



– Press Release –

2019 Half-Year Results for CARBIOS, the world leader in biorecycling and biodegrading plastics

- Highlights include new strategic partnerships with Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe
- Development agreement between CARBIOLICE, CARBIOS and Novozymes
 - First PET-bottles made with 100% bio-recycled plastic waste
 - Grant of two major U.S. patents
 - Successful capital increase of 14.5 million euros

Clermont-Ferrand, France, 27 September 2019 (06:45 AM 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 2019. The financial statements as of June 30th, 2019 were approved by the company’s Board of Directors at their meeting on September 19th, 2019.

Jean-Claude Lumaret, CEO of CARBIOS, comments, *“The first half of 2019 was intensely productive for CARBIOS. We established strategic partnerships with **Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe** as part of the Consortium we previously founded with **L’Oréal**. In addition, we successfully completed a 14.5 million euro capital increase, which will enable us to initiate the construction of our industrial demonstration plant for PET enzymatic recycling this fall. With the signing of a co-development agreement with **Novozymes**, the world’s leading enzyme producer, our supply of enzymes is guaranteed for the industrialization of CARBIOLICE and the commercial launch of EVANESTO® in 2020. These milestones reinforce our development perspectives and our ambition to offer the market circular economy solutions that are both competitive and eco-friendly, and which will revolutionize the end of life of plastics and textiles. I would like to thank all our historical shareholders, including **Truffle Capital**, for their renewed support and our new shareholders, including **Copernicus AM, L’Oréal** via its venture-capital fund **BOLD Business Opportunities for L’Oréal Development and Michelin Ventures**, for the trust they place in us.”*

Highlights of the first half of 2019 and post-closing:

R&D: First PET-bottles made with 100% bio-recycled plastic waste

In February 2019¹, CARBIOS announced it had successfully produced **the first PET-bottles made with 100% Purified Terephthalic Acid (rPTA)**, through the enzymatic recycling 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. This success came along with the pilot stage process scale-up in collaboration with CRITT Bio-Industries, and the engineering work pursued with TechnipFMC for the construction of an industrial demonstration plant dedicated to the recycling of PET plastics and polyester fibers.

PARTNERSHIPS: Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe have joined the PET Consortium co-founded by CARBIOS and L'Oréal

In April 2019², **CARBIOS and L'Oréal** announced a major partnership with **Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe**. Committed to supporting sustainable development with innovative solutions, these partners have joined the PET Consortium previously founded by CARBIOS and L'Oréal, to help support the circular plastics economy using CARBIOS' breakthrough enzyme-based enhanced recycling technology. Under the terms of this four-year agreement, the Consortium members' ambition is to bring CARBIOS' PET recycling technology to the market and increase the availability of high-quality recycled plastics to fulfill their sustainability commitments. This collaboration includes technical milestones and support for the efficient supply of consumer-grade, 100% recycled PET plastics for global markets.

CARBIOlice: Co-development agreement with the world-leading enzyme producer, Novozymes

In January 2019³, 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 signed a **co-development agreement with Novozymes**, the world's 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.

The 2020 objective for CARBIOlice will be to address the markets of plastic films and carrier bags and later on, rigid packaging and disposable tableware. At the heart of the enzymatic technology licensed by CARBIOS, the additive EVANESTO® acts as a catalyst that accelerates the biodegradation of PLA plastics to make them compostable whatever the conditions. This innovation offers an unprecedented opportunity to sustainably fight against plastic pollution and meet industry and consumer expectations.

¹ Cf. February 27th, 2019 press release

² Cf. April 29th, 2019 press release

³ Cf. January 29th, 2019 press release

FUNDING: Successful €14.5 million capital increase and additional €7.5 million non-dilutive funding

In January 2019⁴, CARBIOS and Toulouse White Biotechnology (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 recycling of PET plastic and fibers. As project leader and coordinator, CARBIOS may obtain up to €4.1 million of this funding, which consists of subsidies and advances that are repayable if the project is successful.

In June 2019⁵, CARBIOS announced the success of a capital increase for a category of beneficiaries, made by the accelerated construction of a book of orders. The Company has placed 2,245,886 new shares with a par value of €0.70, at the unit price of €6.45, including the issue premium, for a total amount of €14,485,964.70, representing 48.22% of the Company's capital before the transaction on a non-diluted basis, for a dilution of 32.53%. **Truffle Capital, Copernicus AM, L'Oréal via its capital-investment fund BOLD Business Opportunities for L'Oréal Development and Michelin Ventures** contributed to this capital increase, in accordance with the commitments they had made, for a total of €10,499,980.80, representing 1,627,904 ordinary new shares, equivalent to 72.48% of the total number of shares newly issued for this capital increase. These supports are strong markers of the Company's established legitimacy and its management team.

