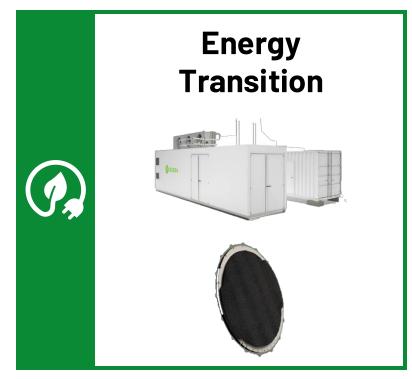


# THE GLOBAL ELECTROCHEMICAL MARKET









#### **CLOSING PRICE**

€6.95

06/02/2025



#### **TARGET PRICE**

€7.00

**Upside 0.72%** 



**TICKER: DNR.MI** 

MARKET CAP: €1.40B

**SALES 2024E: €867M** 

**COMPANY OVERVIEW** 

FINANCIAL

**VALUATION** 

ESG

## **HOLD: THREE MAIN PILLARS**

Coupling future industry growth and De Nora's competitive positioning

**Electrode Technologies** 



Century-long leadership...

...in a mature market with modest future growth opportunities



Water Technologies



Dominant position in Swimming Pools...

...suboptimal position in Disinfection & Filtration



**Energy Transition** 



Potentially disruptive...

...still too expensive to be profitable



# **DE NORA'S JOURNEY:**

From Chlor-Alkali to Green H2

Starting from Chlor-Alkali technologies, *De Nora* evolved into a **diversified electrodes provider** 

#### **3 DIFFERENT INDUSTRIES**



**Electrode Technologies** 



Water Technologies

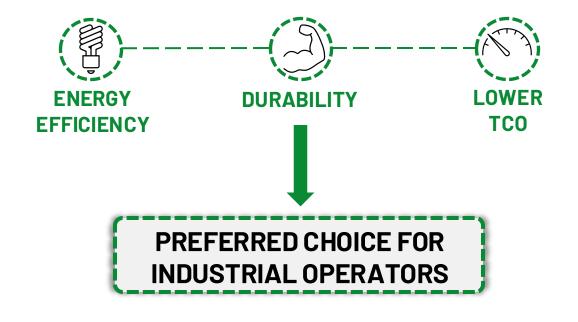


**Energy Transition** 

# A RELIABLE PARTNER with a century long expertise

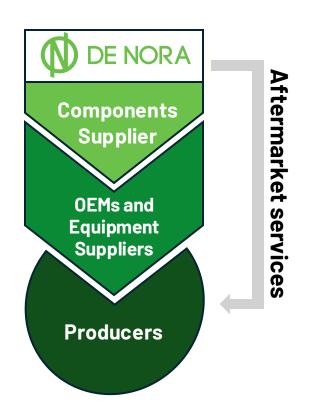
The **Global Electrochemical Market** is characterized by intensive and specialized processes

**De Nora** is a global leader in **catalytic coatings** and **insoluble electrodes** characterized by:



# **CUSTOMER BASE**

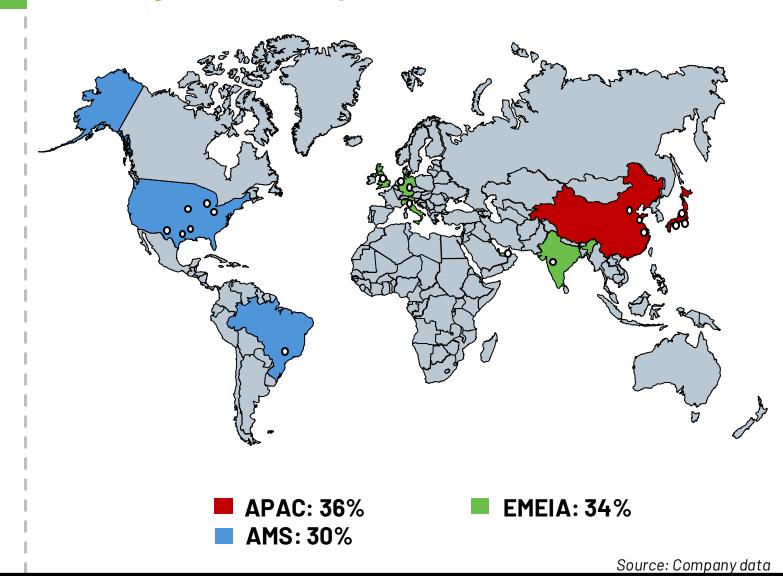
The B2B channel



De Nora operates exclusively in the **B2B Market**, at the very **beginning of the value chain** 

## **GLOBAL PRESENCE**

**Retracing the EMEIA expansion** 



**COMPANY OVERVIEW** 

FINANCIAL

**VALUATION** 

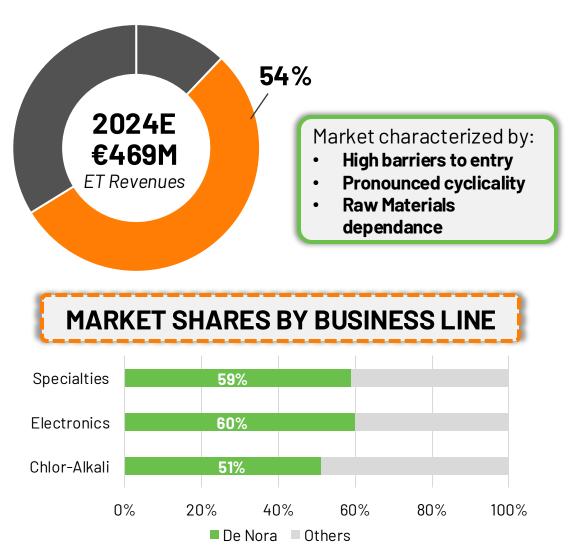
ESG

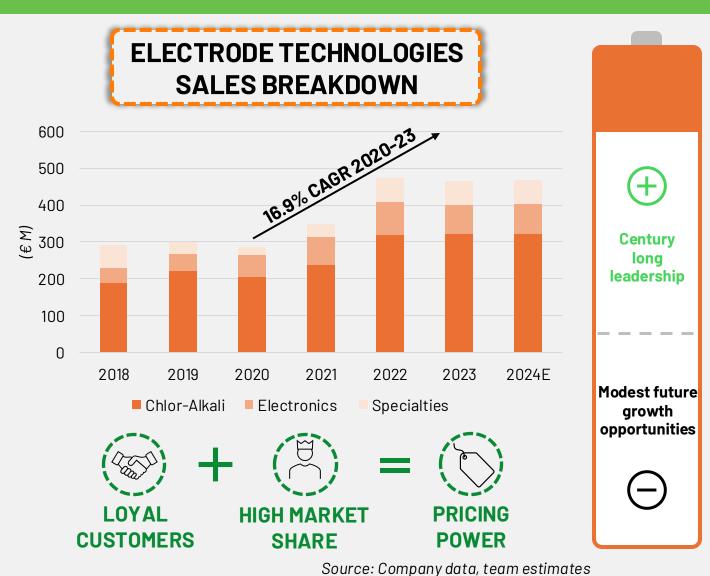
6



# THE ELECTRODE TECHNOLOGIES (ET) SEGMENT

De Nora's beating heart





**COMPANY OVERVIEW** 

FINANCIAL

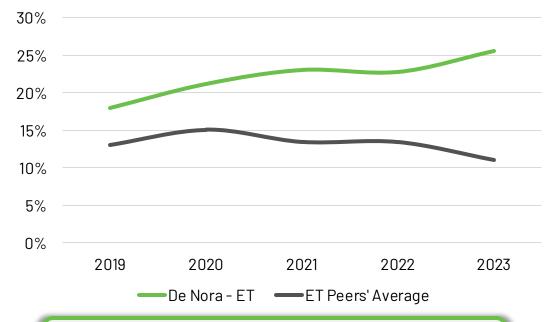
**VALUATION** 

**ESG** 

## 100 YEARS OF INNOVATION AND RESILIENCE

**Pioneering Electrochemical solutions** 

#### **ELECTRODE TECHNOLOGIES EBITDAm**



Market positioning enables the Company to apply the pass-through pricing mechanism, ensuring high and stable margins

#### FREE CASH FLOWS **GENERATION** 60 14% 12% 50 10% Century 40 8% (F) 30 leadership 6% 20 4% 10 2% Modest future 0 0% 2027E 2028E 2029E 2030E opportunities ETFCFF — ETFCFF/Sales We foresee **positive** and **stable** cash flow generation from a consolidated segment

Source: Company data, team estimates

COMPANY OVERVIEW

**FINANCIAL** 

**VALUATION** 

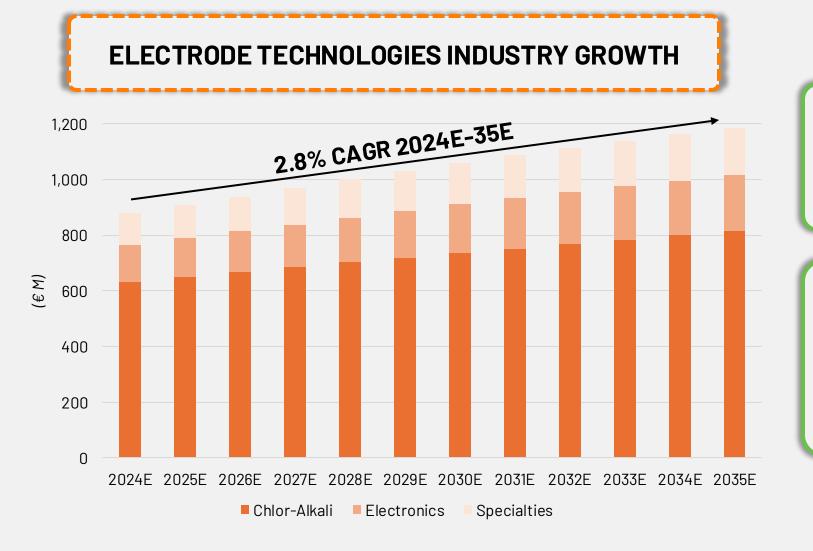
**ESG** 

long

growth

## **RULING A KINGDOM THAT STANDS STILL**

While market dominance is secured, growth pathways are narrowing



Modest growth stemming from:

- Market maturity and consolidation
- Alternative technologies competitive arena

#### Main drivers:

- 1. Population growth
  - i. Urbanization
  - ii. Constructions
- 2. Net-Zero Emissions
  - . Raw materials refining
  - i. PCBs demand

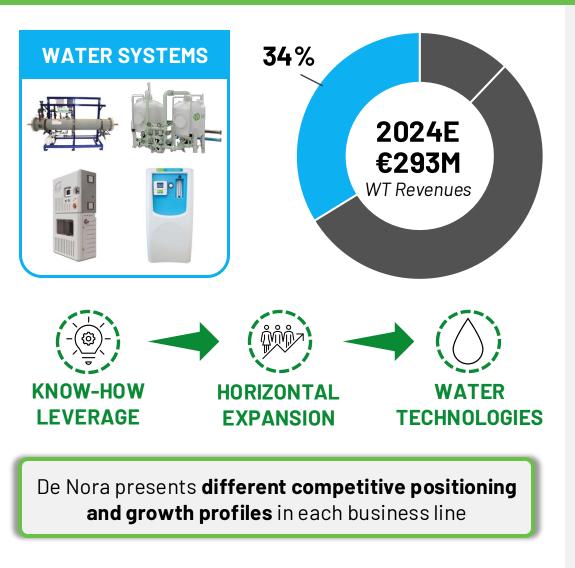


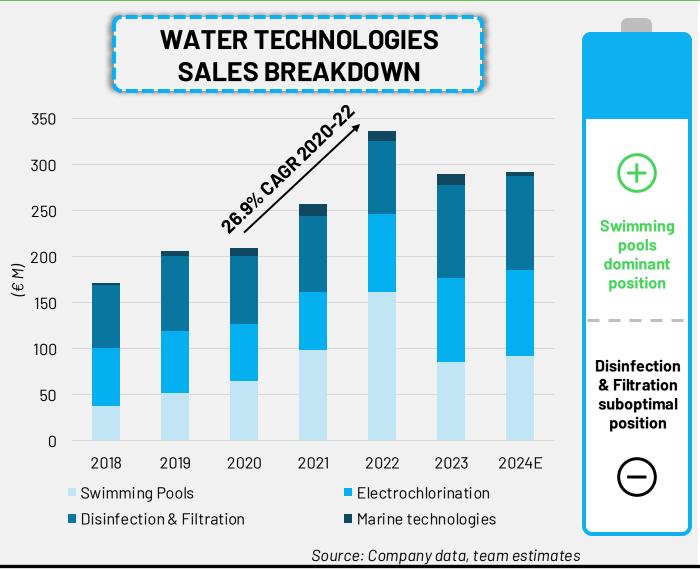
Source: team estimates



# THE WATER TECHNOLOGIES (WT) SEGMENT

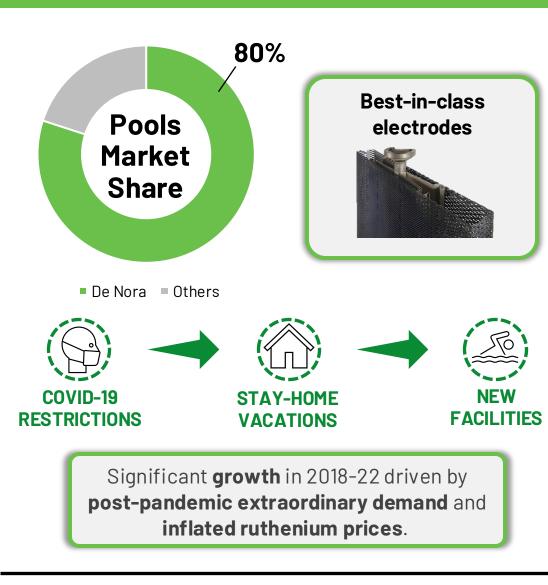
A vital market, yet a battle for every drop

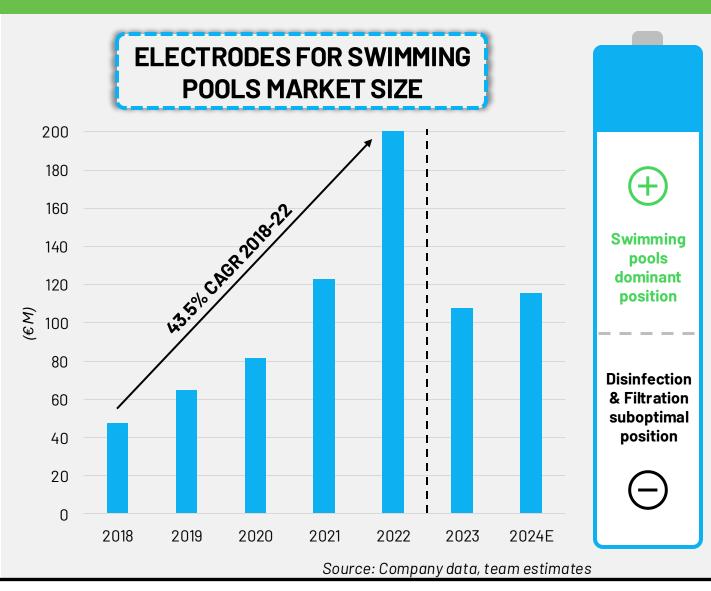




## A COMPETITIVE POSITIONING DUALITY:

The big fish in a small pond...





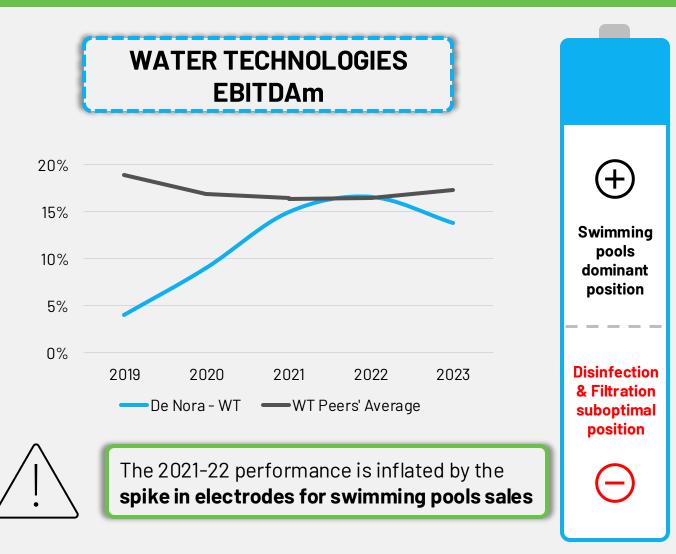
# A COMPETITIVE POSITIONING DUALITY:

#### ...battles Blue Whales in the Water Treatment ocean

In Water Disinfection & Filtration, De Nora faces **fierce competition** from industry giants that threatens **future growth** and **profitability** 

Company	Market Cap	
DE NORA	€1B	
VEOLIA	€20B	
xylem	€32B	
<b>EC</b> LAB	€74B	

Industry Proprietary Model	Sales CAGR 2024E-30E	Sales CAGR 2030E-35E	
De Nora (Water Dis. & Filt.)	3.6%	2.5%	
Industry	6.1%	3.6%	

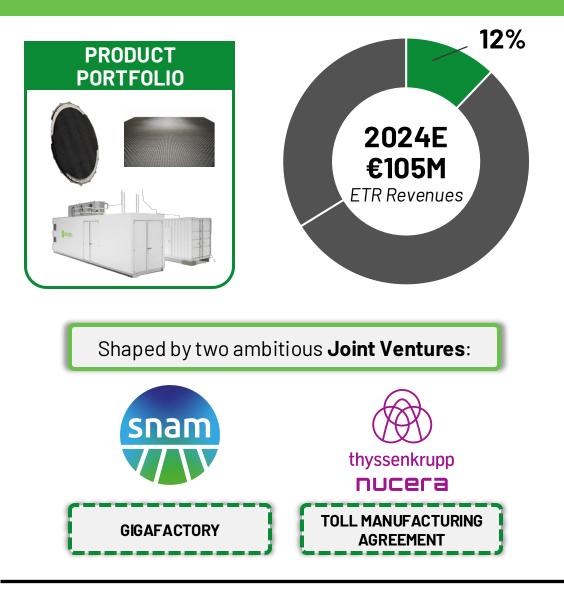


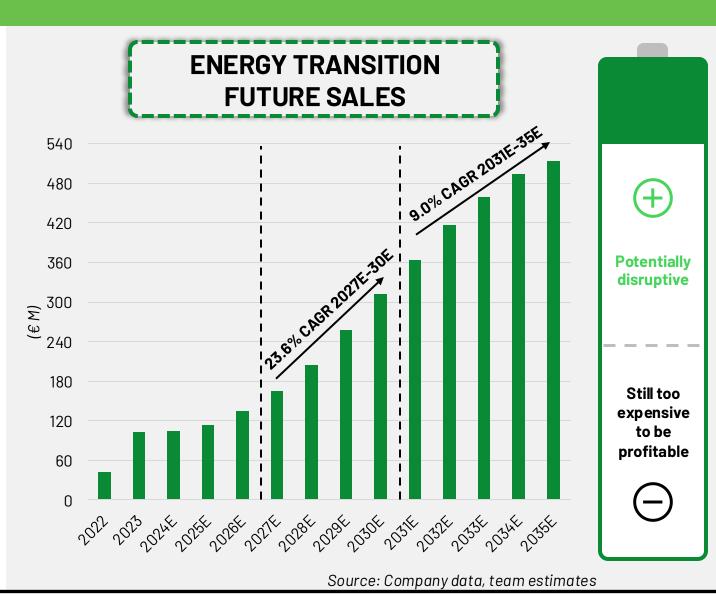
Source: Company data, FactSet, team estimates



