials produced from recycled PET, and thus reduce the share used for secondary applications (such as fibers), which are currently the main destination for recycled PET.

[97] Source: IHS Markit en 2018

[98] Source: ICIS related by Petcore Europe in 2018

[99] Source: ICIS related by Petcore Europe in 2018

[100] Source: Company

[101] Source: SICTOM and Eco-Emballages in 2015

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 well structured and increasingly efficient. CARBIOS thus intends to offer that market, subject to development factors, a competitive bioprocess compared with the current recycling process, by enabling the re-introduction of the monomers stemming from the recycling of PET into the PET production chain.

Beyond that first large-scale market, the potential of this bioprocess is much broader. The technology and know-how acquired by CARBIOS in the enzymatic biorecycling of PET plastics was made applicable in March 2018 to the recycling of PET fibers[102], a source that represents 42 million metric tons in 2017[103] and today is rarely collected and recycled.

The results obtained through CARBIOS' enzymatic PET biorecycling processes are a real technological breakthrough, allowing the Company to envisage the rapid deployment of its technology on a high value-added market.

PLA recycling

While PLA still represents only a small share of plastic waste, with an annual production capacity of around 275,000 metric tons[104] in 2018, PLA is the polymer with the highest growth margin, with an estimated annual growth rate of between 10 and 28% over the coming years[105].

The operational start-up of the 75,000 metric ton PLA production unit by Total Corbion in Thailand[106], the expectations of producers such as Natureworks and analyst projections suggest that PLA represents a promising market in the bioplastics sector. Today, PLA is mainly used for short-lifespan products such as packaging and textiles, however numerous studies are currently being carried out by producers to multiply its applications.

With the development of bio-sourced plastics and given the exceptional characteristics of PLA, whose physico-chemical properties make it the main alternative to PET and polystyrene, the proportion of PLA plastic waste is expected to significantly increase over the coming years. This polymer is thus an ideal target for the deployment of CARBIOS' technology.

Other target segments

In addition to PET (resins, films and fibers) and PLA, CARBIOS could also envisage the recycling of other polymers such as polyamides, which are components of the plastic materials used in the automotive industry.

Today, despite the expansion of sorting guidelines, so-called flexible packaging and complex and opaque plastics remain difficult to recycle. Yet, these account for a growing share of the plastics on the market, and could also, thanks to CARBIOS' technology, have a more efficient end-of-life. Indeed, the bioprocess currently being developed by CARBIOS could also apply to these plastic materials. Such materials could thus also be recycled through a return to the initial monomer instead of ending up in landfill or being incinerated.

6.6.5. Competitive advantages of the plastic waste recycling processes developed by CARBIOS

Current recycling practices do not provide a satisfactory response to market needs, either in terms of volumes treated, or in terms of recovery. By allowing the recycling of plastic waste without the need for sophisticated sorting, by separately recovering the purified monomers from each polymer present in the materials, CARBIOS' biorecycling processes will offer an undeniable competitive advantage over conventional recycling techniques, subject of course to development factors. Thus, while it is practically impossible to retrieve a polymer of the same quality as that of the initial polymer through currently available recycling processes, CARBIOS' processes should allow, for secondary application, identical re-use and the same quality as the original polymer. In addition, the selective nature of the enzymatic process implemented by the CARBIOS technology makes it possible to treat colored, opaque or complex plastic waste that today is mostly incinerated or landfilled.

Moreover, by using plastic waste as raw material, CARBIOS' biorecycling processes are unaffected by fluctuations in the price of the initial petroleum-based raw material. The value of the waste for which the recycling technologies will be developed will primarily depend on the balance between supply and demand for this waste.

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[102] Refer to the March 12, 2018 press release: https://carbios.fr/en/carbios-announces-the-development-of-a-new-process-enabling-to-depolymerize-pet-polyester-fibers-from-textile-waste/

[103] Source: IHS Markit in 2018

[104] Source: Nova Institute in 2011, European Bioplastics in 2011, Total Corbion in 2018 and COFCO in 2018

[105] Source: Ceresana Research in 2011 and Research and Markets in 2013

[106] Source: Corbion in 2016 and Natureworks in 2011

6.7. PRODUCTION OF BIOPOLYMERS

6.7.1. Market environment

The development of bio-sourced plastics 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 of the environment.

Even though they have been around for a long time, bio-sourced plastics accounted for less than 1% of global production in 2017[107], but show strong growth prospects. In 2017, the bioplastics market amounted to around 2.1 million metric tons[108] and it should reach 2.6 million metric tons in 2023[109].

Note that a bio-sourced plastic is not necessarily biodegradable and a biodegradable plastic is not necessarily bio-sourced. This fact decorrelates the notion of biodegradability from the origin of the plastics.

The factors that contribute to the growth of the market largely rest on (i) the product innovations that will make it possible to expand the use of bio-sourced plastics to new fields of application while increasing the competitiveness of bio-sourced polymers in relation to conventional polymers, and increasing industrial production capacities, (ii) the introduction of new legal frameworks, and (iii) growing consumer awareness of environmental issues.

Among these factors, the price aspect remains crucial for market penetration. The cost of bio-sourced polymers is 2 to 3 times higher than that of conventional petroleum-based polymers. Reducing the cost of bio-sourced polymers will particularly depend on economies of scale across the entire value chain, the improvement of production processes, and optimization of the resource supply chain. Other factors will also affect the competitiveness of bio-sourced polymers, in particular an increase in added value, supported by the tightening of regulations and incentives for “green products”.

Through their wide range of properties, bio-sourced polymers can now compete with conventional fossil-based polymers in various fields (packaging, automobile, textile, biomedical, etc.).

Among these bio-polymers, polylactic acid (PLA) is currently one of the most promising due to its remarkable properties covering a wide range of applications, and despite a relatively high price, but closer to that of petro-polymers than other bio-sourced polymers.

In its research, CARBIOS chose to focus on the development of a new biological pathway for the production of PLA directly from lactic acid, thereby increasing its competitiveness in a market expected to grow rapidly.

6.7.2. CARBIOS innovation: Direct enzymatic polymerization

Current industrial processes for the production of PLA consist of four successive stages:

1. A first bio-refining stage to obtain fermentable sugars (glucose and sucrose) from the various types of biomass;
2. A sugar fermentation stage to produce lactic acid;
3. A chemical stage of lactic acid condensation to obtain a cyclic dimer of lactic acid (lactide); and finally
4. A chemical polymerization stage to obtain PLA.

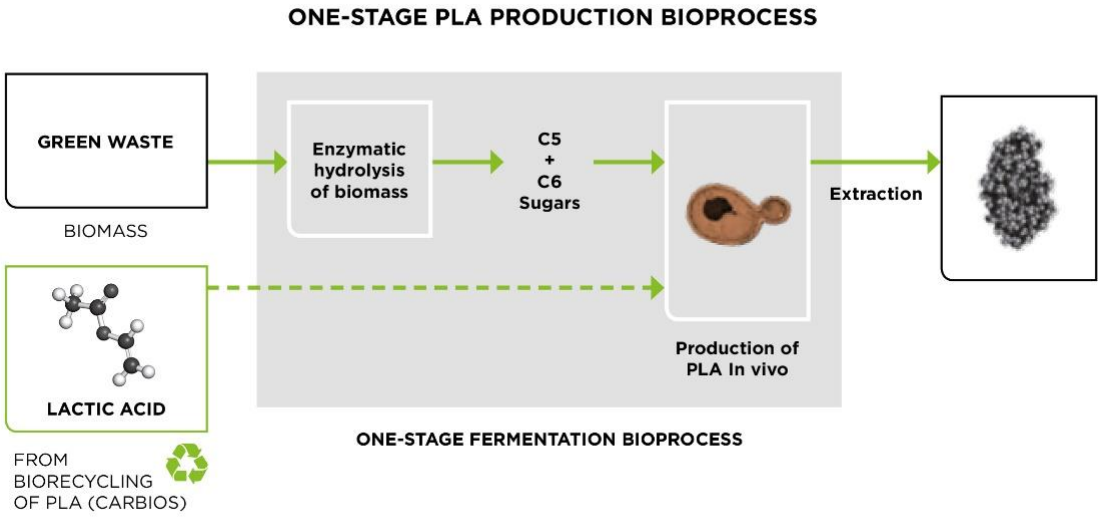
CARBIOS has been focusing on the development of a new production method that is more efficient and less costly than current techniques. The process used consists in the direct biological polymerization of lactic acid to obtain a PLA homopolymer of high molecular weight.

The final bioprocess, in its optimal version, will be able to be combined with the biological recycling of PLA.

[107] Source: PlasticsEurope in 2018, European Bioplastics and Nova Institute in 2018

[108] Source: European Bioplastics and Nova Institute in 2018

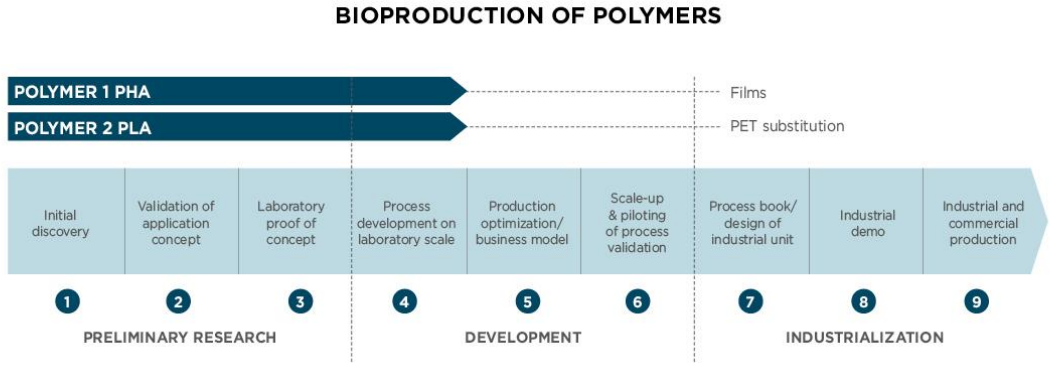
[109] Source: European Bioplastics and Nova Institute in 2018



6.7.3. Technology progress report

In July 2016, CARBIOS demonstrated, with its partners from INRA and INSA (TWB and LISBP), the feasibility of its *in vivo* enzymatic polymerization process to convert lactic acid into PLA resulting in a high molecular-weight homopolymer. This supplemental process to PLA biorecycling would permit PLA reproduction from the recycled monomers while omitting the current chemical polymerization stage, which is complex and costly. The first lengthy and complex metabolic engineering studies were conducted under the THANAPLAST™ project.

Discussions are currently under way with manufacturers in the sector to grant a license for this technology at an "upstream" stage.



At the end of 2018, CARBIOS' intellectual property portfolio comprised five families of patents covering the bioprocess for polymer production using a biological pathway.

6.7.4. Priority applications

As early as 2012, within the scope of its research and development efforts, CARBIOS chose to focus on the production of PLA from lactic acid. This new biological pathway for PLA production developed successfully by CARBIOS and its partners could be transposed to the production of other biopolymers, including polyesters such as PHA.

PROCESSES	DESCRIPTION OF MARKETS	PRODUCTION		WORLDWIDE GROWTH RATE
		World	Europe	
Production of PLA	PLA is currently used for medical, textile, packaging and other applications... PLA is expected to be a substitute for PET, PE, PS and PA[1]	275K metric tons (2014)[1]	7 to 9K metric tons[1]	15%[2]
Other application segments accessible using Carbios proprietary technologies				
Production of PHAs	PHAs are expected to be used in the agricultural packaging and film markets (good substitutes for PE, PP and PVC)[3]			

[1] Source: Nova Institute in 2011, European Bioplastics in 2011, Total Corbion in 2018 and COFCO in 2018
[2] Source: NatureWorks in 2011
[3] Source: Markets and Markets in 2013

The PLA market

With a global annual production capacity of more than 275,000 metric tons in 2018[110], there is still considerable scope for growth, and PLA demand should continue to increase in the coming years. According to producers, the production capacity could reach around 400,000 metric tons in 2020, representing average growth of 15% a year[111]. Despite the fact that 50% of the PLA production capacity is in the United States (and stems from a single producer – NatureWorks), Europe is where PLA demand is the strongest, while the strongest growth in the PLA market is expected to occur in Asia, particularly in Thailand, Japan, China and India.

Today, the market remains relatively small compared to that of conventional polymers, hindered by a number of factors:

- The supply is limited due to the small number of PLA suppliers;
- The price of PLA remains higher than that of fossil-based polymers; and
- For certain applications, in particular for packaging, PLA may involve additional constraints if it goes into the conventional recycling chain with the other types of plastics.

Despite the currently limited market, the demand for PLA will grow, and this growth will be supported by various factors:

- The increase in production capacities, combined with a drop in prices, mainly in Asia where it will be possible to find an abundance of inexpensive raw materials (sugar cane, tapioca) for the production of lactic acid;
- The development of technologies based on second-generation (agri-food residues) and third-generation raw materials (use of CO2, etc.);
- The improvement of the properties of PLA polymers, such as heat resistance, that expand the scope of target applications ;
- Greater awareness of the importance of sustainable development and the environmental impacts of conventional plastics;
- The need to reduce our dependence on petroleum-based products; and
- The increase in the price of fossil-based materials, reducing the price gap between PLA and conventional plastics.

[110] Source: Nova Institute in 2011, European Bioplastics in 2011, Total Corbion in 2018 and COFCO in 2018

[111] Source: NatureWorks in 2011

PLA is today mainly used for food packaging, which accounted for 33% of the global PLA market in 2017[112]. The second most represented application was disposable tableware (22%)[113]. In smaller proportions, there is also PLA in electronics and medical applications, sectors that will be increasing with the arrival of PLA of a higher technical standard.

The PHA market

This low-volume market (currently 10,000 metric tons) is expected to grow by 28% in the coming years[114] and prompts addressing of the same issues as PLA production: producing a bioplastic from raw biomass at a competitive cost and with equivalent performance to conventional plastics, that will reduce the use of fossil and food resources.

6.7.5. Competitive advantages of the PLA production processes developed by CARBIOS

The PLA producers currently present on the market have concentrated their efforts on the plastic properties of PLA, developing various types of PLA according to the desired thermostability. However, beyond the technical properties of the polymer, PLA's market penetration largely depends on its ability to compete with petroleum-based polymers. By reducing the price of PLA to that of conventional polymers, CARBIOS' processes should significantly increase the interest of plastics producers in this polymer and thus expand the potential market.

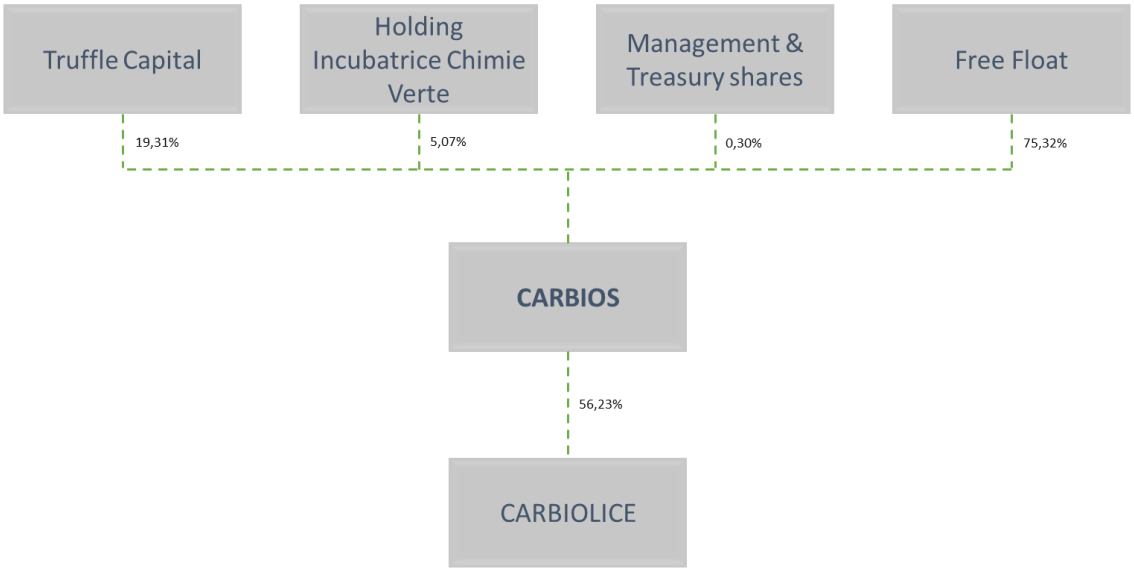
[112] Source: QYResearch in 2017

[113] Source: QYResearch in 2017

[114] Source: Markets and Markets in 2013

7. ORGANIZATIONAL CHART

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



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 percentage of voting rights held by shareholders, please refer to Chapter 18 of this Registration Document.

Truffle Capital

Founded in 2001, Truffle Capital is an independent European venture capital company whose purpose is to support the creation of innovative high-potential companies developing breakthrough technologies, and to take them through to maturity. Truffle Capital manages assets of over €450 million (November 2018) and has raised more than €900 million via vehicles for natural persons (FCPIs, management mandates, holdings) and institutional funds (FCPIs). The company is managed by a team of three founding partners with solid entrepreneurial and investment experience, both in Europe and Silicon Valley.

Since its creation, Truffle Capital has greatly diversified its investor base, thus developing partnerships with institutional investors (insurance companies, banks, businesses and funds of funds), for whom it has created a range of institutional funds. It also caters to individual investors, through the development of funds marketed by retail banks, with which it has exclusive multi-year distribution agreements.

Moreover, Truffle Capital has been a signatory to the Principles for Responsible Investment (PRI) since 2012.

Holding Incubatrice Chimie Verte

Since the first half of 2010, Truffle Capital has been advising and assisting two series of holding companies (including Holding Incubatrice Chimie Verte) consisting, respectively, of nine and seven holding companies called “Holdings Incubatrices” created by way of public offerings and qualified as lead holding companies within the meaning of the fiscal legislation relative to tax credits for investments in SMEs. In line with the commitments made upon its creation, Holding Incubatrice Chimie Verte has adopted an investment strategy exclusively focused on young innovative SMEs.

Other significant institutional shareholders:

Via a letter dated January 22, 2018, the Company was informed that the equity interest of Natixis Asset Management had exceeded 5% of the share capital.

This affiliate of Natixis Investment Managers ranks among the leading European asset managers[115] with a portfolio of over €326 billion managed on behalf of institutional clients, external distributors and individuals[116].

CARBIOLICE[117]

The Company has a 56.23%-owned subsidiary – CARBIOLICE – set up in September 2016 on the basis of a tripartite agreement between CARBIOS, the SPI innovation-focused mutual fund (FCPI) (Bpifrance Investissement) and LCI (Limagrain Céréales Ingrédients).

This company took over the production and marketing of granules intended for the production of the bio-sourced and biodegradable plastics of Limagrain Céréales Ingrédients (producer of Biolice®), and will progressively incorporate the technological innovations licensed by CARBIOS.

Through its production unit with an annual capacity of 4,000 metric tons, CARBIOLICE performs the industrial demonstration of the patented technology for enzymatic biodegradation of plastics developed by CARBIOS, then the industrial and commercial production of enzymed granules (compounds and master batches) used in the manufacturing of biosourced, biodegradable plastics. It will address specific fields of application, namely for flexible film markets (mulching films, bags and bag manufacturing, industrial films, wrapping films, food packaging), for all rigid applications in the agricultural and horticultural sectors and for disposable kitchen tumblers, glasses and plates made from plastic.

[115] Source: IPE Top 400 Asset Managers 2017 ranked Natixis Asset Management 51st among the top asset managers, taking into account total assets under management, as well as the country of the main office and/or of the main European branch at December 31, 2016.

[116] Source: Natixis Asset Management – 09/30/2017

[117] Additional information on CARBIOLICE's financial statements as at December 31, 2018; is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

8. PROPERTY, PLANT AND EQUIPMENT

8.1. Property and equipment

In April 2014, CARBIOS moved into its new headquarters covering an area of 626 m². In addition to office space, the premises are large enough for an internal pre-industrial development laboratory and a plasturgy demonstration laboratory.

These facilities make it possible to validate the results of the upstream research phases and conduct the pre-pilot development of the bioprocesses through to the demonstration phase.

In addition, the Company has leased new premises in Riom (Puy-de-Dôme), set to become its technical center for the control of its PET biorecycling technology.

The table below shows the main characteristics of the Company's occupancy contracts:

Address	Surface area	Type of occupancy	Annual rent	Lessors	Type of contract	Start date	Expiration
Biopôle Clermont-Limagne 3 rue Emile Duclaux 63360 Saint-Beauzire	626 m²	Rental	€79,378.36 excl. tax and charges	Biopôle Clermont-Limagne	Commercial lease	2/15/2014	2/15/2023
5, rue de la Baume 75008 Paris	n.a.	n.a.	n.a.	Holding incubatrice Chimie Verte	Leasing of premises	3/16/2011	Annual, renewable by tacitagreement
ZI La Varenne 20 – 22, rue Henri et GilberteGoudier 63200 Riom	480 m²	Rental	€48,000 excl. tax and charges	Biopôle Clermont-Limagne	Commercial lease	6/1/2018	5/31/2027

As at the date of this Registration Document, the Company is not contemplating moving its headquarters.

For detailed information on the Company's equipment at December 31, 2018, please refer to section 20.1.5.4 of this Registration Document.

8.2. Environmental issues

As at the date of this Registration Document, the Company is not aware of any risk of pollution on the site it rents.

To the Company's knowledge, none of its equipment presents any risk of pollution.

Please refer to Chapter 4 of this Registration Document on the issuer's risk factors.

9. REVIEW OF FINANCIAL POSITION AND RESULTS

9.1. Financial position

Chapter 9 focuses on the Company's results and financial position for the fiscal years ended December 31, 2017 and December 31, 2018, each lasting 12 months.

This chapter should be read in the light of the Registration Document as a whole. In particular, please read the description of the Company's operations presented in Chapter 6 of this Registration Document. Likewise, please refer to the financial statements for the years ended December 31, 2017 and December 31, 2018, as well as the notes thereto, presented in Chapter 20 of this Registration Document. The Company's financial statements were prepared in accordance with the accounting standards applicable in France for companies registered under French law. The Company has no plans at this stage to change its accounting methods in the near future. Indeed, the Company does not present any consolidated financial statements with its subsidiary CARBIOLICE[118] since it is not required to do so given the fact that it has not yet reached the required consolidation threshold.

9.2. Operating income

9.2.1. Major factors which have a significant impact on the Issuer's operating income

CARBIOS is a young, innovative green chemistry company whose goal is to accelerate the green revolution in chemistry for our everyday lives, by re-thinking the lifecycle 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.

CARBIOS' original business model is based on the industrialization and sale of its products and/or enzymes, technologies and bioprocesses through the granting of operating licenses for its know-how and intellectual property, either directly or via joint ventures, to major manufacturing companies in the sectors impacted 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 THANAPLAST™ program were released according to the project's progress, and the submission of reports to Bpifrance regarding the completion of each key stage stipulated in the framework agreement signed with Bpifrance. The payment of the following subsidies was conditional upon the completion of each key stage under the relevant conditions, depending on the deliverables:

Payment year *(In euros)*	**2012** **1st payment**	**2013** **Key stage 1**	**2014** **Key stage 2**	**2015** **Key stage 3**	**2016** **Key stage 4**	**2017** **Key stage 5**	**TOTAL**
Nature of the key stage		Achievement of first results stemming from collaborative research	Move up to laboratory scale	Move up to pre-pilot phase	Move up to pilot phase	Move up to industrial scale	
Subsidies received	709,000	923,000	166,184	543,816	300,000	465,657	**3,107,657**
Advances received	644,000	757,048	546,450	1,060,502	143,000	556,214	**3,707,214**
TOTAL	**1,353,000**	**1,680,048**	**712,634**	**1,604,318**	**443,000**	**1,021,871**	**6,814,871**

From the founding of CARBIOS up until 2018 (except in 2016) the Company's activities have generated operating losses, since the projects developed have required increasing funding, while no operating revenue was recognized before the first license agreements. All R&D expenses are thus recognized as operating expenses for the year in which they are incurred.

[118] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

In 2016, the Company founded the joint venture CARBIOLICE[119] with Limagrain Céréales Ingrédients and the SPI (Sociétés de Projets Industriels) investment fund operated by Bpifrance. This company took over the production and sale of granules for the bio-sourced and biodegradable plastic products of Limagrain Céréales 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. With this agreement, CARBIOS recorded its first licensing revenue in 2016.

Since January 1, 2012, the Company's status as a Young Innovative Company has exonerated it from the payment of certain social contributions for research personnel. In addition, 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.

Payment year ***(In euros)***	**2017**	**2018**
Recognized as revenue	702,385	1,191,402
Received	1,321,137	702,385

9.2.2. General presentation of the financial statements

9.2.2.1. Simplified income statement

Audited parent company financial statements – French standards (In thousands of euros)	**12/31/2017**	**12/31/2018**
Operating revenue (*)	983	1,083
Of which revenue derived from contracts with CARBIOLICE	*797*	*929*
Operating expenses	5,635	5,323
OPERATING INCOME	**-4,652**	**-4,240**
Financial income	24	-25
CURRENT INCOME BEFORE TAXES	**-4,628**	**-4,265**
Extraordinary gain or loss	-11	-37
Income tax (research tax credit)	-702	- 1,191
PROFIT OR LOSS	**- 3,936**	**- 3,110**

9.2.2.2. Operating income

The projects conducted by the Company generated licensing revenue for the first time in 2016. Other operating income mainly stems from operating subsidies and the provision of services to the subsidiary CARBIOLICE94 recognized at the end of the fiscal years:

- At December 31, 2017: €105 thousand from the subsidy awarded by Bpifrance, corresponding to the completion of the fifth key stage of the THANAPLAST™ project.

  On February 15, 2017, the Company entered into a research service agreement with its subsidiary for a period of two years and a total amount of €1,248 thousand, of which €724 thousand had already been invoiced over the past year.

  The Company also received €55 thousand for services invoiced in 2017.

  In addition, the Company invoiced its subsidiary for a total of €76 thousand relating to the secondment of personnel, the provision of coordination services, and travel expenses.

- December 31, 2018: €24 thousand from the subsidy awarded by Bpifrance under a technology partnership assistance agreement for the period running from July 19, 2017 to April 18, 2018.

  The Company also received a grant of €70 thousand from ADEME for a feasibility study concerning the enzymatic recycling of textile fibers.

  On February 15, 2017, it entered into a research service agreement with its subsidiary CARBIOLICE for a period of two years and a total amount of €1,248 thousand. This agreement was subsequently modified by

[119] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

an amendment extending it until 2021, and raising its amount to €2,500 thousand. In this regard, the Company invoiced its subsidiary for €724 thousand in 2018.

The Company also re-invoiced a total of €131 thousand to its subsidiary for fees regarding regulatory matters and various tests in accordance with the agreements signed.

In addition, the Company invoiced its subsidiary for a total of €77 thousand relating to the supply of equipment, the provision of coordination services, and staff travel expenses.

9.2.2.3. 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)	2017	2018
Other costs and external expenses		
External studies, subcontracting and scientific consultations	927	1,299
Consumables	55	51
Supplies	55	46
Rentals, maintenance and upkeep expenses	187	229
Fees	872	745
Business travel	129	173
Miscellaneous expenses	89	102
Total other expenses and external expenses	**2,314**	**2,646**
Taxes and similar payments	32	28
Salaries and wages	1,647	1,628
Social security contributions	566	582
Depreciation of fixed assets	240	299
Other expenses	835	139
TOTAL OPERATING EXPENSES	**5,635**	**5,323**

2017

In 2017, CARBIOS' operating expenses amounted to **€5,635 thousand**, of which 53% was dedicated to research. This research primarily focused on the progress of the THANAPLAST™ project.

The drop in the amount of resources dedicated to R&D in 2017 was mainly due to:

- The fall in external R&D expenses, mainly due to the ending of major contracts for the THANAPLAST™ project, and the insourcing of research work;
- The recruitment of three people in 2017 (a Deputy CEO, a Chief Legal Officer, and a Regulatory Affairs Officer), demonstrating the Company's intention to deploy major efforts to set up strategic projects and partnerships, and seek investors, not considered as R&D expenses;
- The increase in "Other expenses" (excluding R&D) including the patent license fee of €720 thousand, excluding VAT, payable to the CNRS (see Note 11 to the annual financial statements).

2018

In 2018, CARBIOS' operating expenses amounted to **€5,323 thousand**, of which 58% was dedicated to research. This effort was mainly focused on the development of the biorecycling process for PET fibers and plastics.

The rise in the amount of resources dedicated to R&D in 2018 mainly stemmed from the increase in external R&D expenses eligible for the French research tax credit (CIR) chiefly due to the acceleration of developments and the launch of the CE-PET project.

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;
- The structural costs of the Company's R&D department.

9.2.2.4. Financial income and expenses

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. On November 23, 2018, the Company obtained a loan of €1,500 thousand from Bpifrance at a rate of 3.03%, while the conditional advances granted by Bpifrance are interest-free.

Financial income (in thousands of euros)	**2017**	**2018**
Financial income	59	10
Financial expenses	35	35
FINANCIAL INCOME	**24**	**-25**

Financial income comes from interest on placements of available cash.

In 2018, financial expenses consisted of €9 thousand in commissions relating to the exercise of BSAs, interest of €5 thousand on the loan from Bpifrance, and a provision of €20 thousand for unrealized losses on the treasury shares held at the year end.

9.2.2.5. Net income

Net income (in thousands of euros)	**2017**	**2018**
CURRENT INCOME BEFORE TAXES	-4,628	-4,265
EXTRAORDINARY GAIN OR LOSS	-11	-37
Income tax (research tax credit)	-702	- 1,191
PROFIT OR LOSS	**- 3,936**	**- 3,110**

- Concerning 2017: an exceptional loss of €11 thousand was recognized. This mainly stems from a loss on treasury shares amounting to €19 thousand, partly offset by a gain of €10 thousand from the EuropaBio prize awarded to the Company in 2017. CARBIOS benefited from a Research Tax Credit of €702 thousand, calculated on the basis of eligible expenses for the research and development undertaken by the Company in 2017.
- Concerning 2018: an exceptional loss of €37 thousand was recognized. This mainly stems from a loss on treasury shares amounting to €45 thousand and the net book value of assets disposed of (€8 thousand), offset by supplier-related inflows of €6 thousand and prior years' adjustments amounting to €8 thousand. CARBIOS benefited from a Research Tax Credit of €1,191 thousand, calculated on the basis of eligible expenses for the research and development undertaken by the Company in 2018.

