

mæBIOS



Improving waste management of biobased plastics and the upcycling in packaging, textile, and agriculture sectors

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MoeBIOS is an application of the circular (bio)economy concept: the development of three value chains: packaging, textile and agriculture. incorporating separate recycling streams for bioplastics (BP's) to improve waste management efficiency throughout Europe. It is a systemic innovation: it will create linkages addressed at the different key stages of the whole chains to solve a hierarchical challenge, from the collection of the bioplastic waste (simulated streams), up to the upcycling and validation of the final recycled end-products (holistic and coordinated solution).

Project Duration: **48** months. *June 2024 - May 2028*

9,7
M€

Total Cost

7
M€

EU Contribution

Areas:

Food, Bioeconomy,
Natural Resources,
Agriculture and Environment



Efficient recycling of bioplastics is essential to unlock the full environmental benefits of bio-based materials and reduce plastic pollution. Currently, many bioplastics lack dedicated recycling streams, leading to waste and lost resource value.

MoeBIOS addresses this critical gap by creating practical, scalable solutions that transform bioplastic waste into high-quality recycled products, supporting

a true circular bioeconomy. This project is vital for advancing sustainable materials management, reducing environmental impact, and fostering innovation in Europe's green transition.

Coordinated by
ITENE,

Instituto tecnológico
del Embalaje,
Transporte y Logística

21 partners.

Spain, France, Germany,
Italy, the Netherlands,
Slovakia

1 Be integrated in pilot plants on the premises of actual industrial recycling lines currently operating in waste management companies, not disrupting them, and reaching a final TRL = 6/7 or even beyond.

2 Focus on bioplastics for which recycling processes are still not in place, excluding bio-based analogues ("drop-ins"): PLA and PLA blends, PHA and its blends, PBS and PEF, accordingly with the market. The use of PBAT will be assessed as well.

A Multi-Actor Approach (MAA) and a transdisciplinary methodology will engage waste producers, waste managers, bio-based and (bio)plastics industry, public authorities, standardization agencies, citizens and media multipliers, creating a co-creation and co-ownership innovation environment of + 50 participants.



Work packages

WP1 Value chains definition, collection and sorting

WP2 Novel technologies for enhancing biobased plastics waste recycling

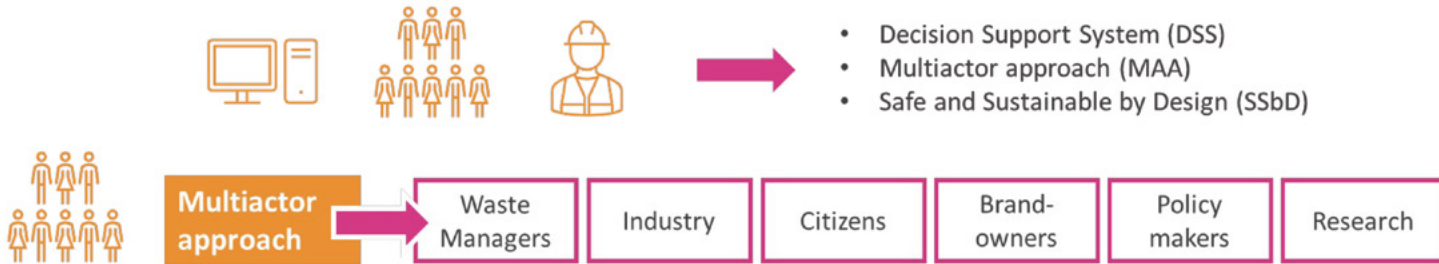
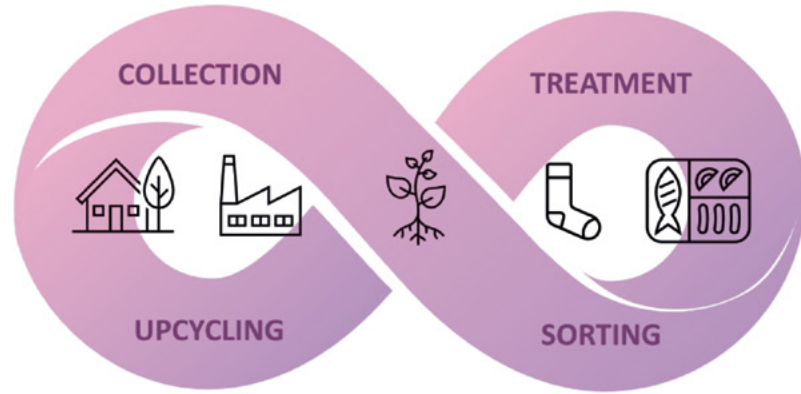
WP3 Development of demonstrators based on recycled biobased plastics