# THE ENERGY TRANSITION (ETR) SEGMENT

A bold bet to chart new horizons





**COMPANY OVERVIEW** 

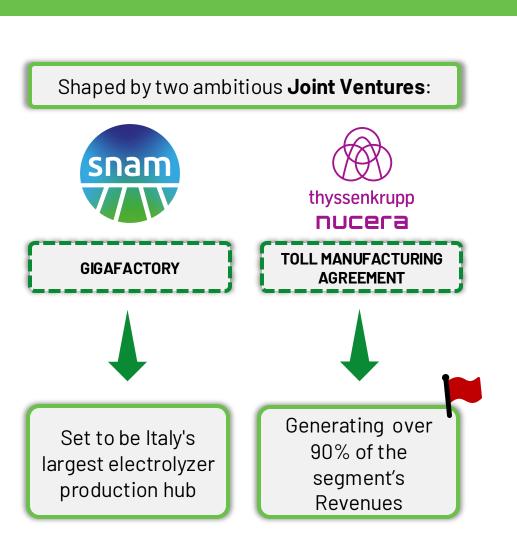
FINANCIAL

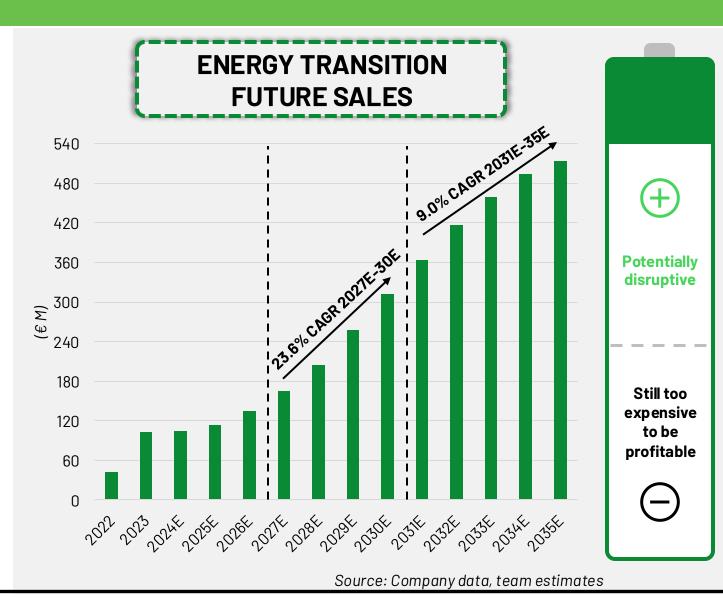
**VALUATION** 

**ESG** 

# THE ENERGY TRANSITION (ETR) SEGMENT

A bold bet to chart new horizons



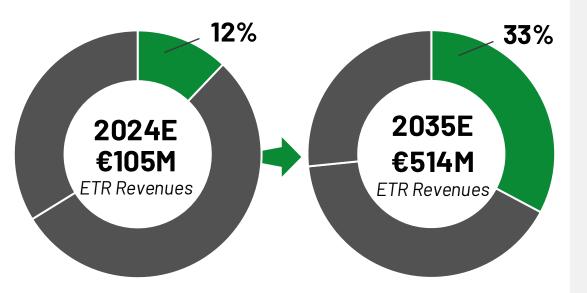


16

## **SNAP BACK TO REALITY**

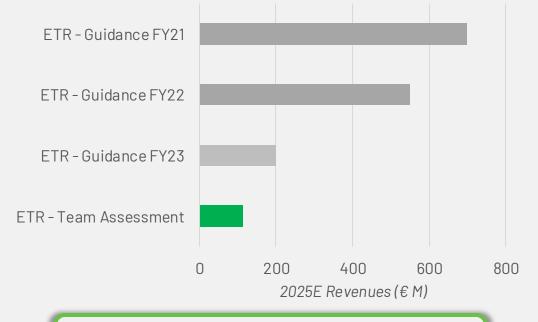
Aiming high...

#### **FUTURE TOP LINE CONTRIBUTION**



Despite the expected increasing contribution to the top line, **De Nora is** far behind past estimates...

# 2025E ETR SALES THROUGH THE YEARS GUIDANCE VS TEAM ESTIMATES



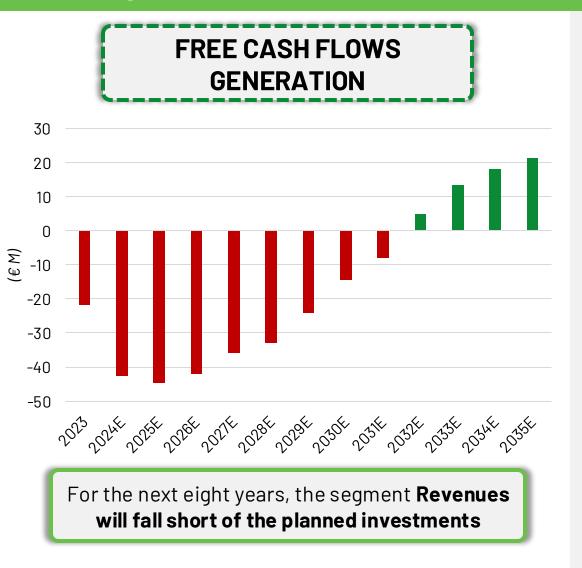
...De Nora has consistently failed to align its ambitious guidance with actual performance

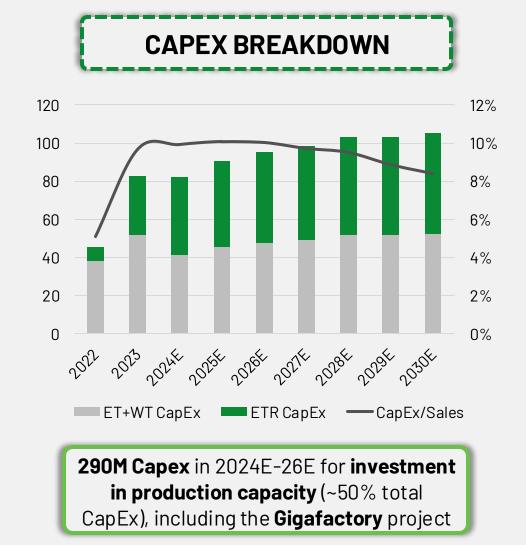
**Potentially** disruptive Still too expensive to be profitable

Source: Company data, FactSet, team estimates

## **SNAP BACK TO REALITY**

...landing low





Source: Company data, FactSet, team estimates

**Potentially** 

disruptive

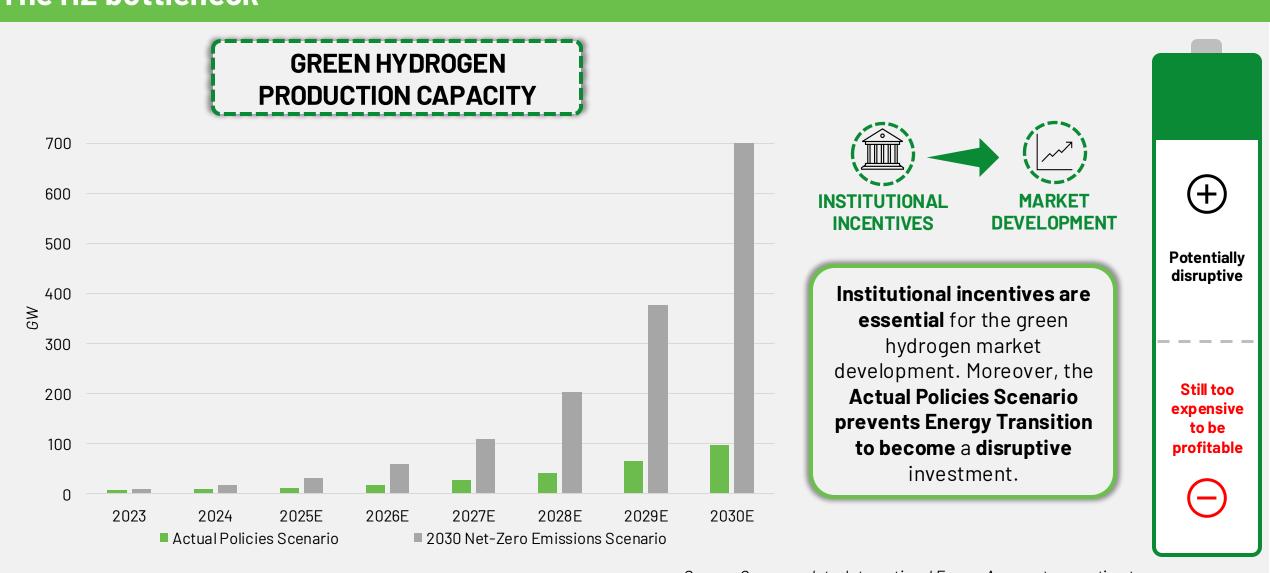
Still too expensive

to be

profitable

# HIGH CAPEX ARE A DEALBREAKER FOR INSTITUTIONS

The H2 bottleneck

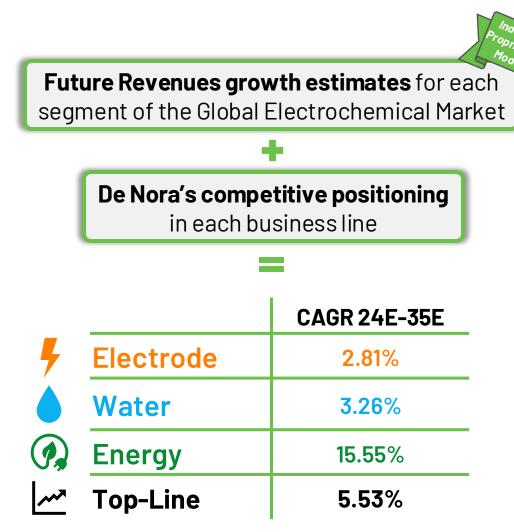


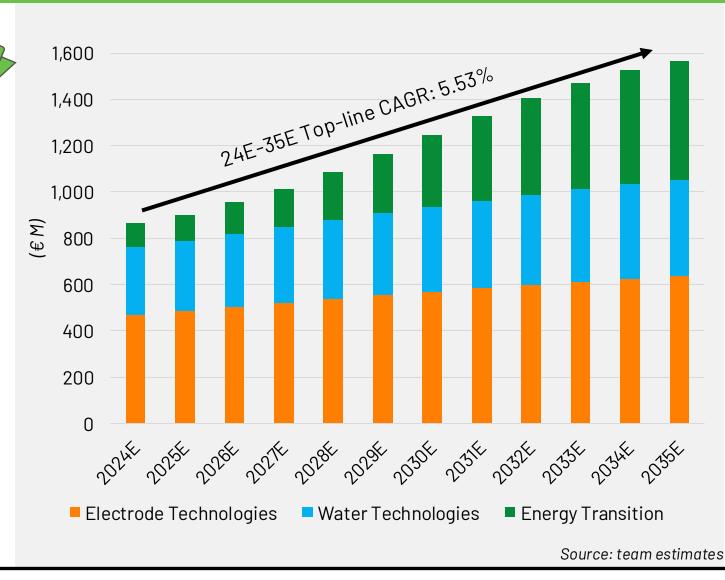
Source: Company data, International Energy Agency, team estimates



## DE NORA'S GROWTH ESTIMATES

Going Top-Down for the Top-line





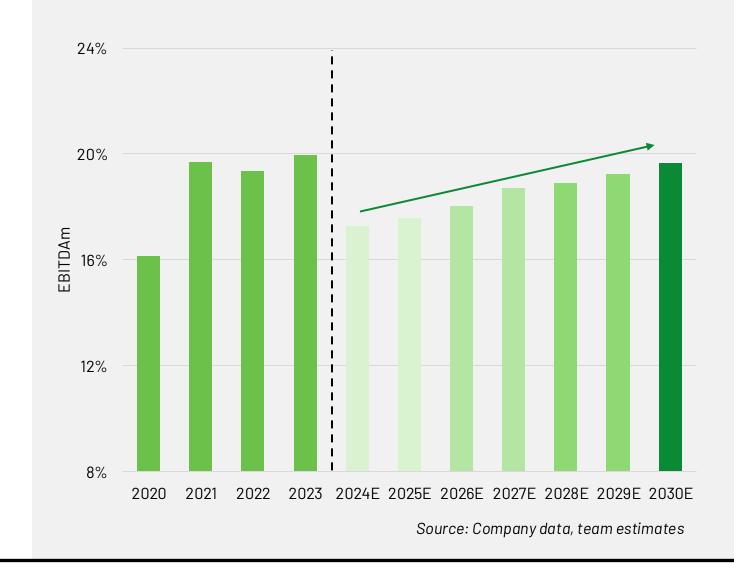
# EBITDAm EVOLUTION Stand-by, start again

Peak in 2023 at 20% EBITDAm thanks to post-pandemic rebound

Drop in 2024E due to an increase in fixed cost for the Gigafactory, with a consequent lower marginality in Energy Transition

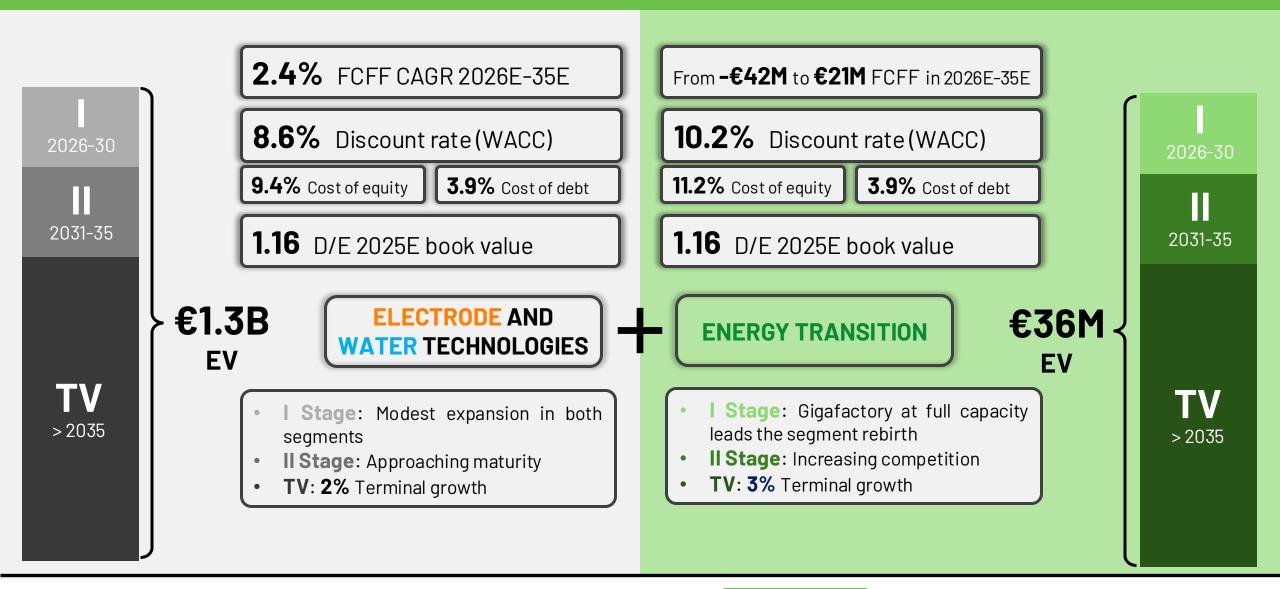
Gradual recovery to pre 2023 levels:

- Driven by increasing positive contribution of Energy Transition
- Consolidation of leadership in the other niches



# 3-STAGES SUM-OF-THE-PARTS DCF MODEL

Two DCFs to value De Nora's unique segments

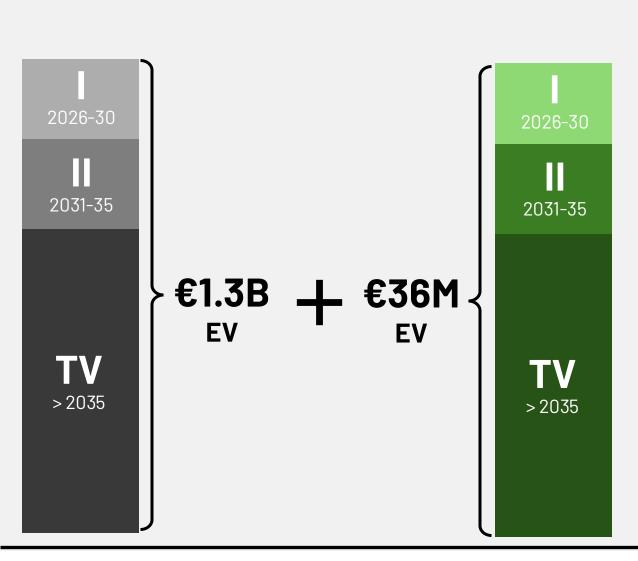


COMPANY OVERVIEW FINANCIAL VALUATION ESG

23

## 3-STAGES SUM-OF-THE-PARTS DCF MODEL

Two DCFs to value De Nora's unique segments



€7.00

TARGET PRICE

HOLD

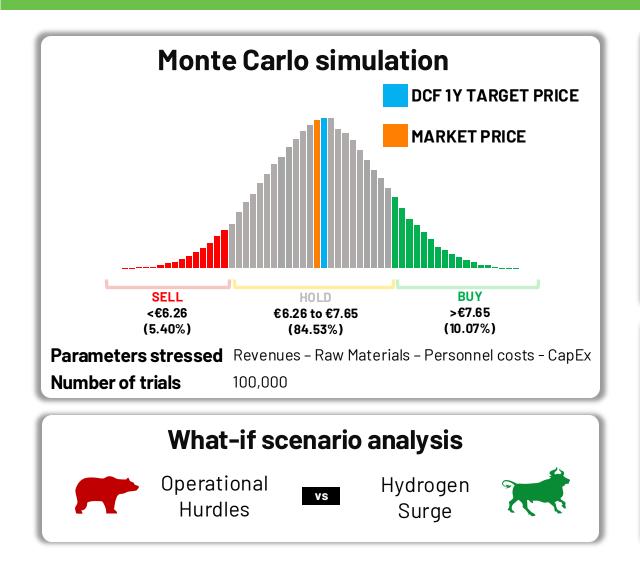
**0.72% Upside** 

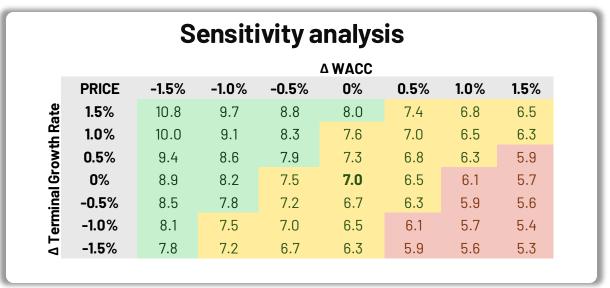
€6.95

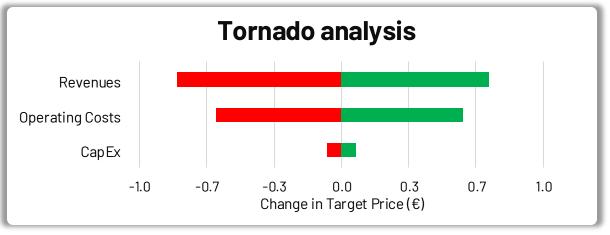
CLOSING PRICE (06/02/2025)

## **ROBUSTNESS CHECKS**

#### To reinforce the validity of our model





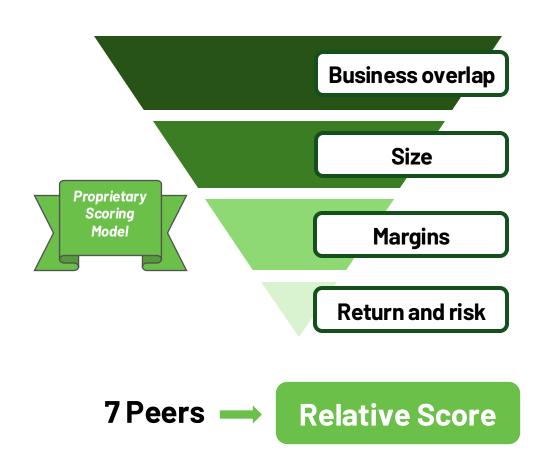


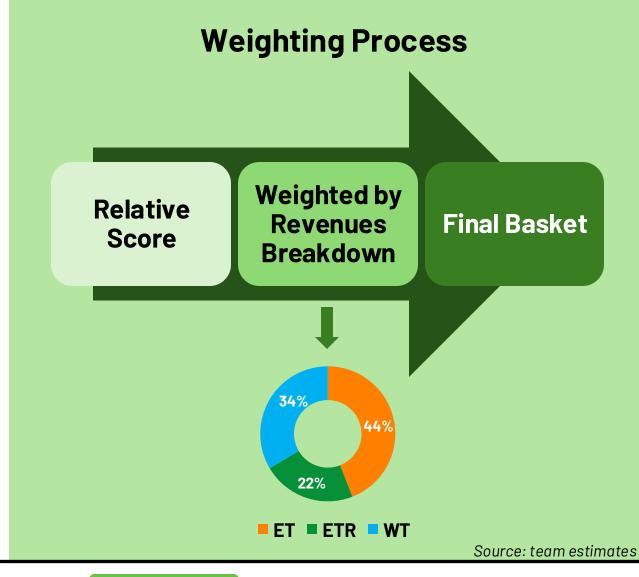
Source: team estimates

## **RELATIVE VALUATION**

#### Our Proprietary Scoring Model to properly select peers

#### **Peers' Selection Process**





Source: team estimates

## **RELATIVE VALUATION**

#### A sanity check to our DCF

	PEERS	1Y Forward EV/SALES	1Y Forward P/SALES
Electrode Technologies	AsahiKASEI  thyssenkrupp  nucera	0.7x	1.0x
Water Technologies	© VEOLIA xylem	2.5x	2.1x
Energy Transition	nel· McPhy plug	1.6x	2.1x

