2020 Half-Year Results for CARBIOS, the world leader in biorecycling and biodegrading plastics

- Publication of an article co-authored by Carbios and TBI in the prestigious scientific journal Nature
- Joint-Development Agreement with the world leader in enzyme production Novozymes
- Creation of a collaborative enzyme engineering research center of international scale on plastic recycling and biosynthesis.
- Launch of the construction of an industrial demonstration plant for the enzymatic recycling of PET plastics and fibers
- Successful capital increase of 27 million euros with French and international institutional investors
- Carbiolice: commercial launch of EVANESTO® (enzymatic biodegradation of PLA based single-use plastics) to start second half of 2020
- 224% share price increase since January 1st, 2020, 2nd best performance on Euronext Growth Paris among issuers with a marketcap between 200 and 300 million euros¹

Clermont-Ferrand, France, September 17, 2020 (06:00 PM CEST) – CARBIOS (Euronext Growth Paris: ALCRB) a company pioneering new, bio-industrial solutions to reinvent the lifecycle of plastic and textile polymers, today announced its operating and financial results for the first half of 2020. The financial statements as of June 30th, 2020 were approved by the Company’s Board of Directors.

“In the first half of 2020, we have maintained momentum with our pipeline of technologies as well as ensuring business continuity despite this challenging and unprecedented time. We have signed a new joint-development agreement with Novozymes to develop the production and supply of our proprietary enzymes dedicated to the recycling of PET plastics and fibers. The construction of our demonstration plant has also started, and we have gained a major international recognition with the publication of an article co-authored by Carbios scientists and our partner TBI² in the prestigious

¹ Source: Oddo BHF at market closure on September 15th, 2020
² Toulouse Biotechnology Institute
scientific journal Nature. In addition, we successfully completed a €27 million capital increase with French and International investors, which will enable us to continue to invest and implement our strategy for the industrialization of our technologies. I would like to thank our employees for their agility during this period, as well as our shareholders and all the stakeholders involved in the development of our circular economy solutions,” comments Jean-Claude Lumaret, CEO of Carbios.

Highlights of the first half of 2020 and post-closing:

Publication of an article in the prestigious scientific journal Nature

In April 2020, Carbios announced the publication of an article in the prestigious scientific journal Nature entitled “An engineered PET-depolymerase to break down and recycle plastic bottles”. This article was co-authored by researchers at Carbios and TBI laboratory. The article describes the development of a novel enzyme which can biologically depolymerize all polyethylene terephthalate (PET) plastic waste followed by recycling into new bottles. After several years of research, Carbios and TBI have succeeded in improving the depolymerization performance of PET waste: the enzyme depolymerizes 90% of post-consumption PET in only 10 hours. By combining engineering and molecular design, the thermostability and activity of the PET-depolymerase have been improved to allow it to very effectively conduct the reaction of PET into terephthalic acid and mono-ethylene glycol, achieving a productivity of 16.7 g/L/h of terephthalic acid from a suspension of 200 g/kg of PET waste.

Joint-development agreement with Novozymes, the world-leading enzyme producer

In January 2020, the Company announced the signature of an exclusive joint-development agreement with Novozymes, the world leader in enzyme production. This collaboration guarantees the production of Carbios’ proprietary enzyme for PET degradation during the demonstration and industrial deployment phases. For the Company, this agreement represents a key stage in demonstrating the environmental benefit of its technology and guaranteeing a sustainable infinite recycling solution for PET-based products, such as drinks bottles, containers, plastic packaging and textiles, for its future customers. It also reinforces the credibility of the business model envisaged by the Company for the large-scale roll-out of its proprietary PET plastic and fiber recycling technology.

Creation of an international collaborative research center with INSA Toulouse

In January 2020, the Company announced a strategic alliance with INSA Toulouse through its TBI laboratory to set up an enzymatic engineering research center of international scale for the recycling and biosynthesis of plastics. This collaborative laboratory, called PoPLaB (Plastic Polymers and Biotechnologies) was inaugurated end of January.

