



PRESS RELEASE

EU-FUNDED PROSPER PROJECT REPORTS MAJOR ADVANCES IN BIOPLASTIC SORTING AND RECYCLING

19 MAY 2026 - The PROSPER project has reached a significant milestone by effectively sorting bioplastics from actual household waste streams. After detailed characterization at demonstration sites in Spain (FCCMA), Italy (A2A), France (SUEZ), and at composting facilities, [NIR-based sorting algorithms were successfully trained at the NTCP](#) centre in the Netherlands, Europe's first independent applied research organisation featuring industrial-scale sorting and washing. Building on this, partner PolyPerception will improve performance further by integrating AI with NIR tech.

A [techno-economic analysis of PLA](#) sorting has shown that PLA does not significantly disrupt existing sorting and recycling processes and can be sorted cost-effectively once its market share exceeds approximately 2.5%, depending on local conditions and scale.

Following sorting, progress has also been made in pretreatment and recycling. Current work focuses on optimising washing processes for bioplastics to remove contaminants such as dirt and labels while minimizing material damage. [Laboratory trials at GCR](#) on rigid PLA and biopolyester blends demonstrate high-quality recycled pellets with mechanical properties comparable to virgin materials, achievable with proper pre-processing. Trials on flexible fractions are scheduled soon.

Wageningen University & Research has demonstrated that PLA and BIOTEC blends remain recyclable after multiple extrusion and thermoforming cycles. Additionally, [a prototype product containing recycled PLA](#) - sorted and washed from real packaging waste - was produced within the first 12 months of the project, ahead of the planned deliverables timeline (M18-M24).

"A key upcoming challenge will be the demonstration activities in real recycling plants, planned for year three. Based on the current progress and the commitment of the partners, I am confident that these objectives can be successfully achieved" said Prof. Steven de Meester, project Coordinator, from the University of Gent, Belgium.



Regarding citizen acceptance, a [preliminary survey in Spain](#) with 438 participants indicates high participation in recycling paper, cardboard, glass (92%), and light packaging (90%), reflecting strong citizen engagement. However, recycling organic waste is only at 43%, and awareness of bioplastic certifications is low - only 19% know the OK Compost Home label, and 7% are familiar with the Seedling label/EN 13432 standard.

Environmental concerns (85%) and intergenerational responsibility (74%) motivate recycling efforts. The main barrier is limited space at home (54%), highlighting the need for user-friendly systems. Participants are interested in dedicated bioplastic collection options and favour incentive schemes like deposit-return, shop-based collection points, or smart bins with rewards. A larger survey involving about 4,800 participants across six European countries - Spain, Belgium, Italy, Germany, the Netherlands, and France - is planned for the next project phase.

The project operates within a rapidly evolving European policy landscape. The European Commission's updated Bioeconomy Strategy was adopted in December 2025, coinciding with the enactment of the EU Soil Monitoring Law. While these policies reflect increased focus on bio-based industries, the lack of binding mandates for bio-based materials hampers bioplastics' scaling in the EU. The consortium has submitted a detailed feedback to the European Commission's [Circular Economy consultation](#), advocating for market pathways similar to those for renewable energy.

The PROSPER project runs from October 2024 to September 2028, funded by the Circular Bio-based Europe Joint Undertaking under Grant Agreement n° 101157907. More information is available at www.prosperbioplastics.eu.

For more information:

David Newman
newman@bioeconomybureau.eu



The project is supported by the Circular Bio-based Europe Joint Undertaking and its members under grant agreement N° 101157907. Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CBE JU. Neither the European Union nor the CBE JU can be held responsible for them.