## **Multiple Valuation**

Peers' Average **EV/SALES**1.5x

Peers' Average
P/SALES
1.6x



Target Price €7.09 (+2.04% Upside) Target Price **€7.24** 

(+4.17% Upside)

Source: FactSet, team estimates

# RISK FACTORS IN OUR VALUATION

Investigating the Worst-Case Scenarios (WCS)

#### **MARKET**

- A. Interest rate risk
- B. Inflation risk on margins
- C. Macroeconomic conditions risk
- D. Supply-chain market breakdown risk
- E. Green hydrogen underdevelopment risk

#### **OPERATIONAL**

- F. Employee turnover risk
- G. Loss of key figure risk
- H. Client destocking risk
- I. Competition risk
- J. Technological risk

#### **LEGAL**

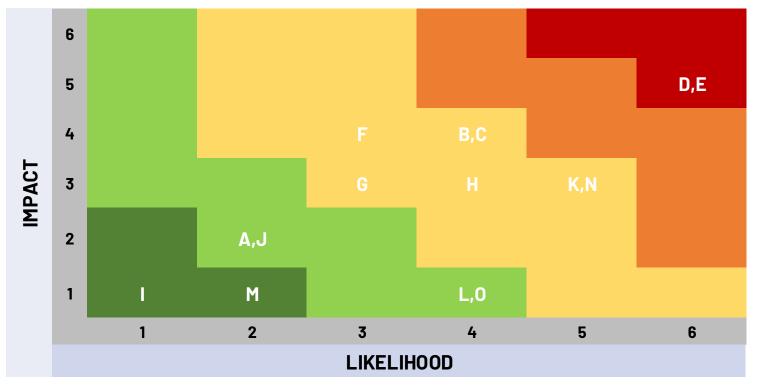
- K. Regulatory and legal risk
- L. Reputational risk

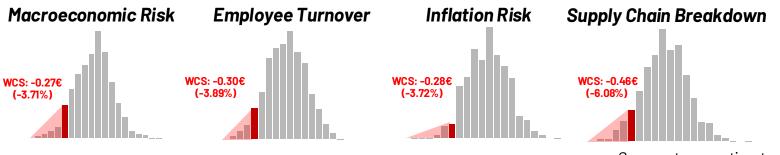


#### **FINANCIAL**

- M. Liquidity risk
- N. Exchange rate risk
- 0. Credit risk







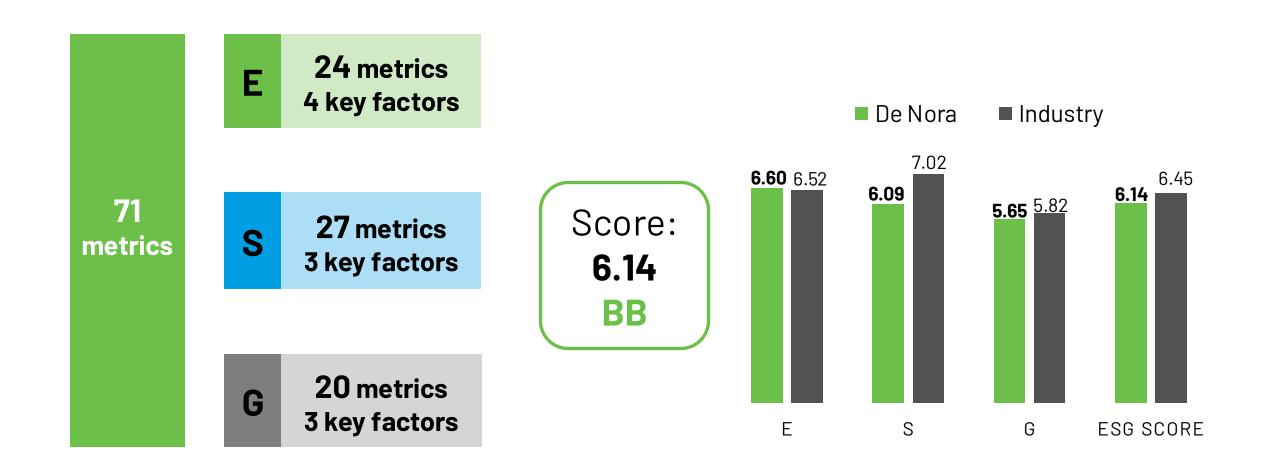
**VALUATION** 

Source: team estimates



## **ESG COMPARATIVE ANALYSIS**

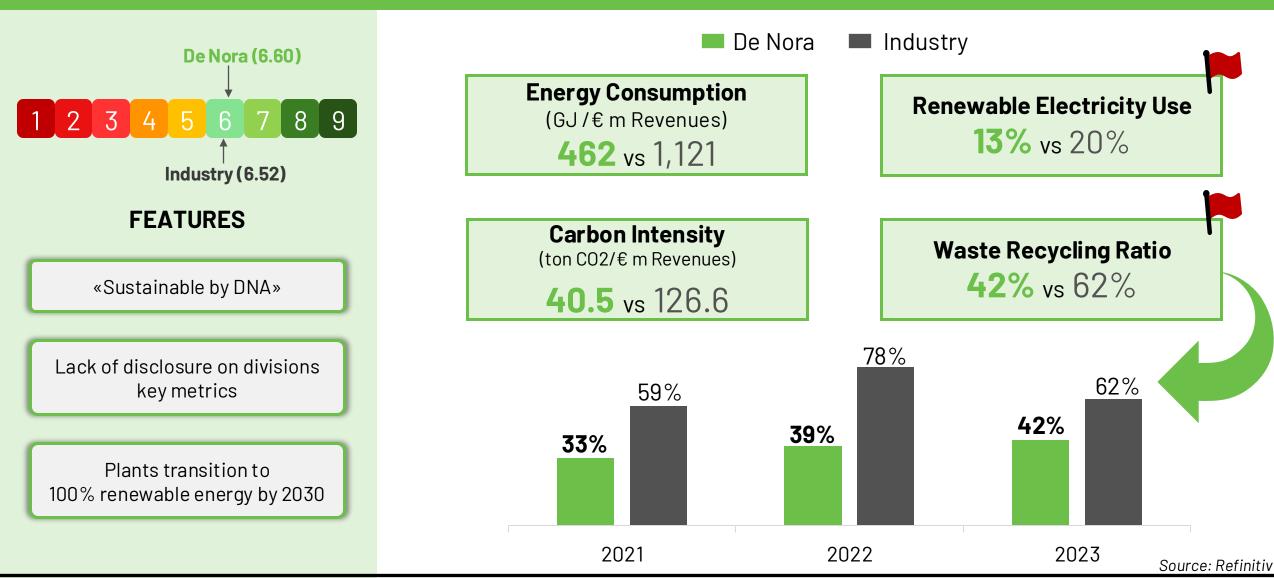
#### Our Proprietary Scoring Model unveils a BB rating



Source: Refinitiv, team estimates

## **ENVIRONMENTAL DIMENSION**

A call to action for recycling



COMPANY OVERVIEW

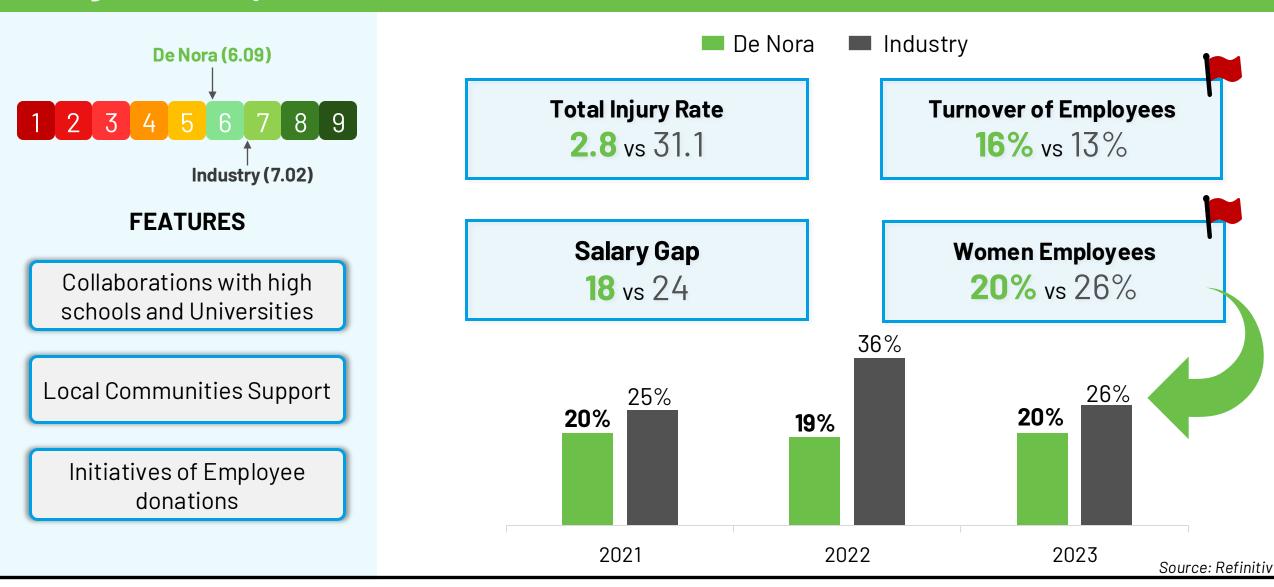
FINANCIAL

**VALUATION** 

ESG

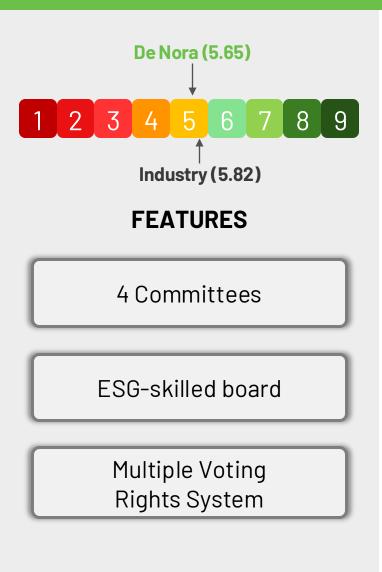
## **SOCIAL DIMENSION**

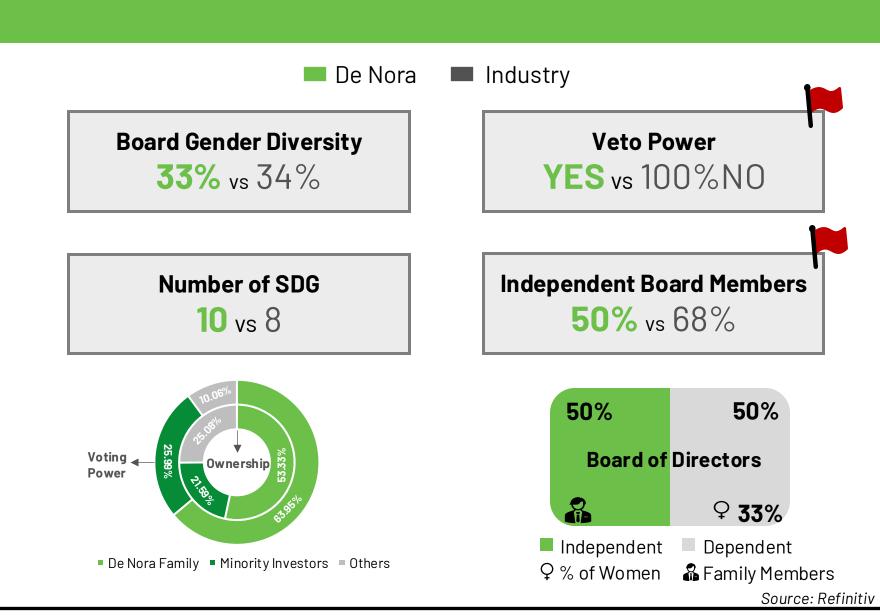
#### Strengths and Gaps in Workforce



# **GOVERNANCE DIMENSION**

#### A family-run business





**32** 

#### **OUR INVESTMENT THESIS**

#### **Greatness is worth waiting**

Industrie De Nora S.p.A. | Chemical, Plastic and Rubber Materials

**CLOSING PRICE €6.95**06/02/2025



**TARGET PRICE €7.00**Upside 0.72%

- 1. Century-long leadership... ...in a mature market with modest growth opportunities
- 2. Dominant position in Swimming Pools... ...suboptimal in Disinfection & filtration
- **3.** Disruptive H2 potential... ...still too expensive to be profitable



#### 1. BUSINESS

1.1 Stock Price: Evolution,

Relative Performance, Drops

**1.2** Trading Summary: FY24

1.3 De Nora's History

**1.4** Business Segmentation

1.5 Segments and Lines

1.6 Product Range: ET, WT, ETR

1.7 Business Model

1.8 Value Chain

**1.9** Production Plants

**1.10** Cost Structure: Raw

<u>Materials, Cost Management</u>

1.11 Group Structure

1.12 Patents

1.13 M&A vs R&D

1.14 SWOT Analysis

1.15 Historical M&A

1.16 ETR Summary

#### 2. INDUSTRY

**2.1** Proprietary Model

2.2 Drivers: ET, WT, ETR

2.3 Competitive Arena

**2.4** Competitive Positioning

**2.5** EBITDAm Comparison: ETR

**2.6** Guidance vs Team

Assessment

2.7 Peers' Metrics Comparison

**2.8** Porter's Five Forces

2.9 Pestel Analysis

**2.10** Toll Manufacturing

<u>Agreement</u>

**2.11** H2 Electrolysis

<u>Technologies</u>

#### 3. FINANCIAL

**3.1** Revenues: Geography,

Segments, Lines

3.2 Cost Structure

3.3 EBITDA and EBITDAm

**3.4** Dupont Analysis

3.5 ROE, ROS, ROIC

**3.6** Liquidity Ratios

3.7 Net Working Capital

3.8 Cash Dynamics

**3.9** Cash Flow Generation

**3.10** Net Debt

3.11 FCFF Yield & Conversion

3.12 CapEx and CapEx/Sales

3.13 M&A Expenditure

3.14 De Nora vs Industry

**Growth** 

3.15 Balance Sheet

**3.16** Income Statement

3.17 Team vs Consensus

#### 4. VALUATION

4.1 DCF: Sum-of-the-parts

4.2 DCF: Summary & Tables

**4.3** WACC: Elements, Summary

4.4 Cost of Debt

**4.5** Betas

4.6 Cost of Equity

4.7 Sensitivity Analysis

4.8 Robustness Checks

4.9 Bull Case

4.10 Bear Case

4.11 Multiple Valuation: Scoring

Model, Peer's table, Basket,

<u>Output</u>

4.12 Linear Regressions

4.13 Historical Multiples

4.14 Buyback Program

4.15 Summary Statistics

#### 5. RISKS

**5.1** Risk Factors: Heat Map

5.2 Market: Supply Chain

**5.3** Operational: Turnover

**5.4** Legal

**5.5** Financial

**5.6** H2 Underdevelopment

**5.7** Liquidity Provider

**5.8** Real Interest Rate Risk

#### 6. ESG

**6.1** Proprietary framework

**6.2** Environmental

6.3 Social

**6.4** Governance

**6.5** Board of Directors:

<u>Overview</u>, <u>Details</u>,

Remuneration

6.7 Shareholders' structure

#### 7. SLIDES

7.1 Company Overview

7.2 First Pillar: Brief, Details

7.2 Second Pillar: Brief, Details

7.2 Third Pillar: Brief, Details

7.5 Valuation: DCF, Multiple

**7.6** ESG: E, S, G

7.7 Investment Thesis



# **STOCK PRICE EVOLUTION**

#### <u>Index</u>

## From the IPO to the present: tracing the stock's path



Source: Refinitiv

# STOCK PRICE RELATIVE PERFORMANCE

De Nora vs. STOXX Europe 600 and FTSE MIB Indices



Source: Refinitiv

# **STOCK PRICE DROPS**

## Focus on the last year



#### -50.46% in the last year

**Overall Decline.** This period was marked by several key events that negatively affected investor confidence:

The company's persistent failure to meet the announced guidance, along with disappointing H1 2024 and 9M 2024 financial results, has heightened concerns about the future of green hydrogen.

De Nora has **changed CFO two times in a year**, heightening investor uncertainty.

Massimiliano Moi was appointed on 22

May 2023, and replaced by Luca Oglialoro on 29 May 2024.

Source: Refinitiv

# DE NORA'S TRADING SUMMARY

### **Market Overview**

As of 06/02/2025

Italy

Milan Stock Exchange FactSet

Chemical, Plastic and Rubber Materials

Borsa Italiana (Exchange)

Industrial Goods and Services

**Market Data** 

Market Cap: €1.40B Shares Outstanding: 201.69M

Free Float: 22.13%

Stock performance

1 Month: -10.61%

6 Months: -32.59%

1 Year: -50.46%

Trading information

Avg. Daily volume: 200.14K

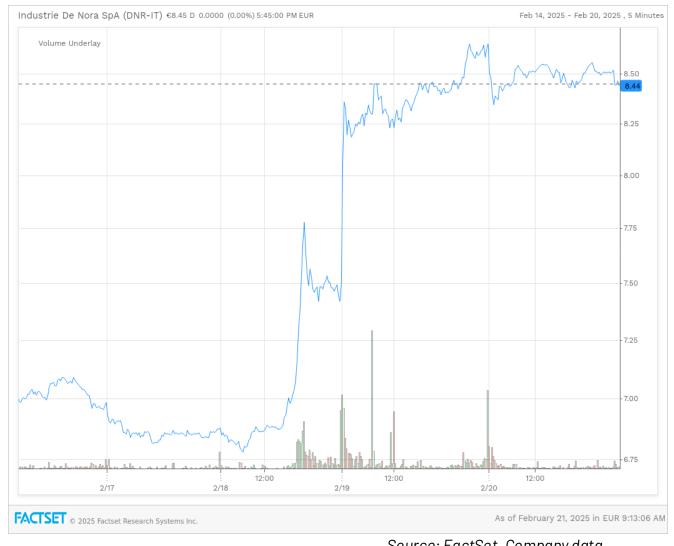
Daily standard deviation: 2.30%

Beta: 0.89

# PRELIMINARY FY24 RESULTS

## What's going on?

#### 20/02/2025



Source: FactSet, Company data

On 18/02/24, De Nora published the **preliminary results** for the ending of **FY24**, with an **earnings surprise** compared to the guidance:

Revenues FY24: **€863M** (+0.8%YoY)

> ET: €454M (-2.2%YoY)

WT: €304M (+4.8% YoY)

ETR: 105M (+2.9% YoY)

EBITDAm (adj.) FY24: 18.2% (-1.8 p.p. YoY, +1.2 p.p. guidance)

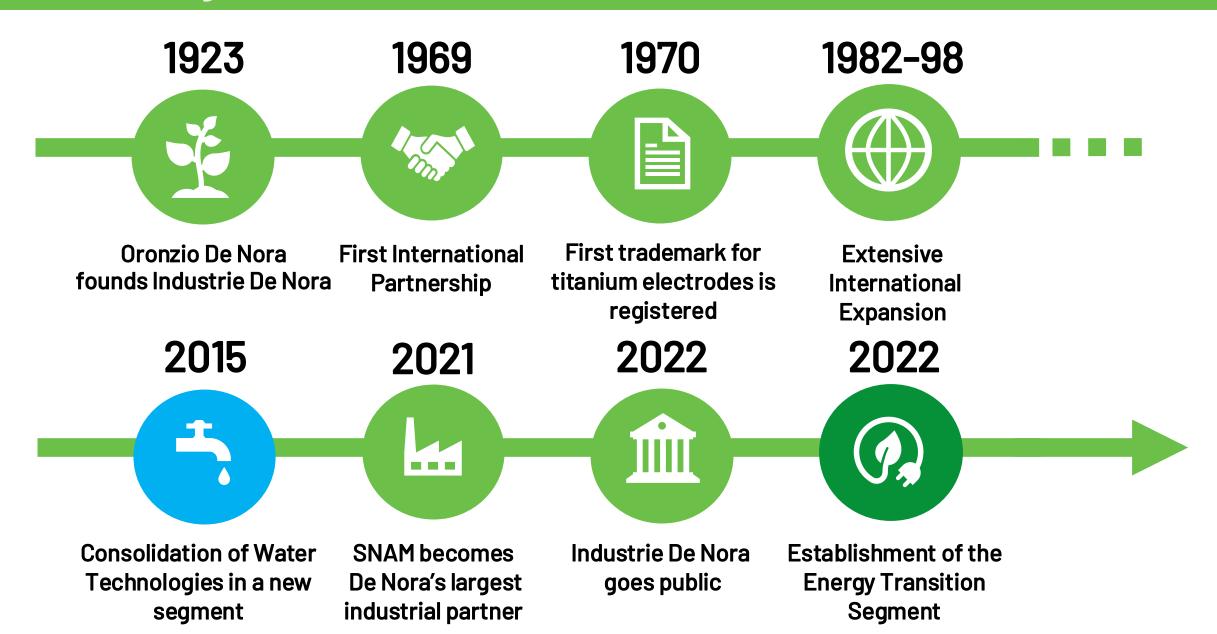
ET: 22.4% (-3.1 p.p. YoY)

WT: 16.5% (+2.0 p.p YoY)

ETR: 5.3% (-6.4 p.p YoY)

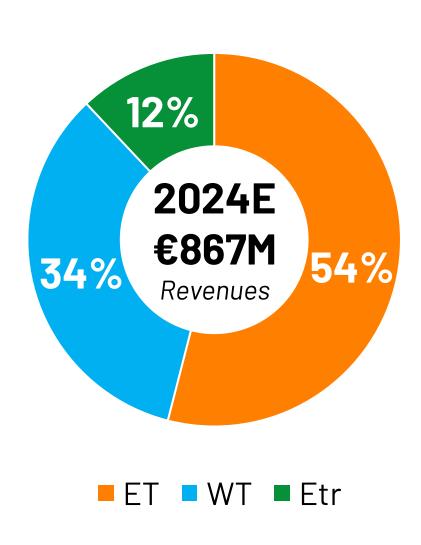
# THE HISTORY OF DE NORA

Milestones at a glance



# **BUSINESS SEGMENTATION:**

## Three segments, one operational core



#### **SEGMENTS**

## **Electrode Technologies (ET)**

It offers advanced electrode solutions for **various industrial applications**, including chlorine and caustic soda production, electronics, lithium battery production and non-ferrous metal refining.

