

DE NORA



► POLITECNICO DI MILANO
► 10TH MAR 2025

► 2025 CFA INSTITUTE RESEARCH CHALLENGE

DE NORA: THE LEADING GLOBAL SUPPLIER OF ELECTRODES



ELECTRODE TECHNOLOGIES



WATER TECHNOLOGIES



GREEN HYDROGEN



DE NORA: THE LEADING GLOBAL SUPPLIER OF ELECTRODES



GREEN HYDROGEN





CURRENT PRICE

€9.37

03/10/2025

BUY

DE NORA

TARGET PRICE

€10.63

+54% (6th February)
+13% (Current Stock Price)



Ticker: DNR

Market cap: €1,881m

Sales 2024: €863m

TTM: -35%

GREEN HYDROGEN DEBUTE

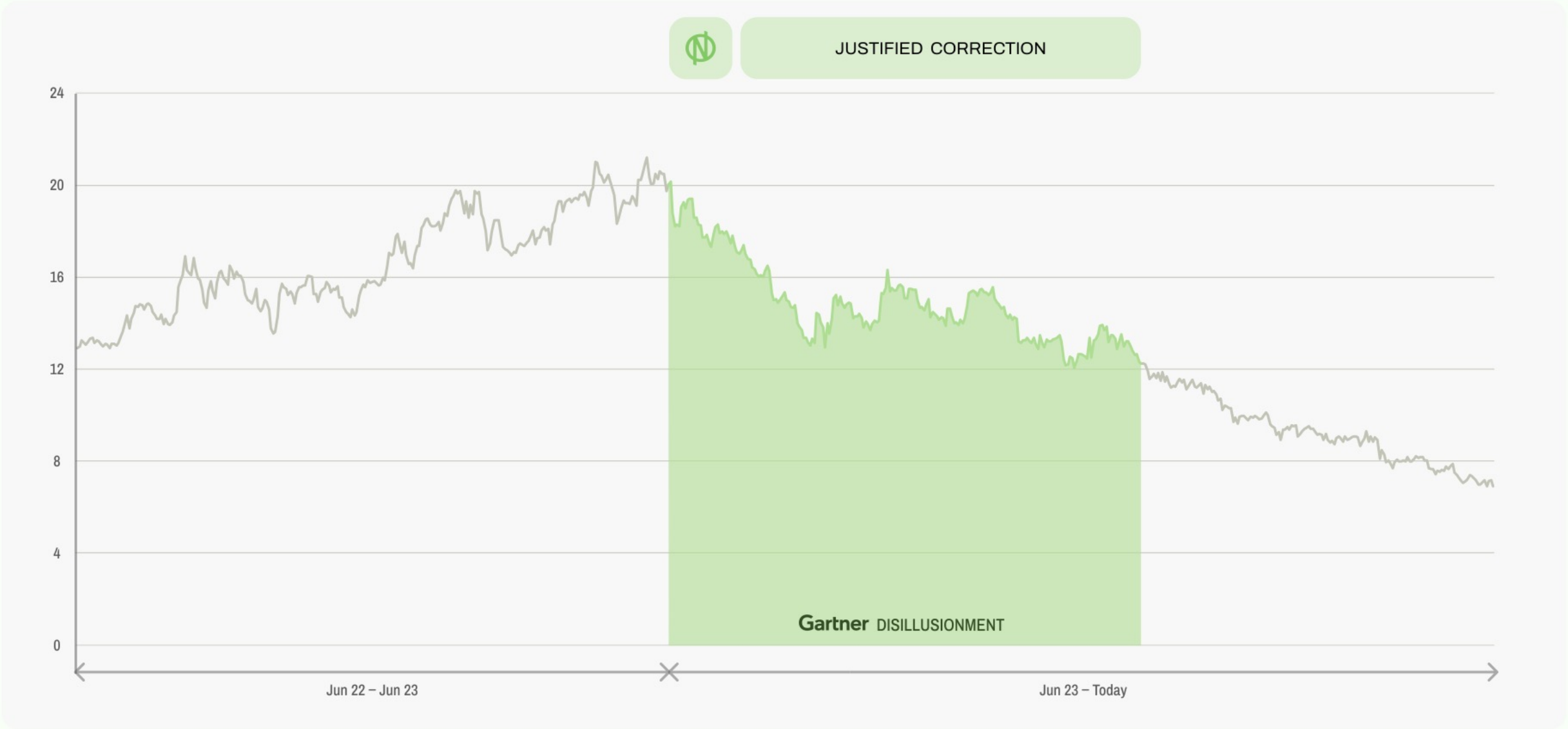


 FINANCIAL TIMES		21-06-2022 Italy's De Nora sticks with IPO plan as hydrogen rush trumps trading volatility		
			25-09-2022 De Nora, innovation is the engine of business Hydrogen challenge	
	20-07-2022 EU, 1 billion for Italian hydrogen			
	20-07-2022 Green hydrogen, bet in the long term			
		21-06-2022 De Nora's green hydrogen is heading straight for Piazza Affari		

THE MARKET RUSHED TO BUY INTO THAT STORY



HOWEVER THE HYPE AROUND HYDROGEN FADED



REFLECTING THE DOWNTURN OF PURE HYDROGEN PLAYERS



 DE NORA



 ITM
POWER





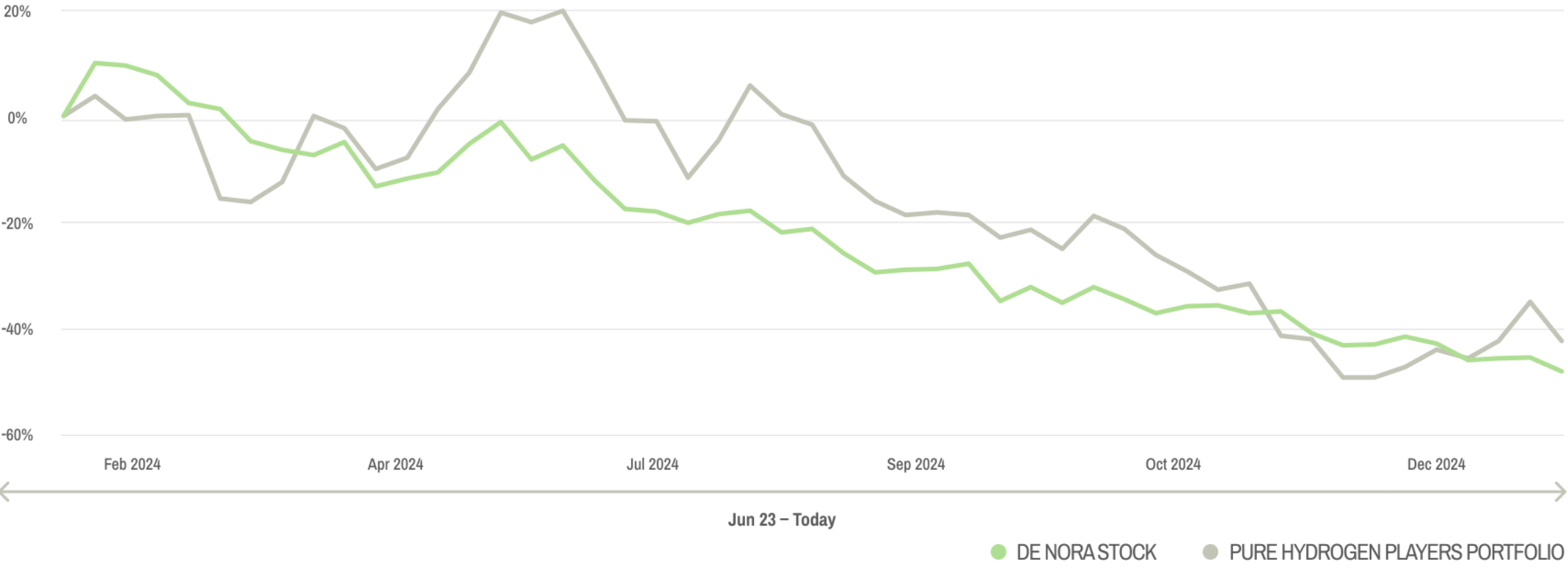
TTM: -54.5%

TTM: -56.2%

TTM: -45.6%

TTM: -55.1%

TTM: -54.9%





AS OF THE DAY OF OUR IoC, THIS WAS THE SCENARIO...

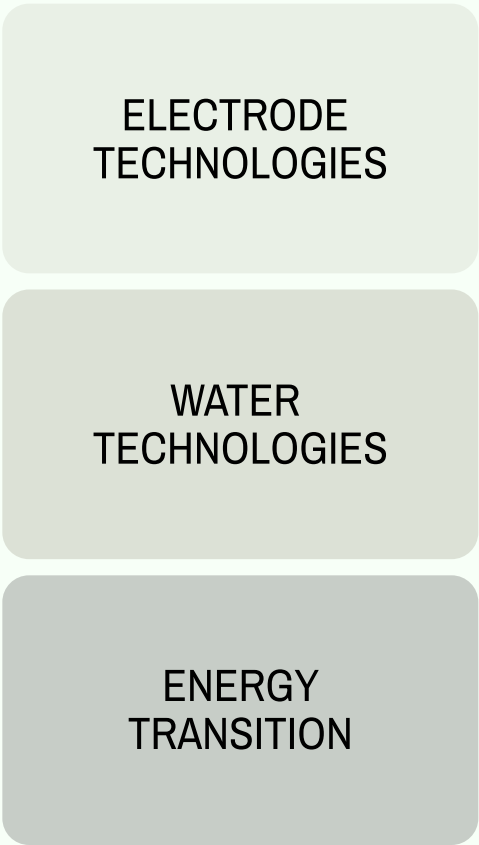
Is this really a **hydrogen-focused company**? If not, was that a **market overreaction**?



OUR PRODUCT-BASED BUSINESS UNITS



Company's Reporting BUs



Our Product-based BUs





OVERVIEW	PILLARS	VALUATIONS	RISKS	ESG
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COMPETITIVE POSITIONING

Chlor-Alkali

Leader: > 50% market share

Electronics

Leader: 50-60% market share

Electrowinning

Leader: 55-65% market share

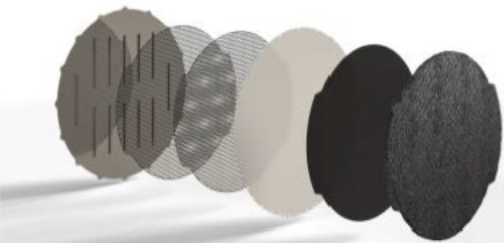
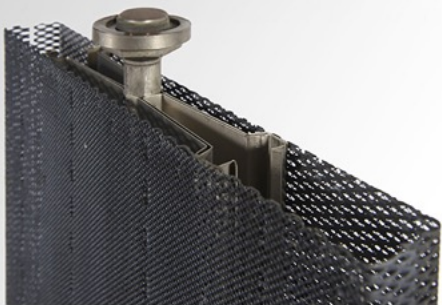
Salted Pools

Leader: > 80% market share

AWE Technology

Leader: emerging market

ELECTRODE SOLUTIONS



PLUG & PLAY SOLUTIONS



OVERVIEW	PILLARS	VALUATIONS	RISKS	ESG
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COMPETITIVE POSITIONING

Electrochlorination

Leader: electrochemical focus

Disinfection & Filtration

Leader: among top 5 players

Small Scale AWE
Electrolizers

Well-positioned:
emerging market

PLUG & PLAY SOLUTIONS





OVERVIEW	PILLARS	VALUATIONS	RISKS	ESG
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thyssenkrupp
nucera

COMPETITIVE POSITIONING

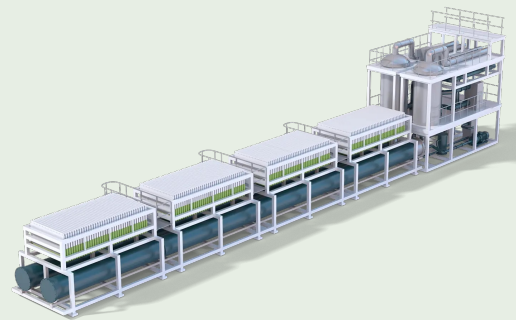
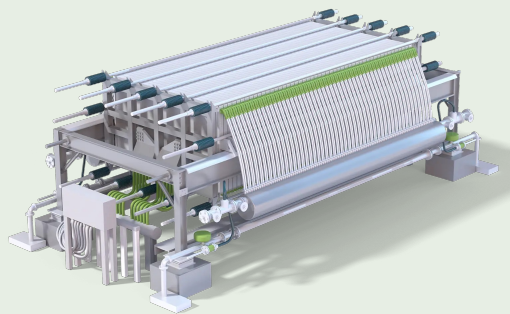
PLUG & PLAY SOLUTIONS

Chlor-Alkali

A world leader in chlor-alkali electrolysis technology: 600+ projects worldwide and 10+ GW installed

Large Scale
AWE Electrolizers

Affirming leadership by securing major projects like 2 GW NEOM in Saudi Arabia, 700+ MW H2 Green Steel in Sweden



0.2

PILLARS



Technological
leadership



Best-in-class margins



OVERVIEW

PILLARS

VALUATIONS

RISKS

ESG



Technological
leadership



Best-in-class margins



Broad
diversification



Multiple trends exposure



Technological
leadership



Best-in-class margins



Broad
diversification



Multiple trends exposure



Cash flow
generation



Financial flexibility



**Technological
leadership**



Best-in-class margins



**Broad
diversification**



Multiple trends exposure



**Cash flow
generation**



Financial flexibility

WHAT SETS DE NORA APART?



Ex-employees

R&D Specialist

“From 1960s hydrogen electrolysis to today’s Gigafactory - decades of R&D drive market leadership.”



Electrochemistry PhD in DNR

“R&D plays a critical role in developing sustainable solutions aligned with global environmental regulations.”



Project Manager

“DNR R&D hiring process is selective, requiring STEM degrees, expertise in digital modeling and regulatory knowledge.”



Senior R&D Specialist

“An R&D department that drives patents, secures competitive edge and licensing potential.”



Undisputable
R&D
dominance



Industry Experts

Partner at ESG Consulting firm

“DNR’s R&D structure is solid: historically stratified, deeply technical, and continuously evolving with top engineering talent”



Principal, Strategy Consulting Firm

“DNR’S R&D structure is deeply embedded in its success, with a historical and well- stratified knowledge base”



Director, Water Treatment Company

“Having an R&D presence presence in Japan is a strategic advantage - Japan is a leader ion hydrogen mobility research”



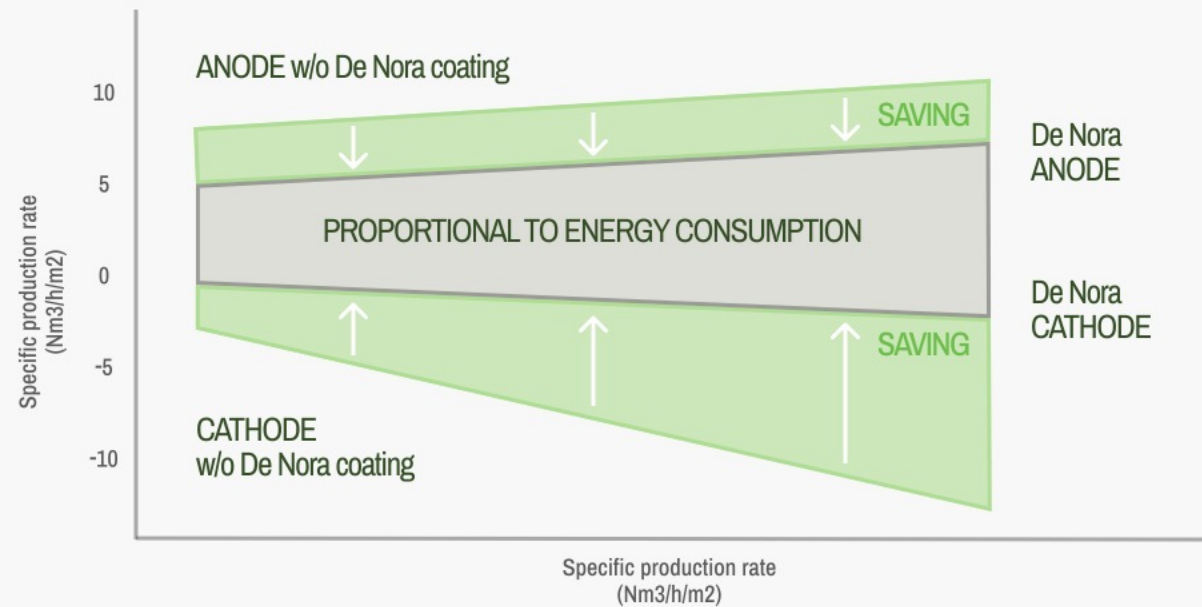
SVP in gH2 Company

“DNR’s R&D equipe covers specialists in electrode formulation and process innovation”

DE NORA'S COMPETITIVE ADVANTAGE



Proprietary Catalytic Coatings



DE NORA'S COMPETITIVE ADVANTAGE

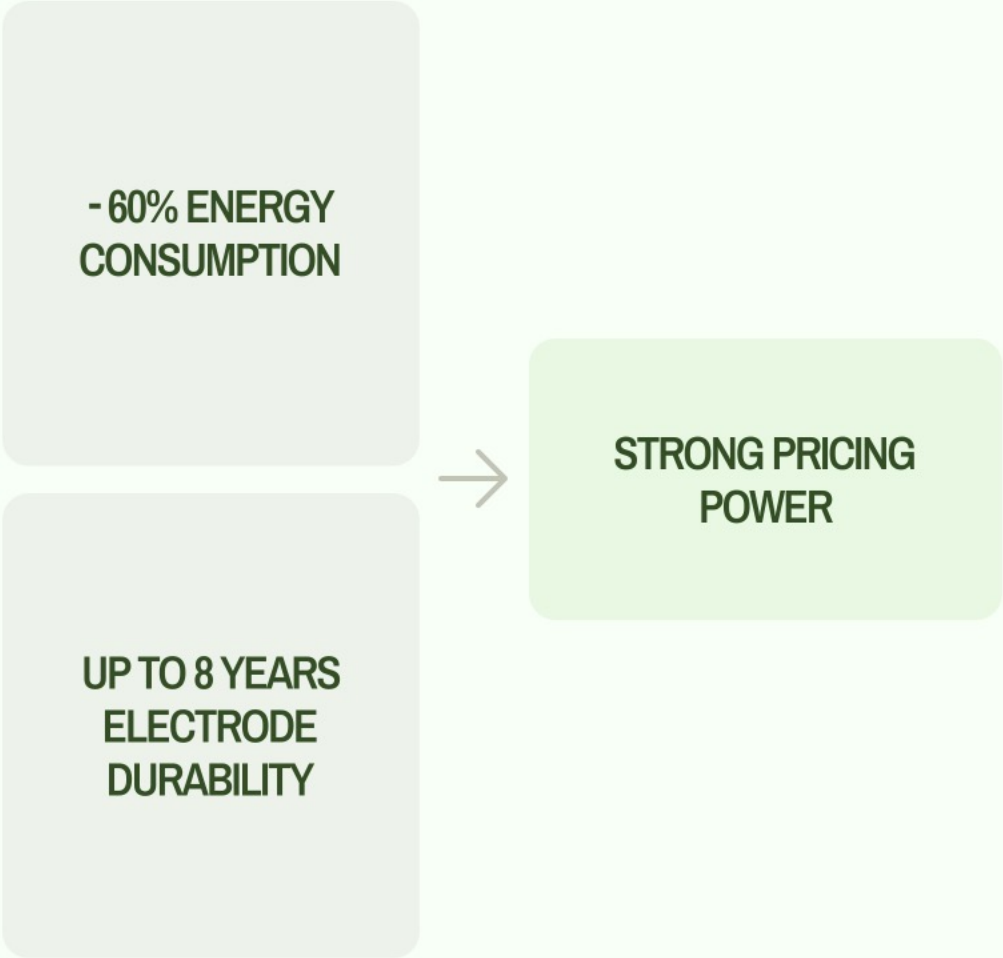
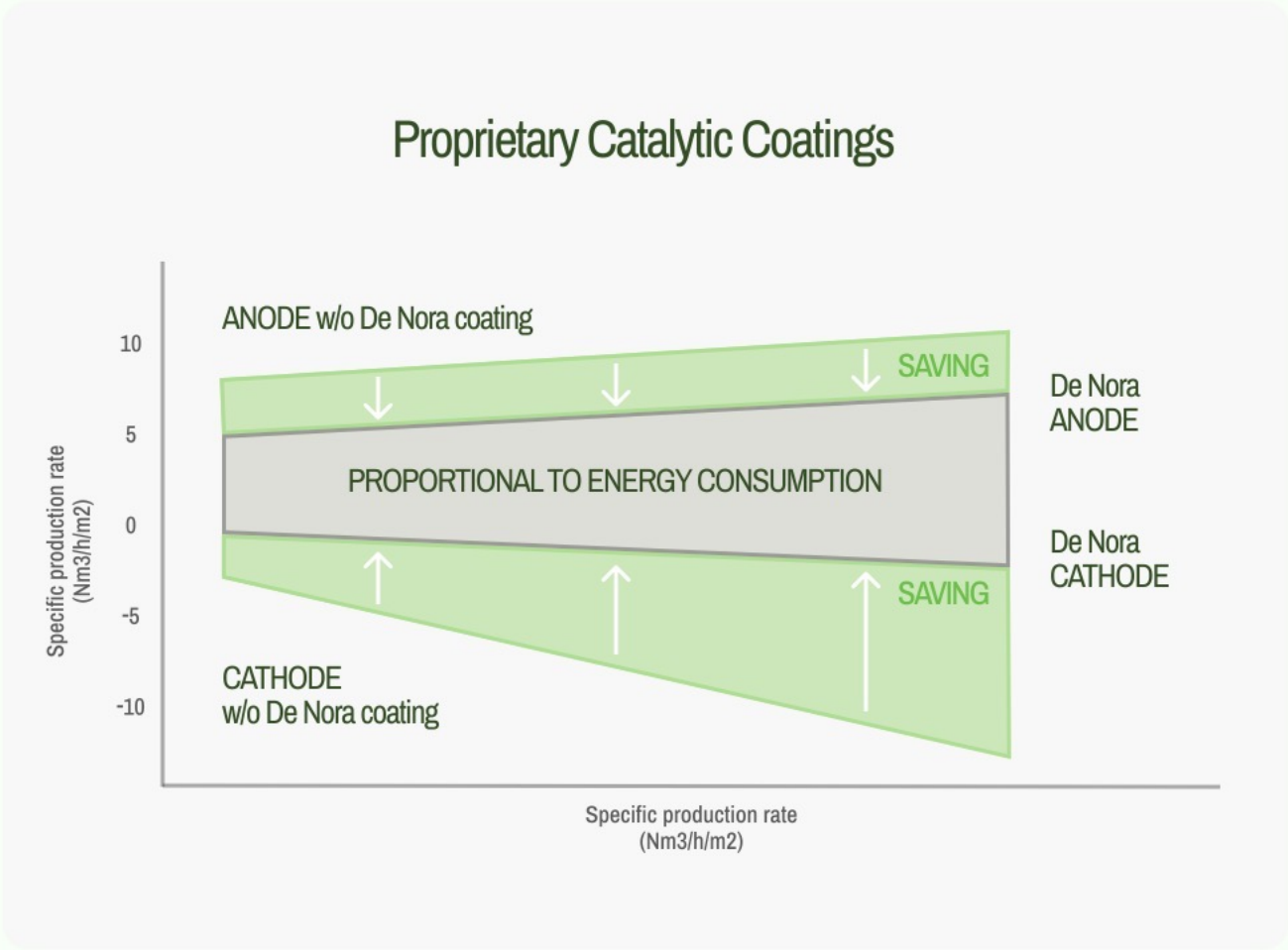


PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

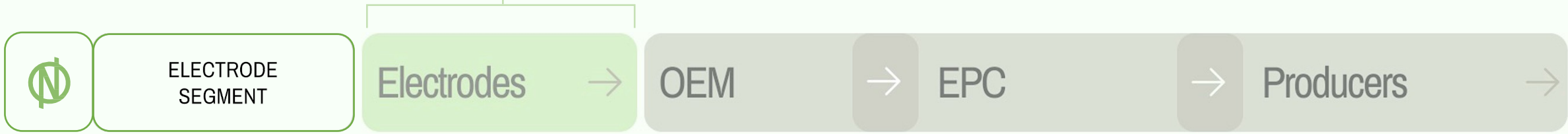
CONSISTENT CASH FLOW



COMPETITOR'S VALUE CHAIN

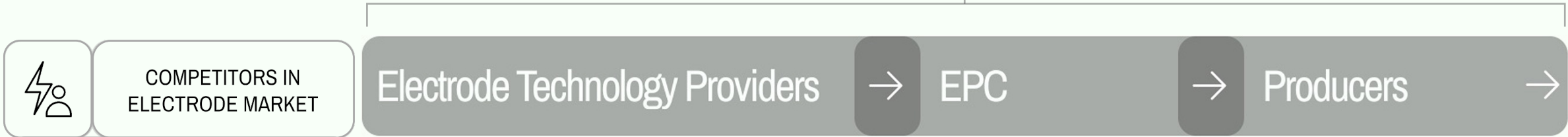


SINGLE STEP



VS

MULTIPLE STEPS



COMPETITORS IN ELECTRODE MARKET

Asahi KASEI PERMASCAND
INEOS umicore
OSAKA SODA

LOWER SPECIALIZATION

WEAKER MARKET REACH

BEST-IN-CLASS MARGINS



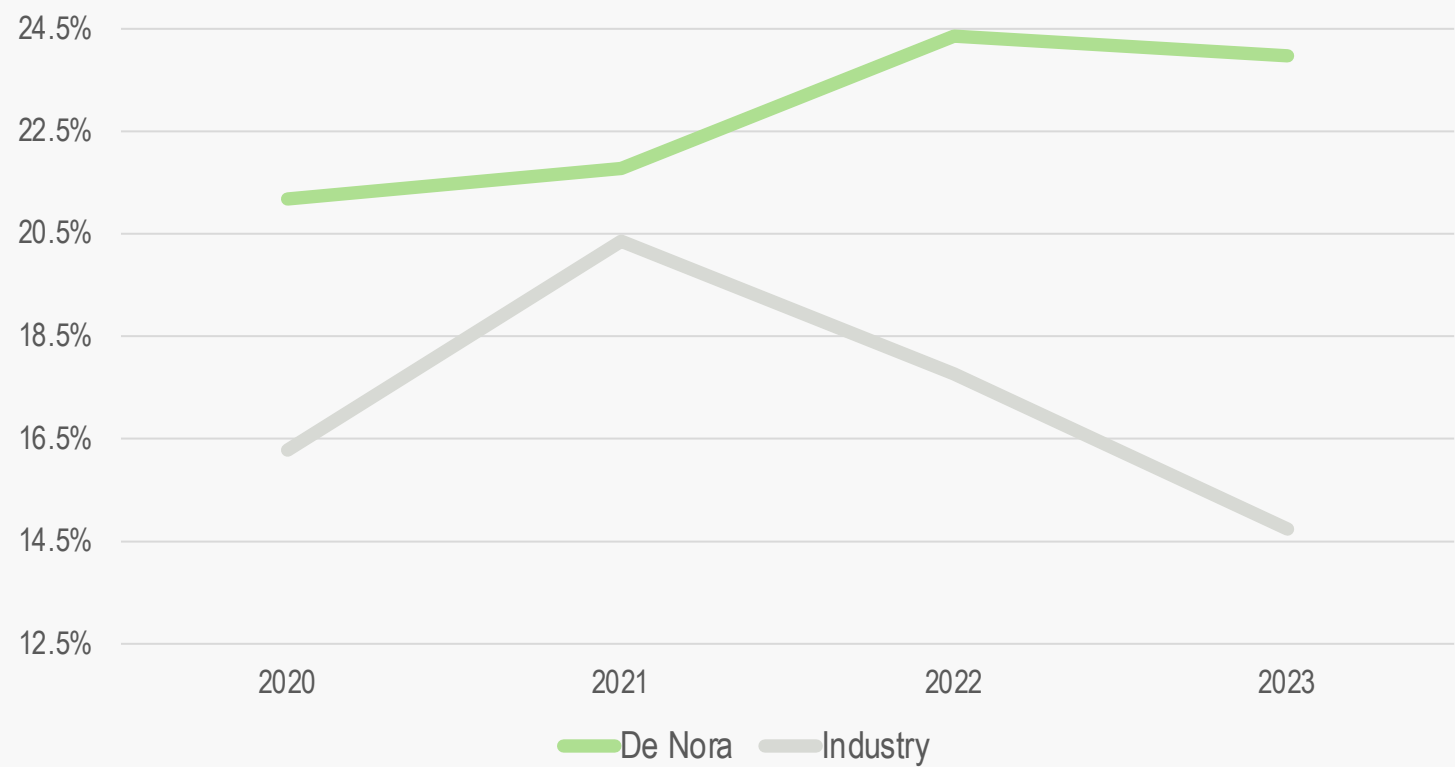
PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW

EBITDAm De Nora vs. Industry



DE NORA

Avg. EBITDA margin
23%

in 2020-2023 in the core
electrode segment

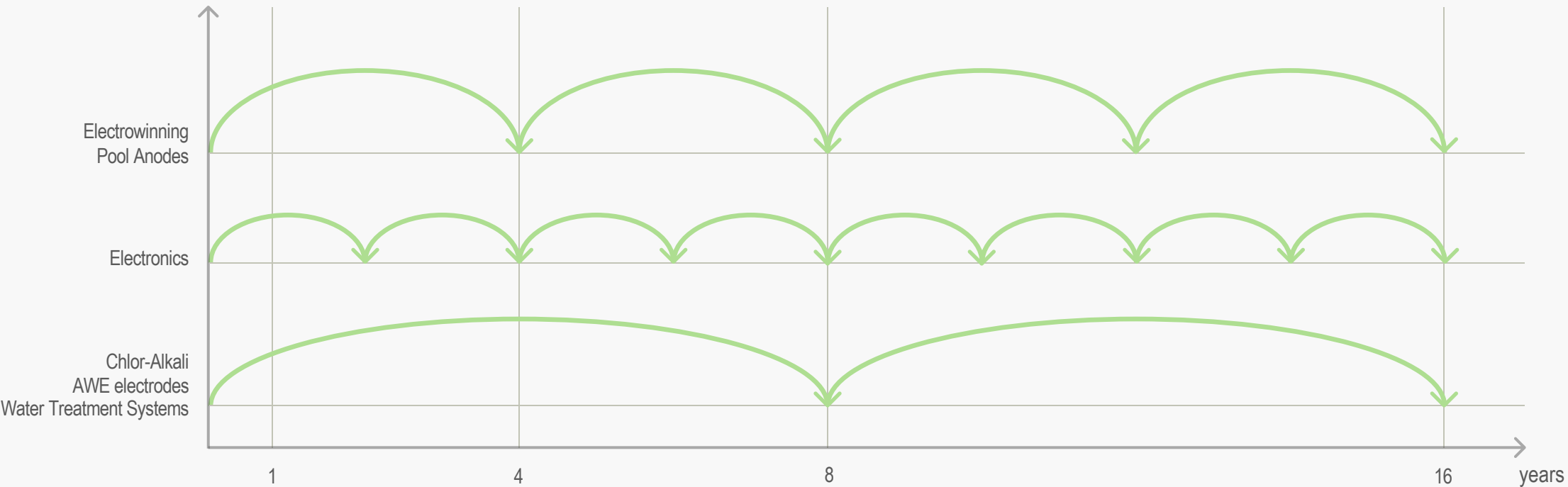
INDUSTRY

Avg. EBITDA margin
17%

in 2020-2023



Illustrative examples of De Nora aftermarket services delivering across the product lifecycle





SECOND PILLAR

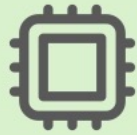


PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW



Technological
leadership



Best-in-class margins



Broad
diversification



Multiple trends exposure



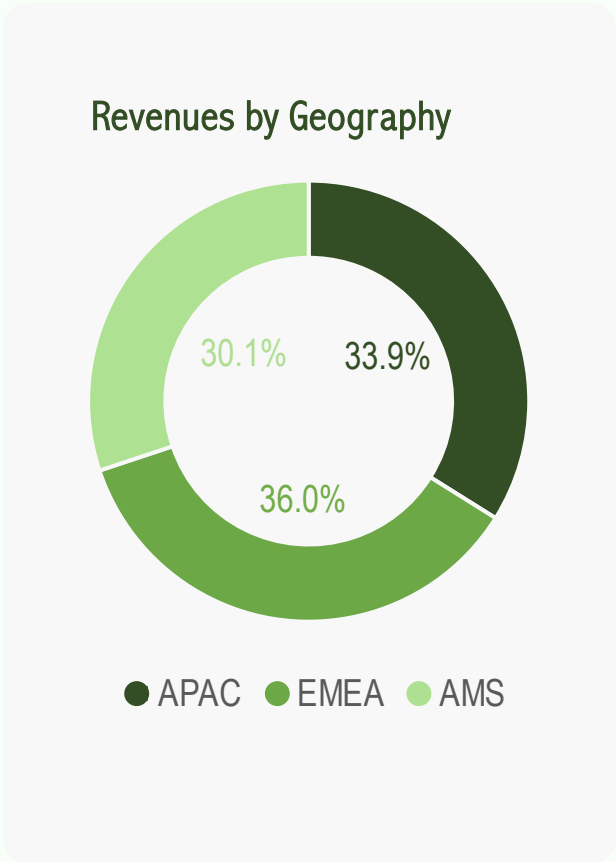
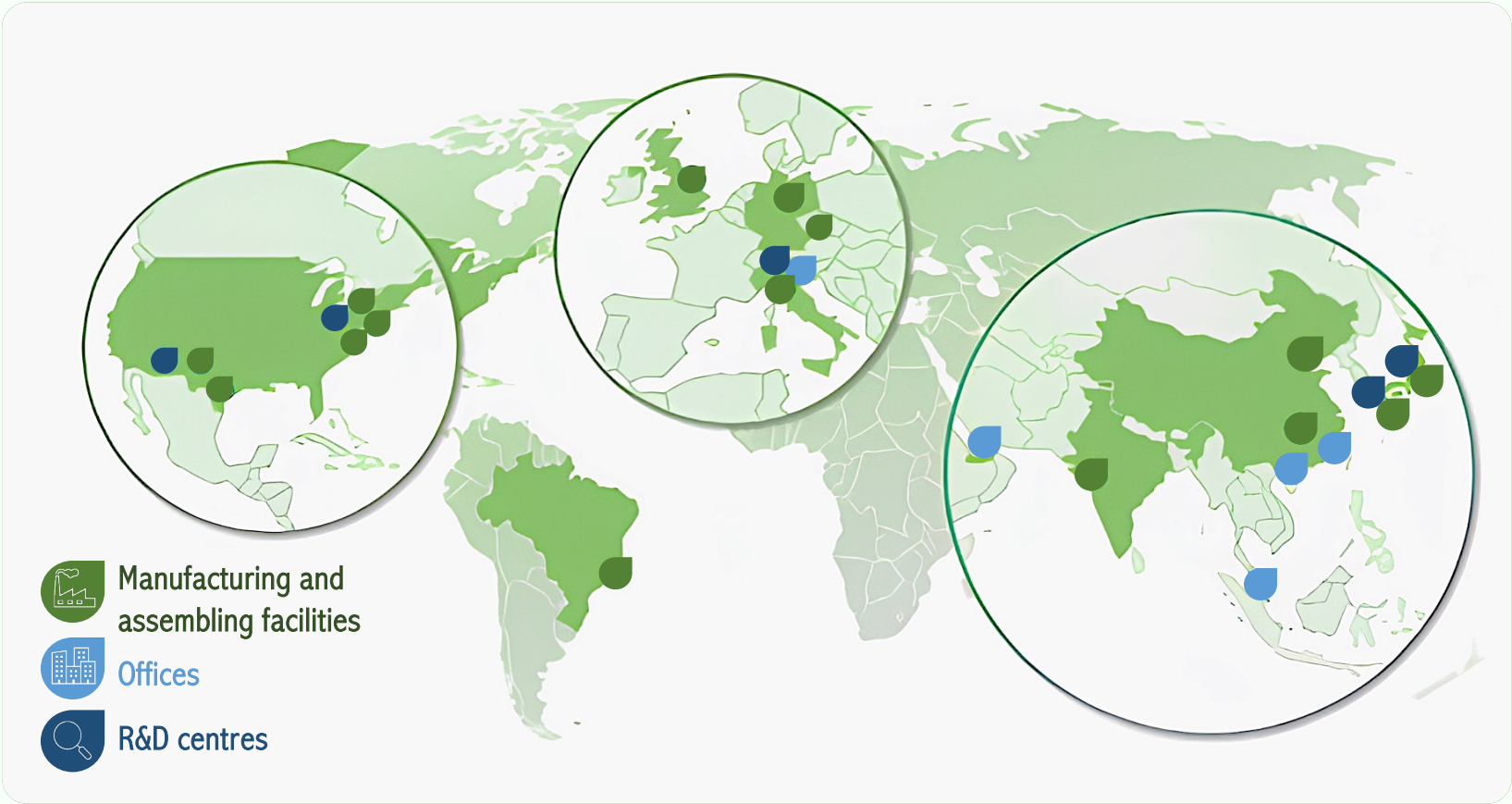
Cash flow
generation



Financial flexibility



State of the art manufacturing footprint to address market opportunity globally



ELECTRODE SOLUTIONS GROWTH TRENDS



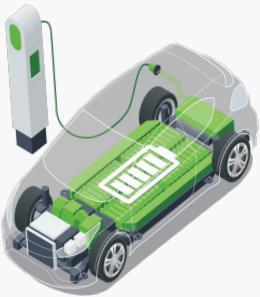
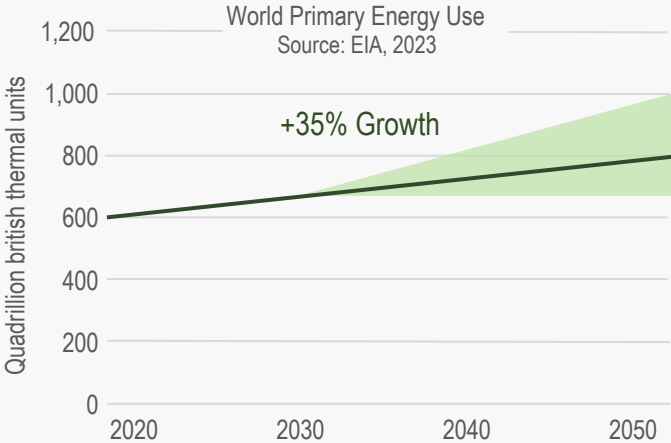
PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW

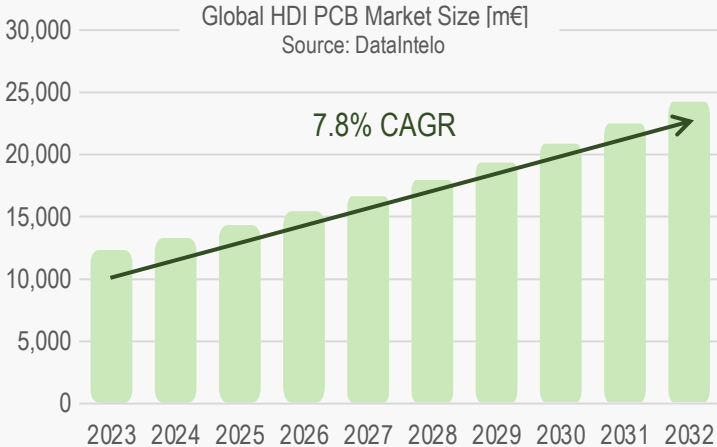
Energy Demand



Demand Drivers

- Lithium batteries manufacturing
- Nickel, copper and cobalt processing
- Urbanization

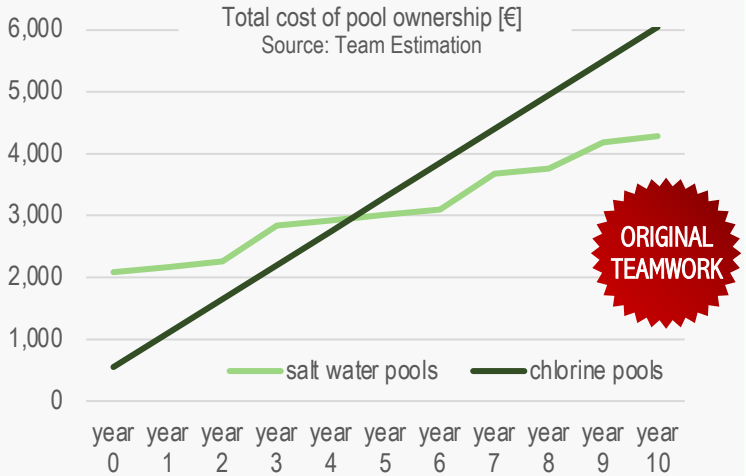
Technological Expansion



Demand Drivers

- Connected vehicles
- Personal digital devices
- Healthcare sector
- AI, machine learning systems
- Communication - 5G

Salted Pools: 8.5% CAGR boosted by lower TCO



Demand Drivers

- Less skin and eyes irritation
- Lower maintenance costs
- No hazardous chemicals
- Sustainable choices

ELECTRODE SOLUTIONS REVENUES

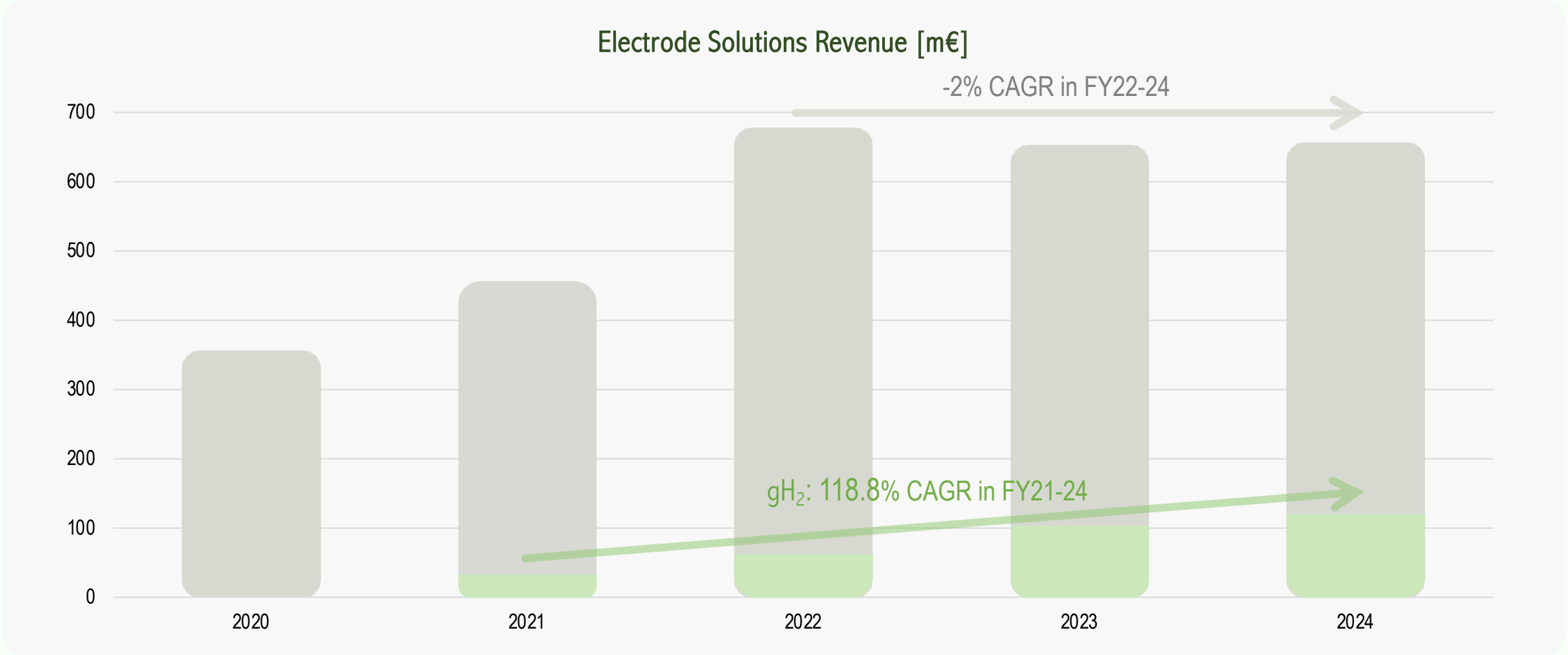


PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW



ELECTRODE SOLUTIONS REVENUES



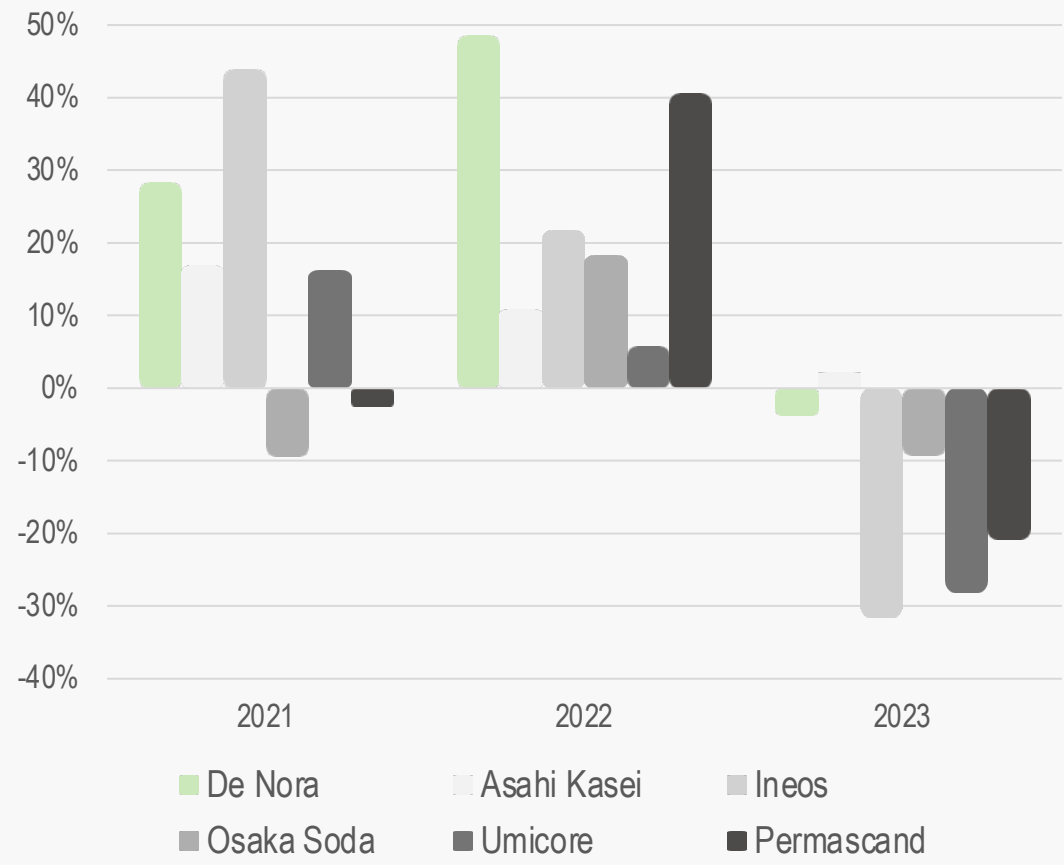
PILLARS

TECHNOLOGICAL LEADERSHIP

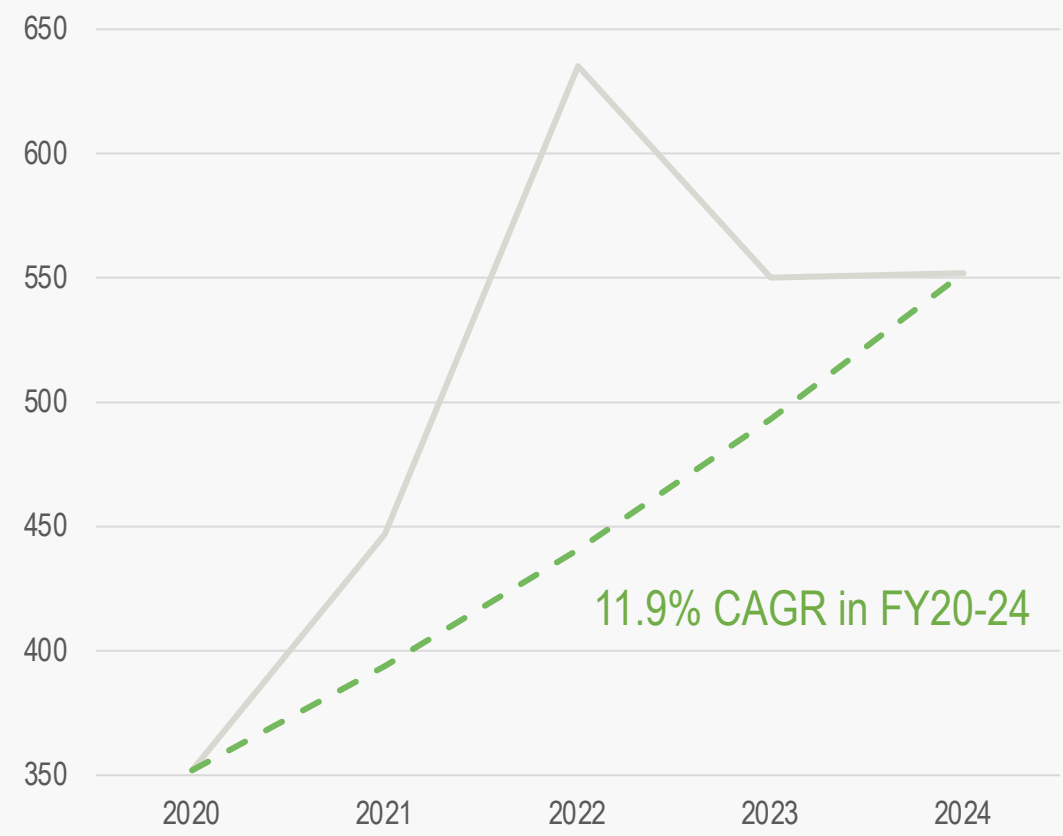
DIVERSIFIED GROWTH

CONSISTENT CASH FLOW

Revenue growth

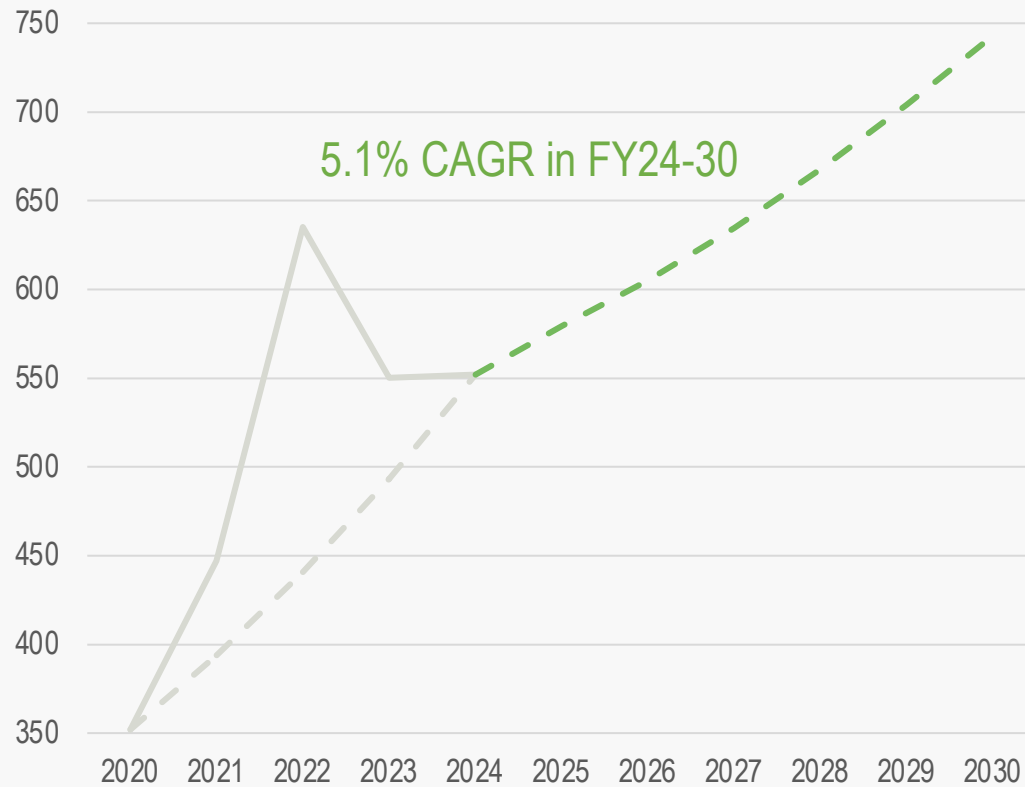


Underlying Revenue Trend - excluding gH₂ [m€]





Underlying Revenue Trend - excluding gH₂ [m€]



AFTER THE LATEST Q4 RESULTS...

