

# General Investor Presentation

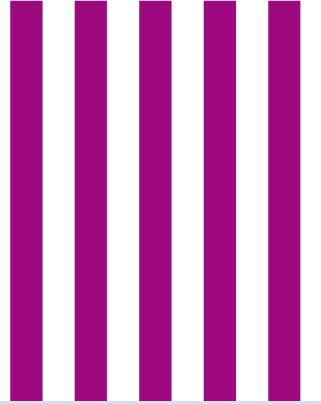
August 2025



thyssenkrupp  
**nucera**



thyssenkrupp nucera



## Purpose

We shape the new era

## Vision

Empowering a clean industry for future generations

## Mission

We continually learn, adapt, and deliver cutting-edge technologies to drive sustainable industrial transformation for a thriving future

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# 1. Company Overview



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# thyssenkrupp nucera at a glance

## Leading electrolysis technology

provider globally

## 2 strong business segments:

Green Hydrogen (gH<sub>2</sub>)

Chlor Alkali (CA)

## Reliable, innovative & future-oriented solutions

at industrial scale



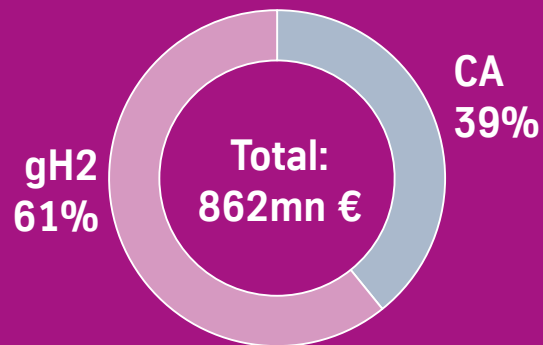
gH<sub>2</sub> projects with a total capacity of

**~3.3 GW**

already under construction

## Asset-light business model

with strong balance sheet to finance future growth



Sales in FY 2023/24



**1,000+**

employees worldwide in 10 locations


Supporting customers on their way to

**climate neutrality**


# Our Green Hydrogen (gH<sub>2</sub>) business

Alkaline Water Electrolysis (AWE) technology to produce green hydrogen at industrial scale based on proven track record in Chlor-Alkali electrolysis


## Product portfolio & roadmap




20 MW modules, designed as a cost-efficient standardized modular solution, scalable up to GW plant size




Quality and Longevity




High performance




Design certified



Global service network



Automation of cell fabrication and assembly



Commercialization of high-temperature electrolysis (SOEC)

## Business model



1. thyssenkrupp nucera has the ability to perform civil construction through its partners at the request of the client  
2. Only for proprietary equipment. 3. Market assessment based on company analysis and FIDs in Q4 FY 23/24 and Q1 FY 24/25; qualitative assessment based on Hydrogen Council (Hydrogen Insights 2024, September 2024).

## Financials

| mn €          | FY 2021/22 | FY 2022/23 | FY 2023/24 |
|---------------|------------|------------|------------|
| Order intake  | 970        | 206        | 356        |
| Order backlog | ~1.000     | ~900       | ~700       |
| Sales         | 51         | 328        | 524        |
| EBIT          |            |            | -76        |

  
Strong profitable growth in the mid-term

## Main applications



Refining

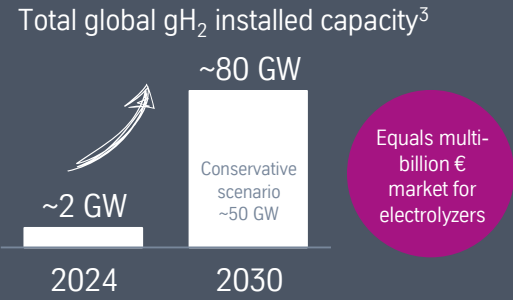


Ammonia



Steel

## Market



## Selected customers

3 GW+ contracted green hydrogen capacity



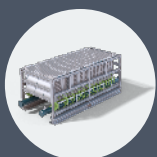
# Our Chlor-Alkali (CA) business

Innovative Chlor-Alkali Electrolysis (CA) and Hydrochloric Acid electrolysis solutions (HCl) for industrial progress

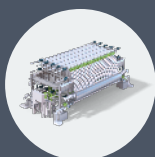
Market leader with ~50% market share

## Product portfolio

### CA electrolysis



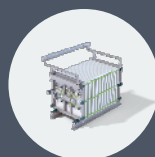
BM<sup>1</sup>



BiTAC<sup>2</sup>



NaCl ODC<sup>3</sup>



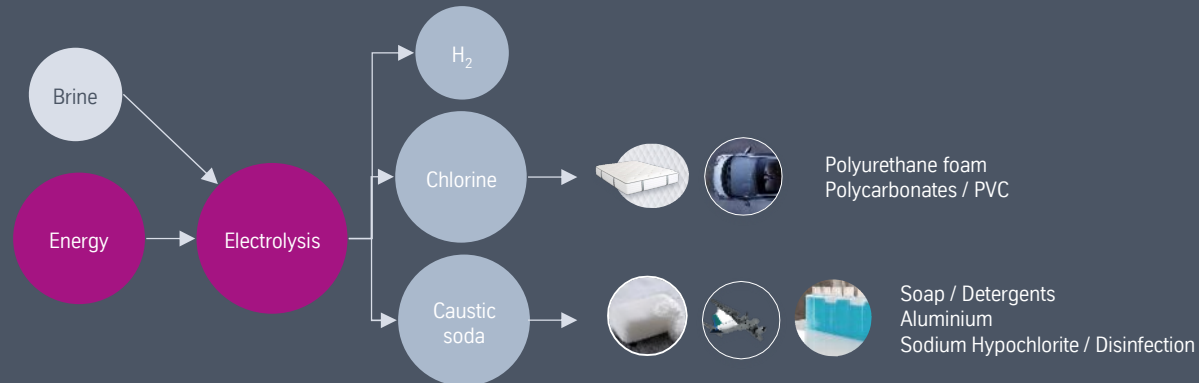
HCl Diaphragm



HCl ODC<sup>4</sup>

### HCl electrolysis

## Process chain and select end products



## Financials

| mn €          | FY 2021/22 | FY 2022/23 | FY 2023/24 |
|---------------|------------|------------|------------|
| Order intake  | 370        | 408        | 279        |
| Order backlog | ~400       | ~500       | ~400       |
| Sales         | 332        | 333        | 338        |
| EBIT          |            |            | 62         |



*Profitable  
business with  
modest growth*

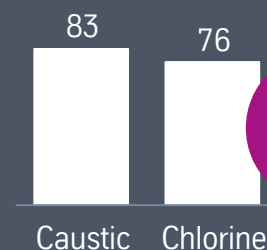
## Service portfolio



- ✓ Asset management
- ✓ Spare parts supply & management
- ✓ Revamps
- ✓ Service center & fields services

## Market

Expected production in 2025 (mn tons)



Market for electrolyzers & service >1bn€

*Global demand growing in line with GDP*

## Selected customers

Over 600 projects, 240,000 cell elements, >10 GW of capacity installed globally



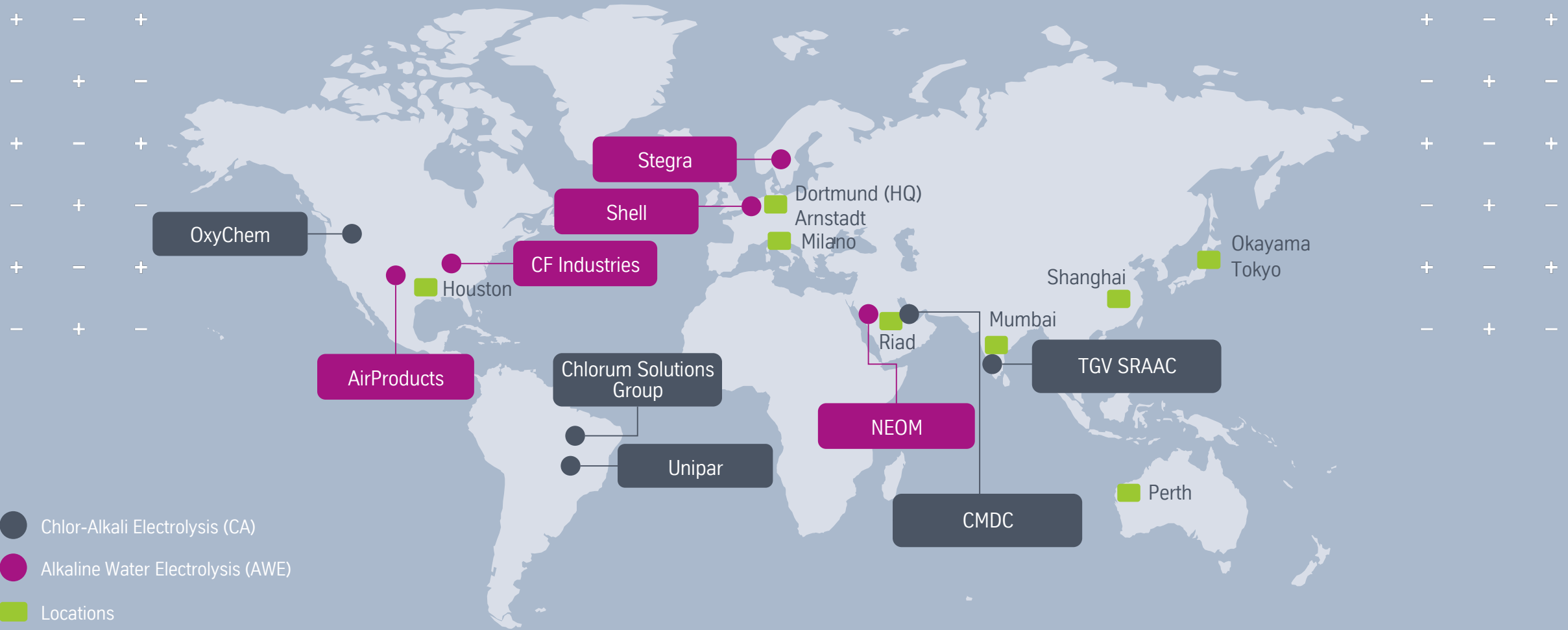
**RISHENG**



**BASF**  
We create chemistry

1. Bipolar membrane electrolyzer; 2. BiTAC: Bipolar Tosoh and Chlorine Engineers; 3. ODC: Oxygen Depolarized Cathode; 4. Recycling HCl at low energy consumption

# Our global presence & current projects

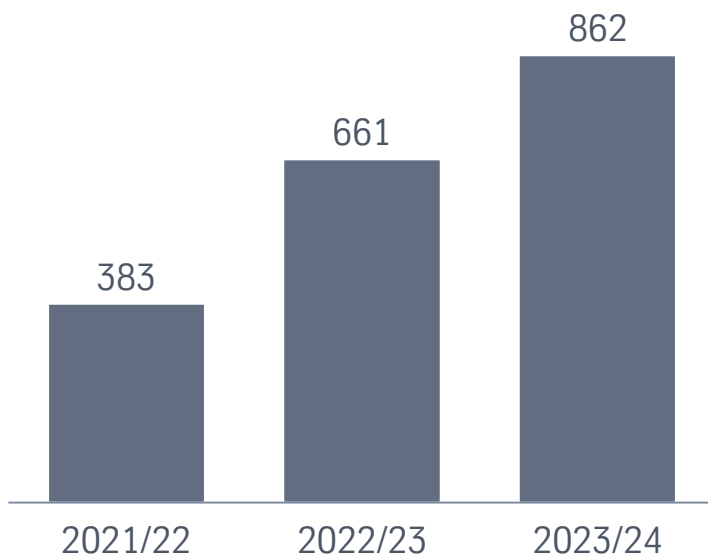


Note: Selected projects

# Our attractive financial profile

## Dynamic organic growth

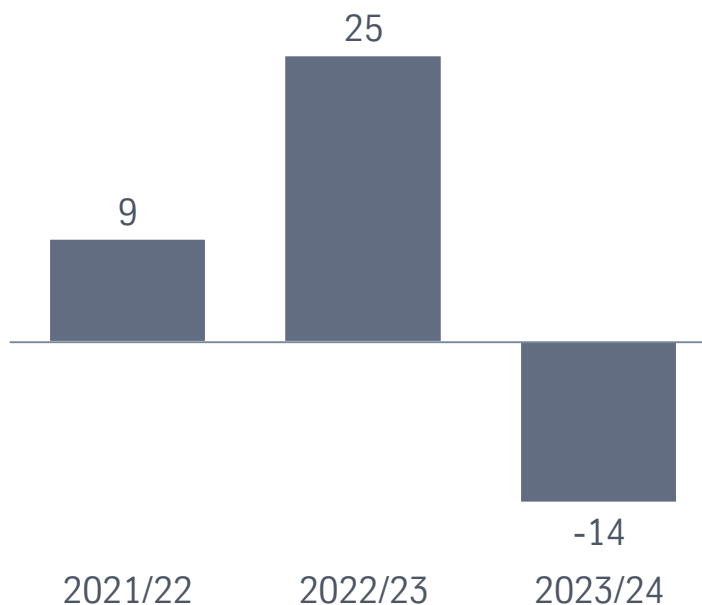
Sales growth driven by successful execution of strong order backlog, both in CA and AWE



Total sales (mn €)

## Resilient profitability

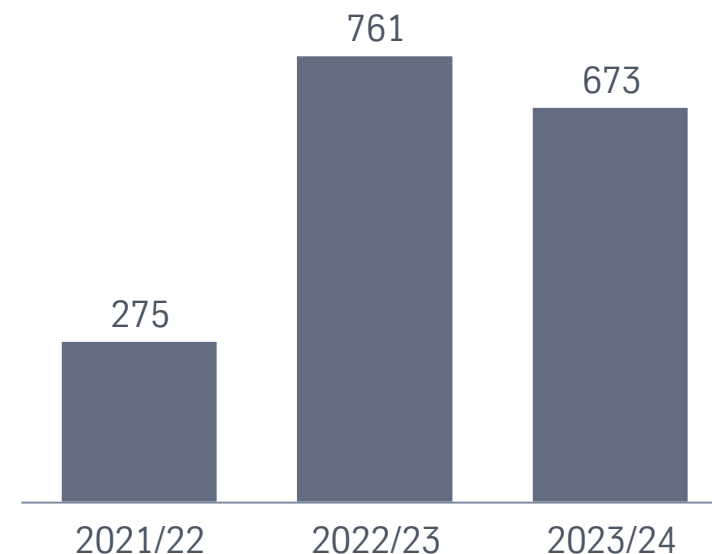
Historically consistently profitable operations; temporary EBIT loss due to AWE ramp-up and organizational build-up



EBIT (mn €)

## Strong balance sheet

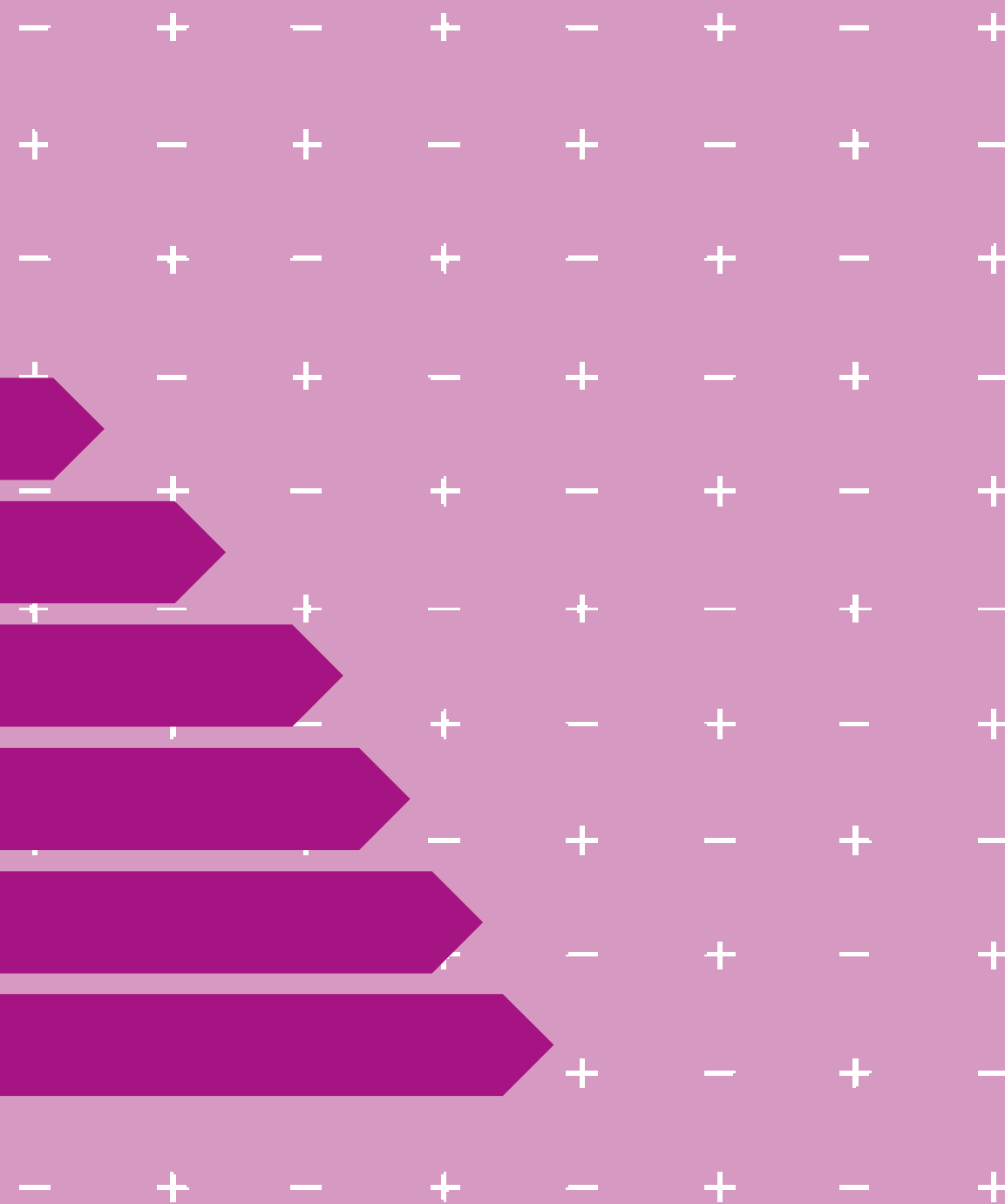
Strong cash position further increased by IPO proceeds – sufficient to withstand current headwinds and finance future growth



