

# CAT NIVERS



## DESCRIPTION:

- The overall idea of CATCO2NVERS is to reduce greenhouse gasses emissions from the Bio-Based Industries transforming waste-CO<sub>2</sub> from 2 bio-based industries into 5 added-value chemicals: glyoxylic acid (GA), lactic acid (LA), furan dicarboxylic methyl ester (FDME), cyclic carbonated fatty acid methyl esters (CCFAMEs) and bio-methanol, with application in the chemical, cosmetics and plastic industry, the project will process bio-based products replacing fossil material with a zero or negative greenhouse gas emissions.



# OBJECTIVES

The overall objective of CATCO2NVERS is to reduce greenhouse gasses emissions. To this end, the vision of the project revolves around two main axes:

- 1). Developing and applying catalyst-based technologies for CO2 conversion to added-value chemicals
- 2). Validating technologies at TRL5 with industrial synthetic off-gases and providing sustainability and proofing socioeconomic and industrial feasibility.



# IMPACTS

## CATCO2NVERS

CATCO2NVERS will advance in setting up sound business models which involve all the actors across the proposed value chains and consider the different scenarios of the technology implementation while bringing down environmental impacts and production costs

1

Development of breakthrough technologies for the conversion of CO<sub>2</sub> into high added-value chemicals. Definition of processes targets including energy requirements, production costs, and yields

2

Design of an integrated process with zero or negative greenhouse gas emissions

3

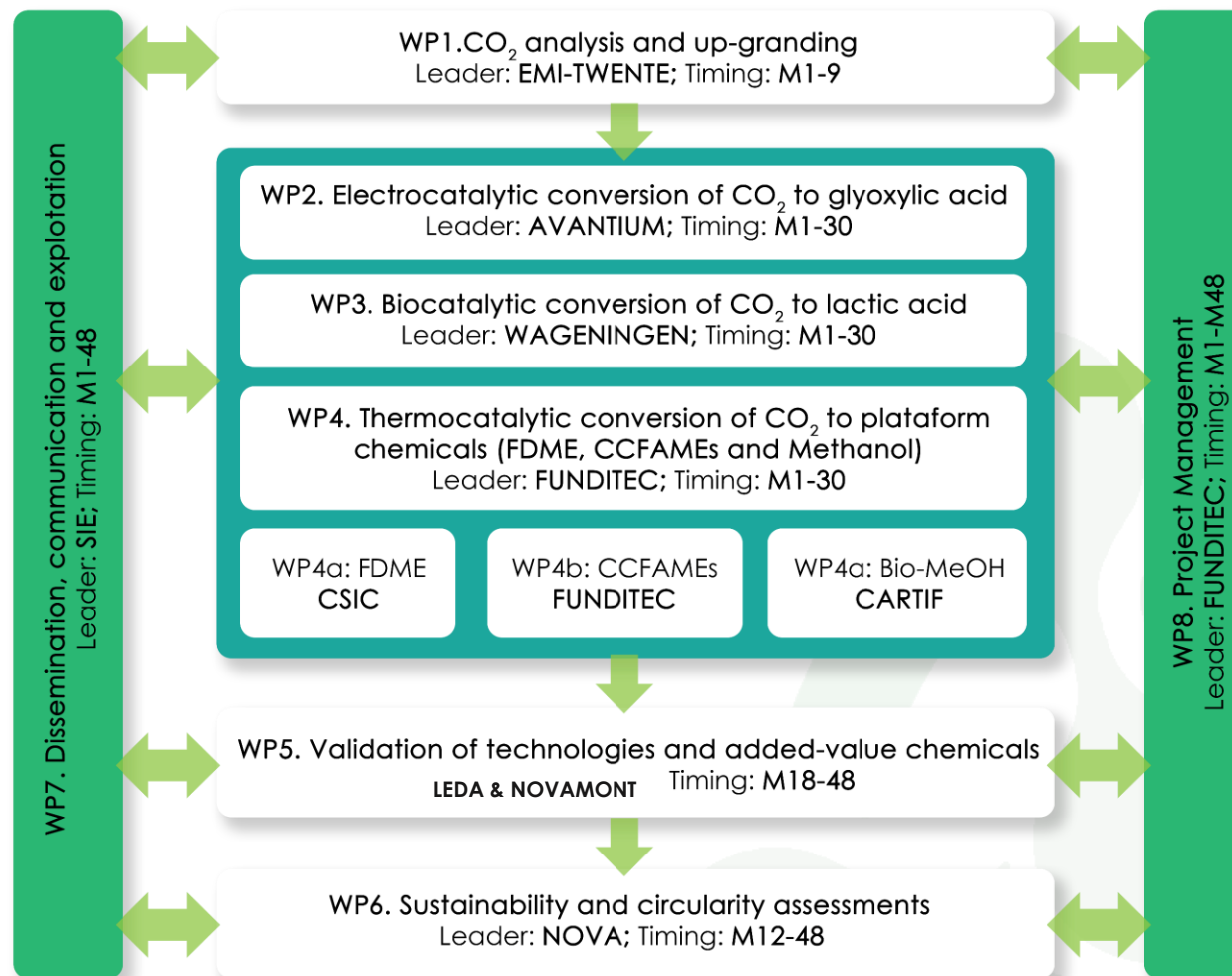
New business models and value chains in the CO<sub>2</sub> utilisation sector.

4

Diversification of the economic base of bio-based industries by 2030



# METHODOLOGY



# PROJECT PARTNERS

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UNIVERSITY OF TWENTE.



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# CATCO<sub>2</sub>NVERS



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