9.2.2.6. Financial position

(in thousands of euros)	2017	2018		2017	2018
FIXED ASSETS			**EQUITY**		
Intangible assets	***565***	***691***	Capital	3,200	3,260
Concessions, patents, licenses, software	565	691	Issue, merger and contribution premiums	18,588	19,129
Property, plant and equipment	***1,106***	***971***	Retained earnings	- 3,319	- 7,256
Office and IT equipment	35	25	Investment subsidies	17	15
Laboratory equipment and material	1,017	889	Profit and loss for the period	- 3,936	- 3,110
Fixtures and fittings	54	57	**TOTAL EQUITY**	**14,550**	**12,038**
Advances on assets under construction					
Financial assets	***9,680***	***10,802***			
Equity interests	9,500	10,600			
Deposits and guarantees	23	110	**OTHER EQUITY CAPITAL**		
Liquidity contract	78	19	Conditional advances	**3,707**	**3,707**
Treasury shares	79	73			
TOTAL FIXED ASSETS	**11,350**	**12,464**			
CURRENT ASSETS			**DEBT**		
Receivables	364	70			
State-- receivables	1,091	1,375	Loans	339	1,866
Subsidies receivable			Trade payables and related accounts	1,432	1,061
Laboratory raw material inventories	14	15	Tax and social liabilities	455	475
Other receivables	1	34	Other liabilities	37	2
Cash, cash equivalents and marketable securities	7,547	5,149	Subsidies received in advance		
Prepaid expenses	155	38			
TOTAL CURRENT ASSETS	**9,171**	**6,680**	**TOTAL LIABILITIES**	**2,264**	**3,404**
Deferred expenses		6			
OVERALL TOTAL	**20,521**	**19,149**	**OVERALL TOTAL**	**20,521**	**19,149**

2017

Working capital amounted to €7,247 thousand, up €2,076 thousand compared to 2016, due to the difference between:

- The year's fixed resources up €6,146 thousand, composed of the capital increase of €5,375 thousand and the amount received in respect of repayable advances, loans and subsidies, i.e. €771 thousand;
- And the Company's needs, up €4,071 thousand, i.e. net operating cash flow of -€3,705 thousand, gross capital expenditure of €312 thousand, and loan repayments for €54 thousand.

The working capital requirement stood at -€300 thousand (cash surplus), down €1,484 thousand compared to 2016, due to:

- The €938 thousand increase in supplier credit (including the CNRS debt of €960 thousand);
- The drop in the outstanding CIR refund (€702 thousand in 2017, versus €1,321 thousand in 2016).

With working capital of €7,247 thousand and a cash surplus of €300 thousand, the cash position stood at €7,547 thousand at December 31, 2017.

2018

Working capital amounted to €5,142 thousand, down €2,105 thousand compared to 2017, due to the difference between:

- The year's fixed resources down €634 thousand, composed of the capital increase of €601 thousand and the amount received in respect of loans, i.e. €1,550 thousand net, absorbed by the net operating cash flow of -€2,785 thousand;
- And the Company's needs, up €1,471 thousand, i.e. gross capital expenditure of €1,441 thousand, loan repayments of €23 thousand, and deferred expenses of €6 thousand.

The working capital requirement stood at -€8 thousand (cash surplus), up €293 thousand compared to 2017, due to:

- The €371 thousand drop in supplier credit (settlement of part of the CNRS debt, i.e. €480 thousand);
- The drop in the outstanding CIR refund (€1 191 thousand in 2018, versus €702 thousand in 2017).

With working capital of €5,142 thousand and a cash surplus of €8 thousand, the cash position stood at €5,149 thousand at December 31, 2018.

9.2.2.7. Information on terms of payment

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

	Article D. 4411.1: Invoices *received,* outstanding and past due on the closing date						**Article D. 4411.2: Invoices *issued, outstanding and past due on the closing date***					
	0 day (indicative)	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days or more**	**Total (1 day or more)**	***0 day (indicative)***	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days or more**	**Total (1 day or more)**
(A) Overdue payment brackets												
Number of invoices involved						**6**						**1**
Total amount of invoices involved, excl. tax		8,684				8,684		24,000				**24,000**
Percentage of the year's total purchases, excl. tax		1%				1%						
Percentage of the year's revenue, excl. tax								3%				**3%**
(B) Invoices excluded from (A) concerning disputed or non-recognized debts or receivables												
Number of excluded invoices												
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 payment	**Contractual payment terms: invoice due date**						**Contractual payment terms: 30 days from the invoice date**					

9.2.3. Government, economic, fiscal, monetary or political factors that have materially affected, or could materially affect, directly or indirectly, the Issuer'soperations

For the THANAPLAST™ project, the Company obtained five-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.

Recent regulations on waste, such as the Law on Energy Transition for Green Growth (section 6.5.5 of this Registration Document) and the Circular Economy package adopted by the European Commission (section 6.2.1 of this Registration Document), can also present opportunities for the Company, in particular in terms of revenue.

10. CASH AND CAPITAL RESOURCES

10.1. Information concerning the Issuer's capital

In thousands of euros	12/31/2017	12/31/18
Equity	**14,550**	**12,038**
Other equity capital (conditional advances)	3,707	3,707
Loans and financial liabilities	339	1,866
Cash and cash equivalents	7,547	5,149
Debt (Cash) - Net position	**(7,208)**	**(3,283)**
Net financial debt to equity	**N/A**	**N/A**

If the projects are successful, the repayable advances recognized as quasi-equity will become liabilities to be repaid. As at December 31, 2018, repayable advances totaled €3,707 thousand.

10.2. Cash flows

In thousands of euros	2017	2018
Cash flows related to operations (A)		
Profit and loss for the period	- 3,936	- 3,110
Depreciation and amortization (including investment subsidies)	231	325
Changes in working capital requirements for operations	1,485	-293
Net cash absorbed by operations	***- 2,220***	***- 3,078***
Cash flows related to investments (B)		
Acquisitions of fixed assets	- 331	-299
Acquisition of financial assets	19	- 1,142
Change in fixed asset liabilities		
Net cash absorbed by investments	***- 312***	***- 1,441***
Cash flow related to financing activities (C)		
Net proceeds from the issuance of shares and BSAs	5,375	601
Inflows from loans	- 54	1,521
Inflows from repayable advances and investment subsidies	771	
Net cash from financing activities	***6,092***	***2,122***
Change in cash and cash equivalents (A + B + C)	***3,560***	***-2,398***
Cash and cash equivalents at the beginning of the period	3,987	7,547
Cash and cash equivalents at the end of the period	***7,547***	***5,149***

2017

The cash flow absorbed by the Company's operations amounted to €2,220 thousand. This was notably due to the accounting loss recognized. As for investment flows, they absorbed €312 thousand, mainly from patent acquisitions and work on the facilities.

Financing operations generated cash flows of €6,092 thousand:

- Of which a capital increase and issue premiums of €5,375 thousand;
- The Company received €556 thousand from Bpifrance for the fifth and last key stage of the THANAPLAST™ project, as well as €215 thousand from Bpifrance for an innovation project;
- The Company repaid the FIAD interest-free loan of €31 thousand and the advance granted by FMR 63 in the amount of €23 thousand.

2018

The cash flow absorbed by the Company's operations amounted to €3,078 thousand. This was notably due to the accounting loss recognized. As for investment flows, they absorbed €1,441 thousand, mainly due to the acquisition of a €1,100 thousand stake in the subsidiary CARBIOLICE.

Financing operations generated cash flows of €2,122 thousand:

- Of which a capital increase and issue premiums of €601 thousand;
- A loan obtained from Bpifrance for €1,500 thousand and the balance of the BPI innovation grant for €50 thousand.

Concerning the Company's liquidity risk, please refer to section 4.6.1 of this Registration Document.

10.3. Borrowing conditions and financing structure

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

An interest-free loan of €152 thousand was granted by the Auvergne regional authority (FIAD) to finance the set-up of a development laboratory comprising two platforms (fermentation and plasturgy). 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 of €30 thousand, after a two-year grace period. Since the repayment of this grant is not conditional, the loan was recognized as a financial liability in the balance sheet.

A repayable interest-free advance of €70 thousand was granted by the association FMR 63 for business development and job creation purposes. It will be repaid over a period of 36 months from the grant date, i.e. October 30, 2015, after a six-month grace period.

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 revenue of €10 million generated by the exploitation of products resulting from the THANAPLAST™ program:

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 revenue 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 is capped at €7.1 million.

In 201, the Company received the remaining €50 thousand installment out of the €265 thousand grant from Bpifrance for an innovation project. Repayment will take place quarterly starting on March 31, 2019 through progressive annual installments. The total amount will be repayable, given the recorded success of the project.

On November 23, 2018, the Company obtained a 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 two years, constant capital repayments of €75 thousand will take place from March 31, 2021 to December 31, 2025.

10.4. Restrictions on the use of capital that have materially affected, or could materially affect, the Issuer's operations, either directly or indirectly

None.

10.5. Expected sources of funding

On January 10, 2019, CARBIOS and TWB obtained funding of €7.5 million granted by the Secrétariat Général pour l'Investissement (SGPI) within the framework of the Programme d'Investissement d'Avenir (PIA) – a forward-looking investment program operated by ADEME. Over a period of 39 months, this funding will support the upscaling of CARBIOS' industrial and commercial project in the field of biorecycling of PET fibers and plastic waste. This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in instalments throughout the CE-PET project term[120].

As project leader and coordinator, CARBIOS will strive to accelerate the industrialization of its technology for the biorecycling of PET fibers and plastic. For this, it may obtain up to €4.1 million. The terms and conditions of the contracts to be concluded between TWB and CARBIOS within the framework of this project will be governed by the rules defined by the TWB consortium agreement, which is expected to be signed in 2019. However, in accordance with TWB competitive agreements rules, CARBIOS should have full ownership of the results obtained from this project.

[120] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

11. RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES

11.1. Research and Development

The Company is a biotech company whose main activity is research and the development of innovative industrial bioprocesses aimed at optimizing the technical, economic and environmental performance of polymers by exploiting the biological properties of enzymes.

The Company's operations and results are mainly impacted by the R&D expenses for the various projects it undertakes. To this end, the Company has entered into collaboration agreements with academic research institutions: the University of Poitiers, INRA Toulouse and the CNRS, with whom it set up a cooperative laboratory on the Poitiers site. The Company also has its own research laboratory on its Saint-Beauzire site. In 2018, it launched the set-up of a technical center in Riom (Puy-de-Dôme) dedicated to the control of its PET biorecycling technology.

Since January 1, 2012, the Company benefits from the status of Young Innovative Company. In addition to being exempt from social contributions for its research personnel, since January 1, 2012, the Company has been eligible for French Research Tax Credit (CIR), a scheme that grants a refundable tax credit to companies investing significant amounts in R&D. However, since January 1, 2019, Carbios no longer holds the status of Young Innovative Company.

Over the past three fiscal years, CARBIOS spent €17.3 million on operating activities, of which 55% was dedicated to the Company's research and development activities, amounting to around €9.5 million. This expenditure mainly concerns the scientific outsourcing and collaborative work conducted for the THANAPLAST™ and CE-PET project[121].

Moreover, CARBIOS invested in fittings and equipment for a biological process development platform, operational since 2014, as well as a plasturgy development platform inaugurated in July 2015. At December 31, 2018, these investments totaled around €1.5 million (gross value) and are set to continue.

11.2. INDUSTRIAL PROPERTY

The Company's commercial success largely depends on its ability to obtain patents to protect its concepts, its products, and the resulting processes.

Given the capital importance of patents in its business sector, the Company has leading intellectual property experts within its Board of Directors, along with experts in biotechnologies, plasturgy and fossil energies. In addition, the Company is assisted by an intellectual property consultancy firm. It also adheres to a policy of always filing patent applications at an early stage in order to optimize their priority rights. The average waiting time between the patent application date and the granting of the patent is sometimes long and varies according to countries (between three and six years). However, the Company obtains provisional protection as from the initial filing date.

As a technology integrator, the Company had, as of December 31, 2018, filed 27 proprietary patent applications, acquired one patent application previously held by Setup Performance, and obtained an exclusive worldwide license for the use of a family of patents held by the CNRS, the University of Poitiers and Valagro.

These patent applications cover all of the processes developed by the Company, i.e. for the production of biodegradable plastics, the recycling of plastic waste, the production of biopolymers, biodiversity and innovation.

With each of its partners, CARBIOS is co-owner of the results obtained in each program defined within the THANAPLAST™ project. For all of these results, it holds exclusive worldwide exploitation rights in the Company's fields of activity.

For the CE-PET project[122], the terms and conditions of the contracts to be concluded between TWB and CARBIOS will be governed by the rules defined by the Toulouse White Biotechnology (TWB) consortium agreement, which is expected to be signed in 2019. However, in accordance with TWB's rules regarding competitive agreements, CARBIOS should have full ownership of the results obtained under this project.

[121] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

[122] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

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.

11.2.1. Trademarks and licenses

The Company has registered the following trademarks:

- Two French CARBIOS word marks registered with the INPI (Institut National de la Propriété Industrielle) 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 mark registered with the WIPO (World Intellectual Property Organization) on September 13, 2012, under number 1149637, for asset classes 1, 5 and 42, applicable in the European Union, the United States, China, Algeria and Morocco;
- A French word mark, THANAPLAST™, registered with the INPI on March 15, 2012, under number 3905275, for asset classes 1, 16, 40 and 42;
- An international word mark, THANAPLAST™, registered with the WIPO on September 13, 2012, under number 1135512, for asset classes 1, 16, 40 and 42.

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.

11.2.2. Domain names

The following domain names have been registered in the name of CARBIOS since April 12, 2011:

Domain name	Registration date	Validity end date
www.carbios.fr	04/12/2011	4/8/2019
www.carbios.org	04/12/2011	4/8/2019
www.carbios.net	04/12/2011	4/8/2019
www.carbios.eu	04/12/2011	4/8/2019

11.2.3. Intellectual property disputes

At the date of this Registration Document, the Company had no involvement in any intellectual property disputes.

12. INFORMATION ON TRENDS

Main trends since December 31, 2018

At the date of this Registration Document, CARBIOS remains confident in its ability to continue the developments under way.

On January 17, 2019, the Company announced that it had obtained funding of €7.5 million in partnership with TWB to accelerate the industrialization of the biorecycling of PET fibers and plastics.

On January 29, 2019, the Company announced that it had concluded with CARBIOLICE a co-development agreement with NOVOZYMES for the production and supply of enzymes on an industrial scale.

On February 27, 2019, the Company announced that it had produced its first PET bottles using 100% biorecycled plastic waste through its enzyme technology.

On March 28, 2019, the Company announced that it had obtained a US patent for its enzymatic PET recycling technology.

– Press Release –

CARBIOS and TWB receive €7.5 million funding to accelerate the industrialization of the biorecycling of PET plastics and fibers

- **Funding from the Investments for the Future Program operated by ADEME**
- **€4.1 million for CARBIOS**
- **New step towards the industrialization**
- **New opportunities in the recycling of fibers and textile**

Clermont-Ferrand, France, January 17, 2019 (6:00 PM CET) – CARBIOS (Euronext Growth Paris: ALCRB), a pioneer company in the field of bioplasturgy, and Toulouse White Biotechnology (TWB) today announce €7.5 million of funding from the Investments for the Future Program operated by ADEME to support, over a period of 39 months, the scale-up of the Company's industrial and commercial PET plastics and fibers biorecycling project.

PET is one of the most common polymers on the market. It is used to make everyday consumer goods such as bottles, packaging and fibers especially for clothing. 70 million tons of PET are produced each year from fossil resources[1]. Since 2012, CARBIOS develops a world pioneering process enabling to produce new virgin plastics from waste plastics according circular economy principles.

The €7.5 million funding has been granted by the General Secretariat for Investments (SGPI) as part of the Investments for the Future Program operated by ADEME for circular economy projects. This funding, which comes in the form of grants and conditional advances, will be paid in several instalments over the period of this CE-PET project[2] and includes a first payment of 15%.

CARBIOS, coordinator and lead manager of the project, will oversee the acceleration of the industrialization of its PET plastics and fibers technology, and will be able to receive up to €4.1million.

Jean-Claude LUMARET, CEO of CARBIOS comments: « *We would like to thank the French environment and energy management agency for its renewed confidence in the innovations developed by CARBIOS. This funding represents an important step that will allow us to accelerate the industrialization of our technology.*"

For **Pierre MONSAN, Founder of TWB**: "*We are very proud of the scientific milestones achieved through this collaboration between CARBIOS and TWB. Our partnership has led to the emergence of new sustainable and eco-friendly solutions to the management of plastics lifecycle. This funding highlights the commitment of French public authorities to make possible the industrial development of innovative processes that can become key alternatives to conventional chemistry.*"

[1] Source: IHS Markit IN 2018
[2] Circular Economy PET Project

About CARBIOS:

CARBIOS is a green chemistry company whose innovations provide solutions to the environmental and sustainable development issues that manufacturers currently face. Since its founding in 2011, the company has developed two industrial-scale biological processes for the biological breakdown and recycling of polymers. These unique innovations help optimise the performance and life cycle of plastics and textiles by capitalizing on the properties of specially selected enzymes. CARBIOS's economic growth model is based on the industrial roll-out and sale of its products, enzymes, technologies and biological processes through direct licence agreements or joint ventures, to major players in the fields to whom they would most benefit. To that end, CARBIOS founded the joint venture CARIOLICE in 2016, in partnership with Limagrain Céréales Ingrédients and the fund SPI, run by Bpifrance. This company, in which CARBIOS holds a controlling share, will market the first technology licensed by CARBIOS by producing enzyme pellets used in the production of biodegradable and bio-sourced plastics. Since its founding, CARBIOS has been backed by Truffle Capital, a European investment capital player. CARBIOS qualifies as an "Innovative Company" according to Bpifrance, which makes the company's shares eligible for inclusion in innovation-focused mutual funds (FCPIs). For more information, please visit: www.carbios.fr

CARBIOS is also eligible for inclusion in SME share savings accounts (PEA-PMEs).

This press release does not constitute and cannot be regarded as constituting an offer to the public, an offer to sell or a subscription offer or as a solicitation to solicit a buy or sell order in any country.
Translation for information purposes only. In case of discrepancy between the French and the English version of this press release, the French version shall prevail.

Contacts :

CARBIOS
Benjamin Audebert
Investor Relations
+33 (0)4 73 86 51 76
contact@carbios.fr

ALIZE RP
Caroline Carmagnol
Press Relations
+33 (0)1 44 54 36 66
carbios@alizerp.com

– Press Release –

CARBIOS and CARBIOLICE enter into a joint development agreement with NOVOZYMES for long-term supply of enzymes at industrial-scale

- **A collaboration to develop solutions for global plastic challenges**
- **First enzyme-based solution for the end-of-life of plastics**

Clermont-Ferrand, France, January 29, 2019 (06:40 AM CET) – CARBIOS (Euronext Growth Paris: ALCRB) announced today the execution of a joint development agreement between the world-leading enzymes producer NOVOZYMES, CARBIOS and its subsidiary CARBIOLICE.

Joint-Development Agreement

Under the terms of this multi-year agreement, NOVOZYMES will upscale and produce CARBIOS' proprietary enzymes. NOVOZYMES commits to become long-term exclusive supplier of plastics degrading enzymes to CARBIOLICE, a subsidiary to CARBIOS. This collaboration is a world premiere in the field of bioplasturgy that aims to act as a catalyst by making single use plastics environmentally-friendly and cost competitive.

Industrial roll-out

CARBIOLICE, the joint-venture created by CARBIOS, Limagrain Céréales Ingrédients and Bpifrance (the financial might of France's sovereign wealth fund), will produce and commercialize a new generation of products enabling single-use plastics to be fully biodegradable in any environmental condition.

The range of commercial applications in target are single-use plastics for grocery and retail bags, rigid and flexible packaging, disposable tableware and agricultural mulch films. With this technology, CARBIOLICE will have the opportunity to take a leading position on the market by addressing the major environmental concern with single-use plastics, and by this prevent their widespread use from harming our environment.

CARBIOS will be entitled to receive royalty payments from CARBIOLICE as of the commercial launch, expected in 2020.

A general commitment to preserve our planet

CARBIOS, CARBIOLICE and NOVOZYMES are today joining efforts to tackle plastics environmental impact. Together, the companies aim to provide a breakthrough solution that allows the biodegradation of single-use plastics in an eco-friendly manner that has never been achieved before.

Jens KOLIND, VP Technical Industries at NOVOZYMES comments: *"We are excited to be part of this joint collaboration where we work together on finding biological solutions to answer one of the biggest challenges of our time."*

Jean-Claude LUMARET, CEO of CARBIOS adds: *"The market of single-use plastics raises major environmental concerns and our sustainable and inventive approach is now opening huge opportunities to fulfil industrials and consumers demand while fighting the threat of plastic pollution. We are proud of this partnership with the world leading enzymes producer NOVOZYMES, that gives us the strength to launch at large-scale the most advanced eco-friendly solution for the biodegradation of plastics."*

Nadia AUCLAIR, CEO of CARBIOLICE comments: *"This major agreement with NOVOZYMES secures our long-term supply of enzymes to move from traditional manufacturing to sustainable solutions that meet strong market demand. Today, we are proud to make of our solution, an industrial and commercial reality."*

About CARBIOS:

CARBIOS is a green chemistry company whose innovations provide solutions to the environmental and sustainable development issues that manufacturers currently face. Since its founding in 2011, the company has developed two industrial-scale biological processes for the biological breakdown and recycling of polymers. These unique innovations help optimise the performance and life cycle of plastics and textiles by capitalizing on the properties of specially selected enzymes. CARBIOS's economic growth model is based on the industrial roll-out and sale of its products, enzymes, technologies and biological processes through direct licence agreements or joint ventures, to major players in the fields to whom they would most benefit. To that end, CARBIOS founded the joint venture CARIOLICE in 2016, in partnership with Limagrain Céréales Ingrédients and the fund SPI, run by Bpifrance. This company, in which CARBIOS holds a controlling share, will market the first technology licensed by CARBIOS by producing enzyme pellets used in the production of biodegradable and bio-sourced plastics. Since its founding, CARBIOS has been backed by Truffle Capital, a European investment capital player. CARBIOS qualifies as an "Innovative Company" according to Bpifrance, which makes the company's shares eligible for inclusion in innovation-focused mutual funds (FCPIs). For more information, please visit: www.carbios.fr

CARBIOS is also eligible for inclusion in SME share savings accounts (PEA-PMEs).

Contacts :

CARBIOS

Benjamin Audebert
Investor Relations
+33 (0)4 73 86 51 76
contact@carbios.fr

ALIZE RP

Caroline Carmagnol
Press Relations
+33 (0)1 44 54 36 66
carbios@alizerp.com

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About CARBIOLICE:

CARBIOLICE is a meaningful joint-venture established in 2016, based on the shared and complementary ambitions of CARBIOS, a green chemical company developing enzymatic technologies; of the SPI investment fund operated by Bpifrance; and LIMAGRAIN CÉRÉALES INGRÉDIENTS (LCI), a global seed company.

CARBIOLICE has endorsed the statement made by the Ellen MacArthur Foundation which advocates the ban of oxo-degradable plastic throughout the world.

Contact:
Marilys Mazères, Communication Officer
marilys.mazeres@carbiolice.com
+33 (0)4 73 33 03 00

About NOVOZYMES:

NOVOZYMES is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future.

We call it Rethink Tomorrow. www.novozymes.com

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– Press Release –

CARBIOS produces first PET-bottles from 100% recycled plastic waste using Company's breakthrough technology

- **Process can repeatedly recycle all kinds of PET plastic waste**
- **An industrial solution to achieve brand-owners' sustainability goals**
- **Innovative tech strives to help create a cleaner planet through a circular economy, resulting in less oil and gas consumption**

Clermont-Ferrand, France, February 27, 2019 (06:45 AM CET) – CARBIOS (Euronext Growth Paris: ALCRB), a company pioneering new, bioindustrial solutions to reinvent the lifecycle of plastic and textile polymers, today announced it has successfully produced the first PET-bottles made with 100% Purified Terephthalic Acid (rPTA), through the enzymatic biorecycling of plastic waste. This major milestone is a world-first and confirms the potential of the company's technology to engage the whole industry in a responsible transition towards a circular economy.

Alain Marty, Chief Scientific Officer at CARBIOS, comments, *"We have successfully developed the first biological process with which all kinds of PET plastic waste can be broken down into its original components and reused to produce virgin plastic products for applications such as PET-bottles. This new step shows the strong potential of CARBIOS' enzymatic technology and provides a breakthrough solution to help solve society's growing waste problem."*

Previously, CARBIOS demonstrated that its proprietary biorecycling technology, based on the use of bioengineered enzymes, had the ability to turn PET plastic waste back into its original components at a rate of 97% in only 16 hours. It had also demonstrated that virgin PET can be made with 100% rPTA via its proprietary biorecycling process, which uses all kinds of post-consumer PET plastic bottles (clear, colored, opaque, complex). By demonstrating today that 100% rPTA can be used to produce PET-bottles that match brand and customer requirements, this technology proves to be a potential game-changer in the transition towards a circular economy that will benefit the environment and future generations.

PET is the most common polyester on the market. It is used to produce plastic packaging, textile fibers, and nearly 500 billion units of plastic bottles each year[1]. It is a market expected to grow 4.8% annually, from 2017 to 2025[2]. By decoupling the production of new plastic bottles from petrochemical feedstock[3] and making waste collection economically more viable, CARBIOS' technology offers a sustainable and efficient solution to change the way we produce some of the most commonly used plastic products and meet the needs of brand-owners and consumers.

[1] Source: Citi GPS - Global Perspectives & Solutions – Rethinking Single-Use Plastics (August 2018)
[2] Source: https://www.recycling-magazine.com/2019/01/24/market-study-sees-lots-of-potential-for-recycled-plastic/
[3] See interesting reference: How much oil is used to make plastic? https://www.eia.gov/tools/faqs/faq.php?id=34&t=6

Jean-Claude Lumaret, CEO of CARBIOS, adds, *"The plastics industry faces fundamental challenges related to sustainability. Our technology, based on a circular model, reuses resources rather than consuming them. This new milestone takes us one step closer to bringing our technology to the market. With the construction of our demonstration plant to start later this year, we're aiming to engage the whole plastics industry in a transition towards a circular economy and take a leadership role as a global license provider for the biorecycling of PET plastics and fibers."*

Follow the link to discover more in video: Here

About CARBIOS:

CARBIOS is a green chemistry company whose innovations provide solutions to the environmental and sustainable development issues manufacturers currently face. Since its founding in 2011, the company has developed two industrial-scale biological processes for the biological breakdown and recycling of polymers. These unique innovations help optimise the performance and life cycle of plastics and textiles by capitalizing on the properties of specially selected enzymes. CARBIOS's economic growth model is based on the industrial roll-out and sale of its products, enzymes, technologies and biological processes through direct licence agreements or joint ventures, to major players in the fields to whom they would most benefit. To that end, CARBIOS founded the joint venture CARBIOLICE in 2016, in partnership with Limagrain Céréales Ingrédients and the SPI fund, run by Bpifrance. This company, in which CARBIOS holds a controlling share, will market the first technology licensed by CARBIOS by producing enzyme pellets used in the production of biodegradable and bio-sourced plastics. Since its founding, CARBIOS has been backed by Truffle Capital, a European investment capital player. CARBIOS qualifies as an "Innovative Company" according to Bpifrance, which makes the company's shares eligible for inclusion in innovation-focused mutual funds (FCPIs). For more information, please visit: www.carbios.fr
CARBIOS is also eligible for inclusion in SME share savings accounts (PEA-PMEs).

CARBIOS
Benjamin Audebert
Investor Relations
contact@carbios.fr
+33 (0)4 73 86 51 76

Media Relations (Europe)
Alize RP
Caroline Carmagnol
carbios@alizerp.com
+33 (0)1 44 54 36 66

Media Relations (U.S.)
Rooney Partners
Kate L. Barrette
kbarrette@rooneyco.com
+1 212 223 0561

– Press Release –

CARBIOS announces grant of U.S. patent for its PET recycling technology

- Company's PET enzymatic recycling technology recognized for its patentability
- Core process and technology protected until 2033
- CARBIOS now holds 29 patent families worldwide, 11 related to PET recycling technology

Clermont-Ferrand, France, March 28, 2019 (06:45 AM CET) – CARBIOS (Euronext Growth Paris: ALCRB), a company pioneering new, bioindustrial solutions to reinvent the lifecycle of plastic and textile polymers, is pleased to announce that the United States Patent and Trademark Office (USPTO) has granted CARBIOS a patent on its proprietary process for PET recycling from plastic waste using enzymatic technology.

The patent granting (US 10,124,512) recognizes CARBIOS for its invention of a method for recycling polyethylene terephthalate (PET) from a mixture of plastic waste products using enzymes, to specifically depolymerize PET into its basic monomers. The monomers can then be transformed back into usable polymers for the manufacturing of new plastic products, such as bottles and packaging.

This patent, filed back in November 2013 by CARBIOS, is the first granted patent in the U.S. applied to this innovative PET plastic recycling method. This U.S. patent protects CARBIOS' proprietary innovation through 2033. Beside the acceptance of this patent, CARBIOS currently holds 98 titles worldwide representing 29 patent families, six of which protect in full its proprietary method of biorecycling and five of which are related to PET degrading enzymes.

Jean-Claude Lumaret, CEO of CARBIOS, comments, *"This patent strengthens our competitive position for the recycling of PET and it is gratifying to have the United States Patent and Trademark Office recognize the innovative nature of our proprietary technology."*

North America (United States, Canada, and Mexico) represents a significant contribution of the global PET market, producing 7% (4,6 Mt)[1] and consuming 21% (14,6 Mt)[2] of the world's PET. The U.S. acceptance of CARBIOS' patent on its process for PET recycling from plastic waste using enzymatic technology further confirms the strength of its intellectual property rights and paves the way for the Company's expansion within this market.

CARBIOS' biological process for depolymerizing PET allows for the development of a cost-efficient circular economy for plastic recycling without the need for extensive sorting generally required by

[1] Source: IHS Markit in 2018
[2] Source: IHS Markit in 2018, Transparency Market Research in 2015 and Pira International in 2012

conventional thermo-mechanical or chemical methods. Indeed, biorecycling of PET plastic using CARBIOS' technology could lead to a much higher rate of efficient plastic recycling worldwide.