Net financial assets (mn €)

# Our value proposition

-  Long-standing expertise in industrial scale electrolysis
-  Global organization with reputable and long-standing partners
-  Strong balance sheet to finance future growth
-  Full-fledged service offering along the entire plant lifecycle
-  Strong R&D focus to drive innovations
-  Best-in-class safety standards
-  Proven GW-scale supply chain already in operation



# Our way forward



Mastering the order backlog with a focus on **profitable project execution**



Ensuring **continuous order intake inflow** based on large-scale projects



Further improving the **AWE product** & industrializing the **SOEC technology**



Supplier of choice for **environmentally friendly & energy-saving CA plants**



Developing processes for **automation & serial fabrication**



Maintaining a **strong balance sheet**

Maximizing growth  
& profitability

Strengthening leading competitive position  
& resilient operations

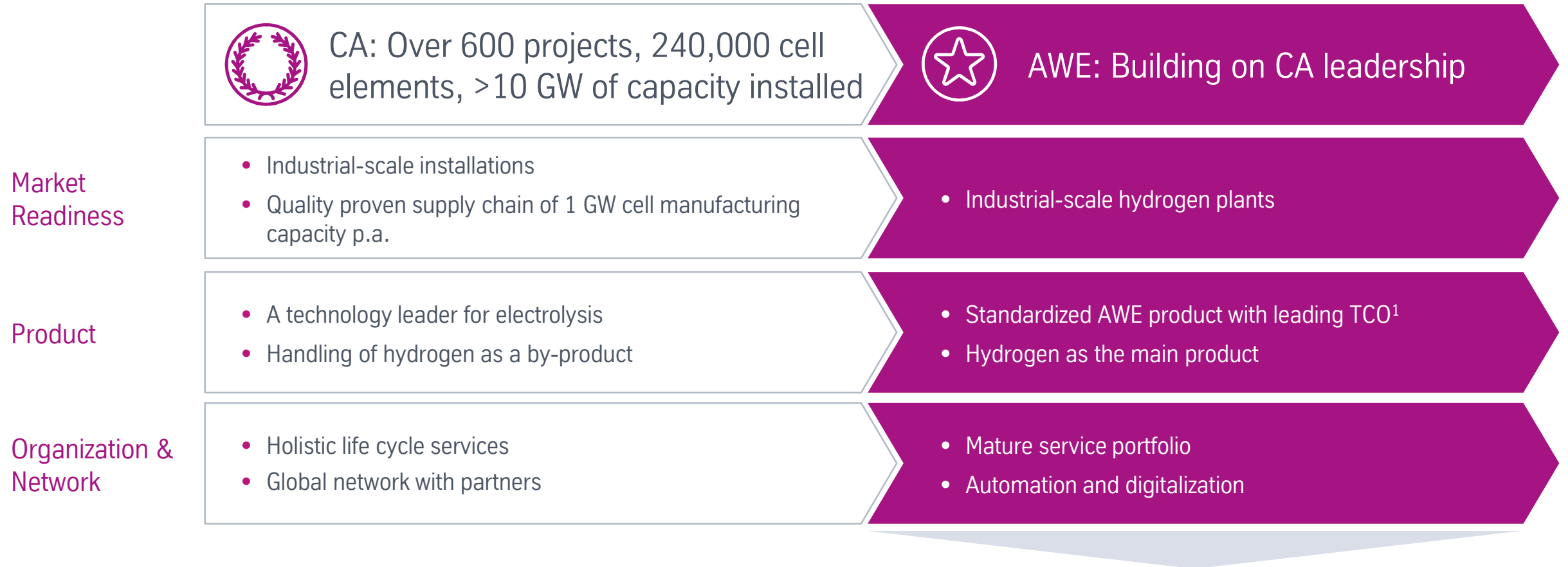


## 2. Business Segments



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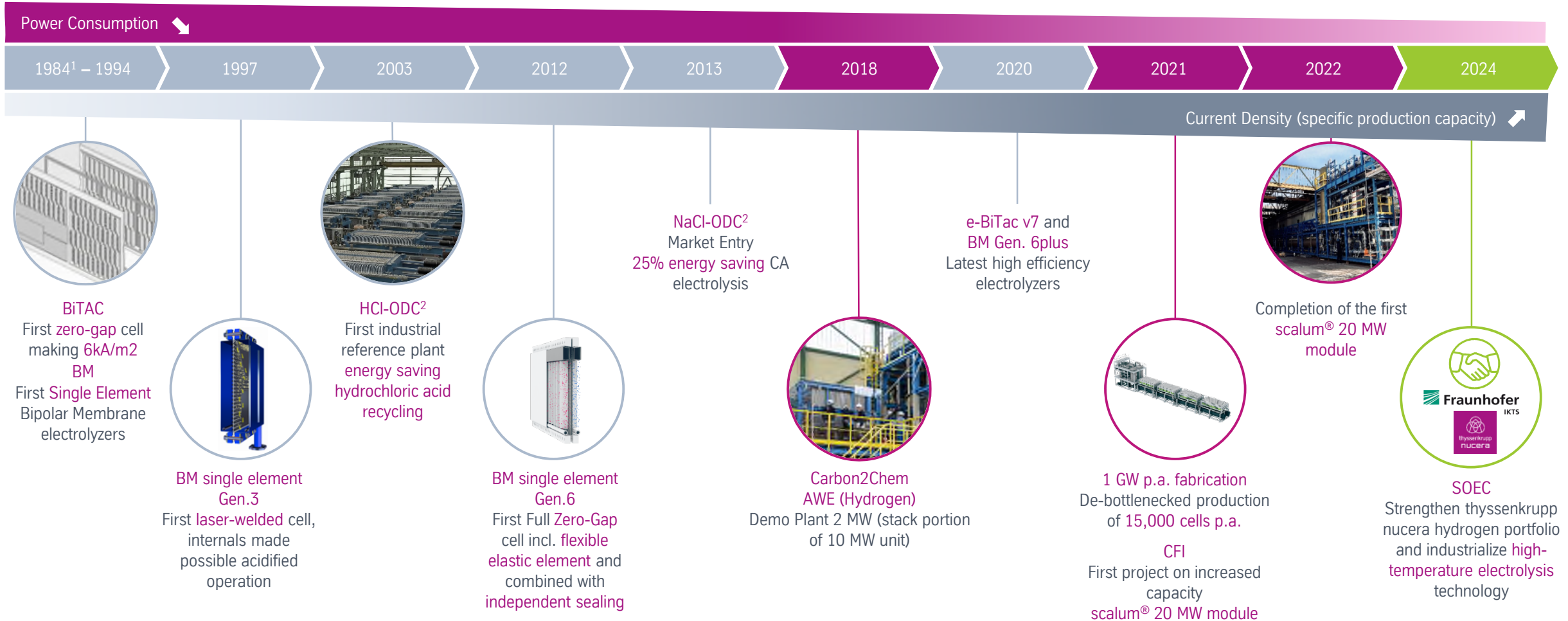
# Our proven experience in CA business provides a strong technology basis for AWE scale-up



Key enabler of hydrogen production

1. Total cost of ownership

# >30 years of leading innovation in modern industrial electrolysis



1. Much longer experience before with mercury amalgam cells  
2. Joint Development with Covestro and De Nora; ODC = Oxygen depolarized cathode; HCl = Hydrochloric Acid; NaCl = Sodium Chloride  
Developments with De Nora advanced coatings and half-shells / bipolar elements manufacturing

# Developing an industry leading electrolyzer cell design with De Nora

## Contributions thyssenkrupp nucera

Design of cell, electrolyzer and balance of plants



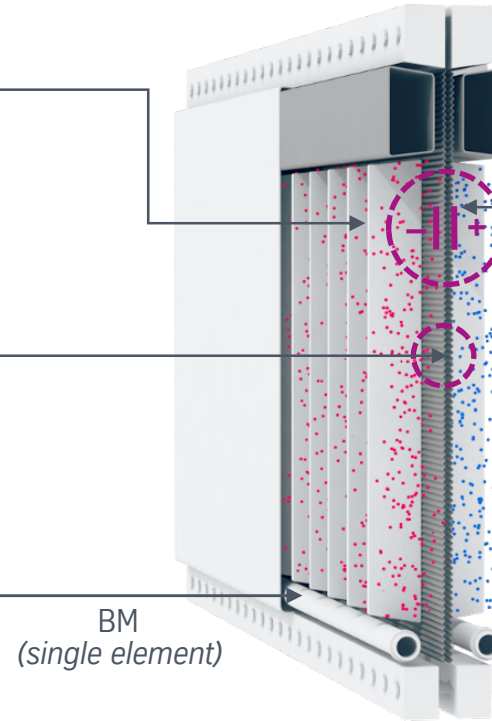
Selection of separator (membrane/diaphragm)



Other parts including:

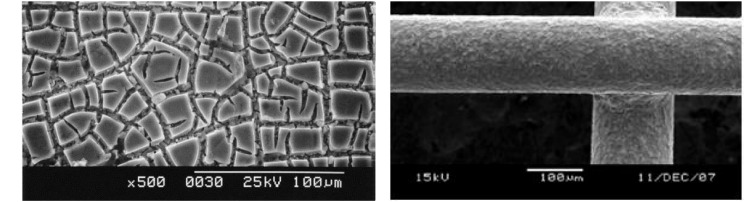
- Selection of corrosion resistant materials
- Current distribution & electrical contacts
- Gas-liquid fluids handling & distribution
- Sealing
- Adaptations for different operating conditions, procedures, concepts (e.g. with or without ODC)

## thyssenkrupp nucera cell



## Contributions De Nora

Anode and cathode catalytic coatings, and GDEs



Manufacturing of half-shells



Holistic collaboration in cell design, electrochemical components and manufacturing process

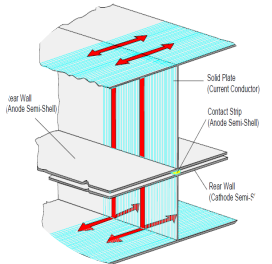
# Leading design and manufacturing know-how crucial in developing the AWE cell

## Hydraulic design



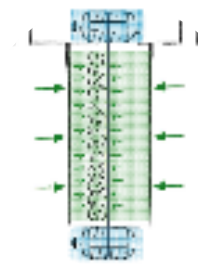
- Improved **hydraulic and fluid dynamics**
- **Optimized feed of reactants** to the catalytic centres for effective kinetic of electrochemical reactions
- Design mitigates local **concentration gradient** for best efficiency and longevity

## Electrical design



- Electrical current **uniform distribution** to the electrodes
- **Uniform distribution** by continuous laser welding
- Design **minimizes ohmic losses**

## Mechanical design



- **100% leak proof cell** throughout service life ensuring to avoid emissions any time
- Strong flange and bolts forces compressing the gaskets for superior sealing
- Design improves **safety and environmental protection**

## Zero gap



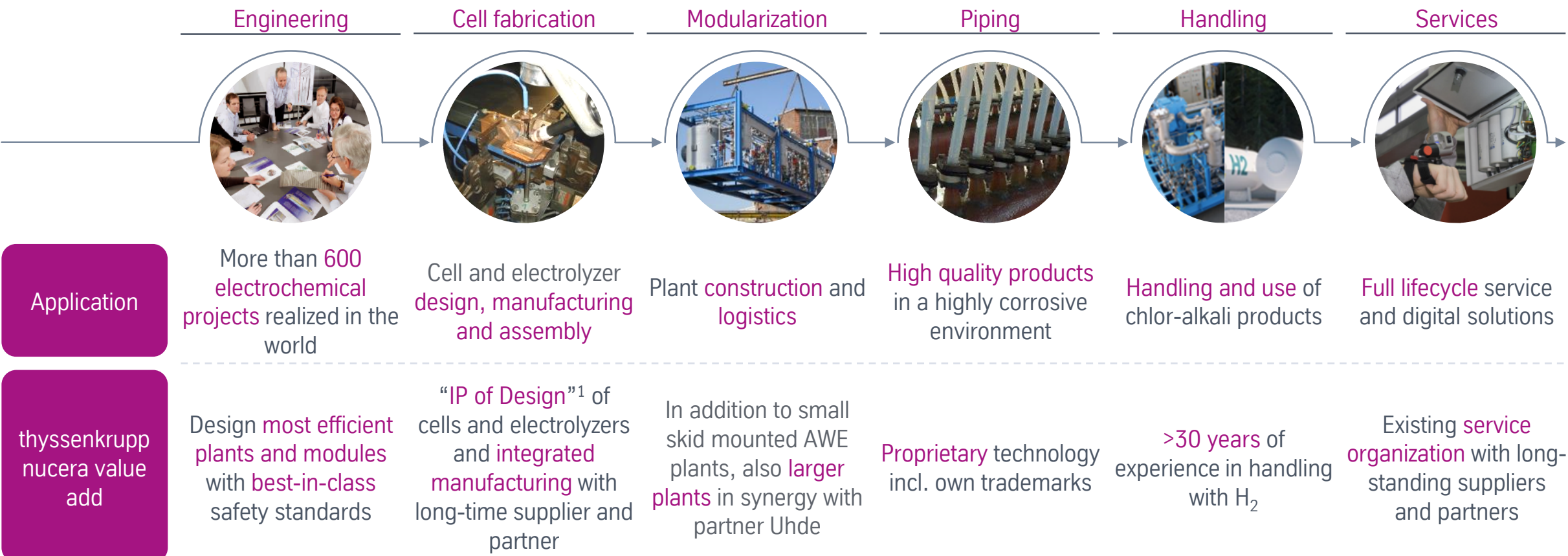
- Combination of expanded-metal current distributor with a woven mesh cathode enables a “**zero gap**” over the whole membrane area
- **Elastic element** with compression **independent** from sealing
- “**Zero gap**” improves **separator life and performance**

Know-how and technologies needed for implementing effectively high current density and high efficiency<sup>1</sup>

1. Density and efficiency assessment based on Eurochlor data



# We make a difference across every step of the industrial electrolysis value chain



thyssenkrupp nucera provides leading in-house experience along each step of the electrolysis value chain

1. The cell and electrolyzer shape and structure are designed for best utilization of key electrochemical components (anode and cathode coatings, separator), in terms of efficiency, products quality, durability/longevity, safety. By developing optimization of: Gas-liquid fluids handling, distribution, control of pressure fluctuations; uniform electrical current distribution and low ohmic drops; selection of corrosion-resistant materials; serviceability

## 2.1. Segment Green Hydrogen (gH<sub>2</sub>)



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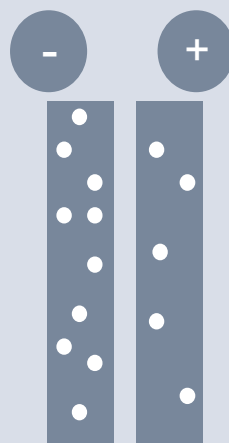


# Electrolysis connects the renewable energy sector with a wide range of industries and enables industry decarbonization

Renewable energy



Green hydrogen via electrolysis



Hydrogen markets



Green hydrogen economy drivers

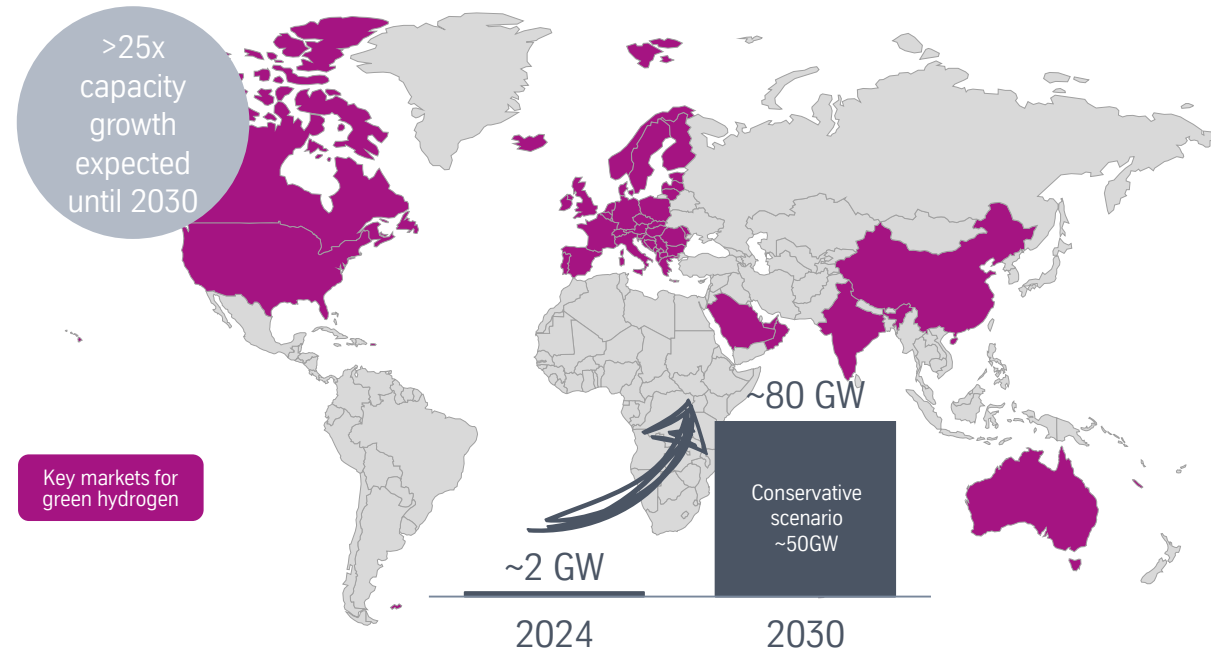
Climate & environmental protection

Growing renewable energy sector at low cost

Appropriate legal frameworks

# The mid-term gH<sub>2</sub> outlook remains positive with an expected installed capacity of ~50-80 GW by 2030

## Market outlook (Installed gH<sub>2</sub> electrolysis capacity by 2030)



### End markets

Hard to abate industries



Refining



Ammonia



Steel






## Key factors for gH<sub>2</sub> market ramp-up

- 1 Awarded project volume (in operation, in construction, FID)
- 2 Offtake agreements
- 3 gH<sub>2</sub> cost competitiveness (LCOH gH<sub>2</sub> vs. low-carbon-hydrogen)
- 4 Regulation & funding schemes
- 5 Infrastructure deployment

Sources: Market assessment based on company analysis and FIDs in Q4 FY 23/24 and Q1 FY 24/25; qualitative assessment based on Hydrogen Council (Hydrogen Insights 2024, September 2024).  
LCOH = Levelized cost of hydrogen

# We focus on green hydrogen, an enabler of the net zero economy

|   |   | How technology addresses Net Zero goals <sup>2</sup>   | 2050 supply mix <sup>2</sup> |
|---|---|--|------------------------------|
|  Grey hydrogen    | <ul style="list-style-type: none"> <li>Coal</li> <li>Natural Gas</li> <li>Biomethane</li> </ul> Reforming (Gasification) → CO <sub>2</sub> emitted            | ✗ Emits around 10kg of CO <sub>2</sub> per kg of hydrogen produced   | 0%                           |
|  Blue hydrogen    | <ul style="list-style-type: none"> <li>Natural Gas</li> <li>Biomethane</li> <li>Biomass</li> </ul> Reforming (Gasification) → CO <sub>2</sub> stored / reused | ✓ Natural gas reformed to H <sub>2</sub> and CO / CO <sub>2</sub> in Autothermal Methane-Reformer (AMR)<br>✓ Remaining CO <sub>2</sub> is captured and stored (CCS) <sup>1</sup> | 20 – 40%                     |
|  Green hydrogen | <ul style="list-style-type: none"> <li>Renewable energy</li> <li>Water</li> </ul> Electrolysis → No CO <sub>2</sub> emitted                                   | ✓ Essentially zero emissions<br>✓ Creation of H <sub>2</sub> from renewable energy   | 60 – 80%                     |

1. Carbon capture and storage (CCS) 2. Source: Hydrogen Council in collaboration with McKinsey & Company, Hydrogen for Net Zero Report, November 2021

# Refining, ammonia, and steel are the three main focus applications

Profitable at...



