

The project goal is to develop a cutting-edge technology allowing to **convert industrial CO₂ into DME (Dimethyl Ether)**, a valuable gas extensively used in the chemical and energy sectors, providing an alternative to fossil fuel-derived feedstock.

The technology developed includes 3D printed catalysts, multi-channel catalytic reactors and solid oxide electrolyser cells to produce DME in a direct and efficient way, in the right direction towards a low-carbon society.



DURATION
48 months

START DATE
01/07/2019

END DATE
31/12/2023



12 PARTNERS from
8 COUNTRIES



The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n. 838061

**CO₂ utilisation focused
on market relevant
dimethyl ether production,
via 3D printed reactor
and solid oxide cell
based technologies**

www.co2fokus.eu



CO₂Fokus R&D development has been challenging with many technical ups and downs, but WE GOT SOME GREAT ACHIEVEMENTS!

CO₂FOKUS TECHNOLOGY INCLUDES:



**3D PRINTED
MULTI-CHANNEL
CATALYTIC REACTORS**

The Multi-tubular reactor with 3D printed monoliths **has finally been delivered to Turkey** and is being integrated for testing by SOCAR



**SOLID-OXIDE
ELECTROLYSER CELLS**

Solid oxide electrolyser **has been up and running again for 1000 hours of operation** and is able to produce 3kg of H₂/day



**HIGHLY SELECTIVE
AND DURABLE CATALYSTS**

The best catalyst formulation **has been tested, manufactured and 3D printed**



Scaling up the technology could make a decisive contribution to the decarbonisation of industry, taking a major step forward in tackling climate change.