About CARBIOS:

CARBIOS is a green chemistry company whose innovations provide solutions to the environmental and sustainable development issues manufacturers currently face. Since its founding in 2011, the company has developed two industrial-scale biological processes for the biological breakdown and recycling of polymers. These unique innovations help optimise the performance and life cycle of plastics and textiles by capitalizing on the properties of specially selected enzymes. CARBIOS's economic growth model is based on the industrial roll-out and sale of its products, enzymes, technologies and biological processes through direct licence agreements or joint ventures, to major players in the fields to whom they would most benefit. To that end, CARBIOS founded the joint venture CARBIOLICE in 2016, in partnership with Limagrain Céréales Ingrédients and the SPI fund, run by Bpifrance. This company, in which CARBIOS holds a controlling share, will market the first technology licensed by CARBIOS by producing enzyme pellets used in the production of biodegradable and bio-sourced plastics. Since its founding, CARBIOS has been backed by Truffle Capital, a European investment capital player. CARBIOS qualifies as an "Innovative Company" according to Bpifrance, which makes the company's shares eligible for inclusion in innovation-focused mutual funds (FCPIs). For more information, please visit: www.CARBIOS.fr
CARBIOS is also eligible for inclusion in SME share savings accounts (PEA-PMEs).

CARBIOS
Benjamin Audebert
Investor
Relationscontact@carbios.fr
+33 (0)4 73 86 51 76

Media Relations (Europe)
Alize RP
Caroline Carmagnol
carbios@alizerp.com
+33 (0)1 44 54 36 66

Media Relations (U.S.)
Rooney Partners
Kate L. Barrette
kbarrette@rooneyco.com
+1 212 223 0561

13. PROFIT FORECASTS OR ESTIMATES

The Company does not publish any profit forecasts or estimates.

14. ADMINISTRATIVE BODIES AND GENERAL MANAGEMENT

14.1. 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 21.2 of this Registration Document.

At the Board meeting of December 6, 2018, Ian Hudson was appointed Chairman of the Board of Directors, effective from January 1, 2019, following the resignation of Jean Falgoux as Chairman of the Board of Directors effective from January 1, 2019.

The Annual Ordinary and Extraordinary Shareholders' Meeting of June 14, 2018 decided not to renew the terms of office of Dominique Even and Pascal Juéry as directors. At its meeting of December 6, 2018, the Board of Directors took note of the vacancy of a Director's sear following the death of Dominique Even.

14.1.1. Composition of the Board of Directors

At the date of this Registration Document, the Board of Directors was composed of the following nine members:

Forename-Surname or company name	Main duties within the Company	Gender	Main duties outside the Company	Age	Nationality	First appointment	Member of a committee
Ian Hudson	Chairman of the Board of Directors from January 1, 2019	Male	Member of the Management Advisory Board of Towerbrook Capital Partners L.P.	62	British	12/15/2016	-
Jean-Claude Lumaret	Director, Chief Executive Officer and Chief Technical Officer	Male	Chairman of CARBIOLICE	61	French	2/20/2013	-
Jacqueline Lecourtier	Independent Director	Female	Consulting engineer in the field of energy and the environment	67	French	2/20/2013	-
TRUFFLE CAPITAL, represented by Philippe Pouletty [123]	Director	Male	Chief Executive Office ofTruffle Capital SAS	60	French	10/22/2013[124]	-
Pascal Juéry	Independent Director	Male		53	French	6/5/2014	-
Jean Falgoux	Chairman of the Boardof Directorsuntil December 31,2018 - Director	Male	Director of Bluestar Adisseo Company	67	French	6/24/2015	-
Alain Chevallier	Director	Male	Partner Life Sciences at Truffle Capital	65	French	2/20/2013	Audit Committee
Jacques Breuil	Independent Director	Male	-	66	French	6/15/2017	Audit Committee
Godefroy Motte	Independent Director	Male	Chairman of Adrialis SASU	60	French	2/20/2019[125]	-

[123] At its meeting of September 20, 2018, the Board of Directors took note of the resignation of Eric Arnoult (known as Erik Orsenna) and decided to co-opt TRUFFLE CAPITAL, represented by Philippe Pouletty, as new director.

[124] First appointment of TRUFFLE CAPITAL, represented by par Philippe Pouletty, on October 22, 2013. On September 27, 2016, the Board of Directors took note of the resignation of TRUFLLE CAPITAL, represented by Philippe Pouletty. On September 20, 2018, TRUFFLE CAPITAL, represented by Philippe Pouletty, was once again appointed member of the Company's Board of Directors.

[125] Godefroy Motte was co-opted to replace Dominique Even for the remainder of his term of office, i.e. until the close of the Company's Shareholders' Meeting called in 2022 to approve the financial statements for the year ended December 31, 2021. His appointment will be submitted for ratification at the next Shareholders' Meeting convened to approve the financial statements for the fiscal year ended December 31, 2018.

Each of the directors is domiciled at the Company's registered office at Biopôle Clermont-Limagne – 3 rue Emile Duclaux - 63360 Saint-Beauzire.

14.1.2. Personal information relating to the members of the Board of Directors

Ian Hudson, Chairman of the Board of Directors from January 1, 2019

Ian Hudson started his career at ICI, a former British multinational specialized in chemicals and related sectors. In 1998, he joined Dupont de Nemours where he held numerous leadership positions over a period of 17 years. Her retired in 2016, after more than 10 years as Chairman Europe, Middle East and Africa. He was a member of the Board and Executive Committee of CEFIC and EuropaBio. He was also a member of the IMD Foundation Committee and a member of the Swiss-American Chamber of Commerce.

Ian Hudson is an internationally recognized business leader, an Oxford graduate and holder of a Master's Degree in French and German.

Jean Falgoux, member of the Board of Directors (Board Chairman until December 31, 2018)

Jean Falgoux has worked for 40 years in life sciences. He started his career in research and development at Rousselot – Europe's leading gelatin producer. He subsequently joined the pharmaceutical group Roussel Uclaf, in a marketing position, before becoming Business Development Manager in the agroveterinarian subsidiary in the United States, and subsequently Head of the global animal health business. Following this, he progressed within the Hoechst Roussel group in Germany, where he became Vice-Chairman, and then Geschäftführer of HRvet GmbH. In 1997, he joined the Japanese group Ajinomoto – world leader in biochemically produced amino acids – where he was CEO, and subsequently Chairman of Ajinomoto Eurolysine, while at the same time being Vice-Chairman of Ajinomoto Europe and member of the Executive Committee of the various European subsidiaries, and Corporate Officer of Ajinomoto Inc. He is an Agricultural Engineer and holds a post-graduate degree (French D.E.A) in Statistics and another post-graduate degree (French D.E.S.S.) in Business Administration.

Alain Chevallier, member of the Board of Directors

Alain Chevallier is *Partner Life Sciences* at Truffle Capital. He devoted most of his career to the Life Sciences industry at Roussel-Uclaf, Hoechst-Marion Roussel, Aventis Pharma and Sanofi-Aventis, holding the positions of Chief Financial Officer and Country Manager in France and abroad (Latin America, Japan and Germany). He was member of the Management Board of Aventis Pharma SA, in charge of Finance, and Chief Financial Officer of Sanofi-Aventis France. Since 2008, he has devoted himself to the development of young innovative companies in the field of life sciences, either as Chairman, Director, or Consultant. He holds an MBA from HEC.

Jean-Claude Lumaret, member of the Board of Directors, Chief Executive Officer and Chief Technical Officer

After having worked for nearly 30 years within the Roquette group – a French family-owned group ranking among the world leaders in the starch industry – notably as Head of the Intellectual Property and Regulatory Affairs Division, Business Unit Director and Business Intelligence Director, Jean-Claude Lumaret joined METabolic EXplorer in 2008 as Vice-Chairman in charge of Strategy & Innovation and member of the Management Board. He has been Chief Executive Officer of CARBIOS since April 2011, Chairman of Toulouse White Biotechnology (TWB) since March 2018, and Chairman of CARBIOLICE[126]since August 31, 2016. Moreover, he has been member of the Board of Directors of Lyon Pôle Bourse since 2017 and associate member of the Puy-de-Dôme Chamber of Commerce and Industry (CCI).

He holds a chemical engineering degree and a science degree, and is a graduate of CEIPI (Center for International Industrial Property Studies). He is on the OHMI's positive list of French patent specialists and trademark and design agents.

[126] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

Jacqueline Lecourtier, member of the Board of Directors

Jacqueline Lecourtier started her career as a researcher within the molecular chemistry laboratory of the École Supérieure de Physique et de Chimie Industrielle de Paris. She then spent 20 years in various research leadership positions within the Institut Français du Pétrole (IFP), particularly in the fields of drilling fluids and cement, applied chemistry and biotechnology, where she became Scientific Director in 2001. Furthermore, she was Chairwoman of the Scientific Advisory Board of Engie SA up until December 31, 2016. She subsequently became Director General of the French publicly-funded national research agency (Agence Nationale de la Recherche, ANR) set up in Paris in 2007. Until January 2013, she held a seat on the Board of Directors of the company Entrepose Contracting. She is Chairwoman of the Scientific Advisory Boards of CTI, Ifremer, SAB Principia and Deinove SA. She is also Chairwoman of the Orientation Committee of the University of Paris VI and member of the Boards of Directors of the Ecole des Mines de Paris, Ecole Nationale Supérieure des Industries Chimiques and Ecole Nationale Supérieure de Lyon. She is currently a consultant in the fields of energy and the environment, and Director of the company Produits Chimiques Auxiliaires et de Synthèse SA and Chairwoman of the Scientific Committee of Deinove SA.

She holds a chemical engineering degree from the École Nationale Supérieure des Industries Chimiques (ENSIC) in Nancy and a Doctorate in Physics (Université Curie, Paris VI).

Pascal Juéry, member of the Board of Directors

After gaining his initial experience in South Korea, Pascal Juéry started his career in the internal audit department of Rhône-Poulenc in 1988. He subsequently held various responsibilities within Rhodia Novecare (now Solvay Novecare): Manager Europe and subsequently Manager of the Home & Personal Care segment at the global level. In 2006, he was appointed Purchasing Manager at Rhodia (now Solvay France SA). In 2008, he returned to the United States to become CEO of Rhodia Novecare (now Solvay Novecare) and joined the Executive Committee of Rhodia in 2010. Pascal Juéry joined the Executive Committee of the Solvay group in January 2014 and has been Chairman of France Chimie and the MEDEF Executive Board since May 2016.

Pascal Juéry is a graduate of ESCP-Europe.

Philippe Pouletty (representative of TRUFFLE CAPITAL), member of the Board of Directors

A medical doctor (University Paris VI), immunologist, former intern at Hôpitaux de Paris, and immunology specialist at Institut Pasteur, Philippe Pouletty did postdoctoral research at Stanford University. He is the inventor of 29 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 €450 million (January 2019). He was formerly Chairman of France Biotech (the French association of biotechnology companies), and Vice-Chairman of Europabio (the European biotech federation). He is also the founder of three biotech companies in Europe and the United States which have generated market capitalization of over €800 million, and a member of the Board of Directors of several biotech and medical device companies in Europe and North America.

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.

Jacques Breuil, member of the Board of Directors

Jacques Breuil joined the Barbier Group in 1987, where he held the position of General Secretary until April 2017. Moreover, he has been a member of the Executive Committee of Céréales Vallée since 2015 and Director at CTIPC and Plastipolis. He holds a Master's Degree in economics from the Conservatoire National des Arts & Métiers (CNAM) and an Executive MBA from the Sorbonne.

Godefroy Motte, member of the Board of Directors

Godefroy Motte joined Eastman Chemical Company in 1985. He spent more than 30 years with this company, becoming a Board member in 2011. He gained broad experience through a multi-faceted career (sales, marketing, production, sales management, and corporate office), having lived and worked in five different countries. In connection with Carbios' activities, he was in charge of the construction and commissioning of a new PET manufacturing plant (120 KMT) in Spain, before becoming Vice President EMEA, Polymers.

Since 2016, Godefroy Motte's passion for industrial biotechnology has driven him to help innovative companies in optimizing their business portfolios and forming partnerships with strategic and financial investors.

Godefroy Motte is a graduate of Ecole des Hautes Etudes Industrielles, IAE and *Harvard's Advanced Management* Program.

14.1.3. List of offices and positions held by the members of the Board of Directors in any company over the past five years

Surname-Forename 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 on April 8, 2019
Ian Hudson	Member of the Management Advisory Board of Towerbrook Capital Partners L.P. Representative of Towerbrook on the Board of Directors of Gamma Fiber Holdings	Chairman Europe, Middle East and Africa at DuPont International SA Member of the Executive Committee and Board of the European Chemical Industry Council Board member of the IMD Foundation Member of the Executive Committee of EuropaBio
Jean-Claude Lumaret	Chairman of Toulouse White Biotechnology (TWB) Chairman of CARBIOLICE Member of the Board of Directors of Lyon Pole Bourse Associate member of the Puy-de-Dôme Chamber of Commerce and Industry	N/A
Jean Falgoux	Director of Bluestar Adisseo (a company listed on the Shanghai Stock Exchange)	Chairman of Ajinomoto Eurolysine Vice-Chairman of Ajinomoto Europe Corporate Officer of Ajinomoto Inc
Alain Chevallier	Director of Compagnie Immobilière et Commerciale SA Partner Life Science of Truffle Capital Chairman of Artedrone SAS Director of Charro Conseils SAS	Chairman of Deinobiotics SAS (until December 31, 2016) Chief Financial Officer of Abivax – Euronext Paris (until December 31, 2016) Director of Splicos SAS (merged with Abivax) Chairman and Chief Executive Officer of Holding Incubatrice Chimie Verte SA Director-Treasurer of ICAN (Institut de Cardiométabolisme et de Nutrition)
Jacqueline Lecourtier	Director of Produits Chimiques Auxiliaires et de Synthese SA Director of Skytech Member of the Scientific Committee of CEA's Military Affairs Department Member of the Scientific Committee of Ecole des Mines/Telecom	Chairwoman of the Scientific Committee of Engie SA – Euronext Paris (until December 2016) Director of Optimum Hydrocarbon Technologies SAS Member of the Scientific Committee of Principia Chairwoman of the Scientific Committee of Deinove SA - Euronext Growth Paris Director of Université de Paris VI, Director of Ecole des Mines de Paris, Director of ENS Lyon Director of ENSIC
TRUFFLE CAPITAL, **represented by Philippe Pouletty**	**As permanent representative of TRUFFLE CAPITAL:** Director of CARMAT SA – Euronext Growth Paris Director of PHARNEXT SA – Euronext Growth Paris Director of BIOKINESIS SAS Member of the Executive Committee of DIACCURATE SAS Director of AFFLUENT MEDICAL SA Chairman of NANOSIVE SASU Director of HOLISTICK MEDICAL SASU **On a personal basis:** Chief Executive Officer and Director of TRUFFLE Manager of NAKOSTECH SARL Chairman of the Board of Directors of ABIVAX SA – Euronext Paris Director of DEINOVE SA – Euronext Growth Paris Honorary Chairman of France Biotech (French non-profit organization)	**As permanent representative of TRUFFLE CAPITAL:** Member of the Executive Committee of DEINOBIOTICS SAS Director of VEXIM SA Director of PLASMAPRIME SAS Director of NEOVACS SA – Euronext Growth Paris Member of the Executive Committee of KEPHALIOS Member of the Executive Committee of LUOPOWERS **On a personal basis:** Member of the Supervisory Board of INNATE PHARMA SA – Euronext Growth Paris Chairman and Director of SPLICOS SAS Member of the Supervisory Board of CYTOMICS SA Director of Association Centre Chirurgical Marie Lannelongue (French non-profit organization)
Pascal Juéry	Member of the Executive Committee of the Solvay group - Euronext Brussels Director and Chairman and Chief Executive Officer of Solvay France SA - Euronext Paris Chairman of Solvay Operations France SAS	Chairman of Solvay Essential Chemicals

	Chairman of Union des Industries Chimiques	
Jacques Breuil	Member of the Executive Committee of Céréales Vallée Director of Centre Technique Industriel de la Plasturgie et des Composites (CTIPC) Director of Plastipolis	General Secretary of Groupe Barbier & Cie (until April 30, 2017)
Godefroy Motte	Chairman of Adrialis SASU	Executive Committee of Eastman Chemical Chairman of Eastman Chemical Global Holding SARL

14.1.4. Disclosures regarding the members of the Board of Directors

Over the past five years, within the Company's Board of Directors:

- No member has been found guilty of fraud or been subject to any official public indictment or sanction by any statutory or regulatory authorities;
- No member has been involved in any bankruptcy, receivership or liquidation proceedings as an executive or corporate officer;
- No member has been barred from serving as a member of an administrative, management or supervisory body or from being involved in the management of a listed company;
- No member has been subject to any official public indictment and/or sanction by any statutory or regulatory authorities (including designated professional bodies).

14.1.5. Declaration on the nature of any family relationships between Directors

There are no family relationships between Directors.

14.1.6. Declaration on shareholdings in the Company

As at the date of this Registration Document, Jean-Claude Lumaret and Alain Chevallier hold 5,707 Company shares, representing 0.12% of the share capital and 0.12% of exercisable voting rights.

As at the date of this Registration Document, TRUFFLE CAPITAL holds 899,392 Company shares, representing 19.31% of the Company's share capital and 18.41% of its exercisable voting rights.

No other director holds Company shares.

14.1.7. Appointment of a non-voting director

As at the date of this Registration Document, no non-voting director had been appointed.

14.2. Executive Management

14.2.1. Composition of the Executive Management

Jean-Claude Lumaret holds the positions of Chief Executive Officer and Chief Technical Officer. He is domiciled at the Company's registered office at Biopôle Clermont-Limagne – 3 rue Emile Duclaux – 63360 Saint-Beauzire – France.

Forename-Surname or company name	Date of 1st appointment	Date of expiry of the term of office	Main position held within the Company	Main position held outside the Company
Jean-Claude Lumaret	Private agreement signed on 2/20/2013 (Director)	Shareholders' Meeting convened to approvethe financial statements for the year ended12/31/2020(Director)	Director and Chief Executive Officer	Chairman of CARBIOLICE
	Board of Directors' meeting of 2/20/2013 (Chief Executive Officer)	June 15, 2021* (Chief Executive Officer)		

*The term of office of Jean-Claude Lumaret as Chief Executive Officer was renewed at the Board meeting of March 21, 2017, effective from June 15, 2017 for a period of four (4) years.

14.2.2. Personal information concerning the members of the Executive Management

Please refer to section 14.1.2 of this Registration Document.

14.2.3. List of offices and positions held by the members of the Executive Management in any company over the past five years

Please refer to section 14.1.3 of this Registration Document.

14.2.4. Declarations concerning the members of the Executive Management

Over the past five years, Jean-Claude Lumaret:

- Has not been found guilty of any fraud or been subject to any official public indictment or sanction by any statutory or regulatory authorities;
- Has not been involved in any bankruptcy, receivership or liquidation proceedings as an executive or corporate officer;
- Has not been barred from serving as a member of an administrative, management or supervisory body or from being involved in the management of a listed company;
- Has not been subject to any official public indictment and/or sanction by any statutory or regulatory authorities (including designated professional bodies).

14.2.5. Declaration on the nature of any family relationships between the members of the Executive Management

None.

14.3. Presentation of the Management team

Alain Marty, Chief Scientific Officer

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/INRA laboratory dedicated to biological systems and process engineering (LISPB), 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.

Martin Stephan, Deputy CEO

Martin Stephan has spent his entire career in the chemical industry, initially in the Chemical division of Elf/Total, then at Du Pont de Nemours, where he held both financial and managerial positions in France, Germany, Italy and Switzerland. He joined CARBIOS in February 2017 as Director of Operations in charge of overseeing strategy, development and investor relations. He was appointed Deputy CEO in June 2017 to assist the Chief Executive Officer. Martin Stephan is a graduate of HEC.

14.4. Conflicts of interest in in the administrative bodies and the Executive Management

As at the date of this Registration Document, TRUFFLE CAPITAL holds 19.31% of the Company's share capital and 18.41% of its exercisable voting rights. However, notwithstanding said holdings, as at the date of this Registration Document, to the Company's knowledge:

- There are no conflicts of interest between the duties of the Members of the Executive Management within the Company and their private interests;
- No member of the Board of Directors or Executive Management has been appointed pursuant to any arrangement or agreement entered into with the main shareholders, customers, suppliers or other parties;
- 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;

15. COMPENSATION AND BENEFITS

15.1. Total gross compensation of the members of the Board of Directors and the Executive Management

Tables 1, 2, 3, and 11 of *AMF recommendation 2014-14 relative to the preparation of registration documents* are presented below. Tables 4, 5, 6, 7, 9 and 10 are not applicable. Table 8 is presented in Chapters 17 and 21 hereunder.

The following table shows all of the compensation of any nature, benefits in kind and other remuneration paid to the members of the Board of Directors and the Executive Management of CARBIOS during the fiscal years ended December 31, 2017 and 2018:

Table 1: Summary of the compensation and options/shares allocated to executive corporate officers

Summary of the compensation and options/shares allocated to executive corporate officers		
***In euros*[(1)]**	**12/31/2017 (12 months)**	**12/31/2018 (12 months)**
Jean Falgoux[127], Chairman of the Board of Directors		
Compensation payable for the year	29,150	50,000
Value of multi-year variable compensation awarded during the year	-	-
Value of options awarded during the year	-	-
Value of free shares awarded during the year	-	-
Jean-Claude Lumaret, Chief Executive Officer and Director		
Compensation payable for the year	299,403	329,452
Value of multi-year variable compensation awarded during the year	-	-
Value of options awarded during the year	-	-
Value of free shares awarded during the year	-	-
TOTAL	**328,553**	**379,452**

(1) Gross amount before tax

[127] During the Board of Directors' meeting of December 6, 2018, Jean Falgoux presented his resignation as Chairman of the Board of Directors, with effect from January 1, 2019. At this meeting, the Board decided to appoint Ian Hudson as new Chairman of the Board of Directors, from January 1, 2019.

Table 2: Summary of the compensation of each executive corporate officer

Summary of the compensation of each executive corporate officer				
In euros	**12/31/2017 (12 months)**		**12/31/2018 (12 months)**	
	Amounts payable	Amounts paid	Amounts payable	Amounts paid
Jean Falgoux[128], Chairman of the Board of Directors				
Fixed compensation	12,500(1)	12,500	-	-
Variable compensation	-	-	-	-
Exceptional compensation	(7)	(7)	-	-
Directors' fees	16,650	7,500	50,000	59,150
Benefits in kind	-	-	-	-
Jean-Claude Lumaret, Chief Executive Officer, Director and Chief Technical Officer (1)				
Fixed compensation (2) (3)	220,000	220,000	225,000	225,000
Variable compensation (4)	60,060	117,232	78,750	78,750
Exceptional compensation (5)	7 000	17,000	10 000	5,000
Directors' fees	-	-	-	-
Benefits in kind (6)	12,343(8)	12,343(8)	15,702	15,702
TOTAL	**328,553**(8)	**328,553**(8)	**379,452**	**383,602**

(1) On December 12, 2017, the Board of Directors decided to modify, retroactive to November 1, 2017, the method of compensation of the Chairman of the Board of Directors so that the latter no longer receives any annual fixed compensation, but solely Directors' fees.

(2) In accordance with his employment contract and job description, under the Chairman's authority, Jean-Claude Lumaret serves as Chief Technical Officer, performing duties which are separate from his corporate officer duties. Under the terms of his employment contract, he is tasked with supervising all of CARBIOS' technical operations. This involves managing the Company's technical resources and means, and developing a global vision of the markets and their trends, products and technologies, in order to supervise the creation and management of a portfolio of patents to preserve the Company's position with respect to its customers and competitors, and to establish and provide methodological technical support.
For 2017, this amounted to a gross annual amount of €110,000 in respect of his employment contract and €110,000 in respect of his corporate office; for 2018, this amounted to a gross annual amount of €112,500 in respect of his employment contract and €112,500 in respect of his corporate office.

(3) In compliance with the Company's commitments, Jean-Claude Lumaret could receive an annual bonus equivalent to 35% of his annual compensation (both for his corporate office and salaried duties), subject to the cumulative achievement of contractually defined professional targets within the set time frame. These elements are reassessed every year by the Board of Directors. Moreover, this amount is paid to Jean-Claude Lumaret in the last month of each fiscal year. However, the amount relating to fiscal year 2016 was paid in January 2017.

(4) The amounts payable in respect of a fiscal year are paid in the same fiscal year, save for the exceptional compensation relative to fiscal year 2016, which was paid during the next fiscal year (January 2017).

(5) Jean-Claude Lumaret's exceptional compensation relative to fiscal year 2016 was paid in 2017, just like the exceptional compensation relative to fiscal year 2017. However, the exceptional compensation relative to fiscal year 2018 was paid in two installments, in December 2018 and in January 2019.

(6) In compliance with the Company's commitments, Jean-Claude Lumaret is awarded a benefit in kind consisting of the use of a Company vehicle and Executive Officer's unemployment insurance.

(7) On March 22, 2016, the Board of Directors awarded Jean Falgoux 37,982 free BSPCE share warrants giving the right to 37,982 shares at the exercise price of €11.5066 per share. This benefit in kind was not subject to valuation. Consequently, it is not included in the above table. As at the date of this Registration Document, the exercise price of these BSPCE warrants is out of the money since the stock market price is below €9.

(8) ERRATUM: The amount shown in the 2017 Registration Document was €12,434 instead of €12,343 euros. This amount, as well as the total, have thus been corrected.

[128] At this meeting, the Board decided to appoint Ian Hudson as new Chairman of the Board of Directors, from January 1, 2019.

Table 3: Directors' fees and other compensation received by non-executive corporate officers

Directors' fees and other compensation received by non-executive corporate officers		
Net compensation received (in euros)	**12/31/2017 (12 months)**	**12/31/2018 (12 months)**
Alain Philippart, Director until June 15, 2017		
Directors' fees	4,550	-
Other compensation	-	-
Grégoire Berthe, Director until June 15, 2017		
Directors' fees	1,250	-
Other compensation	-	-
Jacqueline Lecourtier, Director		
Directors' fees	8,700	7,900
Other compensation (1)	-	-
Eric Arnoult (known as Erik Orsenna), Director until September 20, 2018[129]		
Directors' fees	3,300	2,500
Other compensation	-	-
Ian Hudson, Director[130]		
Directors' fees	9,925	11,250
Other compensation	-	-
Dominique Even, Director until December 6, 2018[131]		
Directors' fees	9,500	4,100
Other compensation	-	-
Pascal Juéry, Director		
Directors' fees	2,675	2,500
Other compensation	-	-
Alain Chevallier, Director		
Directors' fees	8,250	9,013
Other compensation	-	-
Jacques Breuil, Director since June 15, 2017		
Directors' fees	4,550	6,250
Other compensation	-	-
TRUFFLE CAPITAL, represented by Philippe Pouletty since September 20, 2018		
Directors' fees	-	-
Other compensation	-	-
TOTAL	**52,700**	**43,513**

Note that, for fiscal years 2017 and 2018, the amount of Directors' fees paid to Ms. Lecourtier include compensation for consulting services, as Chairwoman of the Scientific Committee.

Since the Directors' fees relative to the 2nd half of 2017 were paid in January 2018, and to allow like-for-like comparison, the amounts shown below for 2017 are the amounts payable in respect of the directors' fees for fiscal year 2017.

[129] At its meeting of September 20, 2018, the Board of Directors took note of the resignation of Eric Arnoult (known as Erik Orsenna), effective from September 20, 2018, and co-opted TRUFFLE CAPITAL, represented by Philippe Pouletty, to replace him.

[130] At its meeting of December 6, 2018, the Board of Directors decided to appoint Ian Hudson as new Chairman of the Board of Directors, effective from January 1, 2019.

[131] At its meeting of December 6, 2018, the Board of Directors took note of the vacancy of a Director's seat following the death of Dominique Even.

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 further information on these BSAs, refer to section 17.2.3 of this document.

Table 11: Details concerning the conditions applicable to the compensation and other benefits granted to executive corporate officers

Details concerning the conditions applicable to the compensation and other benefits granted to executive corporate officers								
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
Jean Falgoux[132] **Chairman of the Board of Directors** Start of term: 04/01/2016 End of term: 12/31/2018		X		X		X		X
Jean-Claude Lumaret **Chief Executive Officer, Director, Chief Technical Officer** Start of term: 2/20/2013(1) End of term: 2021(2)	X(3)			X	X(3)			X

(1) Date of first appointment as member of the Board of Directors of the public limited company (Société anonyme).
(2) Jean-Claude Lumaret's term of office as a Director will expire at the end of the Ordinary Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2020. His term of office as Chief Executive Officer will expire on June 15, 2021.
(3) Please refer to section 19.1.1 of 19.1.1this Registration Document for further information on Jean-Claude Lumaret's employment contract.
(4) Under the French social security regime for company managers (GSC), Jean-Claude Lumaret is entitled to compensation on severance or change of position).

As at the date of this Registration Document, Jean-Claude Lumaret is tied to the Company by an employment contract. None of the other members of the Board of Directors are tied to the Company by an employment contract. They receive no compensation from the Company, other than that paid to them in respect of their corporate office.

The Directors are not entitled to any pension scheme, severance pay, or non-compete compensation.

15.2. Amounts provisioned or otherwise recognized by the issuer or its subsidiaries for the payment of pensions, retirement or other benefits

No provision was booked or otherwise recognized by the Company for the payment of pensions, retirement benefits or other benefits to the Company's corporate officers.

The Company has not granted any joining or departure bonuses to these individuals.

15.3. Free shares, share subscription warrants and stock options granted to corporate officers

The executive corporate officers have received BSA and BSPCE share warrants. A detailed description of the terms of each of the plans is given in sections 17.2 "Equity interests and securities giving access to capital" and 21.1.4 "Potential capital" of this Registration Document. The figures shown correspond to the number of shares that may be subscribed through the exercise of each of the rights or securities giving access to capital.

[132] During the Board of Directors' meeting of December 6, 2018, Jean Falgoux presented his resignation as Chairman of the Board of Directors, with effect from January 1, 2019. At this meeting, the Board decided to appoint Ian Hudson as new Chairman of the Board of Directors, from January 1, 2019.

16. FUNCTIONING OF ADMINISTRATIVE AND EXECUTIVE BODIES

Unless otherwise stated, the bylaw provisions described in this section are those applicable to the Company at the date of this Registration Document.

16.1. Terms of office of the members of the Board of Directors and Executive Management

16.1.1. Executive Management

With regard to third parties, the Company is represented by Jean-Claude Lumaret, Chief Executive Officer and Director, appointed as follows:

(i) appointed Director by decision of the Annual Ordinary Shareholders' Meeting of February 20, 2013, (Jean-Claude Lumaret's directorship was renewed by the Annual Ordinary Shareholders' Meeting of June 15, 2017 for a term of four years expiring at the end of the Annual Ordinary Shareholders' Meeting convened to approve the financial statements for the fiscal year ending December 31, 2020), and

(ii) as Chief Executive Officer by decision of the Board of Directors on February 20, 2013 (Jean-Claude Lumaret's term of office as Chief Executive Officer was renewed at the Board meeting of March 21, 2017, effective from June 15, 2017, for a period of four (4) years, expiring on June 15, 2021).