H<sub>2</sub> use



## Refining



>100 USD/tCO<sub>2</sub>

Substitution of grey  
H<sub>2</sub> feed

## Ammonia



>100 USD/tCO<sub>2</sub>

Substitution of grey H<sub>2</sub> and  
green energy vector

## Steel



~50 USD/tCO<sub>2</sub>

Substitution of coke for  
reduction of iron ore

No alternative to green hydrogen in hard to abate sectors with exposure to carbon tax

Source: Hydrogen Council in collaboration with McKinsey & Company, Hydrogen Insights Report, February 2021.

# We are well positioned to manage current sector challenges and capture the growth opportunities

We master the execution of our order backlog, define our organizational target picture and take measures accordingly



Organizational and operational ramp up in line with market development leveraging asset-light business model and its intrinsic flexibility



Global organization with the ability to be close to customers and flexibility to balance resources



Focus on profitable project execution to ensure sound contribution margins



Cost containment measures in the light of market headwinds and delays in project FIDs

We actively improve our competitive position and resilience in a maturing market while we capitalize on the potential of the huge project pipeline



No compromise on R&D initiatives to continuously improve AWE product and industrialize SOEC technology

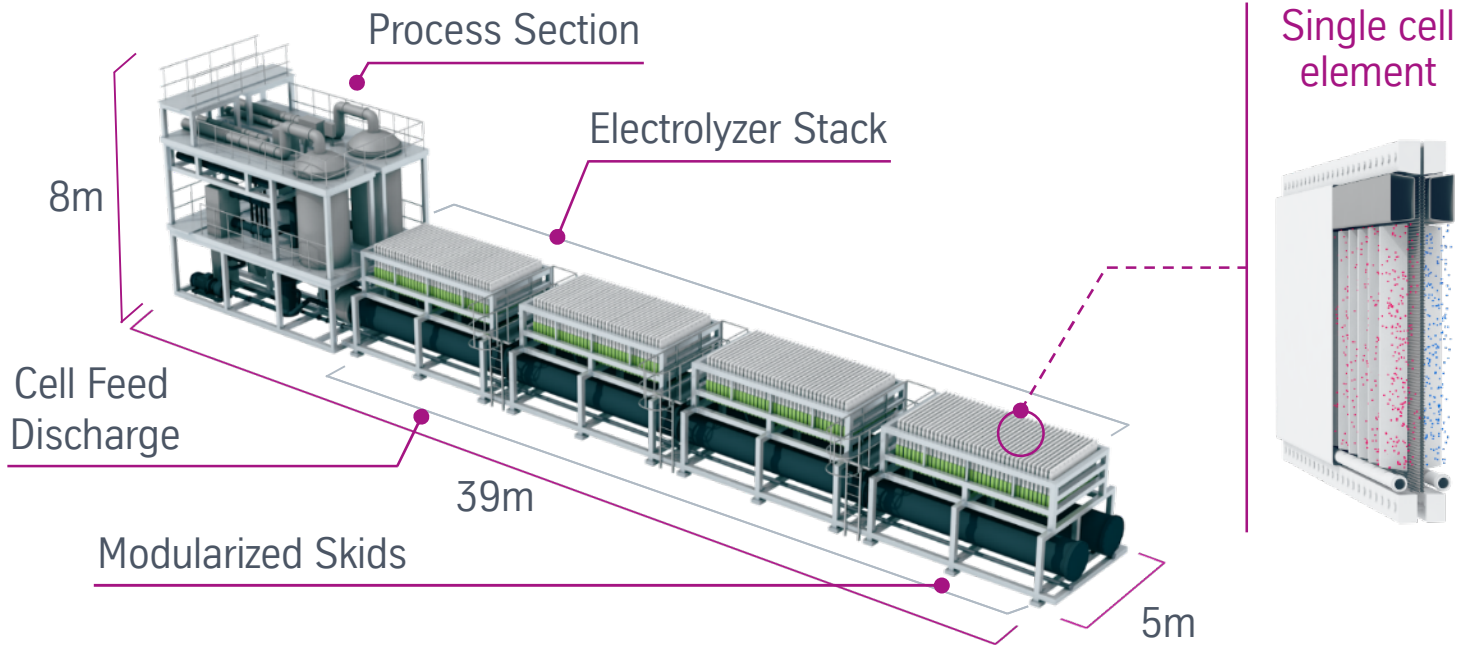


Develop processes for automation & serial fabrication to reduce costs in the manufacturing of electrolyzer stacks and during operations



Working on a resilient supply chain to maximize flexibility and minimize dependencies and other risks

# scalum® | Our AWE technology for industrial-scale roll-out







- |                       |                                      |               |                                      |
|-----------------------|--------------------------------------|---------------|--------------------------------------|
| ✓ Quality & longevity | Proven cell design & high durability | ✓ Reliability | Global service network with partners |
| ✓ Dynamic operations  | Wide operating range                 | ✓ Flexibility | Modular design enables scalability   |

- ✓ A powerful unit with ~ 300 high-efficiency cells
- ✓ Standardized modular solution with a system capacity of 20 MW
- ✓ Can be easily interconnected and scaled up to gigawatt plant size
- ✓ Ability to remove an individual single element from a stack of cells
- ✓ Repairable at single-cell level without having to replace entire stacks



# AWE currently most suitable for large scale rollout of gH<sub>2</sub> production capacity globally – SOEC offers features to unlock further potential

| Technology                                   | Alkaline Water Electrolysis (AWE)   | Polymer Electrolyte Membrane (PEM) Electrolysis   | Solid Oxide Electrolyzer Cell (SOEC)   |
|--|---|---|--|
| Development stage <sup>1</sup>               | Mature and commercial   | Commercial under development  | Early-stage development  |
| Application <sup>1</sup>                     | Centralized   | Decentralized   | To be determined   |
| Typical plant size (MW) <sup>2</sup>         | Multiple of 100   | Multiple of 10  | To be determined   |
| Response time <sup>3</sup>                   | Fast  | Very fast   | Very slow  |
| Efficiency <sup>4,5</sup> (LHV) <sup>6</sup> | Today   |   |  |
|  | 2030E   |   |  |
| Pressure (bar) <sup>4</sup>                  | thyssenkrupp<br>nucera <sup>1</sup> :  | Industry average:  |     |
|  | thyssenkrupp<br>nucera <sup>1</sup> :<br>Atmosphere   | Industry average:<br>1 – 30   | 1  |
| Use of precious metals <sup>1</sup>          | Limited   | Significant   | n/a  |

Illustrative table 1. Company estimates 2. Typical size of plants tendered in the green hydrogen market 3. Source: IRENA (2020), Green Hydrogen Cost Reduction: Scaling up electrolyzers to Meet the 1.5°C Climate Goal, International Renewable Energy Agency, Abu Dhabi 4. Source: IEA (2019), The Future of Hydrogen, IEA, Paris <https://www.iea.org/reports/the-future-of-hydrogen> 5. Harvey balls represent a relative metric and not actual efficiency 6. Lower heating value



# Illustrative scope for a hydrogen plant project

AWE modules  
Procurement and  
Manufacture



Balance of plant  
Engineering and  
Procurement



Civil  
construction



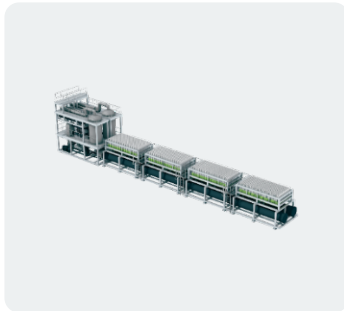
Erection  
on site



Commissioning



Technology  
service



## Description

Supply of AWE modules: procurement of materials and equipment, fabrication of cells and modules

Engineering and procurement of balance of plant (BoP), e.g. transformers, rectifiers, purification, compression, utilities, etc.

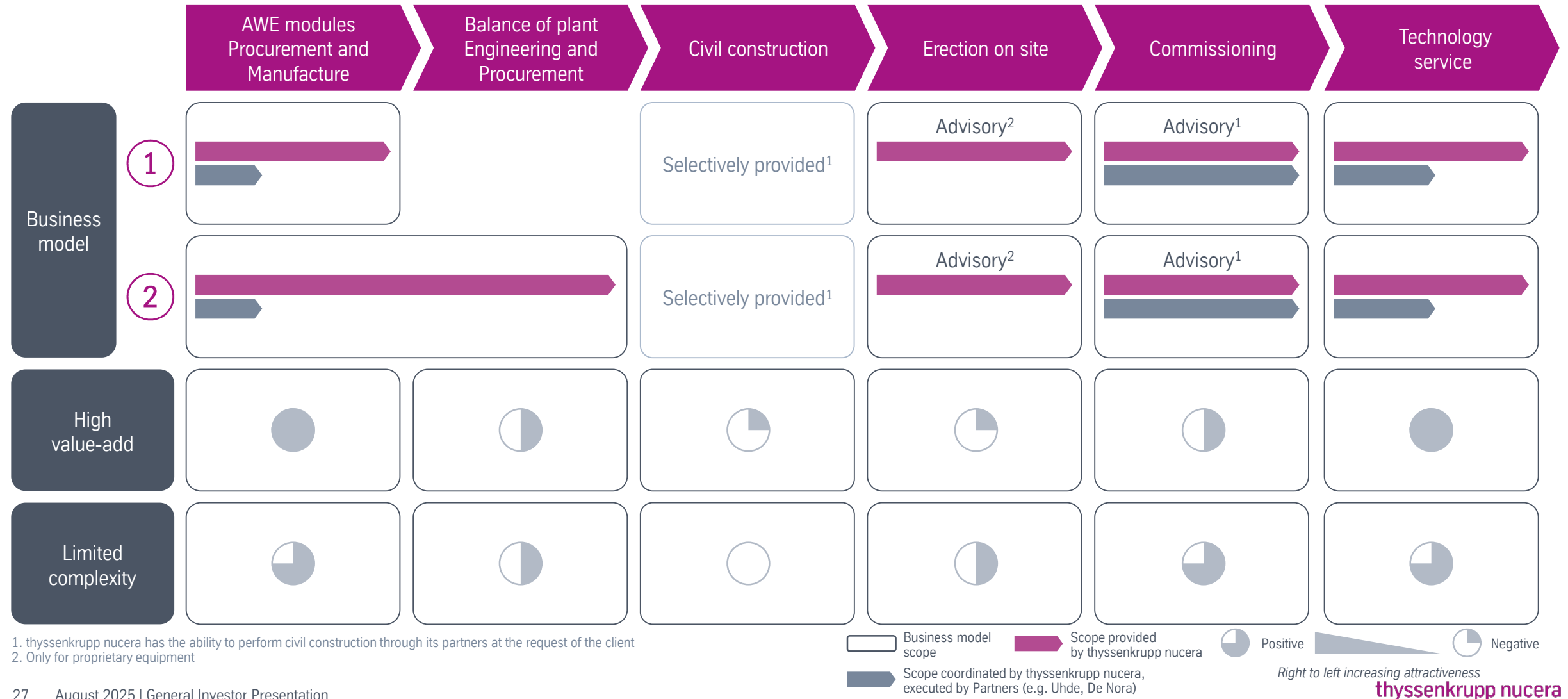
Civil structures and foundations at site

Installation of AWE modules, BoP equipment, instrumentation and piping up to the battery limits at site

Functional and control system tests, cold commissioning up to Start-up of AWE modules and the hydrogen plant, including performance testing

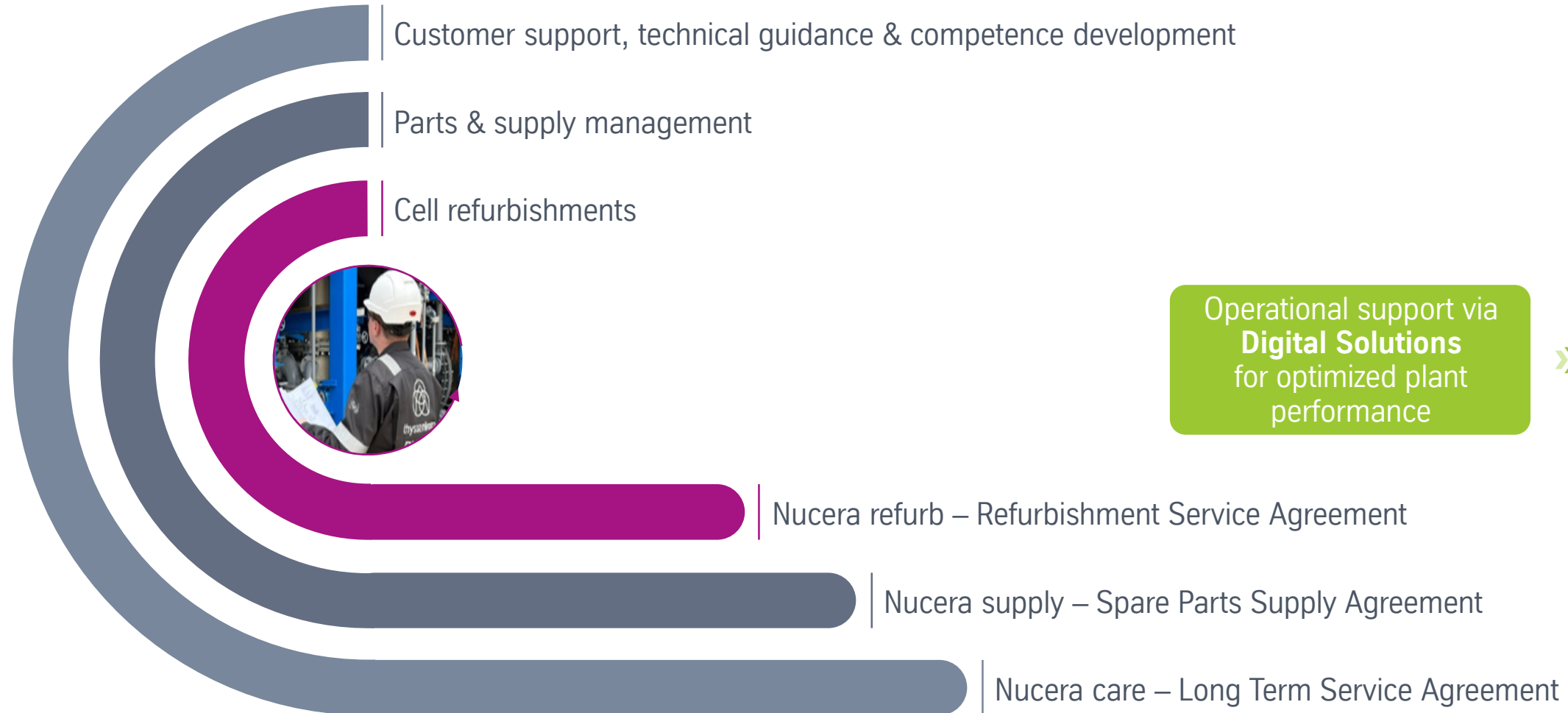
After sales and services including revamps and refurbishment, full service, plant optimization, and de-bottlenecking

# Preferred business models focused on attractiveness in terms of added value and limited complexity



# 360° service for scalum®

Lifecycle service for the green transformation





# Demonstrator and test stand of our AWE technology

## Carbon2Chem

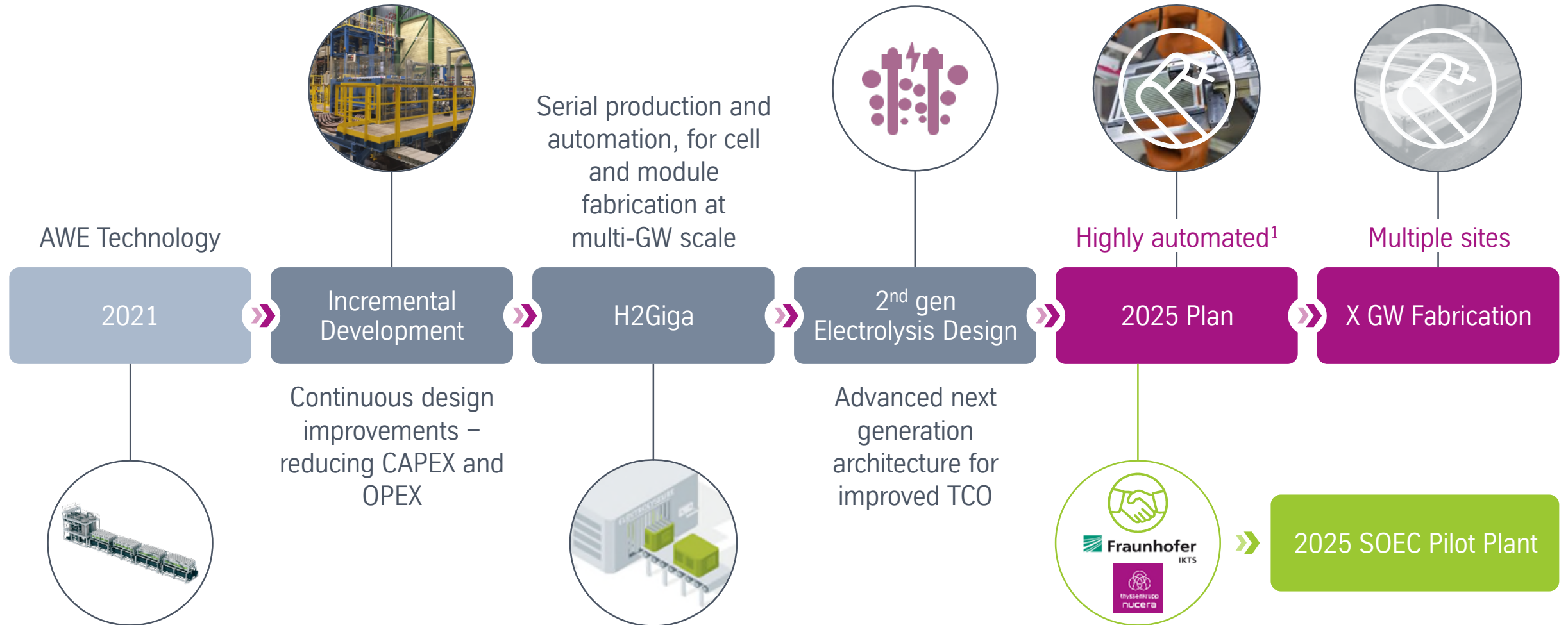
Continuous testing of innovative components and materials  
in Duisburg, Germany