## Water Technologies (WT)

It provides water treatment solutions for **drinking and wastewater management**, with key applications in municipal, industrial and residential pools purification processes.

## **Energy Transition (ETR)**

It supplies components for **green hydrogen production** primarily through alkaline water electrolysis (AWE). De Nora is also involved in fuel cell technology for energy conversion.

- In all segments, De Nora leverages its expertise in electrode technology as the foundation to deliver its solutions.
- While ET and WT are well-established and mature segments, ETR is an emerging segment with the highest growth potential.

Source: Company data

# **BUSINESS SEGMENTS AND LINES IN 2024E**





#### Chlor-alkali

Constructions Pulp and Paper

**37.22**%



### **Swimming pools**

**Residential Pools** 

10.65%



## **Green Hydrogen**

Hard-to-abate sectors

12.09%



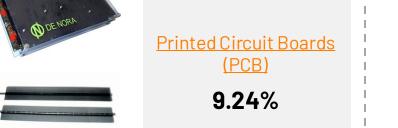
#### **Electronics**



#### **Electrochlorination**

**Municipal Drinking Water** <u>Municipal Wastewater</u>

10,77%







## **Specialties & New Applications**

**Metal Electrowinning** Oil and Gas **Constructions** 

7.68%



#### **Disinfection & Filtration**

**Municipal Drinking Water Municipal Wastewater** 

11.83%



# PRODUCT RANGE AND MARKET SHARE

## **Electrode Technologies**





DSA ® Anodes for Chlorine Evolution



Catalytic Coating

**Industry Market Share** 

**51%** 

#### **Electronics**



DT Plating Anodes



GreenChrome ™

**Industry Market Share** 

60%

### **Specialties & New Applications**



Lida ® MMO Anodes



Elgard ® MMO Anodes

**Industry Market Share** 

**59%** 

# PRODUCT RANGE AND MARKET SHARE

## **Water Technologies**







DSA <sup>®</sup> Anodes for Chlorine Evolution

**Industry Market Share** 

80%

#### **Electrochlorination**



ClorTec®



MIOX ®

**Industry Market Share** 

**37%** 

#### **Disinfection & Filtration**





Capital Controls®



SORB™ Contaminant Removal (PFAS) **Industry Market Share** 

1%

# PRODUCT RANGE AND MARKET SHARE

## **Energy Transition**



**Industry Market Share** 

10%

# DE NORA BUSINESS MODEL

**Exploring how De Nora fosters growth** 

# LEADERSHIP IN ELECTRODE TECHNOLOGIES

In the mature ET segment, characterized by high entry barriers, De Nora holds a dominant position with > 50% market share in niche business lines like chlor-alkali, electronics, and nickel & cobalt electrowinning.

# HORIZONTAL EXPANSION

De Nora has leveraged its
expertise in industrial
electrochemical processes to
successfully diversify its
activities through horizontal
expansion, targeting a wide
range of end-markets

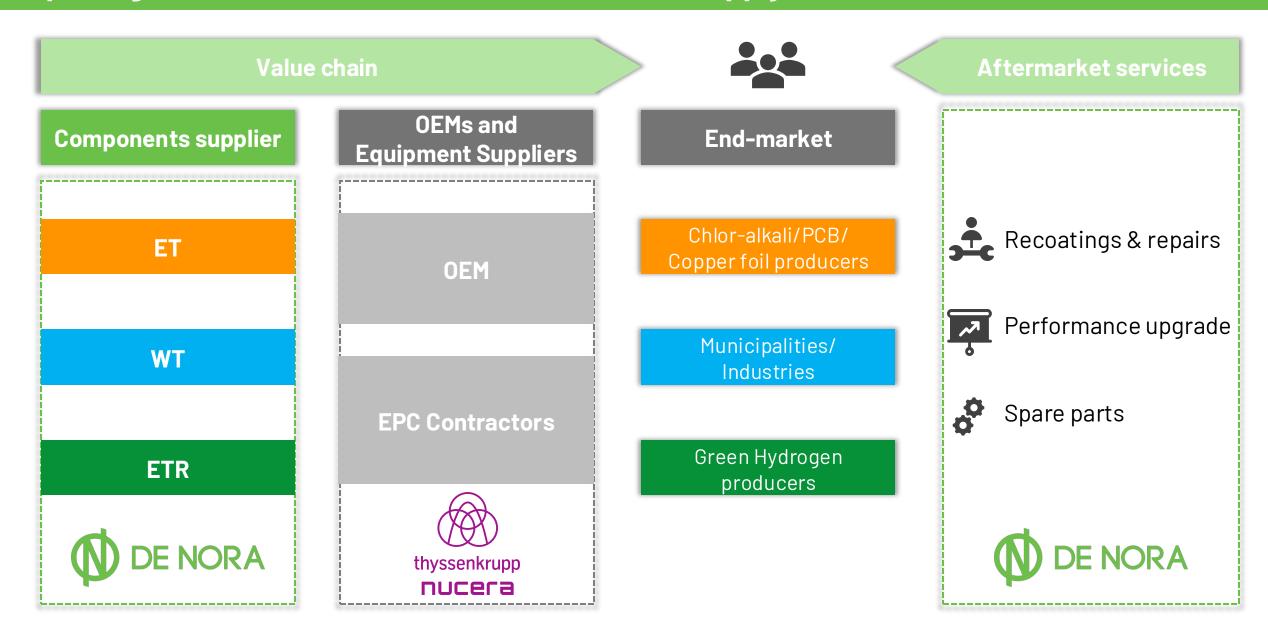
### **POST - SALES SERVICES**

A critical component of De Nora's business model, they represents **32% of Total Revenues** in FY23.

These services generate
stable and predictable
revenue streams, fostering
strong long - term customer
relationships.

# **DE NORA VALUE CHAIN**

## Exploring how De Nora creates value across the supply chain



# **PRODUCTION PLANTS**

## The flexibility of De Nora's production line

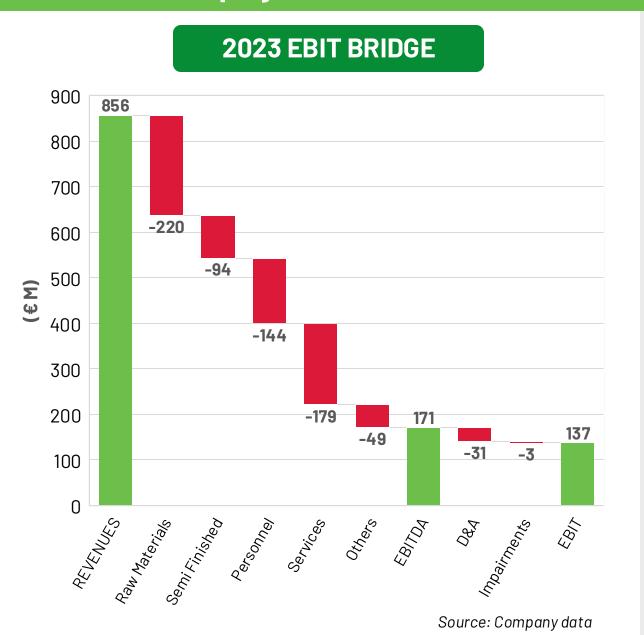
PLANT	COUNTRY		R&D		
		ET	WT	ETR	LABORATORY
Ohio		✓	✓		✓
Philadelphia			✓		
Pittsburg			✓		
Houston			✓		
Albuquerque					✓
Texas			✓		
San Paolo		✓	✓		
Milan		✓	✓	✓	<b>√</b>
Milan			✓		
Rodenbach		✓	✓	✓	
Goa	<b>•</b>	✓	✓		
Shangai/Suzhou	*3	✓	✓		
Jinan	*1	✓			
Fujisawa	•	✓			<b>√</b>
Okayama		✓	✓		
Yokohama	•	✓			<b>√</b>

De Nora operates 15 production plants across EMEIA, AMS, and APAC, ensuring a strong global presence.

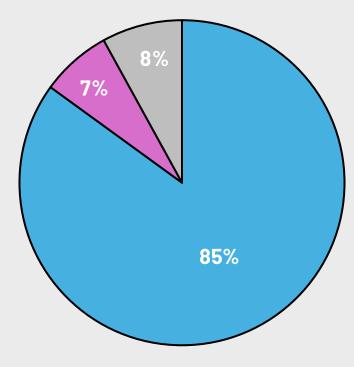
This network reduces exposure to trade tariffs and geopolitical uncertainties, ensuring supply chain resilience.

# **COST STRUCTURE**

## Raw materials play a crucial role



RAW MATERIALS (25.6% of Revenues in 2023)



- Noble metals (iridhium, ruthenium, platinum, palladium)
- Titanium and nickel
- Other raw materials

Source: Company data

# STRATEGIC COST MANAGEMENT

How to enhance operational efficiency

#### **PASS-THROUGH**

De Nora applies a **pass- through mechanism** adjusting sales prices to reflect fluctuations in raw material costs.

By **indexing** a portion of its **contracts to commodity** prices, the Company ensures stable margins and financial resilience.

#### **GLOCAL APPROACH**

With a presence in multiple key regions, De Nora optimizes local production to reduce transportation costs and improve supply chain efficiency.

Its **centralized procurement** strategy enhances economies of scale, leveraging synergies across business segments.

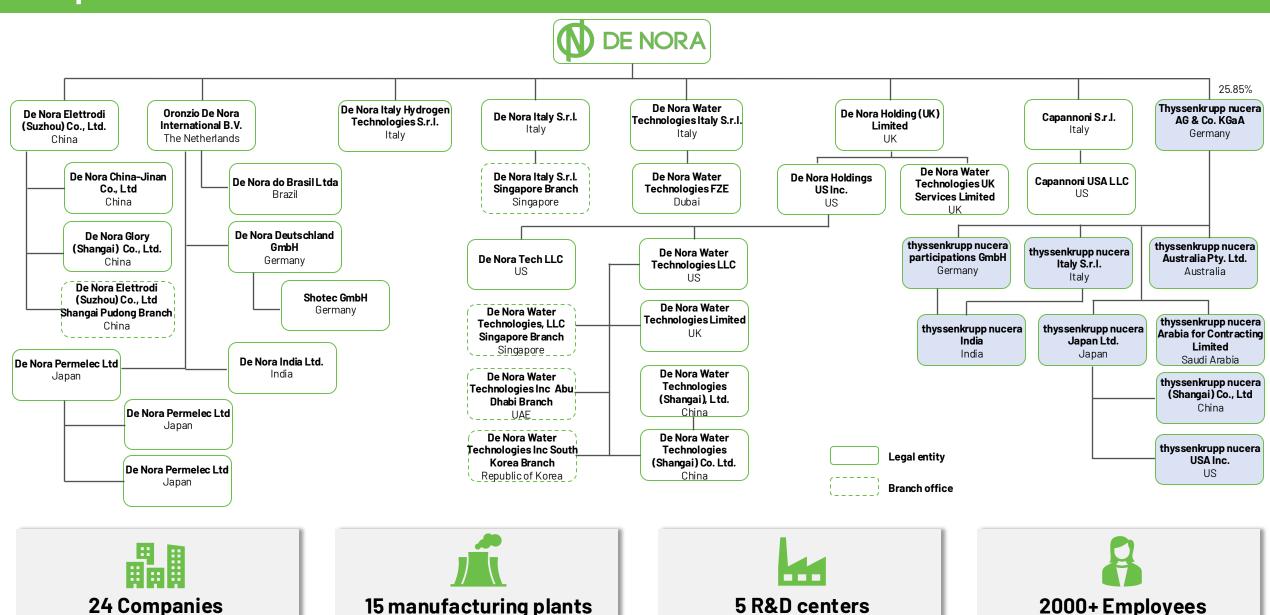
## **VALUE CHAIN POSITIONING**

By operating **upstream** in the the **value chain**, De Nora maintains strong pricing power and cost control.

Its leading market position has enabled continuous EBITDA margin expansion, further supported by the **Toll Manufacturing Agreement** (TMA) with tk nucera.

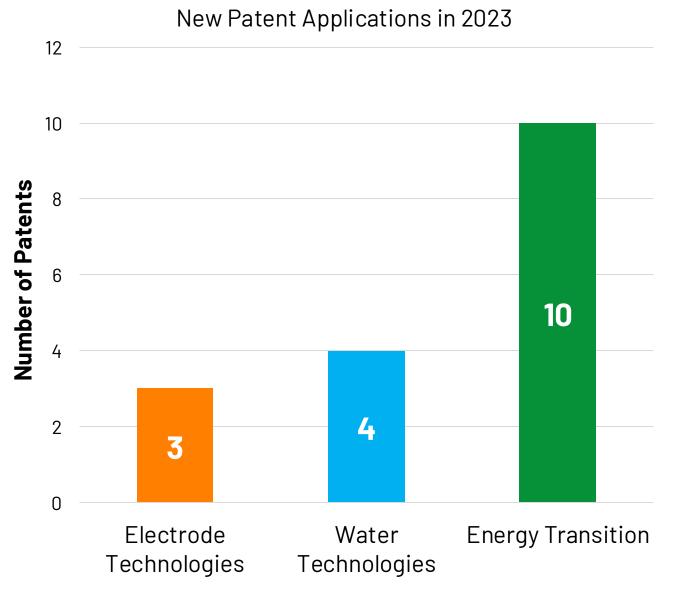
# POWERING THE COMPANY'S GLOBAL PRESENCE

## **Group structure: the subsidiaries framework**



# THE VALUE OF INTELLECTUAL PROPERTY

## Patent activity reflecting investments in ETr



De Nora holds the highest number of patents in electrolysis technologies. The top position in the global patent rankings is held by De Nora (Italy), followed by De Nora Permelec (Japan), both part of the same group.

In terms of content, **Electrode Technologies stands out as the most protected segment** (60%). It is followed by Energy Transition (27%) and Water technologies (13%).

2387 Active Patents

492 Pending Patents

280 Patent Families

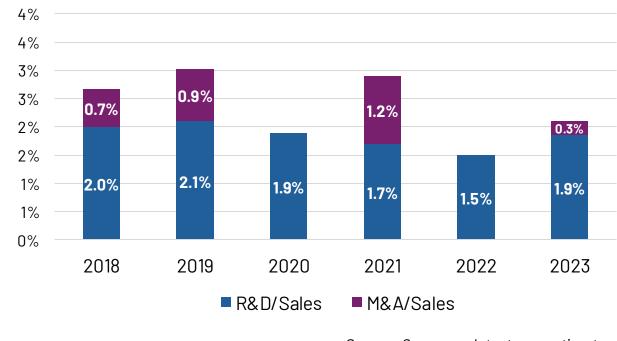
Source: Espacenet, team estimates

# COMPARISON BETWEEN M&A AND R&D

## A R&D focused business model

- De Nora pursues small, targeted acquisitions to expand its product portfolio and technology
- M&A activity focuses on entering adjacent markets and strengthening market presence

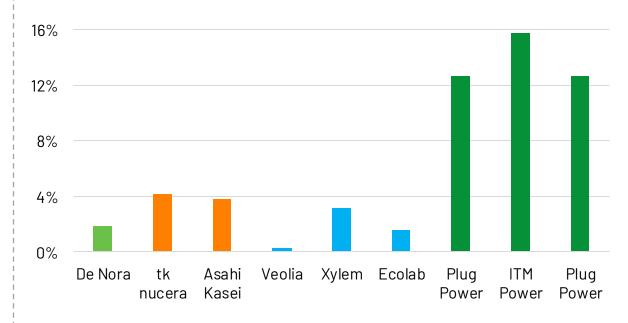
#### De Nora's M&A vs R&D Expenditure



Source: Company data, team estimates

- De Nora's positioning and focus on incremental innovation result in lower R&D spending than peers
- Gigafactory investments are classified as CapEx, not R&D expenses, as they expand production

#### R&D/Sales comparison



Source: Company data, team estimates

# **Historical M&A**

## Acquiring new products or technical know-how

Recent M&A activity has focused on **small-scale transactions** aimed at acquiring **new products** or technical **know-how**. These strategic bolt-on acquisitions, though modest in size, are designed to **strengthen the company's portfolio** and enable entry into **adjacent end-market niches**.

						ACQUISITION RATIONALE	
ACQUIRED COMPANY	SEGMENT	ACQUISITION DATE	PLANTS LOCATION	AMOUNT (€ M)	STAKE(%)	PRODUCT PORTFOLIO EXPANSION	KNOW-HOW ACQUISITION
Water Star	Water Technologies	2018	US	3.10	100		
MIOX Corporation	Water Technologies	2019	US	2.50	100		
Neptune Enterprises	Water Technologies	2019	US	2.20	80		
Calgon Carbon Corporation	Water Technologies	2021	US	3.79	100		
ISIA S.p.A	Water Technologies	2021	ΙΤ	3.60	100		
Shotec GmbH	Electrode Technologies	2023	DE	2.12	100		

# **SWOT ANALYSIS**

## A balance of positive and negative

# **STRENGTHS**



- Market leadership in Electrode Technologies
- Diversified end-markets
- Ability to pass raw material costs
- Post-sales services as a key revenue stream

# **WEAKNESSES**



- Limited growth potential in mature markets
- Reliant on regulatory incentives (RED III, PNRR, IRA)
- Limited size compared to competitors in WT

# **OPPORTUNITIES**



- Growth potential driven by green hydrogen
- Global expansion and growth in Middle-East
- Rising water treatment demand (US regulations)
- Enter new niches through M&A, particularly in WT

# **THREATS**

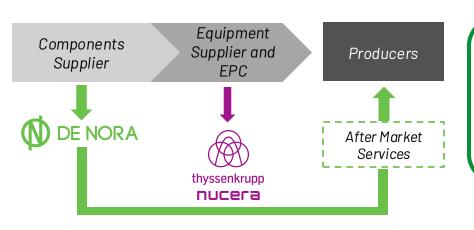


- Intensifying competition (emerging technologies and cheaper alternatives)
- Potential delays in subsidies
- Concentration of ET and ETR customers
- Execution risks linked to projects like Neom

# **ENERGY TRANSITION SUMMARY**

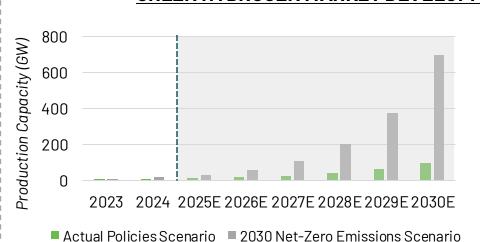
## A long and winding journey

#### LIMITED CUSTOMER BASE



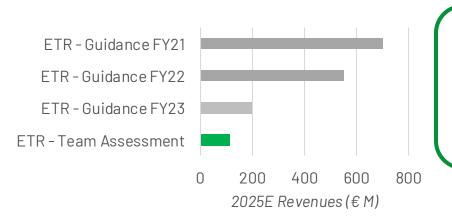
More than 90% of Energy Transition Revenues stem from the Joint Venture's Toll Manufacturing Agreement (TMA)

#### **GREEN HYDROGEN MARKET DEVELOPMENT**



Actual policies scenario falls largely behind the 2030 Net Zero Emissions Scenario

#### LOSS OF MANAGEMENT'S GUIDANCE CREDIBILITY



Over the past few years, De Nora has consistently failed to align its actual performance with the ambitious guidance, which was repeatedly revised downwards.

