eChemicles
Introduction

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CO_2 is a cost — We turn it into value

eChemicles

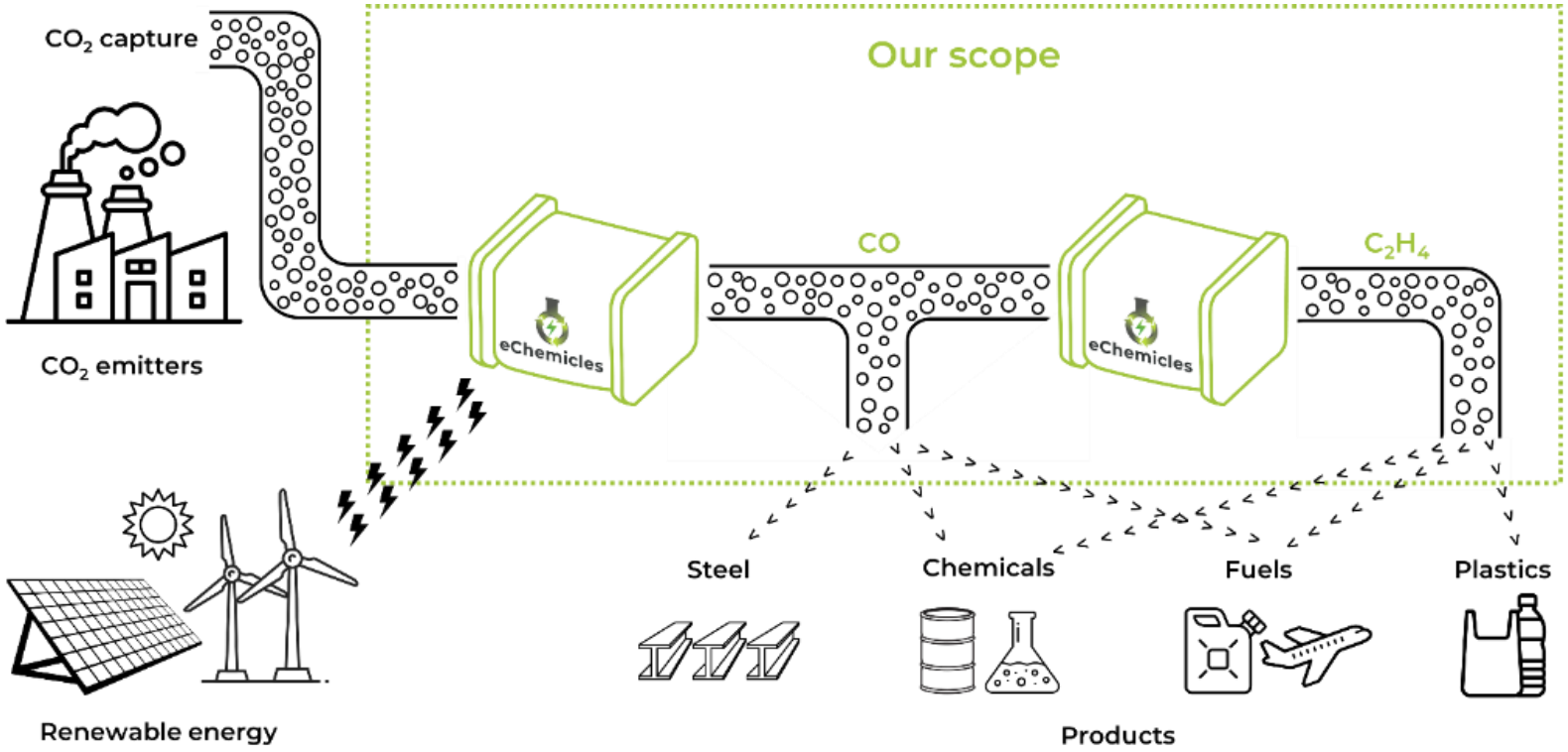
Mission Reducing environmental impact of the industry profitably and removing dependence on external fossil feedstocks.

Vision Our eChem technology in every production plant for a greener tomorrow.

Milestones

Immediate	Short-term (2027)	Mid-term (2030)
Our containerised system (100t CO/yr)	Larger scale container unit (500t CO /y).	Commercialising medium-scale plants (50-100 kt CO /y)

What do we do? eChem electrolyzer technology



Using captured and renewable energy we convert CO_2 into green CO or ethylene: to create steel or common useful chemicals such as eFuels.

Low temperature operation

- 60°C operating temperature for easy application and integration.

Dynamic operation

- Use with off-peak electricity
- Decentralized on-site approach

Quality

BOSCH

Bosch Thin Metal Technologies will establish the mass production of our CO_2 electrolyser stack.