Electrolyzer capacity: up to 2 MW

1. 6 years of operation x 8600 hours per year x 65% utilization incl. shutdowns x  $400\text{Nm}^3/\text{h}$  C2C production rating x  $0,089\text{ Kg}/\text{Nm}^3$

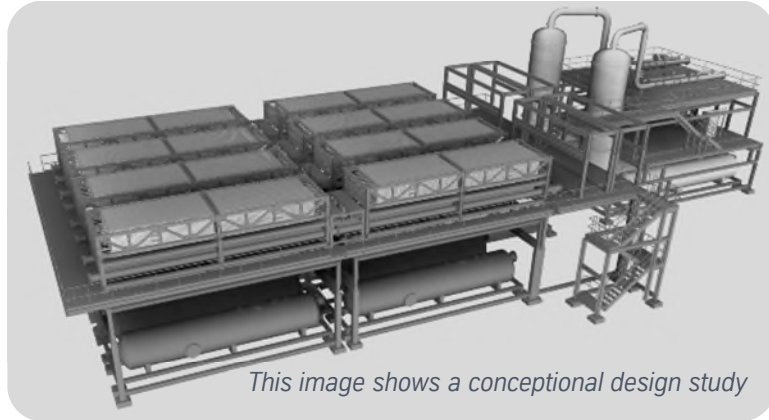


# Dedicated product development roadmap with focus on performance and overall total cost of ownership



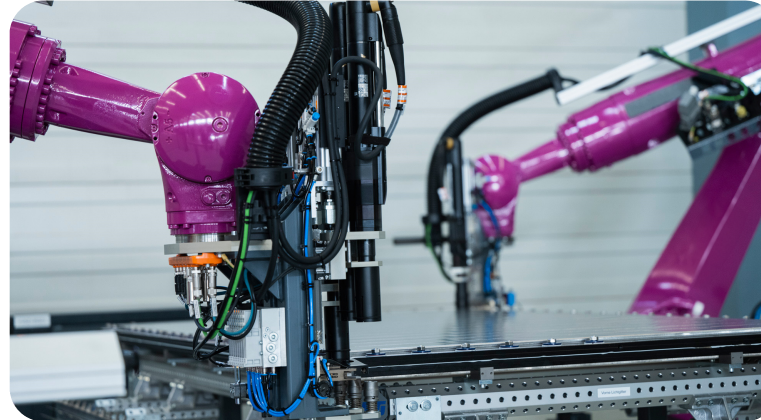
<sup>1</sup> In partnership with De Nora for electrode coatings and manufacturing

# Increasing R&D efforts to keep and strengthen leading competitive position



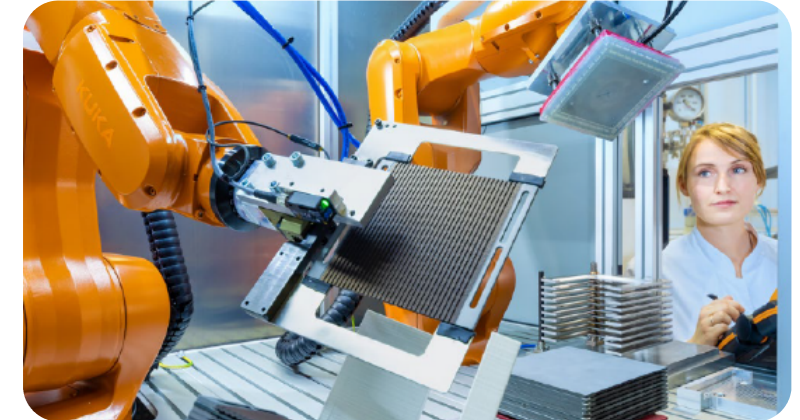
## Committed to excellence and innovation in AWE

- **scalum®** to advance gH<sub>2</sub> production by reducing capex and ensuring **best-in-class levelized cost of hydrogen**
- Standardization, larger-scale operations, and diversified product offerings for core markets and customer segments



## Automated fabrication and assembly processes

- Automation of **cell fabrication** and **assembly** will lead to
- Reduced time and personnel effort
  - Improved product quality and reliability
  - Cost savings
  - Faster delivery times



## Commercialization of SOEC technology

- Take further steps towards serial fabrication and industrial application
- Achieve competitive CAPEX to benefit from **higher operating efficiency**
- **Pilot manufacturing plant** started operation in May 2025

# Investing in complementary gH<sub>2</sub> technologies to reduce time to market and lead in levelized cost of hydrogen

## Acquisition of pressurized alkaline electrolyzer technology



- Agreement signed to acquire **key technology assets** in the field of pressurized alkaline electrolysis, and a test facility in Skive, Denmark from GHS
- **Partial substitution of own R&D activities** into next-generation AWE and reduction of **time to market**
- Purchase price (high single-digit mn € amount), **fully financed from existing liquidity**
- Transaction subject to typical clearances<sup>1</sup>, **closing expected in late summer 2025**

## Opening of first SOEC pilot production plant

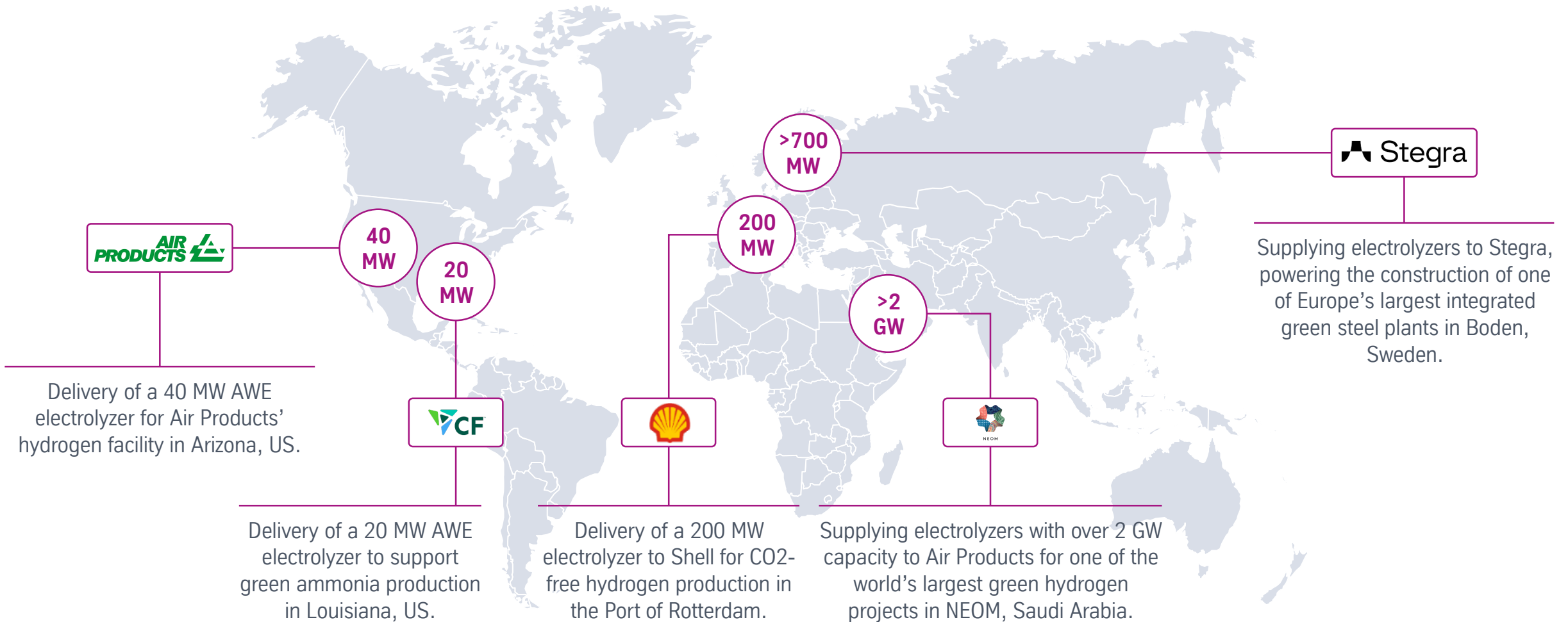


- **Opening of our first SOEC pilot production plant** together with Fraunhofer IKTS in Arnstadt, Germany
- Important milestone on the **road to commercial and large-scale industrial use of SOEC electrolysis**
- SOEC pilot plant initially produces stacks in small quantities and has a **production capacity of 8 MW p.a.**
- Experience to support development of **large-scale industrial production** for high-performance SOEC stacks

<sup>1</sup> Subject to the approval of the court-appointed trustee following the issuance of a bankruptcy decree for Green Hydrogen Systems A/S, consent from certain creditors of Green Hydrogen Systems A/S, and the necessary regulatory clearances

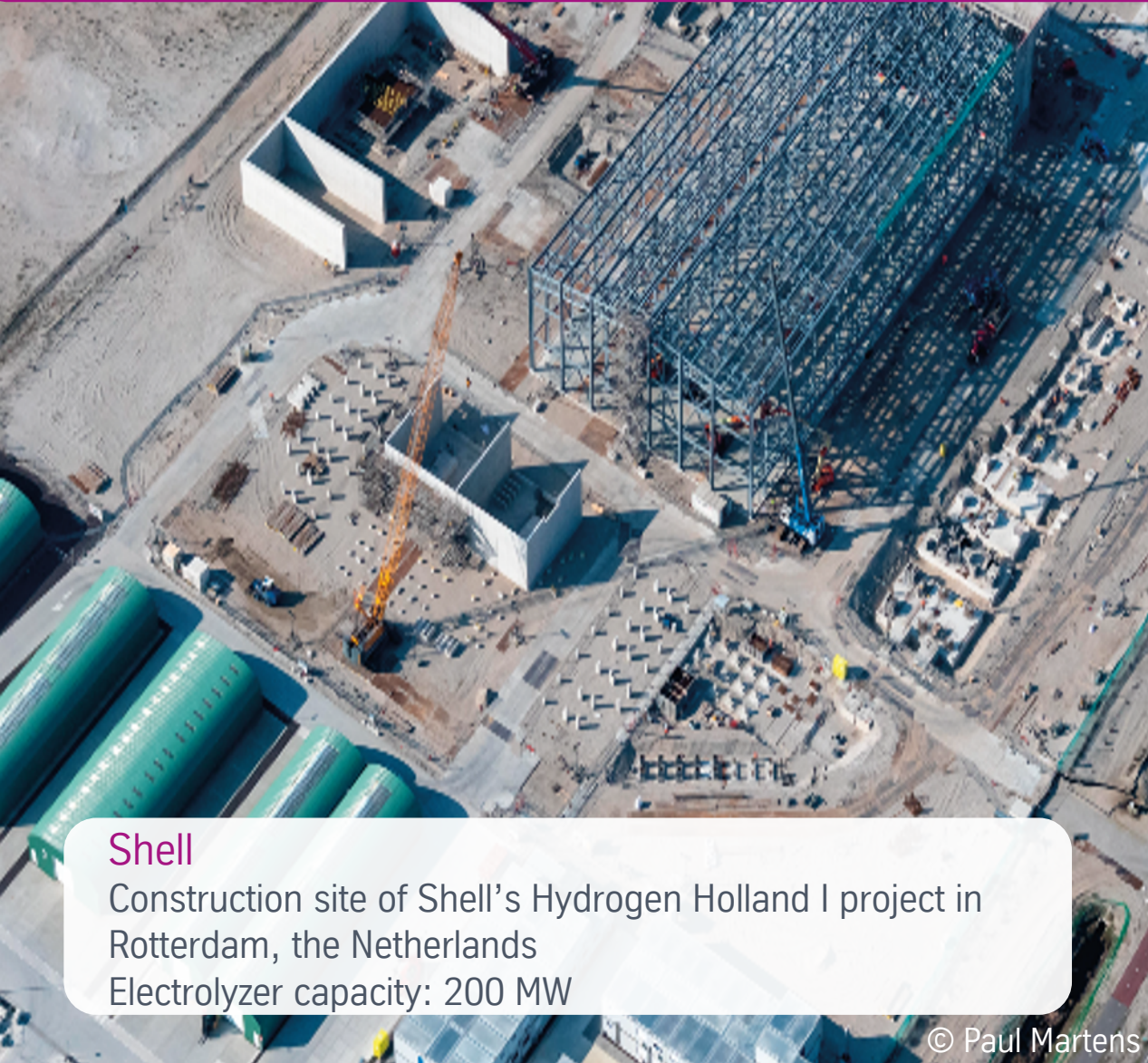


# Key green hydrogen projects currently under execution





# gH<sub>2</sub> projects under execution



## Shell

Construction site of Shell's Hydrogen Holland I project in Rotterdam, the Netherlands

Electrolyzer capacity: 200 MW

© Paul Martens







## Stegra

Construction site of Stegra's green steel project in Boden, Sweden

Electrolyzer capacity: >700 MW



# Commercial pipeline remains substantial despite some delays and cancellations – Window of opportunity for US projects reopened

|                           | Definition   |  No. of projects |  Median size |  Aggregated size |  Contract value |
|---------------------------|--|--|---|---|--|
| Substantial pipeline      | Projects where we had first interactions with and that are being monitored closely | #162<br>(#155)   | 290 MW<br>(360 MW)  | ~83 GW<br>(~90 GW)  | ~42bn €<br>(~46bn €)   |
| Pursue                    |  |  |   |   |  |
| Actively pursued projects | Projects which already passed the pursue / non-pursue gate                         | #44<br>(#40)   | 310 MW<br>(360 MW) <sup>1</sup>   | ~21 GW<br>(~22 GW)  | ~11bn €<br>(~12bn €)   |

As of August 2025. Number in brackets: Data as of previous quarter, May 2025.

<sup>1</sup> Please note: Deviating from the Q2 2024/25 presentation, where an average figure was shown, the median value is now displayed for the actively pursued project pipeline as well.

# Awarded engineering contracts paving the way towards FID for green hydrogen projects with a capacity of 1.5 GW



We have  
already been named  
**preferred technology  
provider**  
for European projects of  
**~1.5 GW**



## Communicated projects in advanced planning stage

**300  
MW**

Paid Engineering Contract and Capacity Reservation signed with Moeve (August 2024)

**500  
MW**

Paid Engineering Contract signed for project in Spain (October 2024)

**100  
MW**

Paid Engineering Contract signed for European project (October 2024)

**600  
MW**

Paid Engineering Contract signed for European project (June 2025)

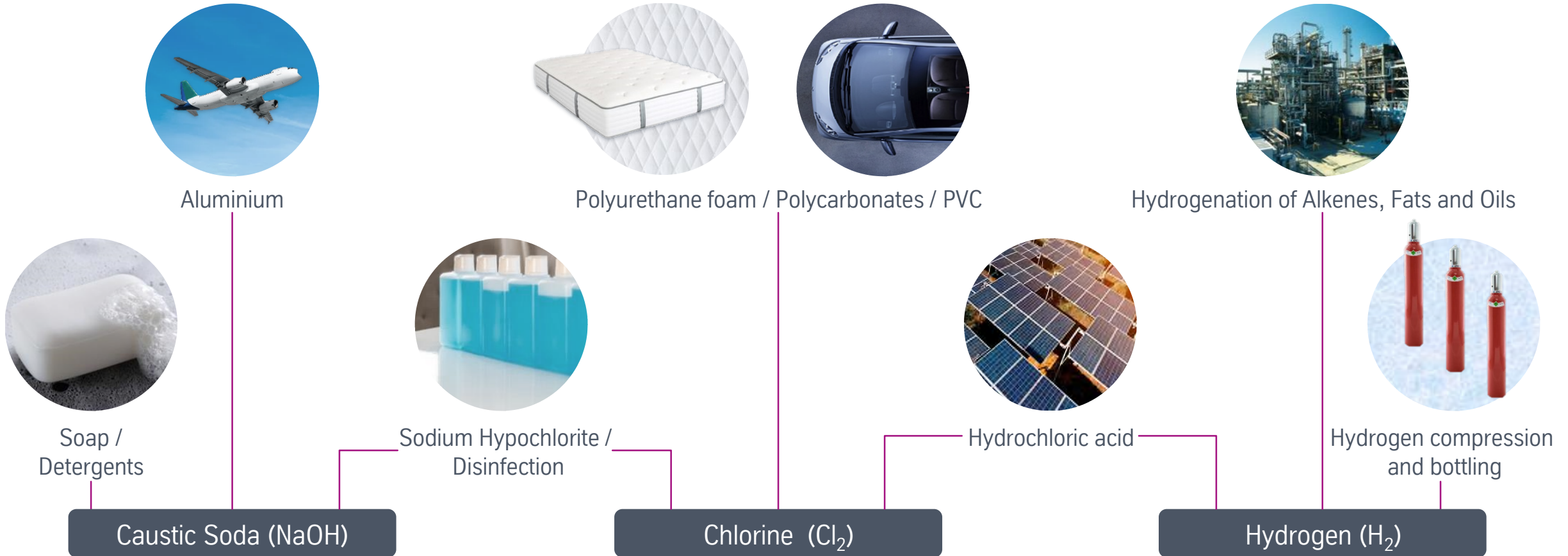
## Studies define electrolysis technology used in projects

