

e|Hy elementary

Scaling Hydrogen to live in a Zero-Emission & Space Exploring Society.

SPRIN-D
BUNDESAGENTUR
FÜR SPRUNGINNOVATIONEN

INP
FROM IDEA TO PROTOTYPE

esa



Federal Ministry
for Economic Affairs
and Climate Action

DLR

German Aerospace Center

H₂UB
#HYDROVERSE

Leibniz
Association

 **Renewable Energy
Hamburg**

The planet demands a transition to sustainable feedstocks!



Industry



Green Raw Materials



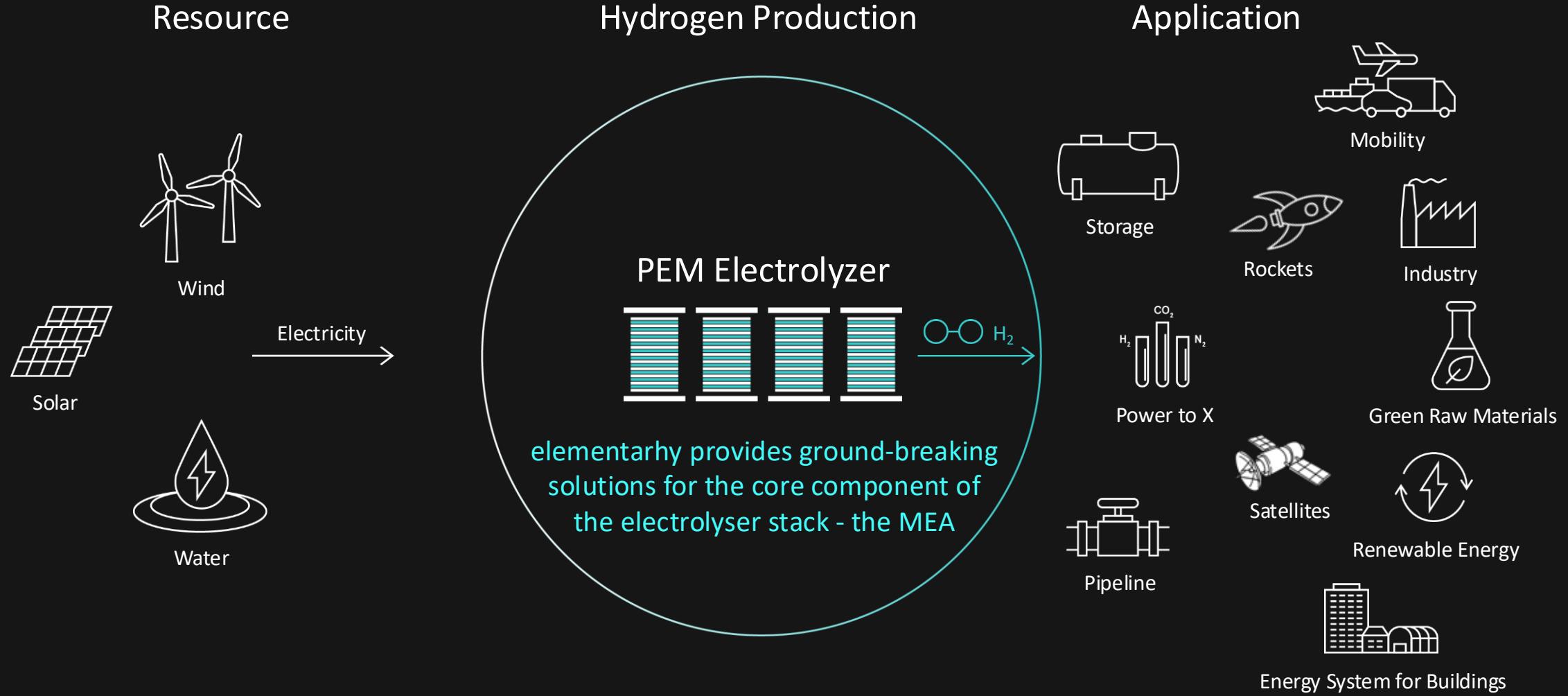
Mobility



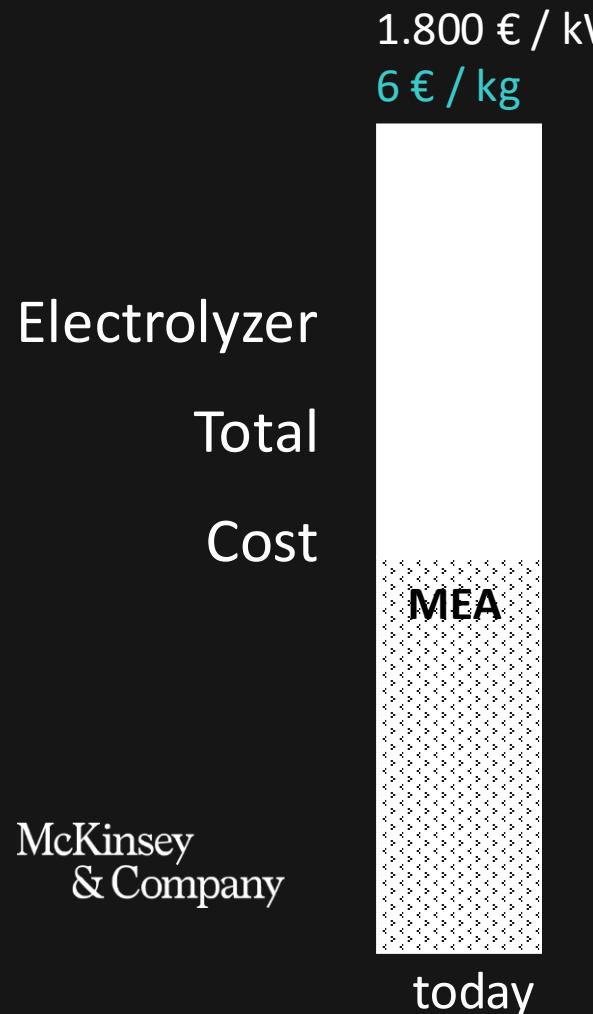
Rockets



Green Hydrogen is growing fast (200X) and enables us to reduce our dependency on fossil fuels and to reach a Zero Emission Society



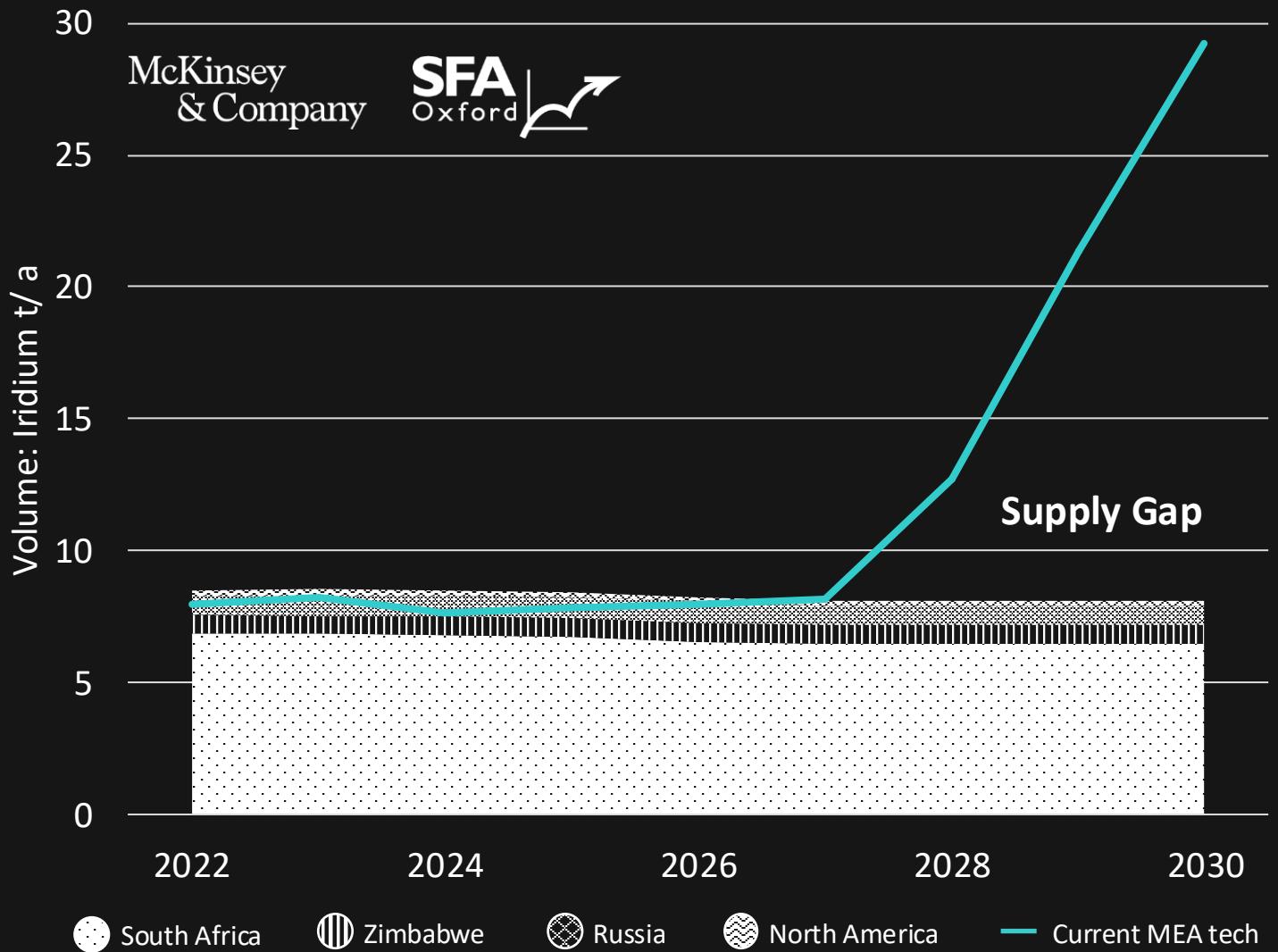
Challenge 2: Electrolyzer Costs must significantly Decrease to be Competitive at LCOH below 2€/ Kg



