

PRESS RELEASE



WhiteCycle: A European consortium to recycle plastic waste

- **An innovative European project to process and recycle plastic textile waste**
- **A partnership to reach the objectives set by the European Union in reducing CO₂ emissions by 2030**
- **A unique consortium rallying 16 public and private European organizations working together for more circular economy**

Clermont-Ferrand, France, August 9th, 2022 - Carbios (Euronext Growth Paris: ALCRB), a pioneer in the development of enzymatic solutions dedicated to the end-of-life of plastic and textile polymers, joined WhiteCycle, a project coordinated by Michelin, which was launched in July 2022. Its main goal is to develop a circular solution to convert complex¹ waste containing textile made of plastic into products with high added value. Co-funded by *Horizon Europe*, the European Union's research and innovation program, this unprecedented public/private European partnership includes 16 organizations and will run for four years.

WhiteCycle envisions that by 2030 the uptake and deployment of its circular solution will lead to the annual recycling of more than 2 million tons of the third most widely used plastic in the world, PET². This project should prevent landfilling or incineration of more than 1.8 million tons of that plastic each year. Also, it should enable reduction of CO₂ emissions by around 2 million tons.

Complex waste containing textile (PET) from end-of-life tyres, hoses and multilayer clothes are currently difficult to recycle, but could soon become recyclable thanks to the project outcomes. Raw material from PET plastic waste could go back into creation of high-performance products, through a circular and viable value chain.

16 public and private European organizations are combining their scientific and industrial expertises:

- 3 industrial partners (Michelin, Mandals, KORDSA);
- 1 cross-sector partnership (Inditex)
- 2 waste management companies (Synergies TLC, ESTATO);
- 1 intelligent monitoring systems for sorting (IRIS);
- 1 biological recycling SME (Carbios);
- 1 product life cycle analysis company (IPOINT);
- 1 university, expert in FAIR data management (HVL);
- 4 universities, research and technology organizations (PPRIME – Université de Poitiers/CNRS, DITF, IFTH, ERASME);
- 1 industry cluster (Axelera);
- 1 project management consulting company (Dynergie).

The consortium will develop new processes required throughout the industrial value chain:

- Innovative sorting technologies, to enable significant increase of the PET plastic content of complex waste streams in order to better process them;
- A pre-treatment for recuperated PET plastic content, followed by a breakthrough recycling enzyme-based process to decompose it into pure monomers in a sustainable way;
- Repolymerization of the recycled monomers into like new plastic;
- Fabrication and quality verification of the new products made of recycled plastic materials

WhiteCycle has a global budget of nearly 9.6 million euros and receives European funding in the amount of nearly 7.1 million euros. The consortium's partners are based in five countries (France, Spain, Germany, Norway and

¹ Complex waste: multi materials waste (Rubber goods composites and multi-layer textile)

² PET: Polyethylene terephthalate

Turkey). Coordinated by Michelin, it has an effective governance system involving a steering committee, an advisory board and a technical support committee.



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About Carbios

Established in 2011 by [Truffle Capital](#), [Carbios](#) is a green chemistry company, developing biological and innovative processes. Through its unique approach of combining enzymes and plastics, Carbios aims to address new consumer expectations and the challenges of a broad ecological transition by taking up a major challenge of our time: plastic and textile pollution.

Carbios deconstructs any type of PET (the dominant polymer in bottles, trays, textiles made of polyester) into its basic components which can then be reused to produce new PET plastics with equivalent quality to virgin ones. This PET innovation, the first of its kind in the world, was recently recognized in a scientific paper published in front cover of the prestigious journal [Nature](#). Carbios successfully started up its demonstration plant in Clermont-Ferrand in 2021. It has now taken another key step towards the industrialization of its process with the construction of a first-of-a-kind unit in partnership with Indorama Ventures.

In 2017, Carbios and L'Oréal co-founded a consortium to contribute to the industrialization of its proprietary recycling technology. Committed to developing innovative solutions for sustainable development, Nestlé Waters, PepsiCo and Suntory Beverage & Food Europe joined this consortium in April 2019.

The Company has also developed an enzymatic biodegradation technology for PLA-based (a bio sourced polymer) single-use plastics. This technology can create a new generation of plastics that are 100% compostable in domestic conditions, integrating enzymes at the heart of the plastic product.

For more information, please visit www.carbios.com/en

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Carbios (ISIN FR0011648716/ALCRB) 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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