As at the date of this Registration Document, no Deputy Chief Executive Officer had been appointed.

Executive Management (Article 17 of the bylaws):

ARTICLE 17 – DELEGATION OF EXECUTIVE MANAGEMENT POWERS

17.1 Organizing principles

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 videoconference 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.

17.2 Executive Management – Chief Executive Officer

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.

17.3 Delegation of powers

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.

16.1.2. Board of Directors

16.1.2.1. Term of office of the members of the Board of Directors

At the date of this Registration Document, the Board of Directors was composed of the following members:

Forename-Surname or company name	Date of 1st appointment (member of the Executive Committee of the simplified joint stock company)	Date of 1st appointment (member of the Board of Directors of the public limited company)	Expiry of the term of office
Alain Chevallier	7/4/2011	2/20/2013	2021 OSM relating to FY 2020
Jean-Claude Lumaret	7/4/2011	2/20/2013	2021 OSM relating to FY 2020
Jacqueline Lecourtier(1)	5/10/2012	2/20/2013	2021 OSM relating to FY 2020
Ian Hudson(3)	-	12/15/2016	2021 OSM relating to FY 2020
Pascal Juéry(1)	-	6/5/2014	2022 OSM relating to FY 2021
Jean Falgoux	-	6/24/2015	2019 OSM relating to FY 2018**
Jacques Breuil(1)	-	6/15/2017	2021 OSM relating to FY 2020
TRUFFLE CAPITAL, represented by Philippe Pouletty(4)	-	10/22/2013(5)	2021 OSM relating to FY 2020
Godefroy Motte(1)	-	02/20/2019(6)	2022 OSM relating to FY 2021

(1) Independent members of the Board of Directors.
(2) The renewal of the directorship of Jean Falgoux will be proposed at the next Combined Shareholders' Meeting of June 13, 2019.
(3) During the Board of Directors' meeting of December 6, 2018, Jean Falgoux presented his resignation as Chairman of the Board of Directors, with effect from January 1, 2019. During this meeting, the Board decided to appoint Ian Hudson as the new Chairman of the Board of Directors, from January 1, 2019.
(4) During its meeting of September 20, 2018, the Board of Directors acknowledged the resignation of Eric Arnoult (known as Erik Orsenna) with effect from September 20, 2018 and co-opted TRUFFLE CAPITAL, represented by Philippe Pouletty, to replace him.
(5) First appointment of TRUFFLE CAPITAL, represented by Mr. Pouletty on October 22, 2013. The resignation of TRUFFLE CAPITAL, represented by Mr. Pouletty, was acknowledged by the Board of Directors on September 27, 2016. TRUFFLE CAPITAL, represented by Mr. Pouletty, was then appointed for a second time as a member of the Company's Board of Directors on September 20, 2018.
(6) Godefroy Motte was co-opted to replace Dominique Even for the duration of his predecessor's term of office, expiring at the close of the Shareholders' Meeting to be held in 2022 to approve the financial statements for the fiscal year ending December 31, 2021. His appointment will be submitted for ratification at the next Shareholders' Meeting convened to approve the financial statements for the fiscal year ended December 31, 2018.

All members of the Board of Directors may be re-appointed at the end of each four-year term.

16.1.2.2. The Board of Directors (Articles 13 to 16 of the bylaws)

ARTICLE 13 - BOARD OF DIRECTORS

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.

ARTICLE 14 - DIRECTORS' TERM OF OFFICE

14.1 Appointment and removal of Directors

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 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.

14.2 Legal entity Directors

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.

14.3 Vacancy, death, resignation

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.

ARTICLE 15 - BOARD ORGANIZATION AND DELIBERATIONS

15.1 Board Chairman

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 eight-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.

15.2 Board meetings
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.

15.3 Quorum and majority
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 videoconferencing 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.

15.4 Proxy

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.

15.5 Minutes of the meeting

The deliberations of the Board of Directors are recorded in minutes drawn up in a special register, numbered and initialed, and kept at the registered office in accordance with regulatory provisions.

15.6 Non-voting directors

During the life of the Company, the Ordinary Shareholders' Meeting may appoint non-voting directors, chosen from among the shareholders or otherwise.

The number of non-voting directors is limited to three (3).

Non-voting directors are appointed for a term of one (1) year. Their duties end at the close of the Ordinary Shareholders' Meeting called to approve the financial statements for the year just ended and held in the year in which their term expires.

Any exiting non-voting director is eligible for reappointment provided he/she meets the conditions of this Article.

Non-voting directors may be removed and replaced at any time by the Ordinary Shareholders' meeting, without any compensation payable to them. Moreover, non-voting directors' duties shall cease in the event of their death or incapacity (if the non-voting director is a natural person) or in the event of winding-up or receivership (if the non-voting director is a legal entity) or resignation.

Non-voting directors may be natural persons or legal entities. In the latter case, when the legal entity is appointed, it is required to designate a permanent representative, who shall be subject to the same conditions and obligations and shall incur the same civil and criminal liability as if this person were a Director in his/her own name, without prejudice to the joint and several liability of the legal entity that he/she represents.

The non-voting directors are tasked with ensuring that the bylaws are strictly applied and submitting their observations at the Board of Directors' meetings. The non-voting directors perform a general and ongoing advisory and supervisory role within the Company However, they may not, under any circumstances, interfere with the management of the Company, or in any way replace its legal bodies.

To perform their mission, non-voting directors may:

- *submit observations to the Board of Directors,*
- *ask to be shown all books, records and corporate documents at the Company's registered office,*
- *request and obtain all information relevant to their duties from the Company's Executive Management and Statutory Auditors,*
- *be required, at the Board of Directors' request, to present a report on a specific issue to the Shareholders' Meeting*

Non-voting directors must be convened to each Board meeting in the same way as the other Directors.

Non-voting directors may only act, individually or collectively, in an advisory capacity. They do not have voting rights at Board meetings.

Failure to convene non-voting directors or provide them with the relevant documents prior to the Board meeting shall in no way invalidate the decisions made by the Board of Directors.

ARTICLE 16 - POWERS OF THE BOARD OF DIRECTORS

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 remuneration 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.

16.2. Service agreements between members of the administrative or executive bodies and the Issuer or one of its subsidiaries (Article 19 of the bylaws)

Except for the employment contract that ties Jean-Claude Lumaret to the Company, at the date of this Registration Document, there were no service contracts tying members of the Board of Directors or Executive Management to the Company.

ARTICLE 19 - AGREEMENTS BETWEEN THE COMPANY AND A DIRECTOR OR THE CHIEF EXECUTIVE OFFICER OR 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 Agreements relating to day to day operations
Agreements relating to day to day operations and entered into under normal conditions are not subject to the legal authorization and approval process.

16.3. Information concerning committees

The bylaws (Article 16) provide that the Board of Directors may set up a certain number of special purpose committees.

16.3.1. Statutory committees

16.3.1.1. Scientific Committee

The 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 Scientific Advisory Board are appointed by the Board of Directors and are either chosen from outside the Company for their expertise and scientific renown, or from among the researchers working for the Company. They are appointed for a fixed term, according to the appointment decision, with the understanding that the Board of Directors may terminate the duties of the members of the Scientific Advisory Board at any time, without compensation, without prior notice, and without having to justify its decision.

At the date of this Registration Document, and following a recent modification in its composition, the Scientific Committee is composed of the following members: Pr. Alain Marty, Dr. Philippe Dubois and Dr. Uwe T. Bornscheuer. Nevertheless, the Company continues to look for new members to reinforce the composition of this Scientific Committee.

The Scientific Committee's duties are as follows:

- Scientific follow-up of the research projects conducted by the Company: analysis of the scientific and technological barriers encountered by the Company and proposals of research strategies to overcome them;
- Scientific and technological watch within the Committee's various areas of expertise: the Scientific Advisory Board informs the Company of recent advances achieved internationally 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 three times a year, at the request of its Chairwoman 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.

16.3.1.2. 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 to identify, qualify and control the risks incurred by the Company;
- Ensuring the existence and assess 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.

Jacques Breuil, Alain Chevalier and ZDG Consulting, represented by José Da Gloria are the members of the Audit Committee. The Audit Committee was chaired by Dominique Even up to his death. On December 6, 2018, the Board of Directors appointed Jacques Breuil as Chairman of the Audit Committee.

The Audit Committee meets two or three times a year, at the request of its Chairman 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.

16.3.2. Non-statutory committees

16.3.2.1. 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: Jean Falgoux, Philippe Pouletty, Jean-Claude Lumaret, Alain Marty and Lise Lucchesi.

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.

16.3.2.2. Compensation Committee

The Compensation 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.

It reports to the Board of Directors on a regular basis.

It is composed of the following members: Alain Chevallier and Jean Falgoux. Jean-Claude Lumaret is convened to the Compensation Committee's meetings.

The 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.

16.3.3. Statement related to corporate governance

As at the date of this Registration Document, the Company refers to the corporate governance guidelines for small and mid-caps as published in September 2016 by Middlenext. 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 Middlenext recommendations with which the Company complies, and those with which it intends to comply in the future:

MiddleNext Code Recommendations	**Complies**	**Intends to comply**	**Considers not appropriate**
I. "Supervisory" power			
R1: Code of ethics for Board members	X		
	X		
R3: Composition of the Board – Presence of independent members on the Board	X		
R4: Board member information	X		
R5: Board and committee meetings	X		
R6: Creation of committees	X		
R7: Establishing internal rules for the Board	X		
R8: Selection of each Director	X		
R9: Term of office of Board members	X		
R10: Directors' compensation	X		
R11: Establishing an assessment of the Board's work	X		

R12: Relations with "shareholders"	X		
II. Executive power			
R13: Definition and transparency of compensation for executive corporate officers	X		
	X		
R15: Holding of both employment contract and corporate office [1]	X		
			X
R17: Supplementary pension schemes [2]			X
R18: Stock options and allocation of free shares	X		
R19: Review of points to be watched	X		

(1) Jean-Claude Lumaret has both an employment contract as Chief Technical Officer of CARBIOS and a corporate office as Chief Executive Officer.

(2) 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 the provision of retirement indemnities, nor a supplementary pension scheme for its executives.

With regard to recommendation R11, the Board of Directors was restructured during the 2018 fiscal year, following the change in chairmanship decided during the Board of Directors' meeting of December 6, 2018, with effect from January 1, 2019, the resignation of a director, the death of a director and the co-option of two new directors, which falls within the process of assessing the relevance of its work and functioning.

As at the date of this Registration Document, the Company's Board of Directors currently includes four Independent Directors, or 44.44% of the total number of Directors.

16.4. Independent Directors

The Company has four independent directors: Jacqueline Lecourtier, Pascal Juéry, Jacques Breuil and Godefroy Motte. The Company considers that since their appointment, these Directors have fulfilled the requirements of recommendation no. 3 of the Middlenext Code, 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.

16.5. Internal controls

16.5.1. Definition and objectives of internal controls

Internal control is a Company mechanism, defined and executed as part of its duties.
It includes a set of resources, behaviors, procedures and actions adapted to the distinctive characteristics of each company, which:

- Contribute to controlling its business activities, the efficacy of its operations and the efficient use of its resources; and
- Are designed to allow the Company to consider any significant risks, whether operational, financial or compliance, in an appropriate manner.

The mechanism is aimed in particular at ensuring:

a) compliance with laws and regulations;

b) application of instructions and guidelines set by the Executive Management or the Board of Directors;

c) the proper functioning of internal Company processes, in particular those that contribute to protecting its assets;

d) the reliability of financial information.

Internal controls are, therefore, not limited to a set of procedures or to accounting and financial processes alone.

The definition of internal control does not cover all the initiatives taken by the governing bodies or management such as, for example, the definition of Company strategy, the setting of targets, management decisions, risk management or monitoring performance.
Moreover, internal control cannot provide an absolute guarantee that the Company's targets will be achieved.

16.5.2. Scope covered by Internal controls

The Internal control mechanism implemented by the Company includes all operations carried out.

16.5.3. Key elements contributing to Internal controls

16.5.3.1. General organization

Organization of internal control procedures and risk management within the Company is based on the following principles and tools:

- Organizational charts and job descriptions regularly updated under the responsibility of each business manager;
- A set of procedures and memoranda defining responsibilities and tasks.

16.5.3.2. Internal distribution of relevant and reliable information

The Company's internal control mechanisms are also based on the distribution and analysis of information required for steering business activity, through initiatives and tools.

16.5.3.3. Initiatives

- Compensation Committee: this assists the Board on all issues related to compensation ;
- Audit Committee: its overall 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;
- Review of operational activity presented to the Board of Directors.

16.5.3.4. Risk management procedure

The Company has not put in place a formal overall risk management procedure, in light of its size and the close relationship between Executive Management and the operational teams. The main risks that may impact the achievement of Company targets are identified and reviewed by the Executive Committee. Corrective measures are defined and monitored according to a short and pragmatic decision tree.
Contractual risks are limited by systematic review of contracts by the Chief Executive Officer.

16.5.3.5. Oversight of the internal control mechanism

A self-monitoring system for administrative and financial elements was put in place at the start of the 2016 fiscal year, at the request of the Audit Committee. Based on this new system, self-monitoring of purchasing procedures, management of business travel, contracts, terms and conditions for vacation time and bank reconciliations are conducted every three months for purchasing and management of business travel, and every six months for contracts, bank reconciliations, and the terms and conditions of vacation time, using test sheets.

16.5.4. Organization of accounting and financial functions

Accounting and financial functions are managed internally by a two-person team, including the Chief Financial Officer. Corporate accounting is conducted internally and reviewed by a certified accountant. Payroll management and tax review are entrusted to a certified accounting firm.

16.5.4.1. Budget monitoring

Each business unit has an annual budget broken down into months and monthly reporting analyzes variances from this budget. Tracking of time and cost accounting have been put in place and make it possible to carefully evaluate income and expenses, in particular, by project

16.5.4.2. Closing the parent company financial statements

A certified accountant ensures preparation of interim and year-end closure under the supervision of the Chief Financial Officer.

16.5.4.3. Expenditure commitments

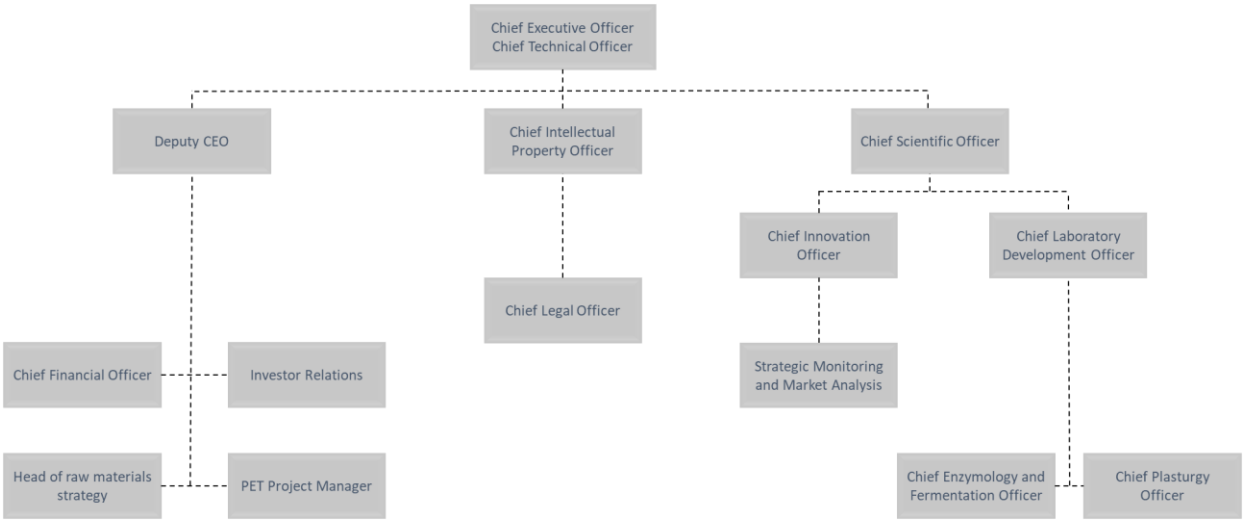
Levels of responsibility are in place, allowing for a priori control of expenses. A separation of tasks exists between the person making accounting entries and those signing disbursements.

17. EMPLOYEES

17.1. Human Resources

17.1.1. Functional organizational chart of the Company

As at the date of this Registration Document, the Company's functional organizational chart is as follows:



17.1.2. Number of employees

The Company headcount as at December 31, 2018, totaled 20 people:

Employees	12/31/2017	12/31/2018
Managers	13	14
Supervisory staff and technicians	5	5
Employees	1	1
Operatives	-	-
TOTAL	**19**	**20**

As at the date of this Registration Document, the headcount mainly broke down as Management and three divisions:

- Executive Management (1 employee);
- The Administrative and Financial Department supervised by the Deputy Chief Executive Officer (seven employees);
- The Intellectual Property and Legal Affairs Department (two employees);
- The Scientific Department (10 employees).

In addition to these employees, more than 20 researchers are working at academic partners to support the industrial deployment of CARBIOS' technologies

The payroll, as at December 31, 2017 and December 31, 2018, was as follows:

In thousands of euros	12/31/2017	12/31/2018
Salaries and wages	1,647	1,628
Social security contributions	566	582

Finally, the Company benefits from the status of Young Innovative Company, which in particular exonerates it from the payment of certain employer social contributions. However, this status ended on January 1, 2019.

Moreover, as part of its budgeted growth, it expects to hire additional employees, which will bring its headcount to approximately 25 FTE at the end of the 2019 fiscal year.

Human Resources policy

Average seniority is around four years.

The Company's recruitment policy for research, development and industrialization activities consists of hiring researchers and technicians with initial experience, as well as recent graduates.

In order to ensure mentoring and continuous training of its teams, the Company is recruiting experienced managers with senior profiles.

Staff representation

During the 2015 fiscal year, an electoral procedure was put in place, resulting in the election of a staff representative. In 2018, the Company set up a Social and Economic Committee (in accordance with Article L.2311-2 of the French Labor Code), which is still in place as at the date of this Registration Document.

17.2. Equity interests and securities giving access to capital

As at the date of this Registration Document, the various BSA and BSPCE plans make it possible to subscribe only to new ordinary shares.

A summary of all the BSAs and BSPCEs issued by the Company is set out in section 21.1.4 of this Registration Document.

At the date of this Registration Document, the various BSA and BSPCE plans allow the subscription of new ordinary shares, representing a potential total of 398,630 shares to be issued, i.e. a dilution of 8.56% on an undiluted basis (amounting to 4,657,223 shares at April 5, 2019) and 7.88% on a diluted basis.

17.2.1. Share subscription warrants ("BSA")

The table below summarizes, as at the date of this Registration Document, all of the BSA[133]134 issued by the Company for the benefit of its corporate officers, employees and consultants, whether subscribed or not, and whether exercised or not:

	BSA 2011-1 08/21/11	BSA 2012-1 09/28/2012	BSA 2012-2 09/28/2012	BSA 2012-3 12/04/2012	BSA 2013-1 06/27/2013	BSA 2015-1 06/24/2015	BSA 2015-2 06/24/2015	BSA 2015-3 06/24/2015	BSA 2016-1 12/15/2016	BSA 2017-1 06/27/2017	BSA 2019-1 4/4/2019	TOTAL
DEINOVE		170,000										**170,000**
Alain Philippart	1,253		6,747		1,600							**9,600**
Grégoire Berthe	1,253		6,747		1,600							**9,600**
Jacqueline Lecourtier	1,253		6,747		1,600							**9,600**
Alain Marty				3,500								**3,500**
Thierry Ferreira				3,500								**3,500**
Eric Arnoult (known as Erik Orsenna)					9,600							**9,600**
Dominique Even						9,600						**9,600**
Pascal Juéry							9,600					**9,600**
Jean Falgoux								9,600				**9,600**
Ian Hudson									9,600			**9,600**
Jacques Breuil										9,600		**9,600**
Godefroy Motte											9,600	**9,600**
TOTAL	**3,759**	**170,000**	**20,241**	**7,000**	**14,400**	**9,600**	**9,600**	**9,600**	**9,600**	**9,600**	**9,600**	**273,000**

In order to obtain details about the BSA subscribed or not, and exercised or not, refer to section 17.2.3 of this document.

17.2.2. Founder share subscription warrants ("BSPCE" or "BCE")

The table below summarizes, as at the date of this Registration Document, all of the BSPCE issued by the Company for the benefit of its corporate officers and employees, whether subscribed or not, and whether exercised or not:

	BCE 2011-1 05/08/11	BCE 2011-2 7/6/11	BCE 2012-1 09/28/2012	BCE 2012-2 10/2/2012	BCE 2013-1 07/26/2013	BCE 2013-2 07/26/2013	BCE 2015-1 06/24/2015	BCE 2015-2 06/24/2015	BCE 2016-1 3/22/2016	BCE 2017-1 06/27/2017	BCE 2019-1 12/6/2018	TOTAL
Jean-Claude Lumaret	35,000		65,000		30,000							**130,000**
Alain Chevallier		7,614	12,386		6,000							**26,000**
Emmanuel Maille				8,000		2,400	20,600					**31 000**
Cédric Boisart				8,000		2,400						**10,400**
Alain Marty								31,000				**31,000**
Jean Falgoux									37,982			**37,982**
Martin Stephan										35,000		**35,000**
Ian Hudson											28,000	**28,000**
TOTAL	**35,000**	**7,614**	**77,386**	**16,000**	**36,000**	**4,800**	**20,600**	**31,000**	**37,982**	**35,000**	**28,000**	**329,382**

In order to obtain details about the BCE subscribed or not, and exercised or not, refer to section 17.2.4 of this document.

[133] With the exception of the BSAs issued for the benefit of Kepler Cheuvreux as part of a credit line whose features are detailed in paragraph 17.2.3 below.

17.2.3. Features of the BSA plans

The table below summarizes the terms and conditions of the various BSA plans, whose list of beneficiaries is set out in section 17.2.1 above. It is specified that each time BSAs are allocated, the subscription price of the warrant is determined by the Board of Directors, in light of a report by an independent expert. The subscription price of the warrant is set without any discount on the value indicated in the expert's report.

Table 8 (AMF nomenclature): History of stock option allocations

	BSA 2011-1		BSA 2012-1	BSA 2012-2	BSA 2012-3	BSA 2013-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the Chairman in accordance with the delegation of authority granted by the sole partner on 7/12/2011	Decision of the Chairman in accordance with the delegation of authority granted by the sole partner on 6/8/2012	Collective decision of the shareholders on 9/28/2012	Collective decision of the shareholders on 9/28/2012	Collective decision of the shareholders on 12/04/2012	Decision of the Shareholders' Meeting on 7/26/2013
Number of BSAs issued	2,506	1,253	170,000	20,241	7,000	14,400
Number of shares that may be subscribed or purchased	3,759		170,000	20,241	7,000	14,400
Warrant exercise start date	7/15/2012		According to the achievement of the exercise criteria (see methods above)	09/28/2013	12/04/2014	07/26/2014
Number of BSAs subscribed	3,759		170,000	20,241	7,000	14,400
Price of subscription or purchase of the warrant	0.10		Free	0.22	0.22	0.22
Expiration date	7/21/2021	6/8/2022	9/28/2022	9/28/2022	12/4/2022	7/26/2023
Warrant exercise method	Possibility of exercising a number x of warrants between April 15 and July 15 of each year and for the the first time on 7/15/2012, for up to 626 warrants calculated according to the following rule beginning from July 15, 2011: x = (total number of BSAs 2011-1 allocated to the beneficiary * nbr of months since 7/15/2011)/48)		Possibility of exercising the warrants after transfer by the beneficiary to CARBIOS of at least one strain of interest from the collection of cultures of the beneficiary whose degradation properties have been validated by the Board of Directors within the context of the research cooperation agreement signed between the beneficiary and CARBIOS	Possibility of exercising a number x of warrants per complete monthly period beginning from 9/28/2012, and for the first time from 2/28/2013, calculated according to the following rule: x = (total nbr of BSAs 2012-2 allocated to beneficiary * nbr of months since on 9/28/2012)/48	Possibility of exercising a number x of warrants per complete monthly period beginning from 12/4/2012, and for the first time from 12/4/2014, calculated according to the following rule: x = (total nbr of BSAs 2012-3 allocated to beneficiary * nbr of months since on 12/4/2012)/48	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 7/26/2013, and for the first time from 7/26/2014, calculated according to the following rule: x = (total nbr of BSAs 2013-1 allocated to beneficiary * nbr of months since 7/26/2013)/48
Exercise price	1,00		2,25	2,25	2,25	80% of IPO price
Total number of shares subscribed as at April 8, 2019	2,506		0	13,494	5,500	0
Cumulative number of subscription or purchase warrants canceled or null and void	0		0	0	0	12,800
Outstanding share subscription warrants as at April 8, 2019	1,253		170,000	6,747	1,500	1,600

	BSA 2015-1	BSA 2015-2	BSA 2015-3	BSA 2016-1	BSA 2017-1	BSA 2019-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 12/15/2016	Decision of the Board of Directors of 06/27/2017	Decision of the Board of Directors dated 04/04/2019
Number of BSAs issued	9,600	9,600	9,600	9,600	9,600	9,600
Number of shares that may be subscribed or purchased	9,600	9,600	9,600	9,600	9,600	9,600
Warrant exercise start date	06/24/2016	06/24/2016	06/24/2016	12/15/2017	6/27/2018	4/4/2020
Number of BSAs subscribed	9,600	9,600	9,600	9,600	0	0
Price of subscription or purchase of the warrant	0.85	0.85	0.85	0,59	1.13	1.38
Expiration date	6/24/2025	6/24/2025	6/24/2025	15/15/2026	6/27/2027	4/4/2029
Warrant exercise method	Possibility of exercising a number x of warrants per complete monthly period beginning on 6/5/2014, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BSAs 2015-1 allocated to beneficiary * nbr of months since 6/5/2014)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 6/5/2014, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BSAs 2015-2 allocated to beneficiary * nbr of months since 6/5/2014)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 10/22/2013, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BSAs 2015-3 allocated to beneficiary * nbr of months since 10/22/2013)/48	Possibility of exercising a number x of warrants per complete monthly period, and for the first time from 12/15/2017, calculated according to the following rule: x = (total nbr of BSAs 2016-1 allocated to beneficiary * nbr of months since 12/15/2016)/48	Possibility of exercising a number x of warrants per complete monthly period, and for the first time from 06/27/2018, calculated according to the following rule: x = (total nbr of BSAs 2017-1 allocated to beneficiary * nbr of months since 06/27/2017)/48	Possibility of exercising a number x of warrants per complete monthly period, and for the first time from 04/04/2020, calculated according to the following rule: x = (total nbr of BSAs 2019-1 allocated to beneficiary * nbr of months since 04/04/2019)/48
Exercise price	12,4581	12,4581	12,4581	8,2837	7,86	8,246635
Total number of shares subscribed as at April 8, 2019	0	0	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	0	0	0	0	9,600	0
Outstanding share subscription warrants as at April 8, 2019	9,600	9,600	9,600	9,600	0	9,600(*)

(*) Liable to be exercised from April 4, 2020.

Furthermore, through of decision made by the Chief Executive Officer on March 28, 2017, the Company issued to Kepler Cheuvreux within the context of the establishment an Equity line financing, 380,000 BSAs enabling it to subscribe 380,000 shares in the event of the exercise of all said BSAs.

By decision of the Board of Directors on September 19, 2017, a capital increase in the amount of €98,000 was recorded following the subscription of 140,000 new ordinary Company shares through the exercise of 140,000 warrants by Kepler Cheuvreux.

By decision of the Chief Executive Officer on November 20, 2017, a capital increase in the amount of €42,000 was recorded following the subscription of 60,000 new ordinary Company shares through the exercise of 60,000 warrants by Kepler Cheuvreux.

By decision of the Board of Directors on September 20, 2018, a capital increase in the amount of €28,000 was recorded following the subscription of 40,000 new ordinary Company shares through the exercise of 40,000 warrants by Kepler Cheuvreux.

By decision of the Board of Directors on December 6, 2018, a capital increase in the amount of €28,000 was recorded following the subscription of 40,000 new ordinary Company shares through the exercise of 40,000 warrants by Kepler Cheuvreux.

As at the date of this Registration Document, 280,000 BSA had been subscribed as part of this equity credit line. The 100,000 BSA subscribed but not yet exercised when the contract expired on March 28, 2019 ceased to be valid.

In addition, making use of the delegation of authority granted by the Shareholders' Meeting of June 15, 2017 in its fifteenth resolution, on November 15, 2017, the Board of Directors decided to issue redeemable share subscription warrants to all shareholders (BSARs) with subdelegation to the Chief Executive Officer for a maximum of 4,556,469 BSARs. In a decision dated November 20, 2017, the Chief Executive Officer decided to make use of the delegation in order to grant free BSARs to all shareholders, with 21 BSARs granting rights to two shares of the Company, for a BSAR exercise price of €10.40. The exercise of all 4,556,469 BSARs issued and granted (before neutralization of treasury shares on the basis of capital) would result in the creation of a maximum of 433,949 new shares of the Company, i.e. a share capital increase, issue premiums included, of €4,513,069.60. The BSARs could be exercised until November 30, 2018 inclusive.

By decision of the Board of Directors on March 27, 2018, a capital increase in the amount of €3,981.60 was recorded following the subscription of 5,688 new ordinary Company shares through the exercise of 59,724 BSAR.

By decision of the Board of Directors on May 3, 2018, a capital increase in the amount of €81.20 was recorded following the subscription of 116 new ordinary Company shares through the exercise of 1,218 BSAR.

By decision of the Board of Directors on June 27, 2018, a capital increase in the amount of €117.60 was recorded following the subscription of 168 new ordinary Company shares through the exercise of 1,764 BSAR.

By decision of the Board of Directors on September 20, 2018, a capital increase in the amount of €411.60 was recorded following the subscription of 588 new ordinary Company shares through the exercise of 6,174 BSAR.

By decision of the Board of Directors on December 6, 2018, a capital increase in the amount of €2,349.20 was recorded following the subscription of 3,356 new ordinary Company shares through the exercise of 35,238 BSAR.

Thus, at the end of the BSAR exercise period (November 30, 2018), 104,118 BSARs had been exercised by their holders out of 4,556,469 issued in 2017, resulting in the creation of 9,916 new shares at a price of €10.40 each. The total dilution generated was 0.22% for a total of €103,126 raised. As at the date of this Registration Document, no BSARs are liable to be exercised.