#### GREEN HYDROGEN PRODUCTION TECHNOLOGIES

Alkaline Water Electrolysis (**AWE**)

> Solid Oxide Electrolyzer Cell (**SOEC**)

Proton Exchange Membrane (**PEM**)

Anion Exchange Membrane (**AEM**) As of today, **De Nora** can deploy both **AWE** and **PEM** technologies. In contrast, **thyssenkrupp nucera** is **expanding** into **SOEC**.

# INDUSTRY PROPRIETARY MODEL

## **Our future projections**

Market

Size (2023)

Electrode Technologies Market

€869.87M

Water Technologies
Market

€9.15B

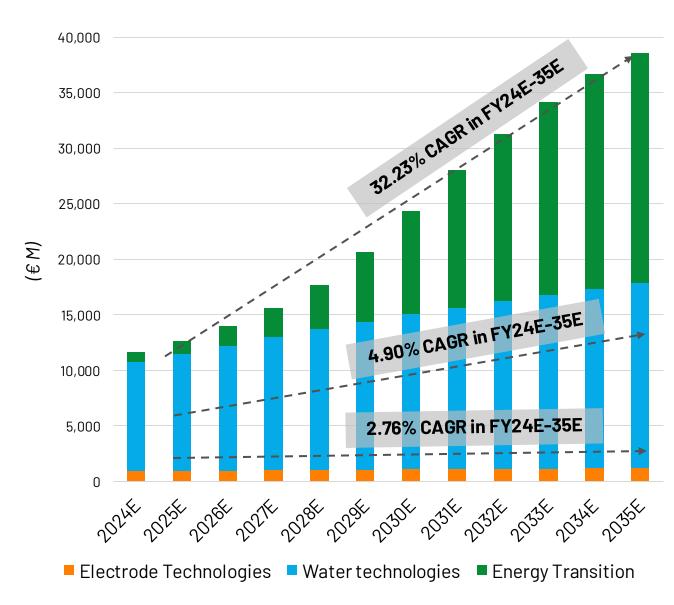
**Energy Transition Market** 

€768M

To assess the growth profile of the Global Electrochemical Market, we create our **Industry Proprietary Model** 

1

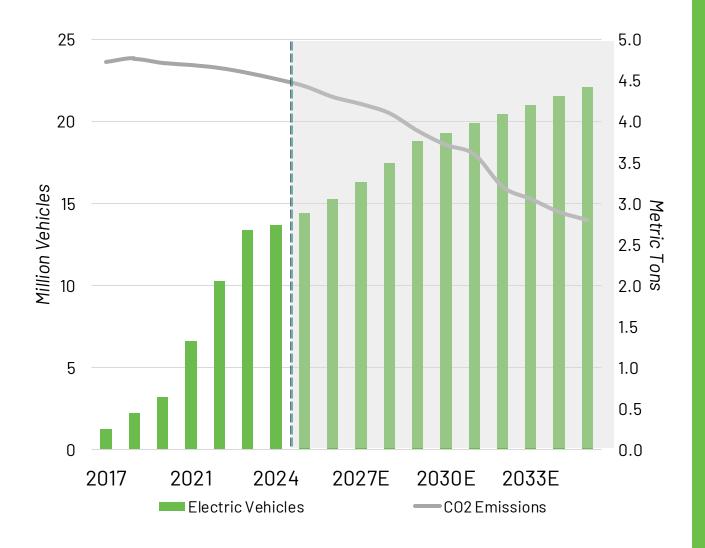
Starting from a set of drivers for each end-market, we assess the future performance



Source: team estimates

# INDUSTRY DRIVERS...

## **Electrode Technologies**



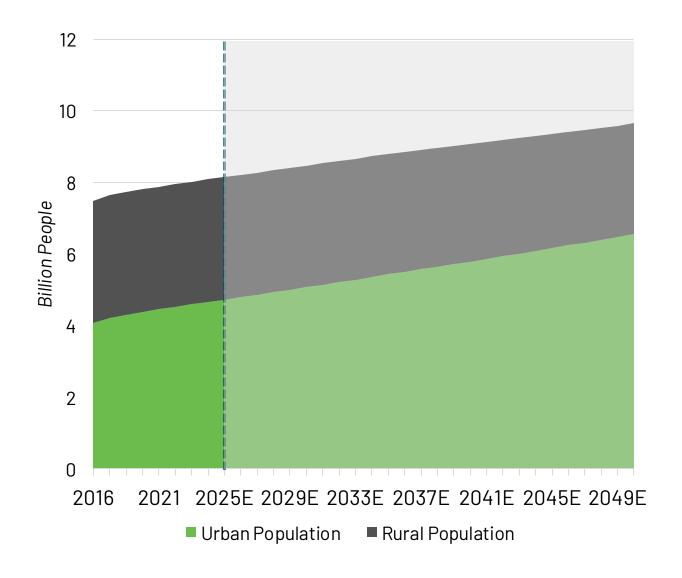
# ...Electric vehicles and emissions

The need to reduce carbon emissions has accelerated the growth of the electric vehicles (EV) Industry...

...which **relies on PCB** and **lithium-ion-batteries** (dependent on nickel and cobalt)

...the number of EVs is projected to **rise** from 13.68 million in 2024 to 18.84 million in 2029, reflecting a 6.6% CAGR

# INDUSTRY DRIVERS... Water Technologies



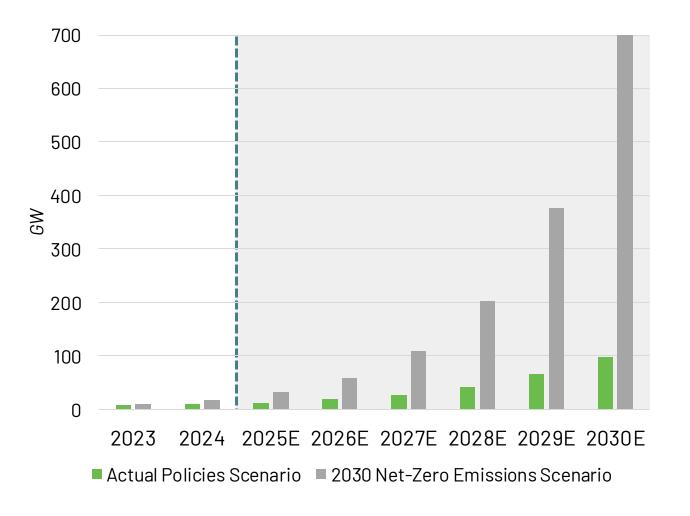
# ...Population growth and urbanization

With the **global population** expected to reach **9.65 billions in 2050** 

**Urbanization** is projected to grow to **68% by 2050** 

The need for advanced filtration and disinfection systems is rising to meet the growing demand for safe and clean water.

# **INDUSTRY DRIVERS...** Energy Transition



# ...Green H2 production capacity

Green hydrogen is integral to achieving **global net-zero emissions** 

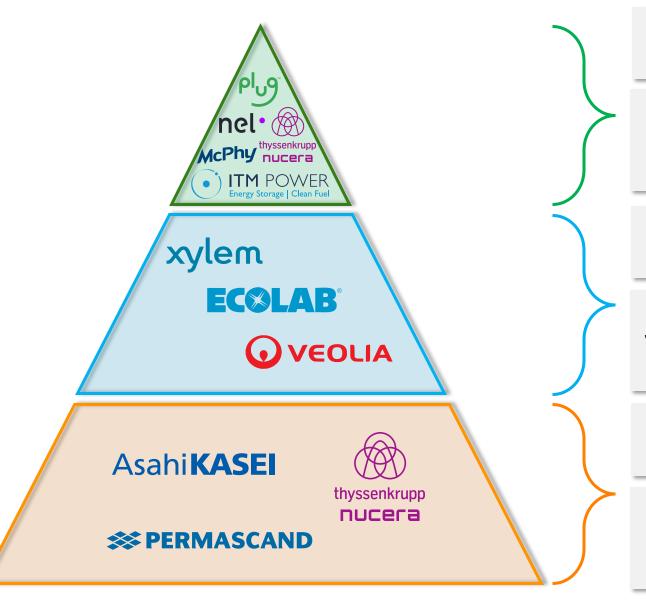
Under current stated policies, green hydrogen demand is **projected to** grow and reach 100GW by 2030

Representing a significant **tenfold** increase from 10 GW in 2024 (with AWE forecasted to lead the market through 2030), still falls behind the 2030 Net Zero Emissions Scenario

Source: Statista, IEA, team estimates

# **COMPETITIVE ARENA**

## A real battlefield



## **ETR COMPANIES**

Avg. MKT CAP €1.6B

The market is **fragmented** and **highly competitive**, with **relatively small players** heavily investing to capitalize on the future growth of green hydrogen.

## **WT COMPANIES**

Avg. MKT CAP €42B

A **highly competitive** market with significantly **larger**, **vertically integrated players** than De Nora, especially after Xylem's 2023 acquisition of Evoqua.

### **ET COMPANIES**

Avg. MKT CAP €3.5B

Few global, large players dominate the market with an established presence and expertise, offering a broad portfolio from chlor-alkali applications to electronics

Source: Company information

# THE COMPETITIVE POSITIONING

De Nora has a different positioning in the 3 segments

### **ELECTRODE TECHNOLOGIES**

- **Dominant position** with >50% market share across all business lines.
- Growth limited by a **niche**, mature market
- **Superior electrodes** with **lower TCO**, but challenged by emerging, cheaper alternatives from China.

## **WATER TECHNOLOGIES**

- ~80% market share in the swimming pools niche
- Significant presence in Industrial Electrochlorination
- Tough competition with industry giants in Disinfection & Filtration limits cost advantages

## **ENERGY TRANSITION**

- Set to benefit from the hydrogen market growth, **though** not well-positioned to fully capitalize from it
- AWE set to be the dominant standard by 2030
- Limited customer base
- No investments yet in SOEC technology

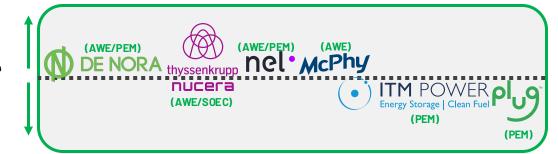
**DE NORA** Performance compared to avg. **⋙ PERMASCAND** nucera **AsahiKASEI** 

compared to



Performance compared to

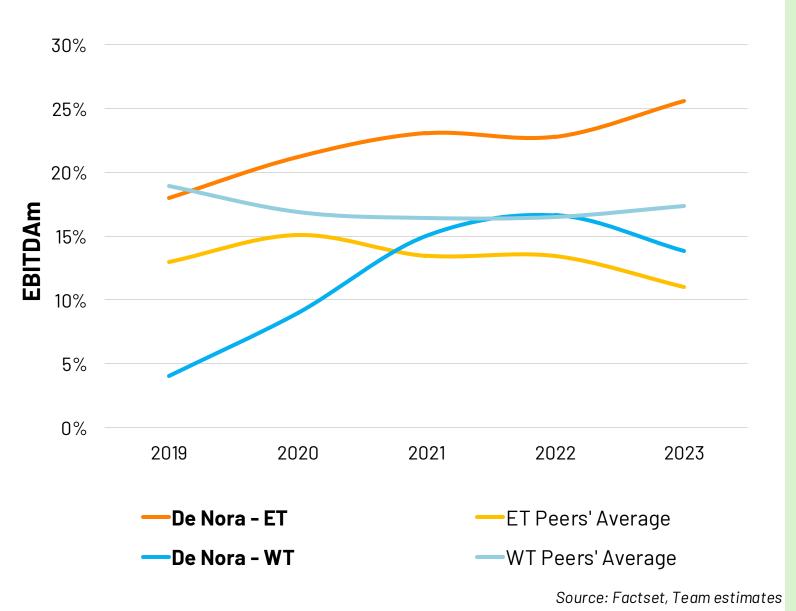
Performance



Source: Team estimates

# **COMPETITORS' PROFITABILITY COMPARISON**

## Outperforming ET peers but still below WT companies



In terms of margins, **De Nora outperforms its**peers in Electrode Technologies, with a
25.62% EBITDAm in FY23 compared to the
industry average of 11%.

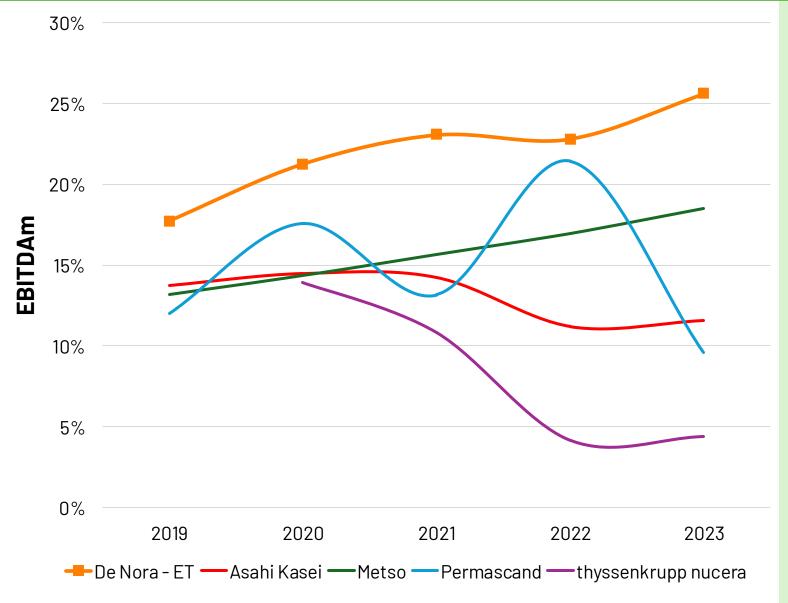
However, in **Water Technologies**, its smaller scale limits profitability, resulting in a 13.83% EBITDAM in FY23, **below the peer average** of 17.33%





# **COMPETITORS' PROFITABILITY COMPARISON**

Being the king in the anthill can pay...



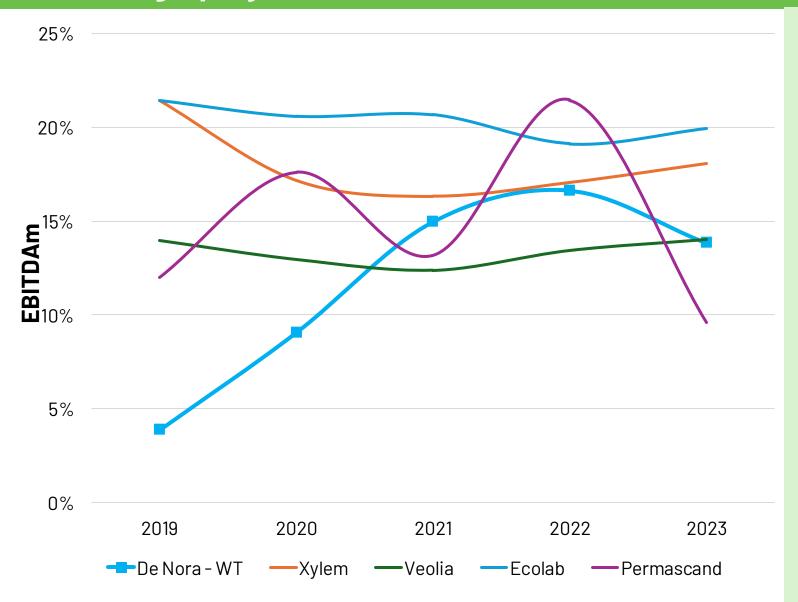
In terms of margins, **De Nora outperforms its**peers in Electrode Technologies, with a
25.62% EBITDAm in FY23 compared to the
industry average of 11%.



Source: Factset, Team estimates

# **COMPETITORS' PROFITABILITY COMPARISON**

## ...but being a prey in the ocean doesn't



However, in **Water Technologies**, its smaller scale limits profitability, resulting in a 13.83% EBITDAM in FY23, **below the peer average** of 17.33%



Source: Factset, Team estimates

# **ENERGY TRANSITION PROFITABILITY COMPARISON**

Mostly Negative Margins, But De Nora Briefly Stands Out

EBITDAm						
Company	FY22	FY23	FY24E			
De Nora - ETR	2.83%	11.69%	5.32%			
tk nucera	2.64%	3.78%	-1.97%			
Nel Asa	-78.47%	-26.73%	-14.86%			
McPhy	-205.59%	-273.23%	-526.79%			
Plug Power	-63.87%	-124.48%	-105.57%			
ITM Power	-710.71%	-1811.54%	-184.24%			

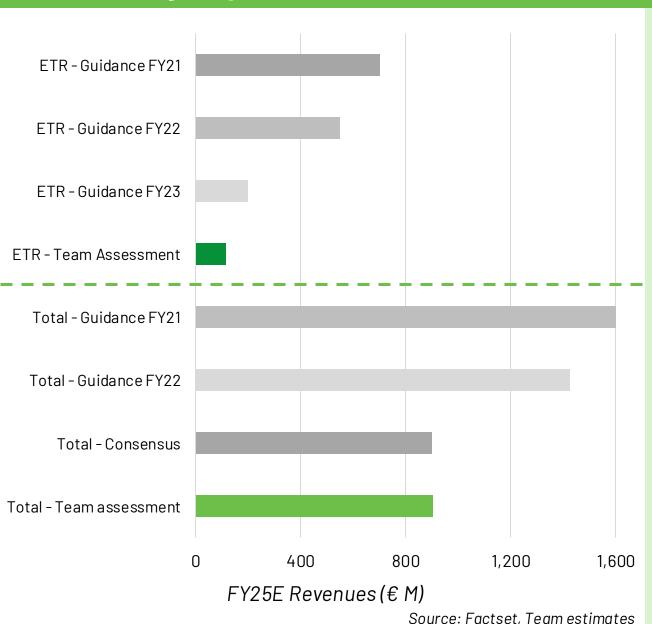
In the Energy Transition segment, nearly all green hydrogen companies report **negative margins**, as the market is still in its early stages. However, De Nora posted positive EBITDAm in 2022 and 2023 but is expected to record slightly lower EBITDA margins in 2024.



Source: Factset, Team estimates

# DE NORA'S GUIDANCE VS TEAM ASSESSMENT:

## A Credibility Gap



Over the past few years, De Nora has consistently **failed** to align its forecasts with actual performance, raising serious **doubts about its credibility**:

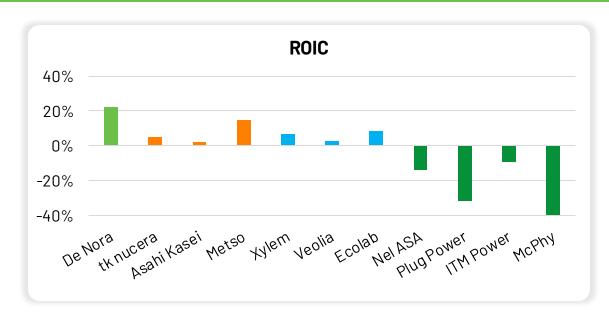
- FY21 target: €1.5-1.7B total revenues by FY25 (€650-750M) from Energy Transition)
- Revised in FY22: €1.35-1.5B total revenues by FY25 (€500-600M from Energy Transition)
- Further cut in FY23: Energy Transition CAGR of 40% (FY23-26E), €280M target by FY26E (confirmed in Q2\_24)
- Q3\_24: Company admits regulatory delays and market uncertainties are slowing order conversion.