Highest cost reduction driver for the stack is the Membrane Electrode Assembly (MEA) which splits water into H₂ and O₂.

The cost advantage for Levelized Cost of Hydrogen (LCOH) derived from the MEA is 30% at 3500 operating hours.

Current Iridium consumption in PEM electrolyzers leads to a Bottleneck



- Iridium supply is limited
- Demand exceeds the supply by 3x.
- Current MEA tech is not scalable.

Status 2026

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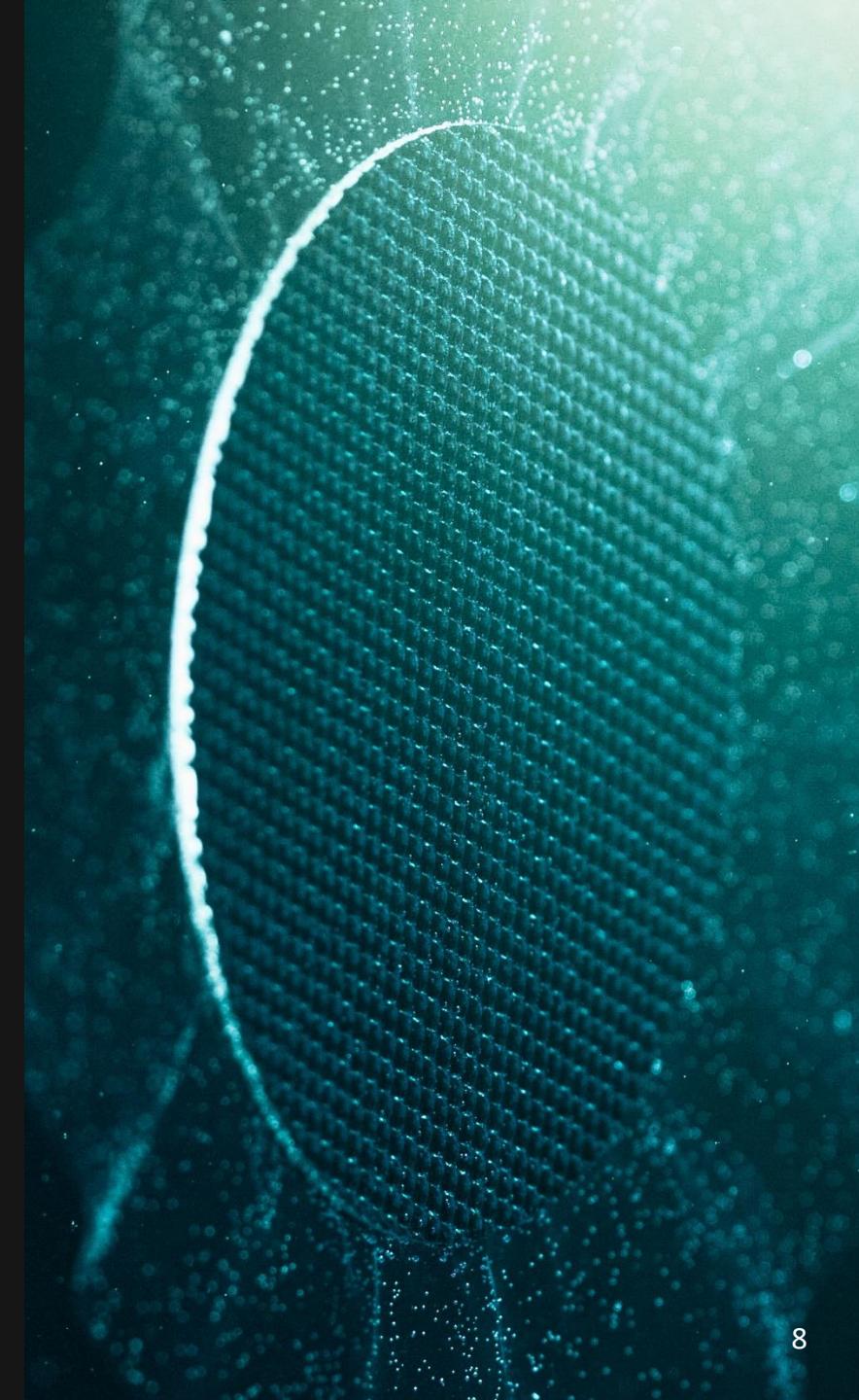