The destocking phase is coming to an end, as confirmed by the 0.3% growth of electrode solutions, excluding hydrogen

REBOUND

Starting from 2025, growth of electrode solutions expected to be driven by the aforementioned trends:

- Energy demand
- Technological expansion
- Saltwater pools preference

PLUG & PLAY SOLUTIONS REVENUES

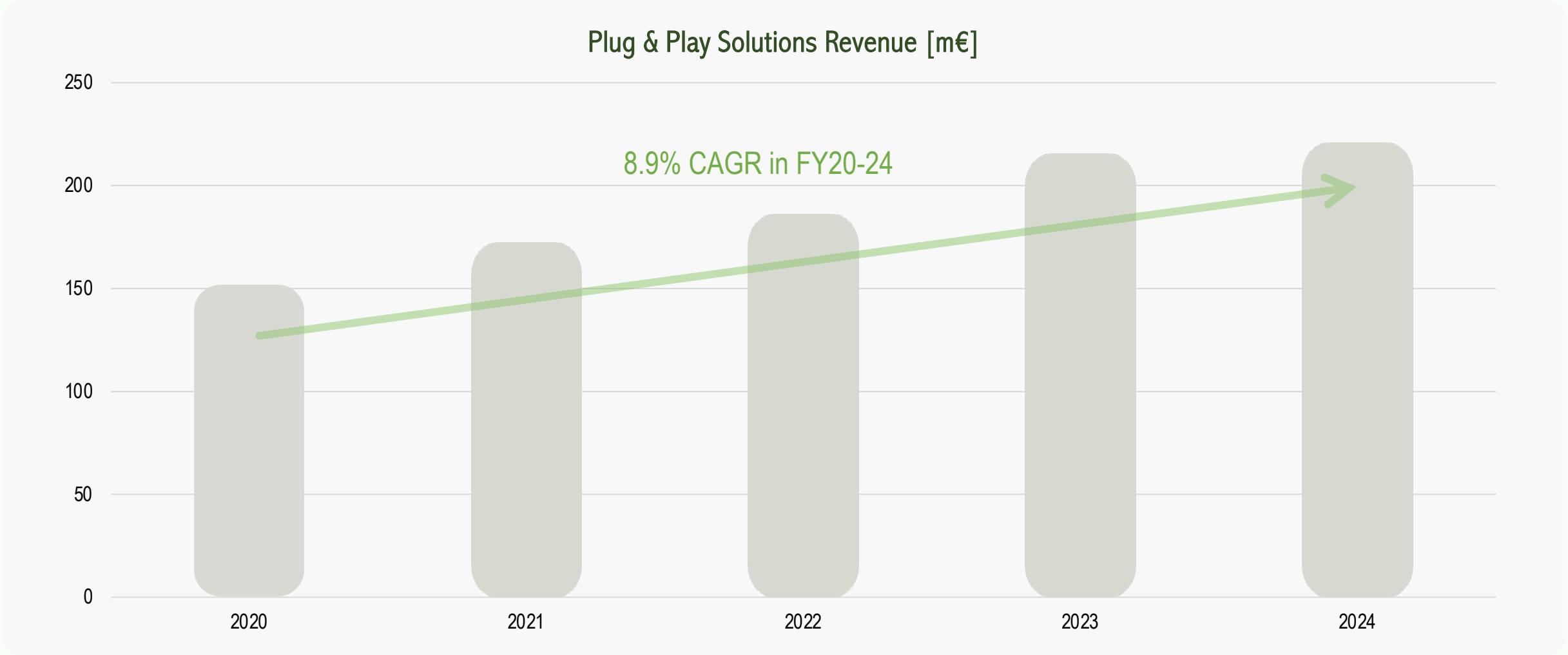


PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW



PLUG & PLAY SOLUTIONS GROWTH TRENDS



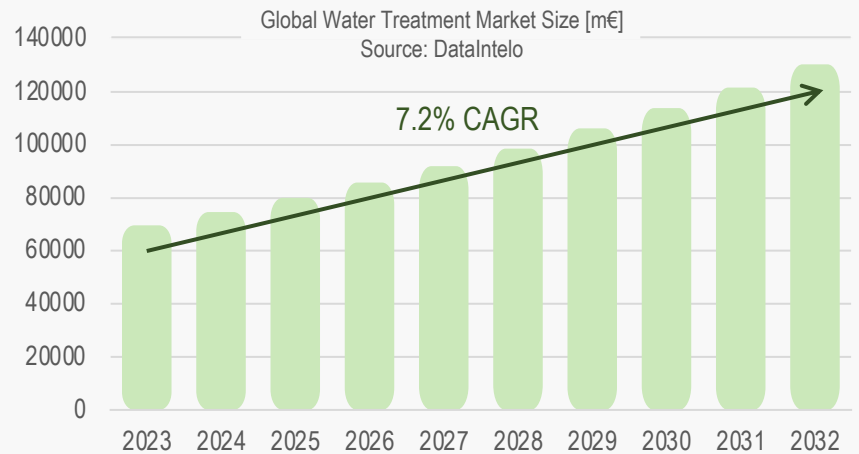
PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW

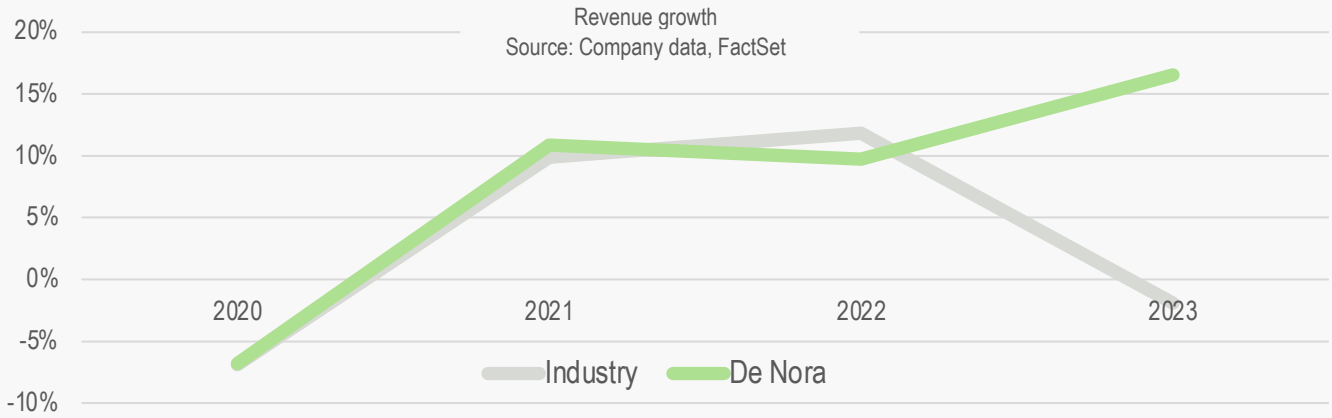
Water Challenges



Demand Drivers

- Water scarcity (desalination)
- Water quality (PFAS contaminants)
- Stricter regulations
- Preference for on-site solutions

De Nora's Position in Water Treatment: Plug & Play Solutions



Industry

Well positioned thanks to:

- Electrochemical expertise
- Strategic partnership with the largest private desalination company (ACWA Power)
- Focus on water-stressed areas
- Development of innovative technologies (PFAS destruction)

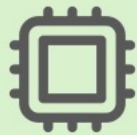


PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW



Technological
leadership



Best-in-class margins



Broad
diversification



Multiple trends exposure



Cash flow
generation



Financial flexibility

NET CASH POSITION

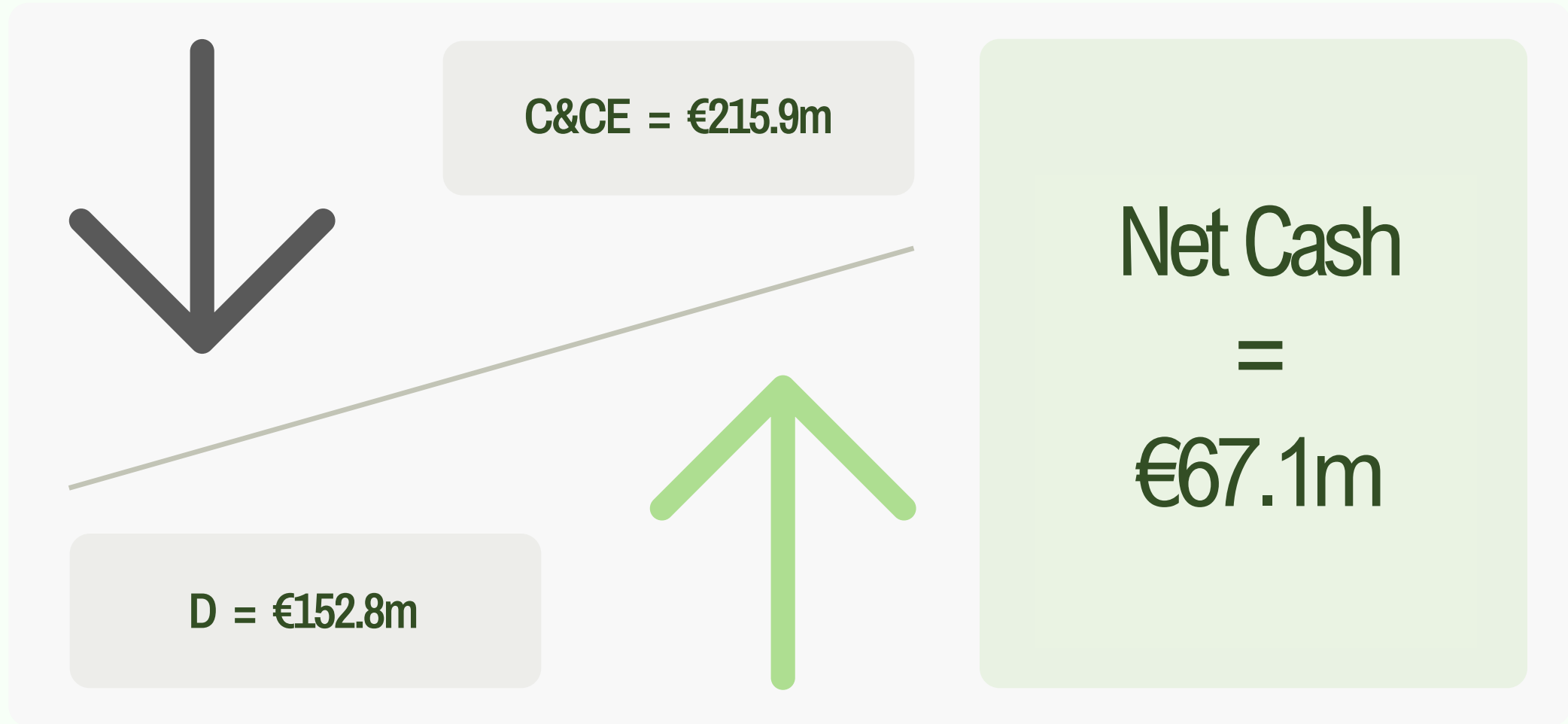


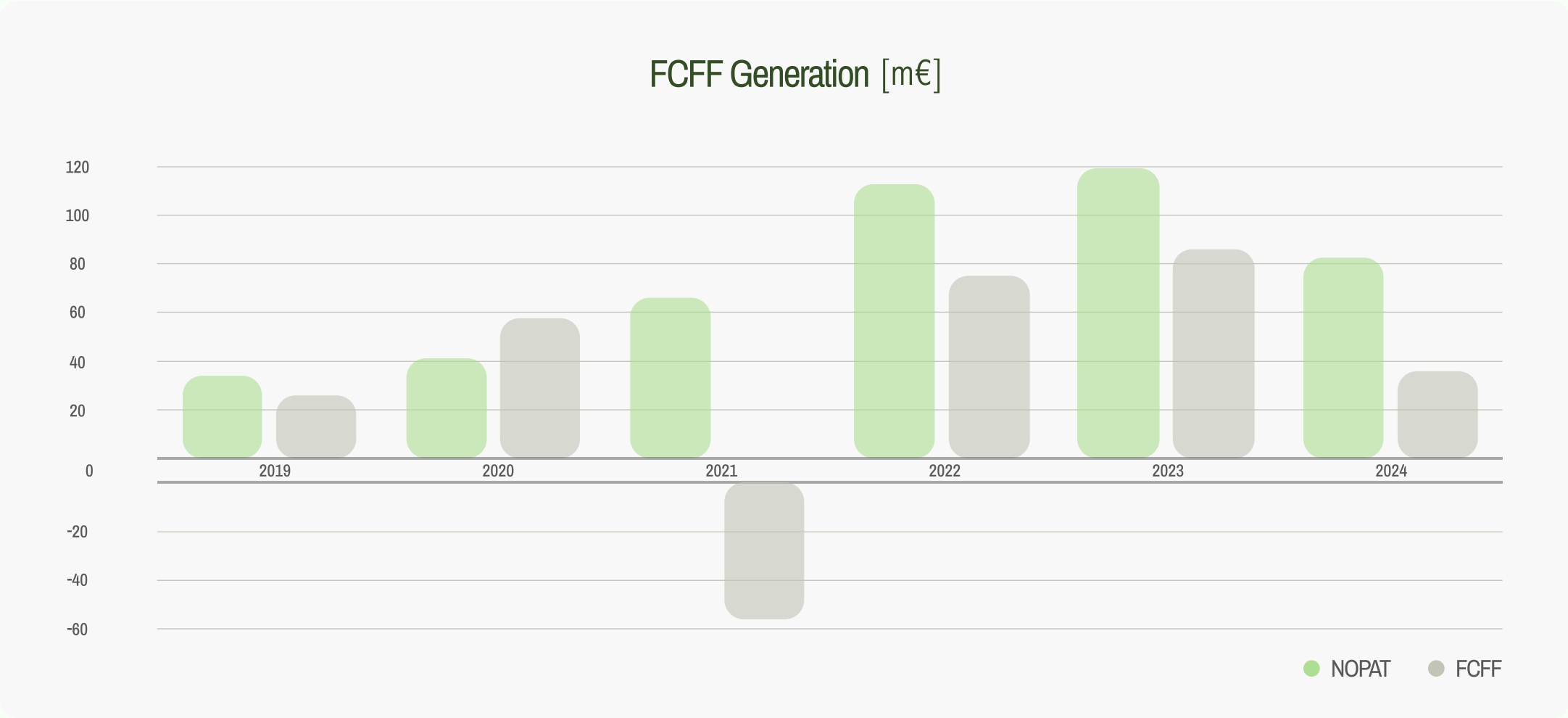
PILLARS

TECHNOLOGICAL LEADERSHIP

DIVERSIFIED GROWTH

CONSISTENT CASH FLOW

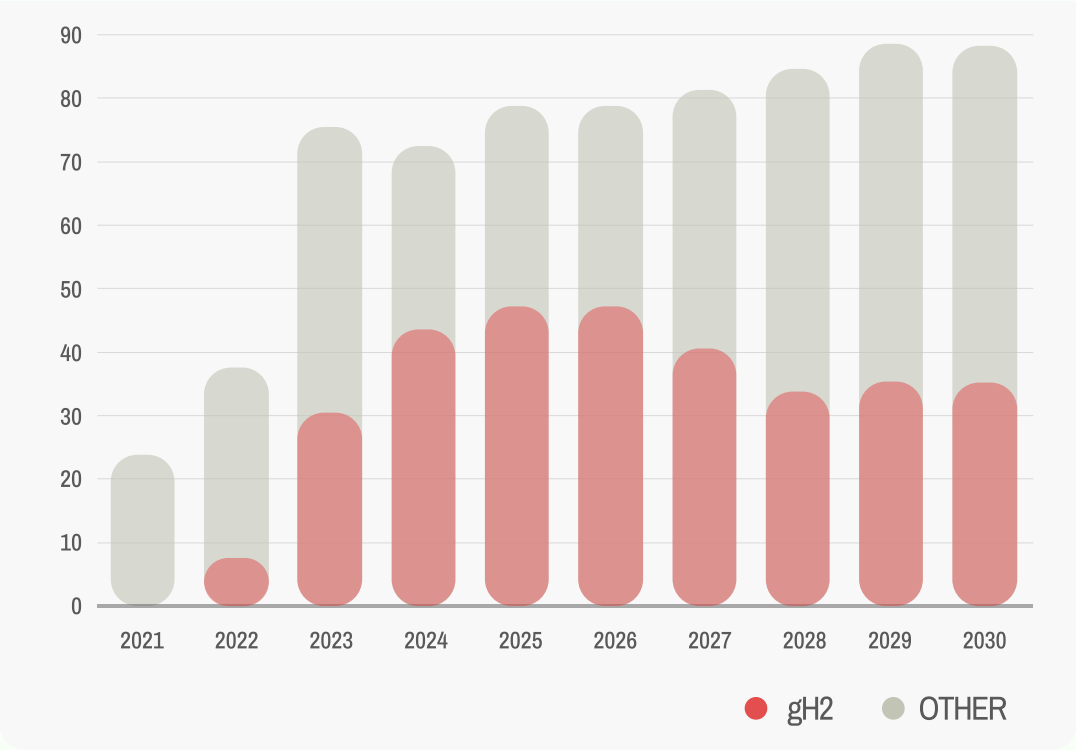




ABOUT CAPEX...



Increasing gH2 CAPEX

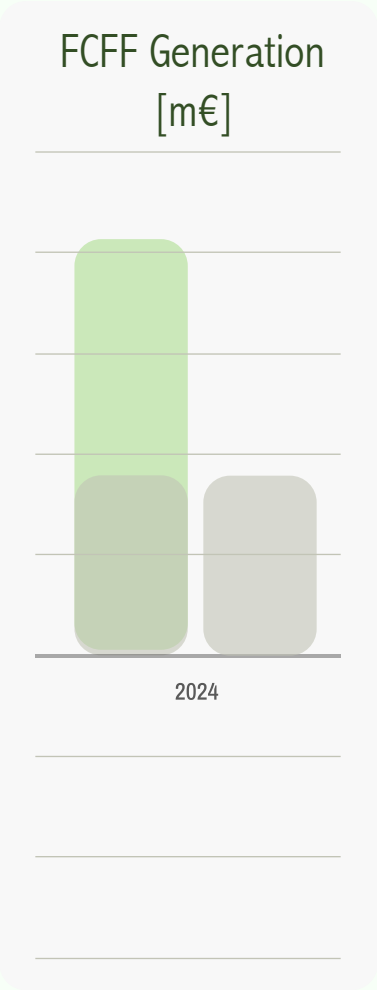


←

gH2 CAPEX

€7.7M IN 2022

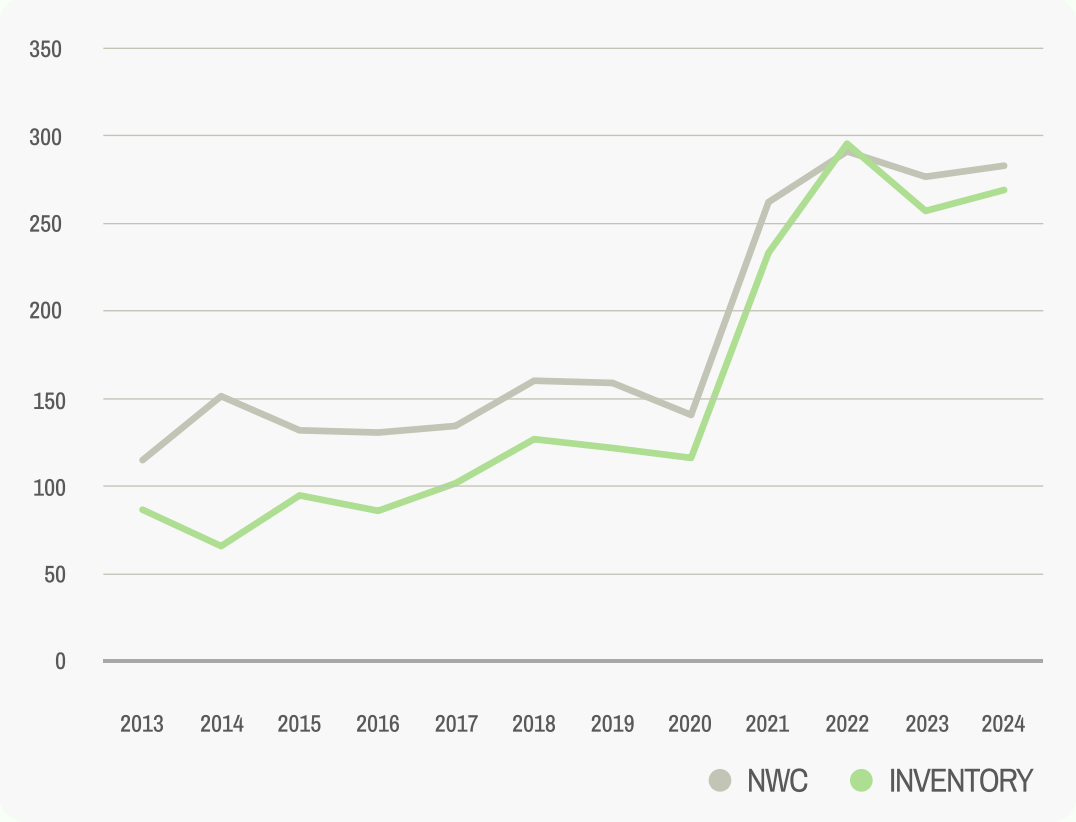
€35.3M IN 2030



NET WORKING CAPITAL



NWC vs Inventory [m€]

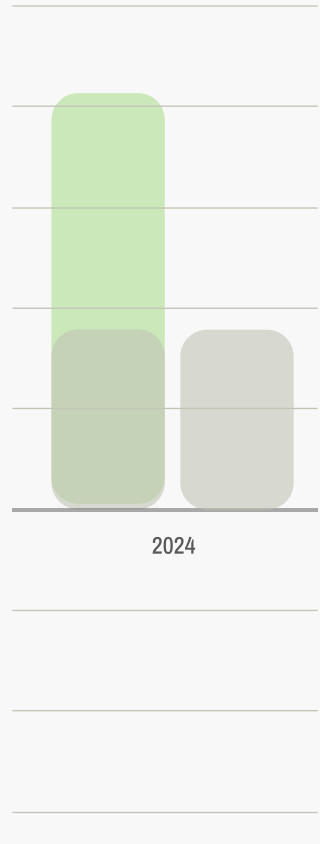


←

INV / NWC

93%

FCFF Generation [m€]



0.3

VALUATION



REVENUES PROJECTIONS: A SOLID GROWTH

VALUATION

GROWTH ASSUMPTIONS

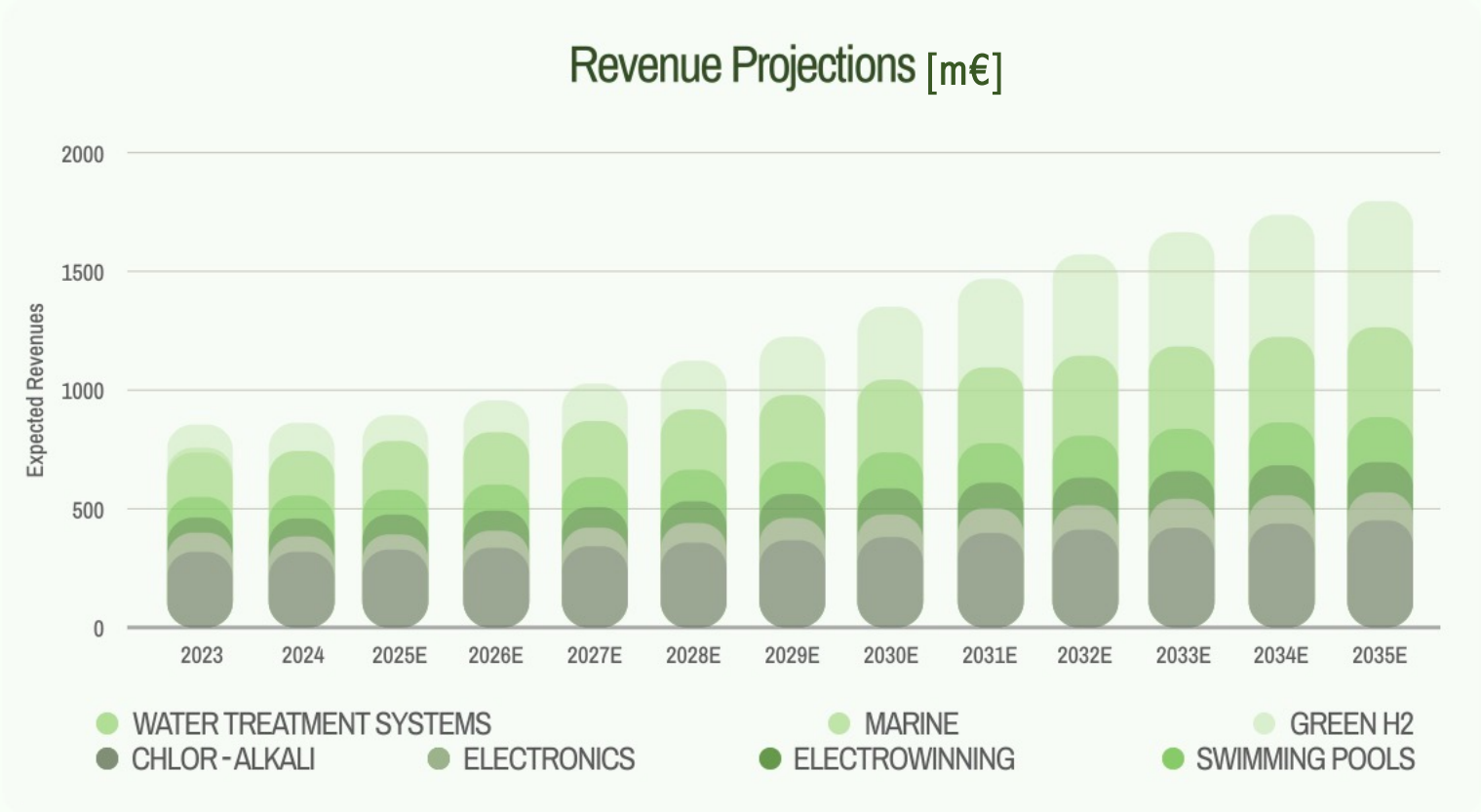
DCF

REAL OPTION VALUATION

SUM UP

2024 €863m

2035E €1,800m





REVENUES PROJECTIONS: A SOLID GROWTH

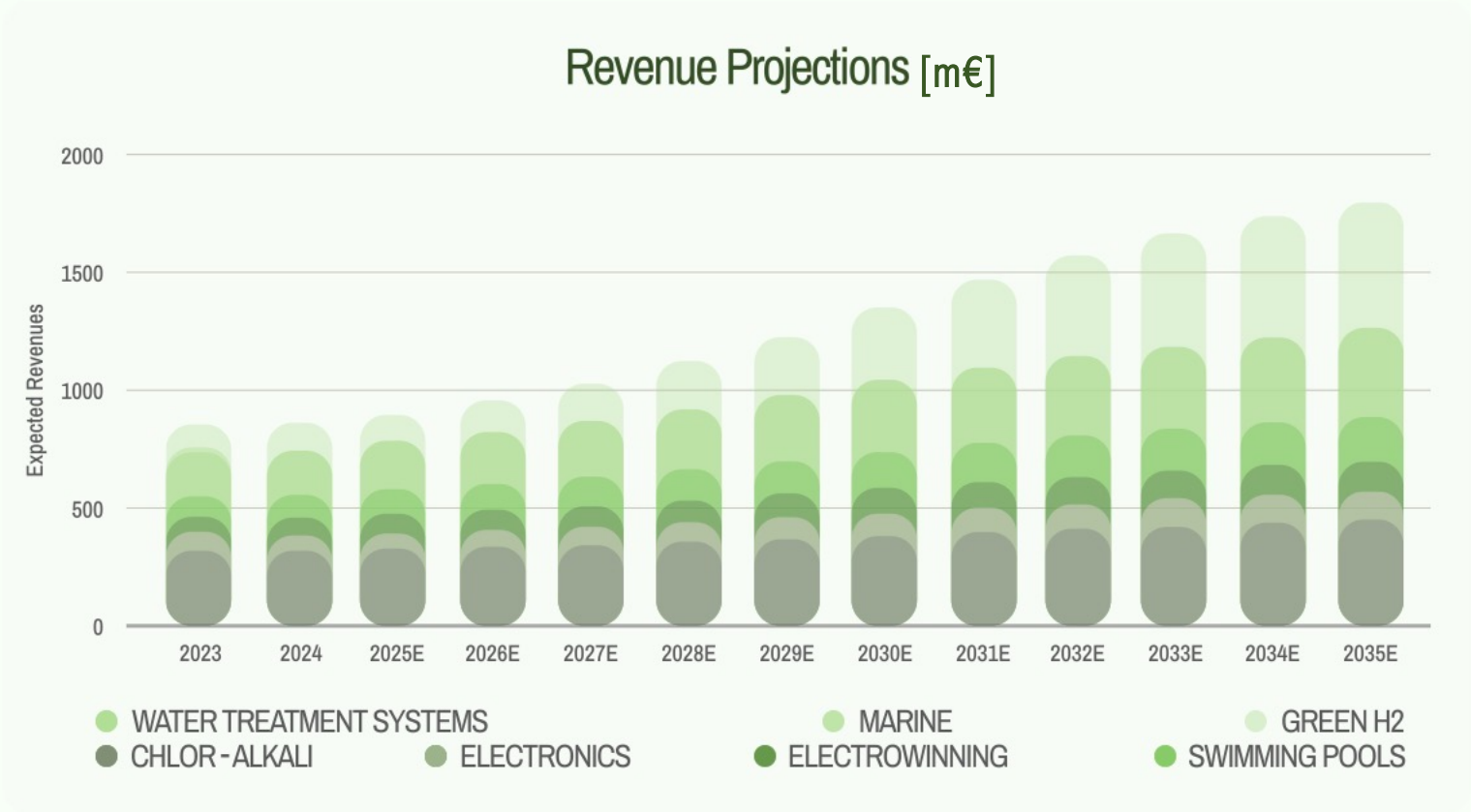
2024 €863m

2035E €1,800m

STABLE CORE GROWTH
(3.5% CAGR Chlor Alkali)

GROWING TRENDS
EXPOSITION
(double-digit CAGR)

INCREASING HYDROGEN
CONTRIBUTION
(15.9% CAGR)





MARGINS PROJECTIONS: A CONSTANT IMPROVEMENT

VALUATION

GROWTH ASSUMPTIONS

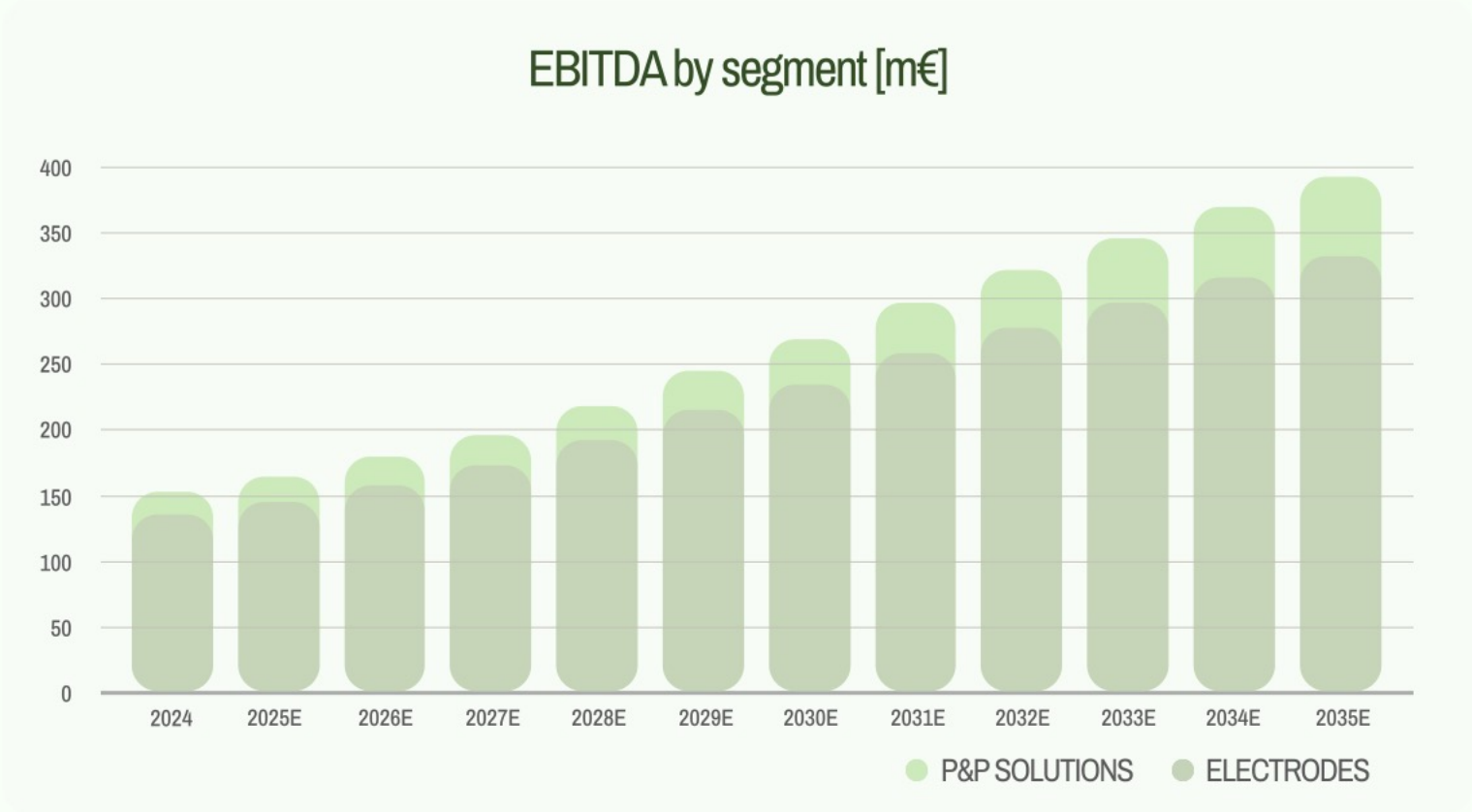
DCF

REAL OPTION VALUATION

SUM UP

2024 18%

2035E 22%





MARGINS PROJECTIONS: A CONSTANT IMPROVEMENT

VALUATION

GROWTH ASSUMPTIONS

DCF

REAL OPTION VALUATION

SUM UP

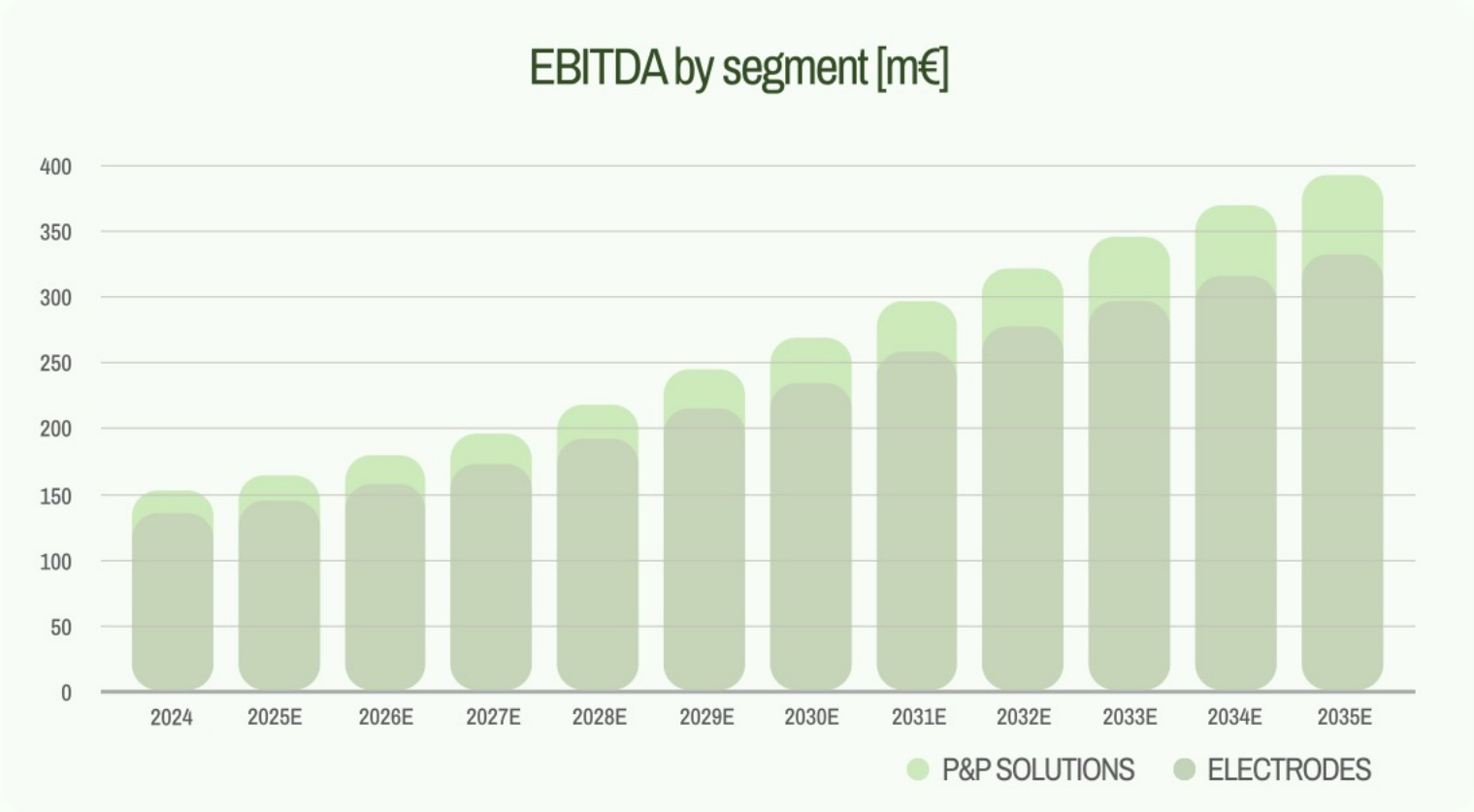
2024 18%

2035E 22%

SURGE OF SERVICES
(back to pre-COVID levels by 2030)

DECREASING IMPACT
OF GIGAFACTORY COSTS
(completed by 2030)

SCALE EFFECT IN gH₂
SUB-SEGMENTS

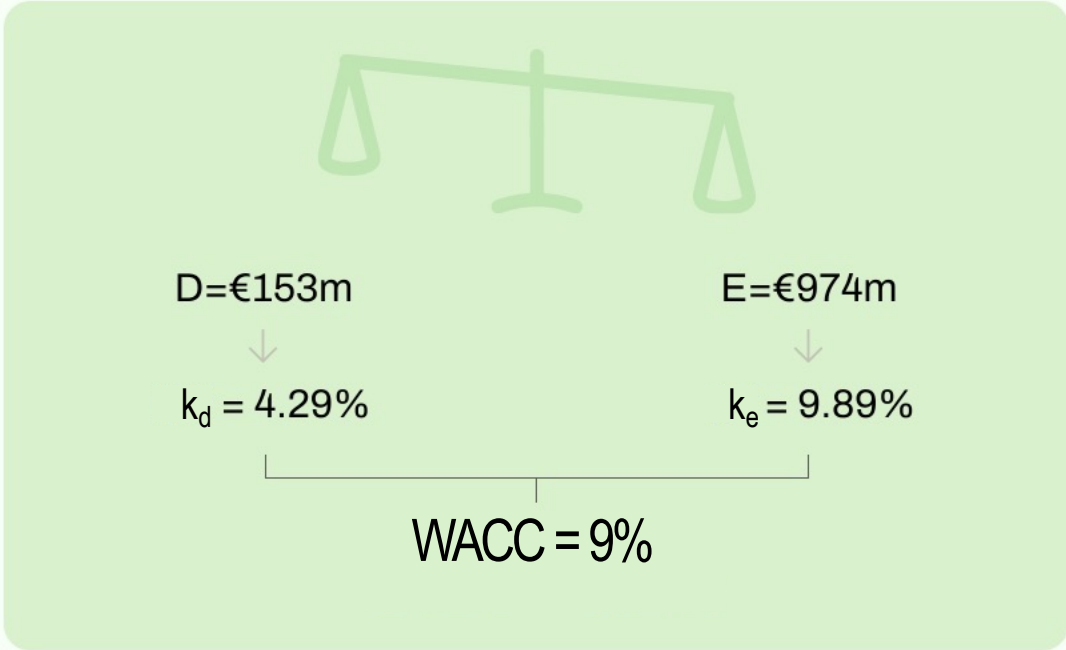


DCF VALUATION



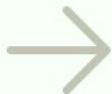
VALUATION	GROWTH ASSUMPTIONS	DCF	REAL OPTION VALUATION	SUM UP
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De Nora's WACC estimation

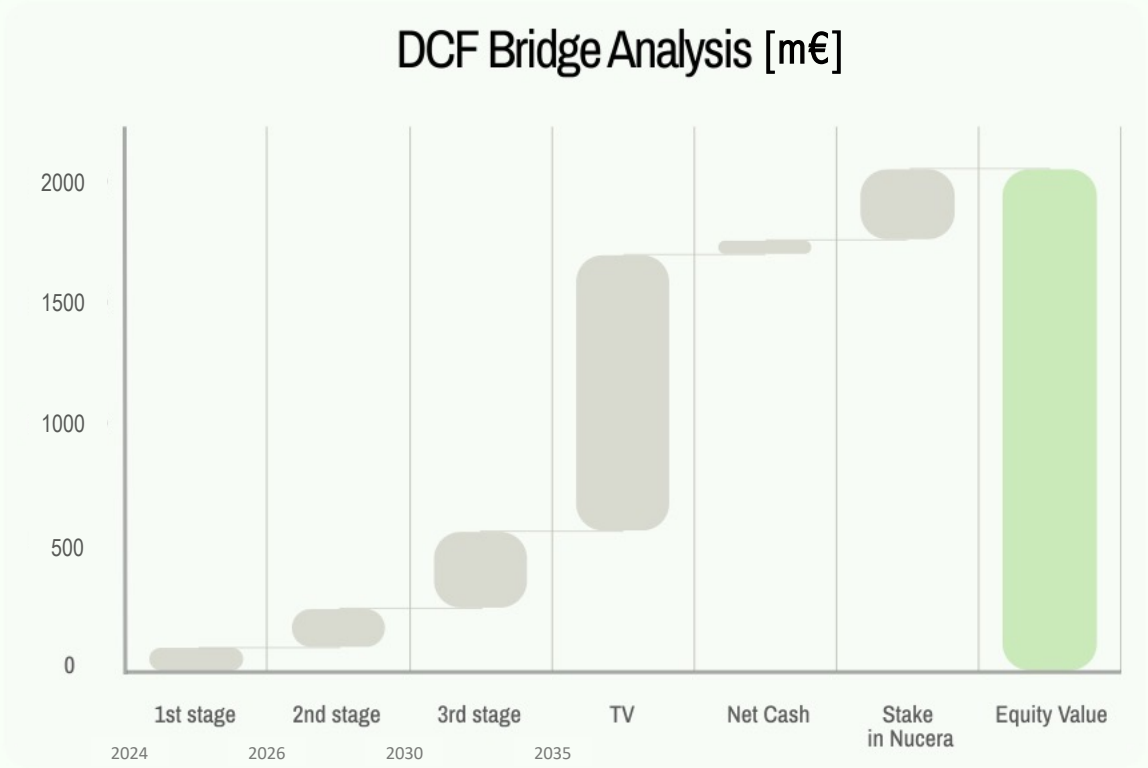


De Nora's terminal growth rate

$g = 3\%$



€8.83 per share



DCF VALUATION



VALUATION

GROWTH ASSUMPTIONS

DCF

REAL OPTION VALUATION

SUM UP

De Nora's WACC estimation



$D = €153\text{m}$



$k_d = 4.29\%$

$E = €974\text{m}$



$k_e = 9.89\%$

WACC = 9%

De Nora's terminal growth rate

$g = 3\%$



€8.83 per share



+

€1.45 per share



=

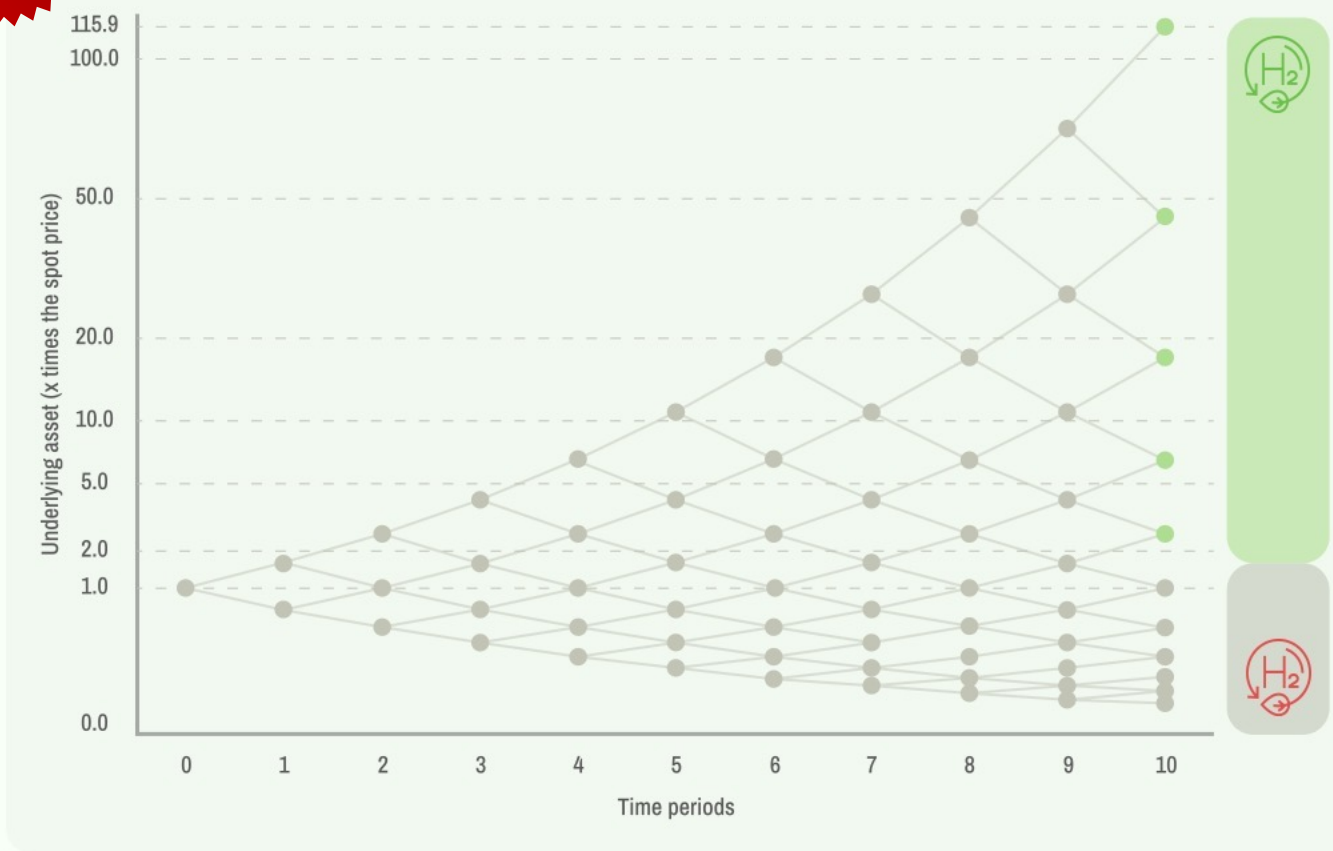
€10.28 per share

IT'S LIKE BEING LONG IN A CALL OPTION



ORIGINAL
TEAMWORK

Binomial Tree: gH₂ Segment



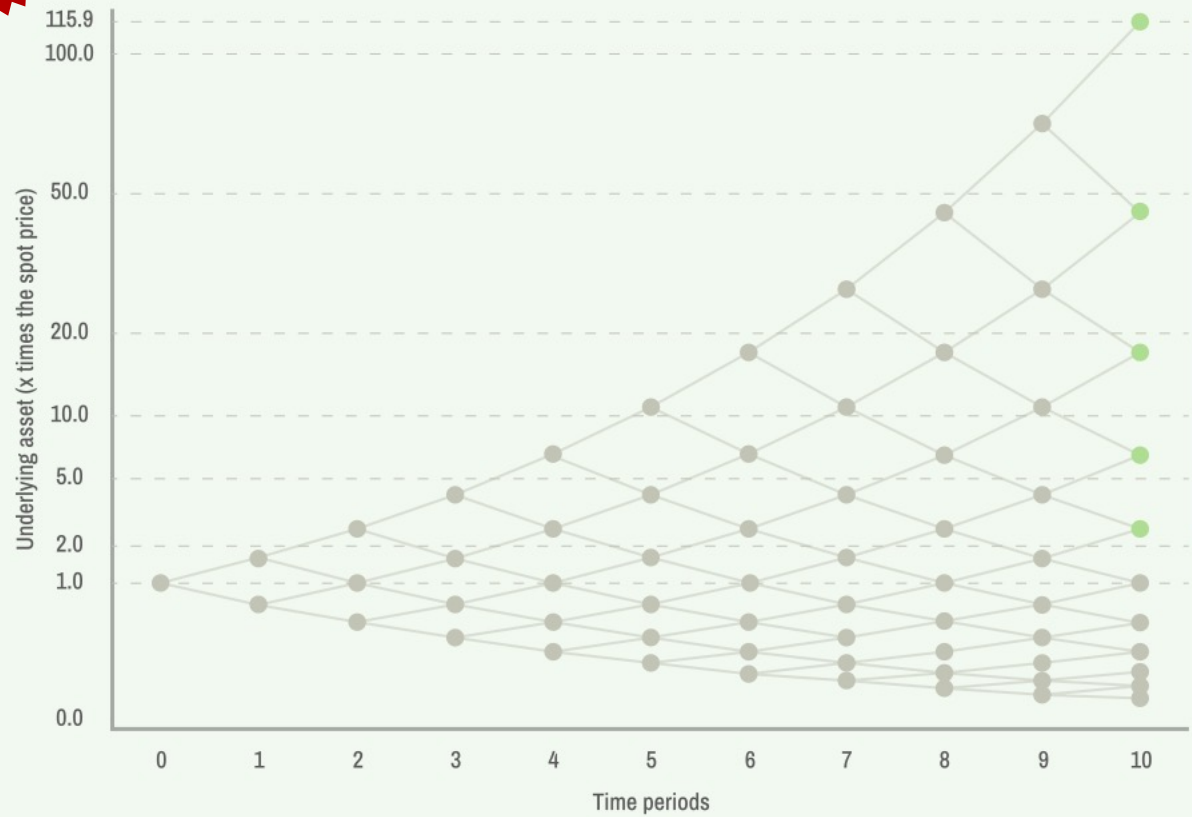


IT'S LIKE BEING LONG IN A CALL OPTION

VALUATION	GROWTH ASSUMPTIONS	DCF	REAL OPTION VALUATION	SUM UP
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ORIGINAL
TEAMWORK

