

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 884208.



## The BioSFerA H2020 project has been launched

# An international partnership for an innovative and sustainable aviation and maritime fuels

The web kick-off meeting held on 30th April 2020, launched the activities of BioSFerA project (*BIOfuels production from Syngas FERmentation for Aviation and maritime use*), funded by European Unions' Horizon 2020 research programme.

BioSFerA aims to develop cost-effective interdisciplinary technology to produce sustainable aviation and maritime fuels. Biogenic residues will be gasified, and the syngas will be fermented to produce bio-based triacylglycerides (TAGs). At the end of the project at least two barrels of Hydrotreated TAGs will be produced as next generation aviation and marine biofuels.

By exploiting the synergies between biological and thermochemical technologies, BioSFerA will achieve a total carbon utilization above 35% and a minimum selling price <0.7-0.8 €/I. BioSFerA aims to evolve the proposed technology from TRL3 to TRL5. In the TRL3 phase, extensive lab-scale tests will take place in order to optimize the process and increase its feedstock flexibility in terms of non-food biobased blends. Then, building upon lab tests, the pilot-scale runs (TRL5) will investigate the overall process.

In the framework of BioSFerA project the hydrocarbons compatibility with aviation and marine standards for drop-in fuels will also be verified.

Techno-economic, market, environmental, social and health and safety risk assessments will be performed on the overall BioSFerA process and, together with a process model, allow to achieve a realistic scaling-up scenario. This will allow to develop a cost-effective and versatile value chain with favourable condition for profitable investments around Europe.

Biosfera international consortium is composed by some research and public institutes: CERTH (Greece), VTT (Finland), Fundacion Cartif (Spain), Bio base europe pilot plant VZW (Belgium), CSIC (Spain), National technical university of Athens (Greece); and some private companies: Kuwait Petroleum Research and Technology B.V. (Netherlands), Rina consulting spa (Italy), Sumitomo shi fw energia oy (Finland), GOOD FUELS (Netherlands), Environment Park spa (Italy).



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