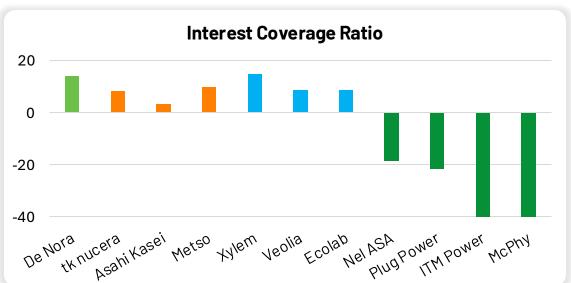
By the end of FY24E, actual figures paint a **different reality**:

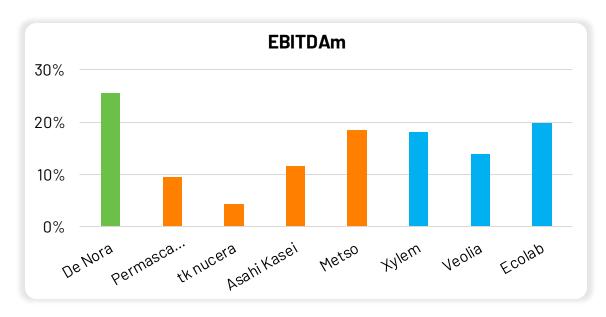
- Total expected Revenues stand at €867M
- Energy Transition Revenues expected at just €105M, requiring a YoY growth of +376%/+471% to reach FY22 projections or a 63.3% CAGR (FY24E-26E) to meet even Q2\_24 guidance

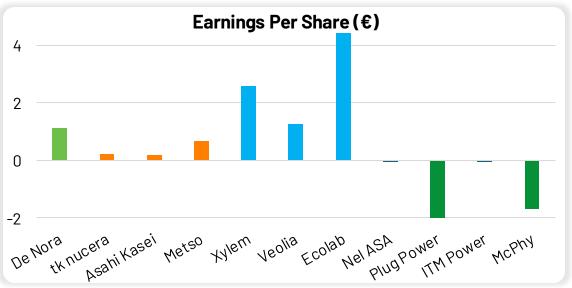
# FINANCIAL METRICS COMPARISON

## **Clustering different peers**





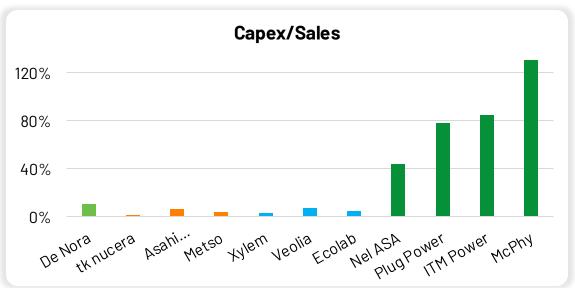


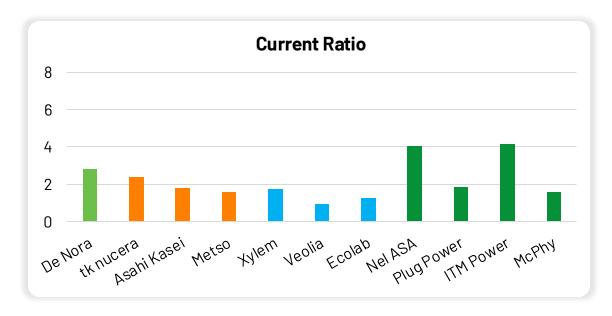


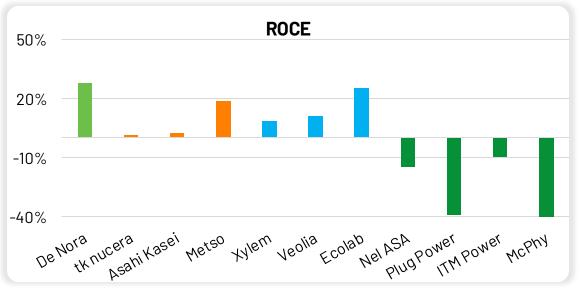
# FINANCIAL METRICS COMPARISON

## **Clustering different peers**



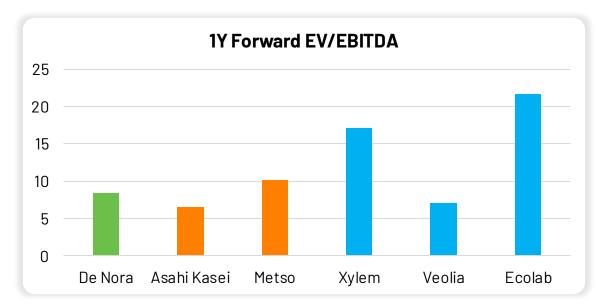


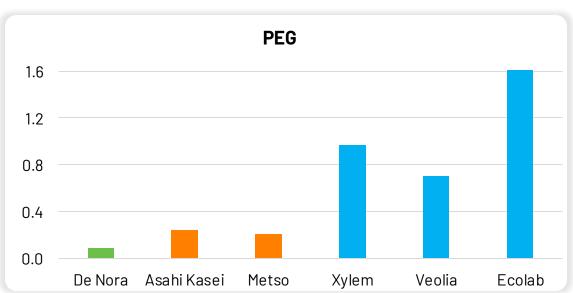


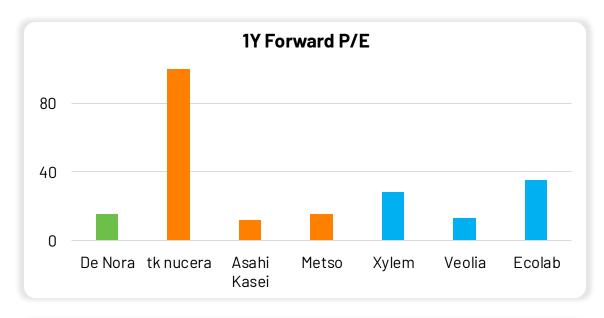


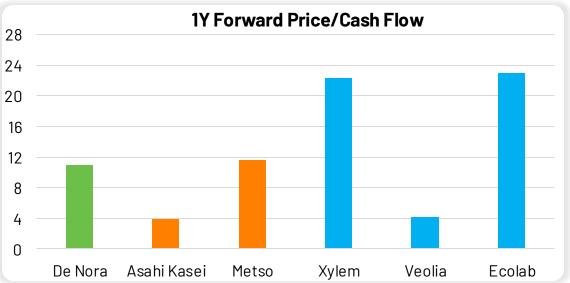
# FINANCIAL METRICS COMPARISON

## **Clustering different peers**



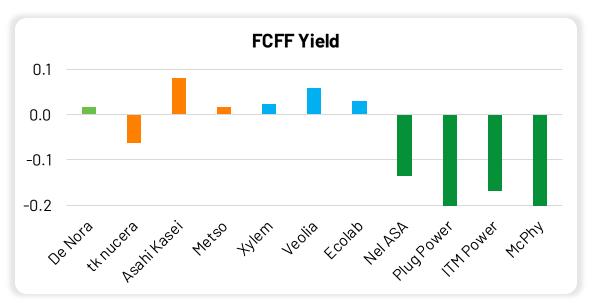


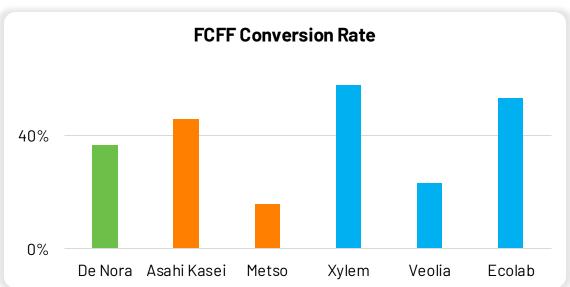


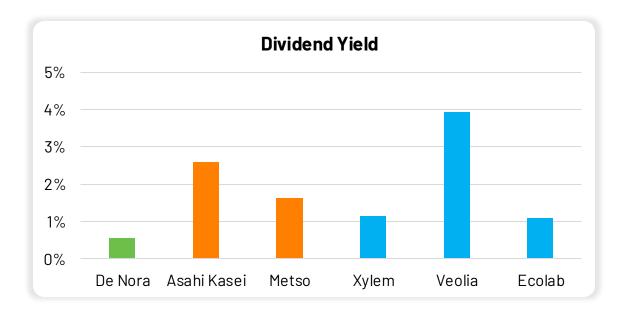


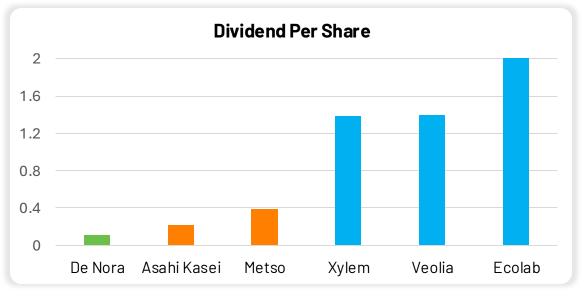
## FINANCIAL METRICS COMPARISON

## **Clustering different peers**









## PORTER'S FIVE FORCES ANALYSIS

#### **Diving into the Market structure**

#### THREAT OF NEW ENTRANTS

2/5

The Global Electrochemical Market is protected by **high barriers to entry**: patent, know how, advanced technology and high initial investment costs. Moreover, De Nora leverages on consolidated relationship with clients.

3/5

# THREAT OF SUBSTITUTES

The market faces competition from cost-focused producers. De Nora remains competitive offering high-performance solutions with lower TCO.

4/5

#### **INTERNAL RIVALRY**

 While leading in ET, De Nora competes with giant players in WT;

 Some players are actively working on alternative technologies in ETR. 2/5

# BARGAINING POWER OF SUPPLIERS

Concentration is low, as De Nora leverages its expertise in the early part of the value chain to minimize reliance on external suppliers, sourcing mainly raw materials.

4/5

# BARGAINING POWER OF BUYERS

The customer base is:

- Moderately concentrated in ET and WT;
- Highly concentrated in ETR.

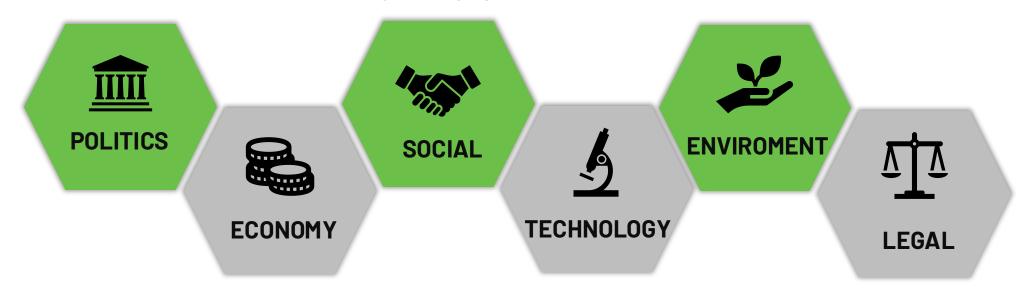
## **PESTEL ANALYSIS**

## **Analyzing the business environment**

- REGULATORY SUPPORT FOR GREEN HYDROGEN
- STRINGENT REGULATIONS IN WT

- AWARENESS OF SUSTAINABILITY
- ATTENTION TO WORKPLACE SAFETY

- CARBON NEUTRALITY GOALS
- WATER RESOURCE MANAGEMENT



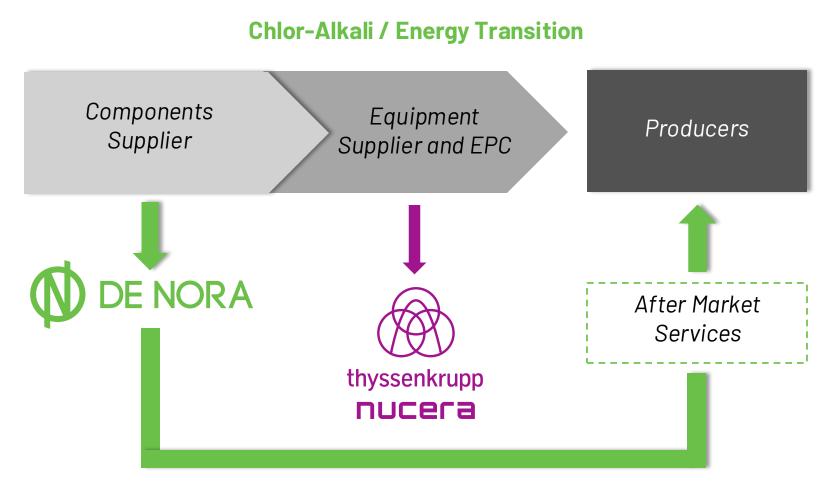
- INFLATION
- ECONOMIC CYCLES
- CURRENCY DEVALUATION
   AND REVALUATION

- ADVANCEMENTS IN ELECTROLYSIS EFFICIENCY
- LOW-COST ELECTRODE ALTERNATIVES

- PATENTS' PROTECTION
- IMPACT OF TARIFFS AND TRADE AGREEMENTS

# TOLL MANUFACTURING AGREEMENT (TMA)

**Shaping De Nora's Sales Strategy** 



Source: Company data, team estimates

TMA lasts until **November 4**, **2038**, with automatic five-year renewals

Tk nucera must purchase
electrodes and cells
exclusively from De Nora
for a defined percentage of
its annual demand

If third-party products are more competitive, tk nucera gives De Nora six months to match or may source externally.

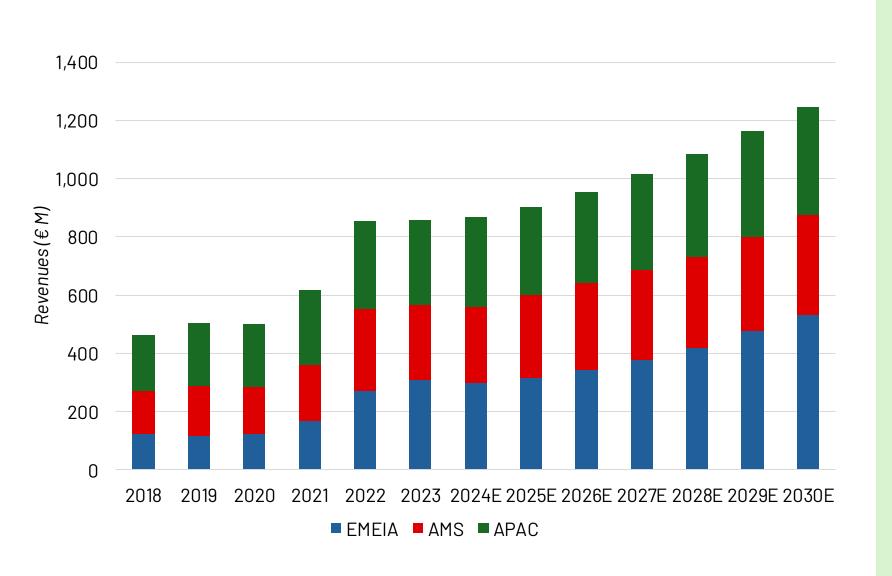
# FOCUS ON ELECTROLYSIS TECHNOLOGIES

## An in-depth look at the different solutions

<u>Technology</u>	AWE (Alkaline Water Electrolysis)	PEM (Proton Exchange Membrane)	SOEC (Solid Oxide Electrolyzer Cell)	AEM (Anion Exchange Membrane)	
How	By using <b>electricity</b>	By using <b>electricity</b>	By using both electricity and heat, operating at 600-1000°C (others at 50-80°C)	By using <b>electricity</b>	
Characteristics	Scalable, <b>reliable</b> and <b>adaptable</b> to various project sizes	Compact design but still too expensive	High efficiency, can use heat from industrial processes, requires less electricity	Lower costs compared to PEM	
Current usage	Widely used, proven technology and projected to lead the market through 2030	Used in <b>smaller-scale applications</b>	Emerging technology, used in pilot projects for industrial applications	Emerging technology, mainly in research, not used yet	

## REVENUES BREAKDOWN BY GEOGRAPHY

## Mapping the income sources for the future



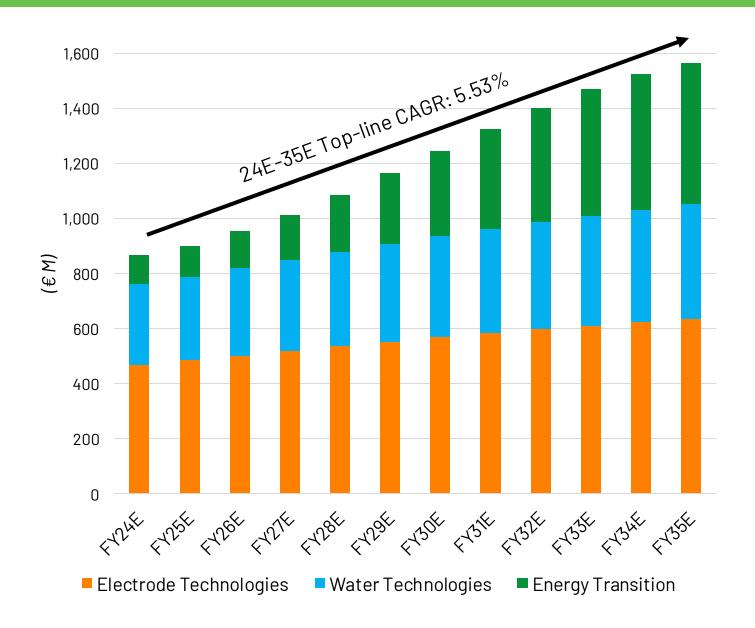
Until 2021, the largest share of Revenues came from APAC, primarily driven by Electrode Technologies

In **2022**, sales in **EMEIA** increased by 65% YoY thanks to the joint venture with **thyssenkrupp nucera** 

We forecast a **positive momentum** of Sales from **EMEIA**, with the **Gigafactory** reaching full
capacity for electrodes and
cells supply.

## **FUTURE REVENUES BY SEGMENTS**

## Recalibrating the segments' weights



	<b>CAGR 24E-35E</b>
CFD ET	2.81%
→ WT	3.26%
<b>ETR</b>	15.55%

**1** Top-line 5.53%

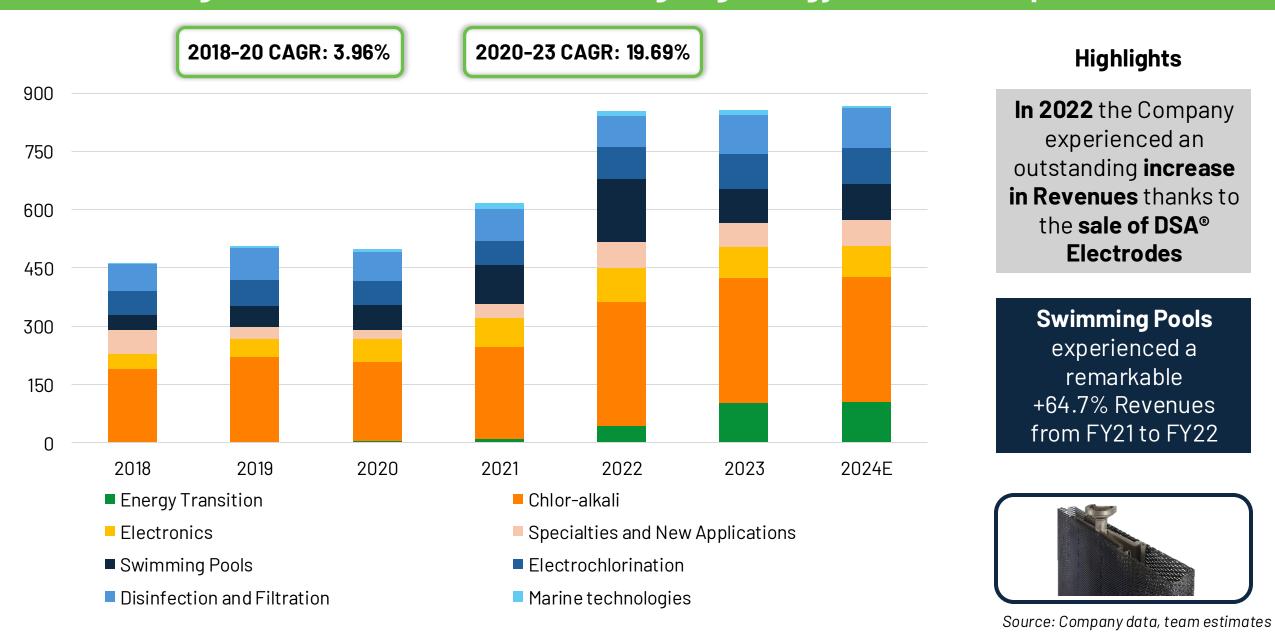
Highest contribution: **Electrode Technologies (ET)** Highest growth rate:

**Energy Transition (ETR)** 

We foresee an increasing impact on the top-line growth of Energy Transition, yet lower than the expected in 2022.