Binomial Tree: gH₂ Segment



Strategic flexibility to scale its
hydrogen segment at an optimal
future time

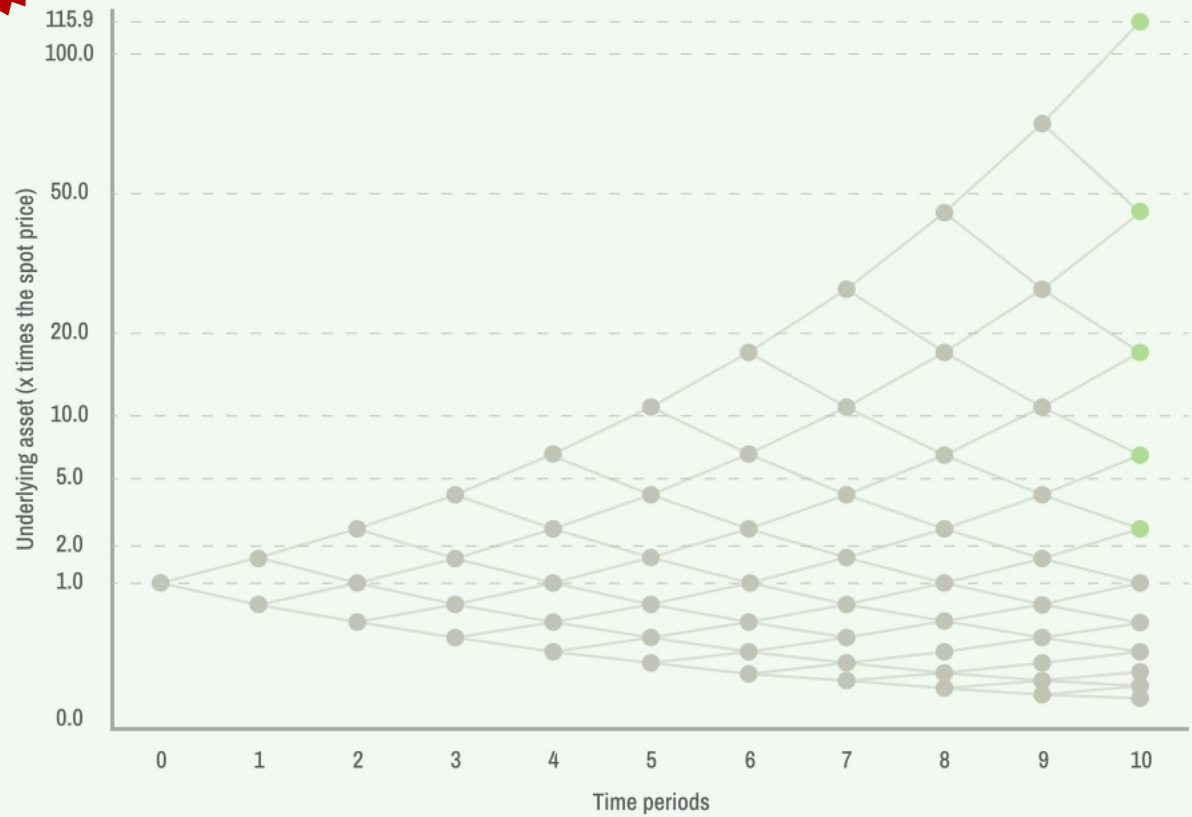
Real Option Valuation
+ 0.35 €/share



IT'S LIKE BEING LONG IN A CALL OPTION

ORIGINAL
TEAMWORK

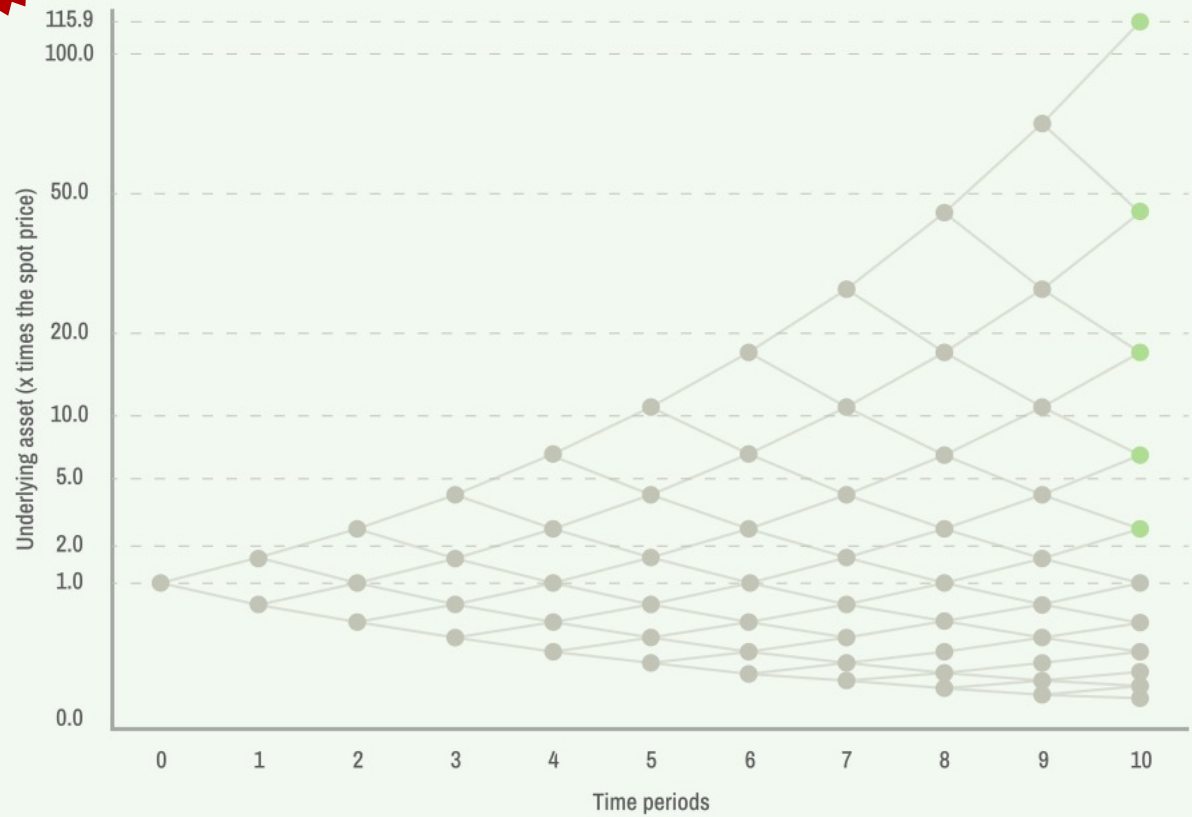
Binomial Tree: Underlying Asset



RISK		

ORIGINAL
TEAMWORK

Binomial Tree: Underlying Asset



RISK		

+

STRIKE PRICE		
Volatility		Arbitrage

RELATIVE VALUATION: A CROSS-CHECK



VALUATION

GROWTH ASSUMPTIONS

DCF

REAL OPTION VALUATION

SUM UP



SOTP relative valuation



thyssenkrupp
nucera

SOTP relative valuation



RELATIVE VALUATION: A CROSS-CHECK



VALUATION

GROWTH ASSUMPTIONS

DCF

REAL OPTION VALUATION

SUM UP



SOTP relative valuation



thyssenkrupp
nucera

SOTP relative valuation



Relative valuation
10.27 €/share



DCF
10.28 €/share

BUY RECCOMENDATION: OUR TARGET PRICE



VALUATION

GROWTH ASSUMPTIONS

DCF

REAL OPTION VALUATION

SUM UP



DCF
10.28 €/share



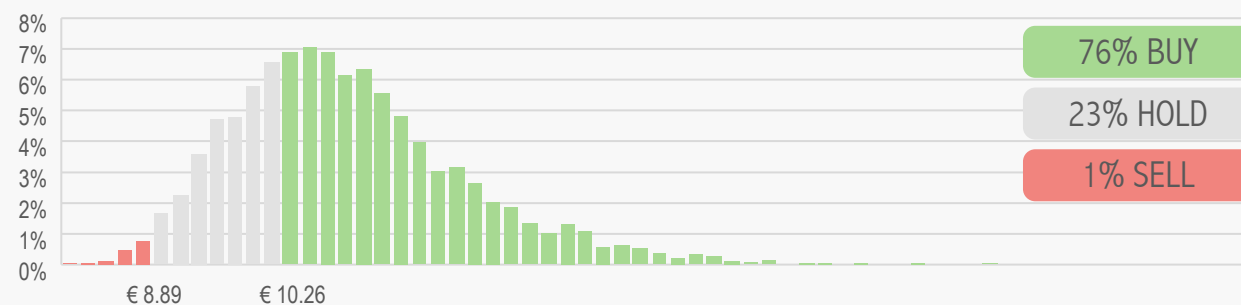
Real Option
0.35 €/share



BUY

TARGET PRICE
€10.63

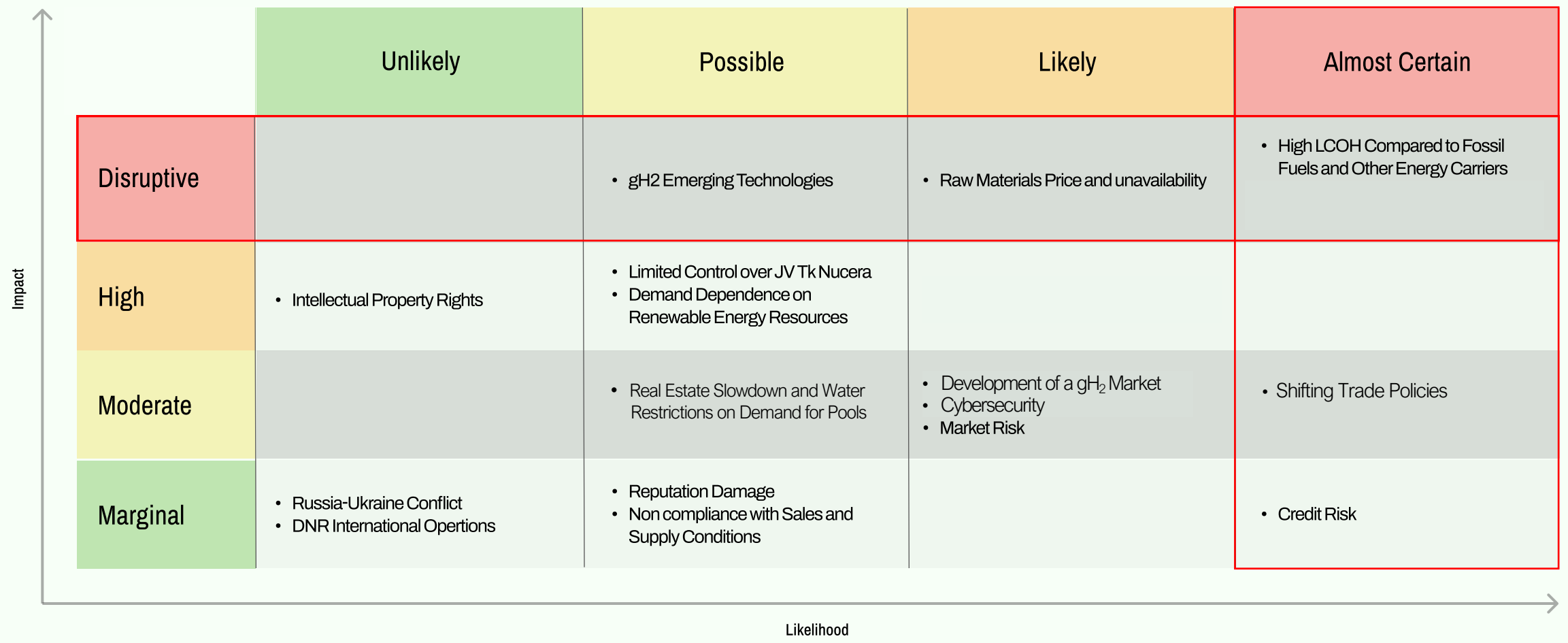
Monte Carlo Simulation



0.4

RISKS

RISK MATRIX





RISK

Price volatility of scarce noble metals.



IMPACT

Raw material shortages
And soaring price volatility



MITIGATION STRATEGY

Price pass-through mechanism

Pass-Through Effect [k€]
Illustrative example





RISK
Shifting trade policies

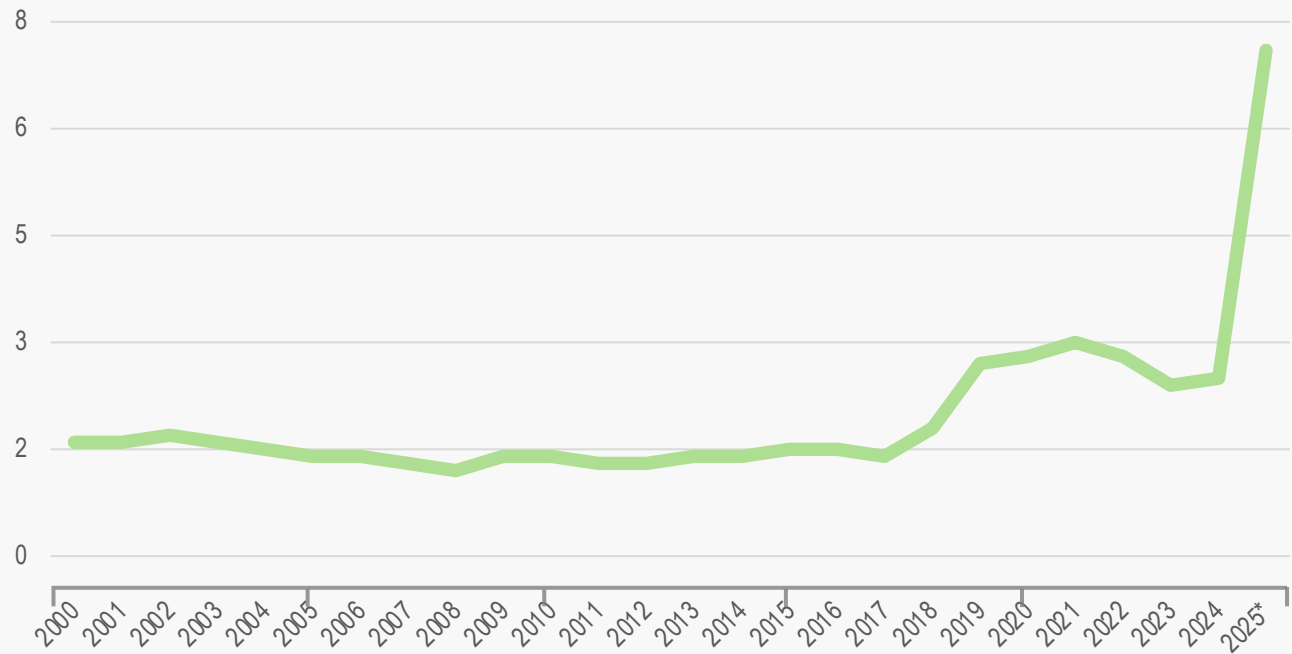


IMPACT
Might push up material costs



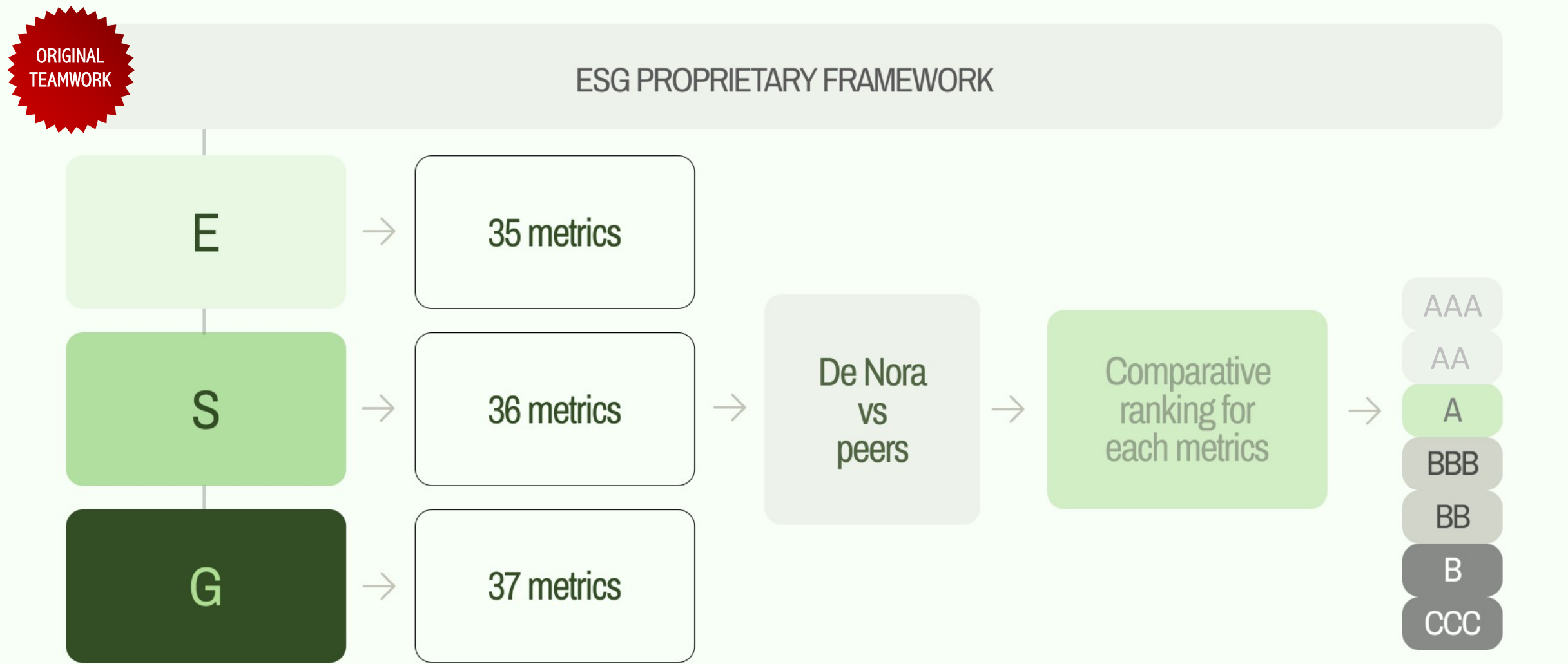
MITIGATION STRATEGY
Local for local business model

Average Tariff Rate on Imports in US [%]



0.5

ESG



ENVIRONMENTAL PILLAR – A SCORE



✓

Low Emission and Waste

✓

Environmental Supply Chain

✓

Green CAPEX

AVERAGE SCORING



ENVIRONMENTAL

Overall scoring:

A

AVERAGE SCORING - Environmental

De Nora: 6.4 - A

Industry: 5.8 - A

AVERAGE SCORING - Social

De Nora: 5.6 - BBB

Industry: 6.5 - A

AVERAGE SCORING - Governance

De Nora: 6.2 - A

Industry: 5.8 - A

SOCIAL PILLAR – BBB SCORE



✓

Communities Initiatives

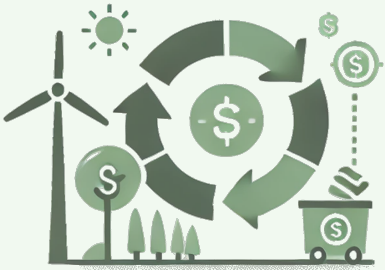
✓

Gender Pay Gap

🚩

Lack of Women

AVERAGE SCORING



SOCIAL
Overall scoring:
BBB

AVERAGE SCORING - Environmental
De Nora: 6.4 - A
Industry: 5.8 - A

AVERAGE SCORING - Social
De Nora: 5.6 - BBB
Industry: 6.5 - A

AVERAGE SCORING - Governance
De Nora: 6.2 - A
Industry: 5.8 - A

ESG

ENVIRONMENTAL

SOCIAL

GOVERNANCE

✓

Technical Leadership Expertise

✓

CEO-Chairman Duality



Financial Leadership Instability



GOVERNANCE

Overall scoring:

A

AVERAGE SCORING

AVERAGE SCORING - Environmental

De Nora: 6.4 - A

Industry: 5.8 - A

AVERAGE SCORING - Social

De Nora: 5.6 - BBB

Industry: 6.5 - A

AVERAGE SCORING - Governance

De Nora: 6.2 - A

Industry: 5.8 - A

0.6

CONCLUSION



THE LATEST RESULTS ONLY REINFORCE OUR RECOMMENDATION

	Company Results	Our Projections
Revenue	€863m	€864m
EBITDAm	18.2%	17.5%
Net Cash	€67.1m	€63.1m





THE LATEST RESULTS ONLY REINFORCE OUR RECOMMENDATION

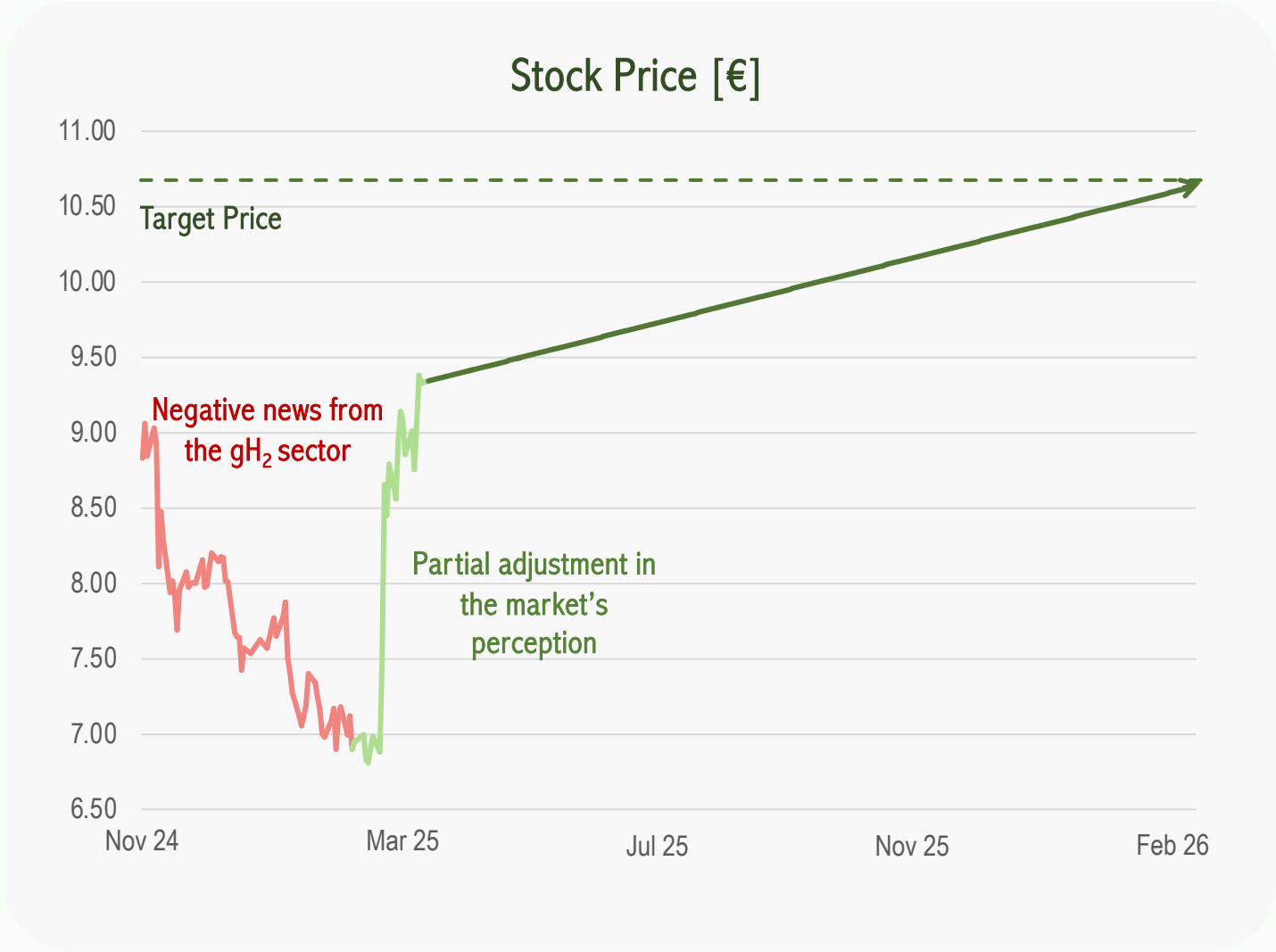
	Company Results	Our Projections
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THE LATEST RESULTS ONLY REINFORCE OUR RECOMMENDATION

	Company Results	Our Projections
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CONCLUSIONS





Technological leadership

↓

Best-in-class margins



Broad diversification

↓

Multiple trends exposure



Cash flow generation

↓

Financial flexibility

BUY

TARGET PRICE

€10.63



A. Business Overview

- [1 Stock Price: main events, \$qH_2\$ correlation](#)
- [2 Stock: Gartner Hype Cycle](#)
- [3 A product-centric company](#)
- [4 Electrode solutions](#)
- [5 Plug & Play solutions](#)
- [6 Corporate strategy](#)
- [7 SWOT](#)
- [8 Manufacturing expansion](#)
- [9 Technological advantage](#)
- [10 IV Nucera: History, Sh's structure, TMA \(1\), \(2\)](#)
- [11 Snam partnership](#)
- [12 Customer base & value chain](#)
- [13 Competitive moat](#)
- [14 Revenue and cost drivers](#)
- [15 M&A History](#)
- [16 Innovations' timeline](#)
- [17 R&D experts' verdict: \(1\), \(2\)](#)
- [18 M&A on De Nora](#)

B. Industry Overview

- [1 Covid 19 impact](#)
- [2 AWE vs PEM](#)
- [3 Porter 5 Forces](#)
- [4 Threat of new entrants](#)
- [5 Threat of substitution](#)
- [6 Internal rivalry](#)
- [7 Suppliers' bargaining power](#)
- [8 Countercyclicality: electrodes](#)
- [9 Market: CA, EI, Elw, SP, D&F, Elch, \$qH_2\$](#)
- [10 \$qH_2\$ Proprietary Model: \(1\), \(2\)](#)
- [11 Focus on: PFAS, Desalination](#)

C. Financial Analysis

1. Revenues

- [1.1 Historical Revenues vs Growth](#)
- [1.2 Revenues by BU: Electrodes vs P&P](#)
- [1.3 Staycation and Digitalization](#)
- [1.4 Historical Costs by year](#)

2. Profitability

- [2.1 Historical EBITDA by segment](#)
- [2.3 EBITDAm Electrodes Comparison](#)
- [2.4 EBITDAm \$qH_2\$ Comparison](#)
- [2.5 EBITDAm P&P Comparison](#)
- [2.6 Profitability Indicators](#)
- [2.7 ROE & ROCE De Nora vs Competitors](#)
- [2.8 Leverage — NFP / EBITDA](#)

2.9 Leverage — NFP / E

- [2.10 Dividends](#)
- [2.11 Multiples Comparison](#)

3. Liquidity

- [3.1 FCFF Generation](#)
- [3.2 Net Working Capital](#)
- [3.3 Cash Conversion](#)
- [3.4 Cash Conversion Cycle](#)
- [3.5 Net Financial Position](#)
- [3.6 Cash Flows](#)
- [3.7 CFFO, C&CE, Revenues by year](#)
- [3.8 C&CE on Revenues](#)
- [3.9 Current Ratio and Quick Ratio](#)

D. Valuation

1 Us vs consensus

- [1.1 FY2024 results comparison](#)
- [2. DCF Assumptions](#)
- [3 Revenues projection](#)
 - [3.1 Electrodes](#)
 - [3.2 «Molecule by molecule» \(1\), \(2\)](#)
 - [3.3 Dragonfly price estimation](#)
 - [3.4 \$qH_2\$ electrodes](#)
 - [3.5 P&P solutions](#)
 - [3.6 Dragonfly projections](#)

- [4 Margins projection](#)
 - [4.1 Margins main growth factors](#)
 - [4.2 Electrodes](#)
 - [4.3 P&P solutions](#)
 - [4.4 Net Profit Projections](#)
- [5 CAPEX projection](#)
- [6 Sensitivity \(1\), \(2\) and Montecarlo](#)
- [7 Net Debt Projection](#)

8 WACC

- [8.1 Risk-free rate](#)
- [8.2 Cost of equity](#)
- [8.3 Cost of debt](#)
- [8.4 WACC optimization](#)

9 Scenarios

- [9.1 M&A](#)
- [9.2 Bull & Bear](#)

10 Nucera

- [10.1 WACC](#)
- [10.2 DCF assumptions, DCF](#)

11 Relative Valuation

- [12 Real option valuation](#)
 - [12.1 Volatility](#)
 - [12.2 B&S assumptions](#)
 - [12.3 Spot price](#)
 - [12.4 Strike price](#)
 - [12.5 Results](#)

B. Risk Analysis

- [1 \$qH_2\$ risk](#)
- [2 Noble Metals](#)
- [3 Financial Risk](#)
- [4 Systematic Risk](#)
- [5 Tariff Risk](#)
- [6 Liquidity Risk](#)

B. ESG Analysis

- [1 Framework: Metrics, Procedure](#)
- [2 E](#)
- [3 S](#)
- [4 G](#)
- [5 Ownership Structure](#)
- [7 BoD](#)
- [8 Management](#)
- [9 Remuneration Policy](#)

Presentation

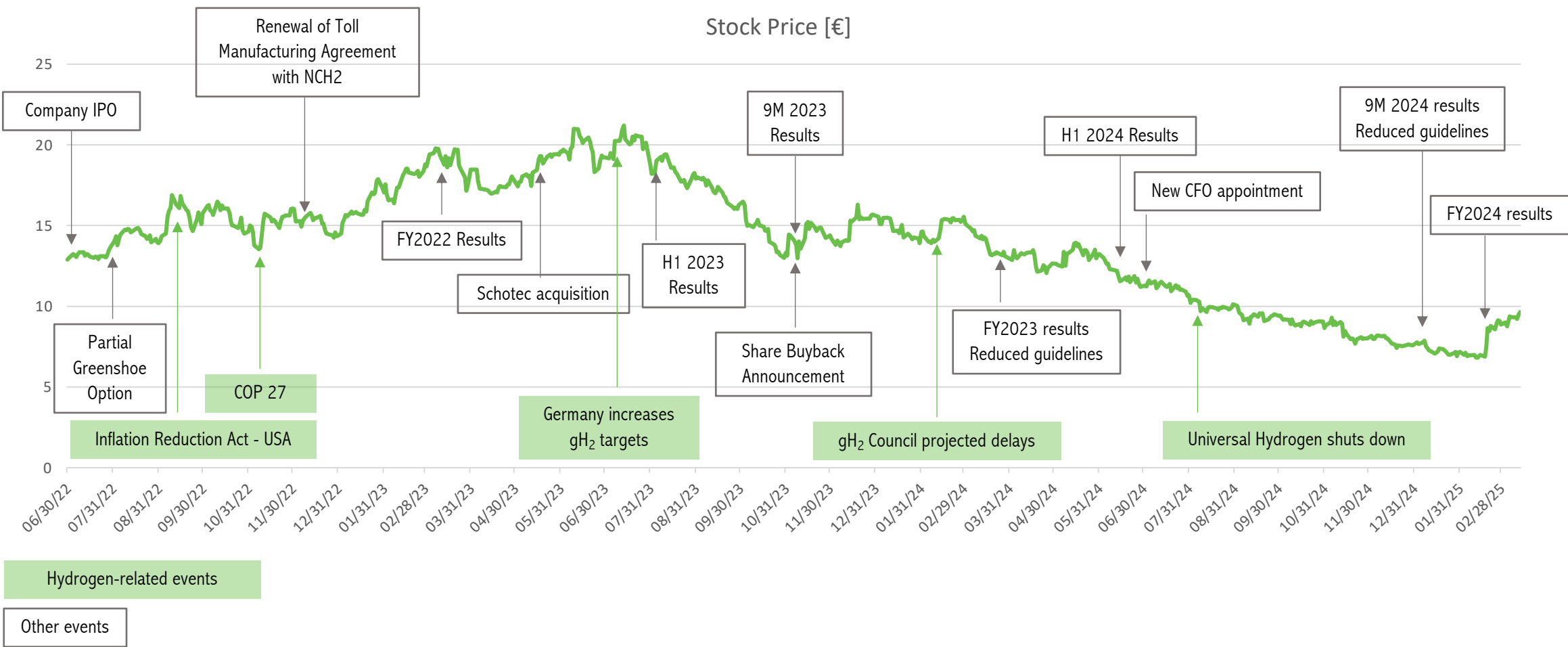
- [Intro](#)
- [Pillar 1, Pillar 2, Pillar 3](#)
- [DCF Valuation, Option](#)
- [Risks](#)
- [ESG](#)



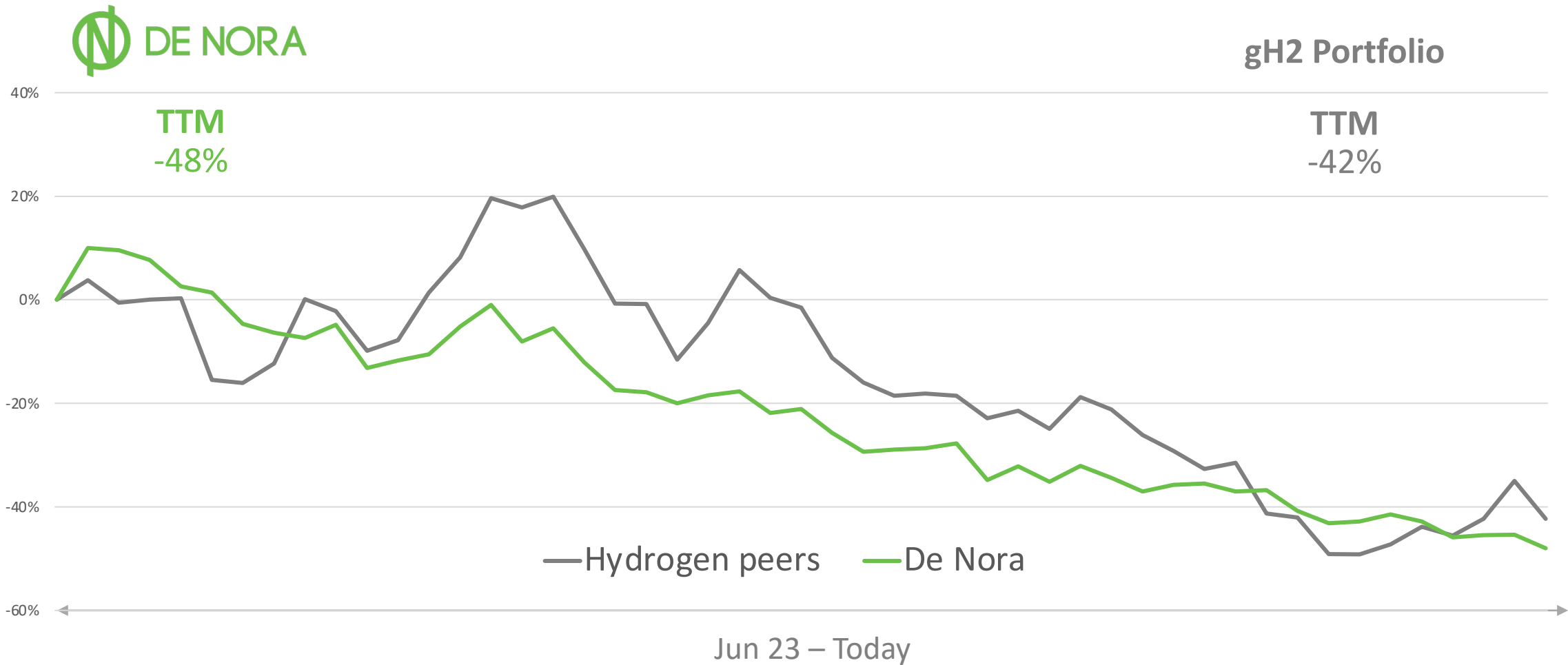
BUSINESS OVERVIEW



STOCK PRICE – MAIN EVENTS



STOCK PRICE CORRELATION WITH HYDROGEN PLAYERS (AS OF OUR IoC ON FEBRUARY 6TH)



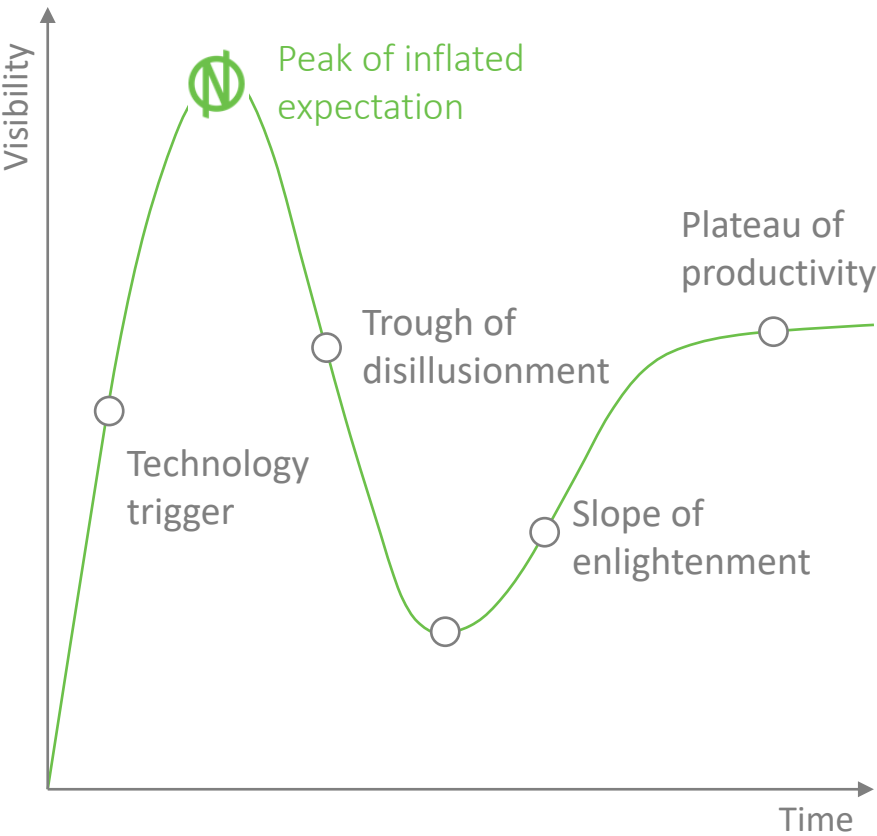
GARTNER HYPE CYCLE (AS OF OUR IoC ON FEBRUARY 6TH)



De Nora Stock



Gartner Hype Cycle





REVENUE 2023

76%

24%

ELECTRODE SOLUTIONS

PLUG & PLAY SOLUTIONS

- Chlor-Alkali
- Electronics
- AWE

- Electrowinning
- Specialties
- Swimming Pools

- Disinfection & Filtration
- Electrochlorination
- Dragonfly



Target Market	Application	Main Technologies	End Market
Chlor-Alkali	- Chlor-alkali electrolysis process; membrane, diaphragm and mercury technologies - Production of chlorine from the recycle of hydrochloric acid	- Anodes, cathodes, coatings - Gas diffusion electrodes - Electrolysers elements and components - Separators - Re-coating and services	Chlorine & caustic industry
Electronics & Surface Finishing	- Production of electrolytic copper foil - Electrochemical copper plating of PCB - Plastic/metal surface finishing for decorative or functional uses (anti-corrosion finishing)	- Anode technologies - Re-coating and services	- Electronics and lithium batteries - Automotive, plumbing, tubing for furnishings, jewelry and
Specialties & New Applications	- Corrosion protection of structures of reinforced concrete, steel or metal - Refining of non-ferrous metals by electro-winning (hydrometallurgy processes) - Chlorate: synthesis of sodium	- Mixed metal oxide - Re-coating and services	- Infrastructure - Mining - Pulp and paper
Swimming Pools	Disinfection of swimming pools by electro-chlorinators	Self-cleaning noble metal-coated titanium electrodes	Pool owners (private and commercial)
Power to Chemicals	Alkaline water electrolysis	- Anodes, cathodes, coatings - Cells components - Re-coating and services	Chemical and gas industries

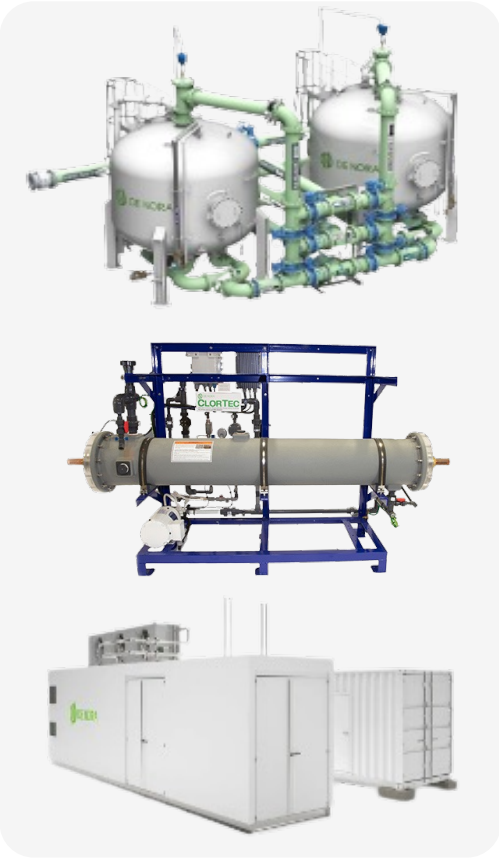


PLUG & PLAY SOLUTIONS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Target Market	Application	Main Technologies	End Market
Electrochlorination	Disinfection through the production of hypochlorite by electrochemical technologies	- Seawater Electro-chlorination (SWEC) - Onsite Brine Electro-chlorination (OSHG) - Advanced Oxidation - Process (AOP)	- Energy (onshore/offshore power, petrochemical, Oil & Gas, Liquefied Natural Gas) - Municipal water, industrial process water, wastewater treatment facilities
Disinfection & Filtration	- Disinfection: chemical removing or reducing of microorganisms in water and wastewater - Filtration: physical separation of water pollutants	- Gas Feed Chlorination, Ozone systems, Chlorine dioxide treatment, Ultraviolet (UV) treatment - Media filtration for tertiary treatment, Biofilters, Reverse Osmosis, Ion Exchange	- Municipal drinking water and wastewater treatment facilities - Industrial process water and waste water treatment facilities - Water desalination
Mobility and Utilities	- Alkaline fuel cells - PEM fuel cells	- Alkaline water electrolyzer (Dragonfly) - Cells manufacturing - Re-coating and services	- Gas industries - Heavy duty vehicles manuf. - Construction Co.s (Diesel replacement) - Utilities (CH&P)
Hard to Abate Industries	Alkaline water electrolysis	- Alkaline water electrolyzer (Dragonfly) - Cells manufacturing - Re-coating and services	- Steel industry - Cement industry - Mining industry





SWOT ANALYSIS



BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG

S

Strengths

- Technological leadership in electrode segment
- Strong R&D
- Diversified exposure to end-markets
- Strategic joint venture and partnerships

W

Weaknesses

- Dependence on key raw materials
- Public funding reliance for hydrogen growth
- High capital requirements for innovation and infrastructure
- Cash conversion cycle

O

Opportunities

- Green hydrogen focus, reducing LCOH with innovation
- Water treatment growth, addressing global water scarcity
- Strategic collaborations.
- Regulatory support and incentives

T

Threats

- Macroeconomics uncertainties
- Supply chain tensions leading to scarcity/inflation in raw materials
- Slower-than-expected penetration of green hydrogen

MANUFACTURING CAPACITY EXPANSION



AMS

- Automation and technology upgrades.
- New Energy Innovation Center
- ~US\$50m Grant ¹ for manufacturing expansion (green H₂) pre-selection

EMEIA

- Strengthened manufacturing set-up in Germany (Energy Transition)
- Greenfield Gigafactory in Italy. 2GW Green H₂ Capacity (Dragonfly®) by 2030

ASIA

- Synergic plan of expansion for China & Japan.
- Suzhou's expansion phase completed in '23
- Okayama expansion completed in March 2024

2GW Italian Gigafactory

- Smart and Sustainable Factory
- Eligible for €63 m IPCEI funds, o/w €32m approved by Italian Gov.
- Identified Techbau as a General Contractor and obtained all authorizations for the project
- Start of Operations in 2025

2023

2026E



Brownfield
Greenfield



2.5 GW eq.
elements



4.5 GW eq.
elements





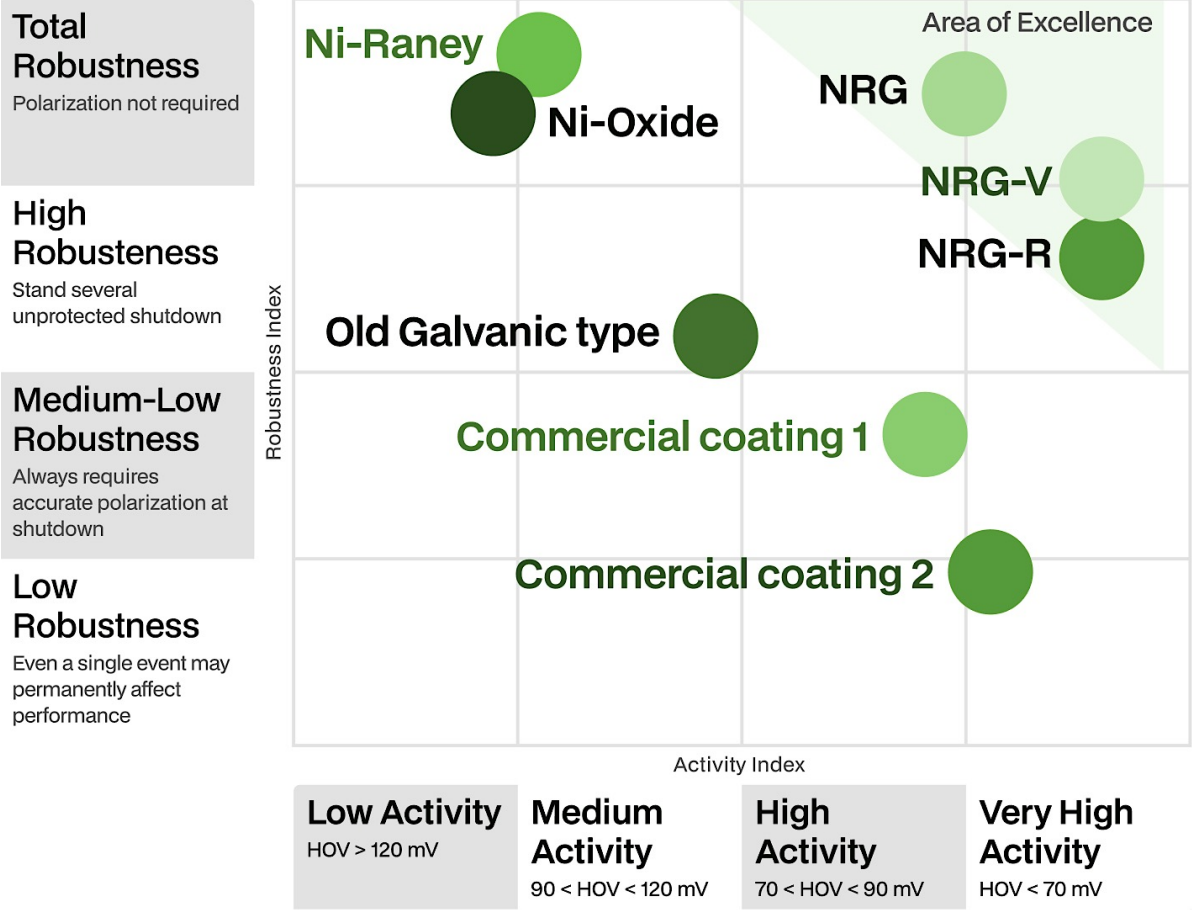
Lower Total Cost of Ownership (TCO)

OPEX REDUCTION

- Patented coatings allow **reduction of energy expense** up to –60%.
- **Improved durability** up to 8 years and minimized maintenance costs.

CAPEX REDUCTION

- **Zero-gap** cell configurations: more compact system design
- **Lowering noble metal** usage



JOINT VENTURE NUCERA: HISTORY



BUSINESS

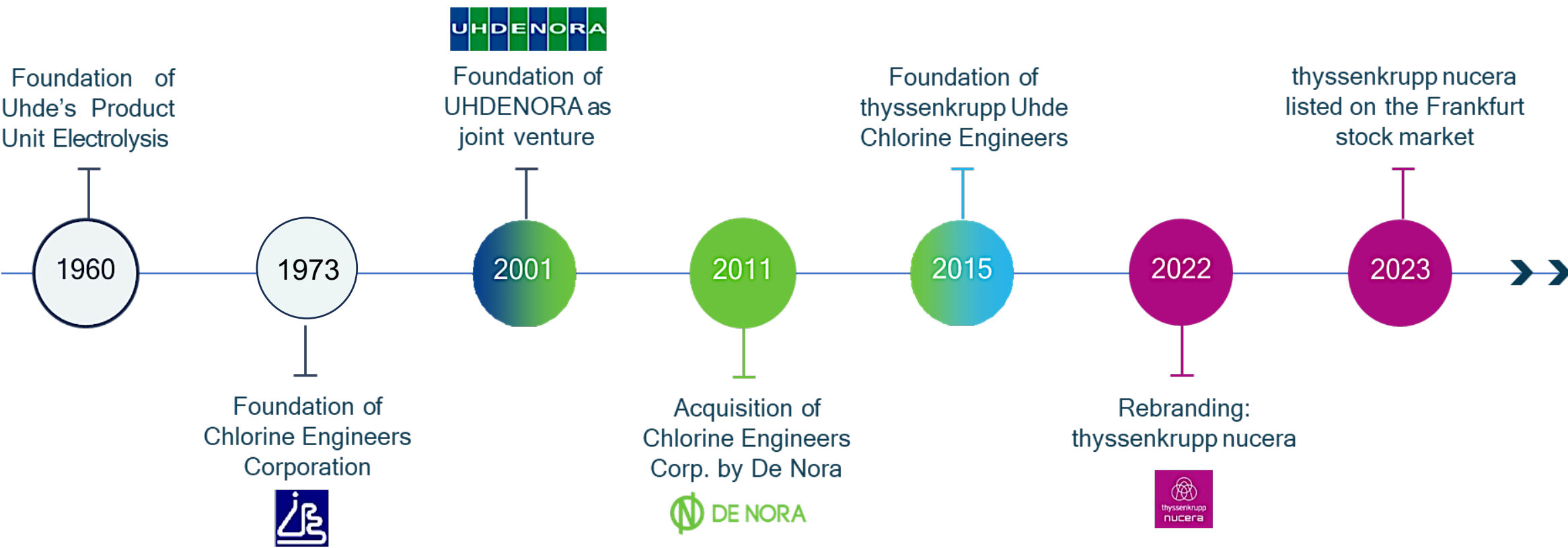
INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG



JOINT VENTURE NUCERA: SHAREHOLDERS STRUCTURE



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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thyssenkrupp



DE NORA

Energy Solutions
Company

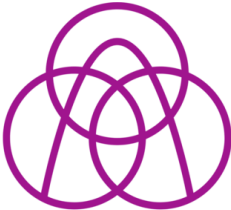
Free Float

50.19%

25.85%

6.00%

17.96%



thyssenkrupp
nucera



JOINT VENTURE NUCERA: TOLL MANUFACTURING AGREEMENT



BUSINESS

INDUSTRY

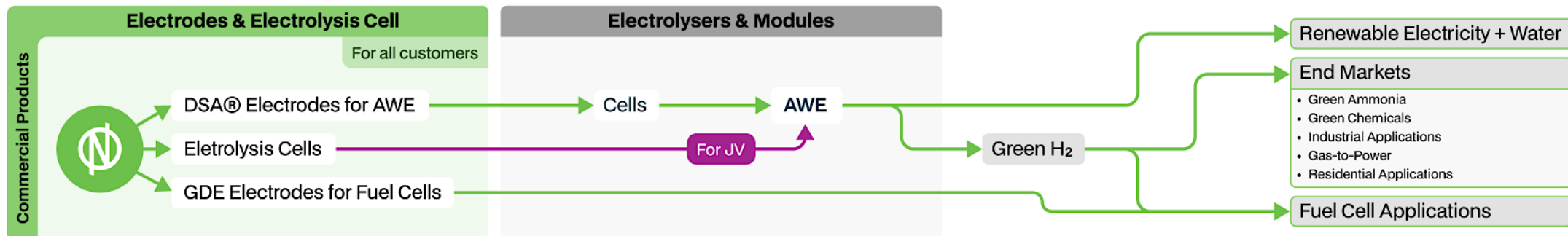
FINANCIAL

VALUATION

RISKS

ESG

- Combining DNRs **electrochemical expertise** with Thyssenkrupp's **engineering strenghts**.
- DNR largest customer's** (25.58% of 2024E revenue) across both the chlor-alkali and green hydrogen segments.
- Toll Manufacturing and Services Agreement:** DNR supplies critical components for NCHs chlor-alkali electrolyzers and large-scale AWE projects.