## 2.2. Segment Chlor Alkali (CA)



thyssenkrupp  
**nucera**

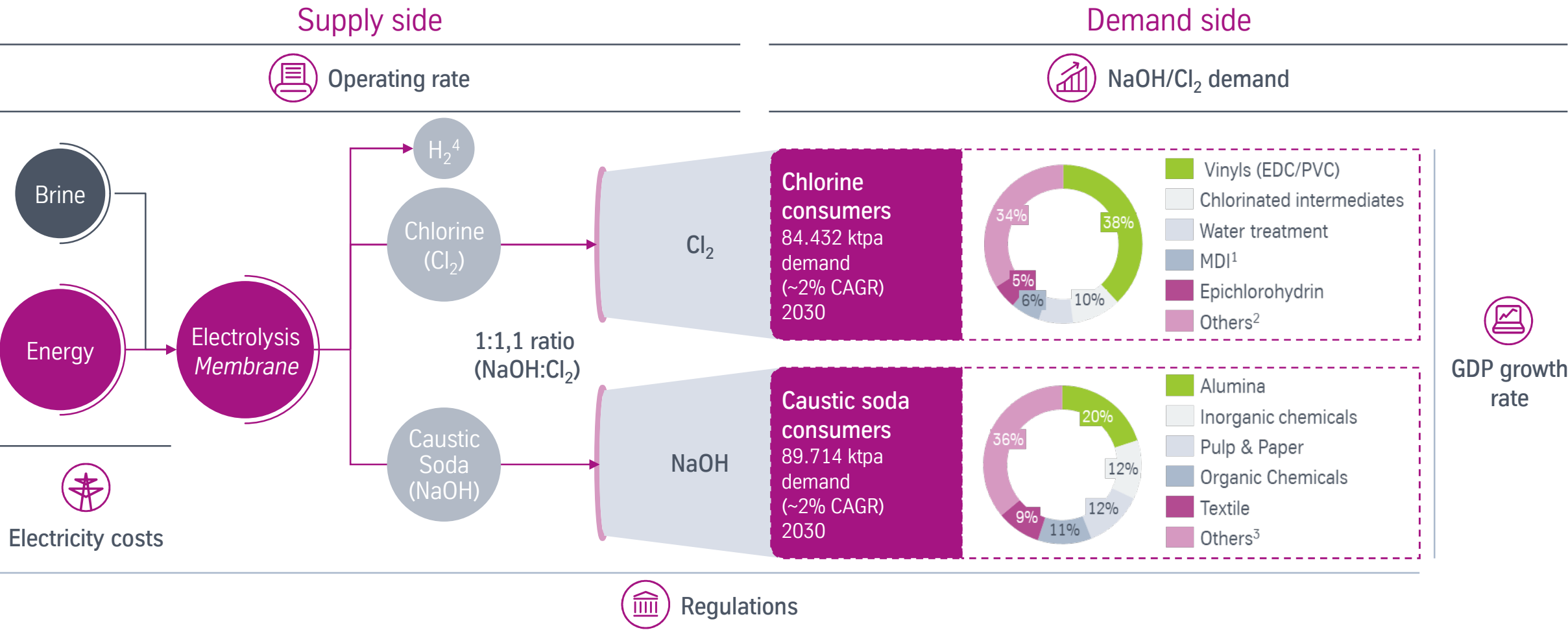
# CA chemical products are essential for a large number of end products



Global demand for Chlorine and Caustic Soda grows in line with GDP enabling strong and stable growth for thyssenkrupp nucera

Illustrative examples, not exhaustive

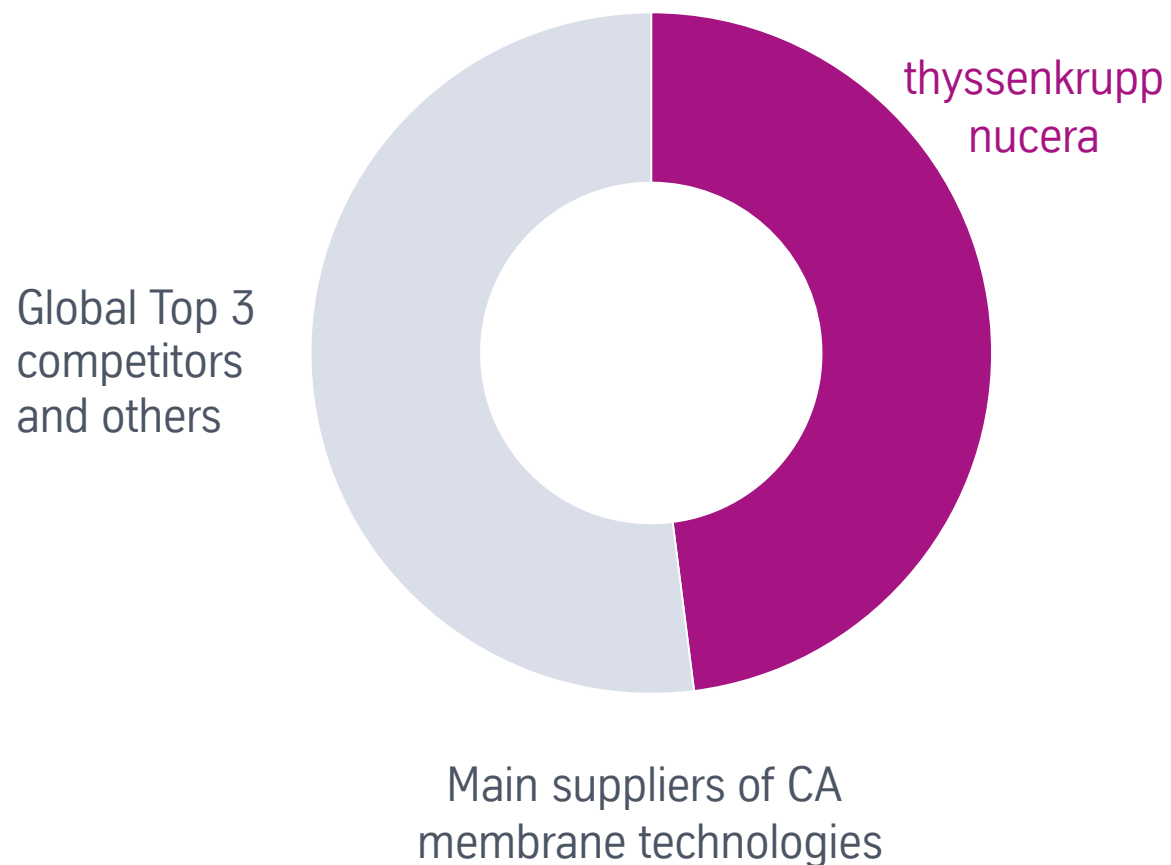
# Chlor-Alkali market primarily driven by NaOH/Cl<sub>2</sub> demand, operating rates, GDP growth, regulations and electricity costs





# thyssenkrupp nucera is the global market leader in Chlor-Alkali membrane electrolysis

CA market installed capacity in operation (2023)<sup>1</sup>



Accumulated orders up to 2024<sup>2</sup>

43.7 million t/year  $\text{Cl}_2$   
from CA

2 million t/year  $\text{Cl}_2$   
from HCl-ODC<sup>3</sup>

7.0 GW eq.  $\text{H}_2$  produced  
from CA<sup>4</sup>

1. Company estimate 2. Company information as of September 2024, time period from 1977 to 2024  
 $\text{H}_2$  produced from CA also from AWE electrolyzers

3. HCl-ODC = Hydro-chloric acid – Oxygen-Depolarised Cathode

4. 7.0 GW installed power to get the same amount of

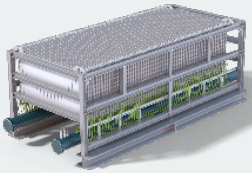


# Innovative CA and HCl solutions for industrial progress

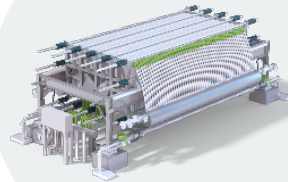
## Product portfolio

### Chlor-Alkali (CA) Electrolysis

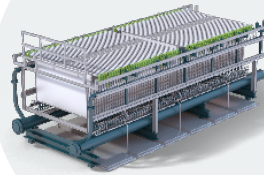
Local production of Chlorine ( $\text{Cl}_2$ ),  
Caustic Soda ( $\text{NaOH}$ ) and Hydrogen ( $\text{H}_2$ )



BM<sup>1</sup>



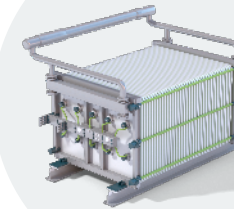
BiTAC<sup>2</sup>



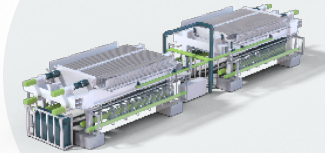
NaCl ODC<sup>3</sup>

### Hydrochloric Acid (HCl) Electrolysis

Recycling of HCl into Chlorine ( $\text{Cl}_2$ )  
and Hydrogen ( $\text{H}_2$ )



HCl Diaphragm



HCl ODC<sup>4</sup>

1. Bipolar membrane electrolyzer; 2. BiTAC: Bipolar Tosoh and Chlorine Engineers; 3. ODC: Oxygen Depolarized Cathode; 4. Recycling HCl at low energy consumption

# Our key Chlor-Alkali projects





# Globally leading technologies for chlorine production

## BM single element

Vestolit Marl/Germany

Capacity per year: 236kt NaOH; 210kt Cl<sub>2</sub>

Installed base: 60 MW

## BiTAC filter press

Ningxia Risheng/China

Capacity per year: 320kt NaOH; 298kt Cl<sub>2</sub>

Installed base: 81 MW



# Leading energy saving technologies for chlorine production & recovery



## HCl-ODC ( $\text{Cl}_2$ recovery)

Yantai Juli/China

Capacity per year: 100kt  $\text{Cl}_2$

Installed base: 15 MW



## NaCl-ODC

Covestro Krefeld-Uerdingen/Germany

Capacity per year: 20kt  $\text{Cl}_2$

Installed base: 5 MW



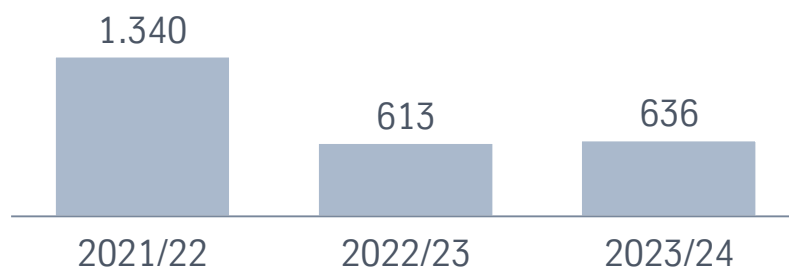
# 3. Financials



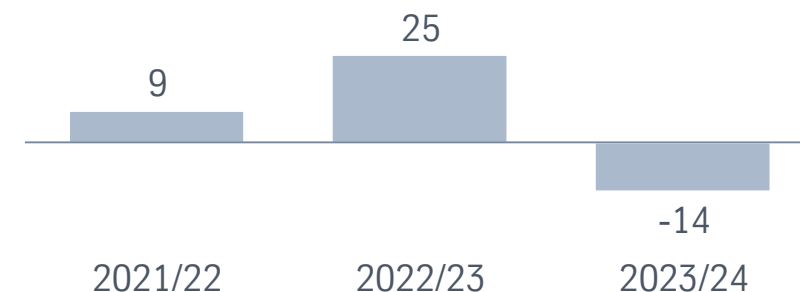
thyssenkrupp  
**nucera**

# Historic financial performance

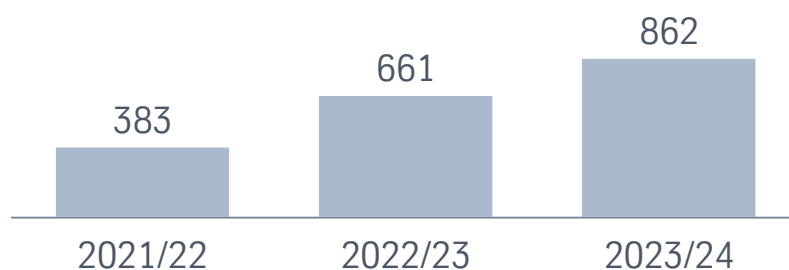
Order intake  
(mn €)



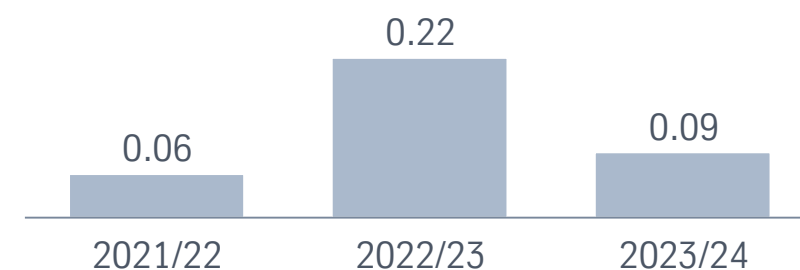
EBIT  
(mn €)



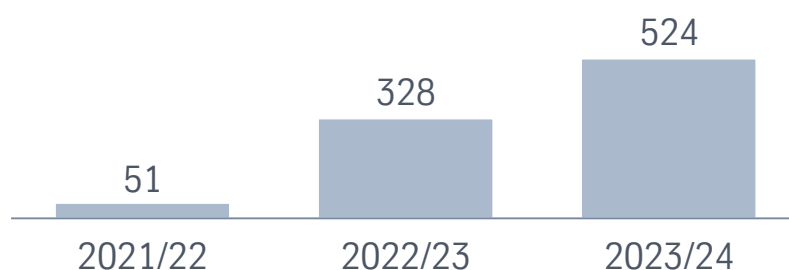
Sales  
(mn €)



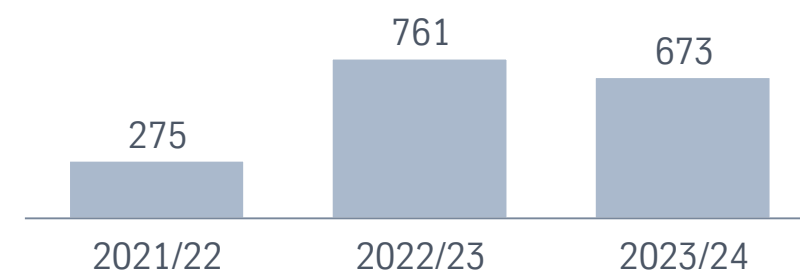
EPS  
(€)



Sales gH<sub>2</sub>  
(mn €)

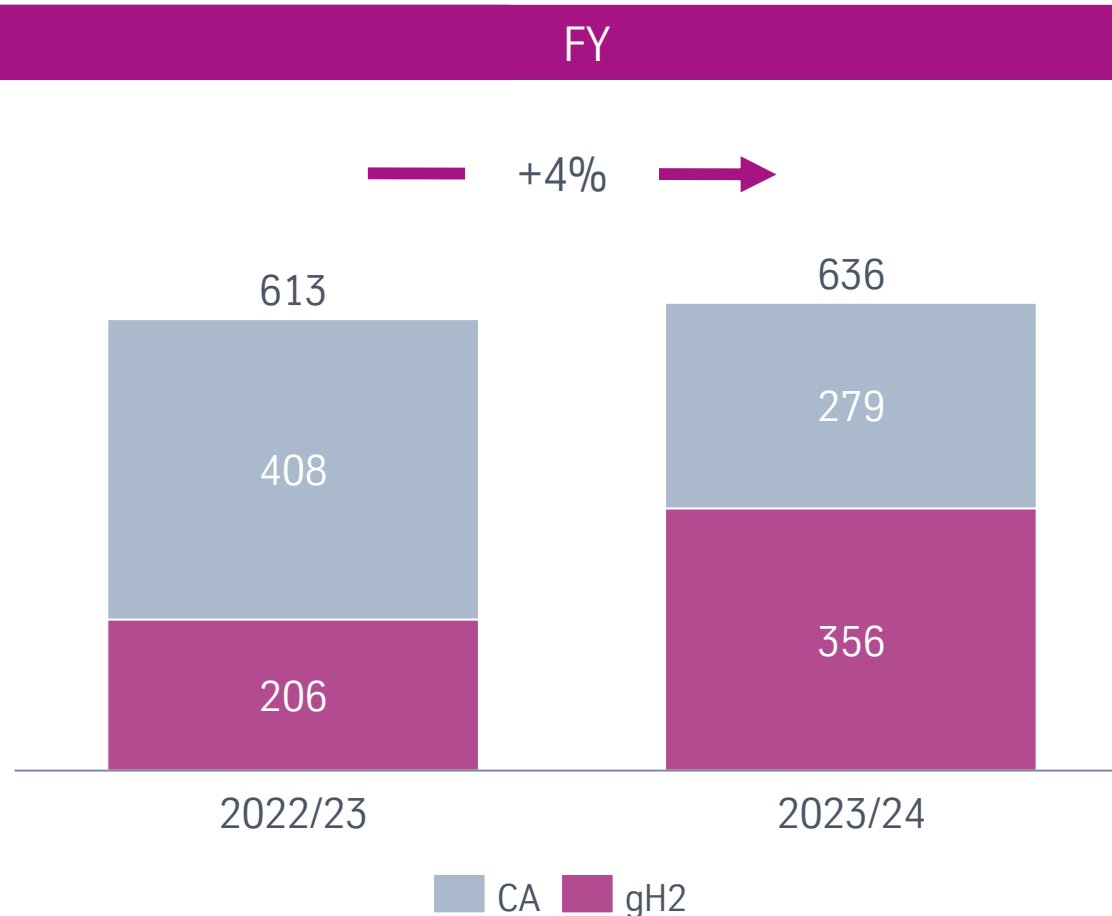


Net financial  
assets  
(mn €)