2 GW
500 kg / GW

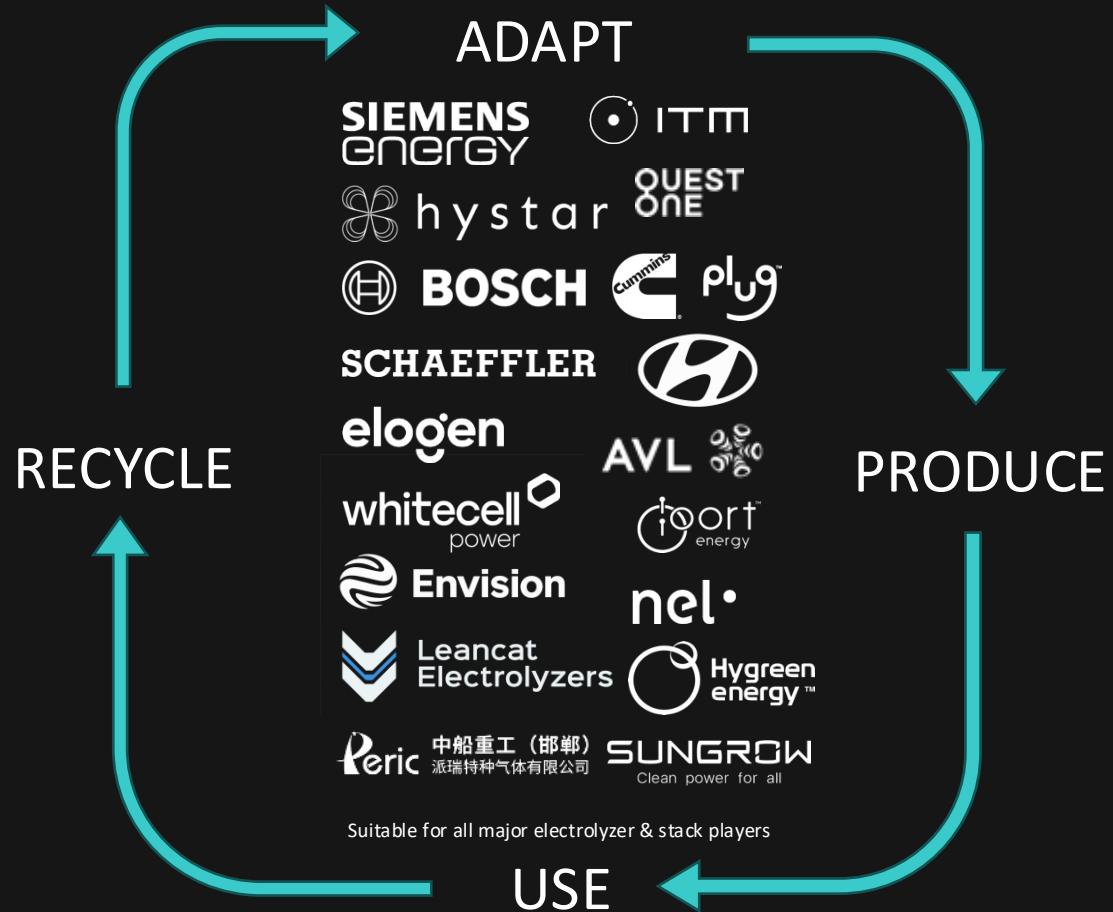


40 GW
Only 25kg Iridium

- ✓ **95% less raw material**
- ✓ **20 times more electrolyzer**
- ✓ cost reduction of the MEA by over 50% enabling
2 € / kg LCOH
- ✓ **1 GW electrolyzer saves up to 2 Mt CO₂ per year**



We provide customer-centric MEA solutions as a service $e|_{CS}$ to enable electrolyzer manufacturers to reach 2 €/kg LCOH



$e|_{\text{Hy}}$

- ✓ Global product library
- ✓ 20x less Ir: hedge 380,000 € /MW vol. 10 a
- ✓ Up to 50% cost reduction
- ✓ Competitive edge in R&D process
- ✓ Supply S-M & license L-XL volume
- ✓ Plug & Play reduces stack assembly costs