WP4 Integration of the circular value chains

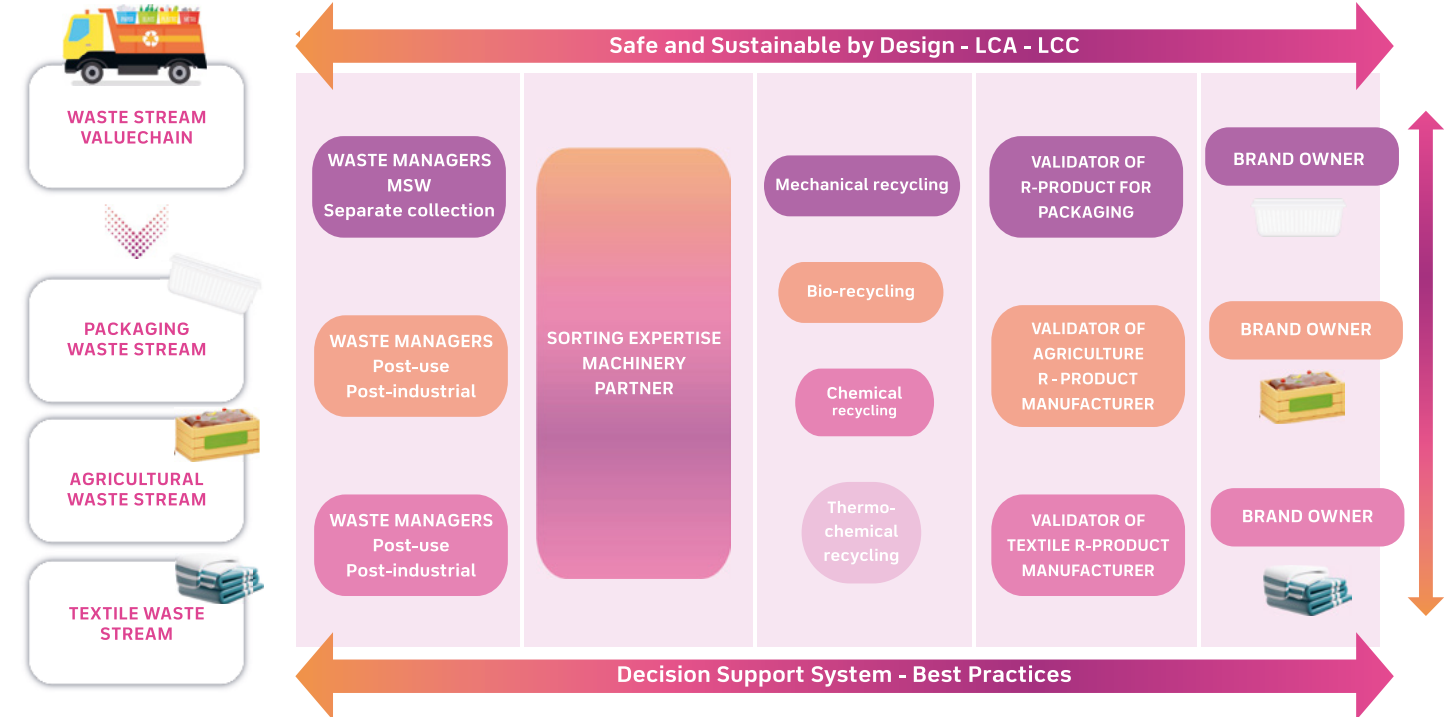
WP5 Sustainability, safety and techno-economic assessment

WP6 Communication, dissemination, exploitation and social sciences and humanities (SSH)

WP7 Project Management



How the challenge is addressed:



moeBIOS



**Funded by
the European Union**



**Circular
Bio-based
Europe**
Joint Undertaking



**Bio-based Industries
Consortium**

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