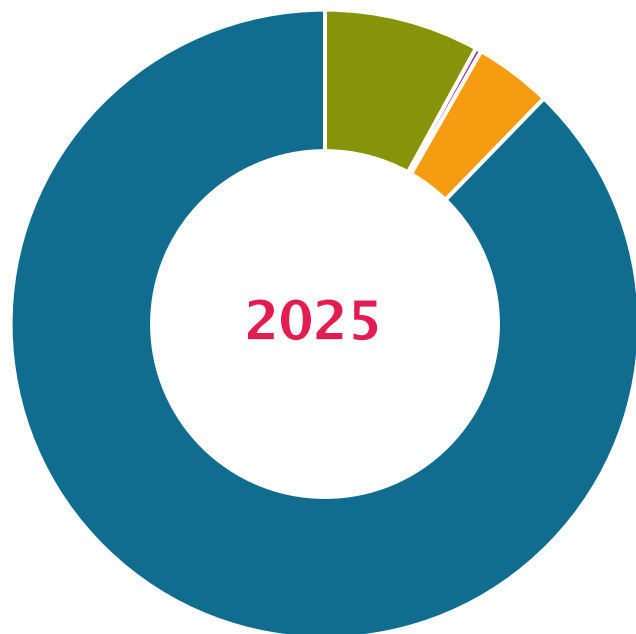


Co2ol catalyst

Simplified CO₂ Recycling to Methanol
by our Sulfur Resistant Catalyst!

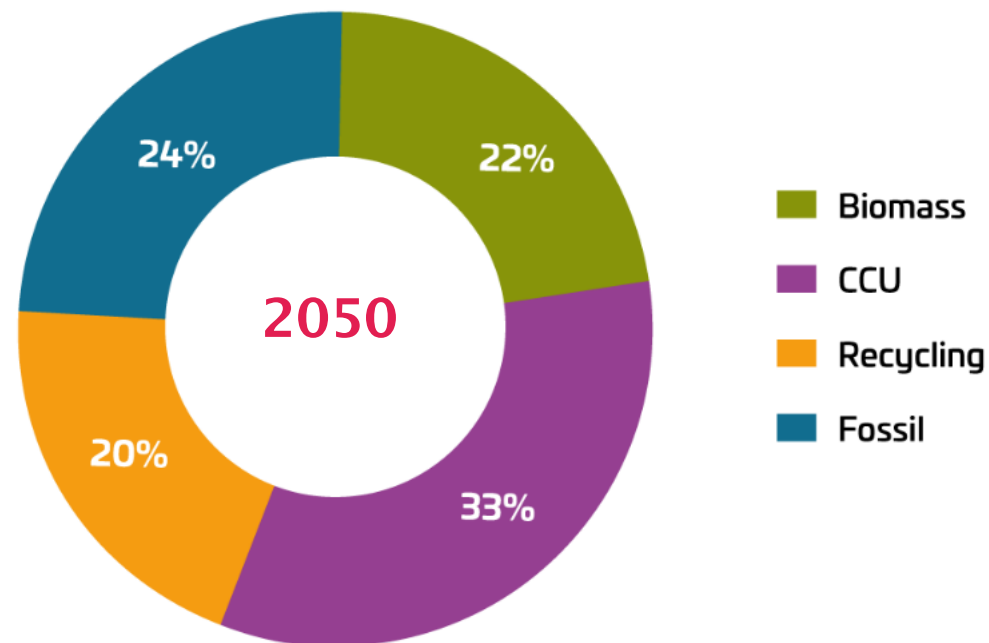
Chemistry – Transformation to Net Zero

88% fossil



Chemistry is 3rd largest CO₂ emitting industry!*

Renewable feedstock**

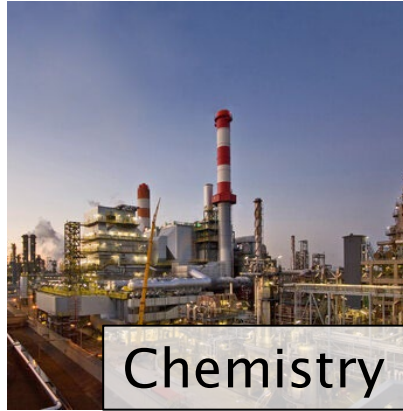


Net Zero commitment by all major chemical companies!

