LEAP-RE

A European Union–African Union Programme

CCU tech transfer

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Fraunhofer IGB BioCat

Teaming Twinning

#LRSF MILAN

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LEAP-RE has received funding from the European Union's Horizon 2020 Research and Innovation Program under Grant Agreement 963530.

How we can help tackling the challenges

Coordination & Mgmt

Vision

Rolling out clean and affordable technologies to support sustainable development in Africa and beyond

Strategy and aim

Review of national sustainability strategies

Pilot/demo projects (TRL 5+) for process

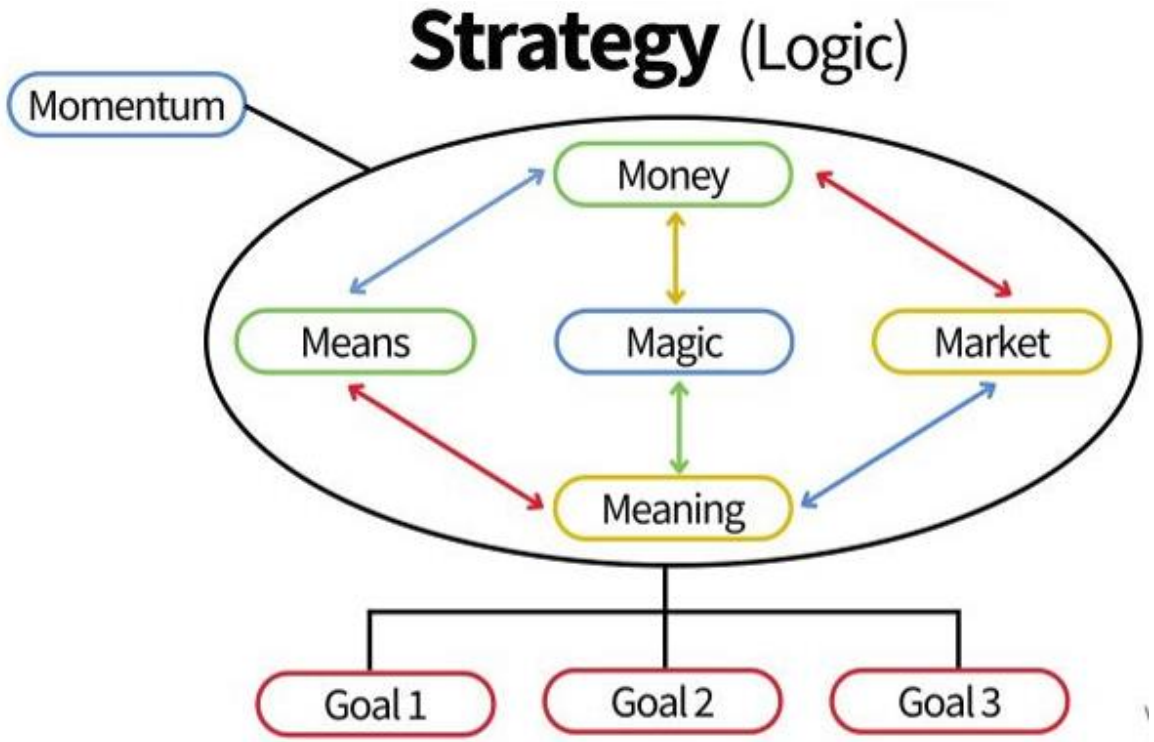
Tasks

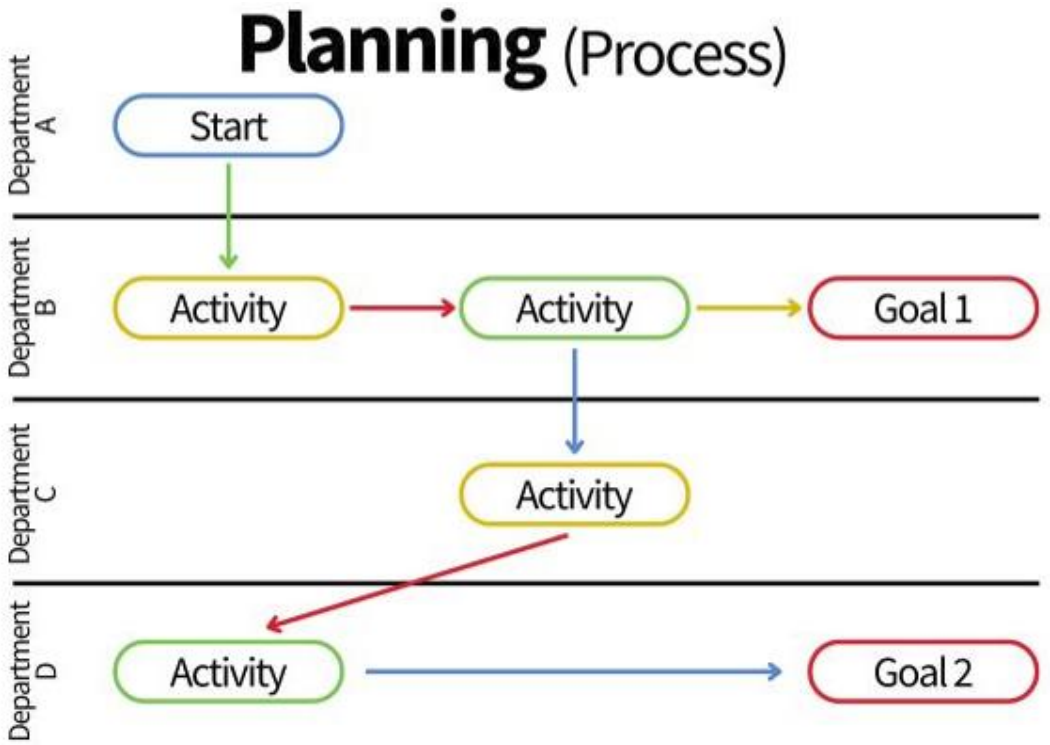
Country profiling (CO_2 sources, H_2O, RE)

Putting consortia and twinning proposals together

Networking

Tackling the challenges



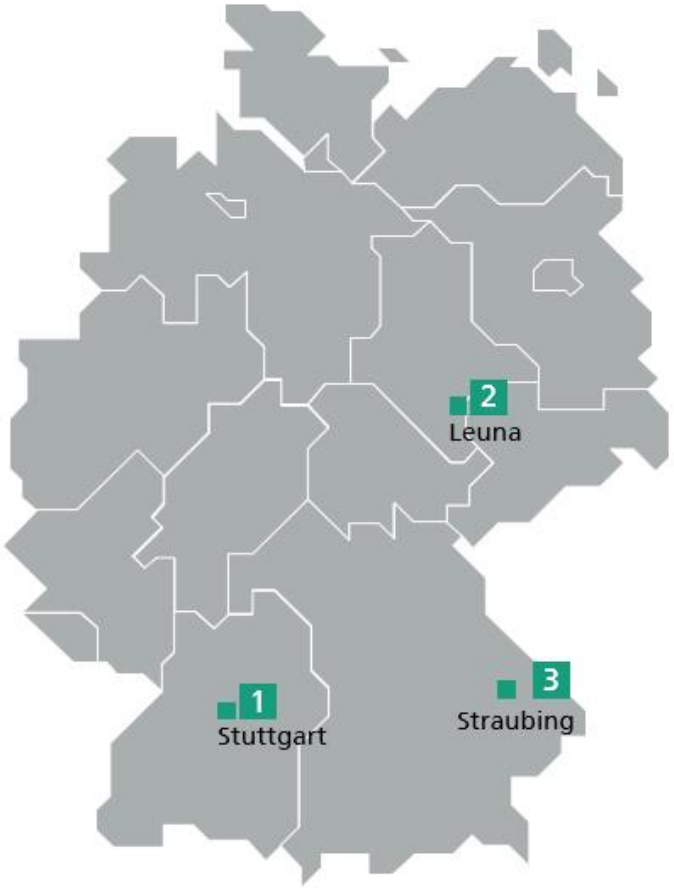


Teaming Defining the proposal Writing the proposal Delivering on project

Who we are

Fraunhofer IGB

Locations



Fraunhofer IGB Stuttgart (HQ)
Thermal storage
Power-to-X
Process engineering, TRL 1-5

