

PRESS RELEASE

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BioTheRoS Project Report - Sustainable Non-Food Biomass Potential for Aviation and Maritime Sectors

The BioTheRoS consortium has published its Deliverable 2.1 report, that offers an assessment of global and European non-food biomass resources that could support the decarbonisation of the aviation and maritime sectors. The study evaluates biomass feedstocks in line with the categories defined under the EU Renewable Energy Directive II (RED II) and the updated RED III framework.

The report examines a wide range of non-food, lignocellulosic biomass sources, including agricultural residues such as straw, forestry by-products, agro-industrial wastes, and other sustainable waste streams. Using harmonised data and geospatial analysis, the study maps the theoretical availability, distribution, and sustainability constraints of these feedstocks at both global and EU levels.

Findings indicate that while global biomass availability presents a substantial theoretical potential to support sustainable aviation and maritime fuels, the situation differs within Europe. According to the analysis, EU biomass alone would not be sufficient to fully decarbonise both sectors, highlighting the need for diversified solutions and complementary renewable fuel pathways.

The report also highlights the need for detailed evaluation of each biomass category regarding supply chain efficiency, technological compatibility (for example with gasification or pyrolysis), and environmental impacts. These insights form a critical basis for the project's next stages, which will include selecting the most promising biomass streams for advanced fuel production.

As a next step, BioTheRoS will integrate the results into an interactive visualisation tool, enabling policymakers, researchers, and industry stakeholders to explore biomass potentials regionally and compare scenarios with ease.

Deliverable 2.1 provides robust, data-driven evidence supporting Europe's broader green transition objectives and highlights the role of sustainable biomass in accelerating the deployment of renewable fuels in hard-to-decarbonise sectors.



Full report is available through this link:

<https://www.biotheros.eu/deliverables/2.1.pdf>

All project reports

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