



– 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)<sup>1</sup> and consuming 21% (14,6 Mt)<sup>2</sup> 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

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<sup>1</sup> Source: IHS Markit in 2018

<sup>2</sup> 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](http://www.CARBIOS.fr) CARBIOS is also eligible for inclusion in SME share savings accounts (PEA-PMES).



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