Fraunhofer CBP Leuna
Chem&Bio processes
Power-to-X
Upscaling synthesis processes TRL 4-6

Fraunhofer IGB BioCat Straubing
Power-to-X,
Chem&Bio processes
TRL 1-4

Who we are

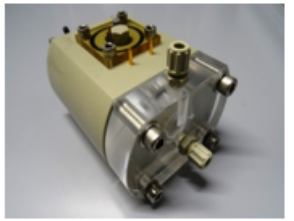
Fraunhofer IGB

Research areas

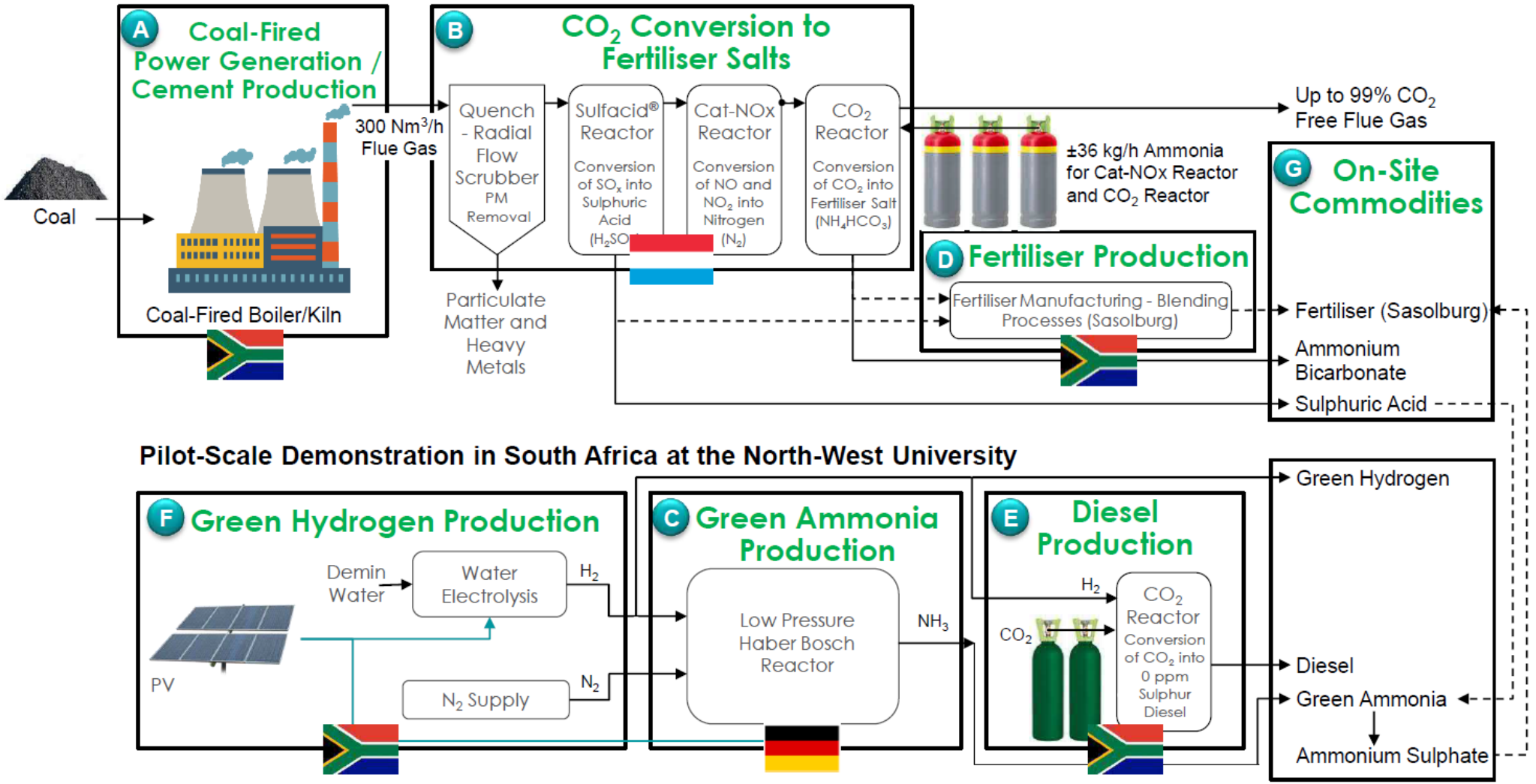
Development/screening of chemical- and biocatalysts