# Growing order intake driven by AWE business

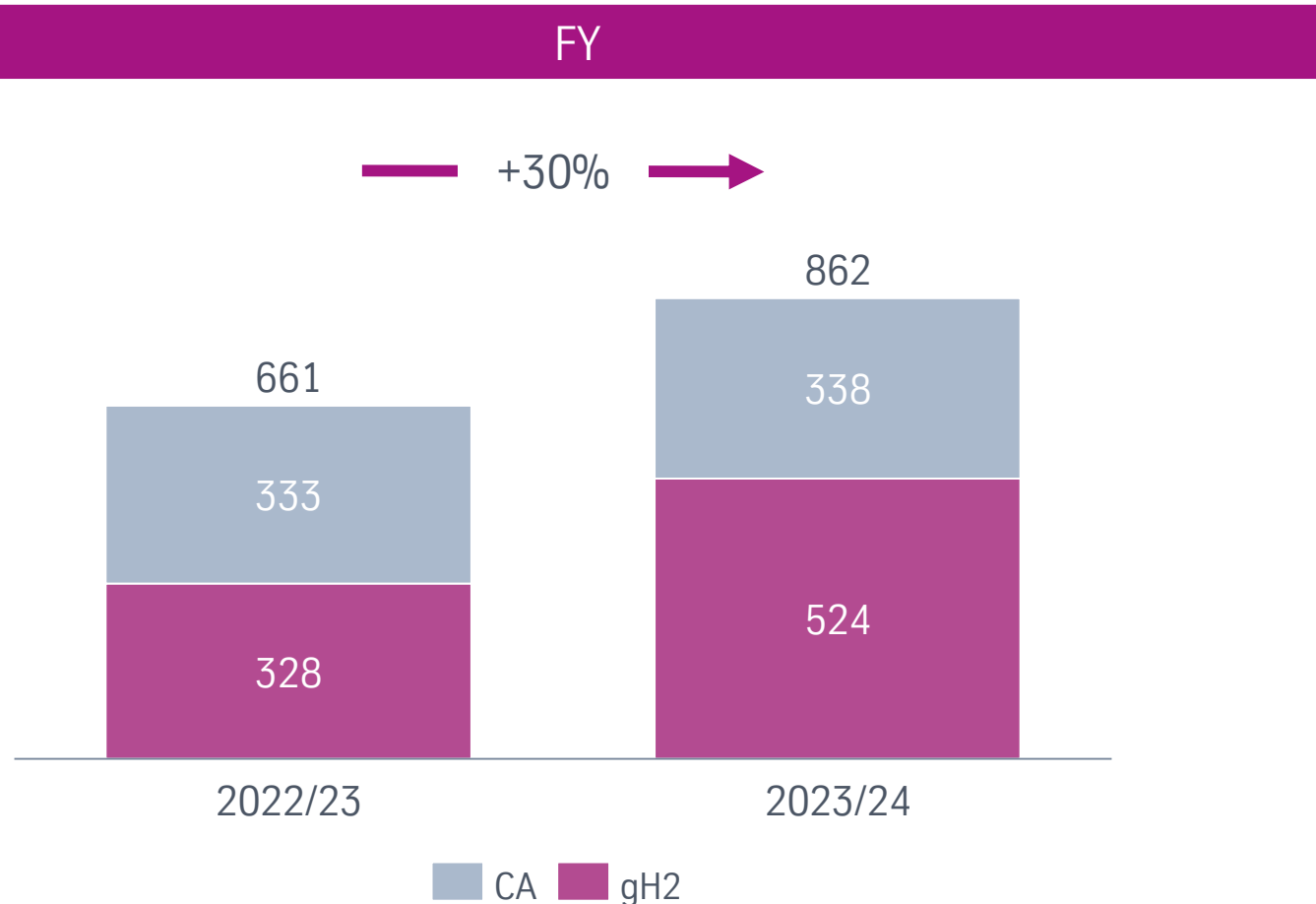
Order intake (mn €)



- Strong AWE increase (+73% yoy) largely driven by >300mn € for Stegra project
- CA order intake fell from PY's record high, which was supported by large OxyChem New Build order in the US; Service business slightly higher year-on-year
- Order backlog (30 September 2024) of ~1.1bn €, thereof ~0.7bn € gH<sub>2</sub>

# Strong sales growth driven by successful execution of AWE projects

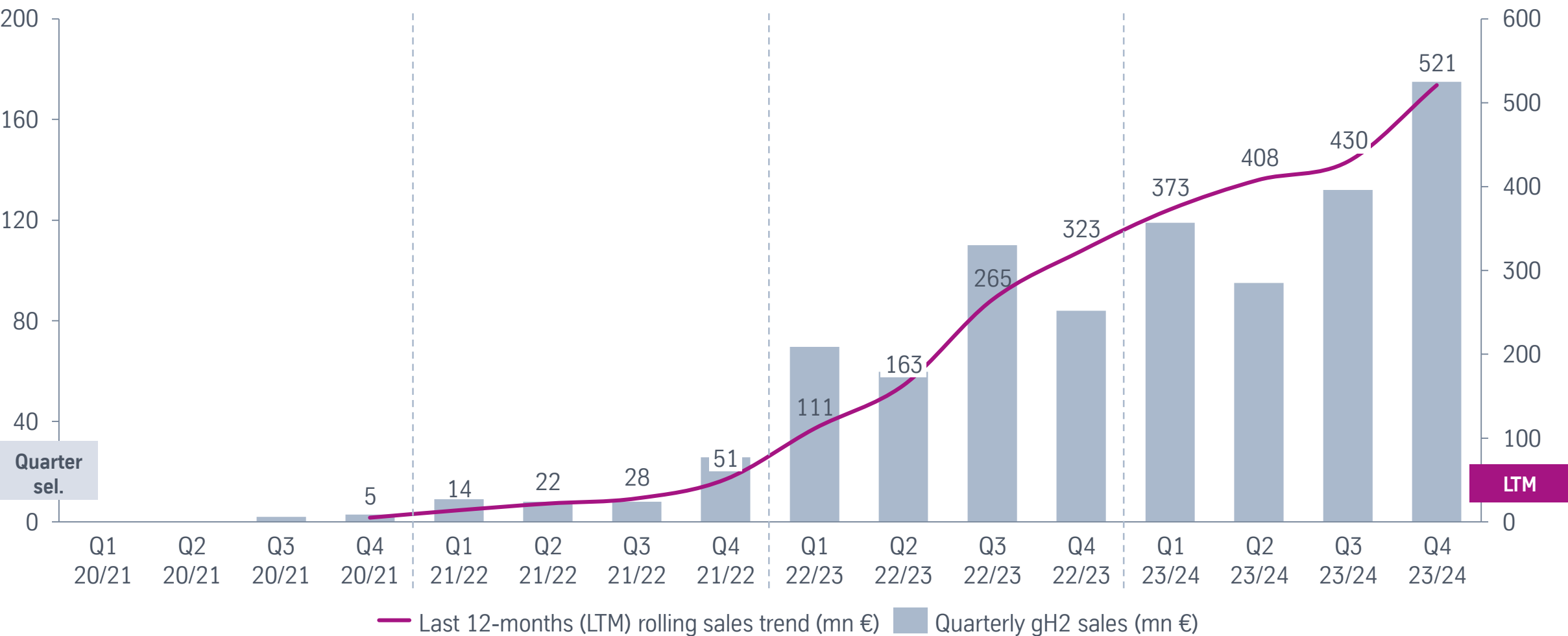
Sales (mn €)



- AWE sales +60% yoy
- Substantial sales increase mostly driven by dynamic sales growth in AWE business following ongoing execution of projects, especially in Saudi Arabia (NEOM) and Sweden (Stegra)
- CA sales +1% yoy due to growing new build business, which overcompensated declining Service business



# Last years have shown rapid & steadily growing gH<sub>2</sub> sales – Peak in Q4 2023/24

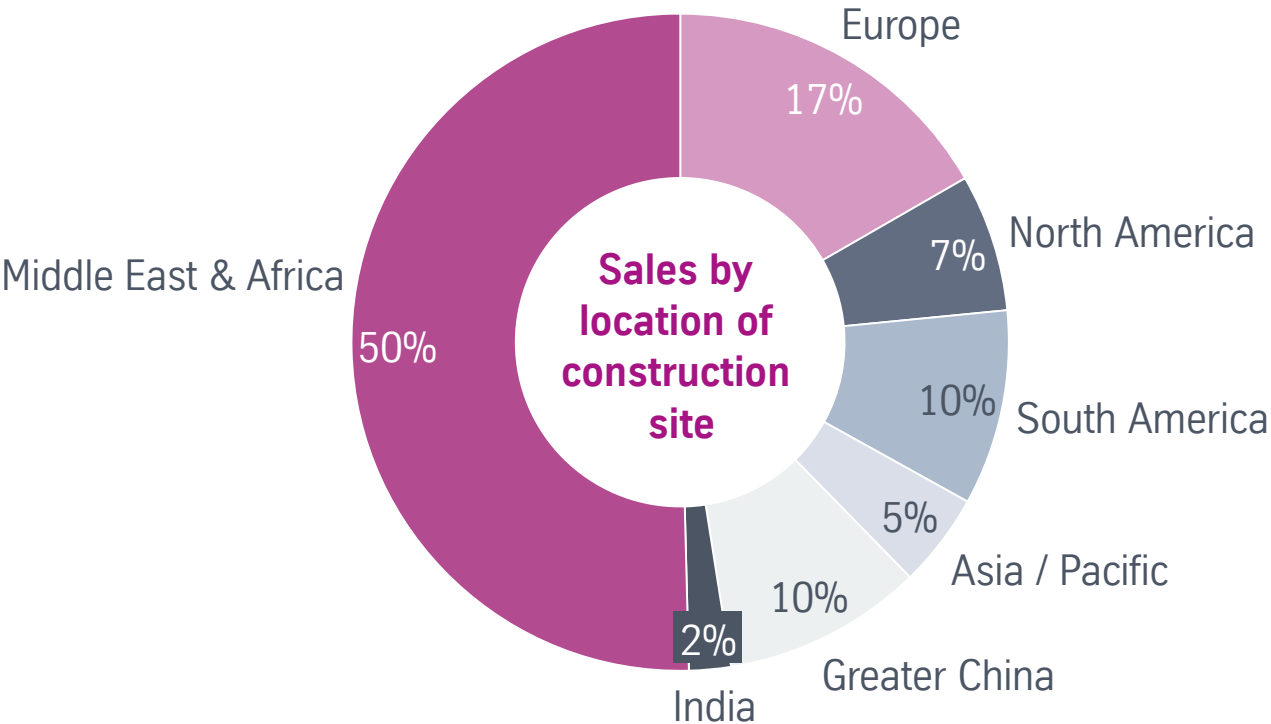
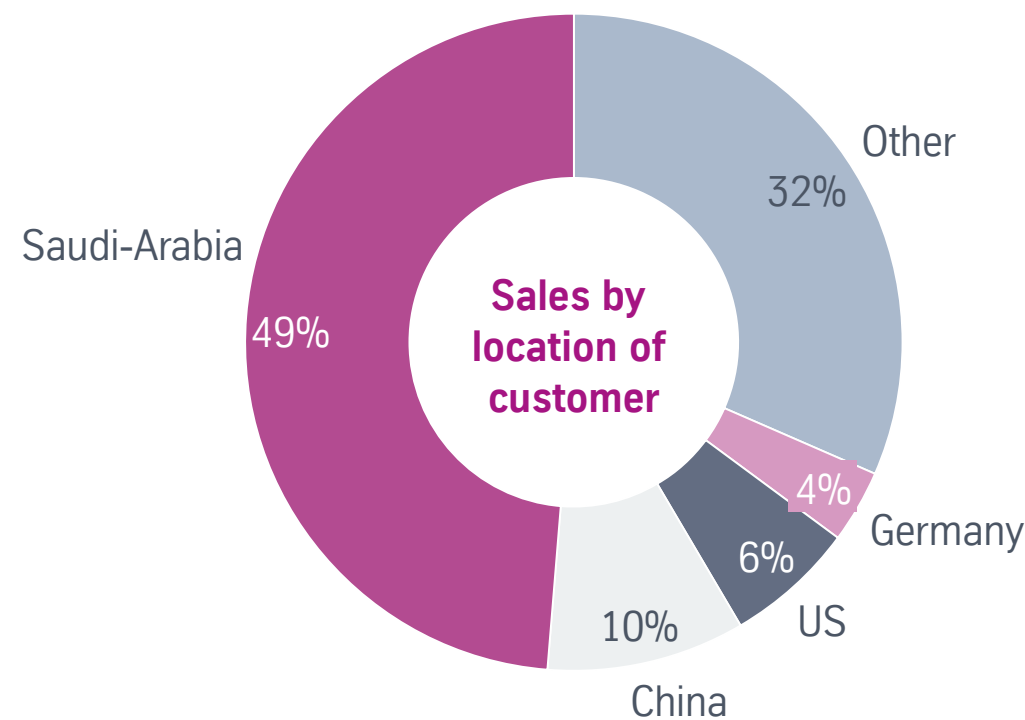


Note: Based on unaudited historical sales figures. Rounding differences may occur.

# Sales largely driven by projects in the Middle East & Europe

## Sales split (mn €)

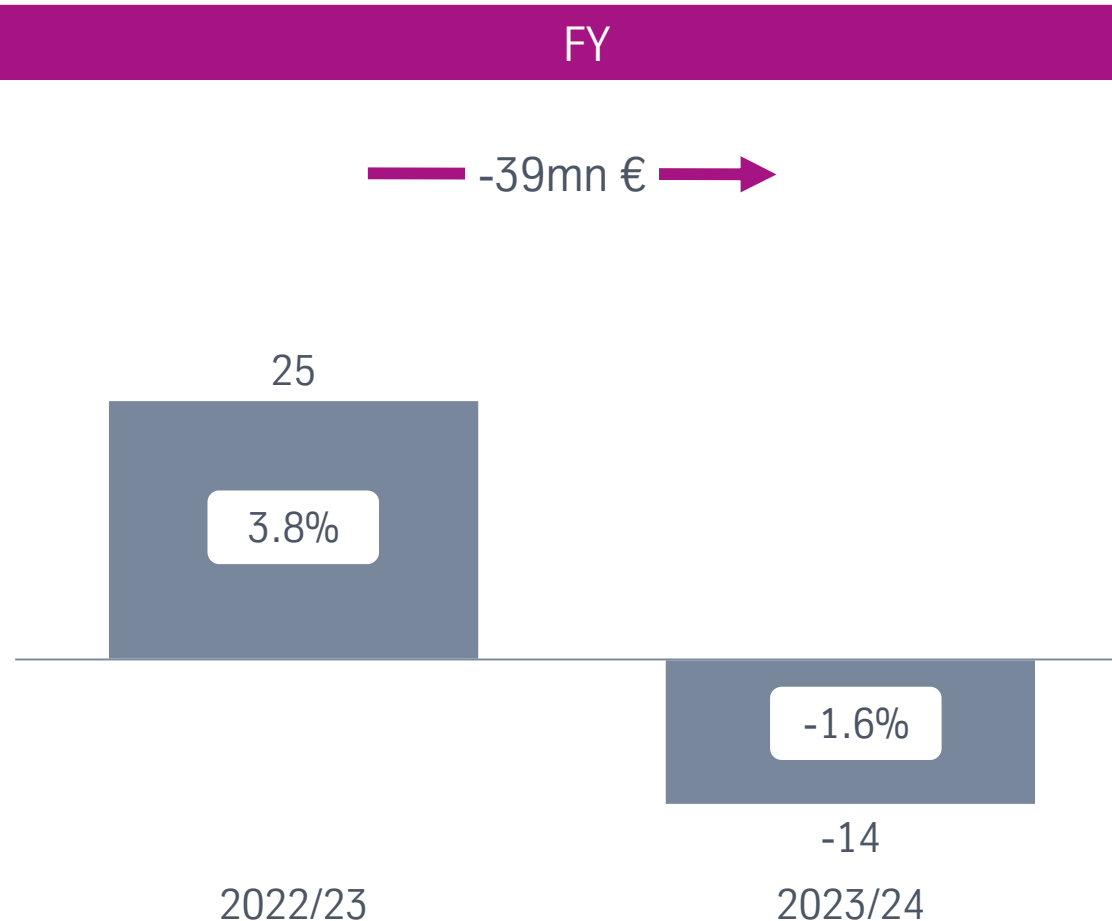
FY 2023/24



# Temporary EBIT decline as planned due to AWE ramp-up

EBIT (mn €)

% of sales



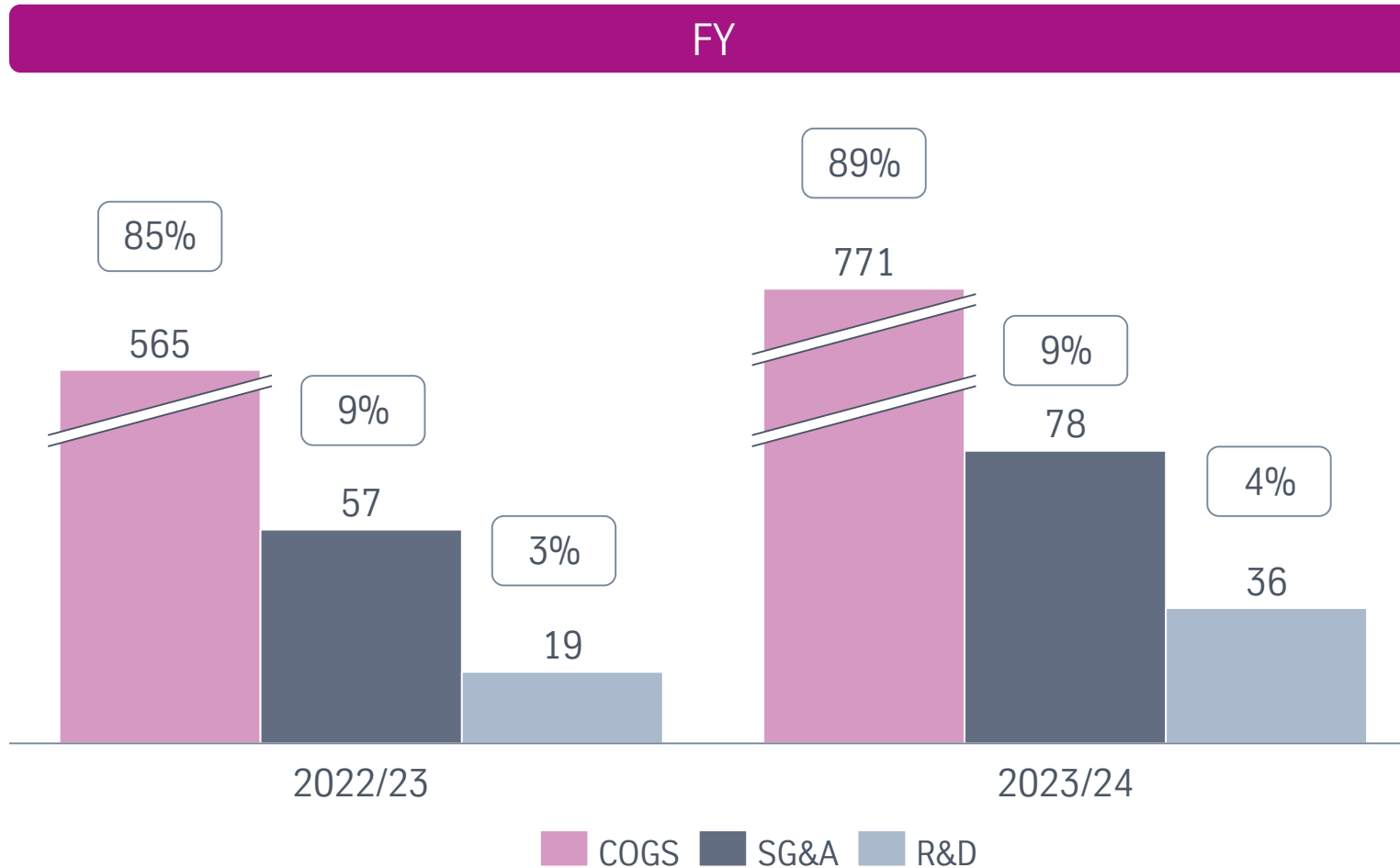
- Significant EBIT decline largely driven by implementation of growth strategy and lower gross margin due to higher sales share of NEOM project
- Robust CA margins, cost containment and positive one-time effects partly compensating
- FY 2023/24 EBIT split:  
gH2: -76mn €  
CA: 62mn €