JOINT VENTURE NUCERA: TOLL MANUFACTURING AGREEMENT



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Element
Recoating



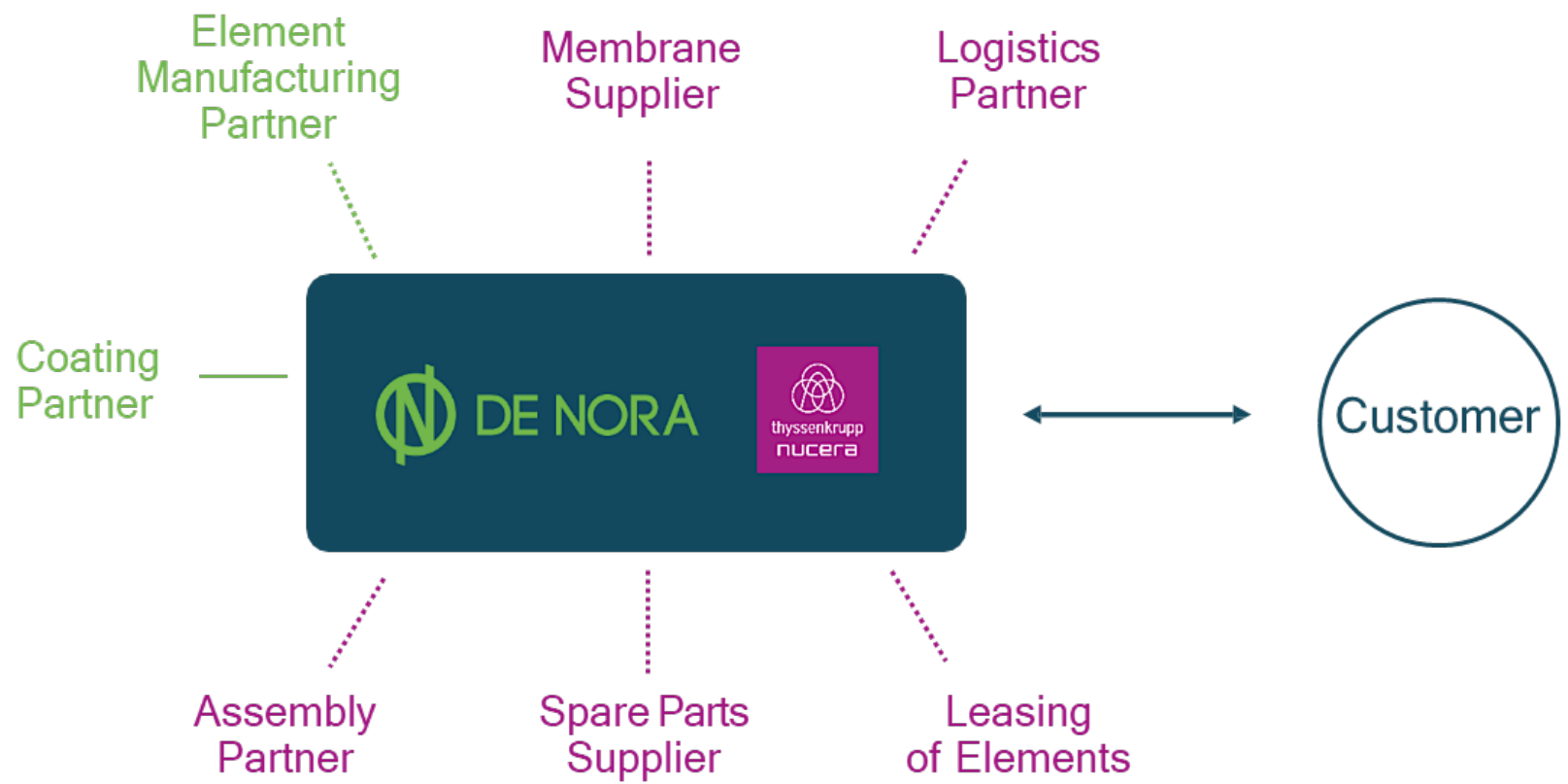
Element
Upgrade



Element
Exchange



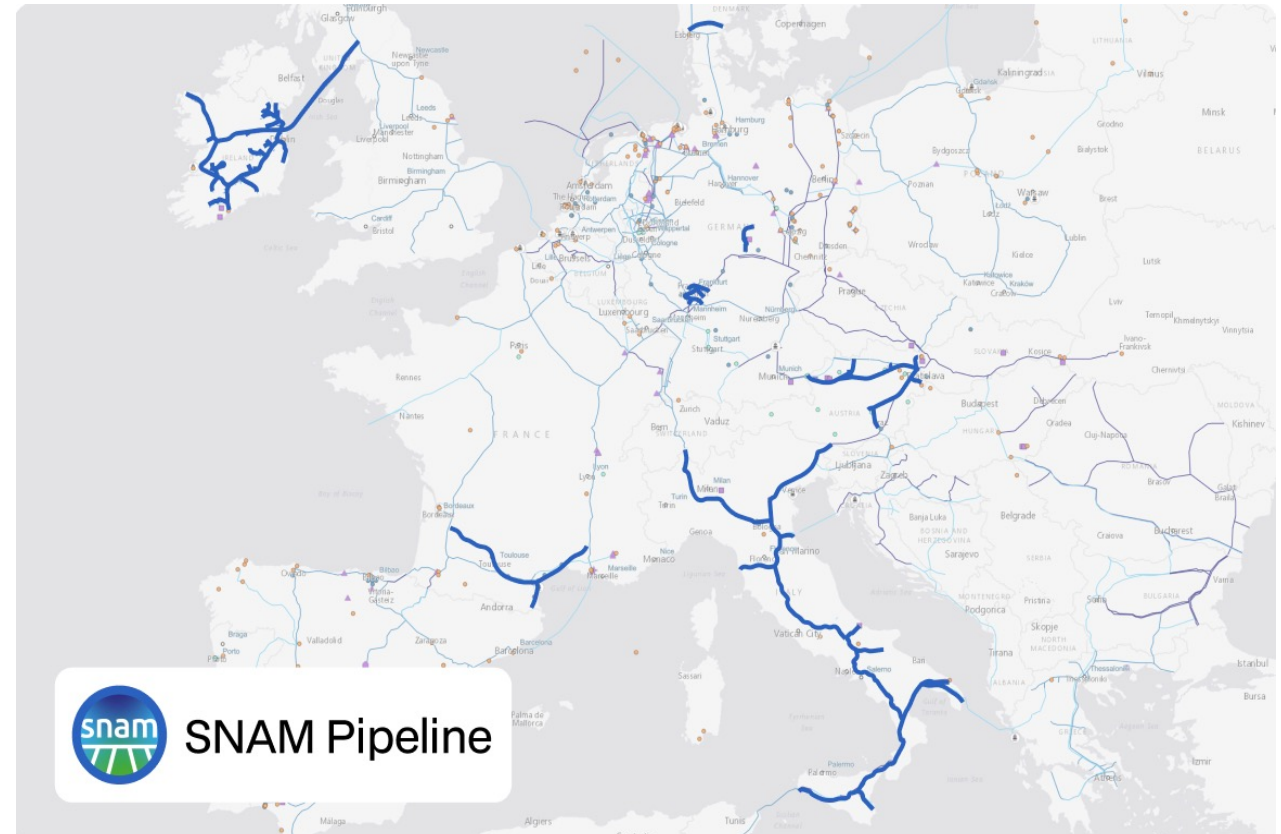
Various other
maintenance &
revamp activities





SNAM Partnership Supporting DNR's Hydrogen Growth

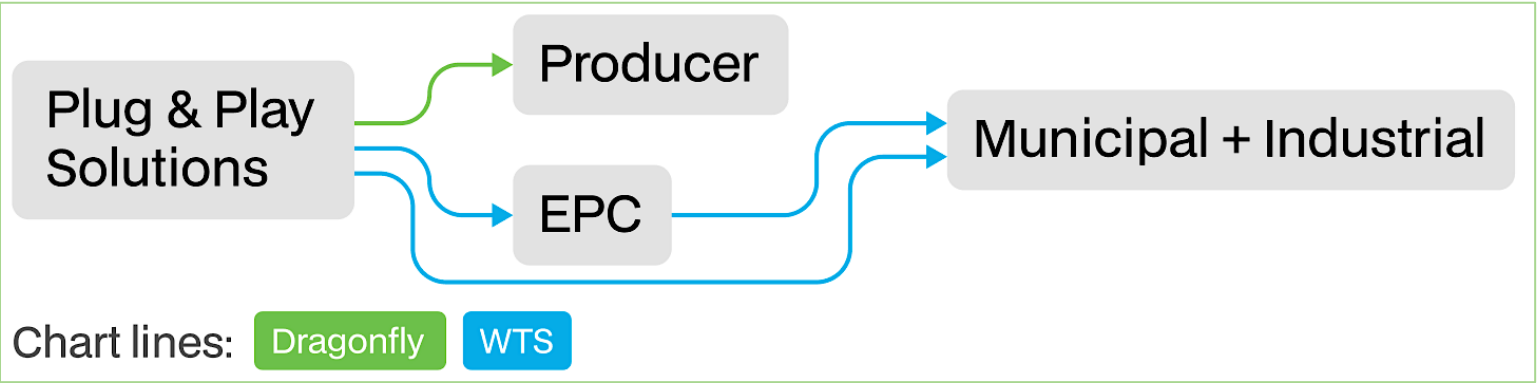
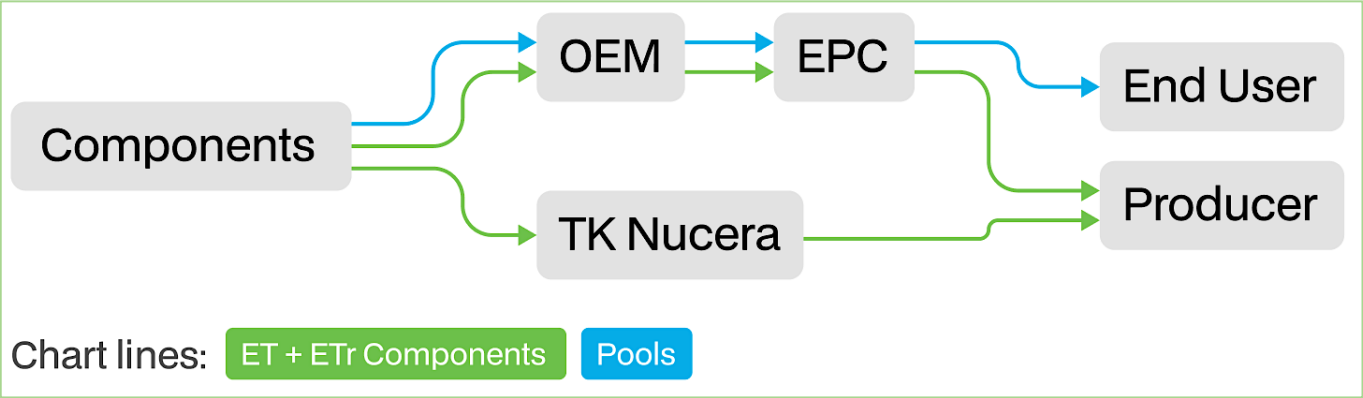
- **Snam Owns 21.59% of De Nora**
- **Large Gas Network Ready for Hydrogen:** 38,000 km pipelines and major EU gas storage.
- **€14.5B Plan to Convert Pipelines (2028-2032):** 60-70% to carry hydrogen.
- **Tested & Proven:** Hydrogen already tested in pipelines in 2018.
- **Boosts De Nora's Hydrogen Position:** Builds trust with customers and supports future growth.



CUSTOMER BASE AND VALUE CHAIN



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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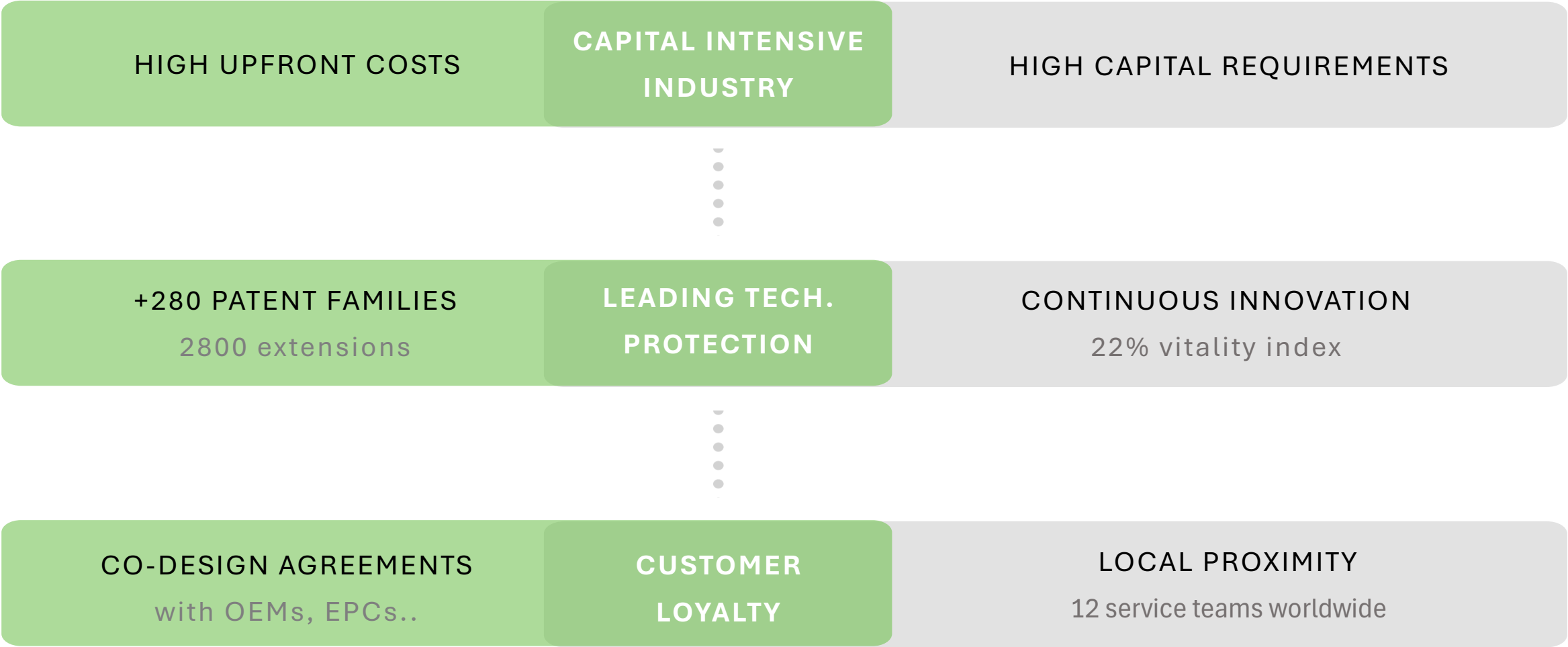
BLUE-CHIP CUSTOMERS



COMPETITIVE MOAT



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Revenue Drivers

New Installations (68% 2023 revenue)

- Sales of **electrode components**
- Sales of **plug & play solutions**

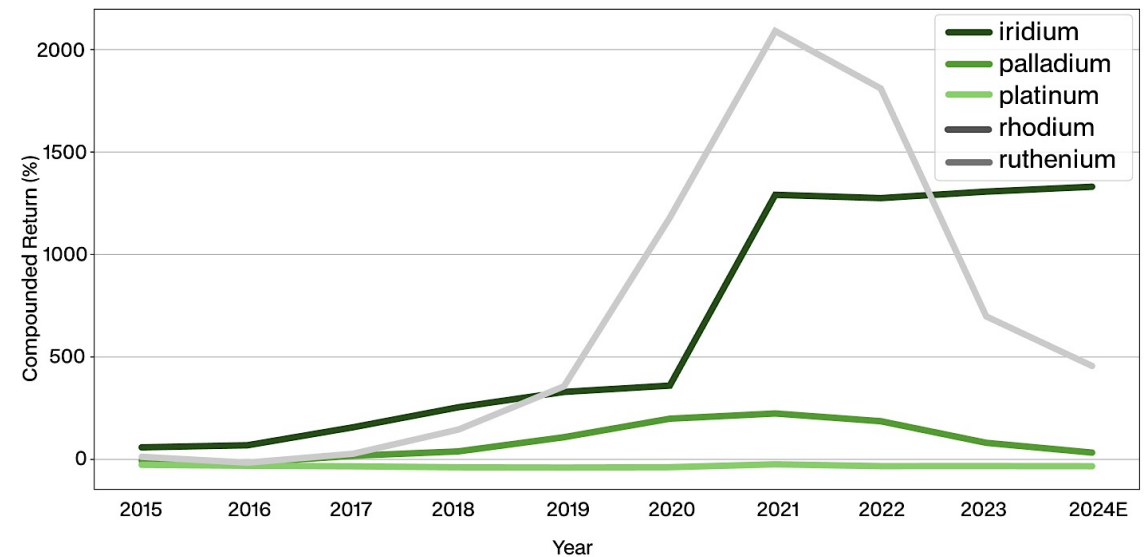
Services (32% 2023 revenue)

- **Recoating:** essential to extend the electrode lifespan
- **Replacements:** with spare parts in plug & play products, and in components with the upgraded version of the product
- **Co-design agreements:** to innovate with the client

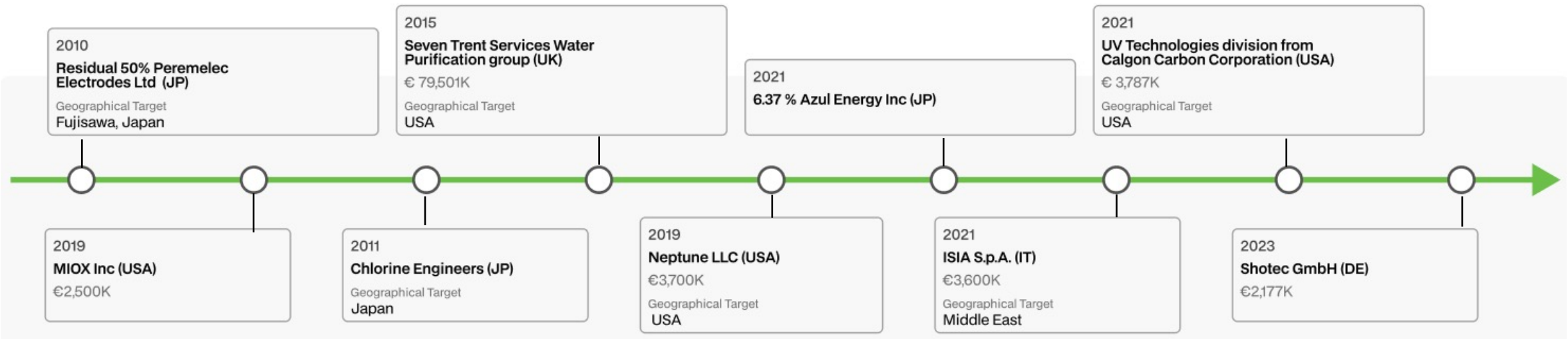
Cost Drivers

Noble Metals (23% of opex in 2023)

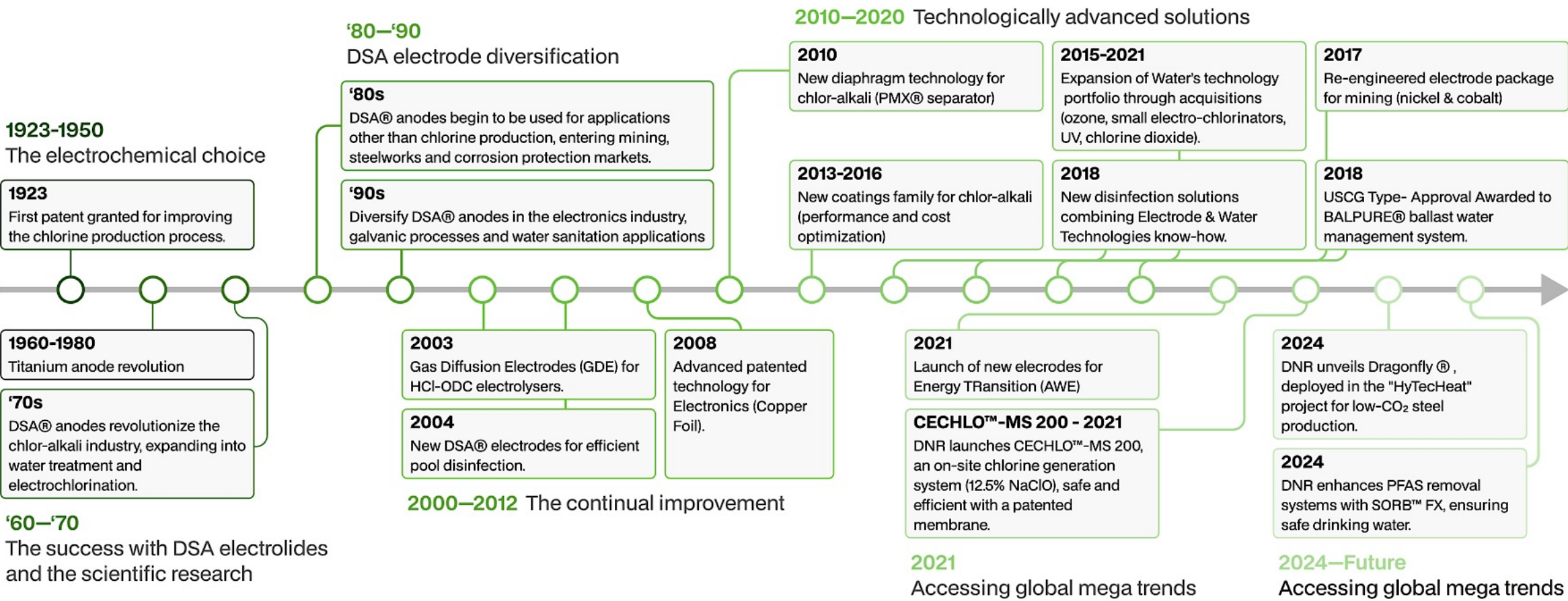
De Nora's main expense, mitigated through pass through mechanism



M&A HISTORY



COMPOUNDED R&D



R&D EXPERTS' VERDICT: FORMER EMPLOYEES



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Key Quotes From	Disruptive Vs. Incremental Innovation	Human Capital Excellence	R&D-To-Market Efficiency	Tech Foucs & Future Directions
Insider Intelligence: Perspectives From Former Company Professionals				
PhD Chemistry Advanced Production Technology	"R&D works well, production is being improved. The company is pushing hard on AWE."	"Safety is a priority from day one: extensive training upon arrival, strict movement rules in production areas."	"The efficiency of production depends on the predicted iridium use vs. the actual amount. De Nora knows margins shrink when iridium use predictions are off."	"De Nora is actively working on CO2 capture and conversion, as well as photoelectrocatalysis."
	"Zero-gap technology is a key focus, reducing resistance and increasing efficiency."	"There's a strong culture of efficiency and precision. Forecasts on material usage are closely monitored against actual data."	"Automation is key: Japan is much more advanced, while Germany's site is woking to close the gap."	"In China, the process is different—Coating containers are labeled as premixed solutions to prevent replication."
	"Potential for gigafactory expansion is high—De Nora is bringing in Japanese innovations."	"In China, the process is different—Coating containers are labeled as premixed solutions to prevent replication."	"Automatic spraying for coatings is being improved to align plants with the most efficient areas globally."	
Hydrogen R&D Electrochemistry & Innovation Pipeline	"De Nora leveraged its chlor-alkali expertise to develop hydrogen electrolyzers, expanding into the energy transition segment."	"De Nora's strength lies in its deep process knowledge and trustworthiness. It offers longer electrode lifetimes compared to Chinese alternatives."	"De Nora leads with lower Levelized Cost of Hydrogen. Higher CAPEX than China, but lower OPEX offsets it."	"Future breakthroughs will come from SOEC, led by SunFire—De Nora is already on it"
	"De Nora accelerates R&D as large competitors like Ineos and Chinese firms push vertical integration."	"Intellectual property is well-managed: by the time patents expire, De Nora has already developed the next-gen technology."	"The company is actively working on reducing iridium and platinum usage, shifting towards abundant materials."	"De Nora's service segment is growing fast, while competitors often stay out."
R&D Process Development Industrial Scaling & Efficiency	"Continuous innovation in electrodes and water purification systems secures market leadership."	"De Nora's R&D hiring process is highly selective, requiring STEM degrees, expertise in numerical modeling, and regulatory knowledge."	"Key R&D performance metrics are: patents filed, Product Vitality Index, and time-to-market efficiency."	"De Nora integrates client feedback into product development, co-developing and validating prototypes."
	"R&D plays a critical role in developing sustainable solutions aligned with global environmental regulations."	"Low turnover—except for internships and temporary contracts, ensure continuity in research efforts."	"The department has autonomy in resource allocation and experimentation, but strategic decisions are aligned with top management."	"Employees are incentivized through bonuses for patents, innovation awards, and career growth opportunities."
	"An R&D department that drives patents, secures competitive edge and licensing potential."	"Even Nucera outsources engineers from De Nora—its Chief Technology Officer is originally from De Nora."		
Senior Scientist & Project Manager Hydrogen Tech Breakthroughs	"De Nora adapts technology based on client needs: upgrades to electrodes are provided even during operational life"	"De Nora's R&D equipe covers specialists in electrode formulation and process innovation"	"Every project undergoes a rigorous stage-gate process, ensuring feasibility and market potential before execution."	"Scarcity of critical metals (Titanium, Ruthenium) is driving De Nora to pioneer alternative materials while maintaining efficiency."
	"From 1960s hydrogen electrolysis to today's Gigafactory—decades of R&D drive market leadership."	"De Nora's DNA attracts talent with long-term vision. They leveraged external collaborations to achieve technological discoveries."	"The patent team scans thousands of innovations globally, translating insights into IP strategy."	"Hydrogen will disrupt global supply chains—De Nora is already engineering sustainable solutions to stay ahead."
	"The shift from graphite anodes to DSA electrodes revolutionized the industry, with De Nora leading the transition."			"Modular electrochemistry is key success factor for De Nora."

R&D EXPERTS' VERDICT: INDUSTRY EXPERTS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Key Quotes From	Disruptive Vs. Incremental Innovation	Human Capital Excellence	R&D-To-Market Efficiency	Tech Focus & Future Directions
Market Reality Check: Insights From Industry Experts				
Ex-GM, Leading Energy Firm Energy Transition & Academic Research	"The backlog of large-scale projects is critical —electrolyzers are not a commodity, but De Nora showed technological differentiation."	"De Nora's expertise in electrodes is strong, but competition is increasing—its reputation and trustworthiness are key assets."	"Scaling up electrolysis presents challenges—De Nora balances performance improvements with degradation control."	"De Nora's M&A strategy is purely strategic, focused on vertical integration and tech expansion rather than financial engineering."
	"De Nora is a technological leader in AWE, holding a competitive edge well beyond double digits, which helped secure major projects like NEOM."			
Principal, Strategy Consulting Industrial R&D & Market Adoption	"PEM may be slightly better for smaller-scale applications, but AWE dominates for large projects due to better cost-performance ratios."	"De Nora's R&D structure is deeply embedded in its success, with a historical and well-stratified knowledge base."	"De Nora is expanding beyond just being a tech provider—it's moving towards system integration and full-solution offerings."	"DNR's move into Dragonfly targets smaller industrial players, but large-scale projects remain the main revenue driver."
Senior Partner, Global Consulting Scaling Deep-Tech & M&A	"De Nora's electrode coating technology is the real game-changer—improving efficiency and reducing costs."	"De Nora's R&D structure is solid: historically stratified, deeply technical, and continuously evolving with top engineering talent."	"Clients choose De Nora because it reduces Total Cost of Ownership. Savings are well beyond double digits in CAPEX + OPEX."	"De Nora has executed one of the most strategically sound M&A approaches, focused on diversification rather than financial plays."
	"De Nora entered the hydrogen market leveraging its deep electrochemical expertise, securing major projects like NEOM well ahead of competitors."			"De Nora is not just a tech provider anymore. It's evolving into a full-solution integrator."
SVP Hydrogen & Sustainability Driving Clean Energy Commercialization	"The real technological differentiator is coating technology for electrodes, which determines efficiency and cost-effectiveness."	"De Nora's competitive advantage is its control over both anode and cathode production, giving it better cost control and product quality."	"Clients choose De Nora for superior Total Cost of Ownership, achieving savings beyond double digits."	"Hydrogen market growth has slowed from 'hyper-booming' to just 'booming,' but De Nora remains positioned as a long-term winner due to its core technological edge."
		"Having an R&D presence in Japan is a strategic advantage—Japan is a leader in hydrogen mobility research."		
Director, Water Treatment & Environmental Protection Wastewater Technology & Infrastructure	"De Nora's focus is on electrochlorination, while competitors invest more in ozonation and UV oxidation for advanced wastewater treatment."	"De Nora is a key technology provider for General Contractors but doesn't operate as a fully integrated water treatment player like Suez or Veolia."		"Severn Trent's acquisition positioned De Nora as a stronger system integrator in the water segment."



Private Equity

Why De Nora is an Acquisition Target

- **Strong market position**
- High-growth potential with **stable cash flow**
- **Strong liquidity position** enables LBO

Industrial Company

Limited Strategic Fit

- **Niche markets**, serving multiple industries with no immediate synergies
- **No** clear industrial **players** identified

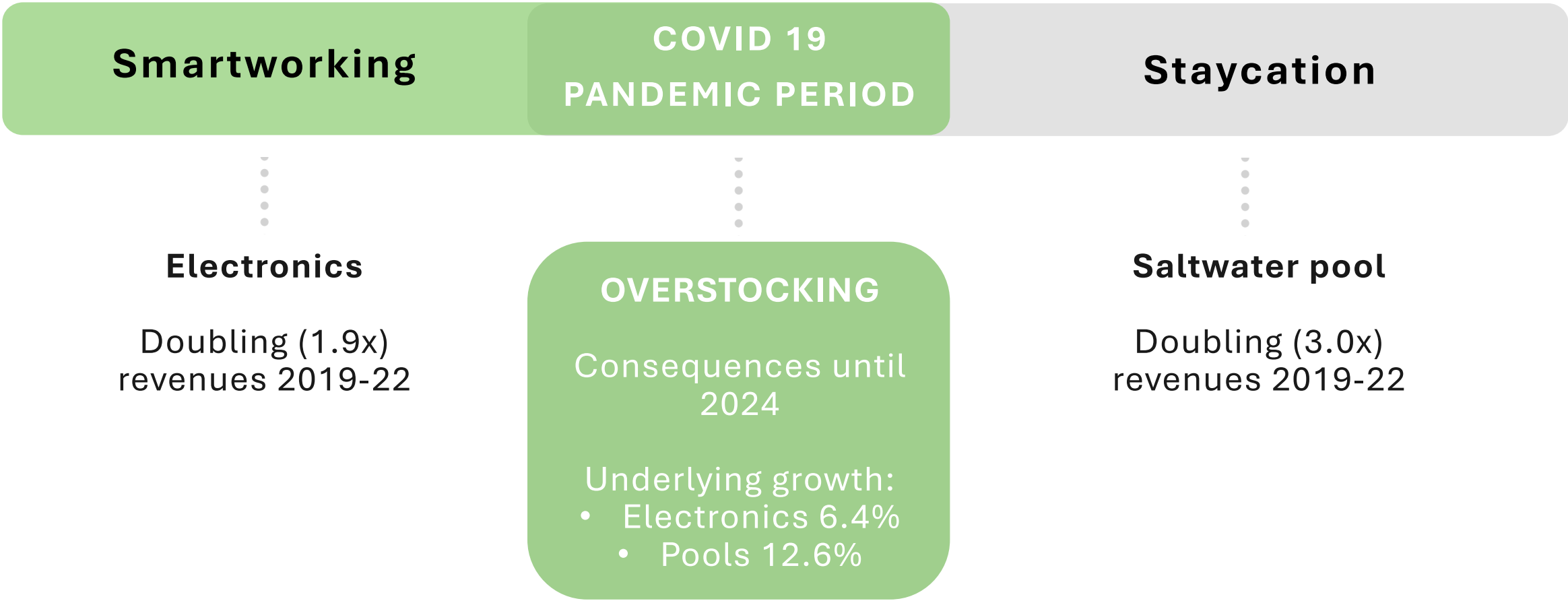
Snam

Hydrogen Interest but No Fit for Electrodes

- Snam is interested mainly in De Nora's **hydrogen business**
- **No full strategic alignment**

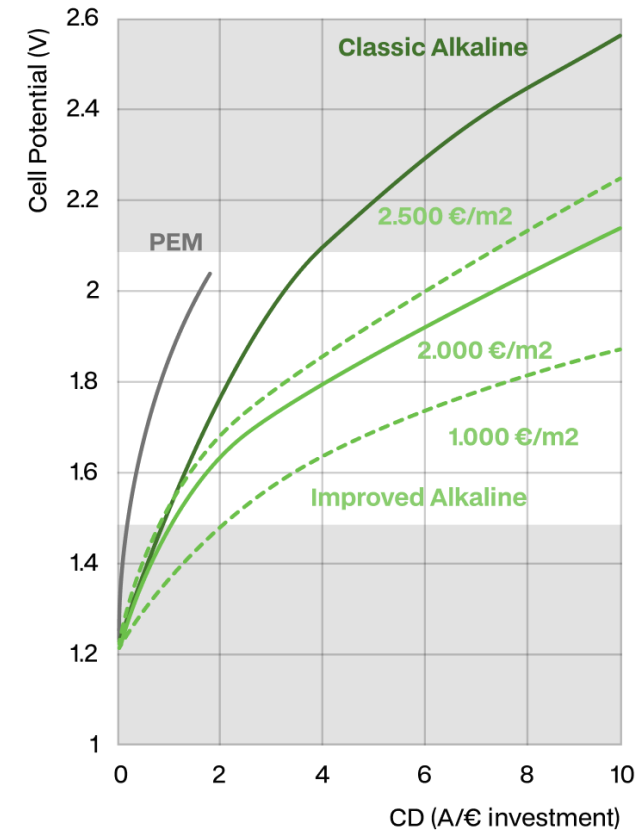
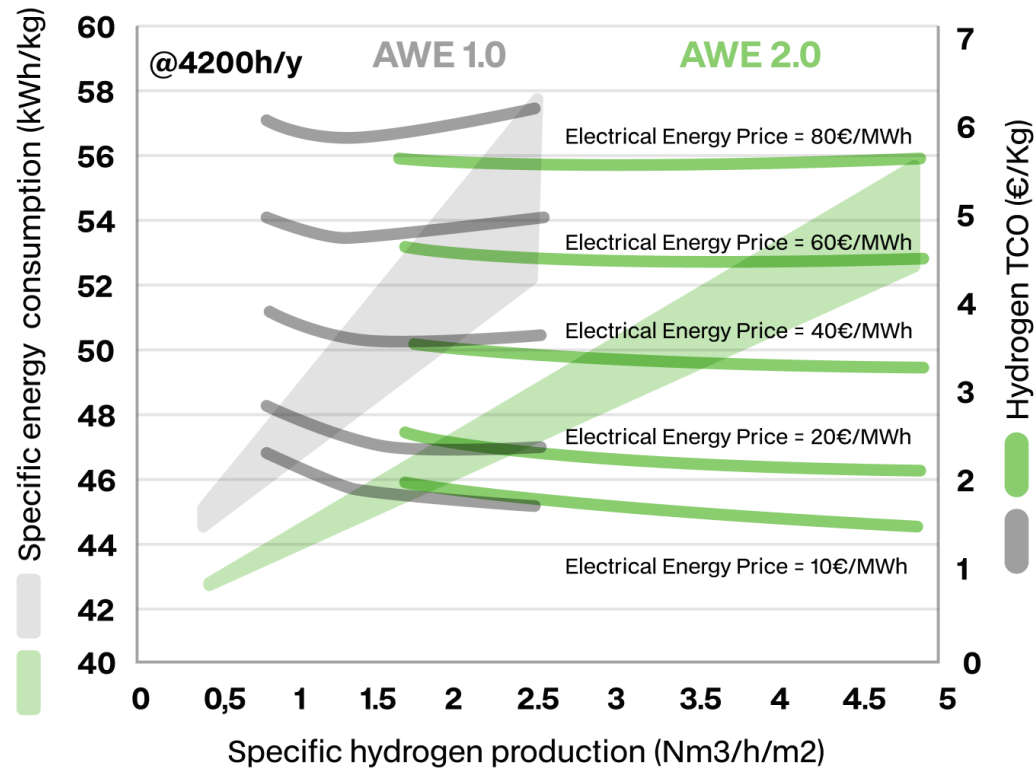
INDUSTRY OVERVIEW



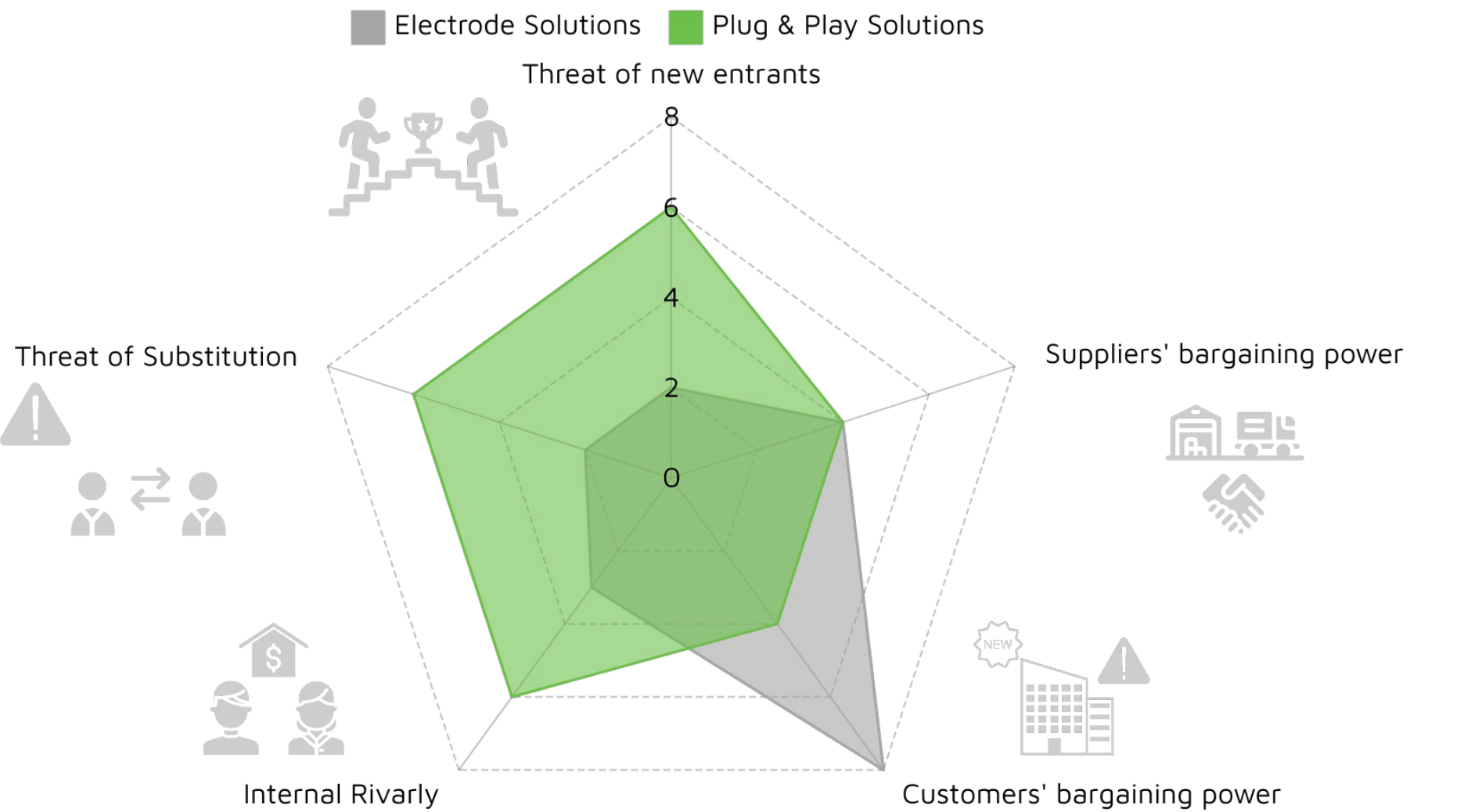




- **Lower CAPEX in AWE** because of lower percentage of noble metals
- **Lower OPEX** because of De Nora increased efficiency in AWE 2.0 almost reaching PEM levels. Pem require more maintenance costs.



PORTER 5 FORCES





	ELECTRODE SOLUTIONS and PLUG & PLAY SOLUTIONS
High Capital Requirements	Significant upfront investment and working capital needs.
High Technological Barriers	Protected by patents and know-how; experience curve advantages.
High Economies of Scale	Larger players benefit from cost efficiency.
Moderate Switching Costs	Clients favor reliable, proven solutions but can switch if needed.
Moderate Access to Distribution Channels	Local presence matters for servicing 24/7 operations.



ELECTRODE SOLUTIONS	PLUG & PLAY SOLUTIONS
Low	Moderate
Critical Component: Electrodes are core to electrochemical processes .	Competing Technologies Exist: UV, ozone, or chlorine dioxide systems could compete in specific applications, but De Nora’s multi-technology portfolio (e.g., UV, chlorine, ozone) reduces this risk.
No Direct Replacement: No viable alternative technology fully replaces electrodes in these applications.	
Performance Differentiation: De Nora’s patented coatings and high energy efficiency provide a performance moat, making substitution even harder.	



	ELECTRODE SOLUTIONS	PLUG & PLAY SOLUTIONS
	Low	Moderate-high
Concentrated Competition	Low	Moderate: regional and global players (less specialized)
Product Differentiation	High-Patented coatings, efficiency gains, long replacement cycles.	Moderate-Systems can be modular but are often perceived as more commoditized
Switching Costs	Moderate (clients prefer proven performance)	High (clients prefer proven performance, costly to switch integrated systems)

SUPPLIERS' BARGAINING POWER



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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ELECTRODE SOLUTIONS and PLUG & PLAY SOLUTIONS

Moderate

Critical Suppliers	Dependence on specialty materials (e.g., titanium, nickel, PGMs) gives suppliers leverage.
Price Volatility	Raw material price fluctuations (due to geopolitics, supply chain disruptions) raise cost pressure.
Supply Chain Disruption Risk	Delays can halt production, forcing buyers to accept supplier terms.
Stockpiling Necessity	Firms absorb higher costs by holding inventory to avoid shortages, further limiting buyer power.



Diversified Portfolio

- The company was able to adapt successfully its core technology in diverse end market

Global Presence

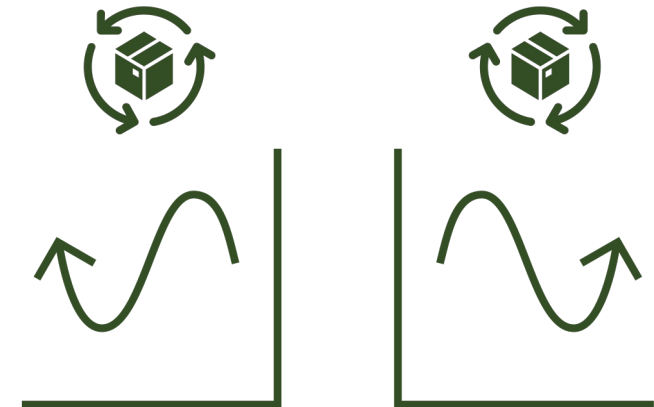
- The company operates in 100+ countries
- Balanced revenue in AMS, APAC, EMEA

Innovation Focus

- Maintains competitiveness
- Meets evolving market demands

Strategic Partnership

- Collaborations with other industry leaders
- Participation in joint ventures expand De Nora's market reach and resource base





TRENDS EXPOSURE IN ELECTRODE SOLUTIONS

BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG

Technological expansion

- AI (CAGR 36.6%)
- IoT (CAGR 24.3%)
- Connected vehicles (CAGR 19.2%)
- Commercial electronics (CAGR 7.8%)

Resource scarcity

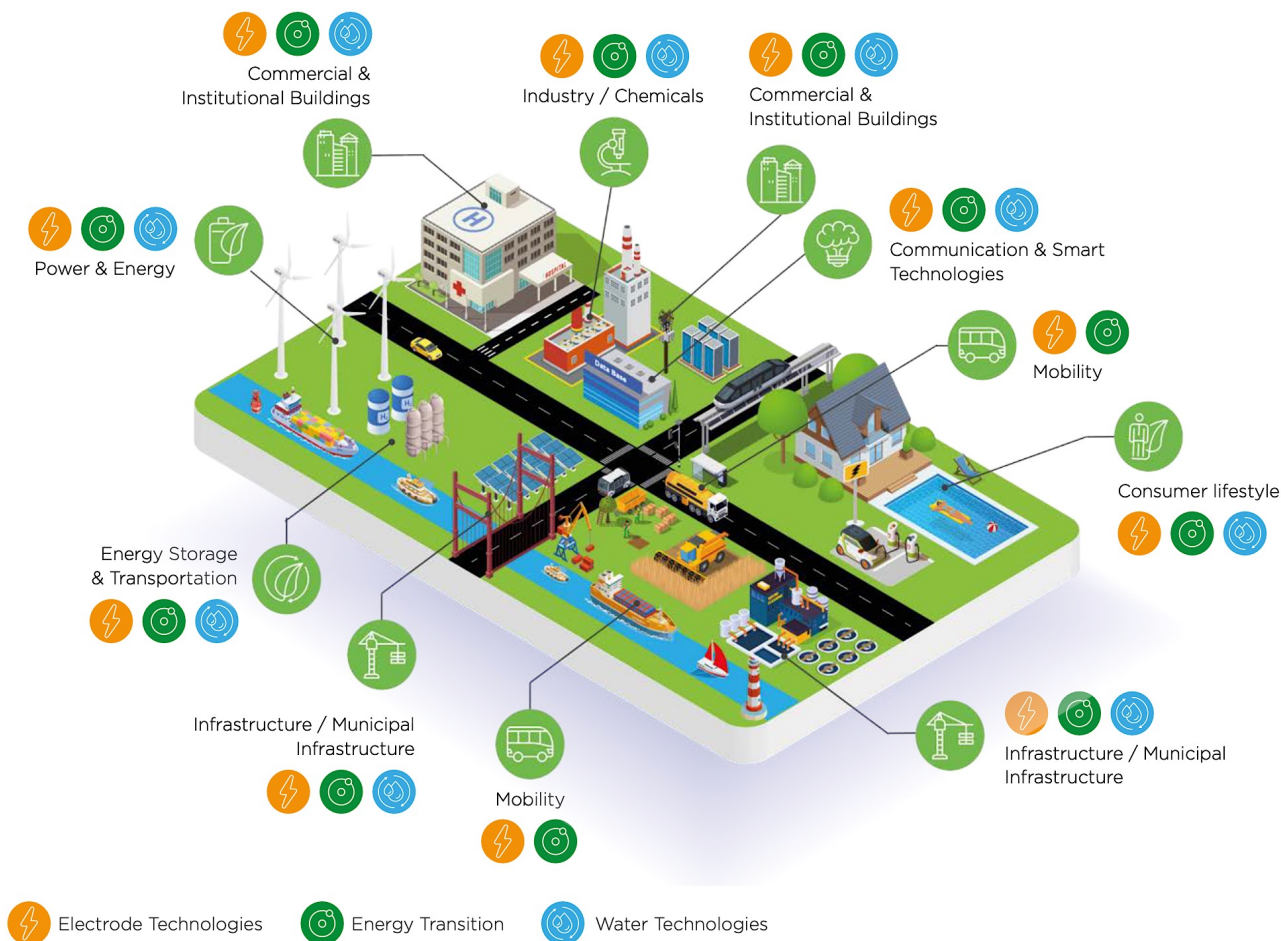
- +56% water demand/supply gap by 2030: desalination (CAGR 10%) and PFAS (CAGR 10.5%)

Need for power & energy

- 50% global primary energy consumption growth by 2050

Urbanization

- ~30% inurban population growth by 2040



CHLOR-ALKALI MARKET



BUSINESS

INDUSTRY

FINANCIAL

VALUATION

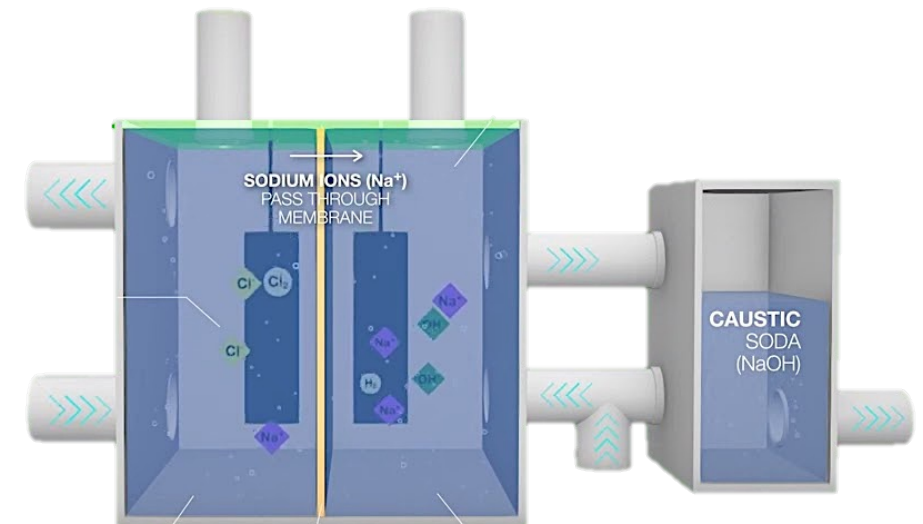
RISKS

ESG

Electrodes in the \$53b CA industry plays a critical part in the production of chlorine and caustic soda (NaOH). These chemicals are used in water treatment, pulp and paper processing, and to produce essential organic and inorganic chemicals.

Trends: essential goods fueling +3.5% growth

- **Construction & Urbanization:** PVC manufacturing accounted for 35% of 2023 chlorine demand, fueled by construction expansion.
- **Industrial Demand:** NaOH consumption is projected to reach 83M tonnes in FY24, driven by automotive aluminum demand and textile & chemical applications.
- **Regulatory Shifts:** Europe's mercury phase-out and U.S. asbestos ban are accelerating the adoption of membrane cell technology (80% of capacity), improving efficiency & sustainability.
- **Regional Market:** APAC leads with a 60% market share, while North America & Europe face slower growth due to high energy costs.





Electrodes are essential for copper foil production (**9.9% CAGR FY23-FY32**), a key material in **printed circuits** and **lithium batteries**. They also play a crucial role in electrochemical copper plating (**6.3% CAGR FY24-FY31**) for **high-density interconnection (HDI) printed circuit boards (PCBs)**.

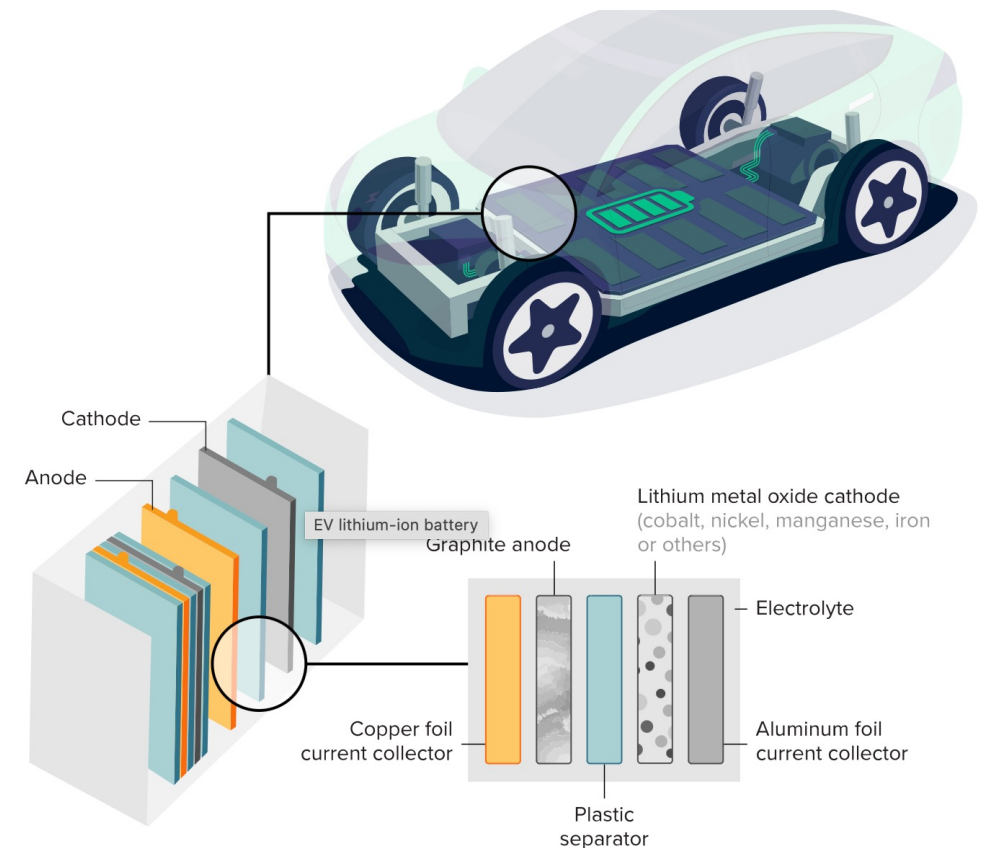
Demand driving trends

- **PCB Industry Recovery & Digitalization**

After a 2023 decline due to supply-demand imbalances during COVID-19, global PCB manufacturing is rebounding. Growth is fueled by 5G expansion, connected vehicles, AI integration, and digitalization trends.

- **Decarbonization Driving Lithium Battery Demand**

The shift towards renewable energy and electric vehicles (EVs) is accelerating lithium battery growth, increasing demand for copper foil and electrochemical plating.





Electrowinning is a metal recovery technology used for **nickel, cobalt, and copper**, key materials in lithium-ion batteries for EVs, renewable energy storage, and electronics.

Demand driving trends-7.1% CAGR (FY23-FY32)

- **Battery Metals Demand:** rising EV adoption and renewable energy expansion are increasing demand for nickel, cobalt, and copper.
- **Sustainability Shift:** companies are investing in low-emission recovery methods, making ELW a key green extraction process.

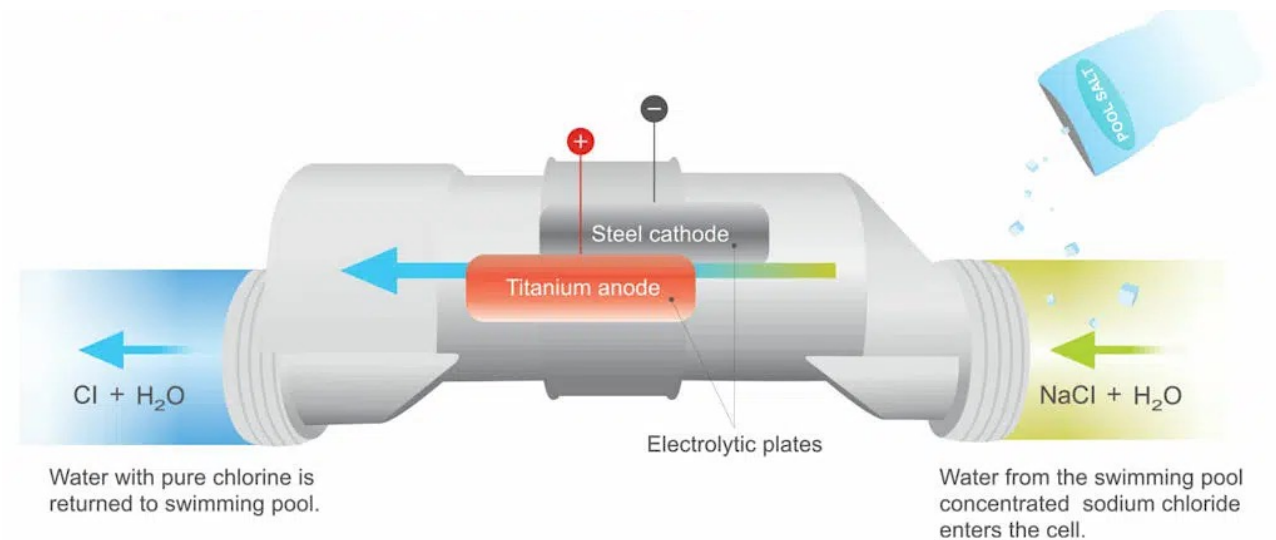




The saltwater pool technology market is projected to grow at a 8.2% CAGR (FY24-FY30), driven by rising disposable income, GDP growth, and changing consumer preferences. Nearly 50% of new pool installations now use saltwater chlorination, offering lower long-term costs and operational advantages.

Demand driving trends

- **Cost Efficiency:** While requiring higher initial investment, saltwater pools lower annual chemical costs, as salt is cheaper than chlorine.
- **Automation & Maintenance:** Automated systems reduce maintenance, prevent chlorine spikes, and minimize algae outbreaks.
- **Health & Environmental Benefits:** Less chemical dispersion, reduced eye/skin irritation, and no strong chlorine smell are accelerating adoption.



