TUBAF
The University of Resources. Since 1765.

INSTITUTE OF ENERGY PROCESS ENGINEERING AND CHEMICAL ENGINEERING

PROFESSORSHIP OF ENERGY PROCESS ENGINEERING

DeCarTrans

Demonstrating a Circular Carbon Economy in Transport along the Value Chain

CHALLENGE

Achieving greenhouse gas neutrality and the associated restructuring of the transport sector are currently major challenges at both national and international levels. In addition to CO_2 emission-free electric and hydrogen mobility, climate-friendly propulsion options include synthetic liquid fuels, which, when considered holistically, emit less CO_2 than petroleum-based fuels and have the potential to enable nearly climate-neutral mobility.

OUR PROJECT

In the collaborative research project DeCarTrans, which brings together project partners from research, the automotive and plant engineering sectors, as well as the mineral oil industry, the research team at TU Bergakademie Freiberg, together with its long-standing cooperation partner CAC Engineering GmbH, will produce several hundred cubic meters of synthetic gasoline by 2026. This fuel is generated from bio-methanol in the large-scale gasoline synthesis pilot plant in Freiberg. In May 2023, the first 15,000 liters of green gasoline produced in the project were made available to the project partners; two subsequent production campaigns by the end of June 2024 yielded an additional 125,000 liters. With production planned over a three-year period, the project aims to demonstrate the long-term operational capability of the technology and show that renewable synthetic fuels can make a significant contribution to achieving climate targets.

PARTNERS

- CAC Engineering GmbH
- Coryton Advanced Fuels Deutschland GmbH
- FEV Europe GmbH
- Forschungszentrum Jülich GmbH
- Lother GmbH

& other associated partners

FUNDING

Federal Ministry of Transport (BMDV), FKZ 16RK14004D

DURATION

January 2023 – December 2026 (4 years)

GESAMTKONZEPT ERNEUERBARE KRAFTSTOFFE

Gefördert durch: Bundesministerium für Digitales und Verkehr

aufgrund eines Beschlusses des Deutschen Bundestages

Koordiniert durch: NOW GMBH.DE

Projektträger: VDI|VDE|IT, FNR

TUBAF
The University of Resources.
Since 1765.

INSTITUTE OF
ENERGY PROCESS ENGINEERING AND
CHEMICAL ENGINEERING

PROFESSORSHIP OF
ENERGY PROCESS ENGINEERING