

# BIONANOPOLYS Open Innovation Test Bed (OITB)

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## Abstract

The Horizon 2020 project Bionanopolys unites 27 European partners to create an Open Innovation Test-Bed (OITB) for an improved performance for packaging, textile, agriculture, cosmetics, pharma or food. In order to create a more sustainable future for all of us, the project team is eager to develop biomaterials with high quality and, therefore, to provide potential alternatives to fossil-based materials. These novel biomaterials must offer functional properties for high-volume applications and need to perform even better in order to drive their adoption by industry and end users. Besides, fossil-based materials are still cheaper – a barrier for a successful market entry of biomaterials.

Bionanopolys opens up a platform for driving “open innovation” in this field. In order to provide materials with the requested properties, the Bionanopolys community makes use of sustainably sourced renewable feedstocks in Europe for manufacturing innovative bionanocomposites and producing bio-based nano-products for different industry sectors. To speed up the introduction of bio-based nano-enabled materials into the market, a single entry point (SEP) for stakeholders, who are willing to contribute or to make use of the OITB services is a central objective of the project.

For the start, Bionanopolys created a network of 14 pilot plants and their complementary services: Five pilot plants will focus on the development of bionanomaterials from biomass, three pilot plants are dedicated to bionanocomposites and six pilot plants aim at manufacturing

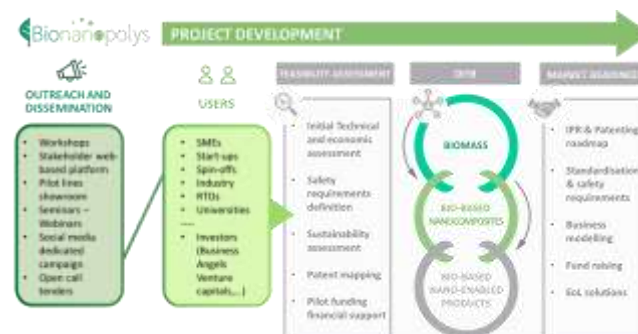
bio-based nanoproducts in order to reach a wide range of applications in different sectors. Pilot lines are going to be upgraded and fine-tuned across the entire Bionanopolys value chain.

Therefore, Bionanopolys offers to create an integrated platform of technologies and scientific expertise as well as technicians devoted to the nanotechnology based on bio-based raw materials for the first time. A comprehensive portfolio of services for the development and integration of new bio-based nano-enabled products complements the outputs of the project. The services of the OITB comprise scientific consultancy for the production on the one hand, and complementary considerations in terms of ethics, security, life cycle assessment, economic analyses etc. on the other.

## References

[1] [www.bionanopolys.eu](http://www.bionanopolys.eu)

## Figures



**Figure 1:** Overall concept of BIONANOPOLYS Test Bed