OUR VISION

To contribute to the EU's carbon neutral goal in 2050

Our target is to develop a novel technology that fully takes upcycle residual enzymatic hydrolysis lignin (EHL) from cellulosic ethanol (2G) plants to high-quality liquid transport fuels for the automotive and aviation market. This action will more than **double the advance biofuel output of 2G ethanol plants** and, in doing so, increase not only profitability of the sector, but bring a carbon neutral EU by 2050 another step closer.

Leibniz - Institut für Katalyse E.V. an der Universitat Rostock	https://www.catalysis.de/en/home/
Centre National de la Recherche Scientifique CNRS	https://www.cnrs.fr/en
Technische Universiteit Eindhoven	https://www.tue.nl/en/
Vertoro	www.vertoro.com
École Polytechnique Fédérale De Lausanne	https://www.epfl.ch/en/
Norges Teknisk-Naturvitenskaplige Universitet NTNU	https://www.ntnu.edu/
Aalto korkeakoulusäätiö sr.	https://www.aalto.fi/en/aalto-university

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EHLCATHOL

Chemical transformation of enzymatic hydrolysis lignin (EHL) with catalytic solvolysis to fuel commodities under mild conditions

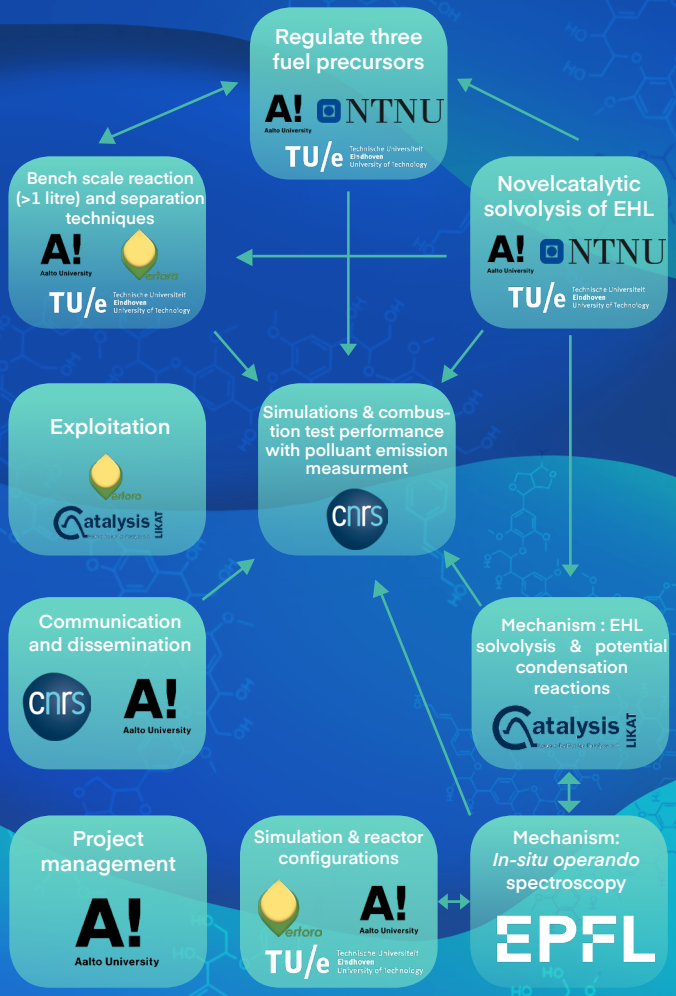
This project has received funding from the European Union's Horizon 2020 research and innovation programme, (BUILDING A LOW-CARBON, CLIMATE RESILIENT FUTURE: SECURE, CLEAN AND EFFICIENT ENERGY) under Grant Agreement No 101006744

http://ehlcathol.eu/

EHLCATHOL aims to:

convert EHL, via direct catalytic solvolysis, into drop-in compounds for gasoline, diesel and jet fuel. This will not only improve the carbon footprint of said fuels, but also their technical performance, such as increased octane and cetane numbers for gasoline and diesel fuel, respectively, as well as improved cold-flow and elastomer compatibility for jet fuel.

EHLCATHOL brings together an eclectic blend of chemists, chemical engineers, combustion scientists, fuel specialists, and entrepreneurs.



Our consortium, comprising Aalto, TUE, NTNU, LIKAT, EPFL, CNRS, and VERTORO, brings together a broad spectrum of expertise, including biofuel chemistry, catalysis, kinetics, spectroscopy, fuel design, modelling, and reactor and process design.

We will identify and mitigate any risks concerning scaling up our collectively technology, which will be further subject to a comprehensive dissemination and exploitation plan, as well as a detailed environmental impact study.

TOPIC

Chemical Transformation of Enzymatic Hydrolysis Lignin (EHL) with Catalytic Solvolysis to Fuel Commodities under Mild Conditions

The goal of the project over 4 years