Launch of the construction of an industrial demonstration plant for the enzymatic recycling of PET

In June 2020, the Company announced the launch of the construction of its industrial demonstration plant for the enzymatic recycling of PET plastic. Carbios is supported and advised by TechnipFMC for the engineering and construction of this demonstration plant.

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1 Cf. April 8th, 2020 press release
2 Cf. January 30th, 2020 press release
3 Cf. January 17th, 2020 press release
4 Cf. June 29th, 2020 press release
**Successful €27 million capital increase**

In July 2020⁷, Carbios announced the **strong success of a capital increase through an offering to French and International qualified investors** by way of an accelerated bookbuilding. This Primary Offering resulted in the issuance of 1,028,572 new ordinary shares, representing 14.79% of the Company’s current share capital, on a non-diluted basis, prior to the completion of the Primary Offering (a dilution of 12.89%) at a subscription price per share of €26.25 (issue premium included), for a **total amount of €27,000,015**.

As strategic investors, L’Oréal, through its private equity fund BOLD Business Opportunities for L’Oréal Development, and Michelin Ventures subscribed to this capital increase, in accordance with the commitments they had made, for a total amount of €3.9 million, which represents 148,571 new shares or 14.44% of the total number of new shares issued as part of this capital increase. This support is a strong sign of the legitimacy acquired by the Company and its management team.

This capital increase, which has attracted a high level of participation by new shareholders, in particular internationally (more than 50% of subscribers), also contributes to the diversification of CARBIOS’ shareholder base and is a significant step in supporting the Company’s development.

**Intellectual Property**

During the first semester, Carbios pursued the procedures on its current patent requests (extension abroad, answers to official letters) to extend filing of its intellectual property to wider geographical areas. Particularly, the United States Patent and Trademark Office (USPTO) has granted Carbios two new patents protecting the Company’s most efficient enzymes for the recycling of PET-based post-consumer plastics ([US 10,584,320 B2] [US 10,590,401 B2]). The Company has also recently received a patent for its proprietary recycling process from the China National Intellectual Property Administration (CNIPA) [CN104937015B]. This will complement the patents already granted in the U.S., Europe and Japan⁸ for said process.

As of June 30th, 2020, Carbios intellectual property portfolio included 33 families of patents (including 28 fully owned, 4 in co-ownership with exclusive exploitation rights and one under an exclusive worldwide license with the CNRS and University of Poitiers), representing 148 patent titles filed across the world’s key regions and 26 patents already delivered. 15 of said families are related to Carbios’ proprietary PET recycling technology with applications filed in Europe, U.S., Canada, Mexico, China, India, Thailand, Indonesia, South Korea and Japan.

**Evolution of the Board of Directors**

At its Annual General Meeting dated June 18th, 2020, **Mr. Matthieu VAN DER ELST was appointed Censor** of the Company, for a duration of one year, expiring at the term of the Annual General Meeting to be held in the course of 2021 and which will be called to approve the financial statements for the year ended December 31, 2020.

**Evolution of the Executive Committee**

In June 2020, **Mr. Martin STEPHAN was appointed Deputy Chief Executive Officer.**

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⁷ Cf. July 23rd, 2020 press release
⁸ Cf. March 28th and October, 8th, 2019 press releases
In September, 2020\(^9\), Mr. Kader HIDRA was appointed Chief Financial Officer and member of the Executive Committee.

**Carbiolice: commercial launch of EVANESTO® second half of 2020**

Carbiolice, a subsidiary owned at 52.7% by Carbios, aims by the end of 2020 to commercialize the enzymatic degradation technology of PLA based single-use plastics developed by Carbios and granted in license by producing and marketing the solution EVANESTO®. This innovation will be implemented in the form of an additive which can easily be integrated in conventional plastic and packaging manufacturing processes. It accelerates their biodegradation and ensures the composting in domestic conditions.

In June 2020\(^10\), Carbiolice and the Group Barbier, French leader in the production of agricultural films, announced a collaboration to produce biodegradable mulch films using the EVANESTO® technology. **This project aims to develop a new generation of mulch films with EVANESTO®,** combining a higher content of PLA and biodegradation at ambient temperature. Thus, more than 1,000 square meters of films were extruded last May by Carbiolice and the Group Barbier for tests currently being carried out under real conditions in several horticultural fields.