As at the date of this Registration Document, there were 229,100 BSAs exercisable, granting rights to 229,100 shares.

17.2.4. Features of the BSPCE plans

The table below summarizes the terms and conditions of the various BSPCE plans, whose list of beneficiaries is set out in section 17.2.2 above:

Table 8 (AMF nomenclature): History of stock option allocations

	BCE 2011-1	BCE 2011-2	BCE 2012-1	BCE 2012-2	BCE 2013-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the sole partner on 4/6/2011	Decision of the sole partner on 7/6/2011	Collective decision of the shareholders on 9/28/2012	Collective decision of the shareholders on 9/28/2012	Decision of the Shareholders' Meeting on 7/26/2013
Number BSPCEs issued	35,000	7,614	77,386	16,000	36,000
Number of shares that may be subscribed or purchased	35,000	7,614	77,386	16,000	36,000
Warrant exercise start date	04/15/2012	7/15/2012	2/1/2013	09/28/2013	07/26/2014
Number of BSPCEs subscribed	35,000	7,614	77,386	16,000	36,000
Price of subscription or purchase of the warrant	Free	Free	Free	Free	Free
Expiration date	4/6/2021	07/21/2021	9/28/2022	9/28/2022	7/26/2023
Warrant exercise method	Possibility of exercising a number x of warrants between January 15 and April 15 of each year and for the first time on 4/15/2012, for up to 8,750 warrants, calculated according to the following rule beginning from April 15, 2011: x = (total number of BCEs 2011-1 allocated to the beneficiary * nbr of months since 4/15/2011) /48)	Possibility of exercising a number x of warrants between April 15 and July 15 of each year and for the first time on 7/15/2012, for up to 1.903 warrants calculated according to the following rule beginning from July 15, 2011: x = (total number of BSAs 2011-2 allocated to the beneficiary * nbr of months since 7/15/2011) /48)	Possibility of exercising a number x of warrants per complete monthly period beginning on 2/01/2012, and for the first time from 2/1/2013, calculated according to the following rule: x = (total nbr of BCEs 2012-1 allocated to the beneficiary * nbr of months since 02/01/2012)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 9/28/2012, and for the first time from 9/28/2013, calculated according to the following rule: x = (total nbr of BCEs 2012-2 allocated to the beneficiary * nbr of months since 09/28/2013)/48	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 7/26/2013, and for the first time from 7/26/2014, calculated according to the following rule: x = (total nbr of BCEs 2013-1 allocated to the beneficiary * nbr of months since 7/26/2013)/48
Exercise price	1	1	2,25	2,25	80% of IPO price
Total number of shares subscribed as at April 8, 2019	35,000	7,614	75,838	11,500	0
Cumulative number of subscription or purchase warrants canceled or null and void	0	0	0	4,500	0
Outstanding share subscription warrants as at April 8, 2019	0	0	1,548	0	36,000

	BCE 2013-2	BCE 2015-1	BCE 2015-2	BCE 2016-1	BCE 2017-1	BCE 2019-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the Shareholders' Meeting on 7/26/2013	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 03/22/2016	Decision of the Board of Directors of 06/27/2017	Decision of the Board of Directors of 12/06/2018
Number BSPCEs issued	4,800	20,600	31,000	37,982	35,000	28,000
Number of shares that may be subscribed or purchased	4,800	20,600	31,000	37,982	35,000	28,000
Warrant exercise start date	07/26/2014	06/24/2016	06/24/2016	04/01/2017	6/27/2018	1/1/2020
Number of BSPCEs subscribed	4,800	20,600	31,000	37,982	35,000	28,000
Price of subscription or purchase of the warrant	Free	Free	Free	Free	Free	Free
Expiration date	7/26/2023	6/24/2025	6/24/2025	4/1/2026	6/27/2027	1/1/2029
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 7/26/2013, and for the first time from 7/26/2014, calculated according to the following rule: x = (total nbr of BCEs 2013-2 allocated to the beneficiary * nbr of months since 7/26/2013)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 6/24/2015, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BCEs 2015-1 allocated to the beneficiary * nbr of months since 6/24/2015)/48.	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 = (total nbr of BCEs 2015-2 allocated to the beneficiary * nbr of months since 06/24/2015)/48.	Possibility of exercising a number x of warrants per full monthly period beginning on 04/01/2016 and for the first time from 04/01/2017, calculated according to the following rule: x =(18,991 * nbr of months since 04/01/2016 / 48) and the possibility of exercising 18,991 warrants in the event of the occurrence of certain events.	Possibility of exercising a number x of warrants per full monthly period beginning on 6/27/2017, and for the first time from 6/27/2018, calculated according to the following rule: x = (35,000 * nbr of months since 6/27/2017 / 48).	For the first 14,000 warrants: possibility of exercising a x warrants per full monthly period beginning on 01/01/2019, and for the first time from 01/01/2020, calculated according to the following rule: x = 14,000 * (number of months since 01/01/2019 / 48) For the other 14,000 warrants: possibility of exercising y warrants where y = (number of warrants not yet exercisable) * % determined by the performance of the Carbios share price
Exercise price	80% of IPO price	12,4581	12,4581	11,5066	7,86	5,29999
Total number of shares subscribed as at April 8, 2019	0	0	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	4,800	20,600	0	0	0	0
Outstanding share subscription warrants as at April 8, 2019	0	0	31,000	37,982	35,000	28,000(*)

(*) Liable to be exercised from January 1, 2020.

As at the date of this Registration Document, there were 169,530 BCEs exercisable, granting rights to 169,530 shares.

17.2.5. Profit-sharing and incentive agreements

As the Company did not have at least fifty employees for 12 months, consecutive or not, during the last three fiscal years, the Company is not subject to Article L.3322-2 of the French Labor Code, requiring the constitution of a special profit-sharing reserve. Nonetheless, should this threshold be reached, the necessary steps will be taken to constitute such a reserve.

At the time of filing this Registration Document, no mechanism has been put in place by the Company for incentives or a company savings plan or any employee profit-sharing plan that would allow employees to directly or indirectly acquire shares in the Company or in affiliated companies.

18. PRINCIPAL SHAREHOLDERS

18.1. Change in share ownership over three years

The table below indicates the breakdown of the Company's capital and voting rights as at December 31, 2016, 2017 and 2018 on an undiluted basis:

	Capital as 12/31/2016			Capital as 12/31/2017			Capital as 12/31/2018		
Shareholders	Number of shares	% of share capital	% of voting rights	Total number of shares	% of share capital	% of voting rights	Total number of shares	% of share capital	% of voting rights
Holding Incubatrice Chimie Verte	1,355,455	35.44%	51.67%	913,179	19.97%	33.27%	235,843	5.07%	9.36%
Fonds Truffle Capital	1,318,145	34.46%	25.12%	1,126,698	24.64%	20.52%	899,392	19.31%	18.43%
Deinove	67,555	1.77%	2.58%	0	0%	0%	0	0%	0%
Management and Directors[134]	4,416	0.12%	0.08%	9,207	0.20%	0.17%	5,707	0.12%	0.12%
Treasury shares	14,797	0.39%	N/A	9,652	0.21%	N/A	15,417	0.33 %	N/A
Free float	1,064,419	27.83%	20.55%	2,513,129	54.98%	46.04%	3,500,864	75.17%	72.09%
Total	**3,824,787**	**100.0%**	**100.0%**	**4,571,865**	**100.0%**	**100.0%**	**4,657,223**	**100.0%**	**100.0%**

18.2. Breakdown of share capital as at the date of this Registration Document

The table below indicates the breakdown of CARBIOS' capital and voting rights as at the date of this Registration Document as well as the breakdown of capital if all the financial instruments issued or to be issued giving access to the capital were to be exercised:

	Existing share capital					Breakdown of share capital in the event of the exercise of all instruments giving access to the share capital				
Shareholders	Total number of shares	% of share capital	Theoretical number of voting rights	Number of voting rights exercisable	% of voting rights exercisable	Total number of shares	% of share capital	Theoretical number of voting rights	Number of voting rights exercisable	% of voting rights exercisable
Holding Incubatrice Chimie Verte	235,843	5.07%	456,389	456,389	9.34%	235,843	4.66%	456,389	456,389	8.64%
Fonds Truffle Capital	899,392	19.31%	899,392	899,392	18.41%	899,392	17.79%	899,392	899,392	17.02%
Deinove	0	0%	0	0	0%	170,000	3.36%	170,000	170,000	3.22%
Management and Directors[110]	5,707	0.12%	5,708	5,708	0.12%	173,037	3.42%	173,038	173,038	3.27%
Treasury shares	8,369	0.18%	8,369	0	N/A	8,369	0.17%	8,369	0	N/A
Free float	3,507,912	75.32%	3,524,110	3,524,110	72.13%	3,569,212	70.60%	3,585,410	3,585,410	67.85%
Total	**4,657,223**	**100 %**	**4,893,968**	**4,885,599**	**100%**	**5,055,853**	**100%**	**5,292,598**	**5,284,229**	**100%**

CARBIOS' principal shareholders include:

[134] The "Management and Directors" line in the table does not take into account the holdings of Truffle Capital, which can be found on a specific line. Truffle Capital, represented by Philippe Pouletty, has been a member of the Board of Directors since September 20, 2018.

- Truffle Capital, an important and independent player in the European venture capital 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 €450 million in vehicles for natural persons (FCPI, management mandate, holdings) as well as institutional funds (FPCI), and has built a solid portfolio of rapidly growing innovative companies.
- Holding Incubatrice Chimie Verte, created and advised by Truffle Capital. This was formed through a public offering as defined by French tax legislation relating to tax reductions benefiting investment in small and medium-sized enterprises (SME). In line with the commitments made upon its creation, Holding Incubatrice Chimie Verte has adopted an investment strategy exclusively focused on young innovative SMEs.

Dilution generated by the exercise of various BSA and BCE plans based on the number of shares as at the date of this Registration Document

- 169,530 BCE. If all of these BCEs were exercised, they would give rights to 169,530 new shares.
- 229,100 BSA. If all of these BSAs were exercised, they would give rights to 229,100 new shares.

	Existing securities	In the event of exercising BCEs	In the event of exercising BSAs	In the event of exercising BSAs and BCEs
Total number of shares	4,657,223	169,530	229,100	398,630
Total number of shares after exercising warrants		4,826,753	4,886,323	5,055,853
Dilution (on an undiluted basis)		3.64%	4.91%	8.56%

18.3. 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.

As at the date of this Registration Document, among the shareholders, Holding Incubatrice Chimie Verte held double voting rights for 220,546 of its shares and Jean-Claude Lumaret held double voting rights for 1 of his shares. Registered shareholders included under the Free float held double voting rights for 16,198 of their shares.

As at the date of this Registration Document, 236,745 Company shares carried double voting rights. These shares represent 5.08% of the share capital and 9.69% of exercisable voting rights.

18.4. Control of the Issuer

Given the capitalization table and the table showing the breakdown of voting rights set out in section 18.2 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 is pointed out that four of the nine 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, Audit Committee) and non-statutory commissions (Intellectual Property Committee and Compensation Committee), as described earlier in paragraphs 16.3.1 and 16.3.2 of this Registration Document.

The Company has not taken any other measures to ensure that control is not exercised in an abusive manner.

18.5. Agreements that could lead to a change of control

No particular feature of the articles of incorporation, bylaws, charter or regulations of the Company would have the effect of hindering, delaying or preventing a change of control.

To the Company's knowledge, there is no agreement in force whose implementation, at a future date, would lead to a change of control of the Company.

18.6. Agreements containing clauses relating to control of the Company

None.

19. OPERATIONS WITH AFFILIATES

19.1. Transactions WITH RELATED PARTIES

The reader is invited to see Note 14 "Related parties" in section 20.1.5.14 of this Registration Document.

19.1.1. Employment contract between the Company and Mr. Jean-Claude Lumaret, Chief Executive Officer

Since April 1, 2011, Mr. Jean-Claude Lumaret, Chief Executive Officer, has held a permanent employment contract, which defines his terms of employment as Chief Technical Officer with the status of senior executive. Under this contract, in respect of the 2018 fiscal year, Mr. Lumaret received the sum of €112,500 and will receive, in respect of fiscal year 2019, the sum of €116,000 as well as an annual bonus based on achievement of contractually defined business targets. The overall amount of the bonus including Mr. Lumaret's variable and exceptional compensation, booked as expenses for the 2018 fiscal year, was €78,750. Furthermore, in respect of the fiscal year ended on December 31, 2018, Mr. Lumaret received a benefit in kind in the amount of €15,702.

19.1.2. Contracts signed with CARBIOLICE[135]

Licensing and sub-licensing of patent and know-how licenses

The Company signed a patent and know-how licensing agreement with SAS CARBIOLICE on August 30, 2016, which will be effective until the expiration of the last of the licensed patents. The payment of this agreement is scheduled to take the form of an €8 million lump-sum royalty payment and variable royalties from the revenue generated by CARBIOLICE's use of the licensed technology. In an amendment to the license agreement dated June 28, 2018, CARBIOS extended the scope of the license granted to CARBIOLICE to new patent families, applications and products through incorporation of the wording of the secondary patent and know-how license option granted by CARBIOS to CARBIOLICE on February 15, 2017. This agreement also provides for the payment to CARBIOS of an additional lump-sum, subject to the achievement by CARBIOLICE of a defined level of revenue. No variable royalties had been recorded as of December 31, 201 given that none of CARBIOLICE's revenue results from use of the CARBIOS' technology granted in the license.

As an extension to this licensing, an agreement was signed between CARBIOS and CARBIOLICE on January 3, 2018 covering the terms and conditions for the testing of a new biodegradation enzyme for CARBIOLICE. Two additional agreements were signed on May 22, 2018 and July 27, 2018 for the production of new enzyme batches.

Agreement for the provision of services

On August 31, 2016, an agreement for the provision of services was signed with the CARBIOLICE subsidiary to perform, at its request, sample analyses for a period of one year. This agreement may be renewed upon request from CARBIOLICE. Compensation is set according to a price list for the analyses. This price list is appended to the agreement.

Consulting agreement

CARBIOLICE consulting agreement: on August 31, 2016, a consulting agreement was signed with the CARBIOLICE subsidiary to assist and advise the executive and management bodies for a period of 16 months from September 1, 2016. This agreement is tacitly renewable for one year. Compensation is set at the amount of €3,500 per month plus the reimbursement of any potential expenses.

An amendment to this consulting agreement took effect on January 1, 2018, specifying in more detail the services proposed by CARBIOS to its affiliate CARBIOLICE and setting flat-fee monthly remuneration henceforth at €5,000. A second amendment was signed on January 28, 2019 to take the planned monthly compensation from €5,000 to €3,500.

Research services agreement

On February 15, 2017, CARBIOS entered into a research service agreement with its subsidiary for a period of two years and a total amount of €1,248 thousand. The aim of this contract is to carry out a product development program thanks to its Biodegradation technology. In order to meet CARBIOLICE's new objectives, an amendment to this research service agreement was signed on December 10, 2018 to extend its term to February 15, 2021 and take the overall amount to €2,500 K.

Service provision rebilling

[135] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

On September 17, 2018, CARBIOS signed a letter of understanding with its subsidiary covering the rebilling of services provided by service providers on behalf of CARBIOS and CARBIOLICE.

19.2. Statutory Auditors' reports on regulated agreements

Regulated agreements are mentioned in the Statutory Auditors' special reports presented below for the years 2017 and 2018.

19.2.1. Statutory Auditors' special report on regulated agreements (fiscal year ended on December 31, 2017) – *In French*

Carbios

Rapport spécial du commissaire aux comptes sur les conventions réglementées

(Assemblée générale d'approbation des comptes de l'exercice clos le 31 décembre 2017)

Rapport spécial du commissaire aux comptes sur les conventions réglementées

(Assemblée générale d'approbation des comptes de l'exercice clos le 31 décembre 2017)

Aux Actionnaires
Carbios
Rue Emile Duclaux
Biopôle Clermont Limagne
63360 Saint Beauzire

En notre qualité de commissaire aux comptes de votre société, nous vous présentons notre rapport sur les conventions réglementées.

Il nous appartient de vous communiquer, sur la base des informations qui nous ont été données, les caractéristiques, les modalités essentielles ainsi que sur les motifs justifiant de l'intérêt pour la société des conventions dont nous avons été avisés ou que nous aurions découvertes à l'occasion de notre mission, sans avoir à nous prononcer sur leur utilité et leur bien-fondé ni à rechercher l'existence d'autres conventions. Il vous appartient, selon les termes de l'article R. 226-2 du code de commerce, d'apprécier l'intérêt qui s'attachait à la conclusion de ces conventions en vue de leur approbation.

Par ailleurs, il nous appartient, le cas échéant, de vous communiquer les informations prévues à l'article R. 226-2 du code de commerce relatives à l'exécution, au cours de l'exercice écoulé, des conventions déjà approuvées par l'assemblée générale.

Nous avons mis en œuvre les diligences que nous avons estimé nécessaires au regard de la doctrine professionnelle de la Compagnie nationale des commissaires aux comptes relative à cette mission. Ces diligences ont consisté à vérifier la concordance des informations qui nous ont été données avec les documents de base dont elles sont issues.

CONVENTIONS SOUMISES A L'APPROBATION DE L'ASSEMBLEE GENERALE

En application de l'article L.226-10 du code de commerce, nous avons été avisés de la convention suivante qui a fait l'objet de l'autorisation préalable de votre conseil d'administration.

- **Contrat de licence de brevet conclu entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu une option secondaire au contrat de licence et savoir-faire (option pour la concession d'un droit d'exploitation mondial et exclusif dans le domaine des Nouveaux Développements tels que notifiés par Carbios).

PricewaterhouseCoopers Audit, 63, rue de Villiers 92208 Neuilly-sur-Seine Cedex
Téléphone: +33 (0)1 56 57 58 59, Fax: +33 (0)1 56 57 58 60, www.pwc.fr

Modalités et incidences financières :

Les modalités seront à définir.
Aucun produit n'a été enregistré au cours de l'exercice.

- **Contrat de prestation de recherche**

Nature et objet :

Carbios a conclu un contrat de prestation de recherche pour le développement de produits principaux et secondaires à l'aide de la technologie de biodégradation.

Modalités et incidences financières :

Le contrat est contacté pour une durée de 2 ans à partir du 15 février 2017. Ce contrat est renouvelable d'un commun accord sous respect d'un délai de préavis de 3 mois. La rémunération de ce contrat est de 1.248.317€. Au cours de l'exercice 2017, Carbios a enregistré un produit d'un montant de 723.983€.

CONVENTIONS DEJA APPROUVEES PAR L'ASSEMBLEE GENERALE

Conventions approuvées au cours d'exercices antérieurs dont l'exécution s'est poursuivie au cours de l'exercice écoulé

En application de l'article R. 226-2 du code de commerce, nous avons été informés que l'exécution des conventions suivantes, déjà approuvées par l'assemblée générale au cours d'exercices antérieurs, s'est poursuivie au cours de l'exercice écoulé.

- **Contrat de licence de brevet conclu entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu un contrat de licence de brevet et de savoir-faire avec Carbiolice pour une durée allant jusqu'à l'expiration du dernier des brevets concédés. La rémunération forfaitaire prévue est de 8 Millions d'euros à la signature et un variable de 3% des ventes nettes des produits concernés par un brevet.

Les modalités de ce contrat ont été autorisées par le conseil d'administration du 21 juin 2016 (2ème décision).

Modalités et incidences financières :

Le montant global de la rémunération perçue au titre de ce contrat au cours de l'exercice 2016 s'élève à 8 millions d'euros. Elle a été totalement versée via un abandon de créance suivi d'une prise de participation de Carbios chez Carbiolice pour le même montant à partir du 1er septembre 2016 (date de début d'activité).

- **Contrat d'animation conclu entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu un contrat d'animation avec Carbiolice ayant pour objet l'assistance en matière financière, stratégique, R&D et ressources humaines.

Les modalités de ce contrat ont été autorisées par le conseil d'administration du 27 septembre 2016 (4ème décision).
Modalités et incidences financières :

Le contrat d'animation débute le 1er septembre 2016 pour une durée de 16 mois, renouvelable par tacite reconduction à la date d'anniversaire. La rémunération de ce contrat est prévue à 3.500 € par mois. Au cours de l'exercice, Carbios a enregistré 45.500€ en produit dont 10.500 € restent à percevoir sur 2018.

- **Contrat de travail entre la société Carbios et M. Jean-Claude Lumaret, Directeur Général**

Nature et objet :

Monsieur Jean-Claude Lumaret, nommé Directeur Général par les statuts, est titulaire depuis le 1er avril 2011 d'un contrat de travail à durée indéterminée qui définit ses conditions d'emploi en qualité de Directeur de la recherche et du développement avec un statut de cadre supérieur dirigeant. Au titre de ce contrat, Monsieur Lumaret perçoit une rémunération annuelle fixe et un bonus annuel d'un montant garanti jusqu'au 31 mars 2012, puis conditionné à la réalisation effective dans les délais prévus d'objectifs professionnels contractuellement définis. Ces éléments sont réévalués chaque année. Le contrat prévoit également un avantage en nature sous forme de mise à disposition d'un véhicule de fonction.

Les modalités de ce contrat ont été autorisées lors du conseil d'administration du 20 février 2013 (3ème décision).

Modalités et incidences financières :

Le montant global du bonus de Jean-Claude Lumaret enregistré en charges au titre de l'exercice 2016 s'élève à 67 173 euros. Il a été totalement versé à Jean-Claude Lumaret en Janvier 2017 lors du versement de la paie.
Le montant global du bonus de Jean-Claude Lumaret enregistré en charges au titre de l'exercice 2017 s'élève quant à lui à 67.060€ et un avantage en nature d'un montant de 12.434€.
Le bonus et l'avantage en nature ont été totalement versés à Jean-Claude Lumaret en décembre 2017 lors du versement de sa paie.

Fait à Neuilly-sur-Seine, le 28 Mars 2018

Le commissaire aux comptes
PricewaterhouseCoopers Audit

Thierry Charron

19.2.2. Statutory Auditors' special report on regulated agreements (fiscal year ended on December 31, 2018) – *In French*

Carbios

Rapport spécial du commissaire aux comptes sur les conventions réglementées

(Assemblée générale d'approbation des comptes de l'exercice clos le 31 décembre 2018)

pwc

Rapport spécial du commissaire aux comptes sur les conventions réglementées

(Assemblée générale d'approbation des comptes de l'exercice clos le 31 décembre 2018)

Aux Actionnaires
Carbios
Rue Emile Duclaux
Bipôle Clermont Ligne
63360 Saint-Beauzire

En notre qualité de commissaire aux comptes de votre société, nous vous présentons notre rapport sur les conventions réglementées.

Il nous appartient de vous communiquer, sur la base des informations qui nous ont été données, les caractéristiques, les modalités essentielles ainsi que sur les motifs justifiant de l'intérêt pour la société des conventions dont nous avons été avisés ou que nous aurions découvertes à l'occasion de notre mission, sans avoir à nous prononcer sur leur utilité et leur bien-fondé ni à rechercher l'existence d'autres conventions. Il vous appartient, selon les termes de l'article R. 225-31 du code de commerce, d'apprécier l'intérêt qui s'attachait à la conclusion de ces conventions en vue de leur approbation.

Par ailleurs, il nous appartient, le cas échéant, de vous communiquer les informations prévues à l'article R. 225-31 du code de commerce relatives à l'exécution, au cours de l'exercice écoulé, des conventions déjà approuvées par l'Assemblée générale.

Nous avons mis en œuvre les diligences que nous avons estimé nécessaires au regard de la doctrine professionnelle de la Compagnie nationale des commissaires aux comptes relative à cette mission. Ces diligences ont consisté à vérifier la concordance des informations qui nous ont été données avec les documents de base dont elles sont issues.

CONVENTIONS SOUMISES A L'APPROBATION DE L'ASSEMBLEE GENERALE

Conventions autorisées et conclues au cours de l'exercice écoulé

En application de l'article L. 225-40 du code de commerce, nous avons été avisés des conventions suivantes conclues au cours de l'exercice écoulé qui ont fait l'objet de l'autorisation préalable de votre Conseil d'administration.

PricewaterhouseCoopers Audit, 63, rue de Villiers 92208 Neuilly-sur-Seine Cedex
Téléphone: +33 (0)1 56 57 58 59, Fax: +33 (0)1 56 57 58 60, www.pwc.fr

- **Contrats de refacturations de travaux entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu un contrat de refacturation relatif aux tests effectués sur l'enzyme de protéine T avec Carbiolice.

Les modalités de ce contrat ont été autorisées par le Conseil d'administration du 27 mars 2018.

Modalités et incidences financières :

Au cours de l'exercice 2018, Carbios a enregistré un produit d'un montant de 37.800 €.

- **Contrats pour la production d'enzyme entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu deux contrats pour la production de lots d'enzyme pour le compte de Carbiolice au cours de l'exercice 2018.

Les modalités de ces contrats ont été autorisées par le Conseil d'administration suivant du 20 septembre 2018.

Modalités et incidences financières :

Au cours de l'exercice 2018, Carbios a enregistré les produits suivants :

- ✓ Contrat n°1 : 24.000 € ;
- ✓ Contrat n° 2 : 24.000 €.

- **Contrats de refacturations de prestations entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu un contrat de refacturation des dépenses liées aux affaires réglementaires et travaux liés aux enzymes avec Carbiolice sur l'exercice 2018.

Les modalités de cette lettre ont été autorisées par le Conseil d'administration du 20 septembre 2018.

Modalités et incidences financières :

Au cours de l'exercice 2018, Carbios a enregistré un produit d'un montant de 45.156 €.

CONVENTIONS DEJA APPROUVEES PAR L'ASSEMBLEE GENERALE

Conventions approuvées au cours d'exercices antérieurs dont l'exécution s'est poursuivie au cours de l'exercice écoulé

En application de l'article R. 225-30 du code de commerce, nous avons été informés que l'exécution des conventions suivantes, déjà approuvées par l'Assemblée générale au cours d'exercices antérieurs, s'est poursuivie au cours de l'exercice écoulé.

- **Contrat de licence de brevet conclu entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu une option secondaire au contrat de licence et savoir-faire (option pour la concession d'un droit d'exploitation mondial et exclusif dans le domaine des Nouveaux Développements tels que notifiés par Carbios).

Modalités et incidences financières :

Contrat de licence de brevets et de savoir-faire pour une durée allant jusqu'à l'expiration du dernier des brevets concédés. Rémunération forfaitaire de 8 millions d'euros à la signature (2016) et d'un variable sur les ventes nettes des produits concernés par les brevets.

Aucun produit n'a été enregistré au cours de l'exercice

- **Contrat de prestation de recherche**

Nature et objet :

Carbios a conclu un contrat de prestation de recherche pour le développement de produits principaux et secondaires à l'aide de la technologie de biodégradation.

Modalités et incidences financières :

Le contrat est contacté pour une durée de 2 ans à partir du 15 février 2017. Ce contrat est renouvelable d'un commun accord sous respect d'un délai de préavis de 3 mois. La rémunération de ce contrat est de 1.248.317 €. Renouvelé par avenant pour 2 ans, soit jusqu'au 15 février 2021, avec une rémunération totale de 2 499 966 €.

Au cours de l'exercice 2018, Carbios a enregistré un produit d'un montant de 723.983 €.

- **Contrat d'animation conclu entre Carbios et Carbiolice**

Nature et objet :

Carbios a conclu un contrat d'animation avec Carbiolice ayant pour objet l'assistance en matière financière, stratégique, R&D et ressources humaines.

Les modalités de ce contrat ont été autorisées par le Conseil d'administration du 27 septembre 2016.

Modalités et incidences financières :

Le contrat d'animation débute le 1er septembre 2016 pour une durée de 16 mois, renouvelable par tacite reconduction à la date d'anniversaire. La rémunération de ce contrat est prévue à 3.500 € HT par mois, puis passage à 5 000€ HT par mois dès le 1er janvier 2018 suite à avenant. Il a été acté par avenant de revenir en 2019 au montant de 3 500€ HT par mois dès le 1er janvier 2019.

Au cours de l'exercice, Carbios a enregistré 60 000 € en produit.

- **Contrat de travail entre la société Carbios et M. Jean-Claude Lumaret, Directeur Général**

Nature et objet :

Monsieur Jean-Claude Lumaret, nommé Directeur Général par les statuts, est titulaire depuis le 1er avril 2011 d'un contrat de travail à durée indéterminée qui définit ses conditions d'emploi en qualité de Directeur de la recherche et du développement avec un statut de cadre supérieur dirigeant. Au titre de ce contrat, Monsieur Lumaret perçoit une rémunération annuelle fixe et un bonus annuel d'un montant garanti jusqu'au 31 mars 2012, puis conditionné à la réalisation effective dans les délais prévus d'objectifs professionnels contractuellement définis. Ces éléments sont réévalués chaque année. Le contrat prévoit également un avantage en nature sous forme de mise à disposition d'un véhicule de fonction.

Les modalités de ce contrat ont été autorisées lors du Conseil d'administration du 20 février 2013.

Modalités et incidences financières :

Le montant global du bonus de Jean-Claude Lumaret enregistré en charges au titre de l'exercice 2018 s'élève à 78 750 euros. Il a été totalement versé à Jean-Claude Lumaret en décembre 2018.

Le montant de la rémunération fixe de Jean-Claude Lumaret enregistré en charges au titre de l'exercice 2018 s'élève quant à lui à 112 500 € et un avantage en nature d'un montant de 15 702 €.

Fait à Neuilly-sur-Seine, le 5 avril 2019

Le commissaire aux comptes
PricewaterhouseCoopers Audit

Thierry Charron

20. FINANCIAL INFORMATION CONCERNING THE ASSETS, FINANCIAL POSITION AND PERFORMANCE OF THE ISSUER

Pursuant to Article 28 of European regulation 809/2004, the following elements are included by reference in this Registration Document:

- The annual parent company financial statements for the fiscal year ended on December 31, 2016 and the related Statutory Auditors' report which were not subject to any comments, as presented in Chapter 20 of the Registration Document filed with the *Autorité des Marchés Financiers* on April 28, 2017, under number R.17-037;
- The annual parent company financial statements for the fiscal year ended on December 31, 2017 and the related Statutory Auditors' report which were not subject to any comments, as presented in Chapter 20 of the Registration Document filed with the *Autorité des Marchés Financiers* on April 26, 2018, under number R.18-030.