# Rising operating costs in line with implementation of growth strategy

Operating costs (mn €)

% of sales

FY



## COGS

- Temporarily increased in line with lower margin of first AWE reference project

## SG&A

- SG&A increase (+38% yoy) as planned due to ramp-up of organization

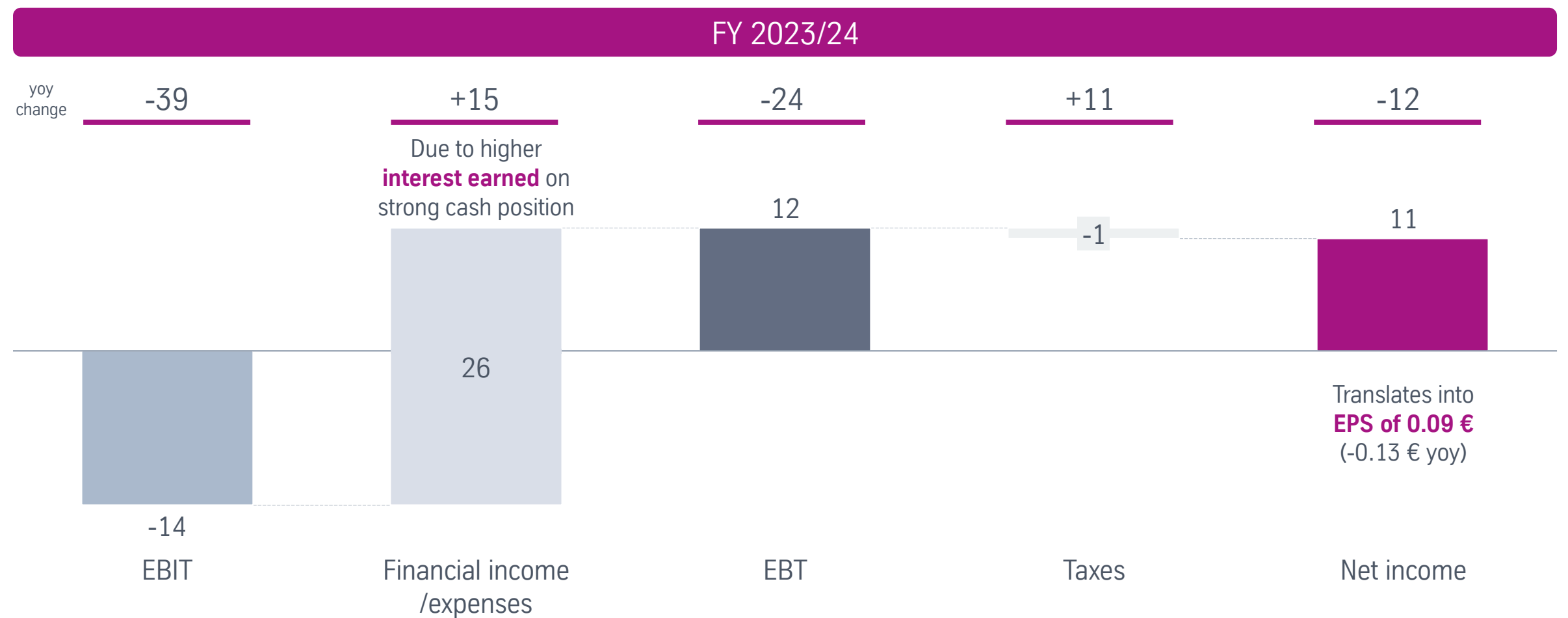
## R&D

- Strong increase in absolute terms (+85% yoy) driven by AWE stack & module development and NCA lab

Further ramp-up will happen in sync with market dynamics!

# Positive EPS despite EBIT loss mainly due to interest on cash position

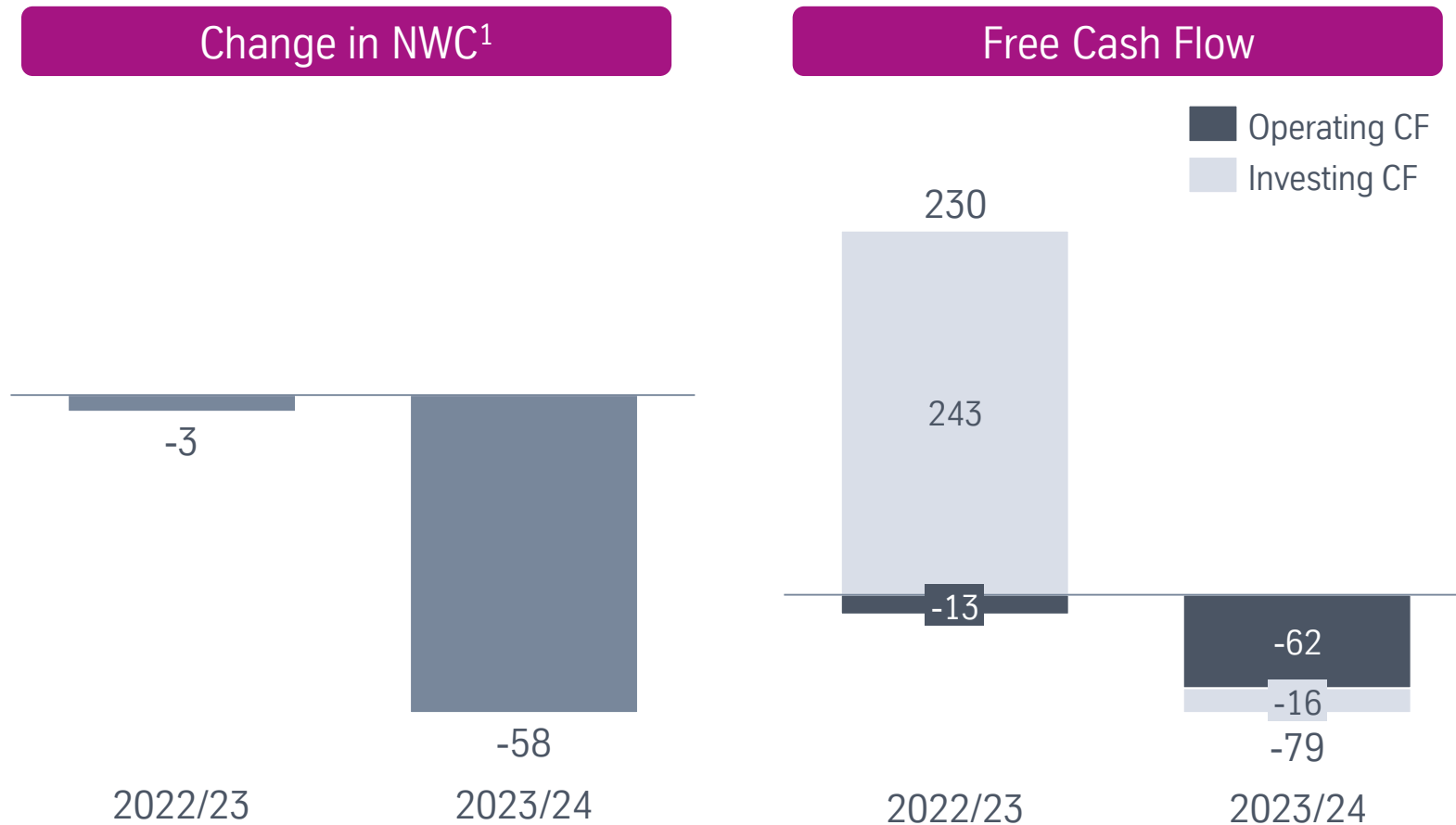
## EBIT to net income (mn €)





# Temporary increase in NWC and negative FCF due to AWE ramp-up

Cash flow (mn €)



## Change in NWC

- Historic negative NWC driven by pre-payments
- Increase in NWC due to business ramp-up, esp. reflected in rising inventories and contract assets

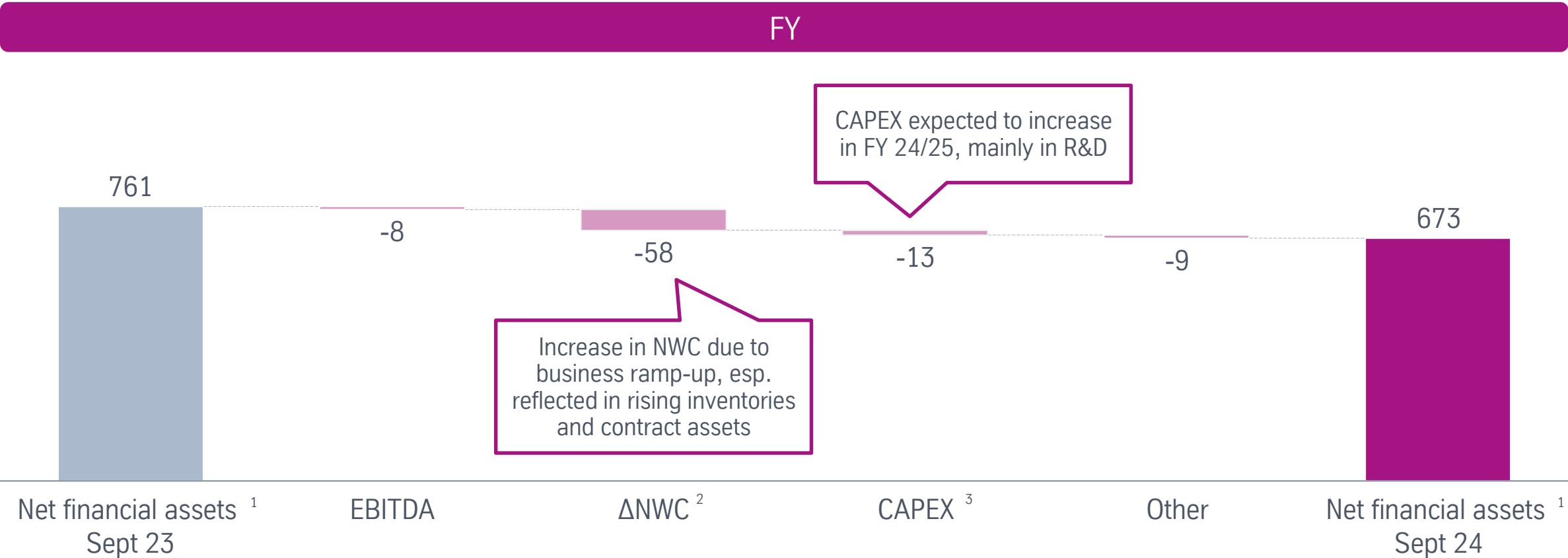
## Free Cash Flow

- Significant positive effect of investing cash flow in prior year resulted from the proceeds from freed-up cash pool deposits
- CAPEX² expected to increase in FY 2024/25, mainly in R&D

1. As per Cash Flow Statement and defined as: Changes in assets and liabilities, inventories, trade accounts receivable, contract assets, trade accounts payable, contract liabilities. 2. As per Cash Flow Statement, excluding non-cash investments.

# Strong balance sheet and cash position sufficient to withstand current headwinds and finance future growth

## Net financial assets development (mn €)



1. Net financial assets are calculated as balance of recognized cash, cash equivalents and time deposits, as well as short-term debt instruments and non-current and current financial liabilities. 2. As per Cash Flow Statement and defined as: Changes in assets and liabilities, inventories, trade accounts receivable, contract assets, trade accounts payable, contract liabilities. 3. As per Cash Flow Statement, excluding non-cash investments.

# Outlook for FY 2024/25 specified; EBIT guidance raised slightly

## Group sales

**850 to 920mn €**

Previously:  
850 to 950mn €

FY 2023/24: 862mn €

## Group EBIT

**-7 to 7mn €**

Previously:  
-30 to 5mn €

FY 2023/24: -14mn €

## gH<sub>2</sub>

**Sales 450 to 510mn €**

FY 2023/24: 524mn €

Previously:  
450 to 550mn €

**EBIT -75 to -55mn €**

FY 2023/24: -76mn €

Previously:  
“...improve yoy to  
a negative mid  
double-digit mn €  
figure”

## CA

**Sales 380 to 420mn €**

FY 2023/24: 338mn €

**EBIT 55 to 75mn €**

FY 2023/24: 62mn €

Previously:  
“Positive mid  
double-digit mn €  
EBIT figure – likely  
below the PY level”

## 4. ESG Program, Ratings and Targets



thyssenkrupp  
**nucera**

# Commitment to Sustainable Development Goals (SDGs)

## A Strategy contributing to SDGs...



### Affordable & clean energy

thyssenkrupp nucera's mission is to advance the widespread adoption of green hydrogen, the only zero carbon fuel



### Decent work & economic growth

Aspiration is to be the employer of choice, generating high-skilled, high quality employment and training opportunities



### Industry, innovation & infrastructure

Through engineering know-how and design of hydrogen production facilities, thyssenkrupp nucera is helping to decarbonize industrial processes



### Sustainable cities and communities

With its electrolyzers, thyssenkrupp nucera is helping to build the future sustainable cities, such as Neom in Saudi-Arabia



### Partnerships for the goals

Thyssenkrupp nucera has positioned itself at the center of global coalitions, such as the Hydrogen Council and H2Global, to scale hydrogen



## ... underpinned by robust sustainability commitments

1 Commitment to calculate and report greenhouse gas emissions

2 Commitment to employee health & safety

3 Commitment to responsible procurement practices

4 Commitment to strong governance standards, including diversity, transparency and accountability



# thyssenkrupp nucera is an active member of several ESG initiatives and networks



thyssenkrupp nucera is an active member in various global and local associations, contributing to topic- and sector-specific initiatives in areas such as chemicals, energy, climate, and environmental protection.



Our most noteworthy affiliations include Hydrogen Europe, Eurochlor, the Hydrogen Council and the German Hydrogen Association.



In 2022, thyssenkrupp nucera joined the United Nations Global Compact (UNGC), committing to uphold its ten principles on human rights, labor rights, environmental protection, and anticorruption. We also pledged to submit an annual progress report detailing our efforts to implement these principles. Furthermore, we participated in the UN Global Compact's six-month Business & Human Rights Accelerator program.



We have extended our commitment to external initiatives by signing the Diversity Charter and committing to the UN Standards of Conduct for Business against discrimination of LGBTI.

# Current ESG ratings




|  |                    |       |           |          |            |                   |     |     |   | Rating                            |
|--|--------------------|-------|-----------|----------|------------|-------------------|-----|-----|---|-----------------------------------|
| MSCI ESG                                     | CCC                | B     | BB        | BBB      | A          | AA                | AAA | Top |   | BBB                               |
| *ISS ESG Quality<br>(preliminary assessment) | 10                 | 9     | 8         | 7        | 6          | 5                 | 4   | 3   | 2 | 1                                 |
|  | High concern level |       |           |          |            | Low concern level |     |     |   |                                   |
| Sustainalytics                               | Severe             | High  | Medium    | Low      | Negligible |                   |     |     |   |                                   |
|  | 40+                | 30-40 | 20-30     | 10-20    | 0-10       |                   |     |     |   |                                   |
| EcoVadis                                     | High Risk          | Basic | Confirmed | Advanced | Best       |                   |     |     |   |                                   |
|  | 0-24               | 25-44 | 45-64     | 65-84    | 85-100     |                   |     |     |   |                                   |
| CDP Climate                                  | F                  | D-    | D         | C-       | C          | B-                | B   | A-  | A |                                   |
|  | Top                |       |           |          |            |                   |     |     |   | Planned disclosure<br>in FY 24/25 |



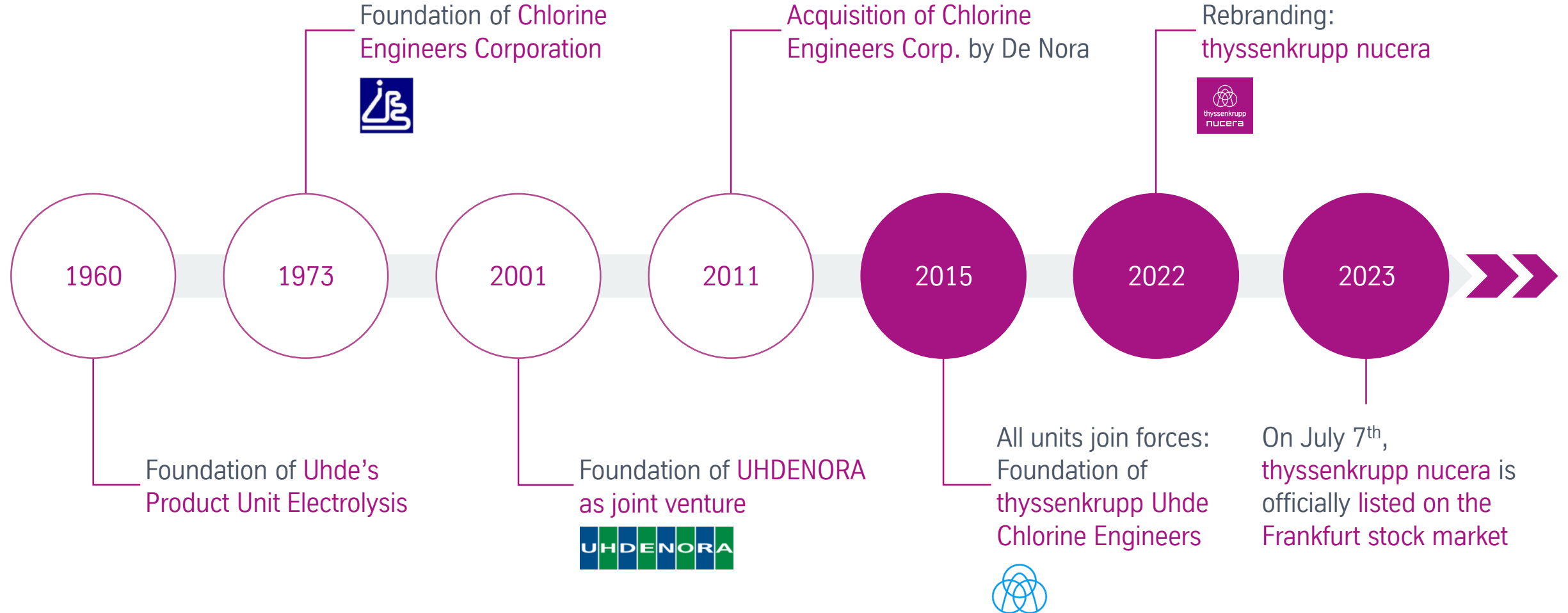
Get more insights on our ESG/Taxonomy efforts [here](#).