**Income & Loss Statement – First-half 2020:**

<table>
<thead>
<tr>
<th>(in thousand euros)</th>
<th>June 30, 2019 (6 months)</th>
<th>June 30, 2020 (6 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating revenues</td>
<td>702</td>
<td>849</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>(2,717)</td>
<td>(3,567)</td>
</tr>
<tr>
<td>Operating income/loss</td>
<td>(2,015)</td>
<td>(2,718)</td>
</tr>
<tr>
<td>Financial income/loss</td>
<td>(8)</td>
<td>(50)</td>
</tr>
<tr>
<td>Pre-tax profit</td>
<td>(2,023)</td>
<td>(2,768)</td>
</tr>
<tr>
<td>Extraordinary profit/loss</td>
<td>2</td>
<td>39</td>
</tr>
<tr>
<td>Income tax (Research Tax Credit)</td>
<td>310</td>
<td>469</td>
</tr>
<tr>
<td><strong>Net income/loss</strong></td>
<td><strong>(1,711)</strong></td>
<td><strong>(2,260)</strong></td>
</tr>
</tbody>
</table>

As of June 30\(^{th}\), 2020, year-to-date operating income stood at €849,000 versus €702,000 for the first half of 2019. Most of this income comes from the ADEME subsidies for the Company’s ongoing CE-PET project, and from research service revenues with its subsidiary Carbiolice.

During the first half of 2020, Carbios spent €3.567 million on operational activities. With the CE-PET project continuation and intensification, external R&D expenses have increased compared to 2019. The Company also saw its staff costs increase due to the expansion of its workforce and have seen the opening of new sites in Riom (Pilot) and in La Pardieu (administrative offices), which contributed to the increase in lease expenses.

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\(^9\) Cf. September 7\(^{th}\), 2020 press release

\(^{10}\) Cf. June 24\(^{th}\), 2020 press release published by Carbiolice and the Group Barbier
As a result, the net loss for the first half of 2020 settles at €2.260 million versus €1.711 million for the first half of 2019, after taking into account the research tax credit of €469,000.

**Cash burn of €2 million during the first half of 2020 and successful €27 million capital increase**

Carbios shows a solid financial structure, with a cash position of €13.9 million as of June 30th, 2020, compared with €15.9 million as of December 31st, 2019. The net cash consumption over the six-month period amounts to €2 million, similarly to the first half of 2019.

Given the financial situation as of June 30th, 2020, the successful capital increase\(^\text{11}\) for a total amount of €27 million that took place in July 2020, and its projected operating expenses, Carbios should be able to cover its financial needs beyond the next 24 months.

**About Carbios:**

Carbios is a green chemistry company whose innovations help address the environmental and sustainable development challenges facing manufacturers. Since its creation in 2011 by Truffle Capital, the Company has developed, through biotechnology, two industrial processes that revolutionize the biodegradation and recycling of polymers. These innovations, a world first, optimize the performance and lifecycle of plastics and textiles by exploiting the properties of highly specific enzymes.

Carbios' economic development model is based on the industrialization and commercialization of its products and/or enzymes, technologies and bioprocesses through license concessions directly or through joint ventures to major industrial players or sectors concerned by the Company's innovations. As such, Carbios created the joint venture Carbilicide in September 2016, in partnership with Limagrain Ingredients and the SPI fund operated by Bpifrance. This company, of which Carbios has majority control, will exploit the first technology licensed by Carbios by producing enzymatic granules for the production of biodegradable and biobased plastics.

Carbios benefits from the qualification "Innovative Company" of Bpifrance allowing the eligibility of the Company's securities for the investment of Mutual Funds Placement in Innovation (FCPI). For more information, please visit: [www.carbios.fr](http://www.carbios.fr)

Carbios is eligible for the PEA-PME, a government program allowing French residents investing in SMEs to benefit from income tax rebates.

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\(^\text{11}\) Cf. June 25th, 2019 press release
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