

Valorising PHA into novel biomaterials that can be used for valuable applications

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## About

**The Novamont Group** is a Benefit Company certified B Corp and international leader in the production of bioplastics and the development biochemicals and bioproducts of renewable origin.

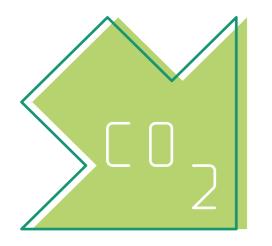
Within the project, Novamont is involved in valorising PHA into novel biomaterials that can be used for valuable applications, such as compostable bags for collecting the organic fraction of municipal solid waste (OFMSW) and biodegradable in soil mulch films.

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## Environmental benefits

**Compostable bags for collecting OFMSW** not only improve the management of organic waste, but can also be transformed into compost, a valuable soil improver, thus contributing to the fight against desertification of soils and reducing CO<sub>2</sub> emissions.

**Biodegradable in soil mulch films** do not need to be recovered and disposed of at the end of the crop cycle. They can instead be left in the soil where they are biodegraded by microorganisms, thereby preventing white pollution (e.g., microplastics) and soil erosion.



The novel biomaterials including PHA obtained in the project are expected to contribute at the promotion of circular bioeconomy models and foster the interconnection between the urban and rural dimensions.

## Opportunities for upscaling

Close collaboration with local authorities and multiutilities is essential in replicating case studies of excellence in OFMSW valorisation. Novamont has always supported programmes that promote the collection of high-quality OFMSW by using compostable bioplastics and transforming them into quality compost and higher-added-value bioproducts.

As an example, Novamont collaborated in the implementation of a virtuous system for the collection of OFMSW in the metropolitan city of Milan.

The success of this system was due to the introduction of the door-to-door collection system and the use of compostable bags obtained from biomaterials by Novamont.

This made it possible to achieve in May 2014 the level of 50% of separate waste collection (compared to 36.7% in 2012), a record in Europe (compared to other European cities counting more than 1 million inhabitants) that makes Milan a "virtuous case" at an international level of the "Italian model" for separate collection of organic waste. In 2019 the metropolitan city of Milan achieved 61,1% of separate waste collection.



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