

PROSPECTS FOR PYROLYSIS OIL AS ADVANCED BIOFUEL FOR SHIPPING AND AVIATION

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THE MUSIC PROJECT – INTERMEDIATE BIOENERGY CARRIERS

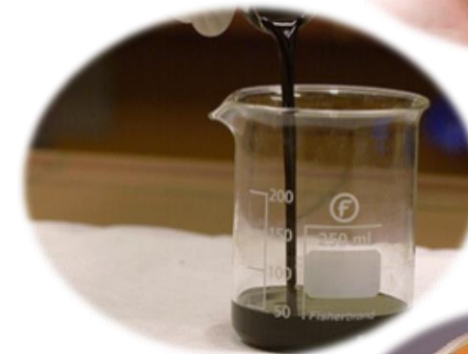
Intermediate Bioenergy Carriers (IBCs) are densified biomass ‘energy’ – similar to coal and oil. IBCs are easier to store, transport and use than regular biomass.

In the MUSIC project, the market uptake of IBCs is facilitated, by developing feedstock mobilisation strategies, improved cost-effective logistics and trade centres.

Torrefied biomass



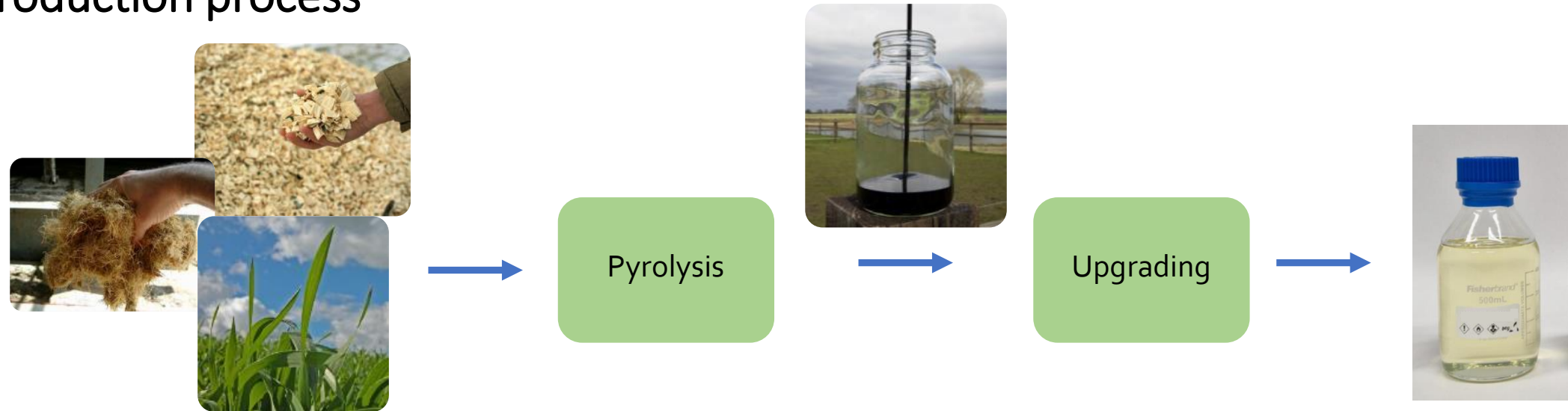
Pyrolysis oil



Microbial oil

PYROLYSIS OIL – A PROMISING PRECURSOR FOR TRANSPORT FUELS

Production process



- Efficient, sustainable process using non-food biomass
- Pyrolysis oil production is mature: three 24.000 tonne/year plants have been implemented, in the Netherlands, Finland and Sweden
- Upgrading of pyrolysis oil is required to produce transport fuel