* International Energy Agency; <https://www.iea.org/energy-system/industry/chemicals>

** Graphics adopted from NOVA Institute, www.renewable-carbon.eu

CO₂ - from Problem to Solution



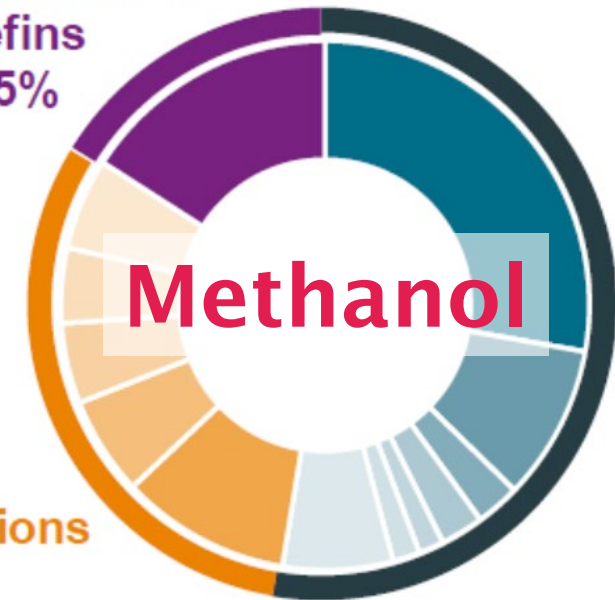
Hard-to-abate / Biogenic

CO₂

+ Hydrogen
→
+ Catalyst



Methanol-to-olefins
>15%



Chemical Applications
~50%

+ Water

Fuel Applications
~30%

+ 500%

Market growth till 2050*

* IRENA and Methanol Institute: Innovation Outlook: Renewable Methanol, 2021.

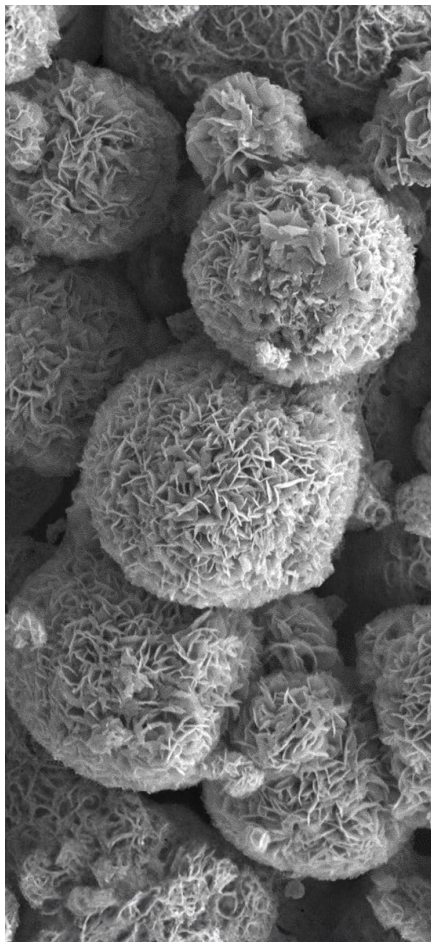
Problems using CZA catalysts

Extra cost for precleaning efforts due to deactivation by common flue gas impurities (S)!

Sintering of Cu-particles at elevated operation conditions!



cool catalyst



Next generation

MoS₂ CATALYST

offers outstanding

IMPURITY TOLERANCE



2 PATENTS
granted

cool catalyst

REDUCED NEED FOR PRECLEANING

- CO₂ cost < 30 €

HIGH FLEXIBILITY

- to any source of CO₂

IMPROVED EFFICIENCY

- operating at < 220 °C and < 40 bar
- no sintering

15% CAPEX SAVINGS*

5 Mio€/a OPEX SAVINGS*

30% FASTER PAYBACK*

*calculated for a 50 ktpa Methanol plant from biogenic CO₂, benefits compared vs. CZA = Cu/ZnO/Al₂O₃, state-of-the-Art catalyst for CO₂ to Methanol

DISCLAIMER: financial figures are preliminary and may change upon further development and optimization.

