

# CONSORTIUM



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Market Uptake Support for Intermediate Bioenergy Carriers



WWW.MUSIC-H2020.EU



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857806.

# THE MUSIC PROJECT

**Intermediate bioenergy carriers (IBCs) are biomass that is processed to energetically denser materials, analogous to oil, coal and gaseous fossil energy carriers. This means they are easier to transport, store and use.**

The MUSIC project will support market uptake of three types of Intermediate Bioenergy Carriers (IBCs) by developing feedstock mobilisation strategies, improved cost-effective logistics and trade centres. IBCs covered in MUSIC include biomass fast pyrolysis oil, torrefied and carbonised biomass, and microbial oil.



IBCs are formed when biomass is processed to energetically denser, storable and transportable intermediary products analogous to coal, oil and gaseous fossil energy carriers. They can be used directly for heat or power generation or further refined to higher value-added bio-based products. IBCs contribute to energy security, reduce greenhouse gas emissions and provide a sustainable alternative to fossil fuels in Europe.

# MUSIC ACTIVITIES

- Assessment of technical and non-technical aspects of biomass feedstock mobilisation with the purpose to develop dedicated feedstock mobilisation strategies
- Determination of the best, cost-effective solutions for logistics along the entire IBC value chain, from raw unprocessed biomass to IBC end-users.
- Virtual or physical expansion of existing or development of future trade centres.
- Engagement and support of stakeholders and market actors, especially from primary production and industry by communicating results, disseminating knowledge, providing opportunity for dialogue.
- Development of advanced and strategic case studies with economic actors (industries) committed to implement the results.
- Evaluation of framework conditions (legal, institutional and political) to identify key barriers and enablers.
- Advice to policy makers at national and regional level to serve as input for more informed policy, market support and financial frameworks.

# MUSIC INDUSTRY PLATFORM

**The MUSIC Industry Platform is set up to involve a broad spectrum of industry representatives into the project activities.**

The objective of this platform is to support the networking between representatives of different industry sectors, to foster market uptake of IBC technologies, to gather feedback and recommendations from the industry, and to exchange knowledge and experiences among the different industries.

# MUSIC CASE STUDIES

**Torrefied biomass production: Conversion of agricultural residues to IBCs for use in district heating plants Greece**

**Production of Microbial Oil: using lignocellulosic biomass residues as feedstock for oleaginous yeasts to produce lipids for ENI's biorefineries Italy**

**Pyrolysis oil production: Using renewable feedstock from Nordic forest industries to produce and use biomass fast pyrolysis oil Sweden and Finland**

**IBC use in steel production: Use of torrefied and carbonised biomass in Arcelor Mittal's steel mills International**