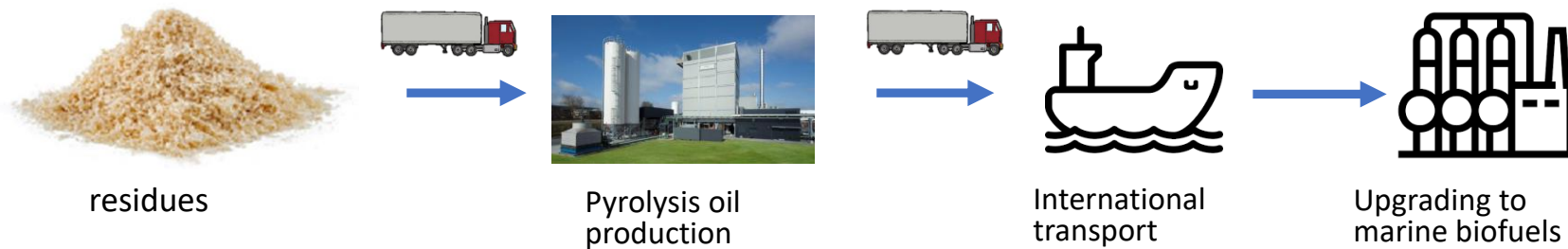


The Empyro Pyrolysis plant in Hengelo (est. 2015) 3



MUSIC CASE STUDY: SWEDEN/FINLAND

- Concept: Production of pyrolysis oil (192 kton/year) in eight plants, followed by transport to the Netherlands and upgrading to biofuels.



- Results:

- The value chain is technically feasible, apart from the upgrading which needs to be demonstrated.

THE SEMINAR: PROSPECTS FOR PYROLYSIS OIL AS ADVANCED BIOFUEL IN SHIPPING AND AVIATION

09:10 – 09:30 **ADVANCED BIOFUELS OVERVIEW**

Andrea Sonnleitner, BEST

09:30 – 09:50 **PYROLYSIS OIL TECHNOLOGY OVERVIEW**

Bert van de Beld, BTG Biomass Technology Group

09:50 – 10:10 **USE OF SUSTAINABLE BIOFUELS IN SHIPPING**

Felipe A. Ferrari, Goodfuels

10:10 – 10:30 **UPGRADING OF FAST PYROLYSIS BIO-OIL FOR AVIATION AND MARINE APPLICATIONS**

Juha Lehtonen, VTT

10:30 – 10:50 **BREAK**



THE SEMINAR: PROSPECTS FOR PYROLYSIS OIL AS ADVANCED BIOFUEL IN SHIPPING AND AVIATION

10:50 – 11:10 **USE OF SUSTAINABLE BIOFUELS IN AVIATION**

Eva van Mastbergen, SkyNRG

11:10 – 12:00 **ROUNDTABLE DISCUSSION**

Moderated by Rainer Janssen, WIP Renewable Energies

12:00 – 12:20 **PRODUCTION OF SAF FROM PYROLYSIS OIL**

Bryan Sherbacow, Alder Fuels

12:20 – 12:30 **WRAP-UP**



WE WISH YOU AN INFORMATIVE AND INTERACTIVE SEMINAR!



MUSIC

Market Uptake Support for Intermediate Bioenergy Carriers



EUROPEAN
BIOENERGY
FUTURE
2022



Patrick Reumerman

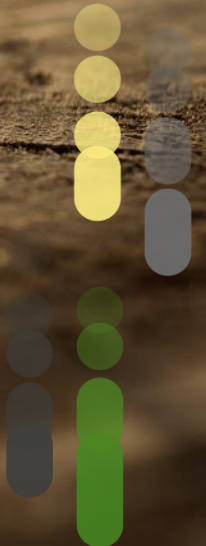
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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857806.





MUSIC Seminar: Prospects for Pyrolysis Oil for Advanced Biofuel in Shipping and Aviation

24 November 2022 | 09:00 - 12:30 CET | Online & In Person Workshop
EBF Conference Side Event



Patrick Reumerman

Senior Consultant
*BTG Biomass
Technology Group*



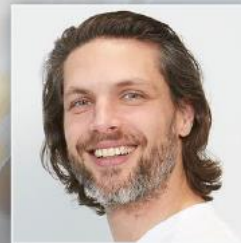
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Eva van Mastbergen

Project Lead
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Bryan Sherbacow

President, Founder
and CEO
Alder Fuels



Rainer Janssen

Managing Director
Projects
*WIP Renewable
Energies
(Moderator)*



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