- ✓ Predictive usability with AI & ML
- ✓ Highly scalable PVD production 2 GW /a

Our pilot customers are excited about our award-winning innovation

4 M€ raised
non-dilutive
grants

10,000+ hours
continuous
hydrogen production

>5 paying pilot customers
six figure revenue

Green Unicorn
Leibniz StartUp Award
Best European H2 StartUp



"We like to test your product ASAP; it is too good to be true."

"Your MEA is very interesting. We would like to have another validation cycle"

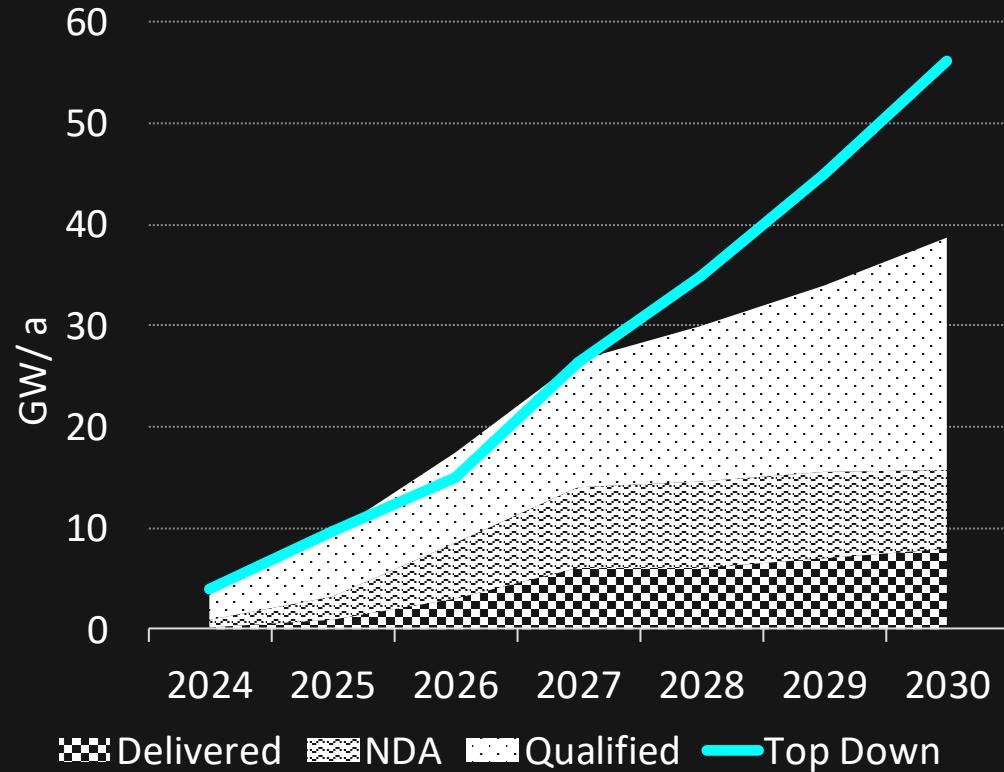
"We have never seen such low degradation with current CCM technology!"

