



BioTheRoS

Collaborative Actions to Bring
Novel Biofuels Thermochemical
Routes into Industrial Scale



Upscaling biofuels thermochemical processes by addressing challenging technical, economic and social bottlenecks



The BioTheRoS Project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101122212.

www.biotheros.eu

About

BioTheRoS will improve the cost effectiveness and sustainability of large-scale production of sustainable biofuels via two key thermochemical biomass conversion technologies: (1) pyrolysis and the upgrading of its intermediate products, and (2) gasification and Fischer-Tropsch (FT) synthesis.

As international collaboration is crucial for scaling up and commercializing biofuels, BioTheRoS will establish close ties with ETIP Bioenergy, Mission Innovation and Technology Collaboration Programmes (TCPs) within the International Energy Agency (IEA) to leverage global expertise.

Objectives

1. Develop cost-effective and sustainable technologies for thermochemical conversion of biomass to produce biofuels to TRL 5.
2. Select and assess several biomass feedstocks suitable for pyrolysis and gasification biofuel value chains using predictive biomass demand AI models.
3. Develop scale-up rules of biofuels production based on advanced modelling techniques and lab/pilot-scale trials.
4. Develop an LCA framework and analysis tool to assess environmental, economic, and social impacts.
5. Improve the sustainability of thermochemical conversion of biomass to biofuels via pyrolysis and gasification.
6. Analyse market dynamics of scaled-up pyrolysis and gasification biofuel value chains.
7. Build on international collaboration and stakeholder engagement to improve the global knowledge on sustainable biofuels.



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