DISINFECTION & FILTRATION MARKET



BUSINESS

INDUSTRY

FINANCIAL

VALUATION

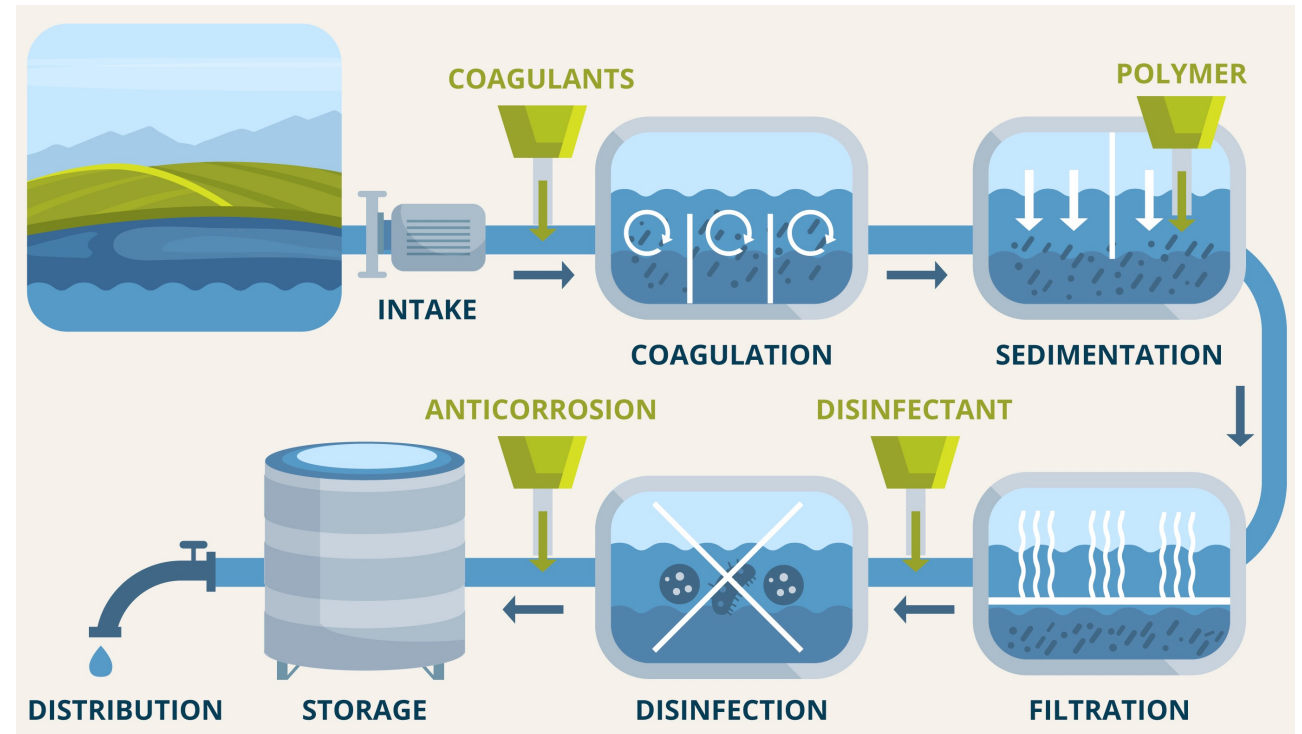
RISKS

ESG

Water disinfection and filtration technologies are essential for safe drinking water, industrial wastewater treatment, and environmental protection. The global water treatment market is expected to grow at a **6%+ CAGR (FY23-FY30)**, driven by stricter regulations, technological advancements, and rising water quality concerns.

Demand driving trends

- **Regulatory Push:** Tougher standards, including the EPA Safe Drinking Water Act and EU Water Framework Directive, are accelerating the adoption of advanced disinfection technologies.
- **PFAS Remediation:** The EPA's 4 ppt PFAS limit (2024) requires compliance within five years, with €15B annual cleanup costs, driving demand for high-efficiency treatment solutions.
- **Smart Water Management:** IoT-enabled systems cut OPEX by up to 30%, improving efficiency and reducing water waste.





Electrochlorination is a key water disinfection technology, offering scalable, on-site chlorine generation without the risks of transporting hazardous chemicals. The market is projected to grow at a **6.34% CAGR (FY24-FY30)**, driven by efficiency, safety, and adaptability in various water treatment applications.

Demand driving trends

- **Operational Efficiency:** advances in energy efficiency and automation are lowering OPEX and simplifying maintenance.
- **Safety & Scalability:** on-site chlorine generation eliminates the risks of handling and transporting hazardous chemicals, making it a safer alternative.
- **Technological Innovation:** efforts to reduce sodium hypochlorite corrosiveness and meet environmental compliance are driving continuous improvement in system design.





- **Green hydrogen:** a key technology for achieving net-zero emissions, enabling energy storage, industrial decarbonization, and energy independence.
- **Adoption:** challenges due to high levelized costs, expensive electrolyzers, and macroeconomic pressures.

Demand driving trends

- **Rising Costs & Delays:** electrolyser capital costs rose 20% in 2023, driven by higher material, labor, and contingency costs, delaying project execution.
- **Global Capacity Expansion:** 14 GW installed in FY23, with China (80%) leading growth through state-backed projects like Sinopec's 260-MW Kuqa plant. Europe (12%) follows, driven by energy independence goals but slowed by fragmented policies.
- **Regulatory & Policy Influence:** The Inflation Reduction Act (USA) boosts optimism, while EU policies (Hydrogen Bank, Net-Zero Industry Act) aim to scale production.

PROPRIETARY MODEL: LOWEST TCO



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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$$TCO = CAPEX \sum_{t=1}^n \frac{OPEX_t + Electricity_t + Maintenance_t + Distribution_t}{(1 + r)^t}$$

	Dragonfly	Nucera	PEM avg competitor	AWE avg competitor	
System Power	7,5	20	10	19,4	MW
Operating Hours	4200	4200	4200	4200	h/year
Density of H2	0,08988	0,08988	0,08988	0,08988	kg/Nm^3
H2 production	1500	4000	2020	3880	Nm³/h
H2 Production	566244	1509984	762541,92	1464684,48	kg H2/year
Energy consumption	0,0536	0,0508	0,0532	0,058	MWh/kg
Electricity price	100	100	100	100	€/MWh
Electricity cost	3035067,84	7670718,72	4056723,014	8495169,984	€/year
CAPEX/ Mw	1135190,23	1135190,226	1970200	1666250	€/MW
CAPEX	8513926,7	22703804,53	19702000	32325250	€
OPEX	255417,801	681114	591060	969758	€/year
TCO	40820399,8	104703330,6	65334618,75	125253303,2	€
TCO/MW	5442720	5235167	6533462	6456356	€/MW



$$LCOH = \frac{CAPEX \times CRF \times OPEX \times Electricity\ Cost}{Annual\ Hydrogen\ Production}$$

	2024 EU	2024 USA	2030 EU	2030 USA	
System Power	20	20	20	20	MW
Operating Hours	4200	4200	4200	4200	h/year
Density of H2	0,08988	0,08988	0,08988	0,08988	kg/Nm^3
H2 production	4000	4000	4000	4000	Nm³/h
Yearly H2 Production	1509984	1509984	1509984	1509984	kg H2/year
Energy consumption per kg H2	0,0508	0,0508	0,0508	0,0508	MWh/kg
Electricity price	100	60	45	30	€/MWh
Electricity cost	7670719	4602431	3451823	2301216	€/year
CAPEX/ MW	1135190	1135190	794633	794633	€/MW
CAPEX	22703805	22703805	15892663	15892663	€
OPEX	681114	681114	476780	476780	€/year
CRF, capital recovery factor	0,10	0,10	0,10	0,10	
LCOH	7,06	5,03	3,67	2,91	€/kg
Grey LCOH	3 to 4	1 to 3	3 to 4	1 to 3	€/kg



Water Quality – PFAS (CAGR 10.5%)

US Regulations

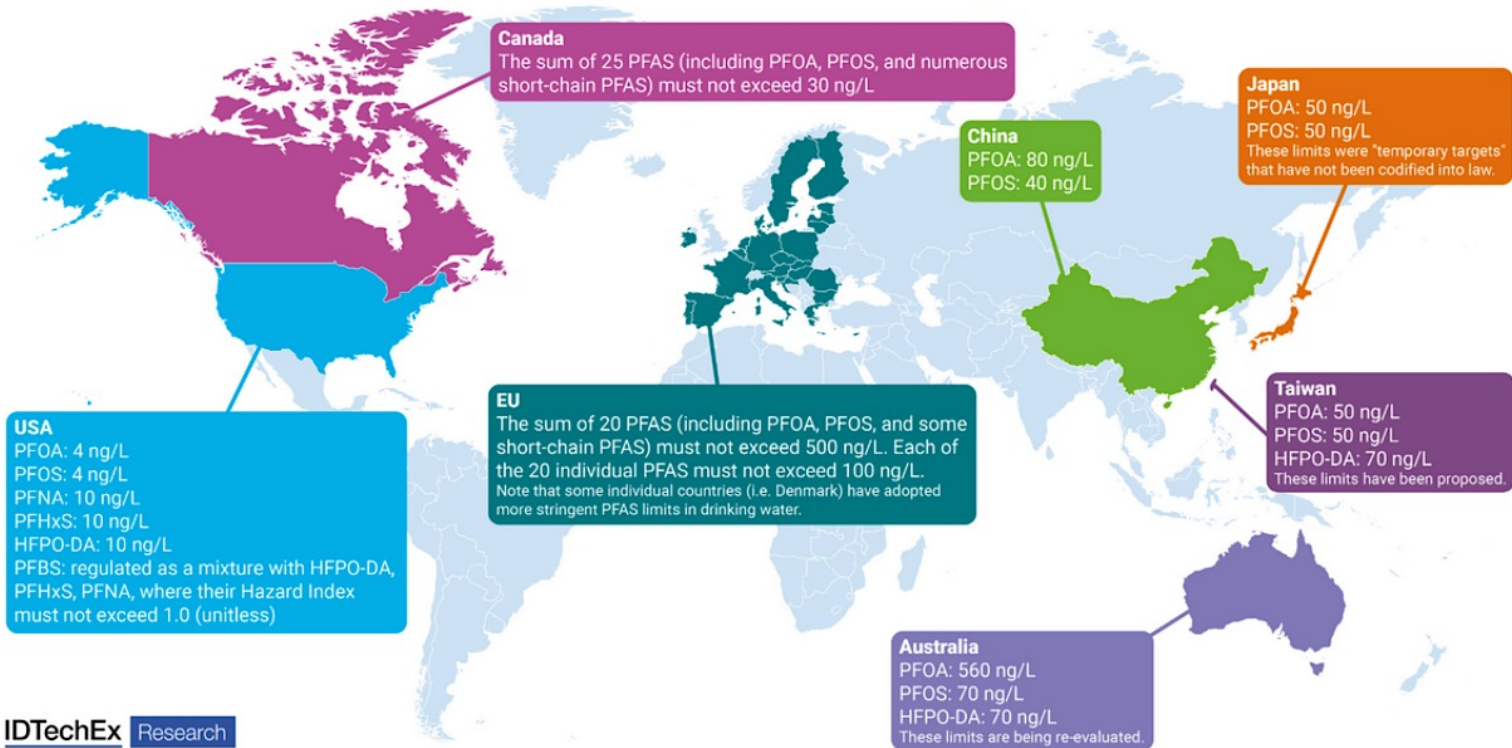
EPA April 2024: 4ppt is the MCL1 for drinkable water.

The utilities have a 5-year runway to come into compliance.

EPA estimates total clean up costs of €1.5 bn/Y investment.

Strategic Partnership

Ongoing partnership with Aclarity for electro-oxidation technology.

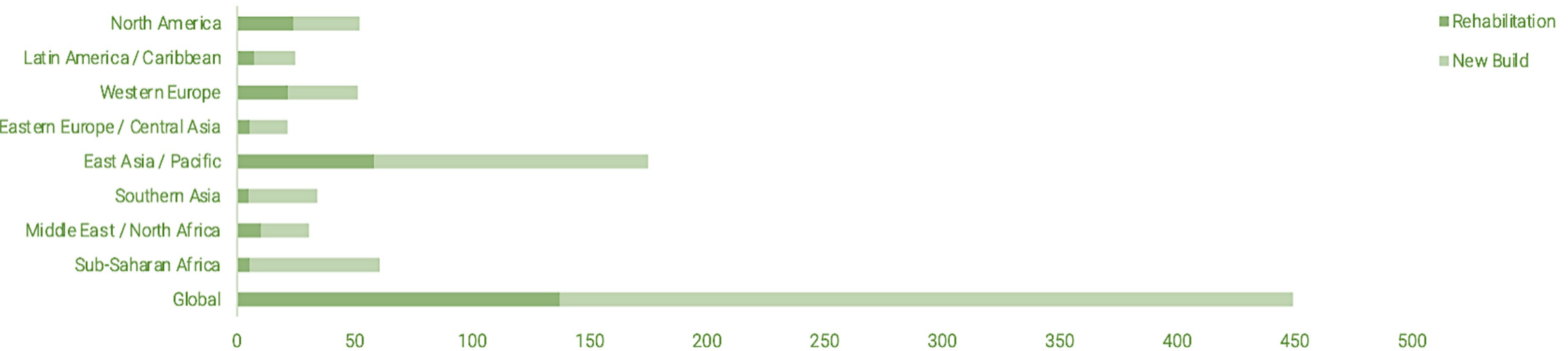


PFAS Filtration Market Size, Share & Forecast | Report [2033]

Water Scarcity – Desalination (CAGR 10.0%)
Focus on water-stressed areas (USA, China, Saudi).

Strategic Partnership
Ongoing Partnership with ACWA POWER (largest private desalination company).

Global and Local Water Investments Needs up to 2030



FINANCIAL ANALYSIS



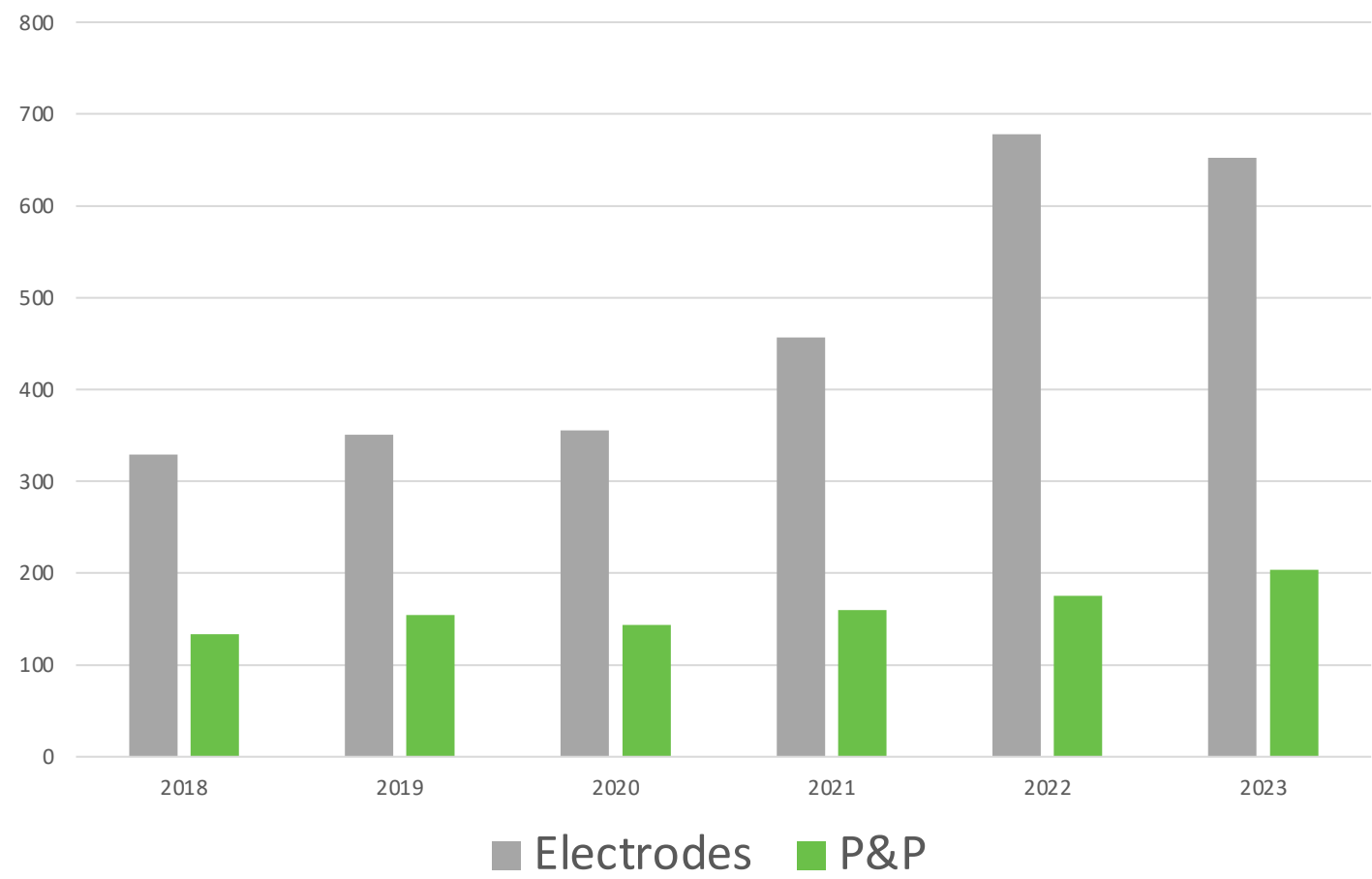


ESG

ELECTRODES VS PLUG AND PLAY

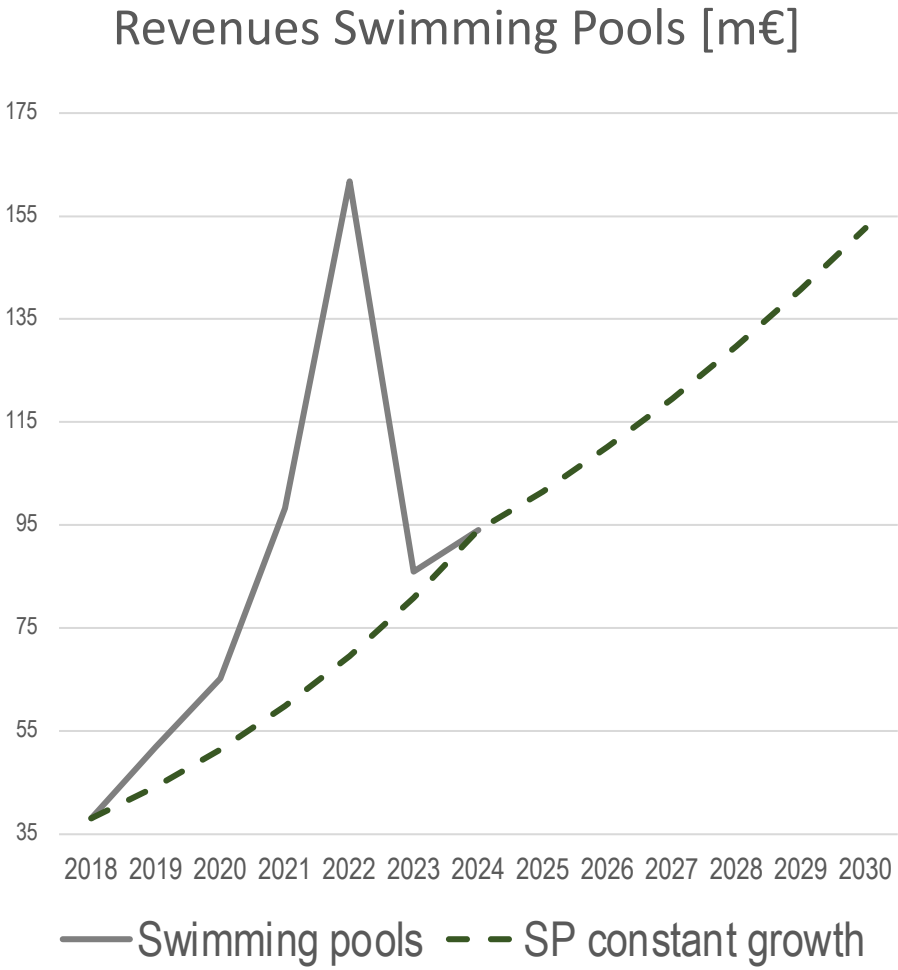
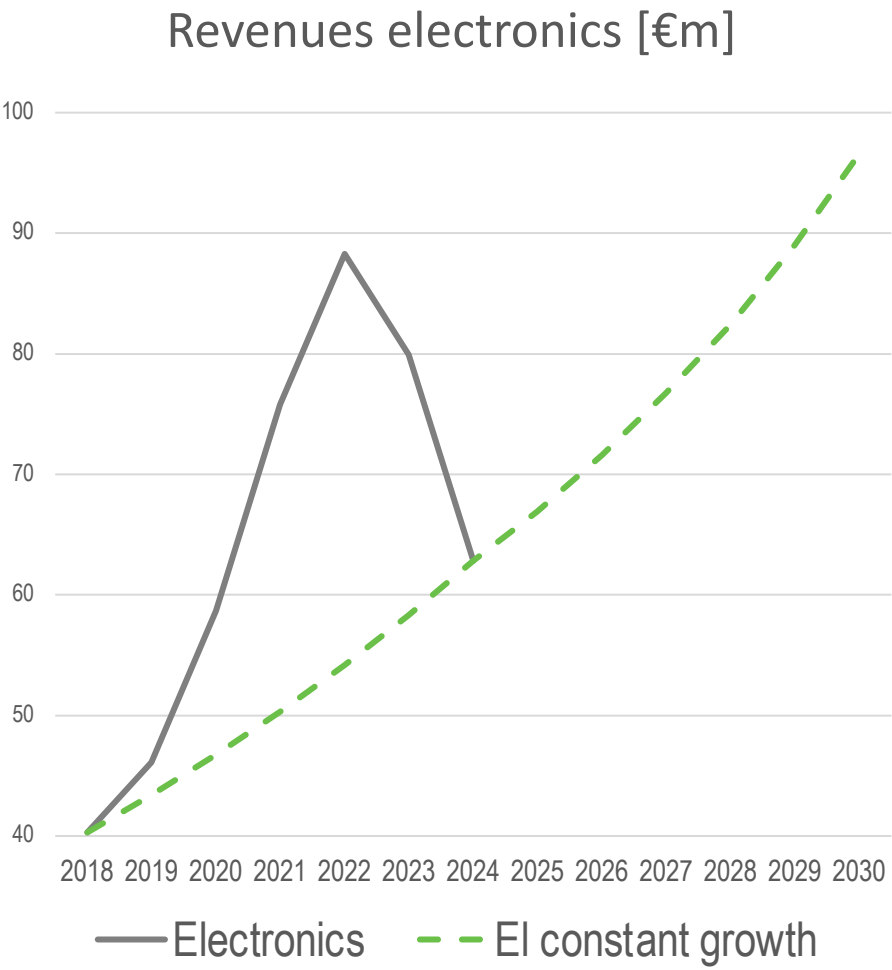


Revenue by segment [m€]



Electrodes solutions CAGR
2018-2023: 14.7%

Plug & Play solutions CAGR
2018-2023: 8.9%



Spikes in revenues of:

- EI: 22% CAGR
- SP: 44% CAGR

Despite the **normalization** post COVID, the overall underlying trend in 2018-2024 remains solid:

- EI: 8% CAGR
- SP: 16% CAGR

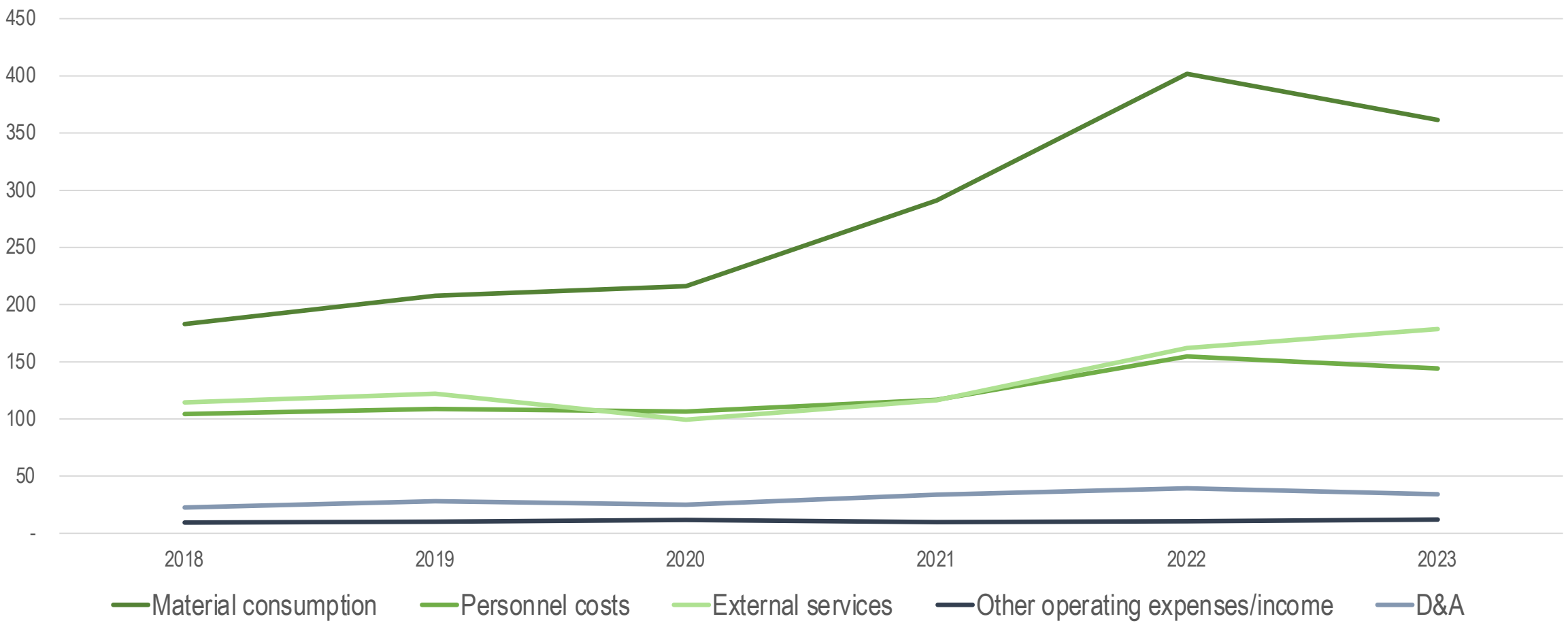
With positive future projections



HISTORICAL COSTS BY YEAR



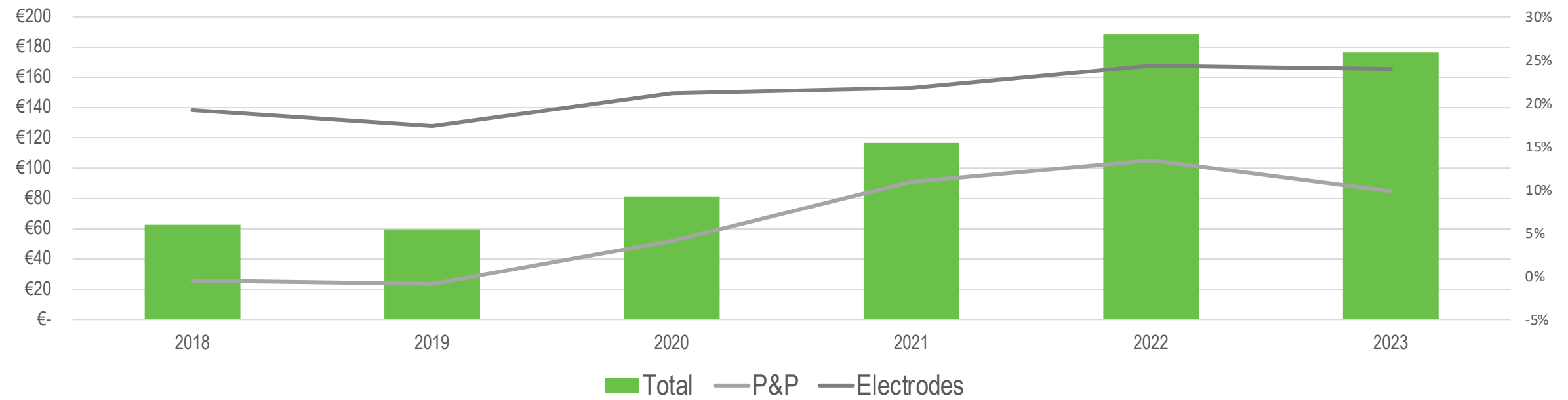
Historical costs by year [m€]





HISTORICAL EBITDA BY SEGMENT

EBITDA by segment [m€]



	2018	2019	2020	2021	2022	2023
Electrodes	19.23%	17.39%	21.18%	21.77%	24.36%	23.97%
P&P	-0.46%	-0.87%	4.08%	10.91%	13.41%	9.86%
Total	13.56%	11.81%	16.26%	18.96%	22.11%	20.61%

EBITDAm ELECTRODES COMPARISON



BUSINESS

INDUSTRY

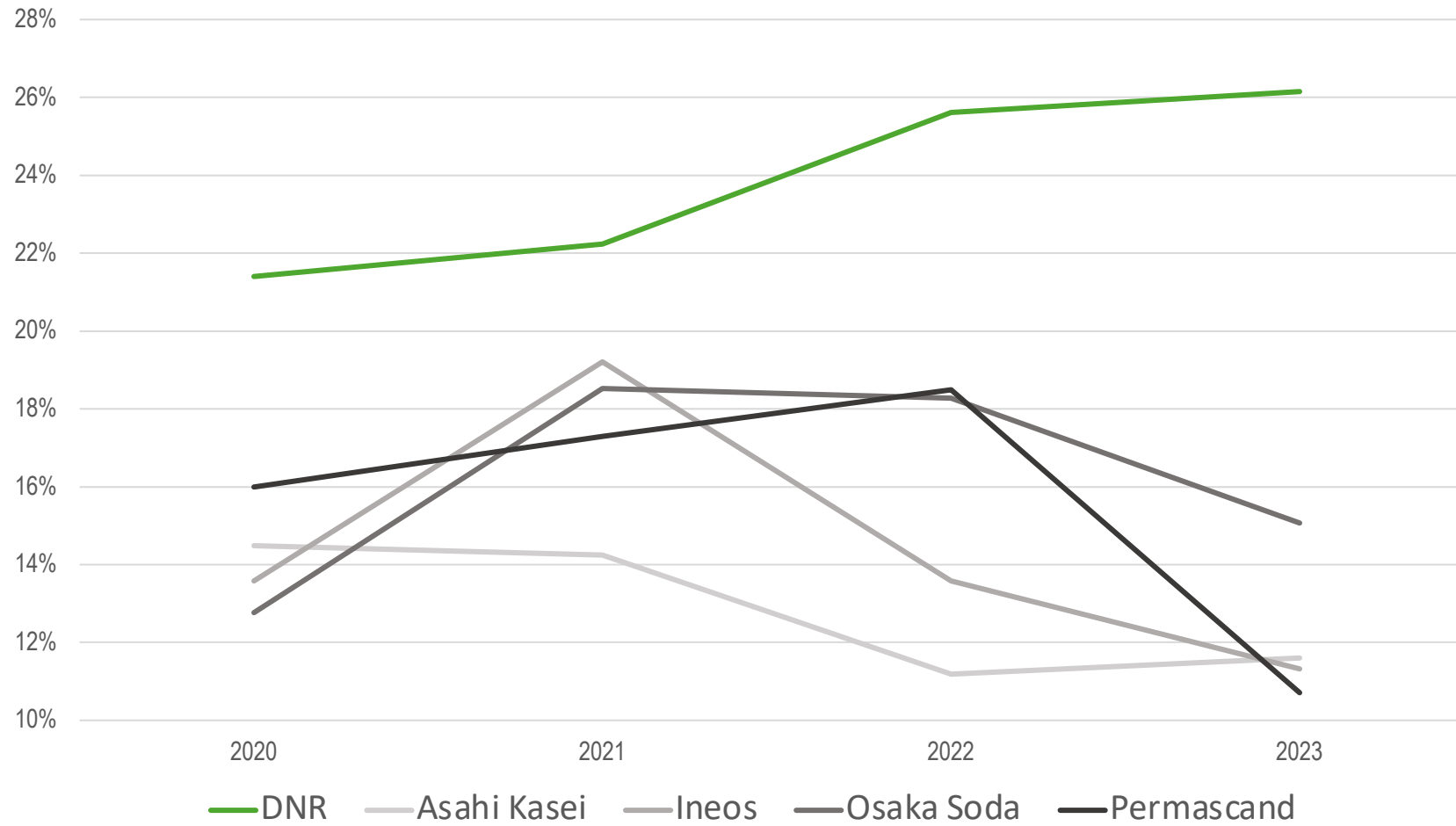
FINANCIAL

VALUATION

RISKS

ESG

EBITDAm DNR vs Peers



De Nora stands out in the industry

- **Strong pricing power** thanks to its technological leadership and R&D
- Production **efficiency**, thanks to **flexibility** deriving from electrodes nature

EBITDAm GH2 COMPARISON



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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EBITDAm	2018	2019	2020	2021	2022	2023
Nel	-36.95%	-48.37%	-48.87%	-69.07%	-80.83%	-20.33%
ITM Power	-296.86%	-614.59%	-516.09%	-737.76%	-1852.74%	-192.28%
McPhy	-129.94%	-83.40%	-65.39%	-183.99%	-234.86%	-258.50%
Plug Power	-33.08%	-15.21%	-52.65%	-74.76%	-86.43%	-109.15%
Average	-124.21%	-190.39%	-170.75%	-266.40%	-563.72%	-145.07%

VS

EBITDAm	2022		2023	2024
De Nora gH ₂	5.6%		12.2%	5.3%



EBITDAm P&P COMPARISON



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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EBITDAm	2019	2020	2021	2022	2023
Xylem	18.38%	15.35%	16.18%	16.26%	15.90%
Permascand	12.43%	15.99%	17.30%	18.49%	10.71%
Pentair	17.80%	18.53%	19.50%	19.05%	22.04%
Ecolab	21.36%	21.39%	19.85%	17.96%	20.13%
Fluidra	14.99%	20.11%	22.94%	19.47%	18.99%

VS

EBITDAm	2019	2020	2021	2022	2023
De Nora gH ₂	-0,87%	4.08%	10.91%	13.41%	9.86%

PROFITABILITY INDICATORS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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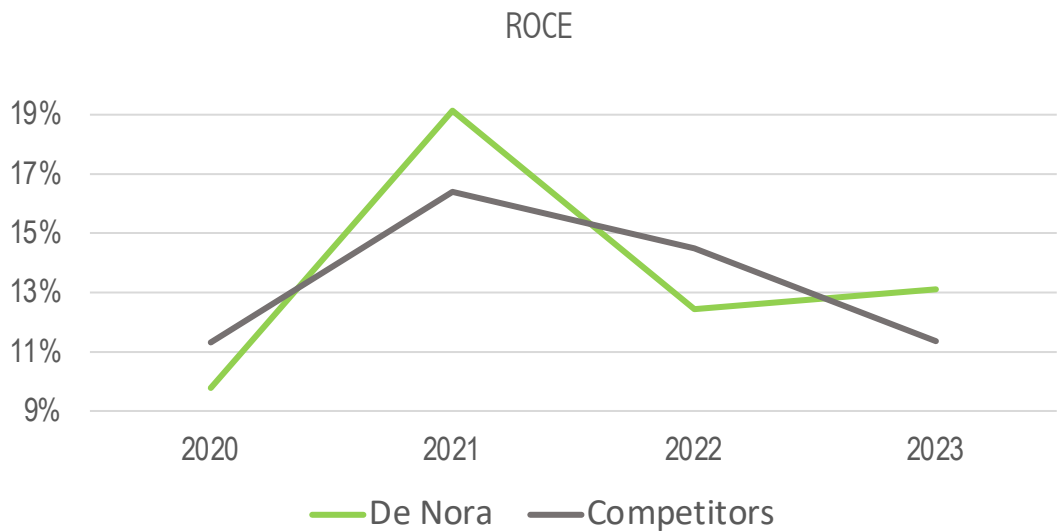
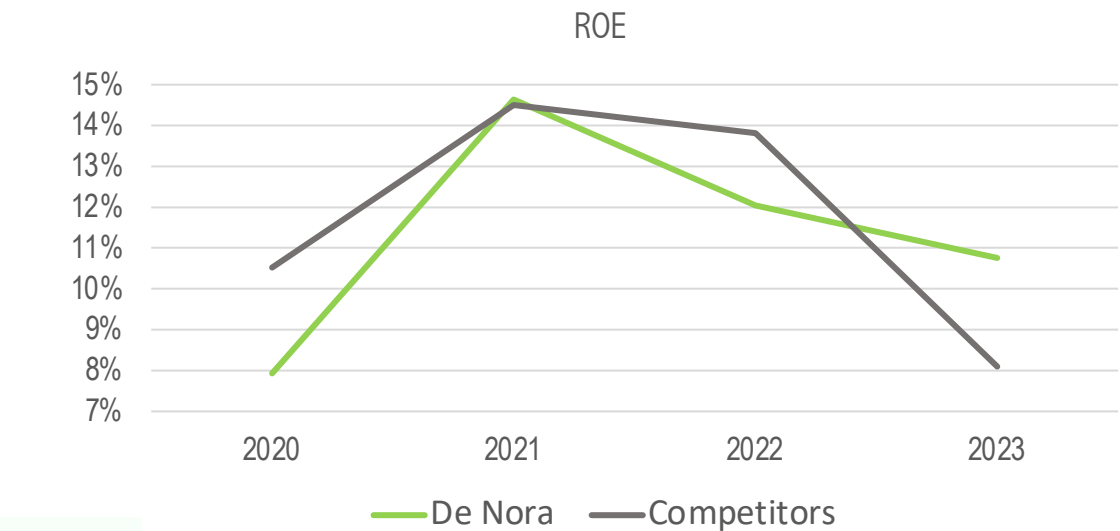
	2018	2019	2020	2021	2022	2023
ROE	11.66%	11.16%	7.93%	14.64%	12.04%	*25.38%
EBITDA margin	13.56%	11.81%	16.26%	18.96%	22.11%	20.61%
EBIT margin	10.17%	9.46%	11.12%	14.22%	14.75%	15.99%
Net Profit margin	5.64%	5.73%	6.56%	10.79%	10.51%	30.98%
Payout ratio	0.14%	0.00%	0.00%	90.34%	22.34%	10.50%
ROI	8.10%	7.90%	9.49%	12.21%	12.26%	12.99%
ROA	6.24%	6.07%	7.21%	8.88%	9.77%	10.28%
ROCE	8.34%	7.91%	9.78%	19.14%	12.43%	13.12%
EPS	0.16	0.17	0.20	0.38	0.47	0.49

* In FY23, De Nora’s Net Profit surged by €145 million, due to the revaluation of its stake in Nucera. Consequently, EBIT grew by 8.8% from FY22 to FY23, while Net Profit soared by 157.7%. Furthermore, between FY18 and FY23, both Net Profit and Equity expanded significantly, resulting in a stable ROE that does not fully reflect the company's improved profitability.

ROE & ROCE DE NORA VS COMPETITORS



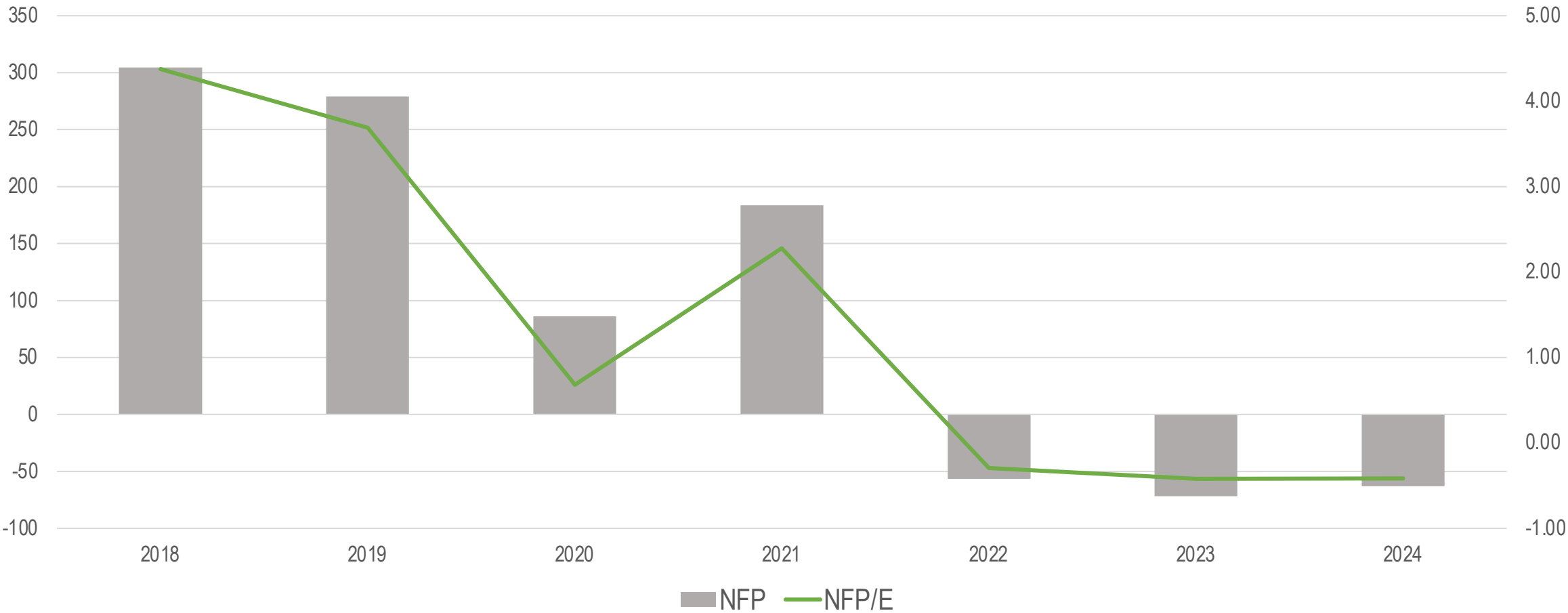
		2020	2021	2022	2023
ROE	De Nora	7.93%	14.64%	12.04%	10.75%
	Competitors	10.52%	14.50%	13.81%	8.10%
ROCE	De Nora	9.78%	19.14%	12.43%	13.12%
	Competitors	11.31%	16.40%	14.50%	11.36%



LEVERAGE – NET FINANCIAL POSITION / EBITDA



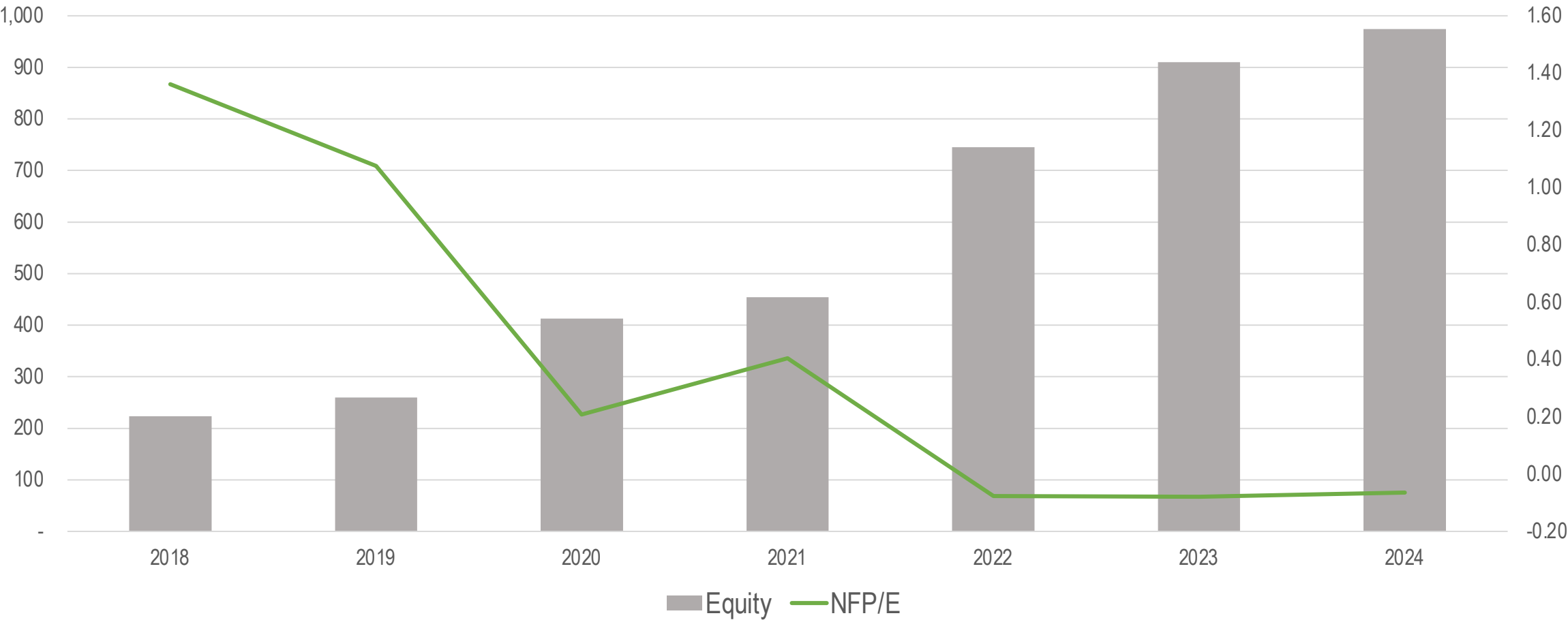
NFP/EBITDA adj [m€]



LEVERAGE – NET FINANCIAL POSITION / E



NFP/E [m€]



DIVIDENDS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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		2022	2023		2022	2023
De Nora	DPS	0.12	0.12	Payout ratio	25.48%	10.78%
Asahi kasei		0.26	0.23		0.00%	113.91%
Osaka Soda		0.13	0.11		21.01%	29.92%
Xylem		1.14	1.22		61.17%	47.29%
Pentair		0.81	0.82		29.27%	23.77%
Ecolab		1.96	2.00		54.08%	45.09%
Fluidra		0.57	0.45		66.86%	74.23%

MULTIPLES COMPARISON



BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG

	P/E	P/BV	EV/EBITDA
De Nora	22.7	2.0	10.8
Asahi Kasei	9.8	0.7	6.1
Osaka Soda	12.9	1.5	8.6
Xylem	27.5	3.0	20.4
Pentair	19.9	4.5	19.3
Ecolab	34.9	8.8	24.0
Fluidra	17.8	2.8	12.7
Dow	19.2	1.6	8.8

- **Mid-range** among peers: the market **hasn't fully priced** in its growth potential.
- **Balanced growth exposure** in sustainability-driven segments.
- It's **not purely "value"**, its multiples aren't deeply discounted, **nor a high-multiple "growth"** play. Rather, De Nora sits in a "quality growth" niche, with secular drivers supporting an attractive valuation gap.

