

# BIO-BASED BIODEGRADABLE PLASTIC FROM OFMSW\*



Less than 1% of the global plastic production is biobased...



... while each year the EU generates **60 million tonnes of organic waste.**



**"By valorising OFMSW as feedstock, we obtain innovative biodegradable and compostable bioplastics promoting new biorefinery models."**

Marta Saccomanno,  
Biotechnology researcher at Novamont

## HOW TO PRODUCE A BIOPLASTIC AS ENVIRONMENTALLY SUSTAINABLE AS POSSIBLE?

### › WHAT?

Novamont's innovation is highly interconnected with other results of the SCALIBUR project. By valorising intermediates from OFMSW obtained by other partners in the project, Novamont will develop low impact bio-based building blocks which will be used to obtain innovative biodegradable and compostable bioplastics formulations for different applications, such as organic waste collection bags and packaging films.

In addition to proposing a sustainable substitute to fossil-based materials, such an innovative value chain presents the main advantage of valorising urban biowaste, avoiding landfilling while providing opportunities for feedstock differentiation, thus promoting new biorefineries models.

### › HOW?

The circular bioeconomy models pursued in Scalibur include the conversion of OFMSW-derived intermediates into bio-based building blocks which are then valorized into polymerization and further reactive extrusion to obtain biodegradable and compostable bioplastics.

The technical challenge of this value chain lays in the feedstock specificity, due to its variable composition across seasons.

### › WHEN?

The economic and environmental assessment of the value chain will be finalised by end of 2022.

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### Want to learn more about bio-based bioplastics?

- Read about bioplastics market data [here](#)
- Learn about biowaste's sugar extraction through enzymatic hydrolysis [here](#) and through anaerobic digestion [here](#).
- Discover our **SCALIBUR project**.

SCALIBUR



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