Biomass	H_2O, N_2, CO_2
(Chitin, Terpene, Lignin)	Electricity

- Hydrocarbons as energy carriers (Power-to-Liquids)
- Renewable ammonia (PtA)
- Bulk- and fine chemicals (e.g. monomers, fragrances, aromas) (PtX)
- Lubricants and biobased surfactants
- (Biogenic) raw materials from side products and wastes



CoalCO2-X cofunded project



https://www.igb.fraunhofer.de/en/reference-projects/coalco2x.html

CELBICON EU Project

Fraunhofer IGB

LEAP-RE

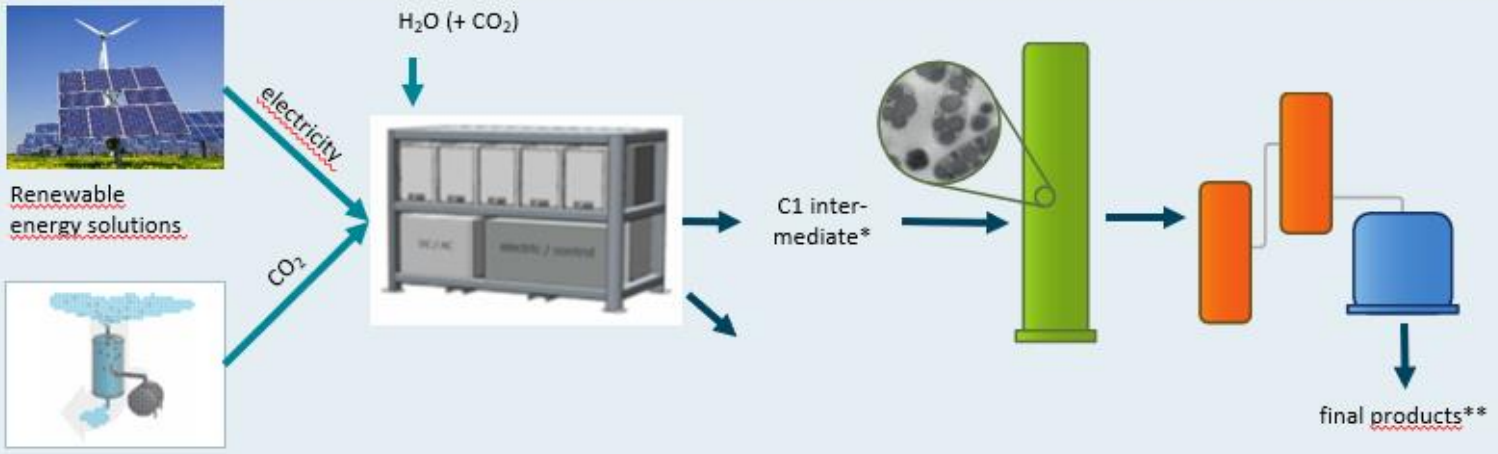
Cost-effective carbon dioxide conversion into chemicals

Celbicon

Work steps

- New processes for recovering CO_2 from air
- Combination and integration of electro-chemical and biotechnological processes
- Proof of economic viability

Objective: Use of CO_2 as a raw material and added value from C1 intermediates by combining several process technologies



The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 679050.