FCFF GENERATION



BUSINESS

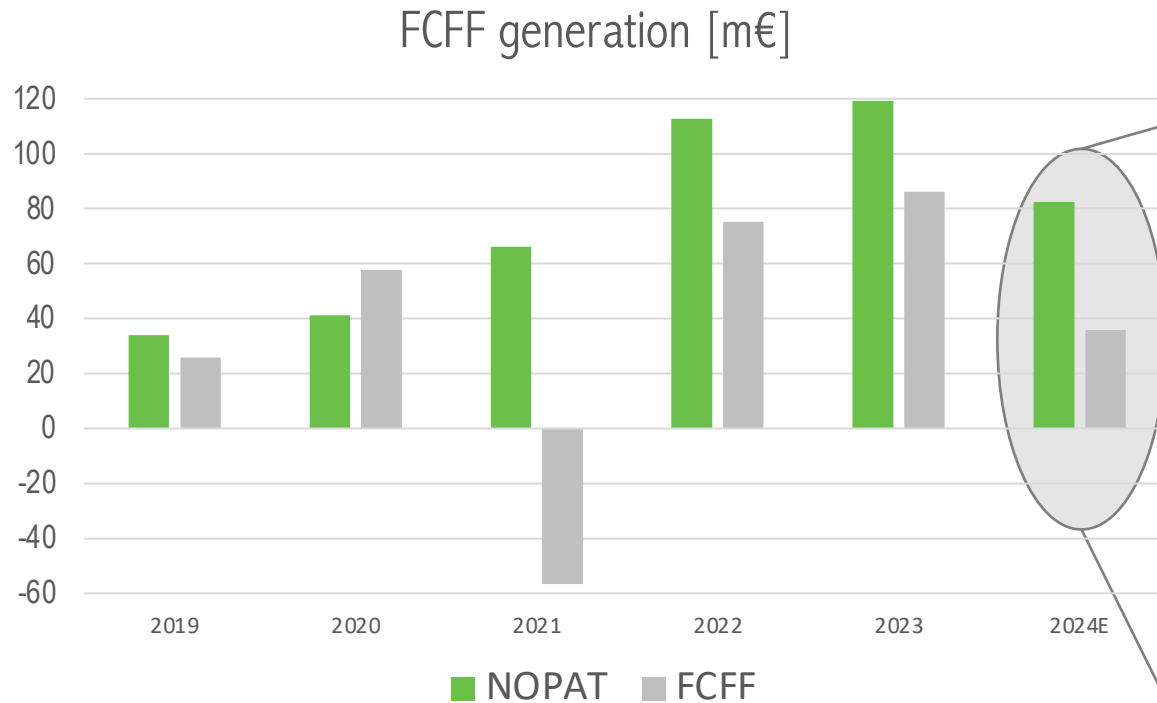
INDUSTRY

FINANCIAL

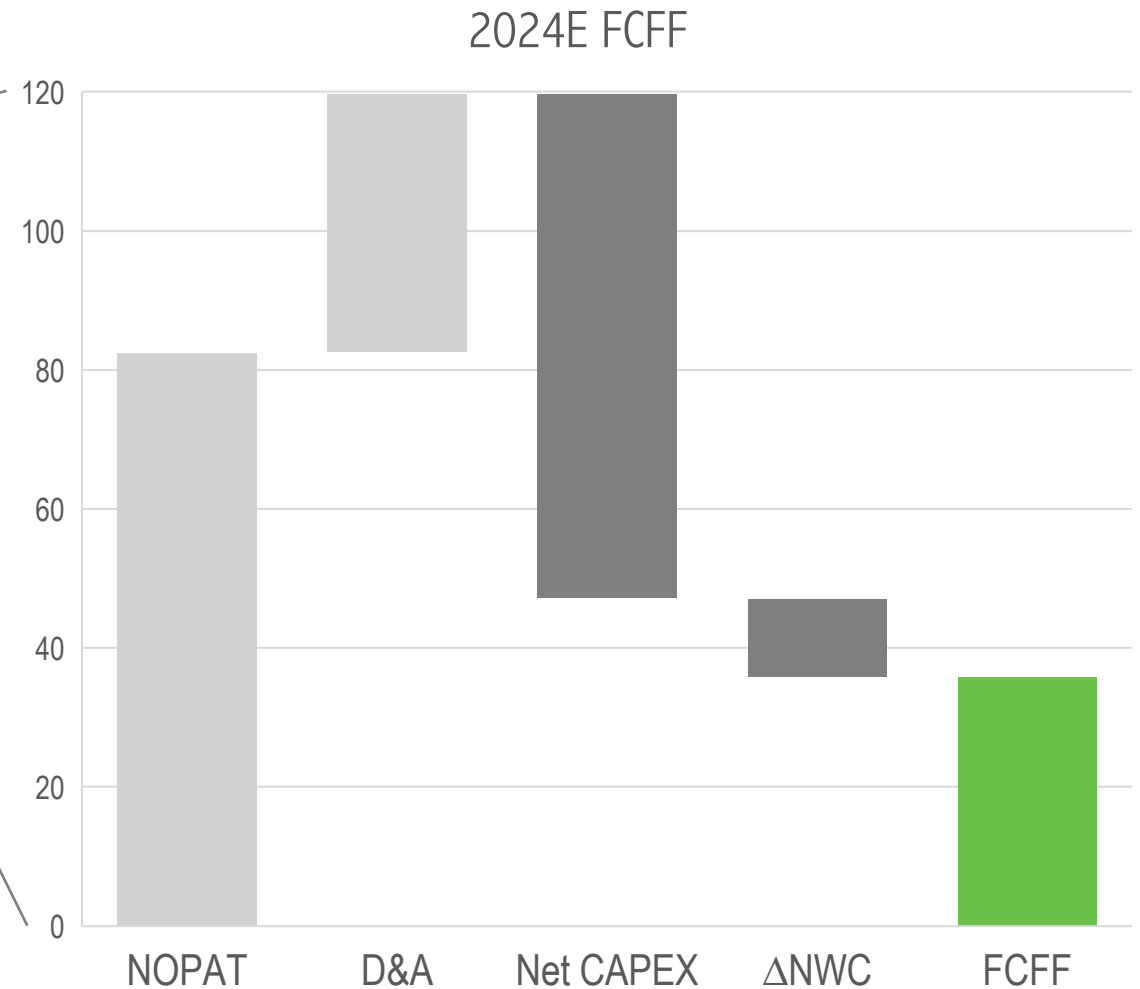
VALUATION

RISKS

ESG



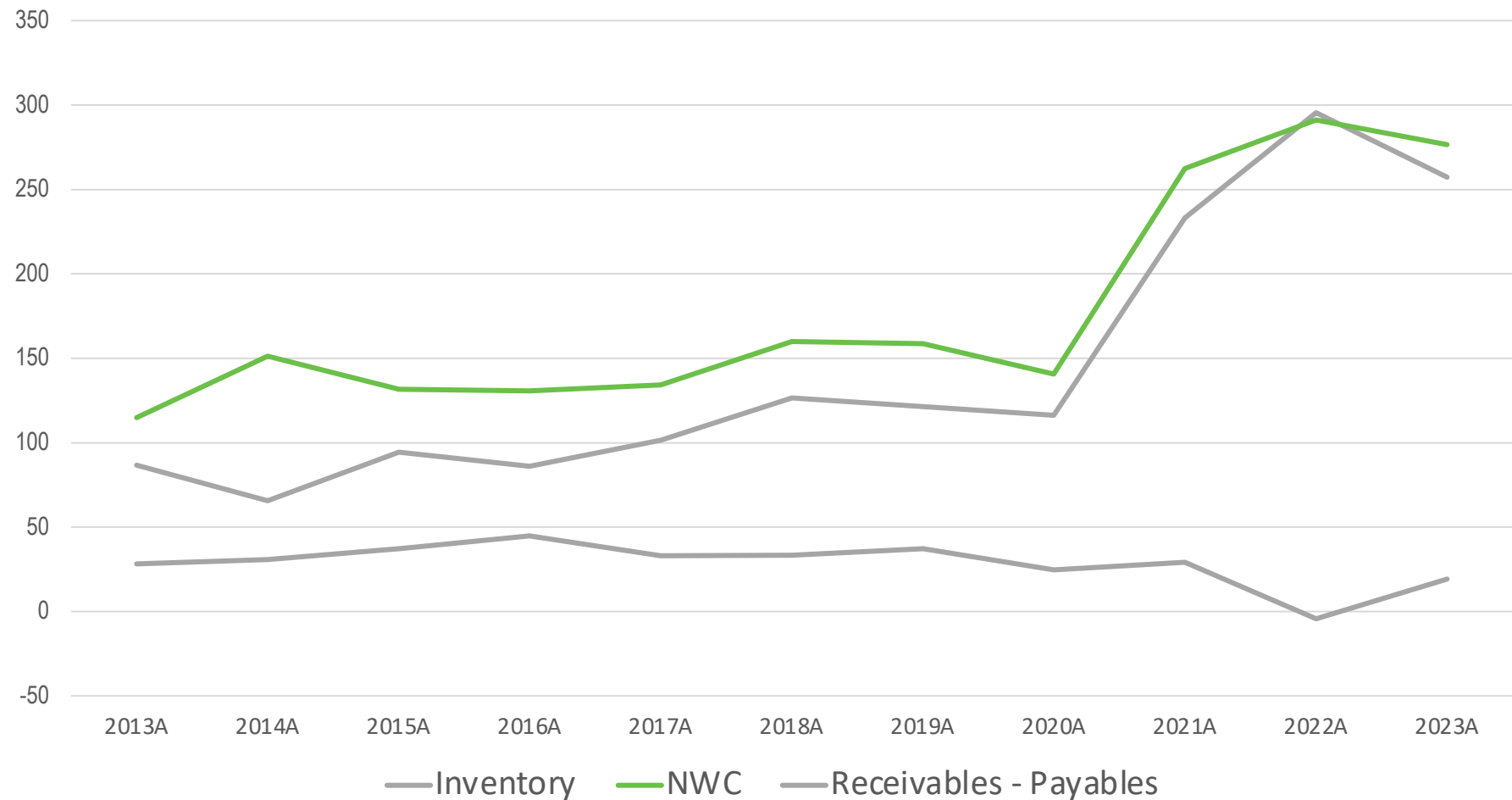
- De Nora operate in a **capital intensive** industry
- FCFF is **stable over time**, even if quite **correlated with CAPEX and NWC**



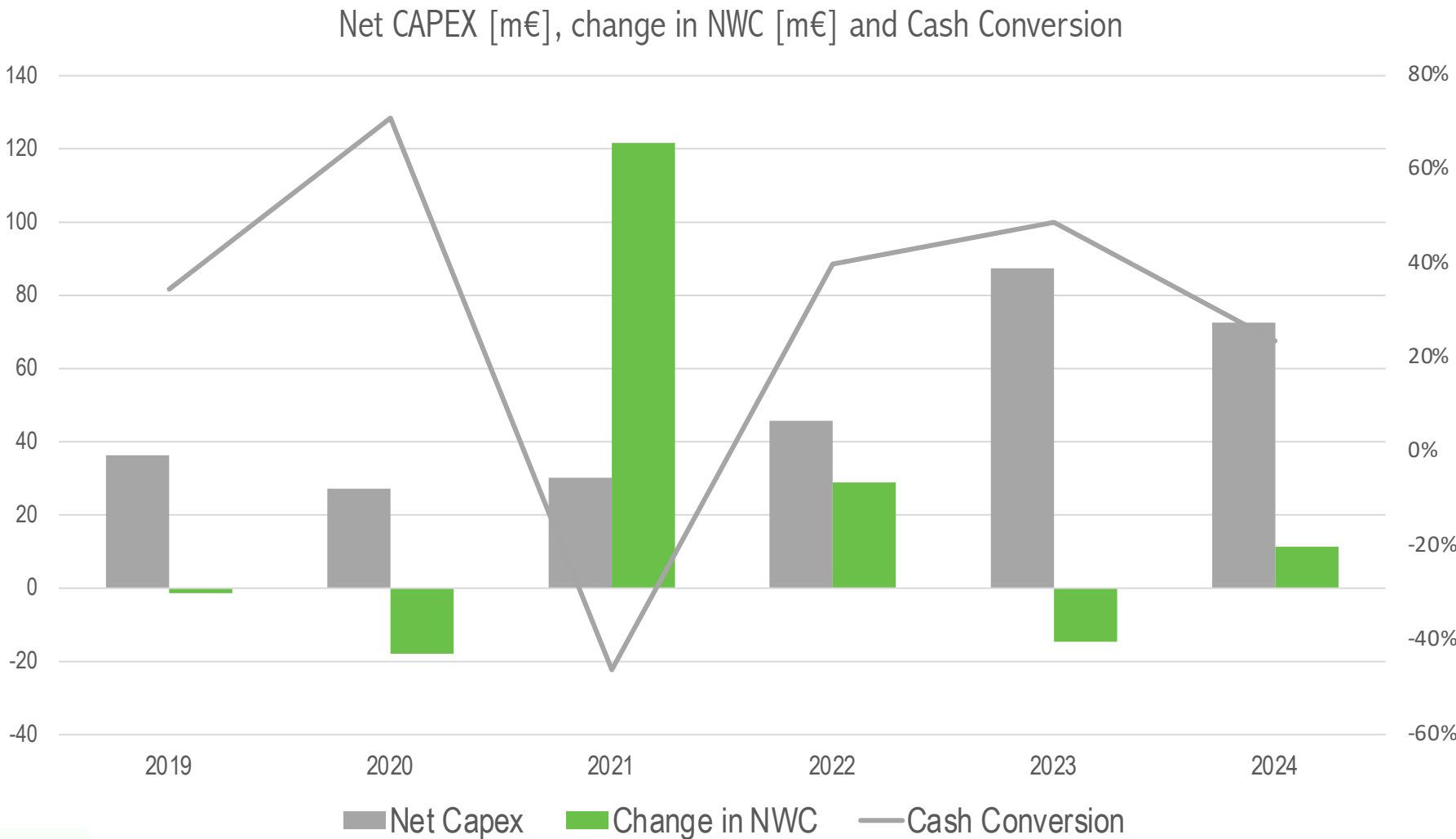
NET WORKING CAPITAL



NWC [m€]



- NWC is composed by 93% by inventory
- Receivables and payables are in a constant ratio: one's variation offsets the other: €30m on average

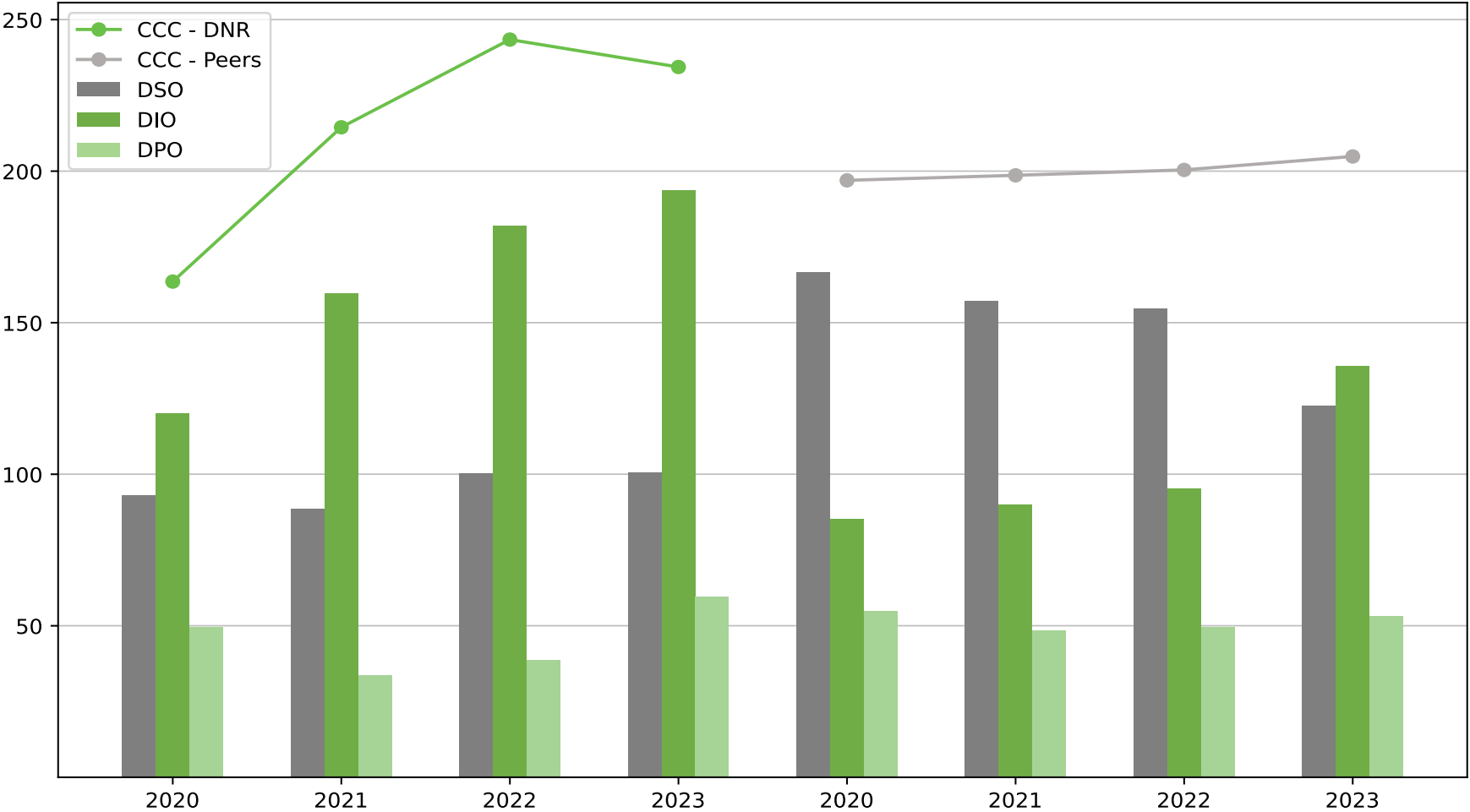


- FCFF generation is correlated with CAPEX
- Overall the company convert NOPAT into FCFF



De NoraPeers

Confronto KPI - DNR vs Peers



Substantial difference

- De Nora avg CCC = 214 dd
- Peers avg CCC = 104

DIO is the most impactfull component

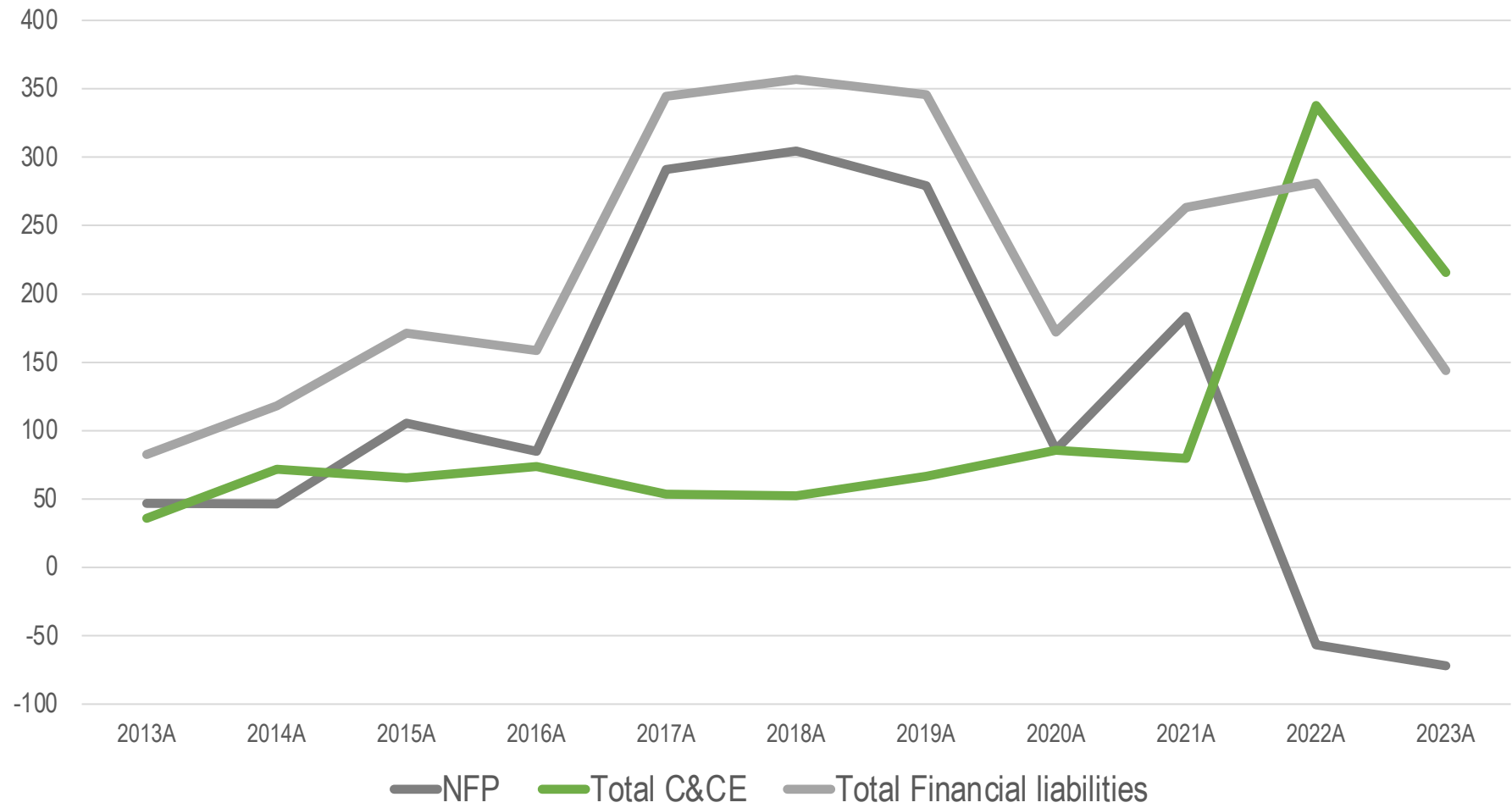
Ready to capture pick of demand.

Moreover, this ensures safety.

NET FINANCIAL POSITION



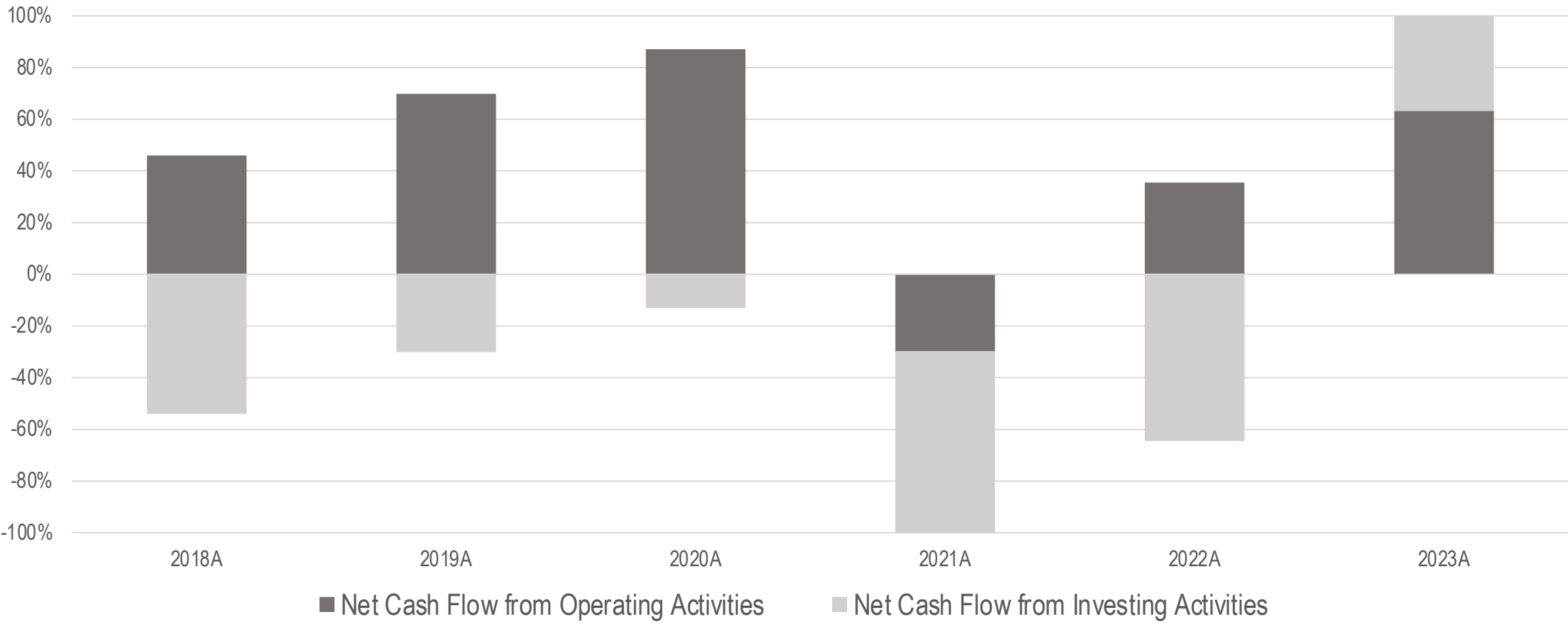
NFP dynamics [m€]



- NFP is correlated with Debt, infact De Nora’s C&CE is stable over time
- C&CE increased of 200m after IPO
- C&CE partially used to deleverage
- Overall De Nora sustains increasing CAPEX for gH2



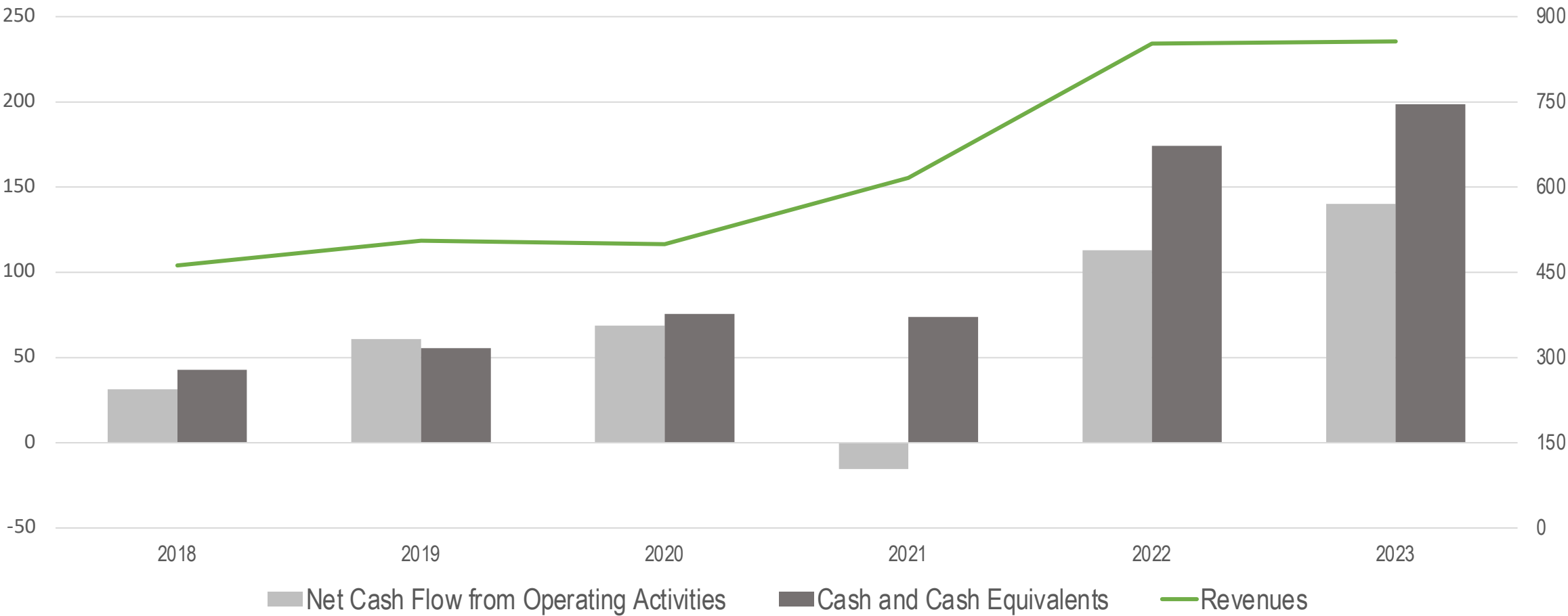
CFFO vs CFFI by year



CFFO, C&CE, REVENUES BY YEAR



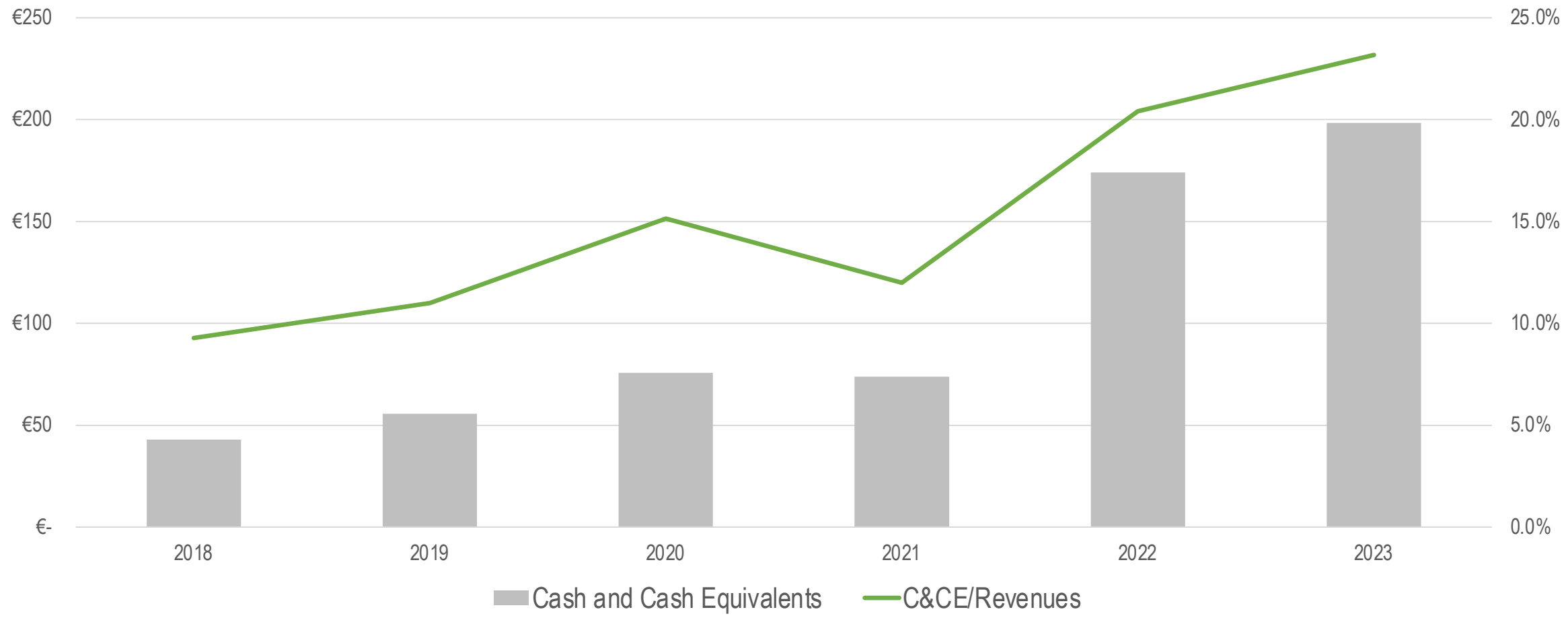
CFFO, C&CE, Revenues by year



C&CE ON REVENUES



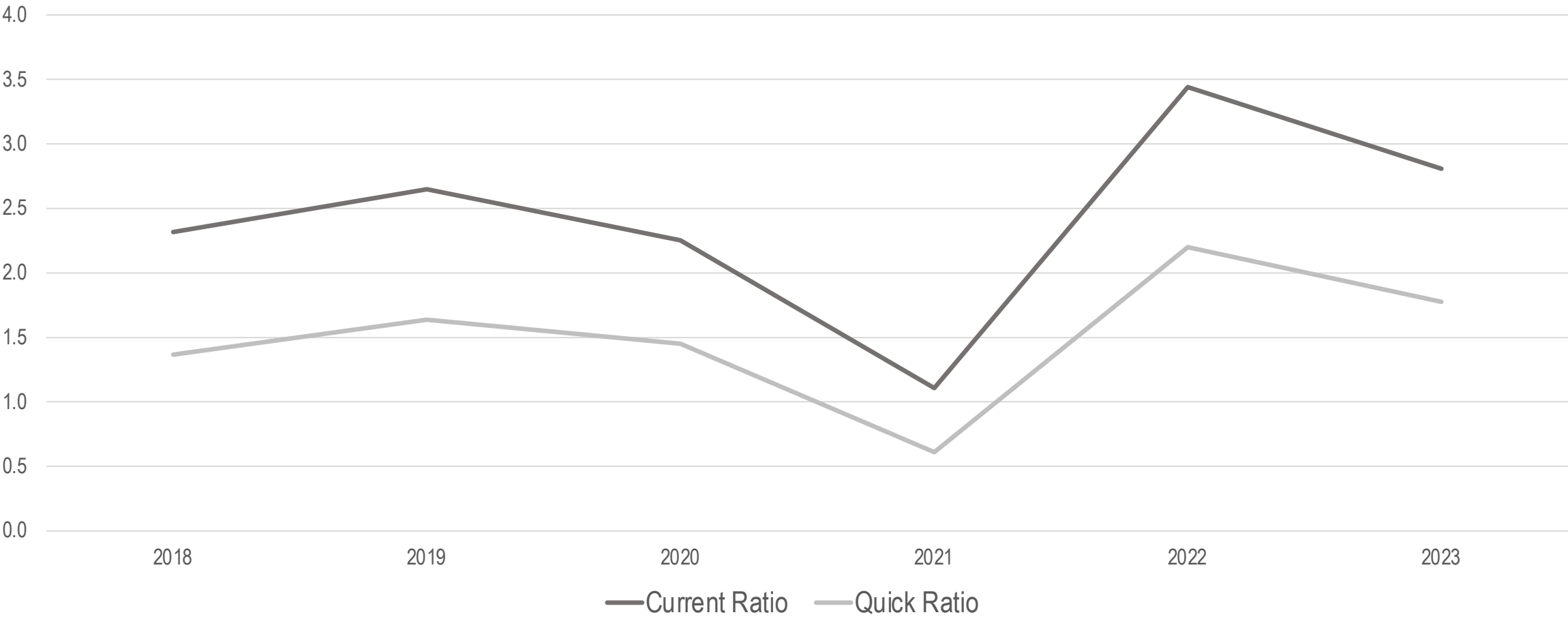
C&CE and C&CE/Revenues by year



CURRENT RATIO AND QUICK RATIO



Current Ratio and Quick Ratio by year



VALUATION



OUR ASSUMPTIONS VS CONSENSUS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Our assumptions	2024	2025	2026
Revenues	€864m	€901m	€958m
EBITDAm	17.5%	18.2%	18.5%
EBITDA	€152m	€164m	€177m



TP €10.63

Consensus (updated to Jan 20 th 2025)	2024	2025	2026
Revenues	€861m	€903m	€957m
EBITDAm	17.2%	17.9%	18.3%
EBITDA	€148m	€162m	€175m



TP €9.50

Today
TP €10.92

OUR ASSUMPTIONS VS 2024 RESULTS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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De Nora FY2024 Results	
Revenues	€863m
EBITDAm	18.2%
EBITDAm ET	22.4%
EBITDAm WT	16.5%
EBITDAm ETr	5.3%
Net Cash	€67.1m

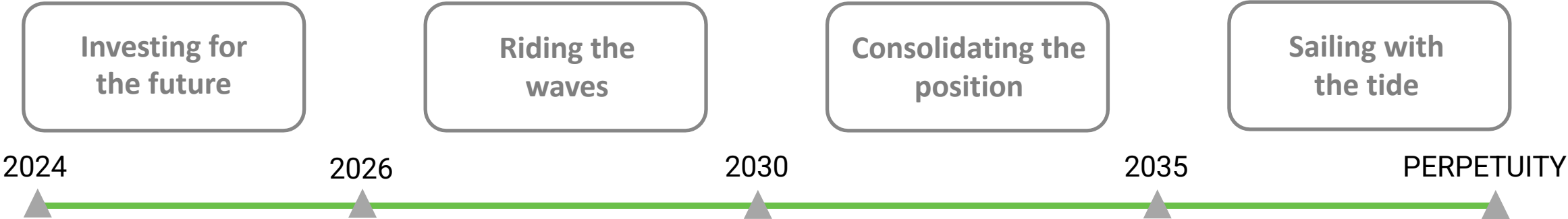
Our FY2024 Projections	
Revenues	€864m
EBITDAm	17.5%
EBITDAm ET	22.5%
EBITDAm WT	16.0%
EBITDAm ETr	0.1%
Net Cash	€63.1m

DCF ASSUMPTIONS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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D/E 0.16	Ke 9.89%	Kd 4.29%	g 3%	Revenues 2x	Margins 2.58x
-------------	-------------	-------------	---------	----------------	------------------



	1 stage	2 stage	3 stage	TV
Revenues CAGR	5.3%	9.5%	5.2%	3.0%
Average EBITDAm	18.1%	19.5%	20.8%	21.7%
% of total EV	5.8%	9.4%	18.3%	66.5%

WACC
9.01%

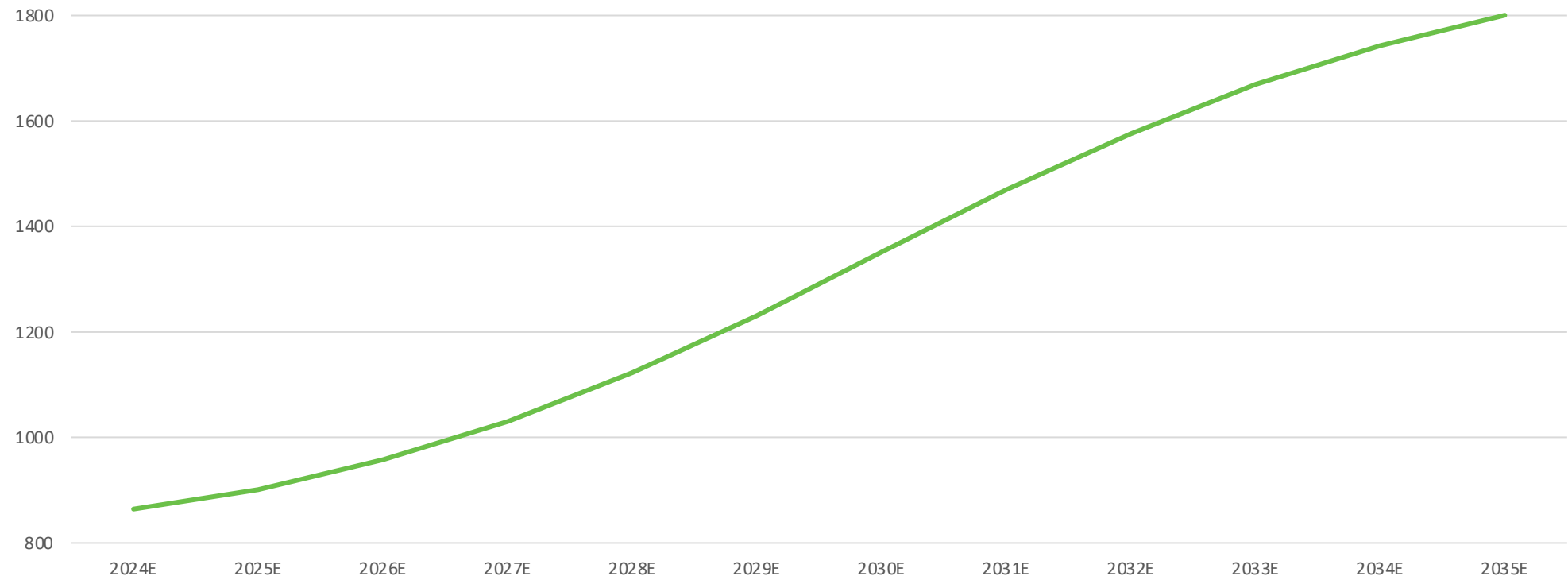
De Nora stand-alone DCF	8.83 €
EV (excl. Nucera) [m€]	1,717
Net Cash Position [m€]	63
E (excl. Nucera) [m€]	1,780

REVENUES PROJECTIONS

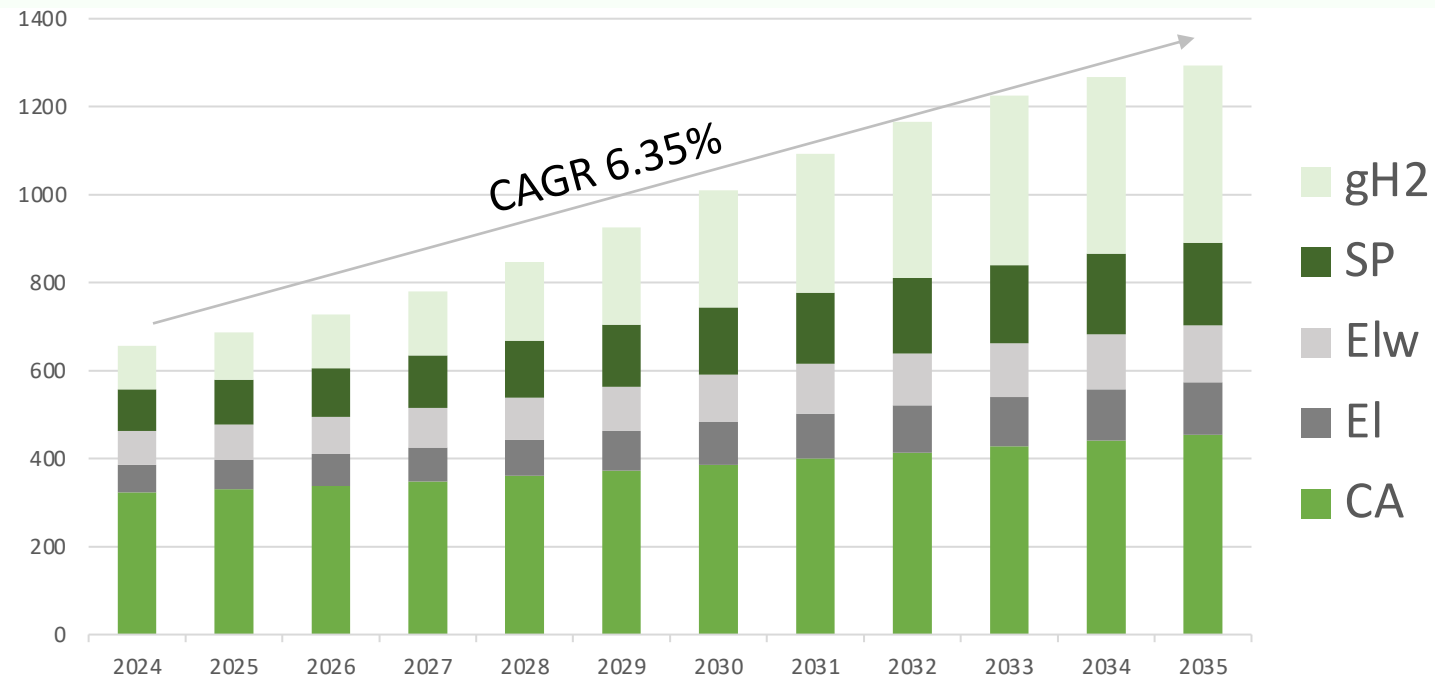


[m€]	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E
Revenues	856.4	864	900.6	958.1	1,030.5	1,122.7	1,231.1	1,351.4	1,469.6	1,576.2	1,669.4	1,743.1	1,800.5
Growth	0.42%	0.92%	4.20%	6.39%	7.56%	8.94%	9.66%	9.77%	8.75%	7.26%	5.91%	4.41%	3.30%

Revenues projections [m€]



REVENUES PROJECTIONS – ELECTRODES (1)



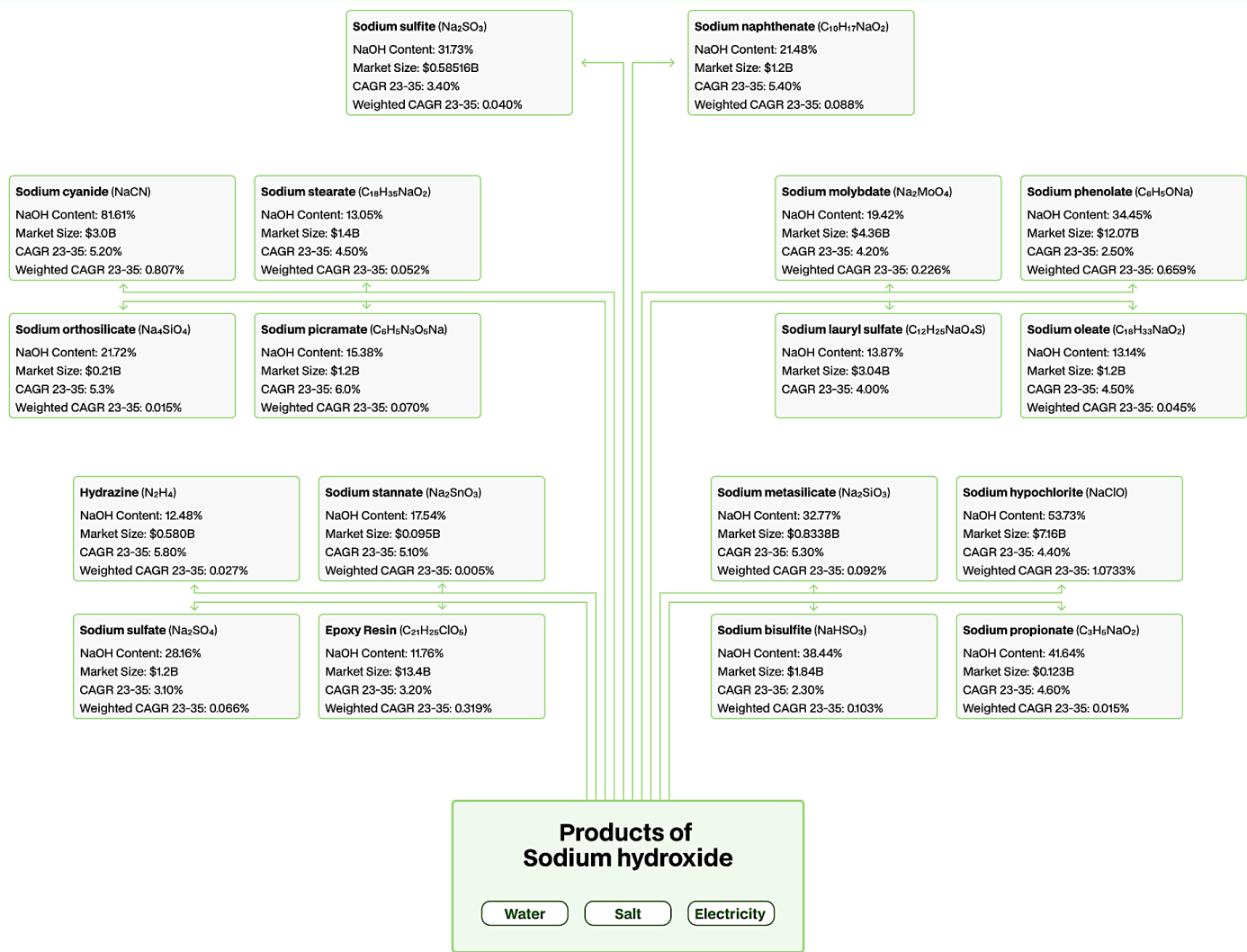
Revenues [m€]	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	CAGR
Chlor-Alkali	324	330	338	348	361	373	386	400	414	428	441	454	3.13%
Electronics	63	67	72	77	82	89	97	103	108	112	116	119	6.00%
Electrowinning	77	81	85	90	95	101	108	113	118	122	125	129	4.81%
Swimming Pools	94	102	110	120	130	141	153	162	171	178	183	189	6.53%
gH2	99	108	123	145	179	246	267	316	356	386	402	402	13.55%



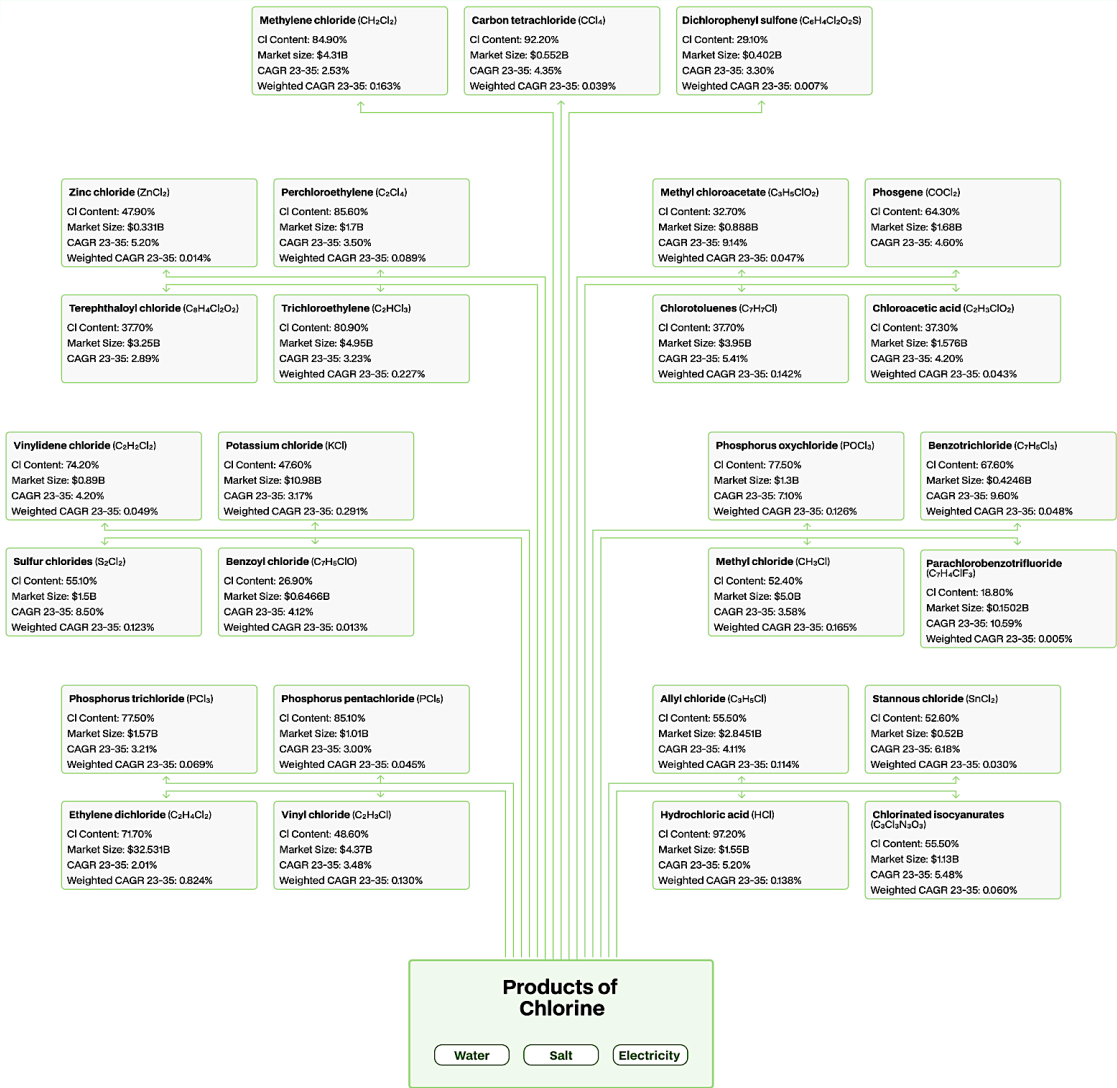
MOLECULE BY MOLECULE: CA GROWTH (1)

Chlor-Alkali Market Growth

- The CA segment drives **37.4% 2024 revenues**.
- **Market fragmentation** makes forecasting tough.
- We mapped growth through demand for chlorine (Cl₂) and caustic soda (NaOH), excluding hydrogen (H₂).
- This gives a clear, **demand-based market view**.

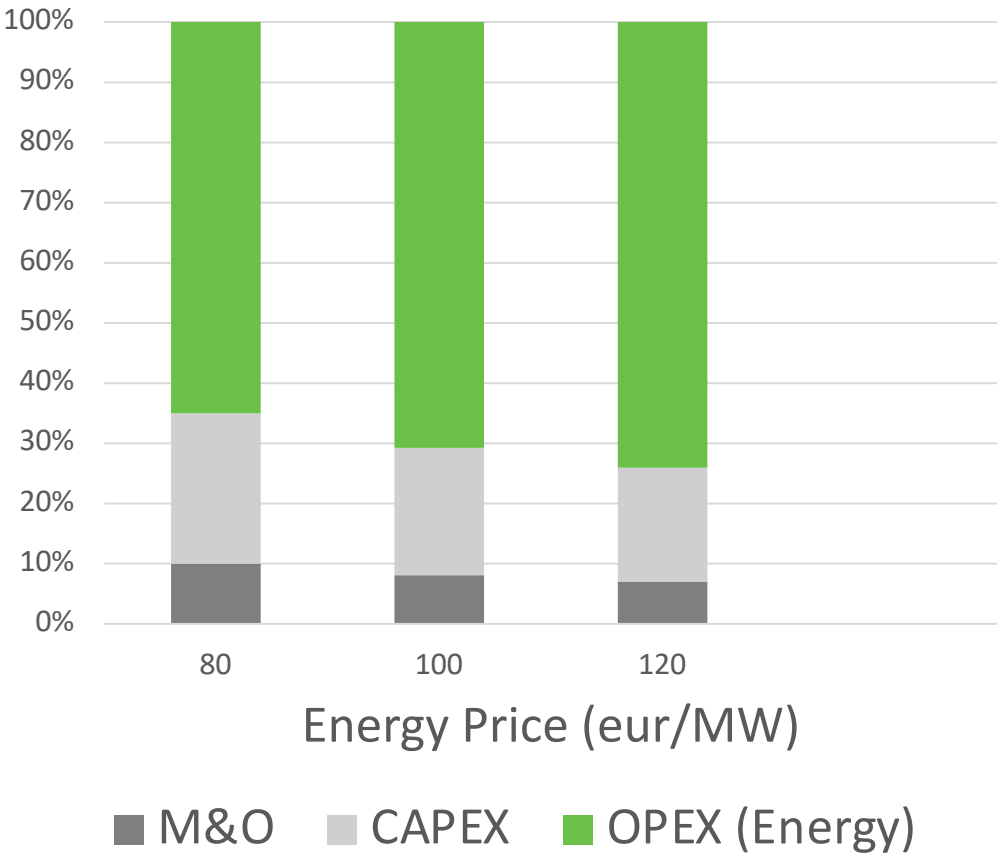


MOLECULE BY MOLECULE: CA GROWTH (2)





TCO main factors



TCO factors	CAPEX Dragonfly (1 MW)	
Operating h	4200	h/year
Density of H2	0.08988	Kg/Nm³
H2 Production	75499	Kg H ₂ /year
Energy consumption	0.0536	MWh/kg
Electricity price	100	€/MWh
Discounted cost of Energy	404675	€/year
TCO De Nora	5675951	€
CAPEX De Nora	1125190	€

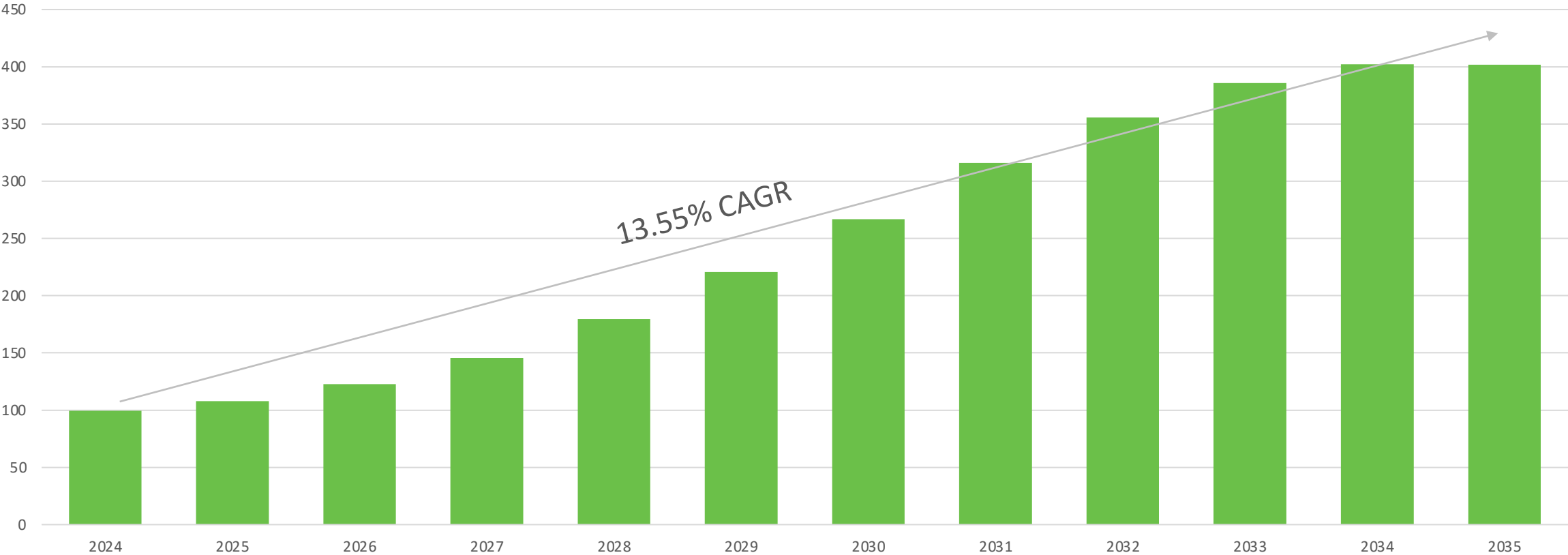
M&O: Maintenance and OPEX (not Energy)

REVENUES PROJECTIONS – ELECTRODES (2)

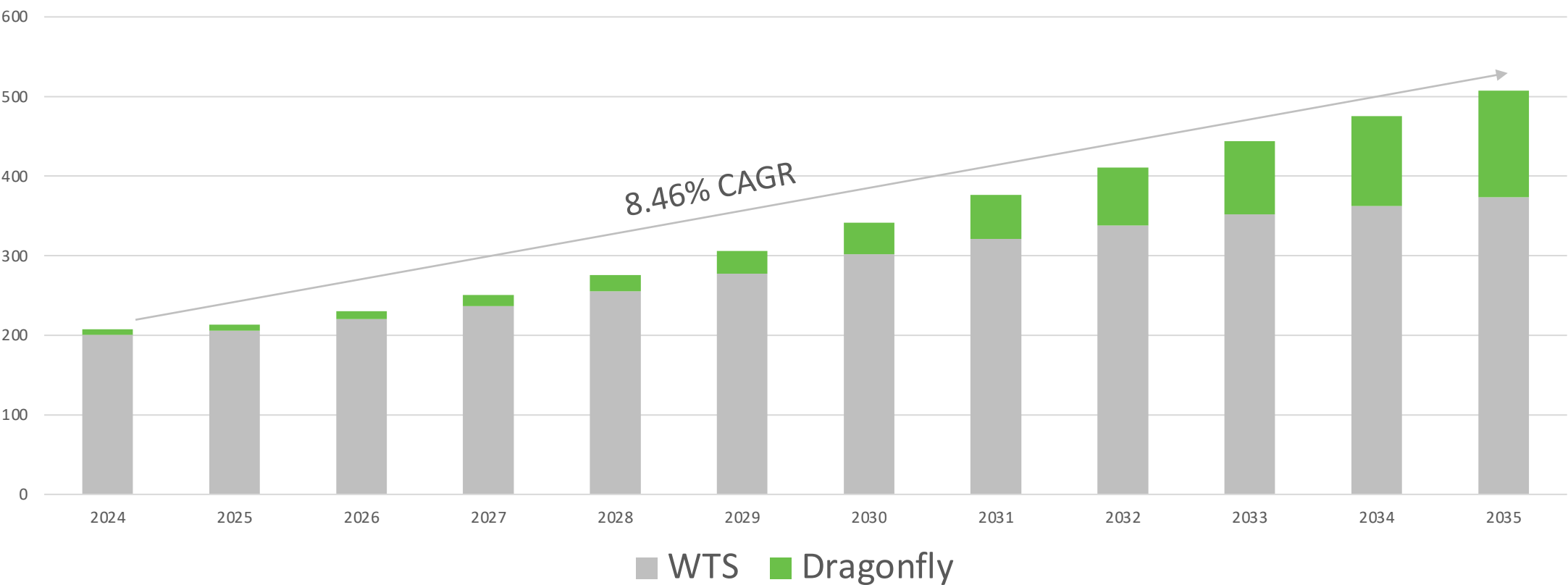


Increasing, yet not booming

gH₂ electrodes [m€]



