

#### Academic summer school in the frame of the Horizon 2020 project Heat-to-Fuel

### Heat-to-Fuel: Next Generation of Sustainable Biofuels



**Heat-to-Fuel** is a Horizon 2020 EU-funded project carried out by 14 partners from across Europe that aims to deliver the next generation of biofuel production technologies supporting the decarbonisation of the transportation sector. Heat-to-Fuel partners possess over 100 years of combined sectorial expertise and experience in the production of biofuels, and they'll bring into the project the leading-edge demonstration facilities based on key industry and academic partners.

Digital/virtual summer school: Monday, the 5<sup>th</sup> of July 2021, 09:00-15:30

Via go-to-webinar

#### Summary

The company *Bioenergy and Sustainable Technologies GmbH (BEST GmbH)* is organizing an online/virtual summer school together with the academic HtF project partners *TU Wien* and *POLITO*. The summer school is dedicated to give an overview on the HtF process, which combines to innovative process chains – *the dry and wet route*.



In the course of the summer school an overview on the key steps of these innovative processes is given during key lectures. Based on the presented project framework in the key lectures the achieved progress in the specific research areas is presented in a "3 slides in 10 minutes" approach.





The summer school concludes with an open discussion on the obtained results and the participating students are cordially invited to share their opinion and thoughts on the project outcome with the HtF members and to identify new ideas and project possibilities.

Ideas outside the box are cordially welcome 😉

The attendance of the summer school is free of charge.

Participants are kindly requested to register at https://register.gotowebinar.com/register/4829539268931880203







## AGENDA

### 09:00 Key lectures

Welcoming and introduction to the event	Gerald Weber, BEST GmbH
Introduction to the Heat-to-Fuel project – Coupling of dry and wet route production process	Richard Zweiler, GET GmbH
Gasification of biogenic residues to obtain synthesis gas (Dry route)	Prof. Hermann Hofbauer, TU Wien
Production of advanced biofuels via Fischer-Tropsch Synthesis (Dry route)	Prof. Reinhard Rauch, KIT
Production of biofuel's precursors from hydrothermal liquefaction of industrial co-products (wet route)	Prof. David Chiaramonti, RECORD
Aqueous phase reforming for the production of H <sub>2</sub> from biorefinery waste waters <i>(wet route)</i>	Prof. Samir Bensaid, POLITO

## 10:40 Break

# 10:50 Project results – "3slides in 10 mins"

Overcome the agglomeration propensity in gasification	Sylvie Valin, CEA
Use of CO <sub>2</sub> in pressurized gasification	Mateusz Szul, IChPW's
Use of CO <sub>2</sub> in DFB (dual fluidised bed) gasification	Stefan Müller, TU Wien
Progress in the development of FT-catalysts for advanced biofuel production	Jordi Guilera, IREC

### 12:00

### Break

# 13:00 Project results – "3slides in 10 mins"

FT-reactor development - Methodology in designing an optimized Geneviève G FT-reactor





Geneviève Geffraye, CEA



FT-reactor development - Practical subjects in reactor manufacturing

Aqueous phase reforming - Progress in lab scale

Aqueous phase reforming - Progress in catalyst development and testing

Progress in hydrothermal liquefaction process

Techno-economic assessment of the HtF process chain

### 14:30 Open discussion / New ideas

Open discussion on the project idea, scope and obtained outcomes. New ideas and approaches should be developed. *Ideas outside the* **box are cordially welcome** (5)

Moderation by Prof. Samir Bensaid (POLITO) and Stefan Müller (TU Wien)

Armando IZQUIERDO,

Giulia Zoppi, POLITO

**Giuseppe Pipitone**, POLITO

Arturo Di Fraia, RECORD

Rok Sunko, Skupina Fabrika

Khimod

### 15:20 Wrap-up

Summary on the presentations, project results and the concluding Gerald Weber (BEST GmbH) discussion

### **15:30 Closing the event**