Easy integration with existing infrastructure

- Plug&Play, drop-in solution
- Retainment of old assets
- Reduced initial investment costs

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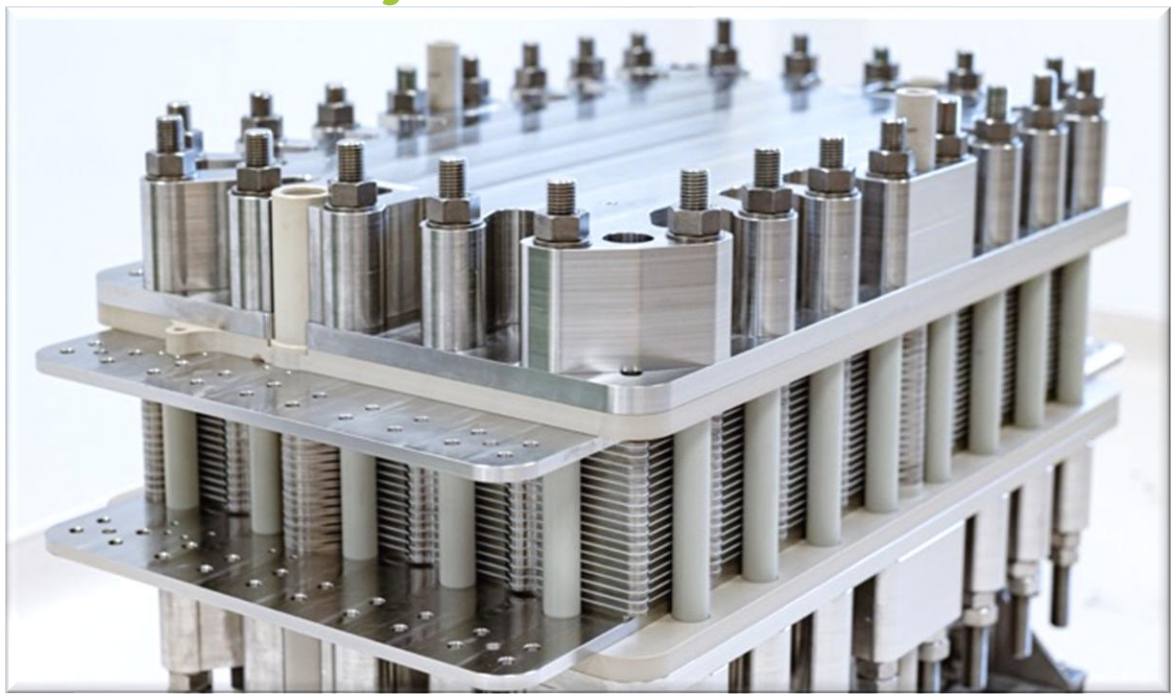
Why CO? Over 150 million tons reacted every year!

eChemicles

Containerised System

60 kW electrolyser stack



- 20-foot-long container, easy integration with existing infrastructure
- Able to produce **100 t CO per year**
- Coupling with renewable energy. Dynamic operation helps balancing the intermittency of renewables
- Stacked design & scalability. Allows transition to larger scales without redesign
- Over 90% selectivity for CO production (rest is H_2)

Validation in real industrial environment

Steel industry

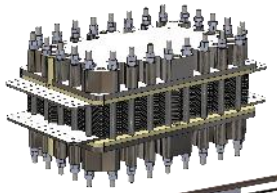
- System installation and commissioning within less than 2 weeks
- Successful testcampaigns – using CO2 from industrial sources
- The system showed the same KPIs in the steel plant, as to what was recorded on our site.

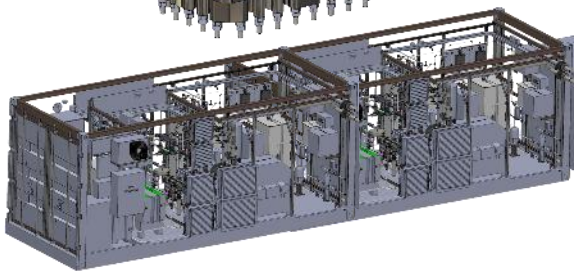
Product line

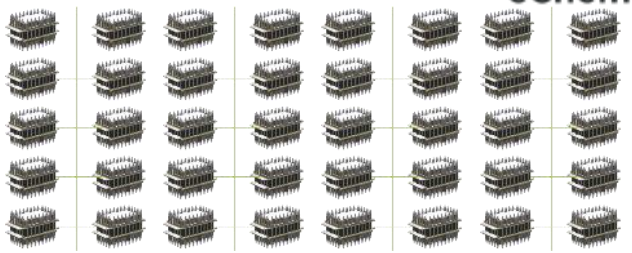
From R&D, through container to commercial plant

TRL 7

BOSCH







	S –size Test Cell	20 Ft Containerized Commercial unit	40 Ft Containerized Commercial unit	Pilot plant	Commercial plant
CO production	Available for purchase for R&D purposes only	100 t/ year	100 - 500 t/ year	1-5 kt / year	10-100 kt / year
Capacity		Up to 136 kW	Up to 442 kW	1-5 MW	20-100+ MW
Timeline		2025	2027	2028	2030+
Product line		**eChem100™**	**eChem500™**	**eChem FOAK**	**eChemPLANT™**

Customers already lined up for plant production.

About us

36 with over 30 FTEs

7 Doctors and 2 PhD students

50+ scientific publications

5 patent families