REVENUES PROJECTIONS – P&P SOLUTIONS

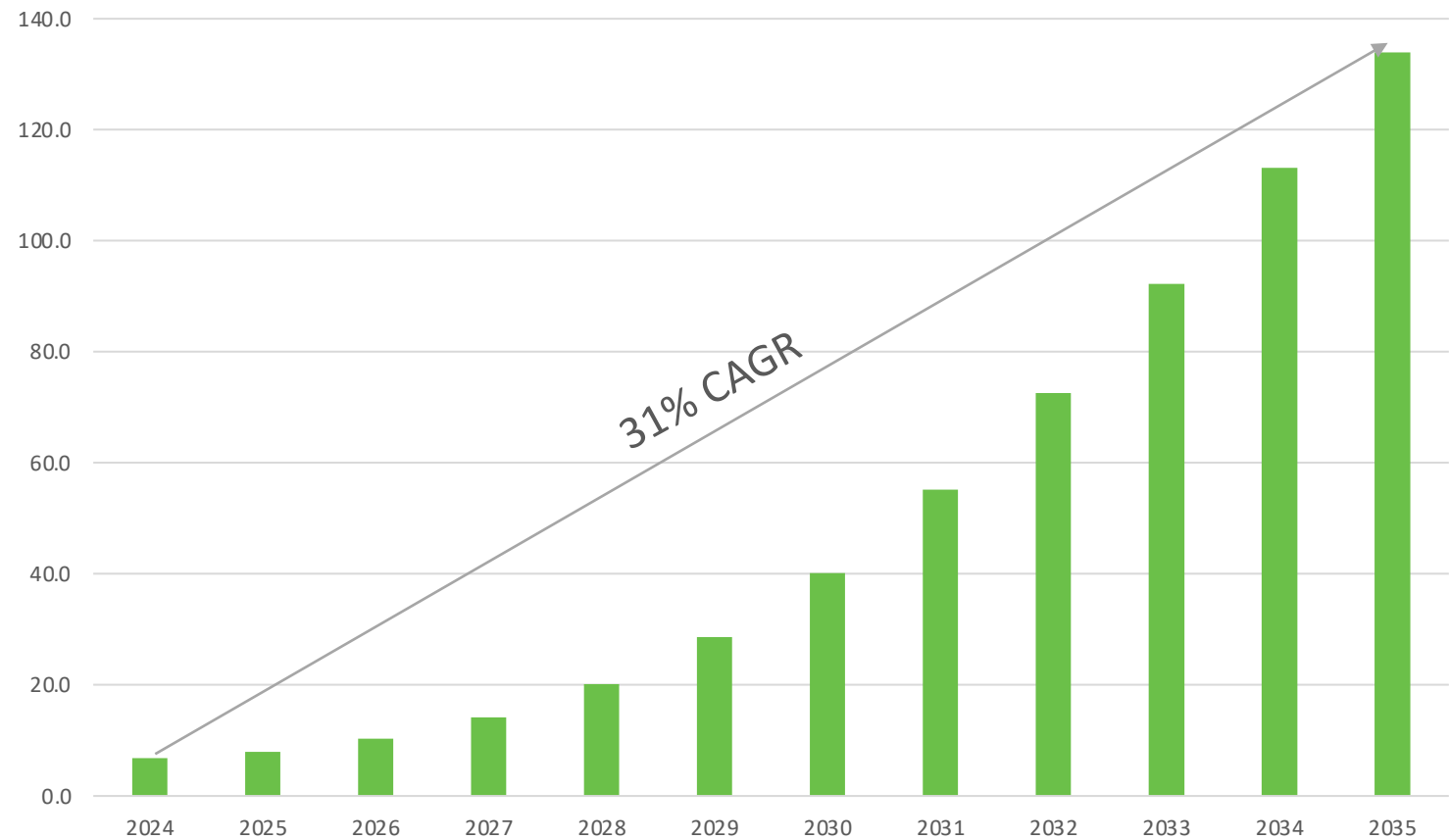


P&P	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Dragonfly	6.8	7.9	10.3	14.1	20.1	28.6	40.1	55.2	72.6	92.2	113.2	134.0
WTS	200.7	205.6	220.0	236.3	255.2	277.4	301.6	320.9	337.9	351.9	362.4	373.3

REVENUES PROJECTIONS – P&P SOLUTIONS (2)

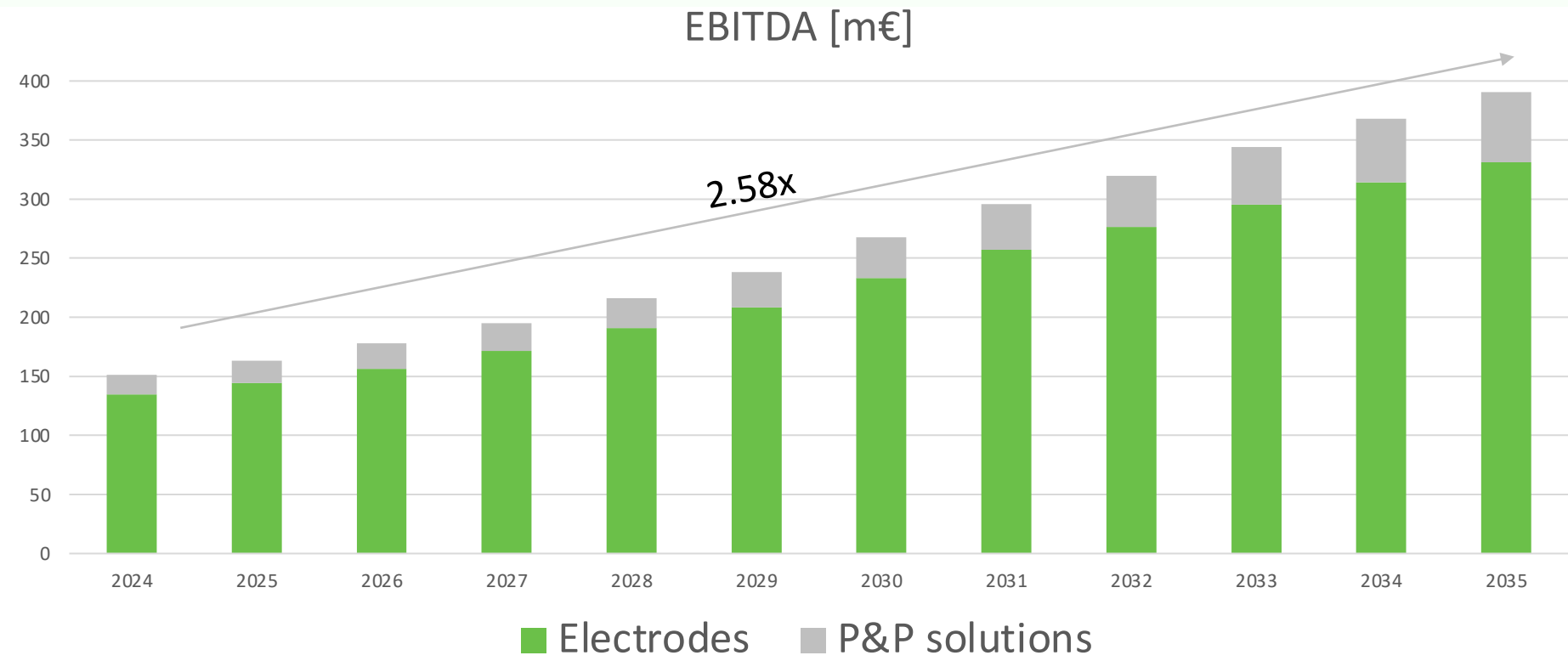


Dragonfly



- **Unique size**, serving also unserved market niches (SMEs which can use 1MW electrolyzer)
- **Superior efficiency** guaranteed by De Nora’s electrodes

MARGINS PROJECTIONS

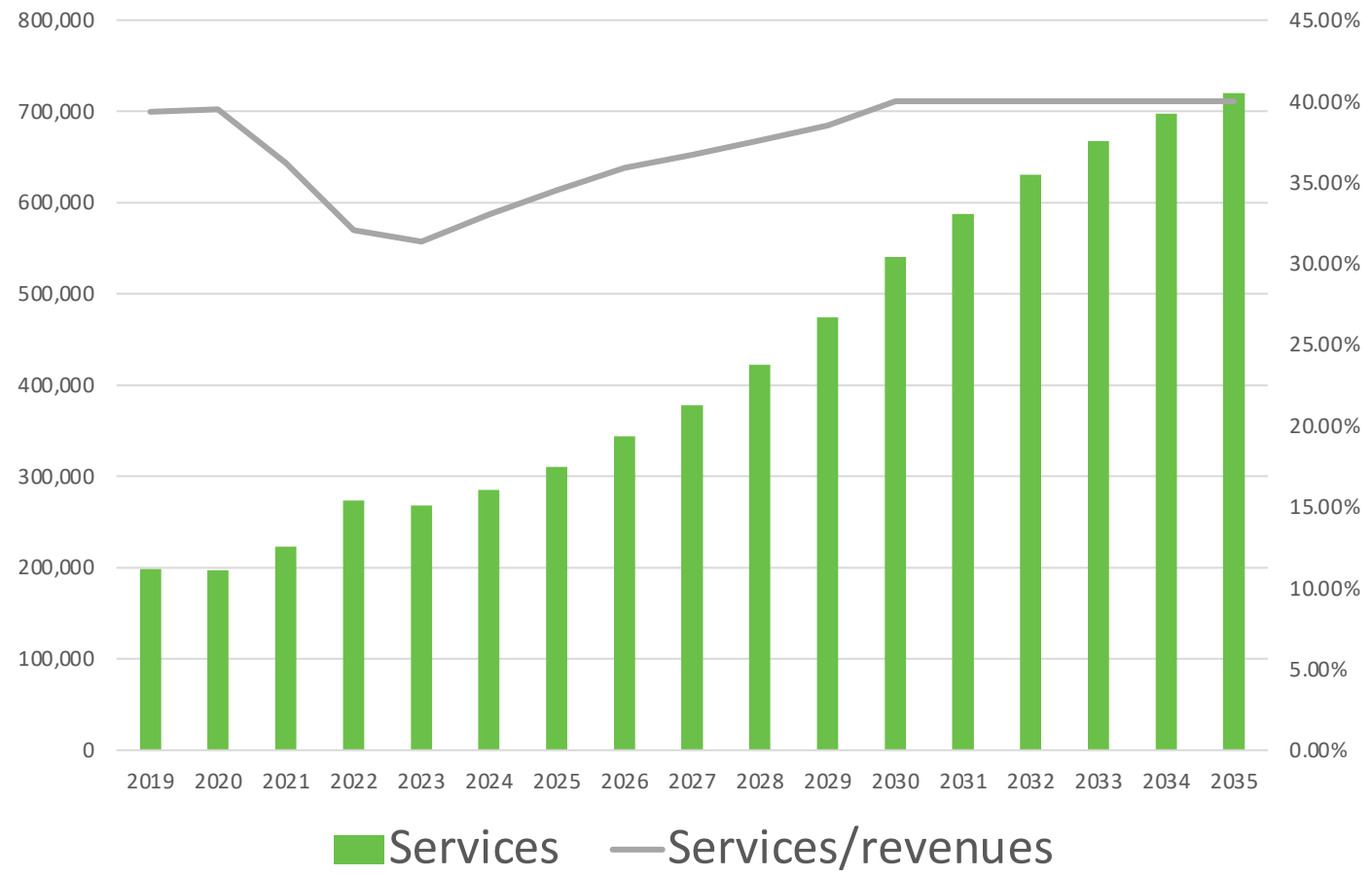


EBITDAm	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Electrodes	20.5%	21.0%	21.5%	22.0%	22.5%	22.5%	23.1%	23.5%	23.7%	24.1%	24.8%	25.6%
P&P	8.1%	8.8%	9.4%	9.4%	9.3%	9.9%	10.1%	10.3%	10.6%	11.0%	11.3%	11.8%
Total	17.5%	18.1%	18.6%	18.9%	19.3%	19.4%	19.8%	20.1%	20.3%	20.6%	21.1%	21.7%

MARGINS GROWTH ASSUMPTIONS



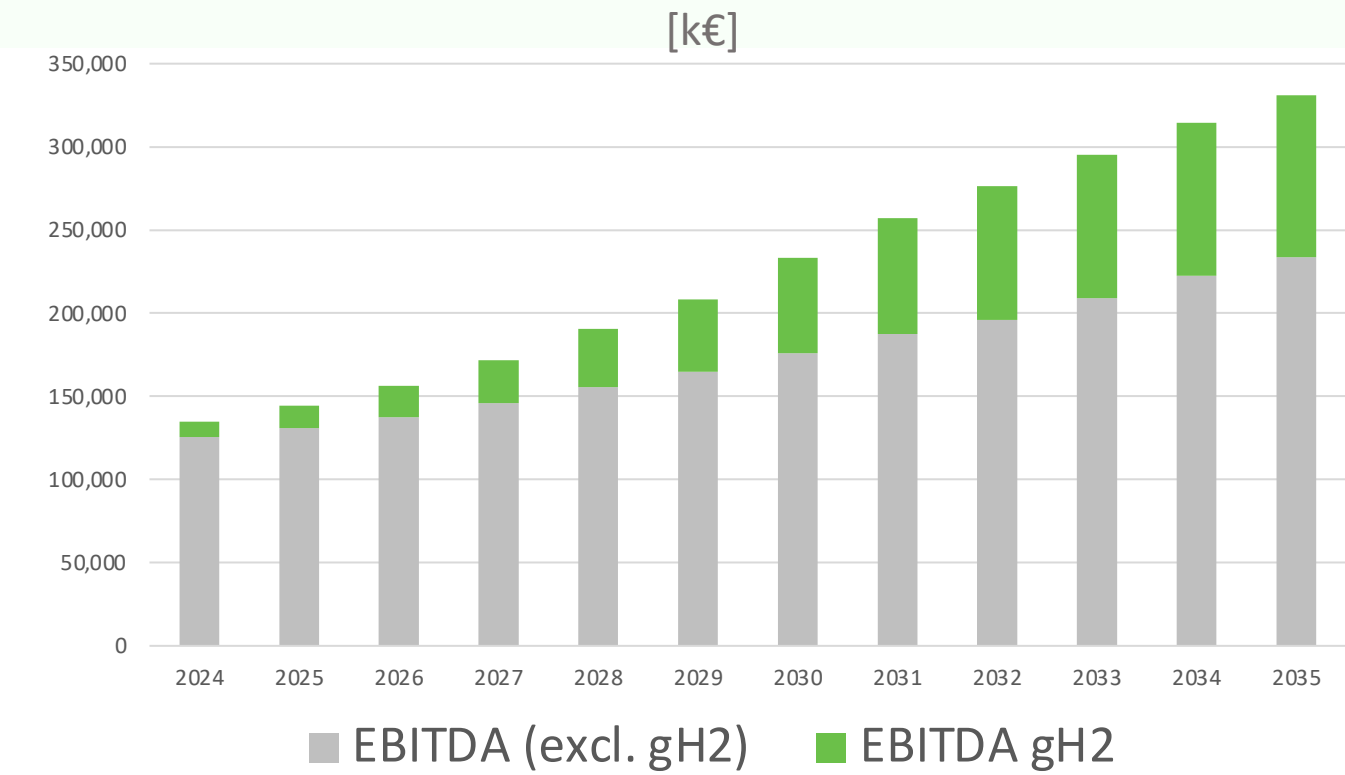
Services projections [k€]



- **New service streams** → back to pre-COVID levels by 2030 thanks to **spike in new installations** and **growing P&P contribution**
SP and WTS report margins 8-10 pp higher in services than new installations
- **Decreasing GF construction costs**, which accounted for -2% on overall EBITDAm in 2024
- **Increasing gH₂ scale effect**, with 5x revenues combining electrodes and Dragonfly



MARGINS PROJECTIONS – ELECTRODE SOLUTIONS



Pools same EBITDAm as CA, EI and Elw since it has the same

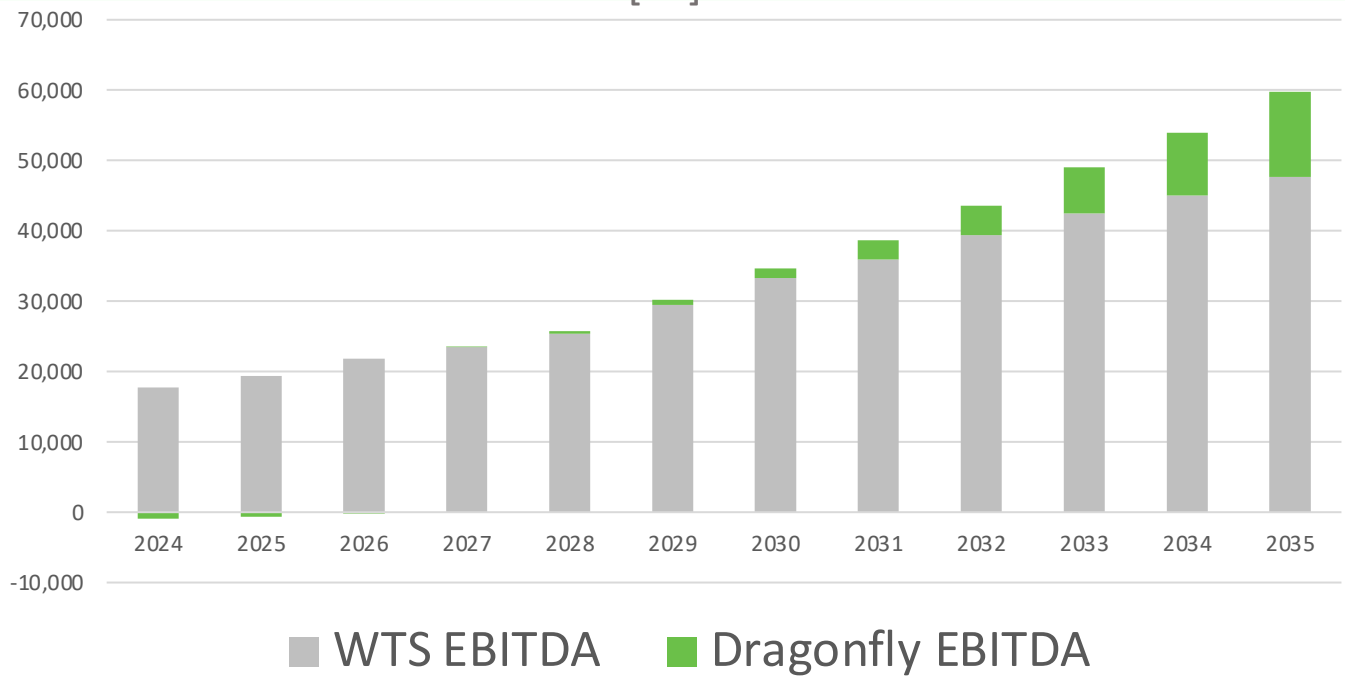
- **leading position,**
- **heritage** (more than 40 years of expertise) and
- **technology** (allowing to scale effect)

Electrodes EBITDAm	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Excl. gH2	22.50%	22.60%	22.70%	23.00%	23.30%	23.40%	23.70%	24.10%	24.20%	24.90%	25.70%	26.20%
gH2	9.27%	12.40%	15.58%	17.64%	19.52%	19.63%	21.43%	22.02%	22.56%	22.36%	22.86%	24.27%
Total	20.50%	21.00%	21.50%	22.00%	22.50%	22.50%	23.10%	23.50%	23.70%	24.10%	24.80%	25.60%

MARGINS PROJECTIONS – P&P SOLUTIONS



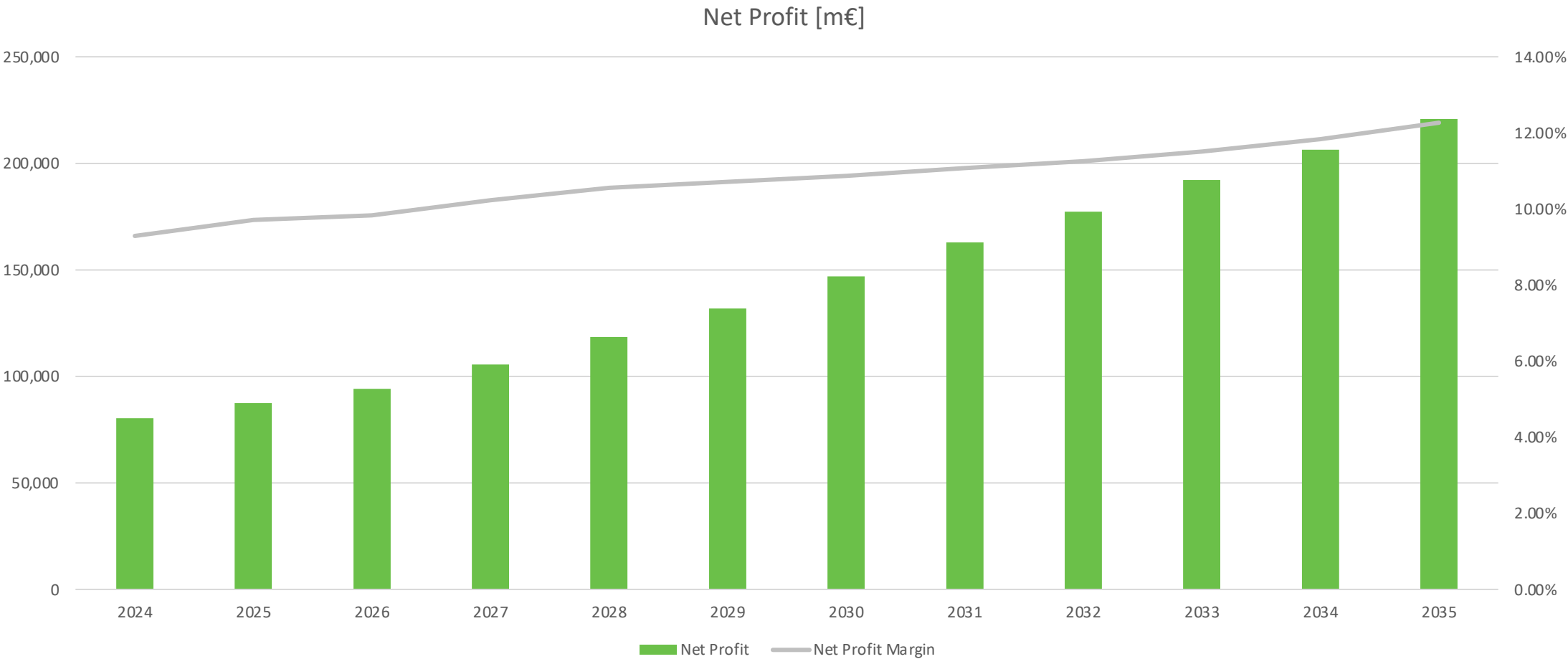
[k€]



- **WTS are entering in their service-increasing period**, since the division was born 10 years ago and the average lifetime of an electrode is 8 years
- Growing volumes allow for **scale effect**
- Dragonfly has just entered the market, but its market penetration along with the gigafactory completion will give an increase in margins as **gH₂ electrolyzers are expected to reach break-even by 2027**

P&P EBITDAm	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
DragonFly	-14.08%	-8.01%	-1.76%	0.11%	1.58%	2.53%	3.49%	4.90%	5.80%	7.10%	7.80%	9%
WTS	8.82%	9.43%	9.93%	9.92%	9.95%	10.63%	11.03%	11.21%	11.65%	12.06%	12.44%	12.78%
Total	8.07%	8.78%	9.40%	9.37%	9.34%	9.87%	10.15%	10.28%	10.62%	11.03%	11.33%	11.78%

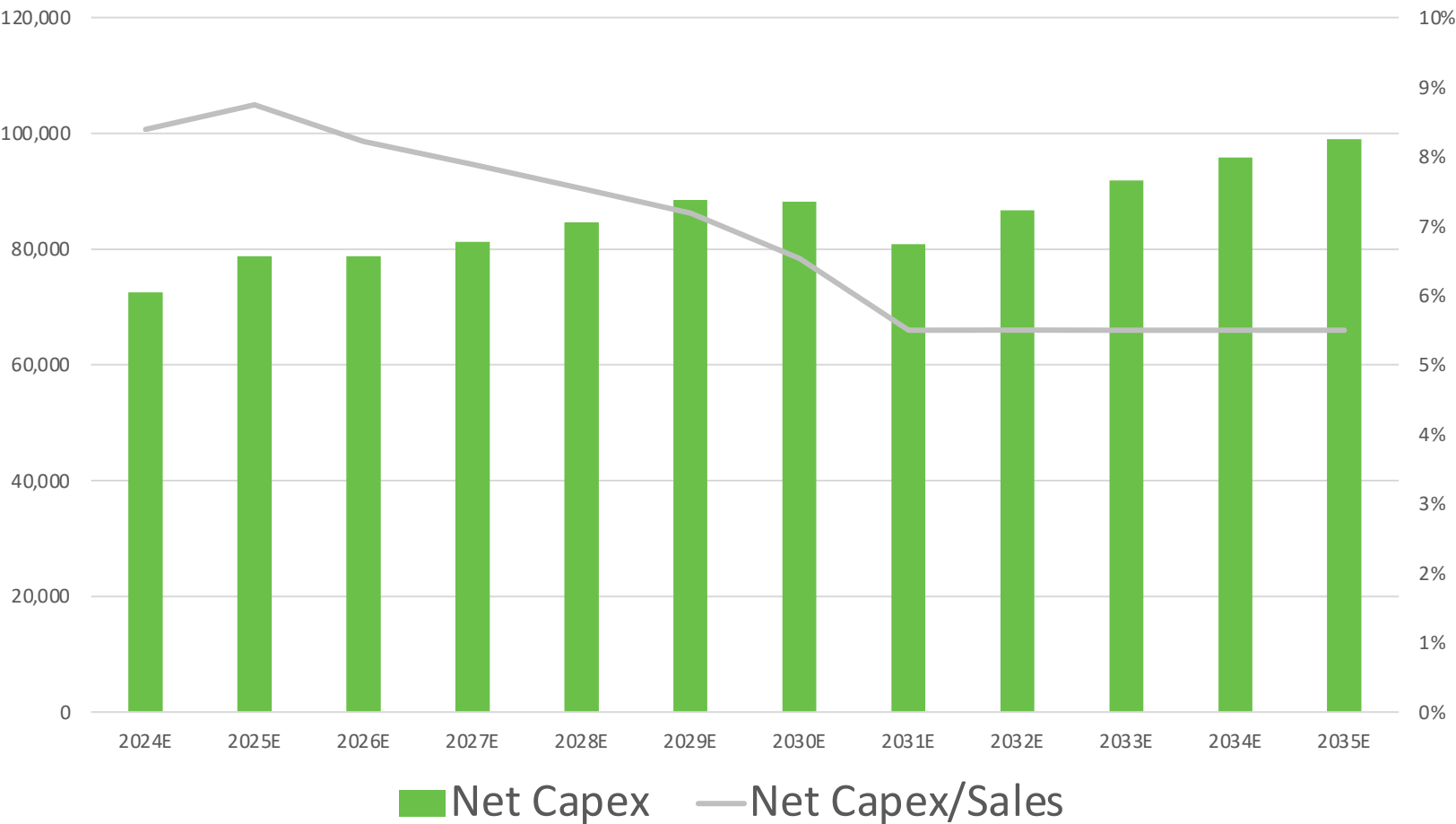
NET PROFIT PROJECTIONS



CAPEX PROJECTIONS – gH₂ FOCUS BEFORE STABILIZING



CAPEX [k€] vs CAPEX/Sales



High impact from GigaFactory construction which will end in 2030

Starting from 2031, we considered maintenance CAPEX to keep De Nora’s technologies state-of-the-art, considering the high capital requirements of the industry

ERP	3.7%	4.7%	5.7%	6.7%	7.7%
10.63 €	15.25 €	12.52 €	10.63 €	9.26 €	8.22 €

		Revenues					
	10.63 €	-4%	-3%	-2%	-1%	0%	1%
EBITDAm	-2.5%	7.05 €	7.48 €	7.94 €	8.43 €	8.94 €	9.49 €
	-2%	7.31 €	7.76 €	8.24 €	8.74 €	9.28 €	9.85 €
	-1.5%	7.58 €	8.04 €	8.54 €	9.06 €	9.62 €	10.21 €
	-1%	7.84 €	8.32 €	8.83 €	9.38 €	9.96 €	10.57 €
	-0.5%	8.10 €	8.60 €	9.13 €	9.69 €	10.29 €	10.93 €
	0%	8.37 €	8.88 €	9.43 €	10.01 €	10.63 €	11.29 €
	0.5%	8.63 €	9.16 €	9.73 €	10.33 €	10.97 €	11.65 €
	1%	8.90 €	9.44 €	10.02 €	10.64 €	11.30 €	12.01 €

		WACC					
	10.63 €	11.01%	10.51%	10.01%	9.51%	9.01%	8.51%
g	1.0%	7.29 €	7.67 €	8.10 €	8.58 €	9.13 €	9.76 €
	1.5%	7.45 €	7.85 €	8.31 €	8.84 €	9.43 €	10.12 €
	2.0%	7.62 €	8.06 €	8.55 €	9.12 €	9.77 €	10.54 €
	2.5%	7.81 €	8.28 €	8.82 €	9.45 €	10.17 €	11.02 €
	3.0%	8.03 €	8.54 €	9.13 €	9.82 €	10.63 €	11.59 €
	3.5%	8.27 €	8.84 €	9.49 €	10.26 €	11.17 €	12.28 €
	4.0%	8.55 €	9.18 €	9.91 €	10.77 €	11.82 €	13.12 €

		Revenues gH2					
	10.63 €	-20%	-15%	-10%	-5%	0%	5%
EBITDAm gH2	-5.0%	7.59 €	8.13 €	8.66 €	9.20 €	9.74 €	10.27 €
	-4%	7.72 €	8.27 €	8.82 €	9.37 €	9.92 €	10.47 €
	-3.0%	7.84 €	8.41 €	8.97 €	9.53 €	10.09 €	10.66 €
	-2%	7.97 €	8.55 €	9.12 €	9.70 €	10.27 €	10.85 €
	-1.0%	8.10 €	8.69 €	9.27 €	9.86 €	10.45 €	11.04 €
	0%	8.23 €	8.83 €	9.43 €	10.03 €	10.63 €	11.23 €
	1.0%	8.35 €	8.97 €	9.58 €	10.19 €	10.81 €	11.42 €

ROBUSTNESS CHECKS – SENSITIVITY (CURRENT SCENARIO)



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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ERP	3.7%	4.7%	5.7%	6.7%	7.7%
10.63 €	15.25 €	12.52 €	10.63 €	9.26 €	8.22 €

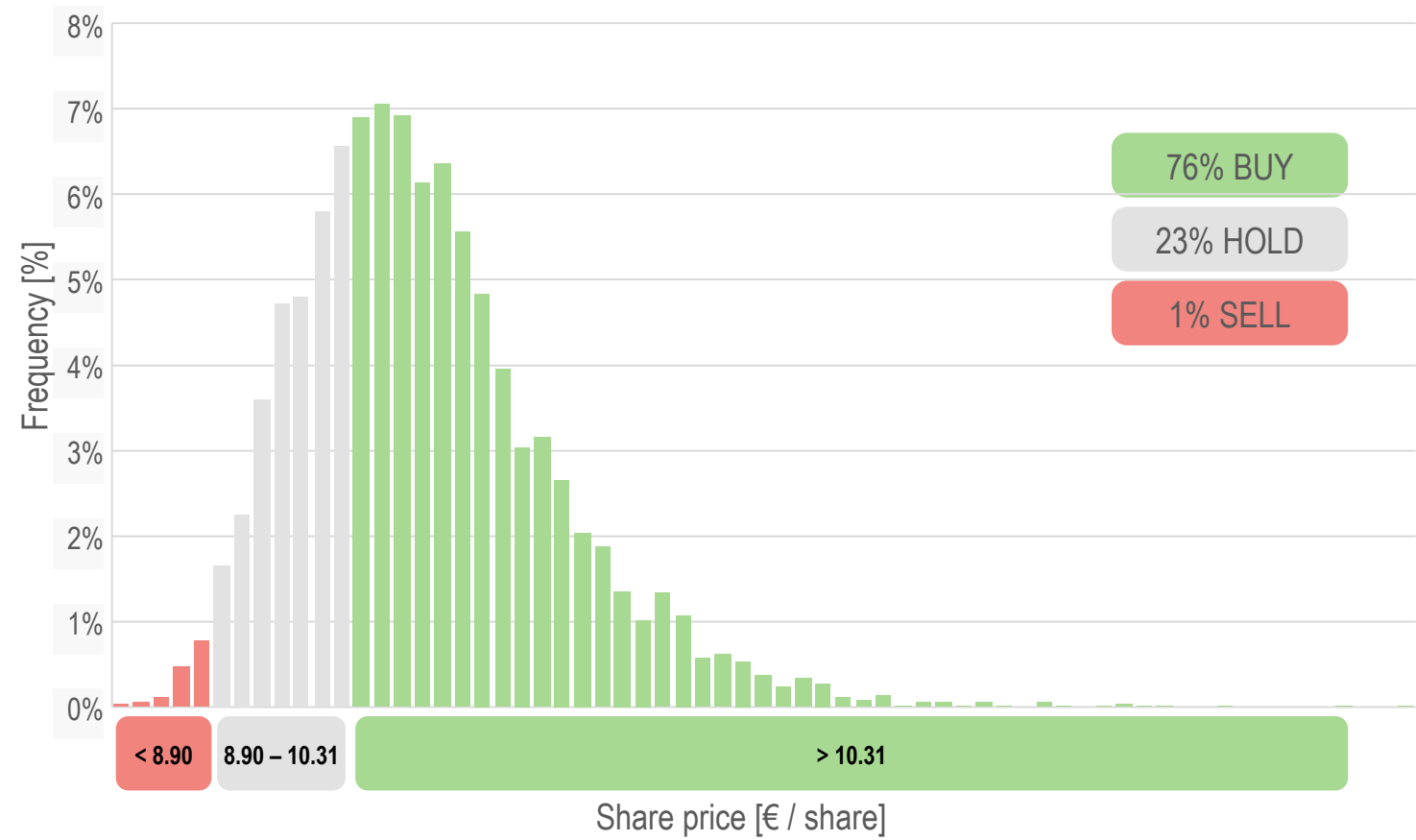
		Revenues				
	10.63 €	-2.00%	-1.00%	0.00%	1.00%	2.00%
EBITDAm	-2.00%	7.62 €	8.42 €	9.28 €	10.21 €	11.22 €
	-1.50%	7.92 €	8.74 €	9.62 €	10.57 €	11.60 €
	-1.00%	8.22 €	9.05 €	9.96 €	10.93 €	11.99 €
	0.00%	8.81 €	9.69 €	10.63 €	11.65 €	12.75 €
	0.50%	9.11 €	10.00 €	10.97 €	12.01 €	13.13 €
	1.00%	9.41 €	10.32 €	11.30 €	12.37 €	13.52 €
	1.50%	9.70 €	10.64 €	11.64 €	12.73 €	13.90 €
	2.00%	10.00 €	10.95 €	11.98 €	13.09 €	14.28 €

		WACC					
	10.63 €	10.50%	10.00%	9.50%	9.00%	8.50%	8.00%
g	2.0%	8.07 €	8.57 €	9.14 €	9.80 €	10.56 €	11.46 €
	2.5%	8.30 €	8.84 €	9.47 €	10.19 €	11.05 €	12.07 €
	3.0%	8.56 €	9.15 €	9.84 €	10.65 €	11.62 €	12.79 €
	3.5%	8.85 €	9.51 €	10.28 €	11.20 €	12.31 €	13.68 €
	4.0%	9.19 €	9.93 €	10.80 €	11.86 €	13.16 €	14.79 €

		Revenues gH2				
	10.63 €	-4%	-2%	0%	2%	4%
EBITDAm gH2	-9%	8.30 €	8.66 €	9.02 €	9.39 €	9.75 €
	-6%	8.80 €	9.18 €	9.56 €	9.94 €	10.32 €
	-3%	9.31 €	9.70 €	10.10 €	10.49 €	10.88 €
	0%	9.81 €	10.22 €	10.63 €	11.04 €	11.45 €
	3%	10.32 €	10.74 €	11.17 €	11.59 €	12.01 €
	6%	10.82 €	11.26 €	11.70 €	12.14 €	12.58 €
	9%	11.33 €	11.78 €	12.24 €	12.69 €	13.15 €



Monte Carlo Simulation



Variable	Business Unit	Distribution	Mean [%]	Std. Dev. [%]	Up-low. bound [%]
Revenue CAGR	ET	Normal	3.87	1.42	0.61-7.16
	WT	Lognormal	6.22	2.26	2.01-13.15
	ETr	Lognormal	12.41	3.96	5.05-25.02
EBITDAm	ET	Normal	23.74	0.61	22.34-25.18
	WT	Lognormal	18.72	0.82	16.95-20.80
	ETr	Lognormal	12.33	1.16	10.10-15.62
WACC		Normal	9.11	0.2	8.66-9.58

- **Revenue growth sub-segments (excluding gH₂) proves most influential**, for higher margins and lower CAPEX needed.
- **For gH₂, focusing only on revenue growth or margin expansion alone proves insufficient** to increase the target price, in early periods marked by modest margins.

NET DEBT PROJECTIONS



WACC COMPUTATION (1)



BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

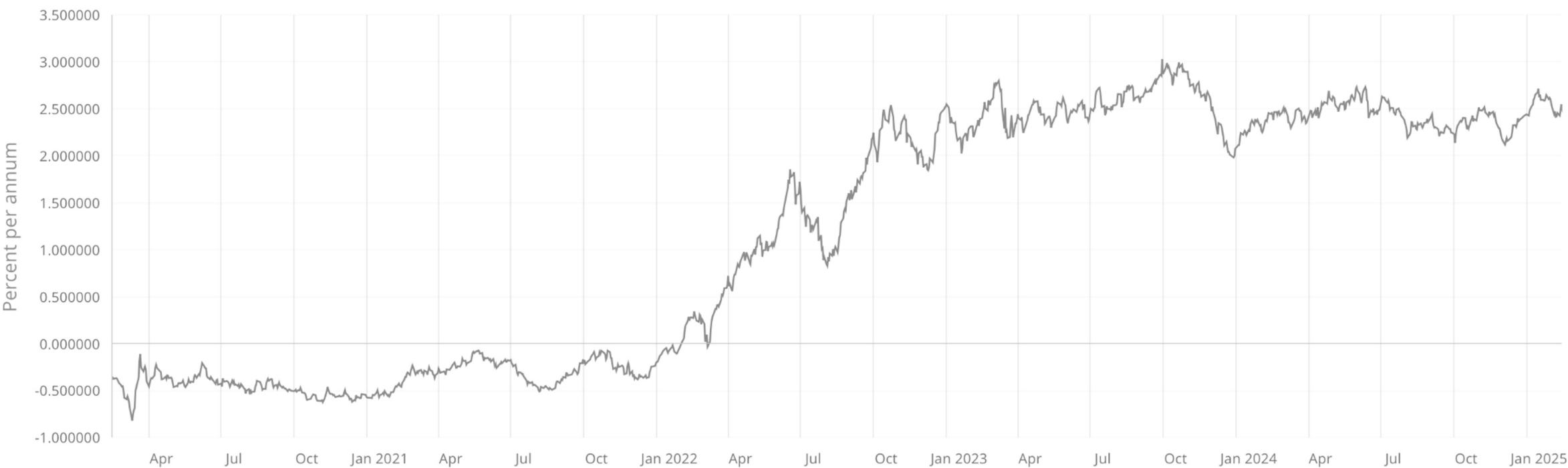
ESG

WACC	9.01%	Fama & French Two-Factor Model
Cost of equity	9.89%	$K_e = r_f + \beta_M \times ERP + \beta_{SMB} \times SMB$
Risk-free rate	2.48%	Return of AAA 10Y government bonds
Beta Market β_M	1.0385	Obtained through a multi-linear regression of DNR historical returns (weekly data since IPO in June 2022) against STOXX600 index and a custom portfolio which accounts for SMB obtained through the difference between the returns of MSCI Europe Small Cap and MSCI Europe Large Cap indexes.
Beta Size β_{SMB}	1.3360	
Market premium	5.71%	Equity risk premiums provided by A. Damodaran for each region where DNR operates (EMEIA, APAC and AMS), weighting them based on their relevance in terms of revenue contribution.
SMB	1.11%	1990-2024 average value of the SML factor for a European Index portfolio, accounting for premium return of small-cap stocks vs large-cap stocks, yearly data (annual European SMB from K. R. French data library).
Tax rate	27.90%	Sum of Italian corporate (IRES) and regional production (IRAP) tax rates.
Cost of Debt	4.29%	Obtained adding to the risk-free rate an Interest Coverage Ratio Spread (Average market borrowing spread for companies with similar ICR, A. Damodaran) and a Country Risk premium (associated with country's default risk weighted by area in which DNR operates).
D/E	0.16	Low leverage ratio, result of the deleveraging happened after IPO



Risk-free rate

Yield curve spot rate, 10-year maturity - Government bond, nominal, all issuers whose rating is triple A - Euro area (changing composition)





Cost of Equity = r_f + β_m x ERP + β_{SMB} x SMB

Equity risk premium		5.71%
Region	ERP	Revenues [%]
EMEIA	6.17%	35%
Americas	5.18%	30%
APAC	5.72%	35%
SMB premium		1.11%
1990-2024 average value of the SMB factor for a European Index portfolio		
Betas		
Beta_market		1.0385
Beta_SMB		1.3360



$K_e = 9.89\%$

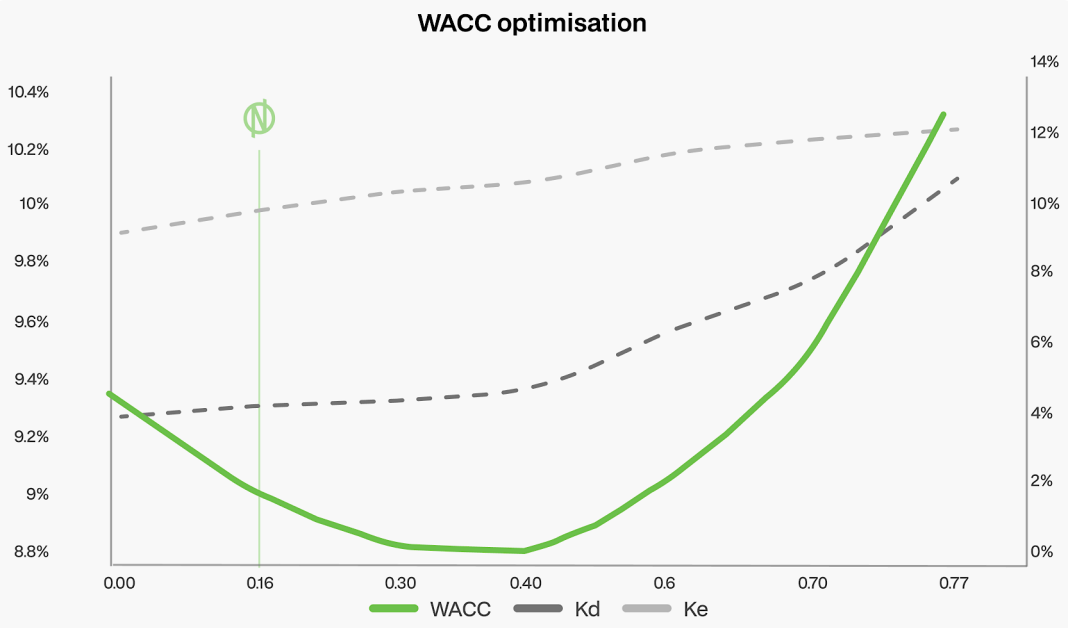


Cost of Debt = r_f + CDS_{spread} + ICR_{spread}

Risk-free rate		2.48%
Return of AAA European government bond		
Country Default Spread		1.04%
Region	CDS	Revenues [%]
EMEIA	1.37%	35%
Americas	0.63%	30%
APAC	1.07%	35%
Interest Coverage Spread		0.77%
ICR		6



$K_d = 4.29\%$



$D/E = 0.4 \rightarrow WACC_{\text{optimal}} = 8.71\%$

While an optimized WACC could enhance DNR’s valuation, **we do not anticipate a strategic shift aimed at achieving it.** This is further supported by the company’s recent deleveraging strategy following its IPO and the fact that **the potential upside (+€113.7m in EV) would not be substantial enough to justify such a move (3x of its Debt).**

D/E	Debt	NFP/Adj. EBITDA	Beta_market	Ke	ICR	Rf	Spread	Kd	Tax Rate	WACC
0	0	-1.4	0.9329	9.29%	14.6	2.48%	0.45%	3.97%	28%	9.29%
0.1	97.4	-0.8	1.0002	9.67%	10.17	2.48%	0.45%	3.97%	28%	9.05%
0.2	194.8	-0.4	1.0675	10.06%	5.09	2.48%	0.85%	4.37%	28%	8.91%
0.3	292.2	0.5	1.1347	10.44%	3.39	2.48%	0.95%	4.47%	28%	8.78%
0.4	389.6	1.2	1.2020	10.83%	2.54	2.48%	1.20%	4.72%	28%	8.71%
0.5	487.0	1.8	1.2693	11.21%	2.03	2.48%	1.83%	5.35%	28%	8.76%
0.6	584.4	2.4	1.3365	11.59%	1.70	2.48%	3.00%	6.52%	28%	9.01%
0.7	681.8	3.1	1.4038	11.98%	1.45	2.48%	4.42%	7.94%	28%	9.40%
0.77	746.2	3.5	1.4483	12.23%	1.33	2.48%	4.42%	7.94%	28%	9.41%



PFAS Market Opportunity

- Long history of **strategic M&As** and a **solid net cash position**.
- **Horizontal acquisition in plug and play solutions**
- The company is already in a **partnership with Aclarity** to improve PFAS destruction technology.



Target Company	Establishment Year	N° Employees	Headquarter	Revenues FY2023	Technology
 Aclarity	2017	29	Massachusetts, USA	€ 1.016k	Octa™ System

SCENARIO ANALYSIS – BULL AND BEAR



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Scenario	Key Drivers	DNR's Positioning & Outcome	Financial Implications
Bull Case 1 Green Hydrogen Revolution	- Strong policy support & regulations - Rapid permitting & technological advancements - Demand surge for low-emissions hydrogen (750 GW capacity by 2030)	- DNR leverages first-mover advantage - Scale & production flexibility drive market capture	CAGR Revenues: 25-30% Etr ΔTP: +€0.73
Bull Case 2 Non-Noble Coatings Breakthrough	De Nora transition to non-noble metals (e.g., manganese oxides, cobalt)	- DNR becomes market leader - Redefines industry standards with non-noble coatings	CAGR Revenues: 26-35% ΔTP: +€1.11
Bear Case Lead or Lag	- Competitors innovate faster with non-noble coatings - DNR's reliance on noble metals becomes a liability	- DNR loses market share - Struggles to catch up and close tech gap	CAGR Revenues: 26-35% ΔTP: -€2.67

NUCERA'S WACC COMPUTATION



WACC	11.17%	Fama & French two-factor model
Cost of equity	11.17%	$K_e = r_f + \beta_M \times ERP + \beta_{SMB} \times SMB$
Risk-free rate	2.48%	Return of AAA 10Y government bonds
Beta market β_M	1.2982	Obtained through a multi-linear regression of NCH2 historical returns (weekly data since IPO in July 2023) against MSCI Europe Small Mid Cap index and a custom portfolio which accounts for SMB obtained through the difference between the returns of MSCI Europe Small Cap and MSCI Europe Large Cap indexes
Beta size β_{SMB}	2.0749	
Market premium	4.93%	Equity risk premiums provided by A. Damodaran for each region where NCH2 operates (Germany, Italy, Japan and China), weighting them based on their relevance in terms of revenue contribution.
SMB	1.11%	1990-2024 average value of the SML factor for a European Index portfolio, accounting for premium return of small-cap stocks vs large-cap stocks, yearly data (annual European SMB from K. R. French data library).
Tax rate	32.45%	Sum of Corporate Income Tax (Körperschaftsteuer), Solidarity Surcharge (Solidaritätszuschlag) and Trade Tax (Gewerbesteuer)
Capital structure (D/E)	0	The company has no debt issued

NUCERA'S DCF ASSUMPTIONS



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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- **Correlation with DNR** due to the Toll Manufacturing agreement
- **AWE:** Uncertainty related to NEOM (currently the company’s largest revenue contributor) project which will cease from FY2026 onwards. However, AWE trajectory growth towards FY2030 is expected to accelerate at a 13.58% CAGR in FY25E-30E.
Positive margins expected by 2027
- To project **CA** future growth, we leveraged on our [Molecule by molecule](#) proprietary model.
Booming margins in 2024 due to one-off effects expected to lower in the next years averaging between 15% and 16%

Revenues [m€]	2023	2024	2025	2026	2027	2028	2029	2030
CA	333	338	397	381	377	391	404	418
AWE	328	524	511	536	595	685	805	966

EBITm	2024	2025	2026	2027	2028	2029	2030
CA	18.3%	16.0%	14.0%	14.5%	15.0%	15.3%	15.8%
AWE	-14.5%	-7.5%	-1.0%	1.0%	2.5%	3.5%	4.5%

NUCERA'S DCF



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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[m€]	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	TV
Revenue	661.0	862.0	908.1	917.7	972.9	1,075.4	1,208.9	1,383.9	
Growth yoy	72.52%	30.41%	5.34%	1.06%	6.01%	10.53%	12.41%	14.48%	
of which CA	-44.08%	1.50%	17.50%	-4.00%	-1.00%	4.00%	3.49%	3.49%	
of which AWE	556.85%	59.76%	-2.50%	5.00%	11.00%	15.00%	17.50%	20.00%	
EBITDA	31.0	-8.0	33.4	59.9	74.8	91.3	107.5	129.6	
EBITDAm	4.69%	-0.93%	3.68%	6.53%	7.69%	8.49%	8.90%	9.37%	
D&A	6.0	6.0	8.17	11.9	14.1	15.6	17.5	20.1	
EBIT	25.0	-14.0	25.2	48.0	60.7	75.7	90.0	109.6	
EBITm	3.78%	-1.62%	2.78%	5.23%	6.24%	7.04%	7.45%	7.92%	
of which CA	N.A.	18.34%	16.00%	14.00%	14.50%	15.00%	15.30%	15.80%	
of which AWE	N.A.	-14.50%	-7.50%	-1.00%	1.00%	2.50%	3.50%	4.50%	
Net Profit	24.0	11.0	13.0	22.4	47.4	59.3	67.6	80.8	
NPm	3.63%	1.28%	1.43%	2.44%	4.87%	5.51%	5.59%	5.84%	
Tax Rate	33.33%	8.33%	32.45%	32.45%	32.45%	32.45%	32.45%	32.45%	
Net Capex	4.0	13.0	14.5	17.4	19.5	21.5	24.2	27.7	
NOPAT	16.7	-12.8	17.0	32.4	41.0	51.1	60.8	74.0	
Change NWC	9.0	57.0	5.9	33.4	17.4	3.7	12.3	19.0	
FCFF	9.7	-76.8	4.8	-6.4	18.3	41.5	41.9	47.4	
WACC	-	-	11.17%	11.17%	11.17%	11.17%	11.17%	11.17%	
Discounted FCFF	-	-	4.3	-5.2	13.3	27.2	24.7	25.1	364.1

Terminal growth (g)	4.0%
EV [m€]	453
Net Cash position [m€]	680
E [m€]	1,133
DNR's 25.85% stake	293
# shares [m€]	202
DNR's 25.85% stake in NCH ₂	1.45 €

RELATIVE VALUATION – SUMMARY



BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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	BU	Multiples	Regressor	Result Multiple	Result
DNR	ET	EV/EBITDA	EBIDAm FY24E	10.79	8.28€
	WT	EV/EBITDA	Sales g FY23-26E	10.35	
	ETr	EV/Sales	Sales g FY23-26E	0.81	
NCH2	CA	EV/EBIT	R&D/Sales FY24E	11.69	25% TP
	AWE	EV/Sales	GW Prod. Capacity	0.28	1.99€
				Total	10.27€

- To validate our DCF from a market-driven perspective, we conducted a **SOTP relative valuation** using the company’s own market segmentation—departing from the product-based approach applied throughout our analysis. This ensures alignment with how the market prices each business unit, leveraging relevant multiples for a precise cross-check against intrinsic value.
- Cross-checking with NCH2’s SOTP valuation confirmed a **€10.27 per share** estimate.



RELATIVE VALUATION – SUMMARY

BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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ET	EBITDAm FY24E	EV/EBITDA FY24E
Atlas Copco	26.22%	18.09
Rotork	25.40%	13.15
Umicore	20.90%	4.94
Entegris	28.73%	19.90
Johnson Matthey	16.67%	4.91
Chart Industries	24.28%	12.88
Axalta	21.08%	9.47

DNR
10.79

WT	RevCAGR FY23-26E	EV/EBITDA FY24E
Xylem & Evoqua	10.36%	17.00
Pentair	8.67%	17.56
Fluidra	3.54%	11.27
Hayward	8.17%	14.51
Dupont de N.	6.20%	11.62
Dow	3.26%	7.65

DNR
10.35

ETr	RevCAGR FY23-26E	EV/Sales FY24E
Varta AG	4.39%	0.72
SGL Carbon	0.24%	0.69
FTC Solar	19.26%	1.11
Mersen	2.86%	0.69
FuelCell Energy	19.96%	0.90

DNR
0.81

For the three industries we focused on 2 main multiples:

- **EV/EBITDA** with EBITDAm FY24E as regressor for ET and with sales growth rate for FY23 as regressor for WT, typical of machinery industry
- **EV/Sales** with for ETr, since peers in H2 industry are often in early-stage development with negative EBITDA and may experience high growth phase.