\*ISS Quality score – Environment and Social score 3 = top 3% in the capital goods industry, Governance score 5 comparison to practices in the Germanic region (not just direct peers)

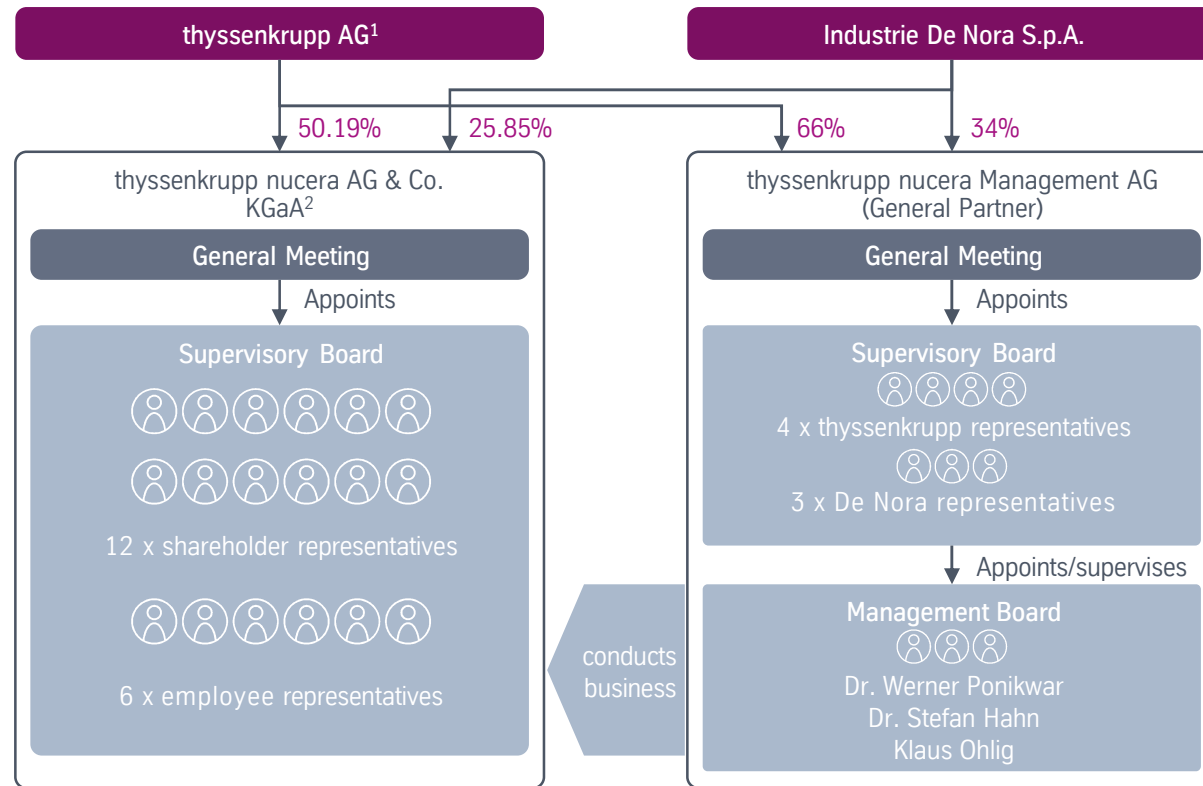
# Selected ESG targets

|   | <br>KPI  | <br>Status FY 23/24  | <br>Target   |
|---|---|---|---|
| Greenhouse Gas Emissions                    | <ul style="list-style-type: none"> <li>Scope 1 emissions [tCO2e<sup>1</sup>]</li> <li>Scope 2 emissions [tCO2e<sup>1</sup>]</li> <li>Scope 3 emissions [tCO2e<sup>1</sup>]</li> </ul> | <ul style="list-style-type: none"> <li>Scope 1: 286 tCO2e<sup>1</sup></li> <li>Scope 2: 561 tCO2e<sup>1</sup></li> <li>Scope 3: 148.10 million tCO2e<sup>1</sup> (up- and downstream<sup>2</sup> in total)</li> </ul> | <ul style="list-style-type: none"> <li>Scope 1+2 net zero<sup>3</sup> by 2030</li> <li>Scope 3 net zero<sup>3</sup> by 2050</li> </ul>                          |
| Sustainability requirements in supply chain | Selected suppliers signed supplier code of conduct [%]  | Selected: 84%   | Selected: 97% by FY 24/25   |
| Diversity, Inclusion, Non-discrimination    | Proportion of women in leading positions [%]  | Proportion: ~17%  | <ul style="list-style-type: none"> <li>25% of management positions in German office with women by 2028</li> <li>Global extension of KPI under review</li> </ul> |

# Where we come from: Bringing together the collective expertise of three renowned global electrolysis leaders



# Overview of the structure and governance of thyssenkrupp nucera AG & Co. KGaA



Legally formed as a **partnership limited by shares** (KGaA) under German law

The **General Partner** of the KGaA is the thyssenkrupp nucera Management AG

The appointment of the **Management Board** members is the responsibility of the Supervisory Board of the General Partner

The Management Board is responsible for conducting business and the **management of the company** in general

Find more information in our [annual report FY 23/24](#); <sup>1</sup> the full chain of subsidiaries can be found in the diagram entitled "Shareholding structure". <sup>2</sup> As a result of a capital increase carried out on July 5, 2023, the total number of shares rose to 126,315,000. Since the IPO on July 7, 2023, a total of 30,262,250 shares, or 23.96% of the shares in thyssenkrupp nucera AG & Co. KGaA, have been held by other shareholders.



# Management Board of thyssenkrupp nucera AG & Co. KGaA

Dr. Werner Ponikwar (CEO)



- CEO since July 2022
- Appointed until 2030
- 20+ years of experience in the chemicals industry
- In his last role, he served as CEO of Linde Hydrogen FuelTech

Dr. Stefan Hahn (CFO)



- CFO since March 2025
- Appointed until 2028
- Held various senior positions in the thyssenkrupp Group, most recently as interim CFO for thyssenkrupp Polysius, and he was involved in nucera's IPO process

Klaus Ohlig (CTO)



- CTO since July 2025
- Appointed until 2028
- Held senior leadership roles at Linde AG, notably as Executive Director Research & Development at Linde Engineering

# 5. Capital Market



thyssenkrupp  
**nucera**

# Information about our shareholder structure

## Information on the free float (as of June 2025)



Largest  
institutional  
shareholders

The 20 largest institutional investors represent around 57% of free float<sup>1</sup>.



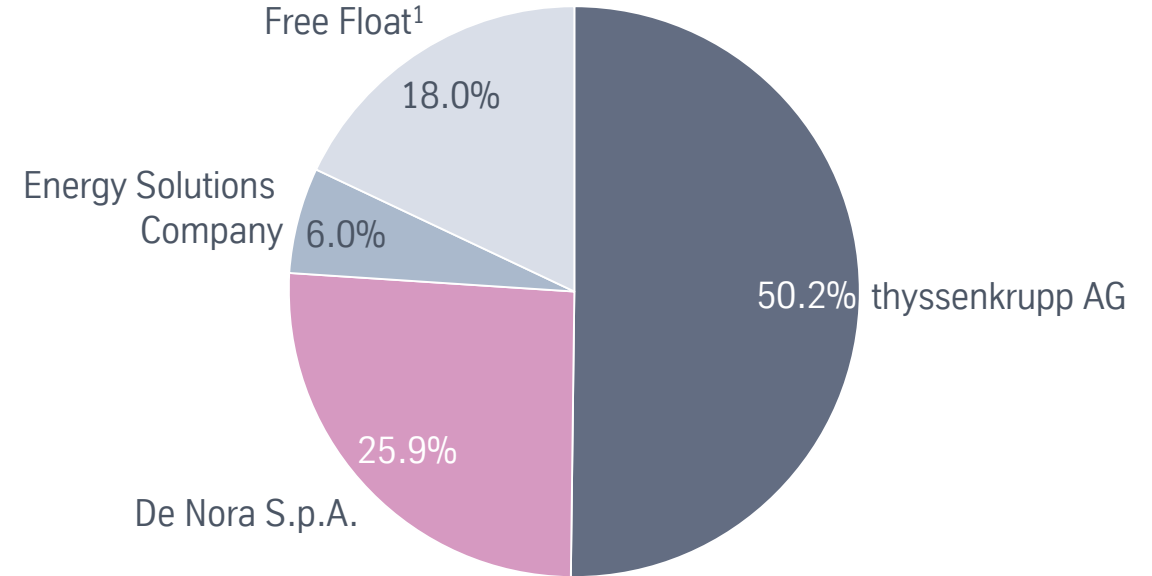
Geographical  
distribution

The largest share of institutional investors is from Switzerland, followed by Malaysia, Norway, the US and UK.

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| ISIN                                  | DE000NCA0001                      |
| German Securities Code (WKN)          | NCA000                            |
| Ticker symbol                         | NCH2                              |
| Number of shares outstanding          | 126,315,000                       |
| Market segment                        | Regulated market (Prime Standard) |
| Stock exchange                        | Frankfurt Stock Exchange          |
| Stock market segment                  | SDAX                              |
| Capital stock in EUR                  | 126,315,000                       |
| Primary listing (Initial offer price) | July 7, 2023 (20 € per share)     |



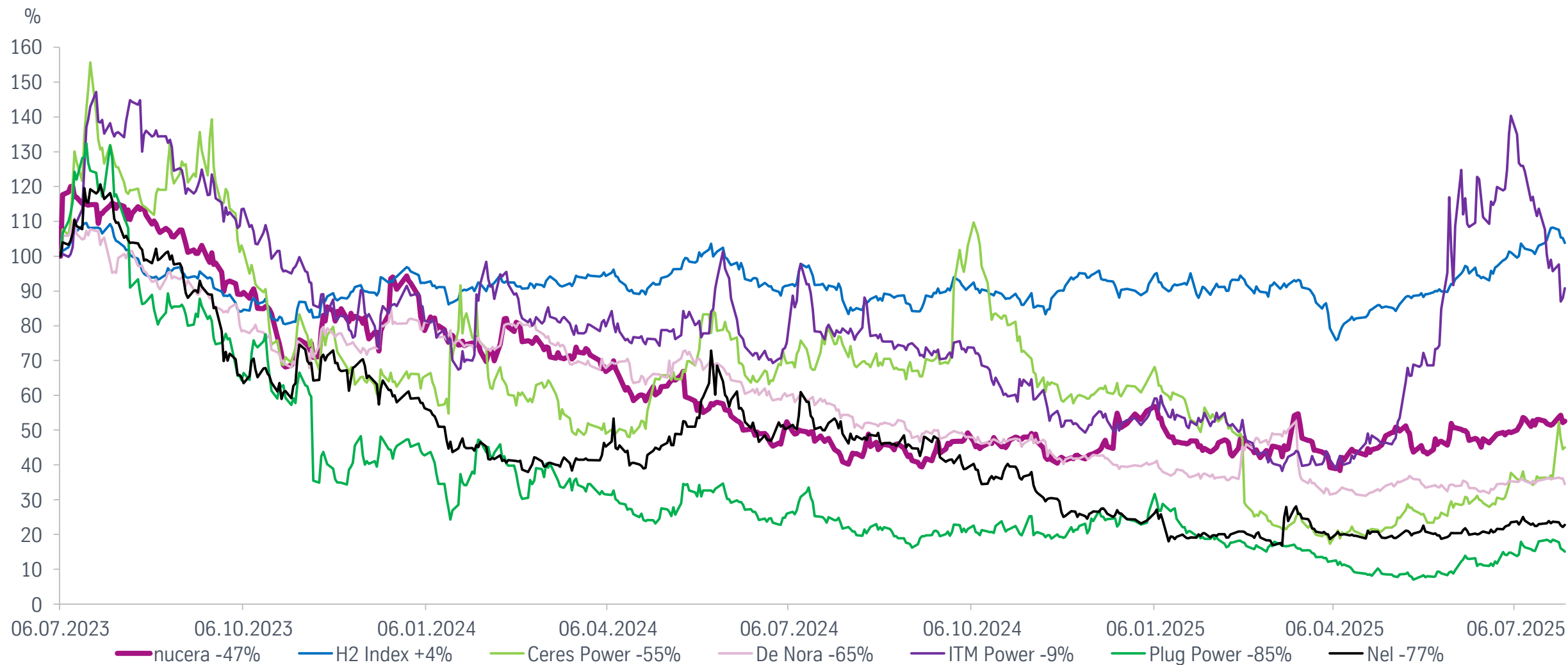
## Shareholder structure based on voting rights



The voting rights notifications of the named shareholders can be found [here](#).

<sup>1</sup> Free Float as defined by Deutsche Börse (German Stock Exchange), see also <https://www.boerse-frankfurt.de/equity/thyssenkrupp-nucera-o-n/company-details>.

# Share price performance since the IPO in a tough market environment



As of July 31, 2025. Indexed; thyssenkrupp nucera performance starts with 20 € initial offer price as closing price on July 6, 2023.  
Top components of the Solactive H2 Economy Index (NTR): (1) Bloom Energy, (2) Siemens Energy, (3) Plug Power, (4) Ballard Power Systems, (5) Johnson Matthey.

# Strong balance sheet sufficient to withstand current headwinds and finance future growth

## Capital allocation

Automation and serial fabrication  
to increase production efficiency and speed

Strengthen and widen supply chain  
to foster planned increase in capacity

Technology development  
to enhance leading position in green hydrogen

Maintain strong cash balance  
to meet business partner requirements

## Dividend Policy



thyssenkrupp nucera intends to **retain future profits to finance further growth** and does not plan to declare or distribute cash dividends in the foreseeable future.



# thyssenkrupp nucera is actively covered by 12 analysts

| Broker           | Analyst                 | Recommendation | Target price (€) | Latest update |
|------------------|-------------------------|----------------|------------------|---------------|
| Berenberg        | James Carmichael        | Hold           | 10.00            | 8/22/2025     |
| Citi             | Martin Wilkie           | Buy            | 17.00            | 5/7/2025      |
| Deutsche Bank    | Michael Kuhn            | Buy            | 12.00            | 5/16/2025     |
| Goldman Sachs    | Michele della Vigna     | Sell           | 8.70             | 6/30/2025     |
| Intesa           | Marco Cristofori        | Sell           | 8.80             | 5/16/2025     |
| Kepler Cheuvreux | Kevin Roger             | Buy            | 14.50            | 5/19/2025     |
| Metzler          | Guido Hoymann           | Hold           | 9.30             | 12/17/2024    |
| mwb research     | Leon Mühlenbruch        | Buy            | 12.00            | 5/15/2025     |
| ODDO BHF         | Klaus Ringel            | Buy            | 11.00            | 8/13/2025     |
| Bank Pekao       | Damian Szparaga         | Buy            | 13.00            | 10/28/2024    |
| Redburn          | Skye Landon             | Buy            | 15.50            | 1/10/2025     |
| Santander        | Virginia Sanz de Madrid | Sell           | 10.00            | 7/31/2024     |

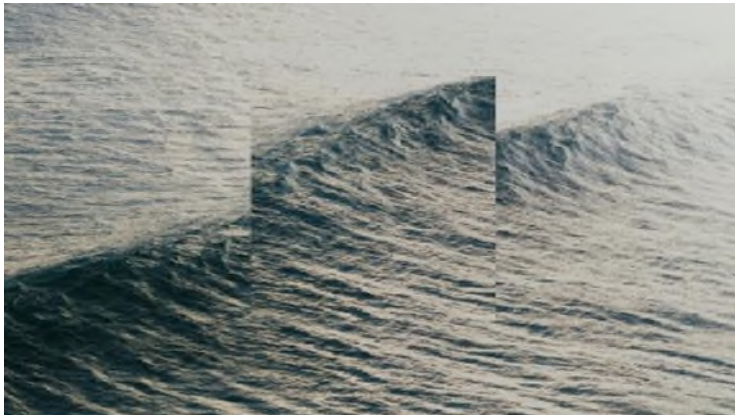
As of August 22, 2025.  
All details on the current analyst consensus can be found via this [link](#).

# Reasons to invest



- 1 Technology leader in industrial scale electrolysis
- 2 Strong project execution and industry-leading project pipeline
- 3 Well positioned to manage current sector challenges and capture the growth opportunities
- 4 Green hydrogen as a key driver towards decarbonization
- 5 Strong balance sheet to finance future growth

# Events & Financial Calendar



## Upcoming events

- Aug 27     Hamburger Investorentage – HIT (Hamburg)
- Sept 2     Roadshow (Switzerland)
- Sept 3     Danske Bank CFO Fireside Chat (Virtual)
- Sept 4     Commerzbank & ODDO BHF Corporate Conference (Frankfurt)
- Sept 4     RBC Global Energy Back-to-School Series (Virtual)

- Sept 23     Berenberg and Goldman Sachs German Corp. Conf. (Munich)
- Sept 24     Baader Investment Conference (Munich)
- Oct 1       Kepler Cheuvreux - Energy Services & Transition Enablers Conference (London)

## Financial calendar

- Dec 17     Q4/FY 2024/25

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