20.1. Historical financial information

20.1.1. Balance sheet

ASSETS (In thousands of euros)	Note	12/31/2017	12/31/2018
FIXED ASSETS			
Intangible assets	4	**565**	**691**
Concessions, patents, licenses, software		565	691
Property, plant and equipment	4	**1,106**	**971**
Office and IT hardware		35	25
Laboratory equipment and material		1,017	889
Fixtures and fittings		54	57
Advances on assets under construction			
Financial assets		**9,680**	**10,802**
Equity interests	4	9,500	10,600
Deposits and guarantees		23	110
Liquidity contract	4	78	19
Treasury shares	4	79	73
TOTAL FIXED ASSETS		**11,350**	**12,464**
CURRENT ASSETS			
Receivables	5	364	70
State receivables	5	1,091	1,375
Subsidies receivable	5 & 9		
Laboratory raw material inventories	5	14	15
Other receivables	5	1	34
Cash, cash equivalents and marketable securities	6 & 7	7,547	5,149
Prepaid expenses	5	155	38
TOTAL CURRENT ASSETS		**9,171**	**6,680**
Expense to be spread over the loan			**6**
OVERALL TOTAL		**20,521**	**19,149**

LIABILITIES (In thousands of euros)	Note	12/31/2017	12/31/2018
EQUITY	8		
Capital		3,200	3,260
Issue, merger and contribution premiums		18,588	19,129
Retained earnings		- 3,319	- 7,256
Investment subsidies		17	15
Profit and loss for the period		- 3,936	- 3,110
TOTAL EQUITY		**14,550**	**12,038**
OTHER EQUITY CAPITAL			
Avances conditionnées	9	3,707	3,707
DEBT	11		
Loans	9	339	1,866
Trade payables and related accounts	11	1,432	1,061
Tax and social liabilities	11	455	475
Other liabilities		37	2
Subsidies received in advance			
TOTAL LIABILITIES		**2,264**	**3,404**
OVERALL TOTAL		**20,521**	**19,149**

20.1.2. Income statement

INCOME STATEMENT (In thousands of euros)	Note	12/31/2017	12/31/2018
Operating revenues	9	*983*	1,083
Licensing revenues	10		
Total operating revenues		***983***	***1,083***
Autres achats et charges externes		2,314	2,646
Taxes and similar payments		32	28
Salaries and wages	17	1,647	1,628
Social security contributions		566	582
Depreciation of fixed assets	4	240	299
Other expenses		835	139
Total operating expenses		***5,635***	***5,323***
OPERATING INCOME		**-4,652**	**-4,240**
Financial income	6	59	10
Financial expenses	4	35	35
FINANCIAL INCOME		**24**	**-25**
CURRENT INCOME BEFORE TAXES		**-4,628**	**-4,265**
Extraordinary income		12	16
Charges exceptionnelles		23	53
EXTRAORDINARY GAIN OR LOSS		**-11**	**-37**
Income tax (research tax credit)	13	-702	- 1,191
PROFIT OR LOSS		**- 3,936**	**- 3,110**

20.1.3. Statement of net cash flows

Audited parent company financial statements – French standards (In thousands of euros)	12/31/2017	12/31/2018
NET CASH FLOW FROM OPERATING ACTIVITIES		
Profit and loss for the period	- 3,936	- 3,110
Depreciation, amortization and impairment (including investment subsidies)	231	325
Changes in working capital requirements	1 485	-293
Net cash absorbed by operations	**- 2,221**	**- 3,078**
NET CASH FLOW FROM INVESTMENT ACTIVITIES		
Acquisitions of fixed assets	- 331	-299
Acquisition of financial assets	19	- 1,142
Changes in fixed asset liabilities	0	0
Net cash from (absorbed by) investments	**- 312**	**- 1,441**
NET CASH FLOW FROM FINANCING ACTIVITIES		
Net proceeds from the issuance of shares and BSAs	5,375	601
Inflows from loans	0	1,550
Reimbursement of loans	- 54	-23
Expense to be spread over the loan	0	-6
Inflows from repayable advances and Investment subsidies	771	0
Net cash from financing activities	**6,092**	**2,122**
Change in cash and cash equivalents	**3,560**	**-2,398**
Cash and cash equivalents at the beginning of the period	3,987	7,547
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	**7,547**	**5,149**

20.1.4. Statement of changes in equity

Audited parent company financial statements French standards (in €)	Share Capital	Issue Premium	Subscription capital	Investment subsidies -	Profit or loss for the period	Retained earnings	Total due to shareholder
12/31/2017	**3,200,306**	**18,552,044**	**35,723**	**17,250**	**- 3,936,302**	**- 3,319,355**	**14,549,666**
Allocation of earnings N-1					3,936,302	- 3,936,302	
Increase/reduction in share capital and issue premium	59,751	540,973					**59,751** **540,973**
Subscription of BSA/BCE							
Quasi-equity							
Profit (loss) 2018				- 2,250	- 3,110,264		**- 3,112,514**
12/31/2018	**3,260,056**	**19,093,017**	**35,723**	**15,000**	**- 3,110,264**	**- 7,255,657**	**12,037,875**

20.1.5. Notes to the annual financial statements

20.1.5.1. 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 are therefore the accounting principles generally accepted in France. This financial statements for this fiscal year cover the period ended December 31, 2018, being the Company's sixth accounting period.

20.1.5.2. Note 2: Highlights of the fiscal year

Since its inception, CARBIOS has filed 27 direct patent applications, acquired one patent application previously held by Setup Performance and obtained an exclusive worldwide license for the use of a family of patent applications filed by the CNRS, the University of Poitiers and Valagro.
In 2018, the Company carried out a capital increase for €601 thousand notably through the exercise of Kepler Cheuvreux BSA.
A loan for €1,500 thousand was subscribed on November 23, 2018 to finance the intangible expenses related to its desire to launch the industrialization process.
On July 4, 2018, the capital increase of €1,100 thousand in the subsidiary CARBIOLICE was noted, through the exercise of 11,000 BSAs held by CARBIOS.
The headcount at CARBIOS comprised 20 employees as at December 31, 2018, mainly composed of researchers.

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. Nevertheless, the management of the ongoing developments until the industrial demonstration stage or even the application of CARBIOS processes to other market may require new financing to be sought from institutional entities or industrial partners.

20.1.5.3. Note 3: Accounting principles and methods

The accounting principles and methods used to prepare the annual financial statements comply with regulation 2014-03 of the French General Accounting Plan, with the following assumptions:

- Going concern (see Note 2);
- Permanence of accounting methods;
- Independence of fiscal years;
- Principle of prudence and historical cost.

The information communicated below is an integral part of the 2018 financial statements, which were approved on April 4, 2019, by the Board of Directors.
Financial information is accordingly compared to that of the Company's sixth accounting period, ended on December 31, 2017, for a period of 12 months.

20.1.5.4. Note 4 – Property, plant and equipment, intangible and financial assets

The movements with an impact on fixed assets were the following:

Fiscal Year 2018 *Fixed assets (in euros)*	At the beginning of the period 4/1/2018	Increase	Decrease	At the end of the period 12/31/2018
Intangible assets				
Software, website	25,641			25,641
Patents	586,441	259,342		845,783
Patents licensed	71,742	57,474	11,386	117,830
Property, plant and equipment				
Office and IT hardware	129,973	7,009		136,982
Fixtures and fittings	66,712	10,277		76,989
Furniture	17,663	6,052		23,715
Laboratory fittings and equipment	1,438,764	25,237		1,464,001
Financial assets				
Equity interests	9,500,000	1,100,000		10,600,000
Guarantees and security deposits	22,623	87,000		109,623
Liquidity contract	78,102		59,400	18,703
Treasury shares	80,840	14,806		95,646
Assets under construction	82,000	15,554	82,000	15,554
TOTAL	**12,100,502**	**1,582,751**	**152,786**	**13,530,467**

The methods and term of depreciation and amortization of assets are the following:

Fiscal Year 2018 *Depreciation, amortization and provisions (in euros)*	Depr./amort. period	At the beginning of the period 4/1/2018	Increase	Decrease	At the end of the period 12/31/2018
Intangible assets					
Software, website	1 year	16,580	3,772		20,351
Patents	10 years	175,598	100,975		276,572
Patents licensed	10 years	8,976	10,934	3,045	16,865
Property, plant and equipment					
Fixtures and fittings	7 to 10 years	13,039	7,027		20,065
Laboratory fittings and equipment	5 to 10 years	421,665	153,888		575,553
Office and IT hardware	3 to 5 years	100,290	20,028		120,319
Furniture	3 to 7 years	12,518	2,467		14,985
Financial assets					
Treasury shares		2,273	19,988		22,262
TOTAL		**750,939**	**319,079**	**3,045**	**1,066,972**

Fiscal Year 2018 *Provisions for impairment (in euros)*	Beginning of fiscal year	Allocations	Allowances	Reversals End
Regulated provisions				
Provisions for litigation				
Provision for foreign exchange losses				
Provisions for contingencies and charges				
Impairment of inventories and work in progress				
Impairment of trade receivables				
Impairment of other assets	2,273	19,988		22,262
IMPAIRMENT	**2,273**	**19,988**		**22,262**
TOTAL	**2,273**	**19,988**		**22,262**

- 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.

- 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 subjected to the established depreciation plans depending on the actual period of utilization of the asset.

Depreciation periods are between 3 and 10 years depending on the type and lifespan of the assets in question.

- Equity interests

CARBIOS acquired the share capital of CARBIOLICE (*société par actions simplifiée*) when it was created on June 14, 2016, and later subscribed to several capital increases of its subsidiary during the 2016 and 2018 fiscal years. As of December 31, 2018, CARBIOS owned 10,600,000 SAS CARBIOLICE shares out of the 18.85 million shares making up its share capital, representing a stake of 56.23% (see note 14). Equity interests are assessed at their acquisition value. If this value exceeds the value in use, impairment is recognized for the difference. The value in use is calculated by referring to the impairment test performed based on the discounted cash flow method. The impairment tests performed at the end of the previous fiscal year did not show any unrealized loss on the CARBIOLICE equity stake.

- 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 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, 2018, the Company held 15,417 CARBIOS shares, or a book value of €95 thousand. The closing net asset value was €73 thousand. A provision for impairment of €2 thousand was recorded in the financial statements at the beginning of the fiscal year; a provision of €20 thousand was therefore recorded to adjust the total provision to €22 thousand.

- The cash paid to the intermediary and not yet used is recognized under "Liquidity contract" and represents €19 thousand.

20.1.5.5. Note 5: Receivables and prepaid expenses

- Statement of receivables

Statement of receivables as at 12/31/2018 (in euros)	Gross amount	At one year	At more than one year
Current assets & prepayments			
Customers	69,608	69,608	
Income tax (1)	1,204,378	1,204,378	
Value added tax	170,936	170,936	
Other receivables	31,108	31,108	
Subsidies receivable	0	0	
Prepaid expenses (2)	37,687	37,687	
TOTAL	***1,513,717***	***1,513,717***	

(1) The income tax receivable corresponds to the Research Tax Credit (CIR) recognized for the first half of 2018 for €1,191 thousand. In the absence of taxable income and in view of the Young Innovative Company (Jeune Entreprise Innovante JEI) status, this receivable is repayable the year following the year in which it is recorded. As at December 31, 2017, €702 thousand had been recorded in respect of the 2017 Research Tax Credit, repaid on June 29, 2018.
The tax receivable also includes the 2018 CICE in the amount of €13 thousand.
The CICE (Competitiveness and Employment Tax Credit) is recognized over the term of the commitment; it is recorded in line with the commitment of the corresponding compensation expenses. Recognition was carried out by the option of a reduction in personnel expenses, and credit to a sub-account 64.
(2) Prepaid expenses are ordinary operating expenses related to prior fiscal years.

- Inventories

Since the fiscal year ended December 31, 2014, the Company has recorded an inventory of the supplies not consumed as of the end of the fiscal year. Given that this inventory consists of consumables with a low per unit value, no depreciation is recorded. As at December 31, 2018, inventory totaled €15 thousand compared to €14 thousand in 2017.

20.1.5.6. Note 6: Cash instruments

With the aim of optimizing returns on its available cash, the Company opened time deposit accounts and medium-term notes for an overall amount of €3,500 thousand in 2016, allowing it to benefit from attractive returns as well as guaranteed capital that is available at any time. The amount in time deposit accounts (CAT) at the fiscal year-end was €2,013 thousand and the interest resulting from these instruments resulted in income of €9 thousand.

20.1.5.7. Note 7: Cash and cash equivalents

This item includes cash deposited in demand accounts, as well as the accrued interest to be paid and cash balances. As at December 31, 2018, the Company had €3,136 thousand in demand accounts, and €1 thousand in accrued interest on time deposit accounts.

20.1.5.8. Note 8: Equity

8.1. Composition of share capital

- **Share capital**

Capital transactions performed prior to the period and recorded during the period

Between November 30, 2017 and December 28, 2017, the Company received 15 notifications of exercise for 47,859 BSARs, permitting the subscription of 4,558 new shares at a unit price of €10.40 (€0.70 par value and €9.70 in issue premiums per new share). The capital increase resulting from the exercise of these BSARs, of €3,190.60, was recorded during the meeting of the Board of Directors of March 27, 2018. The share capital thereby increased from €3,197,114.90 to €3,200,305.50.

Capital transactions performed during the period

The only capital transactions performed during the period are the result of:

- 80,000 new shares from the exercise of warrants as part of the equity line financing established for the benefit of Kepler Cheuvreux; and
- 5,358 new shares from the exercise of 56,259 BSARs.

No capital transactions were performed after December 31, 2018.

As at the date of this document, the share capital of the Company is divided into 4,657,223 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	**4,571,865**	**€0.70**	**€3,200,305.50**
Capital reduction	-	-	-
Securities issued	85,358	€0.70	
Securities redeemed or canceled	-	-	-
Securities at the end of fiscal year	**4,657,223**	**€0.70**	**€3,260,056.10**

- **Issue premium**

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 balance sheet in a special "Issue premium" account to which the former and new shareholders' rights shall be applicable.

As at December 31, 2018, the issue premiums paid after deducting capital increase costs amounted to €19,093,017.15.

Capital increase	Recorded	Shares issued	Nominal value per share	Issue premium per share	Issue premium
Capital at the time of incorporation	Bylaws	500,000	€1	- €	- €
Capital increase	1/17/2012	300,000	€1	- €	- €
Capital increase	5/10/2012	700,000	€1	- €	- €
Capital increase	07/09/2018	577,780	€1	€1.25	€722,225
Capital increase	-	75,555	€1	€1.25	€ 94,444
Capital increase	12/04/2012	533,332	€1	€1.25	€ 666,665
Capital increase	12/18/2013	116,647	€0.70	€ 6,315	€ 736,628
Capital increase	12/18/2013	934,959	€0.70	€ 13.33	€ 12,463,003
Capital increase	1/13/2014	11,400	€0.70	€ 13.33	€ 151,962
Capital increase	3/4/2015	3,500	€0.70	€1.55	€5,425
Capital increase	3/4/2015	5,000	€0.70	€0.30	€1,500
Capital increase	3/22/2016	30,000	€0.70	€0.30	€9,000
Capital increase	3/22/2016	10,000	€0.70	€1.55	€15,500
Capital increase	3/21/2017	29,000	€0.70	€1.55	€44,950
Capital increase	3/21/2017	7,614	€0.70	€0.30	€2,284.20
Capital increase	07/21/2018	466,182	€0.70	€7.05	€3,286,583.10
Capital increase	09/19/2018	20,000	€0.70	€5.3	€106,000
Capital increase	09/19/2018	15,000	€0.70	€5.5	€82,500
Capital increase	09/19/2018	15,000	€0.70	€5.9	€88,500
Capital increase	09/19/2018	10,000	€0.70	€5.79	€57,900
Capital increase	09/19/2018	30,000	€0.70	€6.45	€193,500
Capital increase	09/19/2018	15,000	€0.70	€6.55	€98,250
Capital increase	09/19/2018	35,000	€0.70	€7.7	€269,500
Capital increase	09/19/2018	49,494	€0.70	€1.55	€76,715.70
Capital increase	09/19/2018	2,506	€0.70	€0.30	€751.80
Capital increase	11/20/2017	20,000	€0.70	€8.30	€166,000
Capital increase	11/20/2017	30,000	€0.70	€8.40	€252,000
Capital increase	11/20/2017	10,000	€0.70	€8.55	€85,500
Capital increase	11/20/2017	3,500	€0.70	€1.55	€5,425
Capital increase	12/12/2017	10,838	€0.70	€1.55	€16,798.90
Capital increase	3/27/2018	5,688	€0.70	€9.70	€55,173.60
Capital increase	5/3/2018	116	€0.70	€9.70	€1,125.20
Capital increase	6/27/2018	168	€0.70	€9.70	€1,629.60
Capital increase	9/20/2018	588	€0.70	€9.70	€5,703.60
Capital increase	9/20/2018	40,000	€0.70	€7.60	€304,000
Capital increase	6/27/2018	3,356	€0.70	€9.70	€32,553.20

Capital increase	6/27/2018	20,000	€0.70	€4.40	€88,000
Capital increase	6/27/2018	20,000	€0.70	€4.85	€97,000
Sub-TOTAL		**4,657,223**			€20,284,695.90
Direct costs charged €					-€1,196,108.03
Exercise of BSA/BCE with consideration (1)					**€4,429.28**
TOTAL					€19,093,017.15

(1) Exercise of the
- 18,994 BSAs acquired for €0.22 per share, or €4,178.68
- 2,506 BSAs acquired for €0,10 per share, or €250,60

initially recorded in "share subscription warrants", was included in issue premiums at the capital increase.

As a reminder, the direct costs associated with the listing of the Company on the Euronext Growth Paris market which took place in 2013, amounted to €1,196,108.

The "Issue premiums" item recorded under liabilities on the balance sheet also includes the sums received at the time of the subscription of the Share subscription warrants (see note 8 below), or €35,722.84 as at December 31, 2018.

- **Earnings per share**

As at December 31, 2018, net earnings per share amounted to -€0.67.

8.2. Distribution of share capital

As at December 31, 2018, the 4,657,223 shares comprising the share capital were distributed as follows:

Shareholders	Number of shares	Percentage holding	Number of voting rights	Percentage of voting rights
Holding Incubatrice Chimie Verte	235,843	5.07%	456,389	9.36%
Funds managed by Truffle Capital	899,392	19.31%	899,392	18.43%
Management and directors	5,707	0.12%	5,708	0.12%
Treasury shares	15,417	0.33 %	N/A	N/A
Free float	3,500,864	75.17%	3,516,712	72.09%
TOTAL	**4,657,223**	**100 %**	**4,878,201**	**100 %**

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.

As at December 31, 2018, the 220,546 shares held by Holding Incubatrice Chimie Verte and one share held by Mr. Lumaret, as well as the 15,848 registered shares included in the free float, met these criteria.

8.3. Dilutive financial instruments

- **Share subscription warrants (BSA)**

The table below shows the status of BSAs issued since the creation of the Company that were still outstanding as at December 31, 2018 (with the exception of the Kepler Cheuvreux BSAs, and BSARs), as well as additional information regarding their status at that date.

Table 8 (AMF nomenclature): History of stock option allocations

	BSA 2011-1		BSA 2012-1	BSA 2012-2	BSA 2012-3	BSA 2013-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the Chairman in accordance with the delegation of authority granted by the sole partner on 7/12/2011	Decision of the Chairman in accordance with the delegation of authority granted by the sole partner on 6/8/2012	Collective decision of the shareholders on 9/28/2012	Collective decision of the shareholders on 9/28/2012	Collective decision of the shareholders on 12/04/2012	Decision of the Shareholders' Meeting on 7/26/2013
Number of BSAs issued	2,506	1,253	170,000	20,241	7,000	14,400
Number of shares that may be subscribed or purchased	3,759		170,000	20,241	7,000	14,400
Warrant exercise start date	7/15/2012		According to the achievement of the exercise criteria (see methods above)	09/28/2013	12/04/2014	07/26/2014
Number of BSAs subscribed	3,759		170,000	20,241	7,000	14,400
Price of subscription or purchase of the warrant	0.10		Free	0.22	0.22	0.22
Expiration date	7/21/2021	6/8/2022	9/28/2022	9/28/2022	12/4/2022	7/26/2023
Warrant exercise method	Possibility of exercising a number x of warrants between April 15 and July 15 of each year and for the the first time on 7/15/2012, for up to 626 warrants calculated according to the following rule beginning from July 15, 2011: x = (total number of BSAs 2011-1 allocated to the beneficiary * nbr of months since 7/15/2011)/48)		Possibility of exercising the warrants after transfer by the beneficiary to CARBIOS of at least one strain of interest from the collection of cultures of the beneficiary whose degradation properties have been validated by the Board of Directors within the context of the research cooperation agreement signed between the beneficiary and CARBIOS	Possibility of exercising a number x of warrants per complete monthly period beginning from 9/28/2012, and for the first time from 2/28/2013, calculated according to the following rule: x = (total nbr of BSAs 2012-2 allocated to beneficiary * nbr of months since on 9/28/2012)/48	Possibility of exercising a number x of warrants per complete monthly period beginning from 12/4/2012, and for the first time from 12/4/2014, calculated according to the following rule: x = (total nbr of BSAs 2012-3 allocated to beneficiary * nbr of months since on 12/4/2012)/48	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 7/26/2013, and for the first time from 7/26/2014, calculated according to the following rule: x = (total nbr of BSAs 2013-1 allocated to beneficiary * nbr of months since 7/26/2013)/48
Exercise price	1,00		2,25	2,25	2,25	80% of IPO price
Total number of shares subscribed as at December 31, 2018	2,506		0	13,494	5,500	0
Cumulative number of subscription or purchase warrants canceled or null and void	0		0	0	0	12,800
Share subscription warrants that may be exercised as at December 31, 2018	1,253		170,000	6,747	1,500	1,600

	BSA 2015-1	BSA 2015-2	BSA 2015-3	BSA 2016-1	BSA 2017-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 12/15/2016	Decision of the Board of Directors of 06/27/2017
Number of BSAs issued	9,600	9,600	9,600	9,600	9,600
Number of shares that may be subscribed or purchased	9,600	9,600	9,600	9,600	9,600
Warrant exercise start date	06/24/2016	06/24/2016	06/24/2016	12/15/2017	6/27/2018
Number of BSAs subscribed	9,600	9,600	9,600	9,600	0
Price of subscription or purchase of the warrant	0.85	0.85	0.85	0.59	1.13
Expiration date	6/24/2025	6/24/2025	6/24/2025	15/15/2026	6/27/2027
Warrant exercise method	Possibility of exercising a number x of warrants per complete monthly period beginning on 6/5/2014, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BSAs 2015-1 allocated to beneficiary * nbr of months since 6/5/2014)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 6/5/2014, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BSAs 2015-2 allocated to beneficiary * nbr of months since 6/5/2014)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 10/22/2013, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BSAs 2015-3 allocated to beneficiary * nbr of months since 10/22/2013)/48	Possibility of exercising a number x of warrants per complete monthly period, and for the first time from 12/15/2017, calculated according to the following rule: x = (total nbr of BSAs 2016-1 allocated to beneficiary * nbr of months since 12/15/2016)/48	Possibility of exercising a number x of warrants per complete monthly period, and for the first time from 6/27/2018, calculated according to the following rule: x = (total nbr of BSAs 2017-1 allocated to beneficiary * nbr of months since 12/15/2016)/48
Exercise price	12,4581	12,4581	12,4581	8,2837	7,86
Total number of shares subscribed as at December 31, 2018	0	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	0	0	0	0	9,600
Share subscription warrants that may be exercised as at December 31, 2018	9,600	9,600	9,600	9,600	0

During the 2018 fiscal year, no BSAs were issued or exercised, on the understanding that this does not include Kepler Cheuvreux BSAs and the BSARs. The reader is invited to refer to section 17.2.3 of this Registration Document for the Kepler Cheuvreux BSAs and the BSARs.

- **Founder share subscription warrants (BSPCE)**

The table below shows the status of BSPCEs issued since the creation of the Company that were still outstanding as at December 31, 2018, as well as additional information regarding their status at that date.

Table 8 (AMF nomenclature): History of stock option allocations

	BCE 2011-1	BCE 2011-2	BCE 2012-1	BCE 2012-2	BCE 2013-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the sole partner on 4/6/2011	Decision of the sole partner on 7/6/2011	Collective decision of the shareholders on 9/28/2012	Collective decision of the shareholders on 9/28/2012	Decision of the Shareholders' Meeting on 7/26/2013
Number BSPCEs issued	35,000	7,614	77,386	16,000	36,000
Number of shares that may be subscribed or purchased	35,000	7,614	77,386	16,000	36,000
Warrant exercise start date	04/15/2012	7/15/2012	2/1/2013	09/28/2013	07/26/2014
Number of BSPCEs subscribed	35,000	7,614	77,386	16,000	36,000
Price of subscription or purchase of the warrant	Free	Free	Free	Free	Free
Expiration date	4/6/2021	07/21/2021	9/28/2022	9/28/2022	7/26/2023
Warrant exercise method	Possibility of exercising a number x of warrants between January 15 and April 15 of each year and for the first time on 4/15/2012, for up to 8,750 warrants, calculated according to the following rule beginning from April 15, 2011: x = (total number of BCEs 2011-1 allocated to the beneficiary * nbr of months since 4/15/2011) /48)	Possibility of exercising a number x of warrants between April 15 and July 15 of each year and for the first time on 7/15/2012, for up to 1.903 warrants calculated according to the following rule beginning from July 15, 2011: x = (total number of BSAs 2011-2 allocated to the beneficiary * nbr of months since 7/15/2011) /48)	Possibility of exercising a number x of warrants per complete monthly period beginning on 2/01/2012, and for the first time from 2/1/2013, calculated according to the following rule: x = (total nbr of BCEs 2012-1 allocated to the beneficiary * nbr of months since 02/01/2012)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 9/28/2012, and for the first time from 9/28/2013, calculated according to the following rule: x = (total nbr of BCEs 2012-2 allocated to the beneficiary * nbr of months since 09/28/2013)/48	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 7/26/2013, and for the first time from 7/26/2014, calculated according to the following rule: x = (total nbr of BCEs 2013-1 allocated to the beneficiary * nbr of months since 7/26/2013)/48
Exercise price	1	1	2.25	2.25	80% of IPO price
Total number of shares subscribed as at December 31, 2018	35,000	7,614	75,838	11,500	0
Cumulative number of subscription or purchase warrants canceled or null and void	0	0	0	4,500	0
Share subscription warrants that may be exercised as at December 31, 2018	0	0	1,548	0	36,000

	BCE 2013-2	BCE 2015-1	BCE 2015-2	BCE 2016-1	BCE 2017-1
Date of the Shareholders' Meeting or Board of Directors having allocated the plan	Decision of the Shareholders' Meeting on 7/26/2013	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 06/24/2015	Decision of the Board of Directors of 03/22/2016	Decision of the Board of Directors of 06/27/2017
Number BSPCEs issued	4,800	20,600	31,000	37,982	35,000
Number of shares that may be subscribed or purchased	4,800	20,600	31,000	37,982	35,000
Warrant exercise start date	07/26/2014	06/24/2016	06/24/2016	04/01/2017	6/27/2018
Number of BSPCEs subscribed	4,800	20,600	31,000	37,982	35,000
Price of subscription or purchase of the warrant	Free	Free	Free	Free	Free
Expiration date	7/26/2023	6/24/2025	6/24/2025	4/1/2026	6/27/2027
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 7/26/2013, and for the first time from 7/26/2014, calculated according to the following rule: x = (total nbr of BCEs 2013-2 allocated to the beneficiary * nbr of months since 7/26/2013)/48	Possibility of exercising a number x of warrants per complete monthly period beginning on 6/24/2015, and for the first time from 6/24/2016, calculated according to the following rule: x = (total nbr of BCEs 2015-1 allocated to the beneficiary * nbr of months since 6/24/2015)/48.	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 = (total nbr of BCEs 2015-2 allocated to the beneficiary * nbr of months since 06/24/2015)/48.	Possibility of exercising a number x of warrants per full monthly period beginning on 04/01/2016 and for the first time from 04/01/2017, calculated according to the following rule: x =(18,991 * nbr of months since 04/01/2016 / 48) and the possibility of exercising 18,991 warrants in the event of the occurrence of certain events.	Possibility of exercising a number x of warrants per full monthly period beginning on 6/27/2017, and for the first time from 6/27/2018, calculated according to the following rule: x = (35,000 * nbr of months since 6/27/2017 / 48).
Exercise price	80% of IPO price	12,4581	12,4581	11,5066	7,86
Total number of shares subscribed as at December 31, 2018	0	0	0	0	0
Cumulative number of subscription or purchase warrants canceled or null and void	4,800	20,600	0	0	0
Share subscription warrants that may be exercised as at December 31, 2018	0	0	31,000	37,982	35,000

During the 2018 fiscal year, no BSPCEs were issued or exercised.

20.1.5.9. Note 9: Conditional advances and subsidies

The item "Conditional advances" consists of advances granted by public entities, whose repayment is conditional on the success of the relevant project.

- **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"

- **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.

BPIFRANCE Grant (formerly known as OSEO-ISI): THANAPLAST™
On December 19, 2012, the Company obtained a grant from Bpifrance for the THANAPLAST™ project, composed of repayable advances totaling €3,707 thousand and subsidies of €3,108 thousand spread over a 60-month period 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.
The framework agreement stipulates that the completion of each key-stage and the associated conditions provide entitlement to the payment of the following grants:

(In euros)	1st payment	KS1	KS2	KS3	KS4	KS5	TOTAL
Payment year	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	
SUBSIDY	709,000	923,000	322,000	388,000	300,000	465,657	3,107,657
REPAYABLE ADVANCE	644,000	879,000	860,000	625,000	143,000	556,214	3,707,214
TOTAL	**1,353,000**	**1,802,000**	**1,182,000**	**1,013,000**	**443,000**	**1,021,871**	**6,814,871**

On June 30, 2017, the Company successfully completed its 5th and last key stage of the project. Since its creation, the Company has received:

(In euros)	1st payment	2nd payment	3rd payment	4th payment	5th payment	Payment of the balance	Total
Date of payment	**12/21/2012**	**09/27/2013**	**11/28/2014**	**11/13/2015**	**12/14/2016**	**12/05/2017**	
SUBSIDY	709,000	923,000	166,184	543,816	300,000	465,657	3,107,657
REPAYABLE ADVANCE	644,000	757,048	546,450	1,060,502	143,000	556,214	3,707,214
TOTAL	**1,353,000**	**1,680,048**	**712,634**	**1,604,318**	**443,000**	**1,021,871**	**6,814,871**

Subsidy:
Subsidies account for 45% of the Industrial Research expenditures incurred by the Company in the context of the THANAPLAST™ project.
The eligible expenses incurred for the entire project amounted to €6,910 thousand. These allowed the Company to therefore obtain the entire subsidy intended for this purpose.

