**14th ERA-NET Bioenergy Joint Call / 4th add. call of BESTF3**

**BIOHEAT – Development of a process chain based on opportunity fuels for heat production in industrial processes**

**ABSTRACT:**

*This project showcases the development of a process chain for the conversion of low-cost (or negative-cost) biogenic opportunity fuels to a gaseous intermediate energy carrier via gasification (product gas) and further methanation. The two business cases of direct heat utilization of product gas as well as further upgrading to bioSNG will we investigated regarding their technical, economic and ecologic feasibility. In addition, the recovery of nutrients from the solid ash residue will be investigated to obtain a fertilizer that can be recirculated to the nature to grow biomass to close the nutrient loop. The conversion of opportunity fuels will be investigated in pilot- and demonstration-scale to obtain the knowledge necessary for the proof-of-concept of the full process chain. The full concept of the bio-refinery including the production of bioSNG will be evaluated. In-situ measurements will be developed and tested to successfully operate such a bio-based process chain on opportunity fuels.*

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**PROJECT DURATION:**