"You have a promising technology which we like to test."

"elementary performs better than our current MEA."

> 20 kW
MEA produced
at small scale production

We scale together with our customers into a tremendous market opportunity



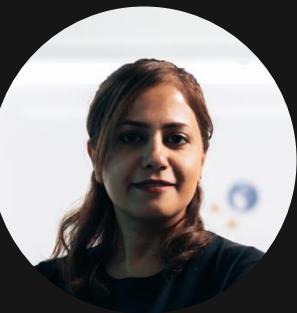
Customer relations with 1/4 of the €17B addressable MEA market

**Target market share
2030 of 10 – 15 %**

Green entrepreneurs with a strong track record and over 60 years of experience in electrochemistry and energy



Dr. Gustav Sievers
CEO



Dr. Zahra Nasri
CSO



Dr. Martin Rohloff
CTO



Max Torkler
Head of Data



André Pacheco
R&D Engineer



Matthias Kramer
Funding & Business Dev.
Previous CFO Hoeller



Artur Wolf
Assistant Business Dev.



Maria Klingenberg
Production Support



Senior Advisors



Prof. Dr. Klaus-Dieter Weltmann
Leibniz Institute for Plasma Science and Technology



Markus Gersdorff
EVP Manz AG
Production Scaling



Prof. Matthias Arenz
University of Bremen
R&D Advisor



Bernd Hetterscheid
Previous CTO Hydrogen

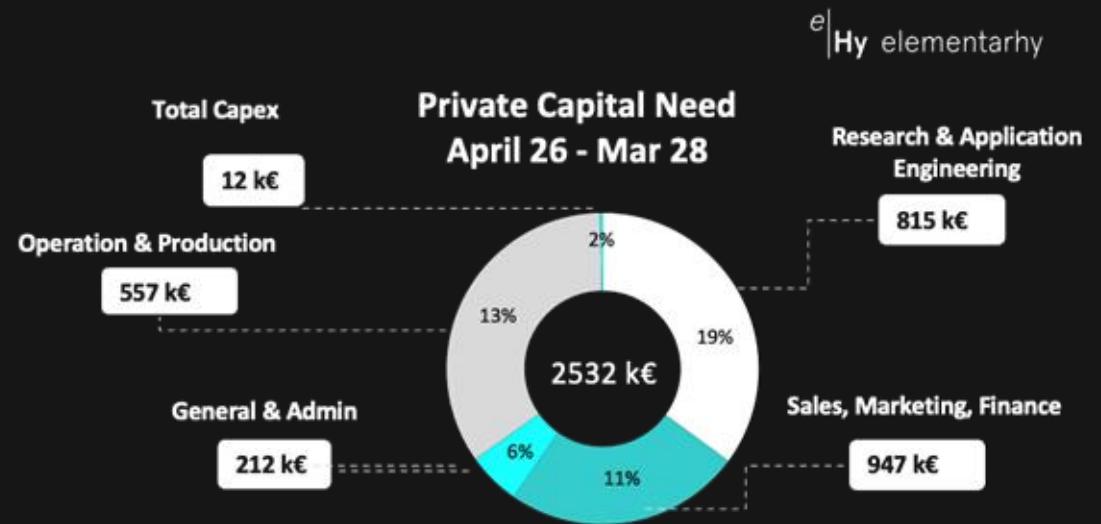


Gunter Erfurt
Previous CEO

SCHAEFFLER  **MEYER BURGER**

We are Raising 2.5M€ to achieve the following milestones within 24 months:

- Scale application to commercial MW stack level
- Upgrade pilot facility for components of MW stacks
- Transform current market traction into MW stack prototypes with two pilot customers



Join us and lead the hydrogen journey!