CRITERIA FOR PEERS' SELECTION

BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG

	Financial Criteria	Value Drivers
Electode Technolgy	• Market cap • Revenues • EBITDA m • Z Score	• Material science company (patents, strong R&D) • Same step of the value chain (critical components) • Low TCO focus (energy consumption reduction and durability enhancement) • Balanced geographical mix
Water Technology	• Market cap • EBITDA m • EBITDA • Revenues • Z Score	• Plug & Play solutions • Product mix • Market exposure
Energy Transition	• Market cap • Revenues • Sales	• Market scope • Tech & Innovation Focus • Proprietary Technology



RELATIVE VALUATION – ELECTRODE TECHNOLOGY

BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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									Geographical Mix [%]			
	Mkt Cap [€]	Country	Revenues FY24E	EBITDAm FY24E	Z Score	Material Science	DNR Stage of Value Chain	Lower TCO	APAC	EMEIA	AMS	Comparables
DNR ET	-	IT	463.4	22.5%	5.2	YES	YES	YES	36.70%	33.20%	30.10%	
Atlas Copco	76,358.69	SE	15,376	26.22%	7.20	YES	YES	YES	36.50%	32.90%	30.70%	✓
Epiroc	21,211.72	SE	5,417	24.82%	5.70	YES	NO	YES	28.00%	32.30%	39.60%	x
KONE	25,613.19	FIN	10,932	14.33%	4.60	YES	NO	NO	36.40%	41.00%	22.60%	x
Rotork	3,448.22	UK	868	24.40%	13.9	YES	YES	YES	32.00%	40.20%	27.90%	✓
Spirax Group	6,894.32	UK	1,931	23.86%	4.80	NO	YES	YES	21.20%	42.70%	36.00%	x
Umicore	2,333.16	BE	18,266	20.90%	3.20	YES	YES	YES	22.80%	52.40%	24.80%	✓
Element Sol.	5,977.63	USA	2,158	22.05%	2.10	YES	YES	NO	34.60%	32.30%	33.10%	x
Entegris	15,210.76	USA	3,259	28.73%	3.5	YES	YES	YES	63.30%	11.40%	25.30%	✓
Victrex	1,036.74	UK	307	30.08%	0.11	YES	YES	NO	45.30%	25.00%	30.19%	x
Johnson Mat.	2,905.90	UK	14,882	16.67%	3.30	YES	YES	YES	22.50%	51.80%	25.70%	✓
Legrand	24,882.15	FR	8,417	22.99%	3.20	NO	NO	YES	15.60%	43.30%	41.10%	x
Chart Industries	10,421.48	FIN	3,101	24.28%	1.40	YES	YES	YES	25.20%	27.20%	47.60%	✓
Alfa Laval	17,709.37	SE	5,541	19.51%	4.10	YES	NO	YES	39.00%	36.60%	24.40%	x
Asahi Kasei	8,864.23	JAP	17,763	12.07%	2.00	YES	YES	NO	61.90%	15.50%	22.60%	x
Chemours	2,693.78	USA	5,574.8	1.36%	1.80	YES	YES	NO	24.30%	19.80%	55.90%	x
Axalta	7,981.49	USA	4,795.1	21.03%	2.40	YES	YES	YES	15.10%	34.20%	50.70%	✓
Osaka Soda	1,311.98	JAP	603	19.34%	5.90	YES	YES	NO	89.20%	7.70%	3.10%	x
Cummins	49,380.96	USA	31,493	15.57%	3.60	YES	NO	YES	21.20%	17.60%	61.20%	x



RELATIVE VALUATION – WATER TECHNOLOGY

BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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	Mkt Cap [€]	Plug & Play Solutions	Product mix		Market exposure balance			EBITDAm FY24E	CAGR sales FY24E-FY26E	CAGR EBITDA FY24E-FY26E	Z Score	Comparabels
		Pools	Disinfection & Filtration	Electrochlorination	Developed Countries	Emerging Countries	Frontier Countries					
DNR WT	-	YES	YES	YES	YES	37.00%	33.00%	11.70%	16.00%	5.84%	10.69%	4.70
Xylem & Evoqua	30,452.04	YES	YES	YES	YES	25.90%	19.40%	52.10%	20.41%	3.25%	9.39%	5.00 ✓
Ecolab	68,796.58	YES	NO	YES	NO	76.80%	14.50%	4.90%	22.69%	2.88%	7.69%	4.10 x
Pentair	15,864.10	YES	YES	YES	NO	86.60%	10.40%	2.00%	24.98%	2.64%	8.67%	4.10 ✓
Fluidra	4,417.86	YES	YES	NO	NO	77.50%	16.50%	3.00%	22.71%	3.64%	8.53%	2.34 ✓
Veolia	20,119.45	YES	YES	YES	YES	66.90%	25.60%	5.00%	14.56%	2.68%	5.87%	0.90 x
DuPont de N.	31,236.54	YES	YES	YES	NO	53.70%	33.10%	7.30%	25.32%	3.32%	8.45%	1.30 ✓
Dow	26,019.14	YES	YES	YES	NO	63.20%	21.50%	7.90%	12.79%	2.45%	11.67%	2.10 ✓
Hayward	3,140.44	YES	YES	NO	NO	91.40%	5.80%	1.90%	25.82%	4.89%	10.77%	2.10 ✓

WT is a fragmented market and DNR’s peers distinguish in broad-focus global players (Xylem & Evoqua, Pentair, DuPont de Nemours, Dow and Hayward).

Fluidra, which slightly differs from the previous players in terms of end markets, is comparable to DNR in the specific product segment of swimming pools, which represents a highly important sub-segment for the Group.



RELATIVE VALUATION – ENERGY TRANSITION

BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG

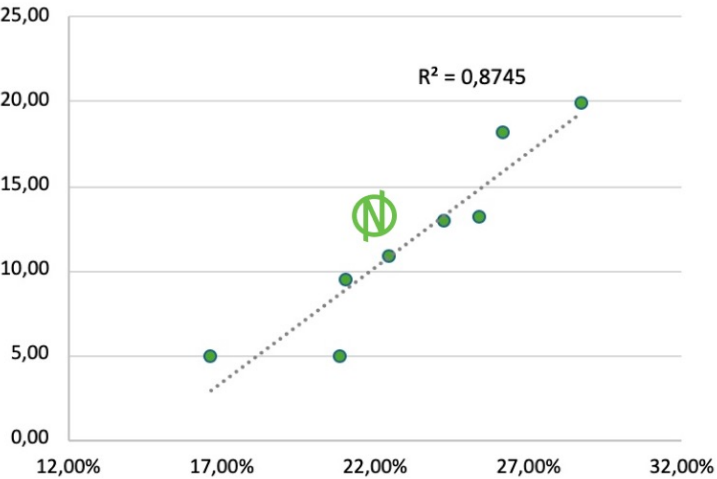
	Mkt Cap. [€]	Country	Revenues F24E [€]	Sales CAGR FY23-FY26E	Similar Market Scope	Tech & Innovation Focus	Proprietary Tech	Comparables
DNR ETr	-	IT	106.1	9.17%	YES	YES	YES	
Varta	34.75	DE	790.29	4.9%	YES	YES	YES	✓
SGL carbon	460.32	DE	1,049	0.24%	YES	YES	YES	✓
TPI composites	70.67	USA	1,186	7.4%	YES	YES	NO (wind turbine blade)	x
Albemarle	9,041.72	USA	5,998	-12.93%	YES	YES	YES	✓
FTC Solar	51.07	USA	52.91	19.26%	YES	YES	YES	✓
Pioneer Power Sol.	39.63	US	31.60	5.97%	YES	YES	NO (electrical infrastr.)	x
Mersen	518.53	FRA	1,227	2.89%	YES	YES	YES	✓
Siemens Aktien.	160,195.50	DE	77,285	2.60%	YES	YES	YES	✓
Seri Industrial	121.74	ITA	158.02	21.64%	YES	YES	YES	✓
Daqo New Energy	1,160.98	CN	1,200.78	-1.01%	YES	YES	NO (polysilicon solar pan.)	x
Fuelcell Energy	152.50	USA	103.17	16.96%	YES	YES	YES	✓

- DNR focuses on components, with only a small-scale involvement in electrolyzers.
- Therefore, we selected peers based on their role in providing innovative components for the green and renewable sectors, which are currently facing market uncertainty but have strong growth potential.

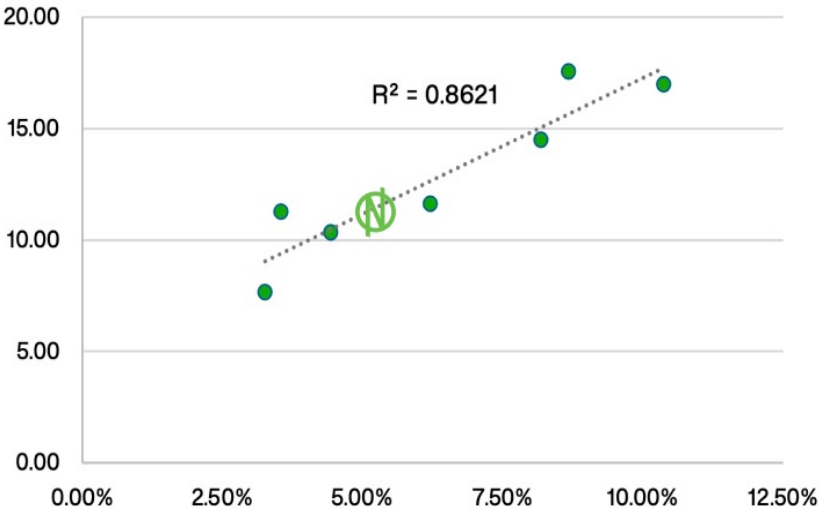
RELATIVE VALUATION – DE NORA’S OLS



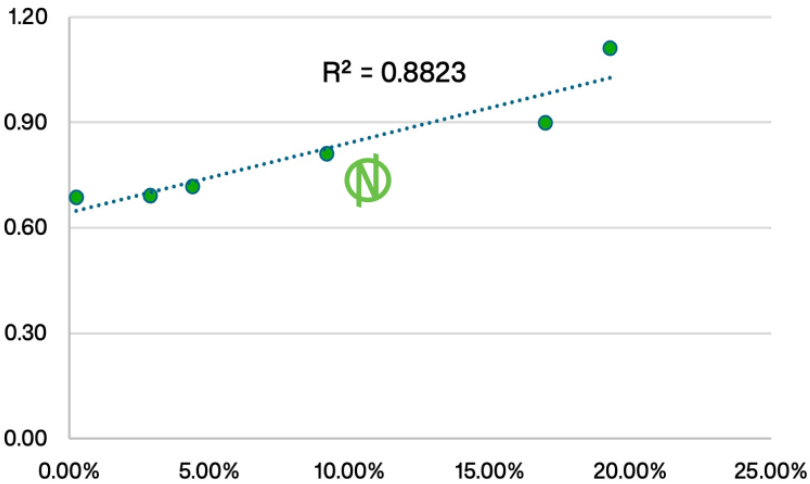
Electrode Technologies Segment



Water Technologies Segment



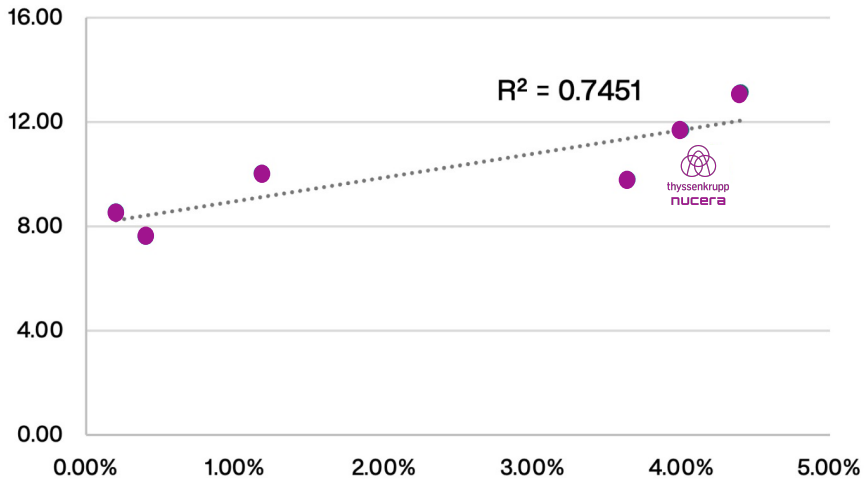
Energy Transition Segment





RELATIVE VALUATION – NUCERA (CHLOR – ALKALI)

CA	R&D/Sales	EV/EBIT 2024E
Technip Energies	1.18%	10.04
Saipem	0.20%	8.57
Krones	3.64%	9.81
Cummins	4.40%	13.14
Taikisha	0.40%	7.6

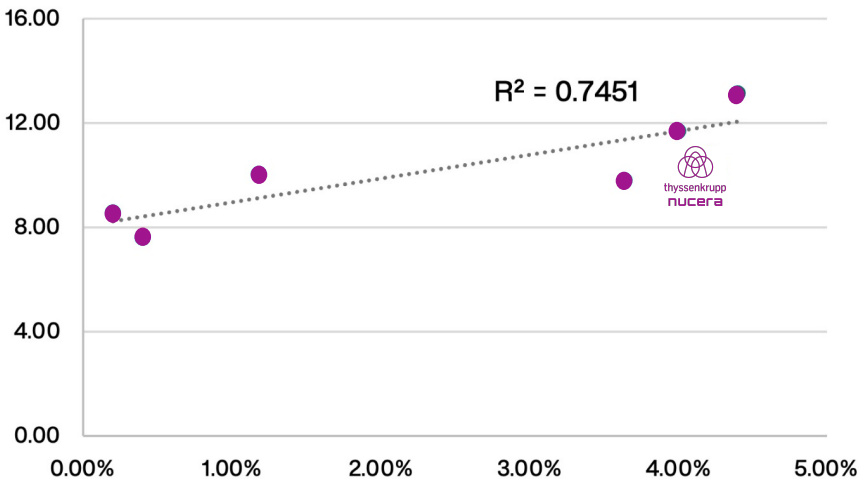


- **Peers’ Selection:** OMEs and EPC in the chemical and industrial sectors.
- **FY24 EV/EBIT multiple:** EBIT offers a clear view of operational performance unaffected by the financing structure.
- **FY24 R&D/Sales regressor:** maintaining competitive edge in an efficiency-driven market is crucial



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RELATIVE VALUATION – NUCERA (AWE)



BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

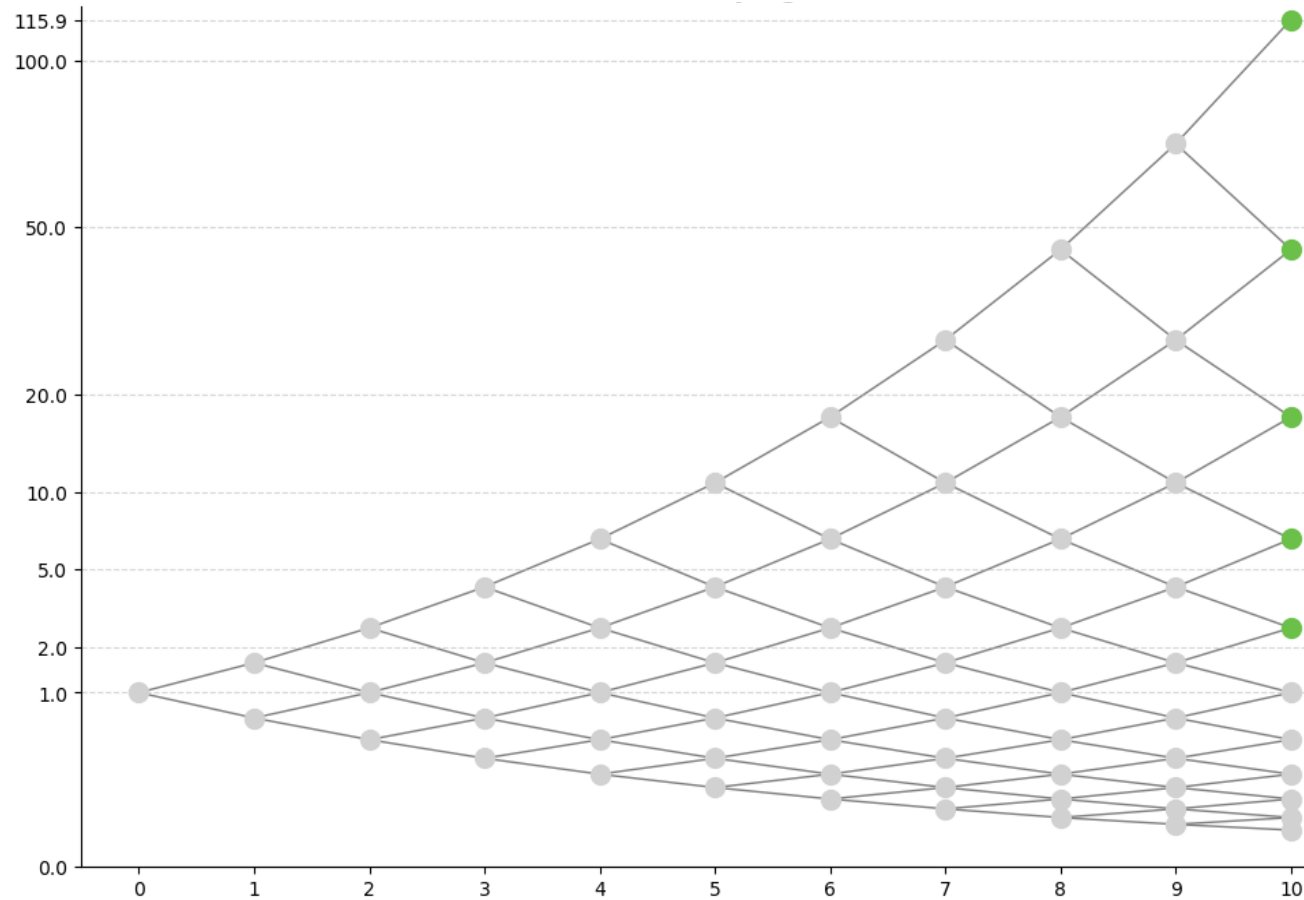
ESG

AWE	EV/Sales	GW Production Capacity
Plug Power	3.73	2.5
ITM Power	-0.24	1
McPhy	0.94	1.3
Nel	1.18	1
Ballard	-1.80	1

- **Peers' Selection:** EPC and OEMs for H2 industry with a similar business model.
- **EV/Sales multiple:** revenue growth is a key value driver in a market still in its early growth stages.
- **Weighted average GW regressor:** accounting for installed production capacity



Binomial tree: underlying asset



- We performed a **DCF of all the company**
- Come to gH_2 , given its **uncertainty and potential**, we identified the peculiar characteristics of a **call option**
- Therefore we estimated all the components of the **B&S model**

Uncertainty and potential



Long Position in a Call Option:
Black & Scholes

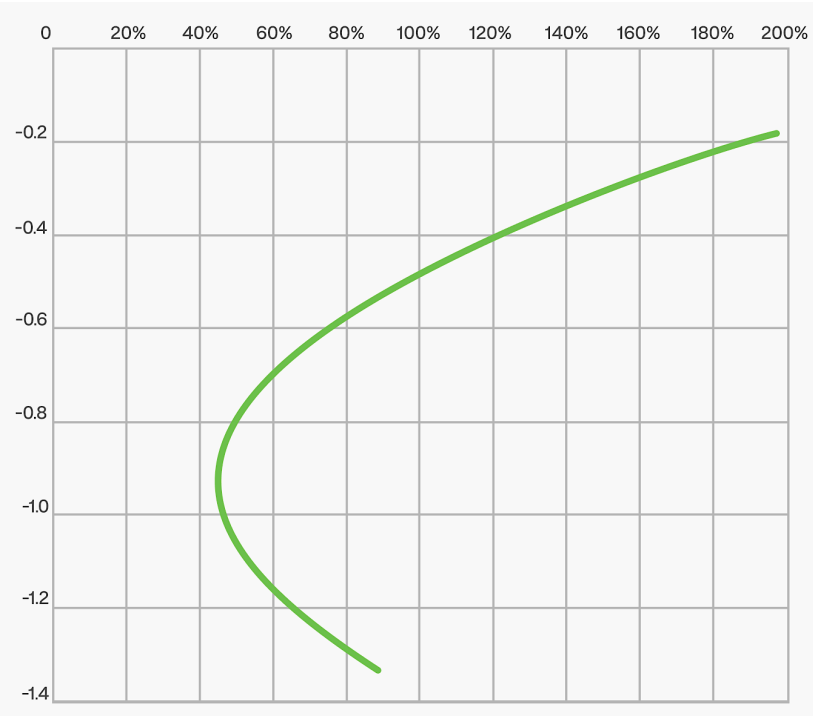


Variance-covariance matrix was built with weekly historical returns from January 2021 to January 2025.

	Plug Power	Nel	ITM Power	Ballard	Ceres Power	McPhy
Plug Power	151.29	53.21	60.04	74.85	53.46	33.40
Nel	53.21	69.01	49.56	38.89	41.27	38.74
ITM Power	60.04	49.56	92.79	44.46	54.84	41.69
McPhy	33.40	38.74	41.69	28.25	37.02	84.62
Ceres Power	53.46	41.27	54.84	43.54	90.00	37.02
Ballard	74.85	38.89	44.46	65.40	43.54	28.25

Plug Power	NEL	McPhy	ITM Power	Ballard	Ceres Power
-15%	26%	24%	3%	51%	11%

Markowitz Efficient Frontier





We modelled the call option based on the Black & Scholes model following these key assumptions:

	Assumption	Explanation
1	Efficient and liquid markets	Ensured by global gH2-focused companies composing the portfolio.
2	Constant volatility	Estimated rigorously from historical data.
3	Absence of arbitrage	Supported by the construction of an efficient minimum variance portfolio.
4	European-style option	The call option can only be exercised at expiration.



REAL OPTION: BLACK & SCHOLES – SPOT PRICE

BUSINESS	INDUSTRY	FINANCIAL	VALUATION	RISKS	ESG
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Spot Price (S0): current estimated value of the ETr segment obtained through a DCF valuation.

[m€]	FY2023	FY2024E	FY2025E	FY2026E	FY2027E	FY2028E	FY2029E	FY2030E	FY2031E	FY2032E	FY2033E	FY2034E	FY2035E	TV
Revenues	102.2	106.1	115.7	133.0	159.6	199.5	249.4	306.8	371.2	428.4	478.0	515.3	535.9	
Growth	139.63%	3.80%	9.00%	15.00%	20.00%	25.00%	25.00%	23.00%	21.00%	15.40%	11.60%	7.80%	4.00%	
EBITDA	12.1	0.1	4.0	6.7	14.4	23.9	32.2	41.4	53.5	64.7	76.0	86.1	94.9	
EBITDAm	11.83%	0.10%	3.50%	5.00%	9.00%	12.00%	12.90	13.50%	14.40%	15.10%	15.90%	16.70%	17.70%	
D&A	4.2	4.6	5.1	6.0	7.2	9.0	11.2	13.8	16.7	19.3	21.5	23.2	24.1	
EBIT	7.9	-4.5	-1.0	0.7	7.2	15.0	21.0	27.6	36.7	45.4	54.5	62.9	70.7	
EBITm	7.77%	-4.20%	-0.90%	0.50%	4.50%	7.50%	8.40%	9.00%	9.90%	10.60%	11.40%	12.20%	13.20%	
Tax Rate	12.90%	27.90%	27.90%	27.90%	27.90%	27.90%	27.90%	27.90%	27.90%	27.90%	27.90%	27.90%	27.90%	
NOPAT	6.9	-3.2	-0.8	0.5	5.2	10.8	15.1	19.9	26.5	32.7	39.3	45.3	51	
Net capex	31.3	43.5	47.3	47.3	40.6	33.9	35.4	35.3	20.4	23.6	26.3	28.3	29.5	
Change NWC	18.4	1.9	0.6	3.7	13.1	12.6	15.7	17.9	20.1	17.7	15.3	11.5	6.2	
FCFF	-38.7	-44.0	-43.5	-44.5	-41.4	-26.7	-24.7	-19.5	2.7	10.8	19.2	28.7	39.4	
WACC	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	
Disc. FCFF	-	-40.4	-36.6	-34.4	-29.3	-17.3	-14.7	-10.6	1.4	4.9	8.1	11.1	14.0	290.2
Terminal Growth (g)				4.0%										
EV (excluding call option premium and NCH2) [m€]				146.3										



Strike Price (X): set at 1.5x the spot price to account for volatility while preventing arbitrage opportunities.

- Given the 64.53% volatility of the hydrogen sector, **setting a lower strike would lead to a too high probability of exercise, making the option behave more like a simple equity adjustment**
- **At the same time, raising the strike price too much would introduce arbitrage**, violating core assumptions of Markowitz's Modern Portfolio Theory and the Black & Scholes model:
An excessively high strike would lead to an option mispricing that could be exploited by investors.
- By calibrating X at 1.5x, we balance these constraints, ensuring an ***in the money* probability at 16%**

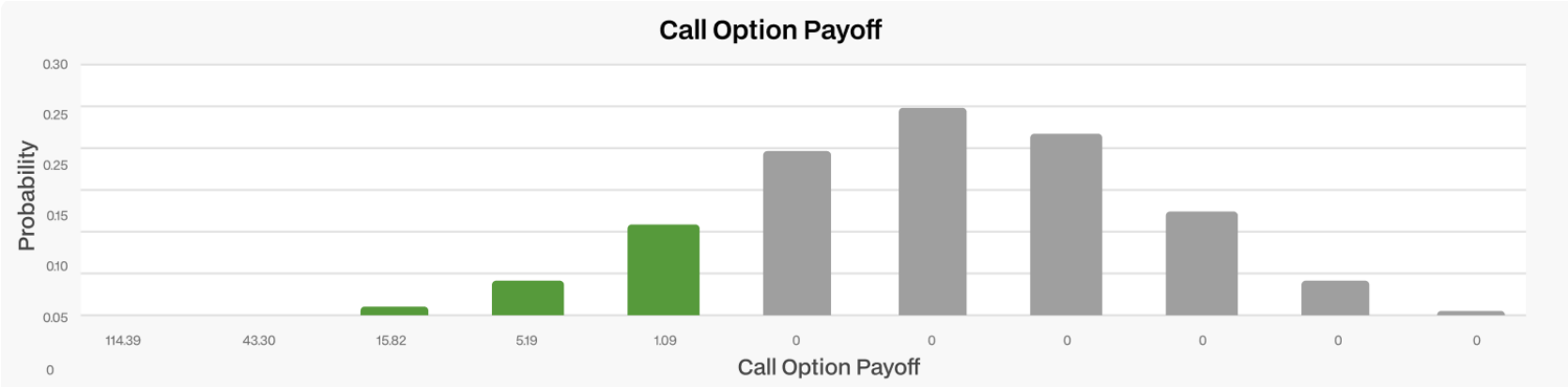


REAL OPTION: BLACK & SCHOLES RESULTS

Black & Scholes Model	
Spot Price (S0)	146.3 m€
Strike Price (X)	219.5 m€
Time to maturity	5 y
rf	2.48%
Rf c.c.	2.45%
Variance	45.18%
Call Premium	70.66 m€
Contribution to TP	0.35 €
In the money probability	15.94%

- **Time to expiration (T):** 5 years.
- **Risk-free rate (rf):** from AAA-rated 10-year European government bonds.
- **Volatility (σ):** obtained from a minimum variance portfolio including six global hydrogen companies.

We used a **conservative variance**, even though the option was **deep out of the money**. We applied minimum variance, and **Black-Scholes is already conservative as it assumes constant variance**.



RISK ANALYSIS



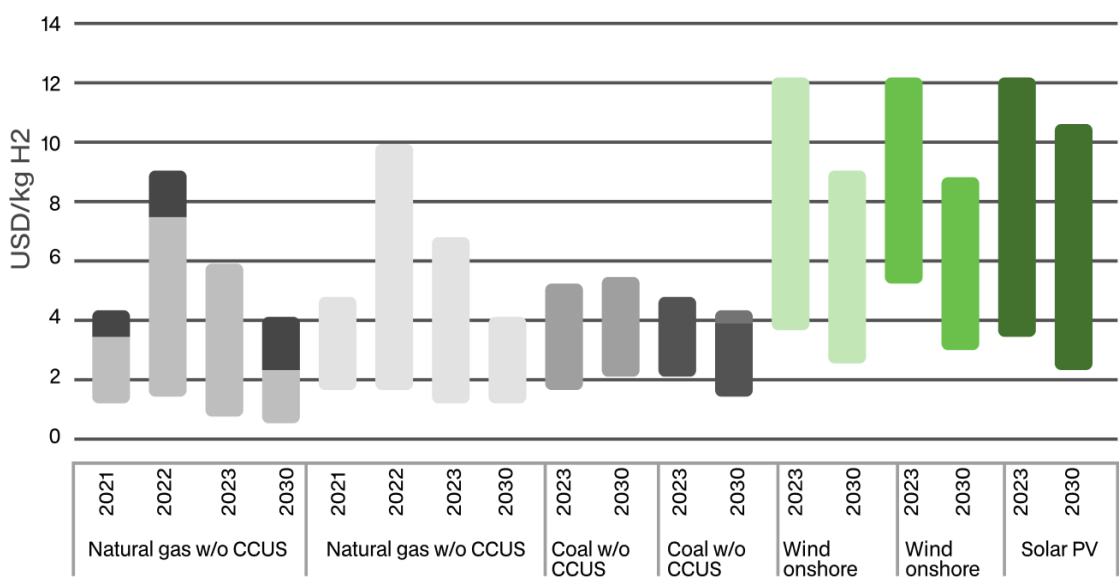


High H2 Costs: Green hydrogen is 1.5 to 6 times pricier than fossil alternatives.

Sales Risk: Delayed cost reduction past 2030 could cut demand.

DNR Action: Focus on H2 tech lowering customer OPEX to ease price gap.

		Revenues gH ₂				
	10.63 €	-15%	-10%	-5%	0%	5%
EBITDam gH ₂	-5.0%	8.13 €	8.66 €	9.20 €	9.74 €	10.27 €
	-4%	8.27 €	8.82 €	9.37 €	9.92 €	10.47 €
	-3.0%	8.41 €	8.97 €	9.53 €	10.09 €	10.66 €
	-2%	8.55 €	9.12 €	9.70 €	10.27 €	10.85 €
	-1.0%	8.69 €	9.27 €	9.86 €	10.45 €	11.04 €
	0%	8.83 €	9.43 €	10.03 €	10.63 €	11.23 €
	1.0%	8.97 €	9.58 €	10.19 €	10.81 €	11.42 €



SENSITIVITY ANALYSIS – NOBLE METAL RISK



		Revenues				
	10.63 €	-3%	-2%	-1%	0%	1%
EBITDAm	-2.5%	7.48 €	7.94 €	8.43 €	8.94 €	9.49 €
	-2%	7.76 €	8.24 €	8.74 €	9.28 €	9.85 €
	-1.5%	8.04 €	8.54 €	9.06 €	9.62 €	10.21 €
	-1%	8.32 €	8.83 €	9.38 €	9.96 €	10.57 €
	-0.5%	8.60 €	9.13 €	9.69 €	10.29 €	10.93 €
	0%	8.88 €	9.43 €	10.01 €	10.63 €	11.29 €
	0.5%	9.16 €	9.73 €	10.33 €	10.97 €	11.65 €
	1%	9.44 €	10.02 €	10.64 €	11.30 €	12.01 €

Metal-Indexed Pricing: 50% of De Nora’s product prices are tied to precious metals.

Cost Pass-Through: Contracts adjust prices based on raw material costs (PGMs).

Margin Stability: Protects margins and benefits from rising metal prices.



Market Risk

Probability **Moderate** Impact **Moderate**

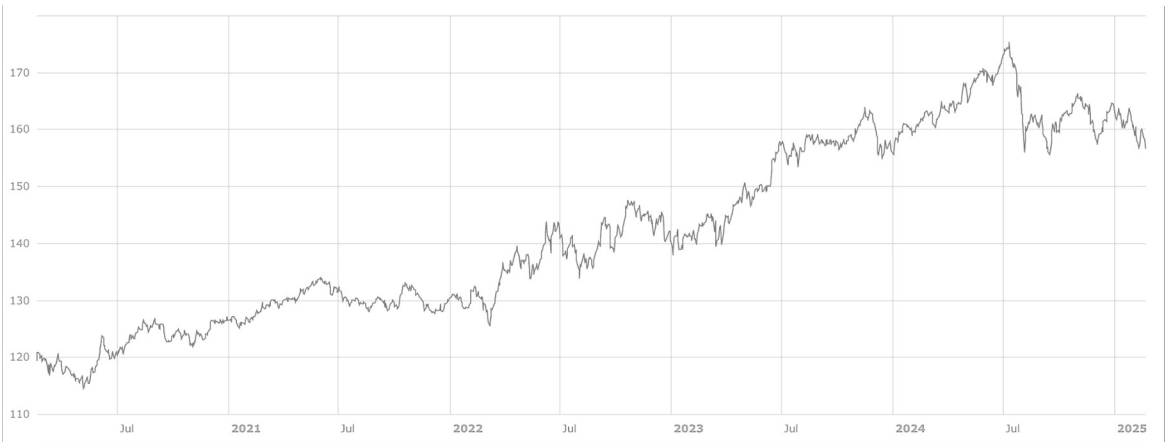
TP **10.63€** Risk Adj. TP **10.14€**

TP Adjustments:
Option H2: €0.35
CAGR Revenues (25-35): -0.5p.p.

Risk Description: Fluctuations in **currency and interest rates create** financial pressures for DNR, directly impacting its performance. In 2023, the **Japanese yen** devalued by approximately 11%, and the US dollar weakened by around 4%, resulting in an unfavorable USD/euro exchange rate. This shift alone affected DNR’s income statement by €3.4 MM in FY2023, confirming this risk.

DNR Mitigation Strategies & Impact Assessment: DNR addresses market risks by using **financial derivatives and liabilities to minimize volatility** in results without engaging in speculative activities. DNR further hedges these risks by **leveraging its CFFO to self-finance**, limiting the increase in leverage.

EUR vs JPY



EUR vs USD





Intellectual Property

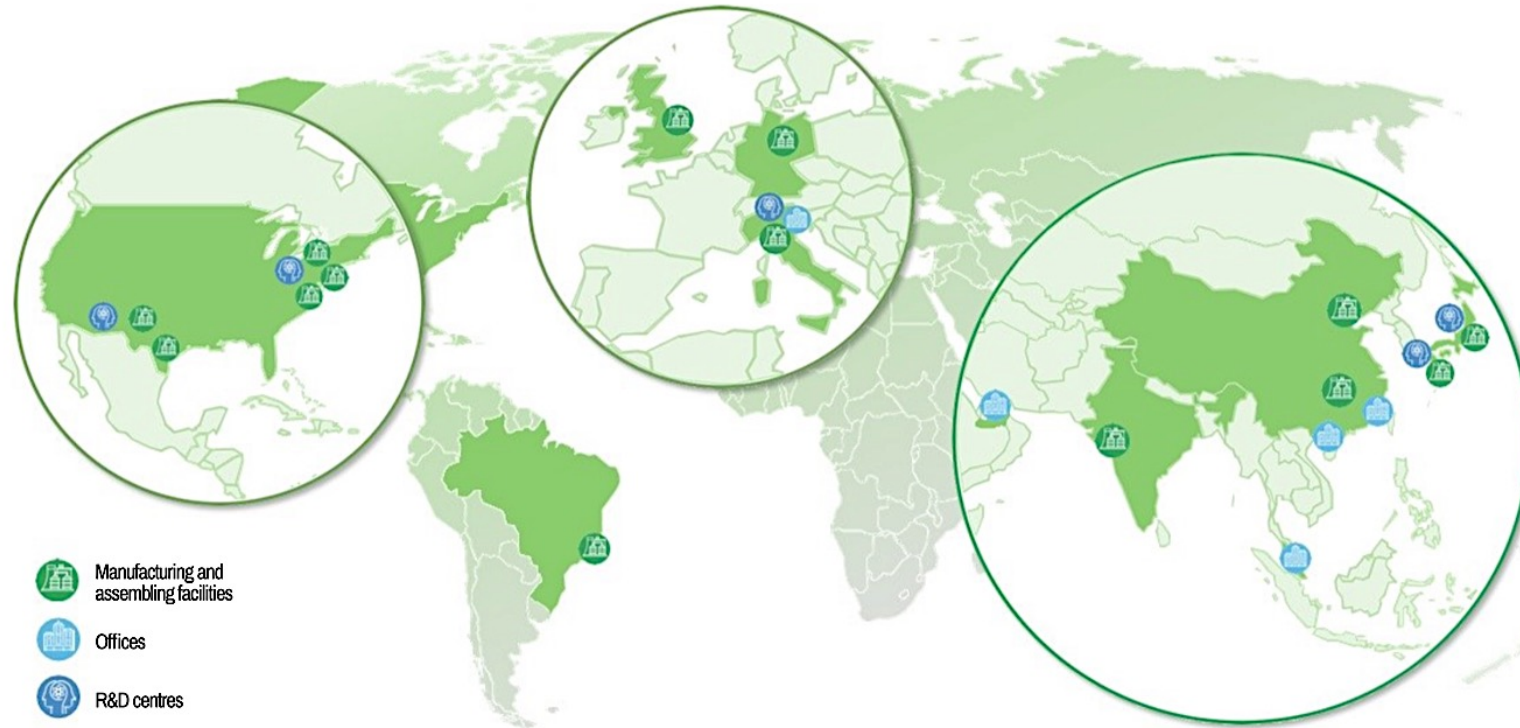
- Strict access control
- Centralized IP management
- Coded labels on coatings to prevent disclosure.

Critical Raw Materials Pricing and Unavailability

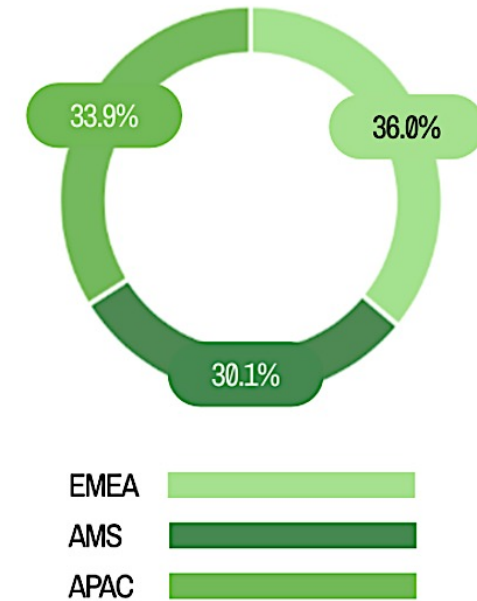
- Secures minimum purchase commitments,
- Aligns procurement with sales backlog,
- Maintains buffer stock.
- Diversifies suppliers across countries and mitigates price volatility with a pass-through mechanism.

Limited Control over the JV Nucera

- Board representation at Nucera.
- Develops advanced technologies while keeping the freedom to work with other gH2 players, as the TMA is non-exclusive.



2023 Revenues by geography



- **Local for Local Business Model**
- **Geographical Diversification:** 14 facilities across 4 continents
- **Very well diversified suppliers base:** 5400 suppliers (US included)



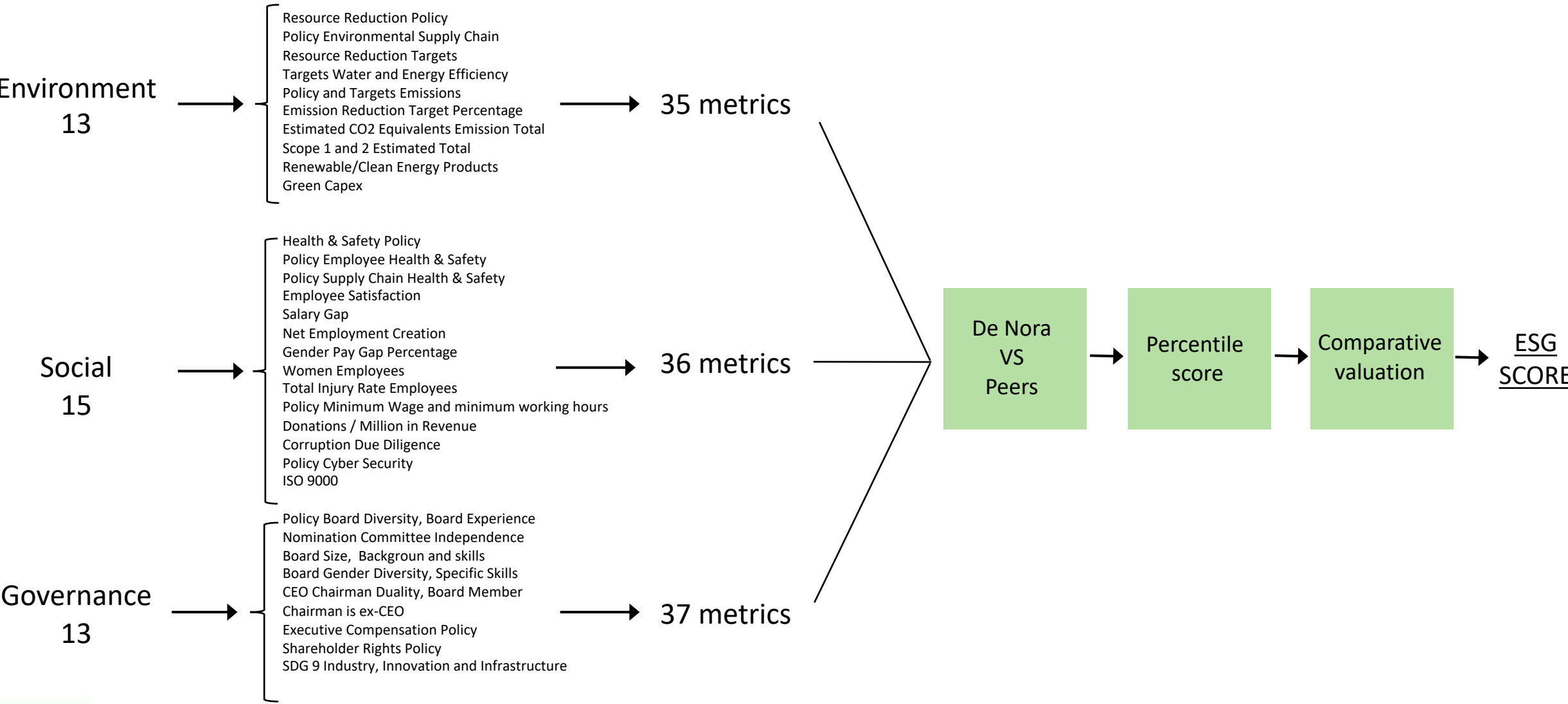
- 90 day average daily volume: 210k shares traded ~ **0.5%** floating capital
- 30 day average daily volume: 260k shares traded ~ **0.6%** floating capital
- 5 day average daily volume: 610k shares traded ~ **1.4%** floating capital

For a **3% stake** (6 million shares):
24-29 days needed

ESG ANALYSIS



ESG PROPRIETARY MODEL





BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG

Assigning weights not only to standard metrics but also to
industry-specific factors



Key aspects: leadership stability, female representation, and
carbon footprint disclosure



Interviews
with former employees and industry experts



ENVIRONMENTAL: RATING A, SCORE: 6.40 – WEIGHT 35%

	Environmental Highlights				
	Key Factors	DNR 2023	Industry 2023	Best 2023	Worst 2023
Environmental Policies	Resource Reduction Policy	TRUE	100%T - 0%F	TRUE	FALSE
	Policy Environmental Supply Chain	TRUE	100%T - 0%F	TRUE	FALSE
Environmental Targets	Resource Reduction Targets	FALSE	43.3%T - 56.7% F	TRUE	FALSE
	Targets Water Efficiency	FALSE	43.3%T - 56.7% F	TRUE	FALSE
	Targets Energy Efficiency	FALSE	26.6%T - 73.4%F	TRUE	FALSE
Emissions	Policy Emissions	FALSE	66.6%T - 33.3%F	TRUE	FALSE
	Targets Emissions	TRUE	93%T - 7%F	TRUE	FALSE
	Emission Reduction Target Percentage	50,00%	46.00%	75.00%	31.25%
	Estimated CO2 Equivalents Emission Total/employee	16 metric tons/employee	70 metric tons/employee	4.46 metric tons/employe	135.21 metric tons/employee
	Scope 1 Estimated Total	5,519 tons	2,793,099 tons	8,312,177 tons	1,714 tons
	Scope 2 Estimated Total	17962,16 tons	610,794 tons	1,766,242 tons	4,236 tons
Innovations	Renewable/Clean Energy Products nt goes here	TRUE	80%T - 20%F	TRUE	FALSE
	Green Capex	TRUE	33%T-66%F	TRUE	FALSE



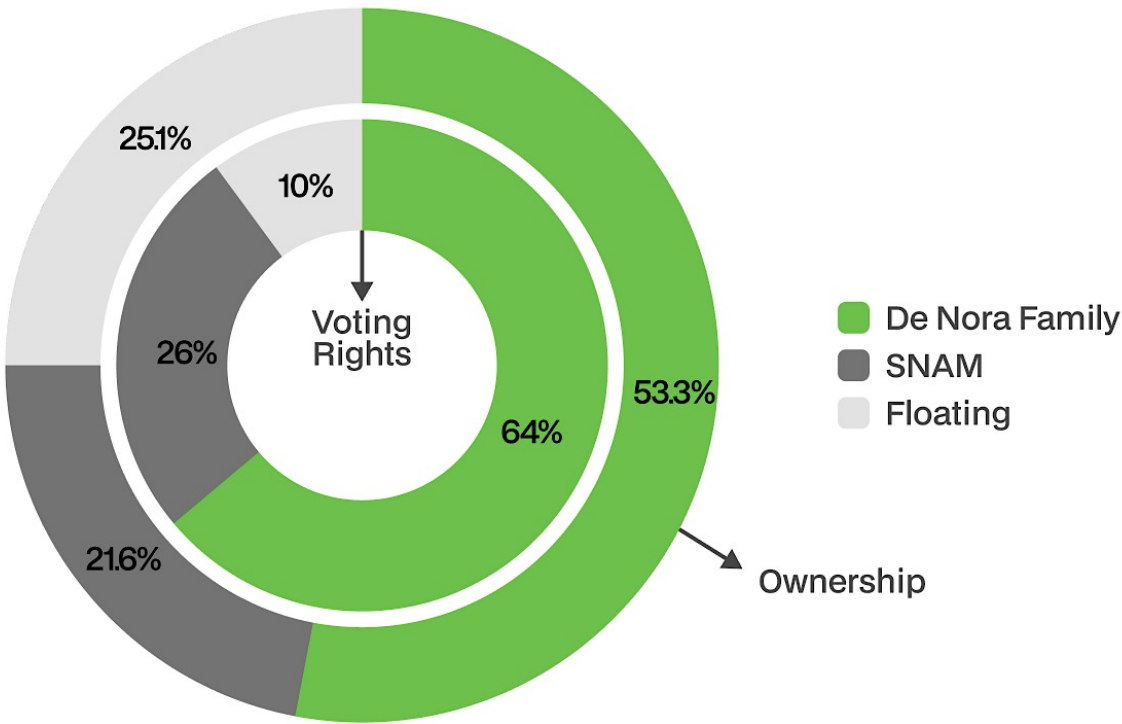
SOCIAL: RATING BBB, SCORE: 5.67 – WEIGHT 20%

	Social Highlights				
	Key Factors	DNR 2023	Industry 2023	Best 2023	Worst 2023
Policies of development	Health & Safety Policy	TRUE	100%T - 0%F	TRUE	FALSE
	Policy Employee Health & Safety	TRUE	100%T - 0%F	TRUE	FALSE
	Policy Supply Chain Health & Safety	TRUE	93%T - 7%F	TRUE	FALSE
Employee Diversity & Satisfaction	Employee Satisfaction	73.00%	77.00%	82.00%	71.00%
	Salary Gap	18	35.44	16	59
	Net Employment Creation	4.2	9.00	14.49	0.07
	Gender Pay Gap Percentage	95.20%	95.02%	94.55%	95.61%
	Women Employees	20.00%	24.28%	26.05%	21.84%
	Total Injury Rate Employees	2.81	10.49	2.6	26.14
	Policy Minimum Wage	TRUE	60%T - 40%F	TRUE	FALSE
	Policy Working Hours	TRUE	33.3%T - 66.6%F	TRUE	FALSE
Community Engagment	Donations / Million in Revenue	235.52	1,220.13	2,332.7	107.5
	Corruption Due Diligence	TRUE	46%T - 54%F	TRUE	FALSE
Product responsibility	Policy Cyber Security	TRUE	100%T - 0%F	TRUE	FALSE
	ISO 9000	TRUE	93%T - 7%F	TRUE	FALSE



GOVERNANCE: RATING A, SCORE 6.03 - WEIGHT 45%

Governance Highlights					
	Key Factors	DNR 2023	Industry 2023	Best 2023	Worst 2023
Bard Structure	Policy Board Diversity	TRUE	93%T -7 %F	TRUE	FALSE
	Policy Board Experience	TRUE	100%T - 0%F	TRUE	FALSE
Board Characteristic	Board Size	13	11	13	9
	Board Background and Skills	TRUE	100%T - 0%F	TRUE	FALSE
	Board Gender Diversity, Percent	30.00%	29.67%	28.00%	37.00%
	CEO Chairman Duality	FALSE	7%T - 93%F	TRUE	FALSE
	CEO Board Member	TRUE	80%T - 20%F	TRUE	FALSE
	Chairman is ex-CEO	FALSE	20%T - 80%F	TRUE	FALSE
Executive Compesation	Executive Compensation Policy	TRUE	100%T - 0%F	TRUE	FALSE
Shareholders	Shareholder Rights Policy	TRUE	100%T - 0%F	TRUE	FALSE
	SDG 9 Industry, Innovation and Infrastructure	TRUE	80%T-20%F	TRUE	FALSE



Long-term Ownership

De Nora family holds **64% of voting rights**, with **53% through Federico De Nora S.p.A.**, giving Federico De Nora control.

Strong Expertise

External CEO, independent-majority board with industrial expertise

Governance & Capital Allocation

25% payout ratio, with retained earnings reinvested in the company.

BOARD OF DIRECTORS



BUSINESS

INDUSTRY

FINANCIAL

VALUATION

RISKS

ESG

Name	Current Role	Age	Education	Background
Federico De Nora	Chairman	56	-	Grandson of the company's founder Oronzio. From 2000, CEO of DNR Impianti S.p.A., Chairman of DNR Elettrodi S.p.A., DNR Tecnologie Elettrochimiche S.p.A., Uhdenora S.p.A. Sole Administrator of Federico De Nora S.p.A. Currently Chairman of the Board of Directors, holding the majority stake.
Paolo Dellachà	CEO	56	Degree In Electronic And Management Engineering	CEO of DNR since 2010, key role in establishing the NCH2 JV, where he serves as Deputy Chairman of the Supervisory Board. Led multiple acquisitions in the ET and WT sectors.
Stefano Venier	Non-Executive Director	61	Degree In IT And Master In Energy And Environmental Management	CEO of Snam, with over 30 years of experience in energy and utilities. Former CEO of Hera, also held leadership roles at A.T. Kearney, Eni, and Electrolux.
Alessandro Garrone	Independent Non-Executive Director	61	Degree In Economics	Executive Vice President of ERG SpA and Chairman of the Strategic Committee, with prior roles including CEO of ERG SpA (2002-2012) and Chairman of ERG Renew (2012-2016).
Maria Giovanna Calloni	Independent Non-Executive Director	60	Degree In Business Administration	Director at Merrill Lynch in New York (1992-2002). Serves on the boards of DNR, Euro Group Laminations, Philogen, CY4Gate, and Tec Cyber, and has held past director roles at Pininfarina, Credito Valtellinese, and CAD IT.
Mario Cesari	Non-Executive Director	57	Degree In Industrial Engineering	Held leadership roles at Valeo, McKinsey & Co., Berkshire Partners, Vestar Capital, and Thyssen Bornemisza Group. In 2022, mr. Cesari founded Ischyra Europa GmbH. Serves on several other boards, including Piovan, Carel, and De Agostini Group.
Michelangelo Mantero	Non-Executive Director	56	Degree In Monetary Economics	Previously at Merrill Lynch in New York and partner at Vestar Capital Partners. In 2013, founded GenCap Advisory and in 2020 raised the Xenon Small Cap fund.
Elisabetta Oliveri	Independent Non-Executive Director	61	Degree In Electronic Engineering	Leadership roles at Sirti Group, Gruppo Fabbri Vignola, and Sagat SpA. Served on several boards, including Snam SpA, GEDI SpA, and Eutelsat S.A. Now independent director at ERG SpA, Trevi Finanziaria SpA, and Stella SpA. President of the Furio Solinas Foundation.
Giovanni Toffoli	Independent Non-Executive Director	56	Degree In Business Administration	Joined Kappa Spa in 1998. In 2000, founded Adriatica Spa and became its CEO in 2012. Has been President of Federchimica Assofertilizzanti since 2018.
Paola Bonandrini	Independent Non-Executive Director	50	Degree In Civil Engineering And Master's Degree In Energy And Environmental Management And Economics	First female District Head at Snam. In 2014, Deputy Managing Director at Teréga and returned to Snam in 2018 as Senior Vice President of Facilities. Since 2019, she has been on Teréga and, Scogat and Mariconsult boards.
Giorgio Metta	Independent Non-Executive Director	52	Degree And PhD In Electronic Engineering	Scientific Director of the Italian Institute of Technology (IIT). Led the development of the iCub robot. Author of 300+ publications and contributed to Italy's AI Strategic Agenda and the G7 AI Forum.
Anna Chiara Svelto	Independent Non-Executive Director	56	Degree In Law	Held leadership roles at UBI Banca, Pirelli, Edison, and Shell Italia. Served on the boards, including Enel, ASTM, and Technoprobe. Currently board member of Credito Emiliano, Interpump, and Avvale.



Execution capabilities



Stability and alignment
except for the three CFO in two years



Interviews
with former employees and industry experts





**20% of CEO salary is linked to ESG drivers
10% C-level**



Long-term incentives: Performance Share Plan based on Total Shareholder Return and ESG goals



Management Incentive Plan aligns executive rewards with company performance, offering bonuses or equity incentives.