European Commission

CHEMICALS

INNOVATION FUND

Deployment of net-zero and innovative technologies

BACCO: Biofiller Agro-industrial Can Change hOrizon

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

The project aims to scale up an innovative industrial production technology, which valorises and transforms agro-industrial residues and waste into green materials for the plastics industry. Developed in a bio-industrial plant, the project's integrated production of vegetal oils and biofillers will enable a more efficient and sustainable process and create additional opportunities for value creation in the plastics industry. Compared to similar solutions (biofiller production), the advantage is that this solution can be applied on a large scale, leading to lower costs and better performance. Relative greenhouse gas (GHG) emission avoidance is approximately 73% compared to the reference scenario, demonstrating a significant reduction in emissions for the hard-to-abate plastics production sector.

BACCO improves the commercial and technological aspects of biofillers, offering a pioneering solution with enhanced thermo-mechanical performances compared to existing market solutions. At the heart

COORDINATOR
TAMPIERI FINANCIAL GROUP SPA

LOCATION
Italy

CATEGORY
Energy intensive industries (EII)

SECTOR
Chemicals

AMOUNT OF INNOVATION FUND GRANT
EUR 1,401,520

EXPECTED GHG EMISSIONS AVOIDANCE
29,315 tonnes CO2 equivalent

STARTING DATE
01 April, 2025

FINANCIAL CLOSE DATE
31 January, 2026

ENTRY INTO OPERATION DATE
30 November, 2026

CALL NAME
InnovFund-2023-NZT

** Calculated vs. the 2021-2025 ETS benchmark of 6.84 tCO2e/tH2, not taking into account additional carbon abatement due to substitution effects in the H2 end use application, i.e. conservative estimate.*

of the project is a novel three-in-one process that reduces energy consumption, eliminates the need for solvents and enables faster processing and improved process control. This technology can be applied to different types of waste, generating four distinct products from diverse waste streams, including food and agricultural waste that would otherwise be unsuitable for use. By leveraging this feedstock flexibility, BACCO is expected to reduce greenhouse gas emissions to an amount equivalent to the emissions from producing approximately 800 million polyethylene terephthalate (PET) bottles.

BACCO is expected to impact several key national and European policy areas positively. By promoting the use of bio-based, biodegradable plastic materials, the project will help minimise waste and environmental impact. Additionally, BACCO will support the development of sustainable alternatives to traditional plastics, focusing on renewable, biodegradable materials that favour recyclability. This approach will contribute to reducing carbon emissions from conventional plastic production, thereby supporting the achievement of the EU's 2050 climate neutrality targets. It also contributes towards several Green Deal Industrial Plan objectives, with the potential to create a new sustainable value chain and reduce dependency on imports.

BACCO's innovative approach is expected to drive positive change in the plastics sector, enabling its necessary evolution. The project anticipates various benefits, including cost-savings, the retention and upskilling of workers and the creation of new high-value job opportunities. Furthermore, the project's focus on upgrading and recycling agricultural waste will significantly impact the development of Emilia-Romagna's farming sector. With its scalable technology, BACCO also has the potential to be applied in other industries, such as textiles, paper, and asphalt, leading to further growth and innovation.

| Participants

AGROMATERIAE SRL	Italy
TAMPIERI FINANCIAL GROUP SPA	Italy

Additional information on the [EU Funding and Tenders Portal](#)**.**