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 a cumulative revenue amount 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 million revenue threshold.

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 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 €7,100 thousand).

- **Other public and private grants obtained**

Public:

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 of €30 thousand, and repayment began on December 30, 2016, for a remaining capital balance owed of €91 thousand as at December 31, 2018.
- The acknowledgement 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.
- An Innovation Loan from Bpifrance for €1,500 thousand at a floating rate to finance the intangible expenses related to its desire to launch the industrialization process. After a grace period of two years, constant capital repayments of €75 thousand will take place from March 31, 2021 to December 31, 2025.

Private:

- A repayable interest-free advance from the association FMR 63 for €70 thousand for business creation activities and job creation. The remaining capital due amounted to €10 thousand as at December 31, 2018.

20.1.5.10. Note 10 – Produits d'exploitation

Licensing and sub-licensing of patent and know-how licenses

The Company entered into a patent license and know-how agreement with SAS CARBIOLICE on August 30, 2016 for a period running until the expiry of the last of the patents granted, and for which an amendment was 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 variable royalties were recorded as at December 31, 2018, given that none of CARBIOLICE's revenue resulted from use of the licenses granted in 2018.

CARBIOLICE research services agreement

On February 15, 2017, it entered into a research service agreement with its subsidiary for a period of two years and a total amount of €1,248 thousand. The aim of this contract is to carry out a product development program thanks to its biodegradation technology. During 2018, an amendment was signed to extend the contract up to 2021, and raise the total contract amount to €2,500 thousand. At the end of the 2018 fiscal year, operating revenues represented €724 thousand.

20.1.5.11. Note 11: Maturity of liabilities and deferred income at the end of the period

Statement of liabilities as at 12/31/2018 (in euros)	Total amount	From 0 to 1 year	From 1 to 5 years	More than 5 years
Regional and national funds	1,865,940	90,580	1175,360	600,000
Suppliers	1,061,158	1,061,158		
Tax and social liabilities	474,831	474,831		
Other liabilities	2,216	2,216		
Deferred income				
TOTAL	**3,404,145**	**1,628,785**	**1,175,360**	**600,000**

20.1.5.12. Note 12: Accruals (prepayments and deferred income)

Accruals are shown on the balance sheet for the fiscal year ended December 31, 2018 in the following amounts:

Statement of accruals (in euros)	ASSETS	LIABILITIES
Suppliers, accrued invoices		293,508
Trade payables, credit notes receivable	31,108	
Customers, unbilled revenue	20,559	
Personnel and social welfare organizations, accrued expenses		208,177
State, accrued expenses and accrued income	47,800	43,199
Prepaid expenses	37,687	
Accrued interest income	615	
Charge to be spread over the loan	5,793	
TOTAL	**143,562**	**544,884**

20.1.5.13. Note 13: Income tax

For fiscal year 2018, the Company benefitted from the Innovative Young Enterprise exemption up to the ceiling limit and did not pay any income tax expense.
The amount recognized on the income statement in respect of corporate income tax corresponds to the Research Tax Credit (CIR) and amounted to €1,191 thousand as at December 31, 2018.
The reduction in the Research Tax Credit in 2018 mainly reflects:

- The increase in subcontracted R&D expenditures (+€324 thousand on the CIR) ; and
- The reduction in public grants disbursed (+€1,084 thousand on the CIR).

The fiscal deficit carried forward at the end of the fiscal year amounted to €20,308,295.

20.1.5.14. Note 14: Related parties

In 2018, CARBIOS paid Directors' fees to members of the Board of Directors in the amount of €97 thousand (excluding social security contributions).
The following transactions were performed during the 2018 fiscal year with the subsidiary CARBIOLICE:

- CARBIOLICE consulting agreement (€60 thousand in operating revenues): A consulting agreement was signed on August 31, 2016 with the subsidiary CARBIOLICE for assisting and advising the executive and managing bodies, for a period of 16 months beginning on September 1, 2016, then tacitly renewable for one year.

- CARBIOLICE resource provision agreement (€14 thousand in operating revenues): An agreement to make equipment available was signed on August 31, 2016, with the subsidiary CARBIOLICE. The purpose of this contract was to make certain - equipment available for a period of/one year, renewable upon request by CARBIOLICE.

- CARBIOLICE research services agreement (€724 thousand in operating revenues): See note 10

- Licensing and sub-licensing of patents and know-how: See note 10

- Rebilling of tests and regulatory matters (€131 thousand in operating income): Rebilling mainly of tests relating to enzymes and fees related to regulatory matters in accordance with the letters of agreement signed with CARBIOLICE.

- Other chargebacks: CARBIOS charged back an amount of €4 thousand in travel expenses to its subsidiary CARBIOLICE

20.1.5.15. Note 15: Table of subsidiaries and equity interests

Company name	Capital	Reserves and carryforwards prior to the allocation of income	Portion of share capital owned (%)	Book value of securities held	Loans and advances granted by the company and not yet repaid	Amount of guarantees given by the company	Revenue excluding tax for the most recent fiscal year	Results (profit or loss for the most recent period ended)	Dividends received by the company during the fiscal year	Comments
SAS CARBIOLICE	18,850,000	- 3,106,598	56.23%	10,600,000	-	-	914,098	- 3,60,155	-	

At the end of the period, the value in use of equity interests exceeded their book value. Accordingly, there are no provisions to be recorded as at December 31, 2018.

20.1.5.16. Note 16: Commitments given

	2018 Commitments
Retirement indemnity	59,981
Individual Right to Training	Not applicable

Retirement indemnity

The rights of employees to retirement indemnities were assessed at €59,981 as at December 31, 2018. This figure was calculated according to the following assumptions:

- Voluntary retirement
- Retirement age: 67 years
- Turnover: slow
- Discount rate: 1.60%
- Increase in wages: 2%

Personal training account

Since January [1], 2015, the individual right to training has been replaced by a personal training account.

20.1.5.17. Note 17: Headcount

	Headcount as at 12/31/2017	Headcount as at 12/31/2018
Managers	13	14
Supervisory staff and technicians	5	5
Employees	1	1
Total	**19**	**20**

The Company has the status of "Young Innovative Company", which allows it to be exempted from employer social security contributions for researchers, technicians, project managers, lawyers tasked with industrial protection and project-related technology agreements and employees engaged in pre-competitive testing for R&D or innovation work. However, this status ended on January 1, 2019.

20.1.5.18. Note 18: Events after the reporting period

In January 2019, CARBIOS and TWB obtained funding of €7.5 million granted by the Secrétariat Général pour l'Investissement (SGPI) within the framework of the *Programme d'Investissement d'Avenir* (PIA) operated by ADEME. Over a period of 39 months, this funding will support the upscaling of CARBIOS' industrial and commercial project in the field of biorecycling of PET fiber and plastic waste. This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in instalments throughout the CE-PET project term[136]. As project leader and coordinator, CARBIOS will strive to accelerate the industrialization of its technology for the biorecycling of PET fibers and plastic. For this, it may obtain up to €4.1 million. The terms and conditions of the agreements to be entered into between CARBIOS and TWB under the terms of this project will be governed by the rules defined by the Toulouse White Biotechnology (TWB) consortium agreement, which is expected to be signed in 2019. However, in accordance with TWB's rules regarding competitive agreements, CARBIOS should have full ownership of the results obtained under this project.

In January 2019, in the context of the development of the PLA-based single-use plastics enzymatic biodegradation technology licensed by CARBIOS to CARBIOLICE in 2016, CARBIOS and CARBIOLICE entered into a co-development agreement with NOVOZYMES[137]138, the world leader in enzyme production. Under the terms of this global multi-year agreement, NOVOZYMES will produce the proprietary enzyme developed by CARBIOS on an industrial scale and agrees to become, in the long term, the exclusive supplier for CARBIOLICE. This new agreement is fully in line with the industrial deployment objective for the enzymatic biodegradation technology designed and developed by CARBIOS. This technology, whose commercial launch is slated for 2020, would generate for CARBIOS the first license revenues paid by CARBIOLICE.

[136] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

[137] Please refer to the January 29, 2019 CARBIOS press release: https://carbios.fr/carbios-et-carbiolice-concluent-un-accord-de-co-developpement-avec-novozymes-pour-la-production-et-lapprovisionnement-denzymes-a-echelle-industrielle/

No significant events occurred after the reporting period and in the early part of the 2019 fiscal year.

20.2. Pro forma financial information

None.

20.3. Financial statements

Refer to section 20.1 above on this point.

20.4. Verification of historical financial information

Statutory Auditors' report on the 2018 annual financial statements – *In French*

pwc

Rapport du commissaire aux comptes sur les comptes annuels

(Exercice clos le 31 décembre 2018)

A l'Assemblée générale
Carbios
Rue Emile Duclaux
Bipôle Clermont Ligne
63360 Saint-Beauzire

Opinion

En exécution de la mission qui nous a été confiée par votre Assemblée générale, nous avons effectué l'audit des comptes annuels de la société Carbios relatifs à l'exercice clos le 31 décembre 2018, tels qu'ils sont joints au présent rapport.

Nous certifions que les comptes annuels sont, au regard des règles et principes comptables français, réguliers et sincères et donnent une image fidèle du résultat des opérations de l'exercice écoulé ainsi que de la situation financière et du patrimoine de la société à la fin de cet exercice.

Fondement de l'opinion

Référentiel d'audit

Nous avons effectué notre audit selon les normes d'exercice professionnel applicables en France. Nous estimons que les éléments que nous avons collectés sont suffisants et appropriés pour fonder notre opinion.

Les responsabilités qui nous incombent en vertu de ces normes sont indiquées dans la partie « Responsabilités du commissaire aux comptes relatives à l'audit des comptes annuels » du présent rapport.

Indépendance

Nous avons réalisé notre mission d'audit dans le respect des règles d'indépendance qui nous sont applicables, sur la période du 1er Janvier 2018 à la date d'émission de notre rapport, et notamment nous n'avons pas fourni de services interdits par le code de déontologie de la profession de commissaire aux comptes.

PricewaterhouseCoopers Audit, 63, rue de Villiers 92208 Neuilly-sur-Seine Cedex
Téléphone: +33 (0)1 56 57 58 59, Fax: +33 (0)1 56 57 58 60, www.pwc.fr

Justification des appréciations

En application des dispositions des articles L.823-9 et R.823-7 du code de commerce relatives à la justification de nos appréciations, nous portons à votre connaissance les appréciations suivantes qui, selon notre jugement professionnel, ont été les plus importantes pour l'audit des comptes annuels de l'exercice.

Les appréciations ainsi portées s'inscrivent dans le contexte de l'audit des comptes annuels pris dans leur ensemble et de la formation de notre opinion exprimée ci-avant. Nous n'exprimons pas d'opinion sur des éléments de ces comptes annuels pris isolément.

Estimation comptable :

Les titres de participation Carbiolice ont fait l'objet d'un test de dépréciation selon la méthode décrite dans le paragraphe « Titres de participation » Note 4. Nous avons procédé à l'appréciation de l'approche retenue par la société CARBIOS, décrite dans l'annexe, sur la base des éléments disponibles à ce jour, et mis en œuvre des tests pour vérifier par sondage l'application de cette méthode.

Nous avons procédé à l'appréciation du caractère raisonnable de ces estimations.

Vérifications spécifiques

Nous avons également procédé, conformément aux normes d'exercice professionnel applicables en France, aux vérifications spécifiques prévues par les textes légaux et réglementaires.

Informations données dans le document de référence et dans les autres documents sur la situation financière et les comptes annuels adressés aux Actionnaires

Nous n'avons pas d'observation à formuler sur la sincérité et la concordance avec les comptes annuels des informations données dans le document de référence et dans les autres documents sur la situation financière et les comptes annuels adressés aux Actionnaires.

Nous attestons de la sincérité et de la concordance avec les comptes annuels des informations relatives aux délais de paiement mentionnées à l'article D.441-4 du code de commerce.

Informations relatives au gouvernement d'entreprise

Nous attestons de l'existence, dans document de référence consacrée au gouvernement d'entreprise des informations requises par les articles L.225-37-3 et L.225-37-4 du code de commerce.

Autres informations

En application de la loi, nous nous sommes assurés que les diverses informations relatives aux prises de participation et de contrôle et à l'identité des détenteurs du capital ou des droits de vote vous ont été communiquées dans le document de référence.

Responsabilités de la direction et des personnes constituant le gouvernement d'entreprise relatives aux comptes annuels

Il appartient à la direction d'établir des comptes annuels présentant une image fidèle conformément aux règles et principes comptables français ainsi que de mettre en place le contrôle interne qu'elle estime nécessaire à l'établissement de comptes annuels ne comportant pas d'anomalies significatives, que celles-ci proviennent de fraudes ou résultent d'erreurs.

Lors de l'établissement des comptes annuels, il incombe à la direction d'évaluer la capacité de la société à poursuivre son exploitation, de présenter dans ces comptes, le cas échéant, les informations nécessaires relatives à la continuité d'exploitation et d'appliquer la convention comptable de continuité d'exploitation, sauf s'il est prévu de liquider la société ou de cesser son activité.

Les comptes annuels ont été arrêtés par le Conseil d'administration.

Responsabilités du commissaire aux comptes relatives à l'audit des comptes annuels

Il nous appartient d'établir un rapport sur les comptes annuels. Notre objectif est d'obtenir l'assurance raisonnable que les comptes annuels pris dans leur ensemble ne comportent pas d'anomalies significatives. L'assurance raisonnable correspond à un niveau élevé d'assurance, sans toutefois garantir qu'un audit réalisé conformément aux normes d'exercice professionnel permet de systématiquement détecter toute anomalie significative. Les anomalies peuvent provenir de fraudes ou résulter d'erreurs et sont considérées comme significatives lorsque l'on peut raisonnablement s'attendre à ce qu'elles puissent, prises individuellement ou en cumulé, influencer les décisions économiques que les utilisateurs des comptes prennent en se fondant sur ceux-ci.

Comme précisé par l'article L.823-10-1 du code de commerce, notre mission de certification des comptes ne consiste pas à garantir la viabilité ou la qualité de la gestion de votre société.

Dans le cadre d'un audit réalisé conformément aux normes d'exercice professionnel applicables en France, le commissaire aux comptes exerce son jugement professionnel tout au long de cet audit. En outre :

- il identifie et évalue les risques que les comptes annuels comportent des anomalies significatives, que celles-ci proviennent de fraudes ou résultent d'erreurs, définit et met en œuvre des procédures d'audit face à ces risques, et recueille des éléments qu'il estime suffisants et appropriés pour fonder son opinion. Le risque de non-détection d'une anomalie significative provenant d'une fraude est plus élevé que celui d'une anomalie significative résultant d'une erreur, car la fraude peut impliquer la collusion, la falsification, les omissions volontaires, les fausses déclarations ou le contournement du contrôle interne ;

- il prend connaissance du contrôle interne pertinent pour l'audit afin de définir des procédures d'audit appropriées en la circonstance, et non dans le but d'exprimer une opinion sur l'efficacité du contrôle interne ;

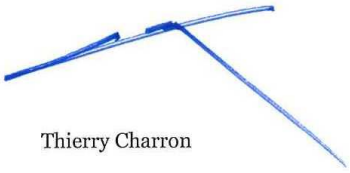
- il apprécie le caractère approprié des méthodes comptables retenues et le caractère raisonnable des estimations comptables faites par la direction, ainsi que les informations les concernant fournies dans les comptes annuels ;

- il apprécie le caractère approprié de l'application par la direction de la convention comptable de continuité d'exploitation et, selon les éléments collectés, l'existence ou non d'une incertitude significative liée à des événements ou à des circonstances susceptibles de mettre en cause la capacité de la société à poursuivre son exploitation. Cette appréciation s'appuie sur les éléments collectés jusqu'à la date de son rapport, étant toutefois rappelé que des circonstances ou événements ultérieurs pourraient mettre en cause la continuité d'exploitation. S'il conclut à l'existence d'une incertitude significative, il attire l'attention des lecteurs de son rapport sur les informations fournies dans les comptes annuels au sujet de cette incertitude ou, si ces informations ne sont pas fournies ou ne sont pas pertinentes, il formule une certification avec réserve ou un refus de certifier ;

- il apprécie la présentation d'ensemble des comptes annuels et évalue si les comptes annuels reflètent les opérations et événements sous-jacents de manière à en donner une image fidèle.

Fait à Neuilly-sur-Seine, le 5 avril 2019

Le commissaire aux comptes
PricewaterhouseCoopers Audit



Thierry Charron

21. ADDITIONAL INFORMATION

21.1. Share capital

21.1.1. Amount of share capital

As at the date of this Registration Document, the Company's share capital stood at €3,260,056.10 divided into 4,657,223 ordinary shares with a par value of €0.70 each, entirely subscribed and fully paid up.

21.1.2. Non-equity shares

As at the date of this Registration Document, there are no non-equity shares.

21.1.3. Treasury stock

The Company concluded a liquidity agreement with the company Gilbert Dupont on December 2, 2016, taking effect on December 19, 2016, 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, 2018, the following resources were allocated to the liquidity account:

- Number of shares: 15,417 securities
- Cash balance of the liquidity account: €18,702.90

21.1.4. Potential share capital

The table below summarizes all of the BSA[138]139 and BSPCE issued by the Company for the benefit of its corporate officers, employees and consultants, and not exercised as at the date of this Registration Document:

Holders	BSA 2011-1	BSA 2012-1	BSA 2012-2	BSA 2012-3	BSA 2013-1	BSA 2015-1	BSA 2015-2	BSA 2015-3	BSA 2016-1	BSA 2019-1
DEINOVE		170,000								
Jacqueline Lecourtier	1,253		6,747		1,600					
Thierry Ferreira				1,500						
Dominique Even						9,600				
Pascal Juéry							9,600			
Jean Falgoux								9,600		
Ian Hudson									9,600	
Godefroy Motte										9,600
TOTAL	**1,253**	**170,000**	**6,747**	**1,500**	**1,600**	**9,600**	**9,600**	**9,600**	**9,600**	**9,600**

[138] With the exception of the BSAs issued for the benefit of Kepler Cheuvreux as part of a credit line whose features are detailed in paragraph 17.2.3 above.

Holders	BCE 2012-1	BCE 2013-1	BCE 2015-2	BCE 2016-1	BCE 2017-1	BCE 2019-1
Alain Marty			31,000			
Jean-Claude Lumaret		30,000				
Alain Chevallier	1,548	6,000				
Jean Falgoux				37,982		
Martin Stephan					35,000	
Ian Hudson						28,000
TOTAL	**1,548**	**36,000**	**31,000**	**37,982**	**35,000**	**28,000**

As at the date of this Registration Document, the various BSA and BSPCE plans allow the subscription of new ordinary shares, potentially representing a total of 398,630 shares to be issued, i.e. a dilution of 8.56% on an undiluted basis (amounting as at the date of this Registration Document to 4,657,223 shares) and 7.88% on a diluted basis.

Details of the various allocation plans are set out in section 17.2 of this Registration Document.

21.1.5. Unissued authorized share capital

The table below presents the various financial delegations granted to the Board of Directors by the Combined Shareholders' Meeting of the Company on June 14, 2018:

Purpose of the resolution	Resolution	Article of the law	Period of validity and expiration date	Issue price	Ceiling (maximum nominal amount in euros)
Authorization granted to the Board of Directors for the purchase by the Company of its own shares in accordance with Article L.225-209 of the French Commercial Code	Tenth resolution	L.225-209 of the French Commercial Code	18 months, effective from the CSM, i.e. until December 13, 2019		€2,850,000
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.	Twelfth resolution	L.225-129 et seq. of the French Commercial Code	26 months, effective from the CSM, i.e. until August 13, 2020		The nominal amount of capital increases is set at €1,810,000* Nominal amount of securities representing debt: €20,000,000**
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	Thirteenth resolution	L.225-129 et seq. of the French Commercial Code	26 months, effective from the CSM, i.e. until August 13, 2020	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 25%, after correction of this average in the event of any difference in dividend entitlement dates	The nominal amount of capital increases is set at €1,810,000* Nominal amount of securities representing debt: €20,000,000**
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	Fourteenth Resolution	L.225-136 3° of the French Commercial Code	26 months, effective from the CSM, i.e. until August 13, 2020	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 25%, after correction of	The nominal amount of capital increases is set at €1,810,000* Nominal amount of securities representing debt: €20,000,000**

Purpose of the resolution	Resolution	Article of the law	Period of validity and expiration date	Issue price	Ceiling (maximum nominal amount in euros)
subscription rights, by means of private placement and within a limit of 20% of the share capital per year				this average in the event of any difference in dividend entitlement dates	
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 shareholders' preferential subscription rights in favor of certain categories of beneficiary	Fifteenth Resolution	L.225-138 of the French Commercial Code	18 months, effective from the CSM, i.e. until December 13, 2019	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 25%, after correction of this average in the event of any difference in dividend entitlement dates	The nominal amount of capital increases is set at €1,810,000* Nominal amount of securities representing debt: €20,000,000**
Authorization to the Board of Directors, for the purposes 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 delegations of authority referred to in the previous four resolutions, with maintenance or cancellation of preferential subscription rights, depending on the case	Sixteenth Resolution	L.225-135-1 of the French Commercial Code	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 four resolutions).		The nominal amount of capital increases is set at €1,810,000* Nominal amount of securities representing debt: €20,000,000**
Delegation of authority to the Board of Directors to decide to issue, on once or more occasions, a maximum number of 185,000 share subscription warrants - the "BSAs" - granting rights to the subscription of 185,000 new ordinary Company shares, this issuance being reserved for the benefit of a specific category of persons (Directors – consultants - the Company's management team)	Seventeenth Resolution	L.225-129-2 and L.228-91/92 of the French Commercial Code	18 months, effective from the CSM, i.e. until December 13, 2019	Subscription price of BSAs: set by the Board of Directors in light of the report by the independent appraiser appointed by the Board of Directors Subscription price of shares upon exercising BSAs: set by the Board of Directors, and at least equal to the average volume-weighted price of the last twenty (20) trading days prior to the allocation of the aforementioned BSAs by the Board of Directors.	Nominal amount of the maximum capital increase: €129,500 This amount shall be deducted from the amount of the overall authorized ceiling, set in the 20th resolution*
Delegation of authority to the Board of Directors to decide to issue, on once or more occasions, a maximum number of 185,000 founder share subscription warrants (BSPCEs) granting rights to the subscription of 185,000 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)	Eighteenth Resolution	L.225-129-2 and L.228-91/92 of the French Commercial Code	18 months, effective from the CSM, i.e. until December 13, 2019	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	Nominal amount of the maximum capital increase: €129,500 This amount shall be deducted from the amount of the overall authorized ceiling, set in the 20th resolution*

Purpose of the resolution	Resolution	Article of the law	Period of validity and expiration date	Issue price	Ceiling (maximum nominal amount in euros)
				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.	
Authorization to the Board of Directors to reduce the Company's share capital by means of cancelling shares.	Twenty-first Resolution	L.225-209 of the French Commercial Code	18 months, effective from the CSM, i.e. until December 13, 2019		Limit of 10% of the Company's share capital, per twenty-four (24) month period

* This amount is deducted from the overall ceiling of capital increases provided for in the Twentieth Resolution of the Shareholders' Meeting of June 14, 2018, set at €1,810,000.

** This amount is deducted from the overall ceiling of issuances of debt securities provided for in the Twentieth Resolution of the Shareholder's Meeting of June 14, 2018, set at €20,000,000.

*** The categories of beneficiaries covered by the Fifteenth Resolution of the Shareholder's Meeting on June 14, 2018 are the following:

- French or foreign law investment companies and investment funds investing in a similar or complementary sector to that of the Company; and
- industrial companies with a similar or complementary activity to that of the Company.

As at the date of this Registration Document, only the Seventeenth and Eighteenth Resolutions have been implemented, respectively during the Board of Directors' meeting of April 4, 2019, to issue and allocate 9,600 BSA-2019-1 and during the Board of Directors' meeting of December 6, 2018 to issue and allocate 28,000 BCE-2019-1.

21.1.6. Information about the capital of any member of the Company that is covered by an option or a conditional or unconditional agreement providing for placing capital under option

As at the date of this Registration Document, to the Company's knowledge, there are no options that concern the Company's capital or the capital of any member of the Group, nor any conditional or unconditional agreements providing for placing capital under option.

21.1.7. Table of changes in the share capital

The table below presents the changes in the Company's capital since its creation

Date	Nature of the transaction	Nominal value per share	Issue premium per share	Number of shares issued / cancelled	Total number of shares	Capital after transaction
Bylaws	Creation	€1.00	-	500,000	500,000	€500,000.00
1/17/2012	Increase	€1.00	-	300,000	800,000	€800,000.00
5/10/2012	Increase	€1.00	-	700,000	1,500,000	€1,500,000.00
07/09/2018	Increase	€1.00	€1.25	577,780	2,077,780	€2,077,780.00
-	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
2/20/2013	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
1/13/2014	Increase	€0.70	€ 13.33	11,400	3,749,673	€2,624,771.10
3/4/2015	Increase	€0.70	€1.55	3,500	3,753,173	€2,627,221.10
3/4/2015	Increase	€0.70	€0.30	5,000	3,758,173	€2,630,721.10
3/22/2016	Increase	€0.70	€0.30	30,000	3,788,173	€2,651,721.10
3/22/2016	Increase	€0.70	€1.55	10,000	3,798,173	€2,658,721.10
3/21/2017	Increase	€0.70	€0.30	7,614	3,805,787	€2,664,050.90
3/21/2017	Increase	€0.70	€1.55	29,000	3,834,787	€2,684,350.90
7/21/2018	Increase	€0.70	€7.05	466,182	4,300,969	€3,010,678.30
9/19/2018	Increase	€0.70	€5.30	20,000	4,320,969	€3,024,678.30
9/19/2018	Increase	€0.70	€5.50	15,000	4,335,969	€3,035,178.30
9/19/2018	Increase	€0.70	€5.90	15,000	4,350,969	€3,045,678.30
9/19/2018	Increase	€0.70	€5.79	10,000	4,360,969	€3,052,678.30
9/19/2018	Increase	€0.70	€6.45	30,000	4,390,969	€3,073,678.30
9/19/2018	Increase	€0.70	€6.55	15,000	4,405,969	€3,084,178.30
9/19/2018	Increase	€0.70	€7.70	35,000	4,440,969	€3,108,324.10
9/19/2018	Increase	€0.70	€1.55	49,494	4,490,463	€3,143,678.30
9/19/2018	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
3/27/2018	Increase	€0.70	€9.70	5,688	4,572,995	€3,201,096.50
5/3/2018	Increase	€0.70	€9.70	116	4,573,111	€3,201,177.70
6/27/2018	Increase	€0.70	€9.70	168	4,573,279	€3,201,295.30
9/20/2018	Increase	€0.70	€9.70	588	4,573,867	€3,201,706.90
9/20/2018	Increase	€0.70	€7.60	40,000	4,613,867	€3,229,706.90
6/27/2018	Increase	€0.70	€9.70	3,356	4,617,223	€3,232,056.10
6/27/2018	Increase	€0.70	€4.40	20,000	4,637,223	€3,246,056.10
6/27/2018	Increase	€0.70	€4.85	20,000	4,657,223	€3,260,056.10

21.1.8. Statement of Company shares pledged as collateral

To the Company's knowledge and as at the date of this Registration Document, no Company shares have been pledged as collateral, guarantee or surety.

21.2. 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 Registration Document.

21.2.1. 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 immoveable, 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.

21.2.2. Provisions of Company bylaws, charters or regulations concerning members of the Board of Directors and Executive Management

21.2.2.1. 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 removal 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 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 eight-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.

Meetings of the Board of Directors (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 videoconferencing 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 remuneration 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.

Remuneration (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' attendance 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.

21.2.2.2. Executive Management (Article 17 of the bylaws)

Organizing 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 videoconference 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.

21.2.3. Rights, privileges and restrictions attached to shares (Articles 10 and 11 of the bylaws)

21.2.3.1. 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 gives 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.

21.2.3.2. 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.

21.2.3.3. 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.

- 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.

21.2.3.4. 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.

21.2.4. Conditions for amending the rights of shareholders

Company bylaws do not provide for any particular rules that derogate from ordinary corporate law.

21.2.5. Shareholders' Meetings (Articles 22 to 29 of the bylaws)

21.2.5.1. 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 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.

In the event of the use of videoconference or other means of telecommunication permitted by law under conditions laid down in Article 23 below, shareholders who attend the meeting by videoconference or by means of telecommunication are deemed present for the purposes of calculating a quorum and majority.

21.2.5.2. Convocation (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* (BALO) at least thirty-five (35) days before any Shareholders' Meeting. Such notice must contain the details stipulated by current laws.

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* (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 by 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 videoconference 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.

21.2.5.3. 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 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.

21.2.5.4. Admission (Article 25 of the[139] bylaws)

Any shareholder may 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 third business day prior to the meeting at zero hours, Paris time;
- for bearer shares, by their recording in the bearer share accounts held by an authorized intermediary, on the third business day prior to the meeting at zero hours, Paris time.

The registration or accounting entry 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.

21.2.5.5. Shareholder proxies 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.

[139] We draw your attention to the fact that during the next Shareholders' Meeting, you will be asked to amend Article 25 of the bylaws to indicate "second working day" instead of "third working day" in order to take account of a legislative change.

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.

21.2.5.6. Shareholders' Meeting Committee (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 those 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.

21.2.5.7. Minutes of the meeting (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.

21.2.5.8. 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.

21.2.6. Provisions of Company bylaws, charters or regulations that may have the effect of delaying, deferring or preventing a change of control

Company bylaws do not contain any provisions that would have the effect of delaying, deferring or preventing a change of control.

21.2.7. Crossing of thresholds (Article 11.3 of the bylaws)

Any natural or legal person acting alone or in concert, who comes to own a number of shares representing a percentage of capital or voting rights exceeding thresholds set by law, shall inform the Company, within the statutory timeframe, from the time the shareholding threshold is exceeded, of the total number of shares or voting rights held.

This information shall also be provided within the same timeframe when the equity ownership interest or voting rights fall below the thresholds set by law.

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.

If it is required by the rules of the financial instruments market other than a regulated market on which Company shares are traded, this person shall also inform the *Autorité des Marchés Financiers*, within the timeframe and in accordance with procedures established by its General Regulation, from the date the shareholding threshold is crossed. Where appropriate, this information shall be made public under the conditions established by General Regulation of the *Autorité des Marchés Financiers.*

If shares have not been properly disclosed under the aforementioned conditions, those shares exceeding the portion, and which should have been legally declared, are deprived of voting rights for any Shareholders' Meeting that is held until the expiry of a two-year period following the date on which such notice is properly reported.