Our Key Markets

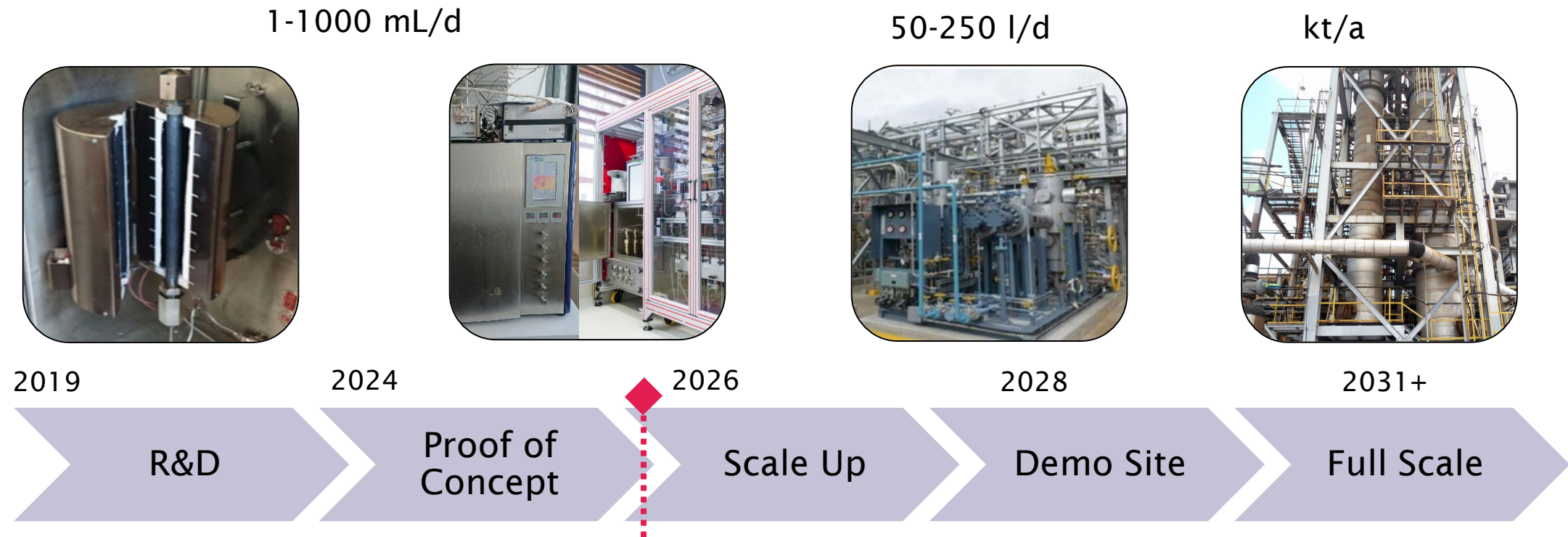


(chemical) Industry



Biogenic CO₂ sources

From Science to Business



Proof-of-Concept possibilities

Matching catalyst with actual CO₂ streams

A) Flue gas sampling



Catalytic testing



B) Simulated emissions



C) on-site exposure



The Founders Team



Karin Föttinger

CTO

>20 years in academic &
applied catalysis research



Christian Weilach

CEO

>10 years industrial R&D,
technology upscaling, BD



Francesco Valentini

COO

PhD in applied catalyst
development



Embedded in Strong Network

Facilities, Services, Talents

Supported by



INNOVATION
INCUBATION
CENTER

Verbund X

accelerator



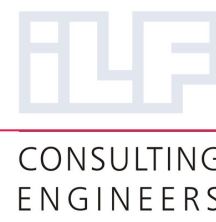
ClimateLaunchpad

Let's talk transformation!

info@co2ol-catalyst.com



RHI MAGNESITA



voestalpine

ONE STEP AHEAD.

Finalist
ACHEMA
GRÜNDER | START-UP
PREIS | AWARD