



– Press release –

## **CARBIOS builds on its technology leadership with the granting of a key patent in China for its enzymatic biodegradation process of PLA**

**Clermont-Ferrand, France, November 15, 2016** – CARBIOS (Alternext Paris: ALCRB), an innovative green chemistry company specializing in enzymatic bioprocesses applied to plastic and textile polymers, today announces that it has been granted a key patent in China for its enzymatic biodegradation process of polylactic acid (PLA).

This patent grant further strengthens CARBIOS' strategic position in China, as one of the objectives set within CARBIOLICE, its joint venture with Limagrain Céréales Ingrédients and Bpifrance, is focusing on biodegradable PLA-based agricultural mulching films as well as other materials. This step demonstrates the industrial application potential of CARBIOS' biodegradation processes and comforts the international expansion strategy of the technology licensed to CARBIOLICE.

Today, China is the world's largest market for agricultural mulching films, using 70%<sup>1</sup> of the 2 million tons produced worldwide in 2013<sup>2</sup>. Demand is particularly high in the northern regions<sup>3</sup> of China, a country with 10% annual growth<sup>4</sup> in this sector. This large market opportunity is sustained by the active Chinese government policy to address the environmental threat of "white pollution" caused by film shredding in fields after use. A major project was launched by the Chinese government to replace 25,000 tons of traditional mulching films with biodegradable films in 2016<sup>5</sup>.

With this favourable regulatory framework and the development of its new generation of biodegradable plastic films with a controlled lifespan, CARBIOS is well equipped to meet the growing needs of the Chinese market in the field of mulching films.

*"CARBIOS continually strengthens the patent protection for its innovations to enhance its strategic position in major markets. The patent grant in China will enable the future use of the processes licenced to CARBIOLICE to address the needs of the world's largest market for agricultural mulching films,"* said Jean-Claude Lumaret, CEO of CARBIOS.

At June 30, 2016, CARBIOS' intellectual property portfolio was comprised of 18 patent families, including two with exclusive worldwide licences, protecting all processes developed by the company from biodegradable plastic production processes to the recycling of plastic waste and the production of bio-polymers.

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<sup>1</sup> Grand View Research in 2014

<sup>2</sup> Grand View Research in 2014

<sup>3</sup> E.K. Liu, W.Q. HE and C.R. Yan in 2014

<sup>4</sup> E.K. Liu, W.Q. HE and C.R. Yan in 2014

<sup>5</sup> China Plastic and Rubber Journal in 2014

## **About CARBIOS:**

[CARBIOS](#) is an innovative green chemistry company whose mission is to find biological solutions to the environmental and sustainable development issues faced by industrial businesses today. CARBIOS acquired the rights to research that was conducted over a number of years by various public and private sector laboratories. By leveraging the unique properties of biological catalysts (enzymes), it has used this research as the foundation for developing innovative industrial bioprocesses that optimize the technical, economic and environmental performance of polymers (thermoplastic materials and synthetic or food-based fibers). The company has focused its efforts on a strategic application sector: plastics. CARBIOS' growth strategy is based on a clear business model of industrial value creation that targets attractive markets, develops innovative and competitive bioprocesses and licenses them to major industrial stakeholders for commercialization. CARBIOS benefits from the financial support of the leading European venture capital firm [Truffle Capital](#). CARBIOS was founded in 2011 and has been managed since its inception by the  *Holding Incubatrice Chimie Verte*  fund. CARBIOS was named "Young Innovative Company" by Bpifrance (formerly OSEO) and is eligible for investments by private equity mutual funds (FCPIs).

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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