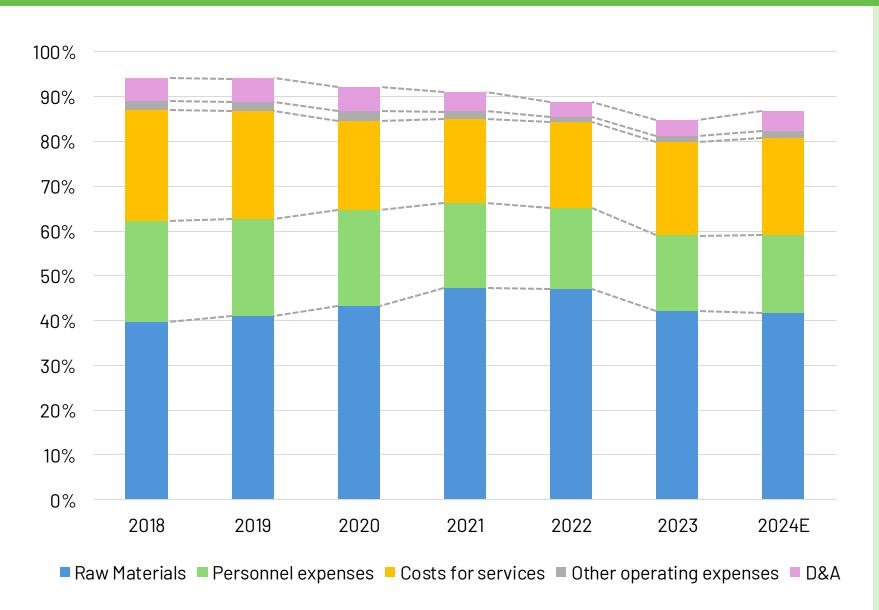
## REVENUES BY BUSINESS LINES

### The Swimming Pools boost in 2022 and the ongoing Energy Transition expansion



## **COST STRUCTURE ANALYSIS**

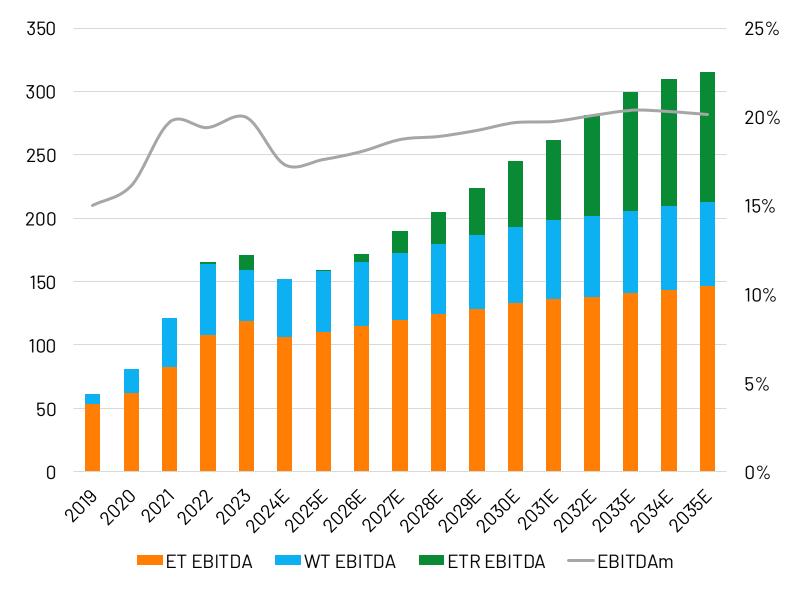
#### Historical expenses as % of Sales



- In 2021 and 2022, inflation caused a strong increase in raw material costs (36.31% CAGR in 2020-22).
- However, the impact of this increase on profitability has been completely mitigated by the pass-through mechanism, which has allowed the company to adjust sales prices to those of raw materials.
- As a result, Raw materials and Personnel Expenses maintained a stable % of Sales during the last few years.

## **EBITDA AND EBITDAM EVOLUTION**

#### The impact of Green Hydrogen investments and the path to EBITDAm stabilization

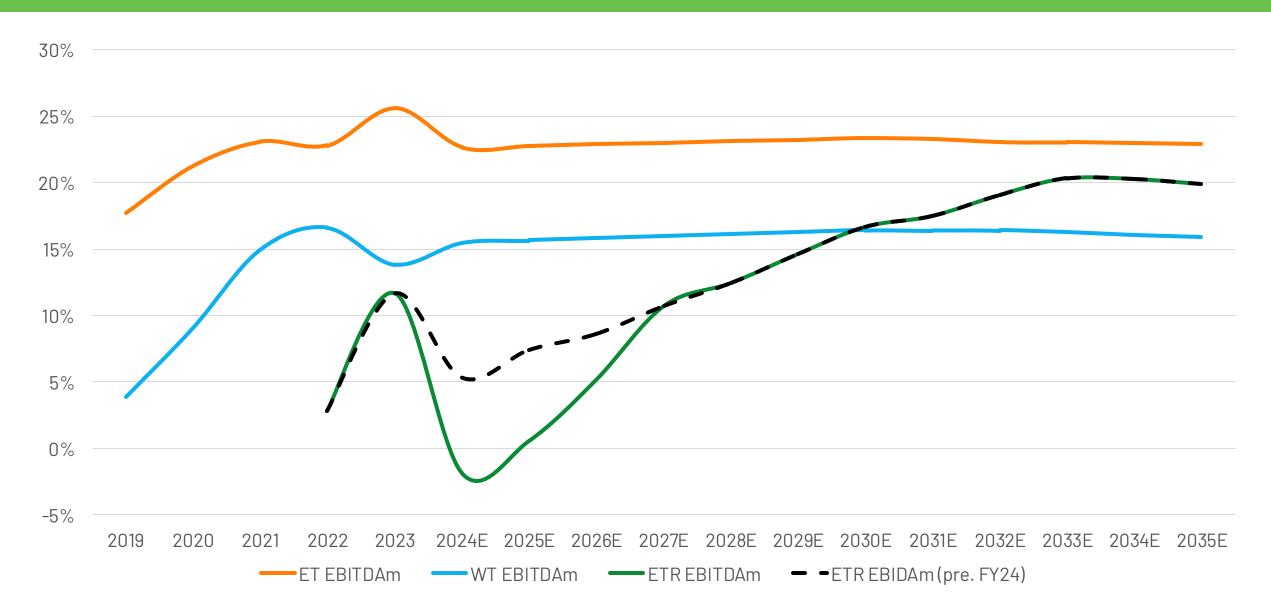


We expect a **decline in EBITDAm** in 2024E, primarily attributable to the **Energy Transition** segment's performance:

- 1 Costs related to the development of the Italian Gigafactory
- The early stage of production capacity

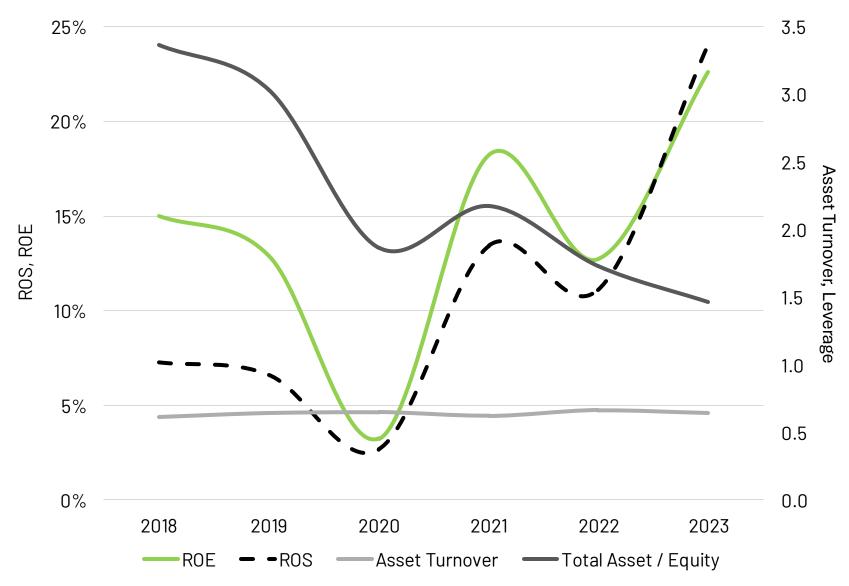
We foresee a **gradual recovery**, with EBITDAm stabilizing around 20% driven by the increasing contribution to the top-line of the Energy Transition segment.

# DISENTANGLING EBITDAM BY SEGMENT



## **PROFITABILITY INSIGHTS**

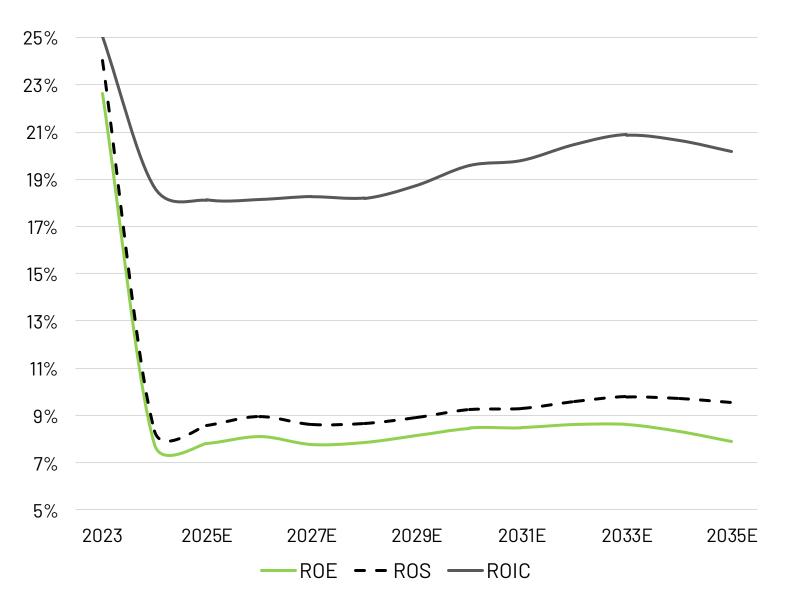
#### The Dupont analysis



- The ratio Total Assets/Equity halved in 2020 due to the cancellation and conversion to Equity of a €140M Financial Liability recorded against the Company's obligation to redeem Blackstone's class B shares.
- ROE's peak in 2023 stems from the sharp increase in ROS due to the one-off thyssenkrupp nucera IPO gains.

## **PROFITABILITY INSIGHTS**

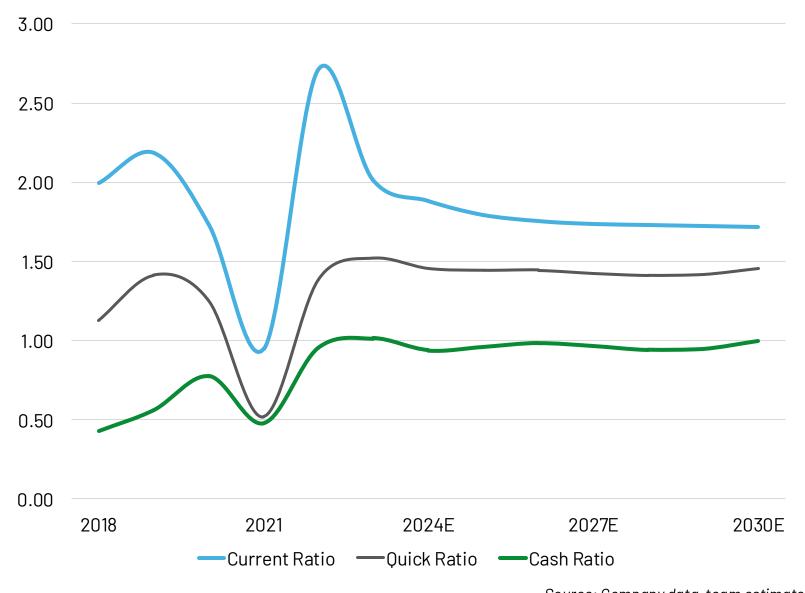
#### The trajectory correction of ROE, ROS and ROIC



- According to our model, all ratios are expected to decline sharply in 2024E due to the inflated performance driven by the dilution gain and the exercise of the greenshoe option in 2023.
- However, ratios are expected to slightly increase in following years years, as the Gigacatory scales up its production

## **ASSESSING THE COMPANY'S LIQUIDITY**

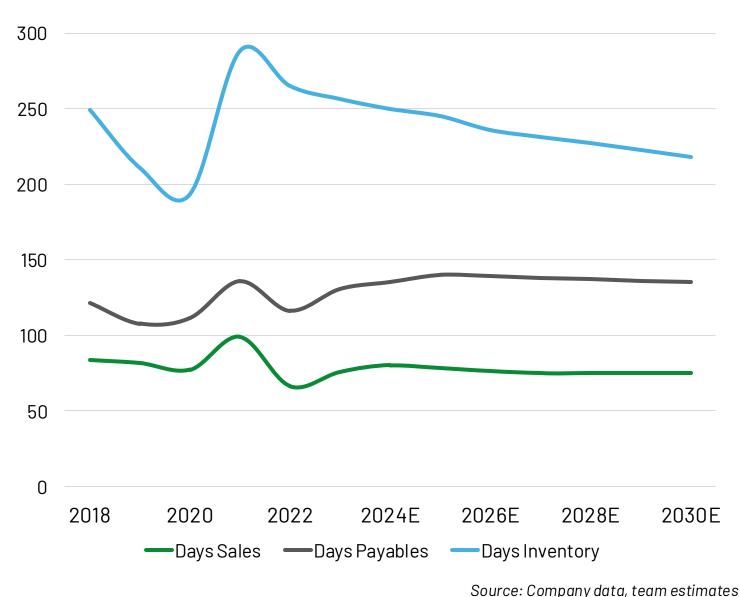
#### **Current, Quick and Cash ratios**



- the Current and Quick ratios in 2021 is explained by the fact that over 90% of the debt was due to mature in 2022, thus becoming Current Liabilities.
- Subsequently, a strong positive rebound occurred in correspondence to the IPO, which led to an increase in cash in 2022.
- For the future, we expect the Company to maintain a stable liquidity level.

## **NET WORKING CAPITAL**

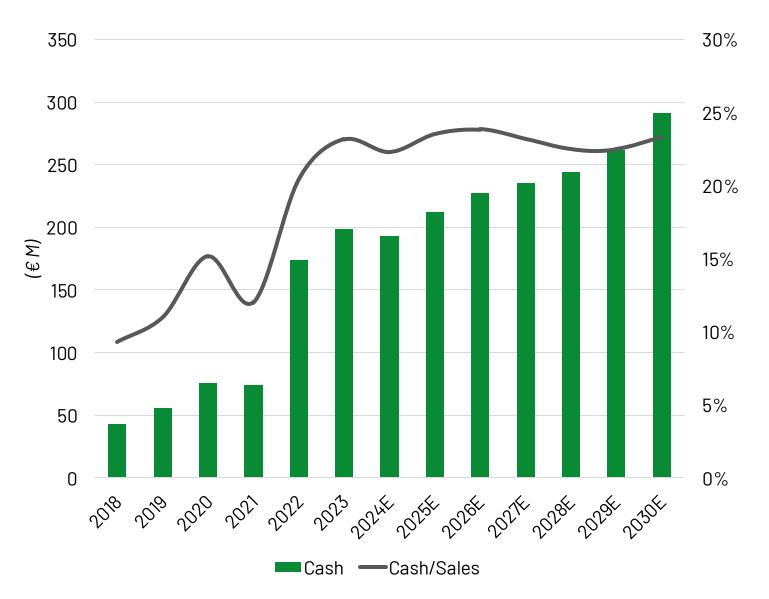
## Optimizing the NWC management



- In 2021 De Nora experienced a strong increase in days inventory outstanding.
- This has been due to an **inventory** build-up: De Nora purchased a massive amount of raw materials at inflated prices.
- By 2023 inventory management improved visibly and is expected to further improve in the next couple of years.

## **CASH DYNAMICS**

#### A sustained cash accumulation



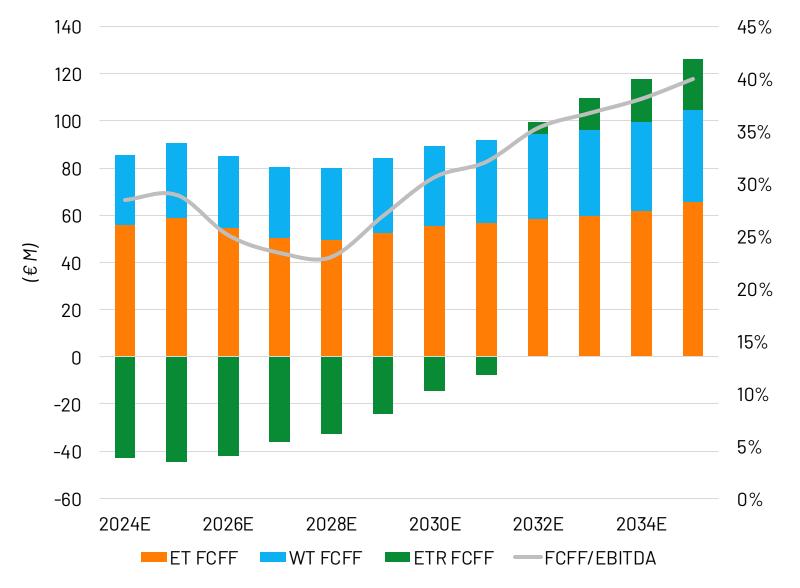
De Nora will experience a **stable cash generation from the traditional segments** in the coming years, slightly offset by the underperformance of the energy transition segment.

