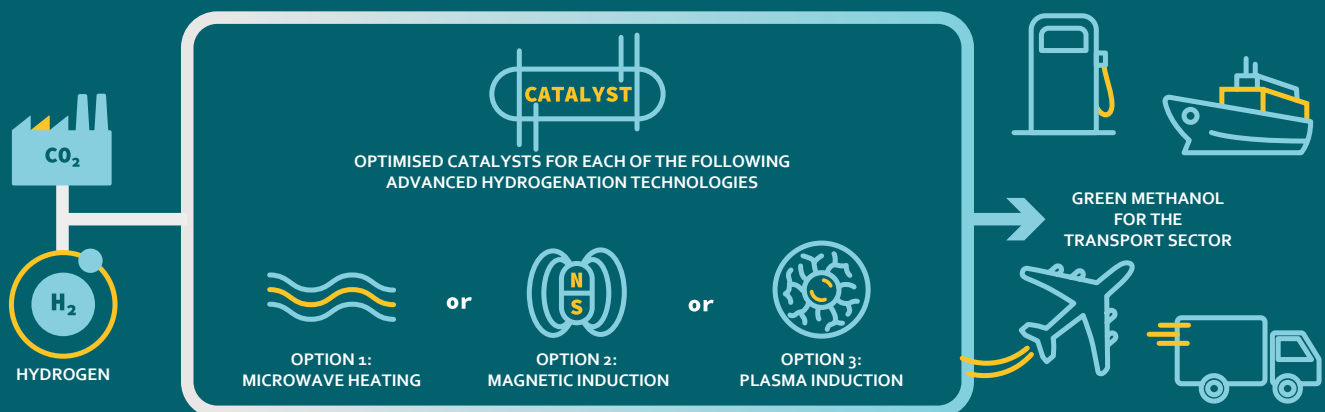


## OBJECTIVE

Reduce the CO<sub>2</sub> hydrogenation limitations by developing new catalyst systems adapted to advanced reaction processes: microwave, magnetic induction and non-thermal plasma.

LAURELIN focuses on methanol production from CO<sub>2</sub> hydrogenation, which reduces carbon emissions by up to 95% compared to conventional fuels, one of the highest potential reductions for alternative fuels, and also captures and transforms the CO<sub>2</sub> emitted by other industrial activities.

## MAIN INNOVATIONS



## LAURELIN will:

- Develop and validate new energy-supplying technologies (microwave heating, plasma and magnetic induction) for CO<sub>2</sub> hydrogenation to renewable methanol;
- Develop innovative catalysts for each of these technologies, while minimising energy requirements;
- Develop three “proof-of-concept” laboratory prototypes for the energy-supplying technologies and catalyst developed;
- Compare the efficiency of new catalysts with conventional thermal hydrogenation;
- Monitor performance indicators (overall yield, greenhouse gas emissions and manufacturing costs).

 [www.laurelin.eu](http://www.laurelin.eu)

 @laurelin\_eu


 Laurelin

### Project coordinator:

Luis Iranzo Martínez | AIMPLAS [dgpro@aimplas.es](mailto:dgpro@aimplas.es)

### Communication & dissemination:

Cécile Fouquet | Aliénor | [cecile.fouquet@alienor.eu](mailto:cecile.fouquet@alienor.eu)

 This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022507. It reflects only the authors view. The Agency is not responsible for any use that may be made of the information it contains.

 国立研究開発法人  
科学技術振興機構

This research is supported by the Japan Science and Technology Agency (JST) under the SICORP program (grant no. JPMJSC2101).

 AIMPLAS  
INSTITUTO TECNOLÓGICO  
DEL PLÁSTICO

ALIÉNOR  
Tailor-made solutions

 Fraunhofer

 CSIC  
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

MANCHESTER  
1824  
The University of Manchester

 PDC  
PDC Center

 東京大学  
THE UNIVERSITY OF TOKYO

 東京工業大学  
Tokyo Institute of Technology

 UCL

 UNIVERSIDAD  
DE ALMERÍA