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Boulogne-Billancourt - July 5, 2022

## WhiteCycle: A European consortium to recycle plastic waste

- A unique and innovative European project to process plastic waste
- A partnership to reach the objectives set by the European Union in reducing CO<sub>2</sub> emissions by 2030
- An unprecedented consortium rallying 17 public and private European organizations to establish a circular economy

The WhiteCycle project, coordinated by Michelin, was launched on Friday, July 1. It aims to develop a circular economy to convert complex waste containing textile made of plastic into products with high added value. Co-financed by the Horizon Europe program of the European Commission, this unprecedented public/private European partnership includes 17 organizations.

The WhiteCycle ambition by 2030 is to foster the annual recycling of more than 2 million tons of the third most widely used plastic in the world, PET<sup>1</sup>. This project should make it possible to reduce  $CO_2$  emissions by approximately 2 million tons and to avoid the landfilling or incineration of more than 1.8 million tons of plastic each year.

Composite industrial waste containing textile (PET) and other components from tires, hoses and multilayer clothes at the end of the product life cycle – which is currently difficult to recycle – could soon become recyclable. That material could go into producing new plastic for tires, hoses and clothes.

17 public and private European organizations are combining their scientific and industrial expertise:

- 3 industrial partners (Michelin, Mandals, Inditex);
- 2 waste management companies (Synergie TLC, ESTATO);
- 1 intelligent sorting SMB (Iris);
- 1 biological recycling SMB (Carbios);
- 1 PET plastic processing plant (KORDSA);
- 1 product life cycle analysis company (i-Point);
- 6 universities, research and technology organizations (PPRIME, Université de Poitiers, DITF, IFTH, ERASME, HVL);
- 1 business cluster (Axelera);
- 1 project management practice (Dynergie).

<sup>&</sup>lt;sup>1</sup> Polyethylene terephthalate



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The consortium will establish the new processes required for the various steps in the value chain:

- Sorting technologies that make it possible to considerably increase the plastic content of complex waste streams in order to better process them;
- A pre-process for recuperated plastic, followed by a very innovative recycling process (using an enzyme) which sustainably disintegrates the pre-processed plastic into pure monomers;
- Repolymerization of the resulting plastic monomers to produce like-new plastic;
- Quality verification of the new products made with the plastic resulting from recycled complex waste.

Funded by the Horizon Europe program, 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 is based in five countries (France, Spain, Germany, Norway and Turkey). Coordinated by Michelin, it has an effective governance system involving a steering committee, a center synergy commission, and a technical support committee.



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## **About Michelin**

Michelin, the leading mobility company, is dedicated to enhancing its clients' mobility, sustainably; designing and distributing the most suitable tires, services and solutions for its clients' needs; providing digital services, maps and guides to help enrich trips and travels and make them unique experiences; and developing high-technology materials that serve a variety of industries. Headquartered in Clermont-Ferrand, France, Michelin is present in 177 countries, has 124,760 employees and operates 68 tire production facilities which together produced around 173 million tires in 2021. (<a href="https://www.michelin.com">www.michelin.com</a>)

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