



Innovative value chains from tree and shrub species grown in marginal lands as a source of biomass for bio-based industries

The concept

BeonNAT proposes to use marginal lands in Europe to obtain forest biomass for the production of **8 products based on 7 new bio-based value chains**.

BeonNAT will allow the production of biodegradable bio-based products and bioactive compounds that will play an important role to replace fossil-based competing substitute products.

The plantation of tree and shrub species in marginal lands following **intercropping techniques**, will contribute to the **biodiversity protection** while **improving soil fertility and organic carbon stocks**.



Project outcomes

It will contribute to increase the supply of bio-based products using previously untapped land resources.

It will also increase the knowledge of the most effective trees and shrubs to use as feedstock.

It will establish several new cross-sectoral interconnections in the bio-based economy. These connections will be between the chemical, cosmetic, health care, pet and packaging sectors.

It will create a multiple new bio-based value chain approach. This will feature new industrial sources of feedstock, new prototype designs, new green extractions and purification technologies and new materials (or products) with new properties (and characteristics). AIMPLAS will develop PLA and an active cosmetic packaging from it, in collaboration with Maverick.

Environmental outcomes

- It will diversify the range of forest-based biomass that can be exploited for bio-based value chains while avoiding indirect land use change (ILUC) issues.
- It will positively impact biodiversity and the ecosystem by restoring marginal lands, reducing deforestation and forest degradation and preserving forest genetics.
- It will mitigate against climate change and the impact of extreme weather events.

BeonNAT will help to mitigate the impacts of climate change, enabling smarter and more sustainable products and materials, to make the most efficient use of our renewable natural resources, as well as providing huge economic opportunities for the bio-based economy in Europe.

PARTNERS:



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