www.celbicon.org

CO2EXIDE EU Project

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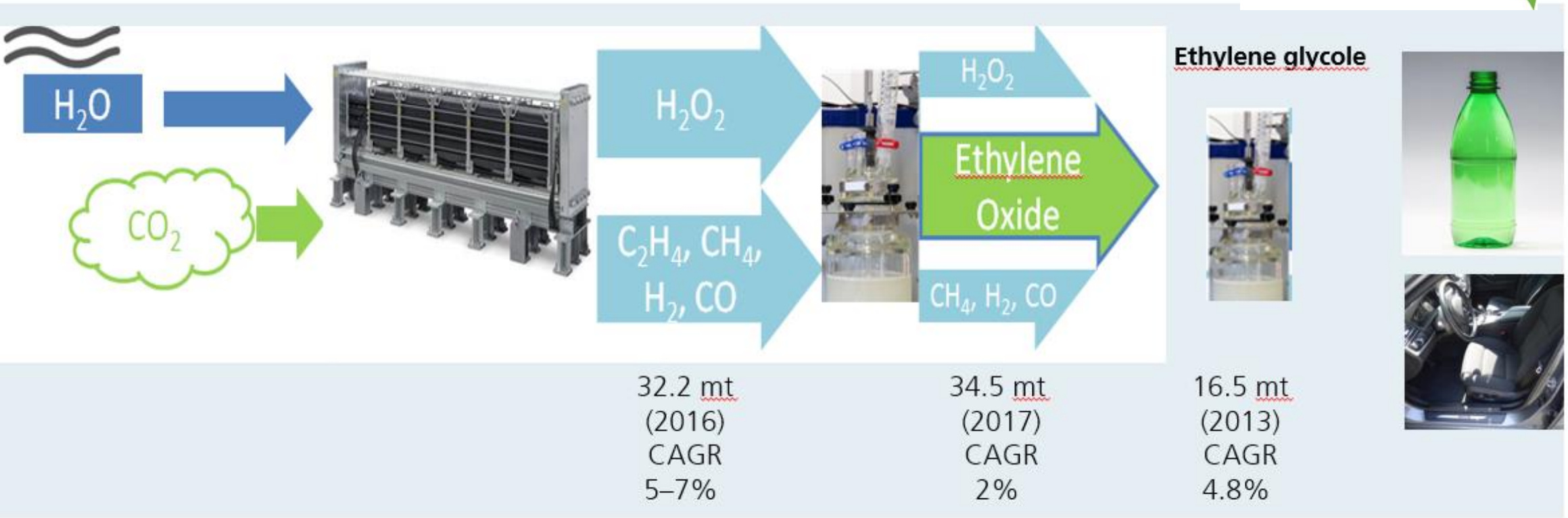
CO_2-based electrosynthesis of ethylene oxide

CO2EXIDE



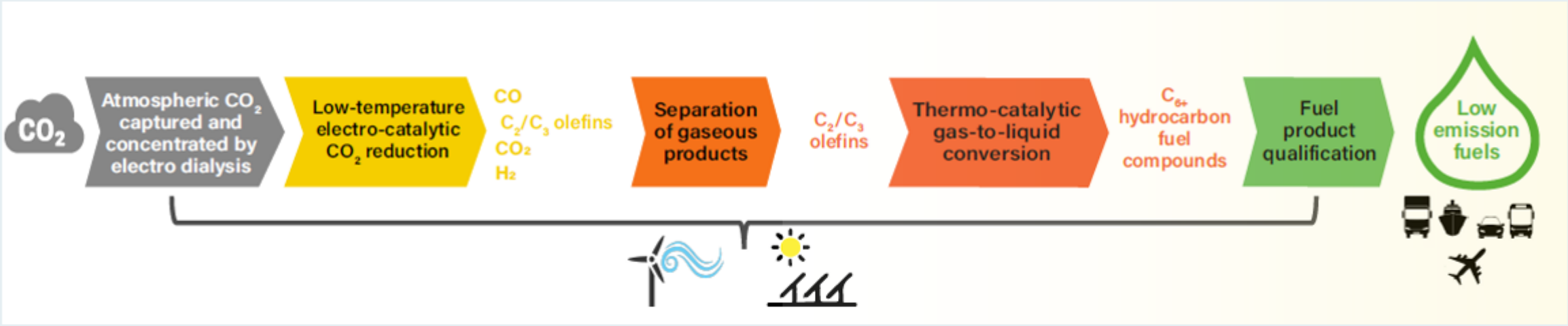
The project has received funding from the European Union's Horizon2020 research and innovation programme in cooperation with the SPIRE initiative under grant agreement No 768789.

http://co2exide-eu.e-p-c.de/

EcoFuel EU Project

CO_2-neutral drop-in fuel via olefin intermediate

Overall goal: a complete process chain powered by renewable energy and based on electrochemistry to deliver truly CO_2 neutral fuels with unprecedented overall energy conversion efficiency.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101006701.

www.ecofuel-horizon.eu

THANK YOU

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