Under the same conditions, voting rights attached to these shares and which were not properly disclosed may not be exercised or delegated by the defaulting shareholder.

The French Commercial Court having jurisdiction over the registered office may, upon request of the Company Chairman, a shareholder or the *Autorité des Marchés Financiers*, order a total or partial suspension of voting rights of any shareholder who has not made the necessary declarations, for a period not exceeding five years.

21.2.8. Changes in the share capital (Article 7 of the bylaws)

1-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 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.

21.3. Trends in share price

The Company's shares have been listed on the Euronext Growth Paris market since December 19, 2013.

21.3.1. General information

Number of shares listed as at 12/31/2018	4,657,223
Year high (in 2018)	€9.84
Year low (in 2018)	€4.22
Year's average daily volume (in 2018)	9,316 shares
ISIN	FR0011648716
Stock market indices	Euronext Growth All-share, Euronext Growth Bpifrance Innovation Index

21.3.2. Trends in share price since January 1, 2018

	Price per share (in euros)	
	High	Low
2018		
January	9.45	8.06
February	8.70	7.23
March	9.12	7.45
April	8.31	7.51
May	7.89	7.33
June	7.36	6.70
July	7.04	6.05
August	9.84	6.46
September	9.79	7.27
October	8.60	6.50
November	7.48	5.24
December	6.41	4.22
2019		
January	7.70	4.71
February	8.20	6.60
March	8.43	7.85

21.4. Additional information concerning CARBIOLICE

The information presented below is taken from the CARBIOLICE financial statements as at December 31, 2018 (in French). As at the date of this document, the Statutory Auditors were in the process of preparing a report on these financial statements. This information is, therefore, provisional, to the extent that CARBIOLICE's financial statements have not yet been approved by the CARBIOLICE Board of Directors.

For information, Mr. Jean-Claude Lumaret did not receive any compensation from Carbiolice with respect to the fiscal year ended December 31, 2018.

We invite the reader to refer to the end of this section 21.4, which includes specific information concerning the operating cash flows between CARBIOS and CARBIOLICE.

CARBIOLICE
63200 RIOM

BILAN ACTIF

	ACTIF	Exercice N 31/12/2018 12			Exercice N-1 31/12/2017 19	Ecart N / N-1	
		Brut	Amortissements et dépréciations (à déduire)	Net	Net	Euros	%
	Capital souscrit non appelé (I)						
ACTIF IMMOBILISÉ	**Immobilisations incorporelles**						
	Frais d'établissement	40 000	18 667	21 333	29 333	-8 000	-27.27
	Frais de développement						
	Concessions, brevets et droits similaires	8 060 545	814 434	7 246 112	8 022 583	-776 471	-9.68
	Fonds commercial (1)	2 042 654		2 042 654	2 042 654		
	Autres immobilisations incorporelles						
	Avances et acomptes						
	Immobilisations corporelles						
	Terrains						
	Constructions	423 803	93 529	330 274	352 945	-22 671	-6.42
	Installations techniques, matériel et outillage	2 781 888	2 273 994	507 893	676 842	-168 949	-24.96
	Autres immobilisations corporelles	194 187	95 842	98 345	126 998	-28 652	-22.56
	Immobilisations en cours						
	Avances et acomptes	62 551		62 551		62 551	
	Immobilisations financières (2)						
	Participations mises en équivalence						
	Autres participations						
	Créances rattachées à des participations						
	Autres titres immobilisés						
	Prêts						
	Autres immobilisations financières	11 920		11 920	11 920		
	Total II	13 617 548	3 296 465	10 321 082	11 263 275	-942 193	-8.37
ACTIF CIRCULANT	**Stocks et en cours**						
	Matières premières, approvisionnements	343 291		343 291	451 041	-107 750	-23.89
	En-cours de production de biens						
	En-cours de production de services						
	Produits intermédiaires et finis	201 370	23 100	178 270	397 515	-219 245	-55.15
	Marchandises						
	Avances et acomptes versés sur commandes	360		360		360	
	Créances (3)						
	Clients et comptes rattachés	216 455	50 408	166 048	427 073	-261 025	-61.12
	Autres créances	774 918		774 918	528 499	246 419	46.63
	Capital souscrit - appelé, non versé						
	Valeurs mobilières de placement						
	Disponibilités	2 059 979		2 059 979	536 415	1 523 564	284.03
Comptes de Régularisation	Charges constatées d'avance (3)	47 375		47 375	29 633	17 743	59.88
	Total III	3 643 749	73 508	3 570 242	2 370 176	1 200 066	50.63
	Frais d'émission d'emprunt à étaler (IV)						
	Primes de remboursement des obligations (V)						
	Ecarts de conversion actif (VI)						
	TOTAL GÉNÉRAL (I+II+III+IV+V+VI)	17 261 297	3 369 973	13 891 324	13 633 451	257 873	1.89

(1) Dont droit au bail
(2) Dont à moins d'un an 11 920
(3) Dont à plus d'un an

Attestation de présentation des comptes EXCO CLERMONT FERRAND

Notes relating to the financial statements for year ended December 31, 2017 (fiscal year 2016-2017):

- The amounts of the item "Concessions, patents and similar rights," valued at €8,022,583, correspond mainly to the license granted by CARBIOS to CARBIOLICE for an amount of €8 million. As a reminder, in 2016, CARBIOS recorded non-monetary operating revenue of €8 million, for which the counterparty was a receivable from CARBIOLICE (in which the Company then held a 99% stake), subsequently converted into equity in this same company.
- The amounts of the item "Goodwill" valued at €2,042,654 come entirely from the partial transfer of assets made by LCI (Limagrain Céréales Ingrédients) in 2016 for a total of €3.5 million (see section 6.5.4).

BILAN PASSIF

	PASSIF	Exercice N 31/12/2018 12	Exercice N-1 31/12/2017 19	Ecart N / N-1 Euros	Ecart N / N-1 %
CAPITAUX PROPRES	Capital (Dont versé : 18 850 000)	18 850 000	15 500 000	3 350 000	21.61
	Primes d'émission, de fusion, d'apport				
	Ecarts de réévaluation				
	Réserves				
	Réserve légale				
	Réserves statutaires ou contractuelles				
	Réserves réglementées				
	Autres réserves				
	Report à nouveau	-3 106 598		-3 106 598	
	Résultat de l'exercice (Bénéfice ou perte)	-3 607 155	-3 106 598	-500 557	-16.11
	Subventions d'investissement				
	Provisions réglementées				
	Total I	12 136 247	12 393 402	-257 155	-2.07
AUTRES FONDS PROPRES	Produit des émissions de titres participatifs				
	Avances conditionnées	500 000	400 000	100 000	25.00
	Total II	500 000	400 000	100 000	25.00
PROVISIONS	Provisions pour risques				
	Provisions pour charges				
	Total III				
DETTES (1)	**Dettes financières**				
	Emprunts obligataires convertibles				
	Autres emprunts obligataires				
	Emprunts auprès d'établissements de crédit	500 000		500 000	
	Concours bancaires courants	1 147	67	1 080	NS
	Emprunts et dettes financières diverses				
	Avances et acomptes reçus sur commandes en cours	58 895		58 895	
	Dettes d'exploitation				
	Dettes fournisseurs et comptes rattachés	453 591	527 936	-74 344	-14.08
	Dettes fiscales et sociales	241 444	311 388	-69 945	-22.46
	Dettes sur immobilisations et comptes rattachés				
	Autres dettes		658	-658	-100.00
Comptes de Régularisation	Produits constatés d'avance (1)				
	Total IV	1 255 077	840 049	415 028	49.41
	Ecarts de conversion passif (V)				
	TOTAL GÉNÉRAL (I+II+III+IV+V)	13 891 324	13 633 451	257 873	1.89
	(1) Dettes et produits constatés d'avance à moins d'un an	1 055 077	832 226		

COMPTE DE RESULTAT

	Exercice N 31/12/2018 12			Exercice N-1	Ecart N / N-1	
	France	Exportation	Total	31/12/2017 19	Euros	%
Produits d'exploitation (1)						
Ventes de marchandises	525 232		525 232	1 055 141	- 529 909	- 50. 22
Production vendue de biens	599 456		599 456	899 474	- 300 019	- 33. 35
Production vendue de services	5 345		5 345	692	4 653	672. 95
Chiffre d'affaires NET	1 130 033		1 130 033	1 955 307	- 825 274	- 42. 21
Production stockée			- 215 935	305 411	- 521 346	- 170. 70
Production immobilisée						
Subventions d'exploitation			50 000	748	49 252	NS
Reprises sur dépréciations, provisions (et amortissements), transferts de charges			254 060	17 808	236 252	NS
Autres produits			9 384	553	8 831	NS
Total des Produits d'exploitation (I)			1 227 542	2 279 827	- 1 052 286	- 46. 16
Charges d'exploitation (2)						
Achats de marchandises			462 128	964 681	- 502 552	- 52. 10
Variation de stock (marchandises)						
Achats de matières premières et autres approvisionnements			357 417	1 488 098	- 1 130 681	- 75. 98
Variation de stock (matières premières et autres approvisionnements)			107 750	- 182 992	290 742	158. 88
Autres achats et charges externes *			2 126 033	1 789 300	336 732	18. 82
Impôts, taxes et versements assimilés			30 211	19 638	10 573	53. 84
Salaires et traitements			843 723	840 452	3 271	0. 39
Charges sociales			311 009	319 076	- 8 066	- 2. 53
Dotations aux amortissements et dépréciations						
Sur immobilisations : dotations aux amortissements			1 091 938	410 527	681 410	165. 98
Sur immobilisations : dotations aux dépréciations						
Sur actif circulant : dotations aux dépréciations			23 100	43 461	- 20 361	- 46. 85
Dotations aux provisions						
Autres charges			180 180	8 367	171 812	NS
Total des Charges d'exploitation (II)			5 533 488	5 700 609	- 167 121	- 2. 93
1 - Résultat d'exploitation (I-II)			- 4 305 946	- 3 420 781	- 885 165	- 25. 88
Quotes-parts de Résultat sur opération faites en commun						
Bénéfice attribué ou perte transférée (III)						
Perte supportée ou bénéfice transféré (IV)						

(1) Dont produits afférents à des exercices antérieurs
(2) Dont charges afférentes à des exercices antérieurs

Attestation de présentation des comptes

EXCO CLERMONT FERRAND

COMPTE DE RESULTAT

	Exercice N 31/12/2018 12	Exercice N-1 31/12/2017 19	Ecart N / N-1 Euros	Ecart N / N-1 %
Produits financiers				
Produits financiers de participations (3)				
Produits des autres valeurs mobilières et créances de l'actif immobilisé (3)				
Autres intérêts et produits assimilés (3)				
Reprises sur dépréciations et provisions, transferts de charges				
Différences positives de change	8	3	6	207.75
Produits nets sur cessions de valeurs mobilières de placement				
Total V	8	3	6	207.75
Charges financieres				
Dotations aux amortissements, dépréciations et provisions				
Intérêts et charges assimilées (4)	5 786	4 006	1 779	44.41
Différences négatives de change	22	150	-128	-85.24
Charges nettes sur cessions de valeurs mobilières de placement				
Total VI	5 808	4 156	1 652	39.74
2. Résultat financier (V-VI)	-5 800	-4 153	-1 646	-39.63
3. Résultat courant avant impôts (I-II+III-IV+V-VI)	-4 311 746	-3 424 935	-886 811	-25.89
Produits exceptionnels				
Produits exceptionnels sur opérations de gestion	15 977	0	15 977	NS
Produits exceptionnels sur opérations en capital	311 165	301 989	9 176	3.04
Reprises sur dépréciations et provisions, transferts de charges				
Total VII	327 142	301 989	25 152	8.33
Charges exceptionnelles				
Charges exceptionnelles sur opérations de gestion	1 263	4 390	-3 127	-71.23
Charges exceptionnelles sur opérations en capital	299 275	288 849	10 426	3.61
Dotations aux amortissements, dépréciations et provisions				
Total VIII	300 538	293 239	7 299	2.49
4. Résultat exceptionnel (VII-VIII)	26 604	8 750	17 854	204.04
Participation des salariés aux résultats de l'entreprise (IX)				
Impôts sur les bénéfices (X)	-677 987	-309 587	-368 400	-119.00
Total des produits (I+III+V+VII)	1 554 692	2 581 820	-1 027 128	-39.78
Total des charges (II+IV+VI+VIII+IX+X)	5 161 847	5 688 417	-526 570	-9.26
5. Bénéfice ou perte (total des produits - total des charges)	-3 607 155	-3 106 598	-500 557	-16.11
* Y compris : Redevance de crédit bail mobilier	67 999	3 848		
: Redevance de crédit bail immobilier				

(3) Dont produits concernant les entreprises liées

(4) Dont intérêts concernant les entreprises liées

Attestation de présentation des comptes

EXCO CLERMONT FERRAND

Intra-group cash flow through the simplified income statements of CARBIOS and CARBIOLICE

As a reminder, the first fiscal year of CARBIOLICE was an 18-month fiscal period. As such, it is necessary to compare CARBIOS's 2016 and 2017 fiscal years to show a more accurate picture of intra-group cash flows.

Cash flow in thousand euros	CARBIOS - 2016 fiscal year		CARBIOS - 2017 fiscal year			CARBIOLICE - 2016-2017 fiscal year	
		Of which Carbiolice		*Of which Carbiolice*			*Of which CARBIOS*
Operating revenues	8,870	*8,052 (1)*	983	*799*		2,280	*0*
Operating expenses	5,319	*0*	5,635	*0*		5,701	*851*
Operating income	3,551	*8,052 (1)*	-4,652	*799*		-3,420	*-851*
NET INCOME	4,920	*8,052 (1)*	- 3,936	*799*		-3,107	*-851*

(1) The reader is reminded that, as part of the €8,052 thousand in income received from its subsidiary CARBIOLICE in 2016, CARBIOS recorded non-monetary operating revenue of €8 million, for which the counterparty was a receivable from CARBIOLICE (in which the Company then held a 99% stake), subsequently converted into an equity interest in that company. In the financial statements of CARBIOLICE, this transaction resulted in the capitalization of this €8,000 thousand, as shown under assets in the CARBIOLICE balance sheet (see section 21.4).

Cash flow in thousand euros	CARBIOLICE - 2016-2017 fiscal year		CARBIOLICE - 2018 fiscal year	
		Of which CARBIOS		*Of which CARBIOS*
Operating revenues	2,280	*0*	1,228	*0*
Operating expenses	5,701	*851*	5,533	*929*
Operating income	-3,420	*-851*	-4,306	*-929*
NET INCOME	-3,107	*-851*	-3,607	*-929*

You are also reminded that the information presented above is taken from the CARBIOLICE financial statements as at December 31, 2017 and December 31, 2018. The financial statements for the year ended December 31, 2018 had not been subject to a report by the Statutory Auditors as at the date of this document, however a report is in the process of being prepared. This information is, therefore, provisional, to the extent that CARBIOLICE's financial statements have not yet been approved by the CARBIOLICE Board of Directors.

22. IMPORTANT AGREEMENTS

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

Concerning the THANAPLAST™ project, which ended on June 30, 2017:

- The commitments taken by CARBIOS relating to the utilization of patent applications filed remain in force despite the end of the project and notably the commitments on the returns due by CARBIOS to its partners in the event of utilization[140].

- For this reason, it should be noted that out of the nine families licensed to CARBIOLICE, six came directly from the THANAPLAST™ project, including one family jointly owned by INRA/INSA/CNRS and one family jointly owned by the CNRS and the University of Poitiers, which has resulted or will result in a retrocession in the form of lump-sum amounts or royalties. The family jointly owned with INRA/INSA/CNRS gave rise to the signature of a utilization agreement detailed below.

- In July 2017, CARBIOS signed a utilization agreement with INRA Transfert, on behalf of the INRA, INSA Toulouse and the CNRS, for a family of patents covering a particularly effective enzyme in the degradation of polymers and developed at LISBP as part of the research collaboration agreement with the INRA as part of the THANAPLASTTM project. CARBIOS is 50% co-owner of this family and benefits from an exclusive worldwide license for the right to utilize and a sub-licensing right for the use this family of patents. The signing of this utilization agreement follows CARBIOS' granting of a license to CARBIOLICE[141] on August 30, 2016 concerning this family of patents in particular. This agreement has already resulted in a payment of €50 thousand to INRA Transfert as repayment following the upfront payment received by CARBIOS in 2016[142]. Subsequent remuneration from this agreement will come in the form of royalties to INRA Transfert in correlation with CARBIOS' revenues generated by CARBIOLICE's utilization of this family of patents.

- In addition, six patent families fully owned by CARBIOS were filed under THANAPLAST™ for the biorecycling process for polyesters and in particular, PET. In the event that these families are exploited or licensed for future exploitation, they could result in a financial retrocession to INRA in the form of lump sums since three of them came from work conducted under the research services agreement with INRA.

Concerning CARBIOLICE[143]:

- A shareholders' agreement was signed on August 31, 2016 between CARBIOS, Limagrain Céréales Ingrédients (LCI) and the SPI (Sociétés de Projets Industriels) investment fund operated by Bpifrance. This agreement defines the rights and obligations of the parties relating to the creation of a joint venture, CARBIOLICE. This joint venture has, as its purpose, in France and abroad, the development, design, production and sale of biodegradable plastic materials (compounds, master batch or plastics) with or without the use of enzymes. In addition to the transfer of assets from LCI, the three partners will invest €18 million in three phases over four years, in accordance with the achievement of technical and commercial milestones. 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 €3.35 million, initially scheduled for payment in 2019, was released early in July 2018 (including €1.1 million from CARBIOS) given the acceleration of developments on the part of CARBIOLICE, namely the introduction of a new business plan and the filing of several patent applications that confirm the achievement of new milestones. An amendment to the shareholders' agreement was signed on June 28, 2018 in order to provide for the early exercise of this second tranche of financing indicated above as well as the revision of milestones to be achieved for subsequent financing tranches.
  Depending on the achievement of industrial and commercial objectives, a third tranche of funding amounting to €3.35 million (including €1.1 million from CARBIOS) will be released in 2019, followed by a fourth tranche in 2020 amounting to €7.3 million (including €2.3 million provided by CARBIOS).

[140] Please refer to paragraph 4.6.1 of this Registration Document for the return commitments made to Bpifrance.

[141] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

[142] Please refer to paragraph 4.6.1 of this Registration Document.

[143] Additional information on CARBIOLICE's financial statements as at December 31, 2018 is presented in section 21.4 of this document. As at the date of this document, CARBIOS holds a 56.23% stake in CARBIOLICE, which is nevertheless a non-consolidated company.

- An exclusive world license was granted by CARBIOS to CARBIOLICE on August 30, 2016, for the use of biodegradable enzymatic technology for all formulations (plastic compounds and master batches) based on biodegradable polyesters for applications limited to the areas of flexible films: mulching films, bags and sacks, industrial films, wrapping films, food packaging and rigid applications in the agricultural, horticultural and disposable tableware sectors. This agreement includes a receivable of €8 million[144] granted to CARBIOS, which was subsequently converted into share capital in the joint venture in order to ensure control of it, and will be followed by royalties on the sale of products integrating CARBIOS's patented biodegradable enzymatic technology. This license was supplemented by a non-exclusive option for an exclusive secondary license signed on February 15, 2017, and granting to CARBIOLICE a license on formulations other than those already granted for the same applications as targeted in the initial license. In an amendment to the license agreement dated June 28, 2018, CARBIOS extended the scope of the license granted to CARBIOLICE to new patent families, applications and products through incorporation of the wording of the license option indicated above in the initial license agreement. In consideration for this license extension, this amendment provides for the payment to CARBIOS of an additional lump sum conditional upon achievement by CARBIOLICE of a defined amount of revenue.

- A Research services agreement between CARBIOS and CARBIOLICE was signed for an amount of €1,248 thousand before tax, over a period of two years beginning on February 15, 2017. This contract should allow CARBIOLICE to benefit from the additional assistance of CARBIOS in the development of products that will be marketed. In consideration for the extension to the scope of the license granted by CARBIOS to CARBIOLICE, the research service agreement was extended to February 15, 2021 by an amendment dated December 10, 2018 for an overall amount of €2,500 thousand.

- In January 2019, CARBIOS and CARBIOLICE signed a co-development agreement with NOVOZYMES, the global leader in enzyme production. Under the terms of this global multi-year agreement, NOVOZYMES will produce the proprietary enzyme developed by CARBIOS on an industrial scale and agrees to become, in the long term, the exclusive supplier for CARBIOLICE. This new agreement is fully in line with the industrial deployment objective for the enzymatic technology developed by CARBIOS. This technology, whose commercial launch is slated for 2020, will generate for CARBIOS the first license revenues paid by CARBIOLICE.

Concerning patents licensed or acquired:

- An exclusive license option agreement signed on May 29, 2012, with the CNRS, the University of Poitiers and Valagro concerning a patent application describing a production process for biodegradable plastics and filed jointly by the CNRS, the University of Poitiers and Valagro, and a patent application concerning the biodegradation of PLA and filed by the CNRS and the University of Poitiers. This three-year agreement stipulates the compensation conditions set in respect of the exclusive worldwide utilization license. In 2015, CARBIOS exercised the exclusive license option for these two patent applications and signed the related licensing agreements. These agreements have already resulted in the payment of €800 thousand to the co-owners as repayment following the upfront payment received by CARBIOS in 2016 during the license concession to CARBIOLICE[145]. In 2018, CARBIOS waived the license for the family of patents concerning the strain that biodegrades PLA, filed by the CNRS and the University of Poitiers, as the latter no longer presented an interest due to the development of new enzymes that are much more efficient and better suited to the CARBIOS process. The subsequent remuneration for the remaining license agreement on the patent family describing a production process for biodegradable plastics and filed jointly with the CNRS, the University of Poitiers and Valagro, will come in the form of royalties to the co-owners in correlation with the revenues generated by CARBIOLICE through the utilization of this family of patents.

- A patent transfer agreement signed on August 31, 2015 with Setup Performance for their patent issued in France describing the preparation process for a thermoplastic compound from plasticized vegetable flour and the corresponding European application.

[144] For information on the accounting treatment of this operating revenue, please refer to the supplemental note available in section 20.5 of the 2016 Registration Document, available on the Company's website.

[145] Please refer to paragraph 4.6.1 of this Registration Document.

- An option agreement for the acquisition of the rights to two enzymes that can degrade PET was signed on September 11, 2017 with a German university research laboratory. The option was exercised on September 25, 2017.

Other contracts:

- A competitive research agreement with TWB / INRA (pre-industrial demonstration plant for the public-private sector interface, certified by the Institut Carnot 3BCAR label) was signed in April 2015. This agreement provides for collaboration between CARBIOS and teams from TWB (INRA), via the LISBP and the CRITT (INSA), on research work related to enzyme production and the optimization of enzymatic processes for a two-year period starting May 1, 2015. The results and intellectual property from work conducted as part of this agreement are wholly owned by CARBIOS. This agreement was extended by addenda on April 26 and December 22, 2017, allowing on-going work to continue until April 2018. A new service agreement was signed on July 20, 2018 as part of the ADEME project.

- Furthermore, CARBIOS signed three other competitive research agreements with TWB / INRA on the optimization of enzymes, the adaptation of recycling processes to fiber applications and the adaptation of the biodegradation process to medical applications. These agreements stipulate that the results and intellectual property from work conducted as part of these agreements are wholly owned by CARBIOS. It should be noted that each of these two agreements provides, subject to certain conditions, for a financial return for the benefit of TWB / INRA in the event of commercial exploitation of the results obtained from this work.

  From July 1, 2018, the enzyme optimization work conducted within LISBP is work eligible for ADEME financing within the CE-PET project[146] for which CARBIOS received the financing notification on January 10, 2019[147]. As part of this CE-PET project, CARBIOS and TWB obtained funding of €7.5 million from the *Programme d'Investissement d'Avenir* (PIA) operated by ADEME. Over a period of 39 months, this funding will support the upscaling of CARBIOS' industrial and commercial project in the field of biorecycling of PET fibers and plastic waste. This funding, which consists of subsidies and advances that are repayable if the project is successful, will be paid in instalments throughout the CE-PET project term. As project leader and coordinator, CARBIOS will strive to accelerate the industrialization of its technology for the biorecycling of PET fibers and plastic. For this, it may obtain up to €4.1 million. The terms and conditions of the contracts to be concluded between TWB and CARBIOS within the framework of this project will be governed by the rules defined by the TWB consortium agreement. This agreement should be signed during 2019. However, in accordance with TWB's rules regarding competitive agreements, CARBIOS should have full ownership of the results obtained under this project.

- In February 2017, CARBIOS and TechnipFMC, a world leader in engineering in the areas of energy, chemistry and bio-sourced industries, signed a one-year agreement for the industrial development of the CARBIOS process for enzymatic recycling of PET. This service provision agreement envisages that TechnipFMC will proceed with a feasibility study for the definition of a demonstration unit for ethylene glycol (EG) and terephthalic acid (TA) monomers by recycling used PET in order to scale up the CARBIOS process and ensure its industrial competitiveness. Through this contract, CARBIOS benefits from TechnipFMC's industrial know-how in bioprocess engineering and its expertise in PET polymerization technologies through its subsidiary Technip Zimmer in Germany. CARBIOS holds the intellectual property rights for the research and work conducted under this agreement. The Company requested TechnipFMC to continue its research during 2018. The collaboration with TechnipFMC continues in 2019 for the creation of an industrial demonstration plant operated by CARBIOS.

- CARBIOS and KEM ONE signed a letter of intent in November 2018 for the construction of the afore-mentioned industrial demonstration plant in Lyon's Chemicals Valley. Within this framework, the companies defined the principles of their collaboration for a period of six months, for the construction of a CARBIOS PET biorecycling technology demonstration plant on KEM ONE's industrial site in Saint-Fons (Rhône). Under this letter of intent,

[146] For more information on the CE-PET project, please refer to section 6.6.3 of this Registration Document.

[147] Please refer to the January 17, 2019 press release: https://carbios.fr/carbios-et-twb-obtiennent-un-financement-de-75-millions-deuros-pour-accelerer-lindustrialisation-du-biorecyclage-des-plastiques-et-fibres-en-pet/

CARBIOS undertakes to study the construction of its demonstration plant on the Saint-Fons site and KEM ONE undertakes to contribute its best efforts to mobilize all stakeholders and support CARBIOS in defining the conditions for the provision of the real estate, the main utilities and the services required as well as the procedures with the public authorities.

- On October 27, 2017, the Company announced that on September 30, 2017, it had signed an agreement with L'OREAL to create a consortium for a five-year period 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 biorecycling technology. This agreement does not provide for the transfer of industrial property rights. As a follow-up to this agreement, on December 31, 2017, the Company signed a consortium agreement with L'OREAL without any consideration or monetary commitment for 2018 that relates specifically to the biorecycling of PET (the "Consortium"). This Consortium's technical program will be implemented when three other industrial and/or commercial companies have joined the Consortium created at the initiative of CARBIOS and L'OREAL. This implementation will involve the payment by the Consortium partners of an annual lump-sum contribution to support CARBIOS's developments to meet the expectations of its partners in terms of the recyclability of their products using the enzymatic biorecycling technology designed and developed by CARBIOS. In the context of this Consortium, to accelerate the industrialization of the process developed by CARBIOS, the partners further agree to support the Company in the structuring of the new value chain for the recycled PET resulting from this innovative process. CARBIOS and L'OREAL, with the help of a consulting firm, are actively seeking other manufacturers that are likely to be interested by the arrival of the CARBIOS technology on the market with a view to their joining the Consortium. As at the date of this Registration Document, numerous contacts have been made, translating into many expressions of interest that have yet to result in contractual commitments.

23. INFORMATION FROM THIRD PARTIES, EXPERT STATEMENTS AND DECLARATIONS OF INTEREST

None.

24. DOCUMENTS AVAILABLE TO THE PUBLIC

During the period of validity of this Registration Document, the following documents (or copies of these documents) may be consulted, by physical means, at the Company's registered office, Biopôle Clermont-Limagne, 3 rue Emile Duclaux – 63360 Saint-Beauzire, 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 Registration Document;
- The Company's historical financial information for each of the three fiscal years prior to publication of this Registration Document.

Regulated information within the meaning of the AMF's General Regulation shall be available on the Company's website (www.carbios.fr).

25. INFORMATION ABOUT EQUITY HOLDINGS

Information concerning the company in which the Company holds a percentage of capital liable to have a significant effect on the valuation of its assets, financial position or performance appears in chapter 7 "Organizational Chart" of this Registration Document.

26. CROSS-REFERENCE TABLE WITH THE INFORMATION REQUIRED IN THE ANNUAL FINANCIAL REPORT, THE MANAGEMENT REPORT AND THE CORPORATE GOVERNANCE REPORT 191

Subject	Information for(*)	Section	Page(**)
Parent company financial statements	**AFR**	20.1	146-166
Management report	**AFR**		
- Information on the Company's business activity	AFR	3; 4; 6; 9; 11; 12; 13; 20.1	9-10; 11-29; 34-72; 76-82; 86-87; 88-97; 98; 146-166
- Legal, financial and fiscal information on the Company	AFR	7; 14.2; 16.2; 18; 20.1; 21.1.3; 21.1.5; 25	73-74; 103-104; 116-117; 131-133; 146-166; 171; 172-174; 198
- Social, societal and environmental information on the Company		4.2.8	19
- Miscellaneous information		9.2.2.6	80-81
Corporate governance report	**AFR**	14.1.3; 19.1; 21.1.5; 14.1 and 14.2	102-103; 134-135; 172-174; 99-103; 103-104
Declaration of natural persons responsible for the annual financial report	**AFR**	1	7
Statutory Auditors' report on the parent company financial statements	**AFR**	20.4	167-170

* AFR = Annual Financial Report

** : Pages number of this section refers to the French version of the Company's 2018 Registration Document

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27. GLOSSARY

- **Biodegradation**
  The decomposition of materials into simple molecules ($H2_0$, CO2, humus) through the enzymatic action initiated by micro-organisms.

- **Bioprocess**
  Production process using micro-organisms or enzymes.

- **Biorecycling**
  Process for the degradation of a polymer into its constituent monomers followed by a conversion process, by chain formation, of a monomer, or a mixture of monomers, into a polymer.

- **Depolymerization**
  Degradation of a polymer into its constitutive monomers.

- **Enzyme**
  A protein that catalyzes, meaning that it increases the speed of the chemical reaction.

- **Micro-organism**
  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 composting 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.

- **Process-book**
  A guide that defines all data, parameters and equipment needed to produce a product from raw materials on an industrial scale. It also specifies the investment and production costs of an industrial unit. It includes the actual validation of the process (from the raw material to the finished product) through a pilot or an industrial demonstration plant functioning in continuous fashion.