



#### - Press Release -

# CARBIOS and TechnipFMC sign a contract on PET enzymatic biorecycling

Clermont-Ferrand and Lyon, June 27, 2017 (06h45 AM CEST) – CARBIOS (Euronext Growth Paris: ALCRB), an innovative green chemistry company specializing in enzymatic bioprocesses applied to plastic and textile polymers, and TechnipFMC (NYSE and Euronext: FTI) announce the launch of a project for the industrial development of CARBIOS PET enzymatic recycling process. This innovation will allow to produce virgin PET from plastic waste. This contract covers assistance to CARBIOS for the scale up of its process to ensure industrial competitiveness.

CARBIOS' proprietary innovation provides an industrial solution to fulfill sustainable development requirements of PET production processes. The global market of PET records a 4% to 5%<sup>1</sup> annual growth and represents a world production of 64 million tons each year<sup>2</sup> (eq. \$70 billion), split between one third of plastics and two thirds of fibers. In 10 years' time, the annual production of this market is expected to reach 100 million tons (eq. \$110 billion).

This process has been developed for the recycling of PET plastics, namely bottles, films and packaging. It enables to overcome constraints and limits of current recycling processes by the treatment of all kind of plastics containing PET (transparent, colored, opaque and complex), and by the recovery of high-performance virgin PET directly from plastic waste. For the first time, a biological process paves the way to infinite recycling of PET following circular economy principles.

CARBIOS and TechnipFMC, world-leading Company in the fields of energy, chemistry and bio-sourced industries, signed this contract to transpose CARBIOS' process from the laboratory to the pilot scale. This assistance will further aim at supporting the development of the project and define the bases of the industrial process. Through this contract, CARBIOS will benefit from TechnipFMC industrial knowhow in bioprocess engineering and from the expertise of its German affiliate Technip Zimmer, in PET polymerization technologies.

Alain François, General Manager of TechnipFMC Operating Center in Lyon, notably in charge of the projects for chemical and bio-sourced industries, commented: "We are delighted to work with CARBIOS on this enzymatic recycling process that represents a true revolution in the world of PET. We have gained a solid experience in process engineering and we are very enthusiastic at the idea to assist CARBIOS in shaping the industrialization of this innovation. It's a premiere in the world of green

<sup>&</sup>lt;sup>1</sup> Source: Smithers Pira in 2014, Icis in 2009 and Pira International in 2012

<sup>&</sup>lt;sup>2</sup> Source: SRI Consulting in 2010, ICIS in 2009, Samsung in 2010, Tecnon in 2013 and IHS in 2014

chemistry to which we can bring our expertise and know-how in the fields of process industrialization, engineering and project management."

Jean-Claude Lumaret, General Manager of CARBIOS added: "We are glad to initiate with TechnipFMC this stage of industrial engineering for our technology. This agreement is another step in the transition of our PET biorecycling process from the status of disruptive innovation to a leading industrial technology."

# **About CARBIOS**

CARBIOS is a green chemistry company whose innovations are designed to meet environmental and sustainable development issues faced by global industrial players. Since its creation in 2011, CARBIOS has developed two industrial bioprocesses dedicated to the biodegradation and the biorecycling of polymers. These breakthrough innovations, which are a worldwide premiere, leverage the highly specific properties of enzymes to optimize the performances and the life cycle of plastic and textile materials. CARBIOS' economic development model is based on the industrialization and commercialization of its products, enzymes, technologies, and bioprocesses via the concession of licenses, directly or via joint ventures to major industrial players in the sectors that can make use of the Company's innovative technologies. For instance, CARBIOS created in September 2016, the jointventure CARBIOLICE, in partnership with Limagrain Céréales Ingrédients and the SPI investment fund run by Bpifrance. This company, controlled by CARBIOS, will operate the first patented enzymatic biodegradation technology licensed by CARBIOS by producing enzymated pellets to be used for the production of a new generation of bio-sourced and biodegradable plastics. Since inception, CARBIOS benefits from the financial support of the leading European venture capital firm Truffle Capital. CARBIOS was granted the label "Young Innovative Company" by Bpifrance (former OSEO) and is eligible for investments by private equity mutual funds (FCPIs).

For more information, please visit: <a href="www.carbios.fr">www.carbios.fr</a>

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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# **About TechnipFMC**

<u>TechnipFMC</u> is a global leader in subsea, onshore/offshore, and surface projects. With our proprietary technologies and production systems, integrated expertise, and comprehensive solutions, we are transforming our clients' project economics.

We are uniquely positioned to deliver greater efficiency across project lifecycles from concept to project delivery and beyond. Through innovative technologies and improved efficiencies, our offering unlocks new possibilities for our clients in developing their oil and gas resources.

Each of our 44,000 employees is driven by a steady commitment to clients and a culture of purposeful innovation, challenging industry conventions, and rethinking how the best results are achieved.

To learn more about us and how we are enhancing the performance of the world's energy industry, go to TechnipFMC.com and follow us on Twitter @TechnipFMC.

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