INTELLECTUAL PROPRETY: Grant of two major U.S. patents

During the first semester, CARBIOS announced the grant, by the US Patent and Trademark Office (USPTO), of **two patents for its proprietary enzymatic process of recycling PET plastic waste**. These US patents (US 10,124,512 in March 2019⁶ and US 10,385,183 in June 2019⁷) are a real recognition of CARBIOS' innovation of its PET recycling process. This process is applicable to mixtures of plastic waste or complex plastics, including colored, opaque and multilayer materials containing a mixture of PET and at least one additional compound (e.g. polyolefins, vinyl polymers, rubber, cotton or nylon fibers paper, aluminum, starch, wood, etc.). These are the two first patents granted in the U.S. for this innovative method of recycling PET plastics and they ensure the protection of CARBIOS innovation until 2033 in this field.

DISTINCTIONS: Grant of a "Solar Impulse Efficient Solution" label

In May 2019⁸, CARBIOS announced its selection as a **winner of the "L'Appel des 30!"** for its project, in the French Chemical Valley, of an industrial demonstration plant dedicated to its breakthrough technology -- enzymatic recycling of PET plastics and fibers. Through this industrial demonstration, CARBIOS will enter a stage aiming to confirm the economic and technical performance of its proprietary innovation and enabling it to define all the parameters required to grant first licenses by 2023. CARBIOS therefore fully complies with the collective purpose of "L'Appel des 30!" for the transition of the existing ecosystem into disruptive industrial projects that are both profitable and beneficial for society and the environment.

⁴ Cf. January 10th, 2019 press release

⁵ Cf. June 25th, 2019 press release

⁶ Cf. March 28th, 2019 press release

⁷ Cf. June 20th, 2019 press release

⁸ Cf. May 10th, 2019 press release

In June 2019⁹, CARBIOS also announced that it had received a “*Solar Impulse Efficient Solution*” label for its infinite plastic recycling technology. The Solar Impulse Foundation aims to select and promote worldwide 1,000 economically profitable solutions to protect the environment. This label is awarded to innovations that combine technical feasibility criteria, positive social and environmental impact and economic profitability. It serves as recognition for work addressing global environmental problems, improving sustainable energy use, lowering carbon pollution, and helping achieve the United Nations’ Sustainable Development Goals. Products, services, clean technologies and processes that receive this label have demonstrated profitability potential and sustained economic growth, while protecting the environment and optimizing the use of natural resources.

EVOLUTION OF THE BOARD OF DIRECTORS:

Mr. Ian HUDSON was appointed Chairman of the Board of Directors with effect from January 1st, 2019, in replacement of Mr. Jean FALGOUX, which remains member of the Board of Directors.

At its meeting dated February 20th, 2019, the Board of Directors decided to co-opt as Board member and in replacement of Mr. Dominique EVEN, Mr. Godefroy MOTTE, for the duration of the term of office of its predecessor, expiring at the term of the Annual General Meeting to be held in the course of 2022 and which will be called to approve the financial statements for the year ended December 31, 2021.

Income & Loss Statement – First-half 2019:

(en K€)	June 30, 2018 (6 months)	June 30, 2019 (6 months)
Operating revenues	425	702
Operating expenses	2,733	2,717
Operating income/loss	(2,308)	(2,015)
Financial income/loss	1	(8)
Pre-tax profit	(2,307)	(2,023)
Extraordinary profit/loss	(2)	2
Income tax (Research Tax Credit)	(635)	(310)
Net income/loss	(1,674)	(1,711)

As of June 30th, 2019, year-to-date operating income stood at €702,000 versus €425,000 for the first half of 2018. Most of this income comes from the ADEME subsidies for the company’s CE-PET project, for which the first key stage was completed on June 30th, 2019, and from research service revenues with its subsidiary CARBIOLICE.

⁹ Cf. June 3rd, 2019 press release

During the first half of 2019, CARBIOS spent €2.717 million on operational activities. External R&D expenses were down sharply compared to 2018 when the Company was externalizing many services to its usual academic partners (INRA / TWB in particular). These partnerships now continue mainly within the framework of the CE-PET project where CARBIOS and TWB are collaborating. The Company also saw its staff costs increase due to the expansion of its workforce combined with the end of its eligibility for the JEI status (Young Innovative Company), which allowed for reduced social security contributions for R&D staff.

As a result, the net loss for the first half of 2019 settles at €1.711 million versus €1.674 million for the first half of 2018, after taking into account the research tax credit of € 310,000.

Cash burn of €1.8 million during the first half of 2019 and successful €14.5 million capital increase

CARBIOS shows a solid financial position, with a cash position of €3.4 million as of June 30th, 2019, compared with €5.1 million as of December 31st, 2018. The net cash consumption over the six-month period amounts to €1.8 million compared to a decrease of €0.9 million during the first half of 2018. Given the financial situation as of June 30th, 2019 and the successful capital increase¹⁰ for a total amount of €14.5 million, for which the settlement and delivery took place in July 2019, CARBIOS should be able to cover its financial needs beyond the next 24 months.

About CARBIOS:

CARBIOS is a cleantech 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 optimize the performance and lifecycle 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 license 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 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 an enzymatic additive making PLA-based plastics (films, bags, packaging) fully compostable in domestic conditions.

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.

¹⁰ Cf. June 25th, 2019 press release

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.



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