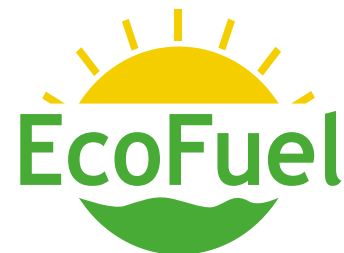


CONSORTIUM



Renewable  
Electricity-based,  
Cyclic and Economic  
Production of Fuel



Budapest University of Technology and Economics



Technical University of Berlin



University of Oxford

The EU-funded EcoFuel project will create and demonstrate an innovative process chain for production of synthetic fuel via **electrocatalytic CO<sub>2</sub> conversion**.

This next-generation process chain will allow the production of **renewable fuels for transportation**, with an enhanced energy conversion efficiency and economically viable production.

[www.ecofuel-horizon.eu](http://www.ecofuel-horizon.eu)

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The EcoFuel process is based on the direct electrocatalytic conversion of CO<sub>2</sub> into ethylene and propylene. These light olefins are oligomerized and further refined to yield liquid drop-in hydrocarbon fuels for transport applications.

**Technical objectives of EcoFuel are to develop and demonstrate**

- a novel technology for direct CO<sub>2</sub> capture from air
- an electrocatalytic process for CO<sub>2</sub> conversion into C<sub>2</sub>/C<sub>3</sub> olefins
- a new and effective process for separation of gaseous products
- new technologies for liquefaction of C<sub>2</sub>/C<sub>3</sub> olefins and further refining of product mixtures into transport-grade fuels
- Suitability of produced fuels as drop-in alternatives

**Overarching EcoFuel objectives are to**

- enable reduced primary energy demand as well as enhanced resource and cost efficiency of production compared to conventional technologies
- minimize emissions and environmental footprint
- reduce the number of involved conversion steps to intensify the process chain.

*Complete process chain powered by renewable energy and based on electrochemistry to deliver truly green (CO<sub>2</sub> neutral) fuels with unprecedented overall energy conversion efficiency.*