Such **cash accumulation** allows the Company to strategically allocate funds for:

- Operating activities
- **Dividend** payments
- Strategical **Acquisitions**

## THE MAIN DRIVERS OF FCFF

#### Balancing Traditional Segments Strength with Energy Transition Investments



FCFF generation will be driven by:

Top-line fueled by high-margins in traditional segments: Electrode and Water Technologies

Tighter control on Working Capital, as the Company is still reducing its Inventory from the maximum level of 2021 (38% of Sales) and will keep a lower amount of products stock for the future

Initially offset by:

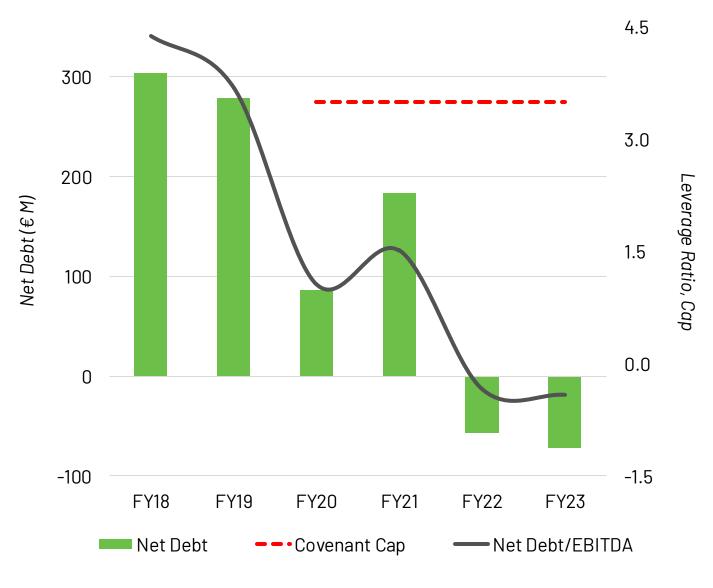
#### **High CapEx in Energy Transition:**

Starting from the announced €290M investments in 2024-26 (50% of total CapEx)

Slower-than-anticipated Green
Hydrogen growth

## **NET DEBT**

## From Deleveraging to Financial Flexibility



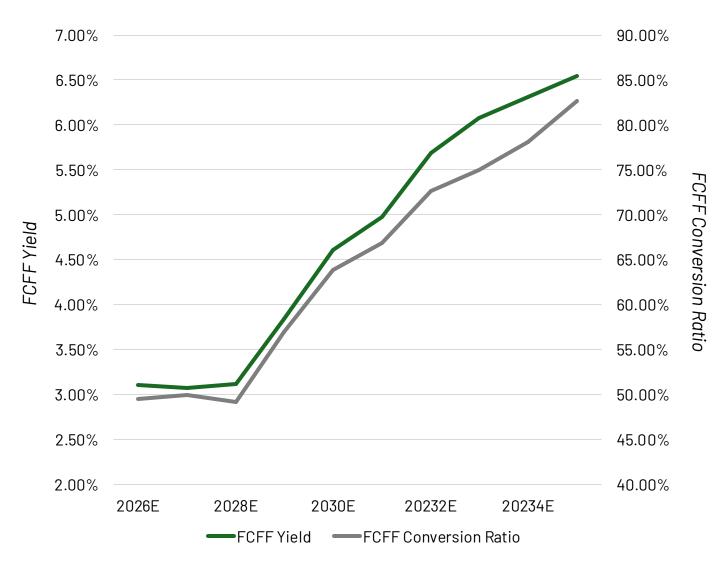
De Nora has significantly **reduced leverage**, with Net Debt/EBITDA improving from 4.38x in 2018 to -0.42x in FY23, and the D/E ratio dropping from 160% to 16% thanks to:

- Conversion of a €140M financial liability into equity, further strengthening its capital base.
- Strategic debt refinancing in 2022, replacing existing loans with €180M + \$90M credit lines capped by a leverage ratio

Consolidated Net Debt
Consolidated EBITDA

By 2024, De Nora maintains strong financial flexibility, standing far away from the 3.5X covenant cap thanks to a capital structure primarily equity-based and less reliant on debt.

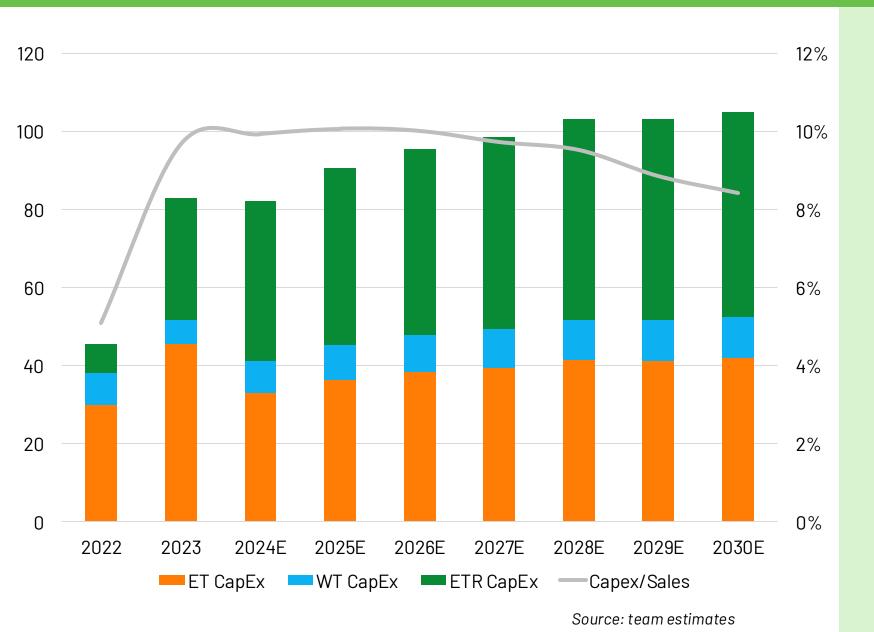
# FCFF YIELD & CONVERSION RATIO TRENDS



- There will be a steady increase in FCFF
  Yield, indicating improved financial
  efficiency and greater free cash flow
  generation relative to the company's
  value.
- Simultaneously, the FCFF Conversion Ratio shows significant growth, reflecting the company's enhanced ability to convert net profits into free cash flows.

## **CAPEX AND CAPEX/SALES EVOLUTION**

## **Unfolding Energy Transition Investments**



#### **PAST EVOLUTION**

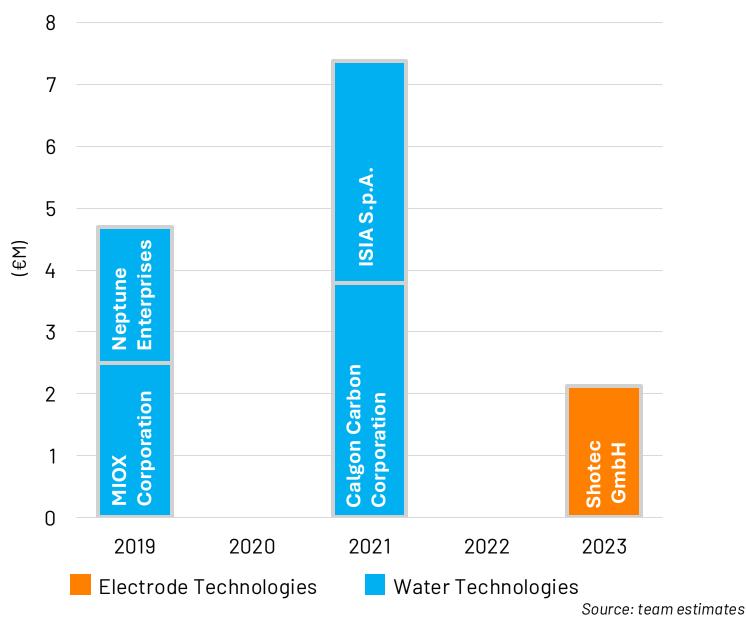
From 2022 to 2023, the CapEx/Sales ratio nearly doubled, driven by investments in plant and machinery for technological renewal and capacity expansion (including the key Gigafactory project)

#### **FUTURE EVOLUTION**

We expect the ratio to remain stable at 10% in 2024E-26E, supported by €290M CapEx in planned investments for the Gigafactory and global expansion. After this period, CapEx intensity will gradually decline.

## HISTORICAL M&A EXPENDITURE

#### Small-Scale Acquisitions Enhancing the Product Portfolio



- Small-Scale M&A: Over the last 5 years, De Nora has focused on M&A activities valued around €14M, targeting the acquisition of new products or technical know-how
- Strategic Bolt-Ons: These acquisitions, modest in size, are designed to strengthen the company's product portfolio and enhance capabilities in key segments

# De Nora vs INDUSTRY GROWTH



#### **Global Electrochemical Market**



CAGR	24E-26E	27E-30E	31E-35E
Electrode Technologies	3.36%	3.00%	2.18%
Chlor-alkali	2.79%	2.38%	2.07%
Electronics	4.25%	4.63%	2.38%
Specialties	5.44%	4.30%	2.50%
Water Technologies	4.11%	3.62%	2.42%
Swimming Pools	6.12%	4.01%	2.50%
Electrochlorination	4.72%	3.55%	2.31%
Disinfection and Filtration	4.04%	3.30%	2.44%
Energy Transition	13.61%	23.61%	9.00%
Total De Nora	4.94%	7.14%	4.26%

CAGR	24E-26E	27E-30E	31E-35E
Electrode Technologies	3.36%	3.00%	2.18%
Chlor-alkali	2.79%	2.38%	2.07%
Electronics	4.25%	4.63%	2.38%
Specialties	5.44%	4.30%	2.50%
Water Technologies	6.97%	5.24%	3.40%
Swimming Pools	6.12%	4.01%	2.50%
Electrochlorination	4.72%	3.55%	2.31%
Disinfection and Filtration	7.04%	5.30%	3.44%
Energy Transition	35.89%	52.08%	13.69%
Total Industry	9.37%	16.01%	8.28%

# **BALANCE SHEET**

€	M	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2035E
Tangible assets	-	138	161	154	168	184	254	295	334	373	410	447	480	512	649
Intangible assets	-	74	72	69	70	65	51	55	62	69	76	83	89	95	115
Goodwill	İ	63	67	62	63	67	65	64	64	64	64	64	64	64	64
Equity investments	İ	135	126	112	122	123	232	241	251	266	282	302	324	347	436
Other non-current assets	1	35	44	46	45	30	30	33	35	37	39	41	44	47	59
Total non-current assets	į Į	444	469	443	467	468	632	688	745	808	871	937	1,002	1,065	1,323
Inventories	İ	127	121	116	233	295	257	250	253	256	266	279	293	307	369
Trade and other receivables		107	114	107	169	156	180	193	195	201	211	226	243	260	326
Other current assets	1	32	27	29	43	193	64	57	59	63	67	71	77	82	103
Cash & cash equivalents	İ	43	56	76	74	174	198	193	212	228	235	244	262	291	565
Total current assets		309	318	327	519	819	700	693	720	748	779	820	874	940	1,364
Total Assets	1	753	787	770	987	1,288	1,332	1,381	1,465	1,556	1,651	1,757	1,876	2,006	2,686
Total Equity	1	224	259	413	454	745	910	932	991	1,057	1,122	1,194	1,274	1,363	1,893
Non-current financial Liabilities	s¦	340	345	155	4	268	134	144	150	159	169	180	194	207	260
Other non-current Liabilities	I I	56	63	57	60	37	39	39	41	44	46	50	53	57	72
Total non-current Liabilities	 	396	407	212	64	305	173	183	191	202	215	230	247	264	332
Trade and other payables	İ	100	98	97	154	182	196	206	221	232	244	258	276	293	354
Financial liabilities	1	17	1	17	259	14	10	16	17	17	19	20	21	23	29
Other current Liabilities	I I	16	21	31	56	42	43	44	45	48	51	55	59	63	79
Total current Liabilities	I I	133	120	145	469	238	249	266	283	297	313	333	356	378	461
Total Equity & Liabilites	I I	753	787	770	987	1,288	1,332	1,381	1,465	1,556	1,651	1,757	1,876	2,006	2,686

# **INCOME STATEMENT**

€M	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2035E
Electrode Technologies	291	299	290	358	473	464	469	485	502	519	536	553	568	636
Water Technologies	171	206	205	248	337	290	293	303	317	330	343	355	367	417
Energy Transition	   – 	_	4	9	43	102	105	114	135	165	205	257	311	514
Total Revenues	462	505	499	616	853	856	867	902	954	1,014	1,084	1,165	1,247	1,567
Raw Materials	(183)	(208)	(216)	(291)	(402)	(361)	(361)	(371)	(391)	(414)	(442)	(474)	(507)	(634)
Personnel expenses	(104)	(109)	(107)	(117)	(155)	(144)	(151)	(159)	(167)	(173)	(182)	(191)	(198)	(248)
Cost for services	(114)	(122)	(99)	(116)	(162)	(179)	(189)	(197)	(209)	(222)	(238)	(255)	(274)	(346)
Other operating (cost)/income	9	9	3	29	31	(1)	(16)	(16)	(16)	(16)	(18)	(20)	(23)	(25)
EBITDA	70	76	81	121	165	171	150	159	172	190	205	224	245	315
EBITDAm	15.1%	15.0%	16.1%	19.7%	19.4%	20.0%	17.3%	17.6%	18.0%	18.7%	18.9%	19.2%	19.7%	20.1%
D&A and other adjustments	(23)	(28)	(25)	(34)	(39)	(34)	(40)	(46)	(51)	(58)	(64)	(68)	(73)	(92)
EBIT	47	48	56	88	126	137	109	113	121	132	141	156	172	223
EBITm	10.2%	9.5%	11.1%	14.2%	14.8%	16.0%	12.6%	12.5%	12.7%	13.0%	13.0%	13.4%	13.8%	14.2%
Finance income	1	9	7	11	2	143	16	19	22	19	21	22	24	30
Finance expenses	(11)	(16)	(19)	(5)	(7)	(15)	(26)	(25)	(25)	(30)	(32)	(35)	(37)	(47)
Profit before tax	37	41	44	94	120	265	100	107	118	120	129	143	159	206
Income taxes	(11)	(12)	(11)	(27)	(31)	(34)	(26)	(28)	(31)	(31)	(34)	(37)	(41)	(54)
Net Income	26	29	33	66	90	231	74	79	87	89	96	106	118	153

## TEAM ESTIMATES VS CONSENSUS

## Our prudent approach is quite in line with consensus

As of 19/02/2025		FY24E	FY25E	FY26E	
	Team Est.	867	902	954	
Revenues	Consensus	867	906	952	
EBITDAm	Team Est.	17.3%	17.6%	18.0%	
(reported)	Consensus	17.6%	17.9%	18.3%	

For the near future we expect a decrease in margins due to the Energy Transition performance with a gradual comeback to pre-FY24E.

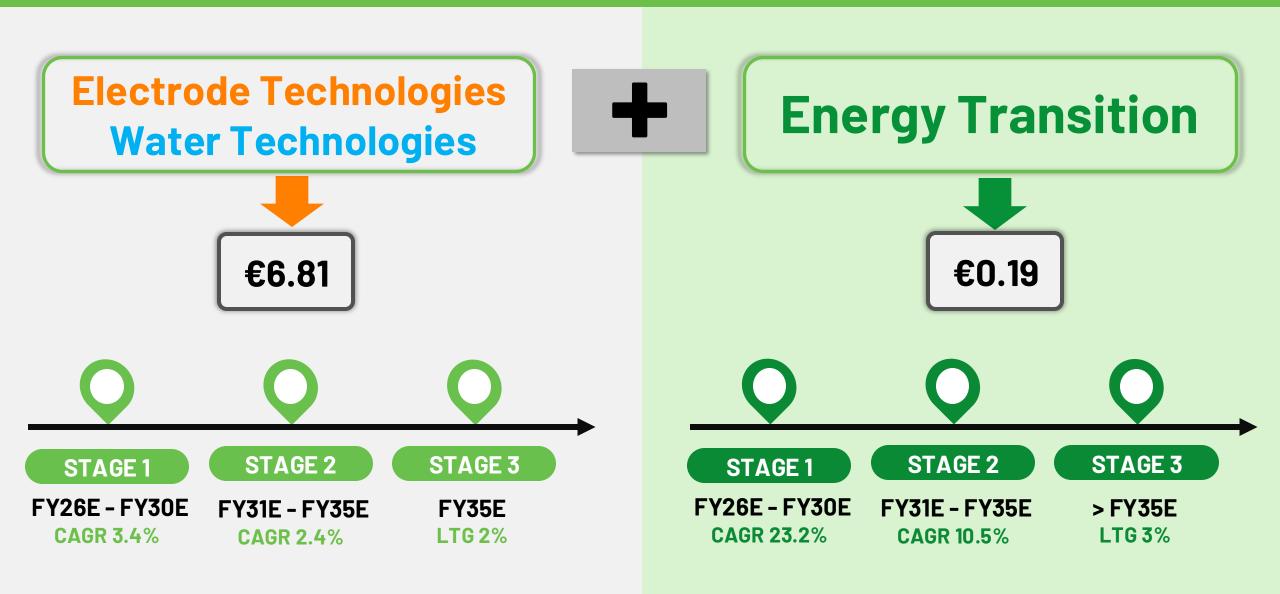
Our model anticipates Revenues to be broadly in line with consensus driven by growth opportunities despite a challenging environment in certain business lines.

Margins are expected to be slightly below consensus going forward, reflecting our cautious view on raw material cost management.

Source: FactSet, team estimates

## TWO DISCOUNTED CASH FLOW MODELS

3 Stages to Value the Company: A Sum of the Parts (SOTP) Approach

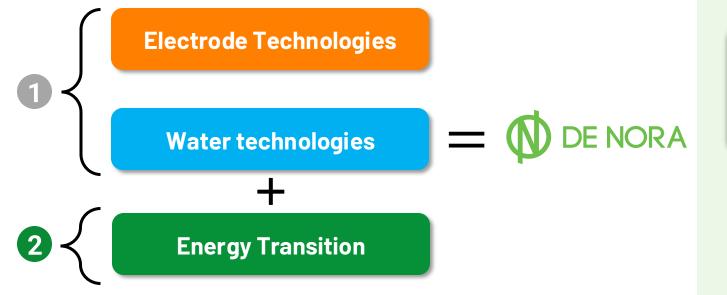


# SUM OF THE PARTS (SOTP): TWO DCFS TO VALUE DE NORA

**Reasons Behind Our Choice** 

#### **DESCRIPTION:**

We build a 3 stages **Sum-of-the-parts DCF model** to separately value the traditional segments (Electrode/Water Technologies) from Energy Transition, employing **two distinct time-varying WACC estimates**.



#### WHY WE USE SOTP:

- A Detailed Disclosure: The Company provides specific information about the marginality and profitability of each segment.
- **Disentangling ETR**: We choose to **separately** analyze the Energy Transition segment due its different business characteristics and degree of risk with respect to the traditional segments.

## **DISCOUNTED CASH FLOW METHOD**

## 3 Stages to value the Company's Traditional Segments

#### Stage 1

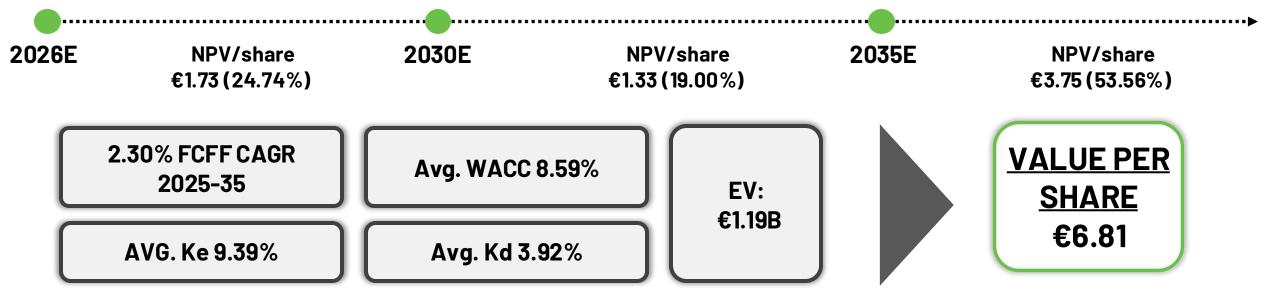
- Recovery in semiconductor demand fuels modest Electrode Technologies growth
- Moderate expansion in Water Technologies
- Sales CAGR: 3.4%

## Stage 2

- Slower growth as market drivers slow down in **Electrode Technologies**
- Continued tapering due to competition and saturation in **Water Technologies**
- Sales CAGR: 2.4%

# Stage 3 (Perpetuity)

 Terminal growth of 2% for Electrode Technologies and Water Technologies reflecting stable renewal cycles



## **DISCOUNTED CASH FLOW METHOD**

## 3 Stages to value the Energy Transition Segment

#### Stage 1

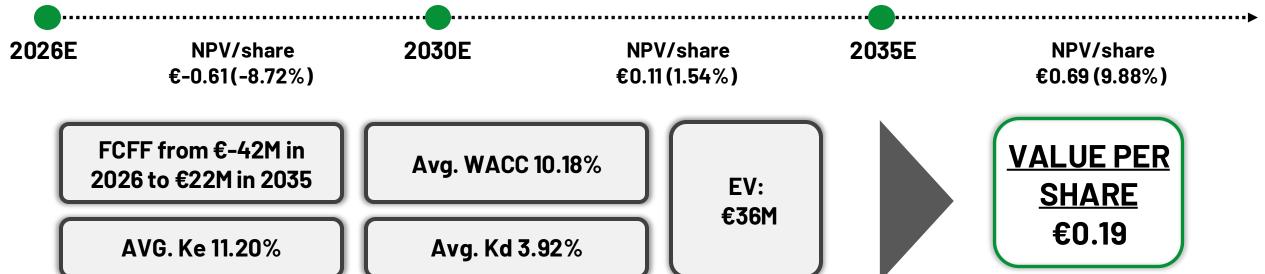
- **Energy Transition** is set to enter its most dynamic phase, fueled by the Gigafactory at full capacity and enhanced support for green hydrogen.
- Sales CAGR: 23.19%

#### Stage 2

- As competition in the green hydrogen market intensifies, Energy Transition faces a complex landscape, with De Nora navigating new technologies and evolving regulations
- Sales CAGR: 10.52%

Stage 3 (Perpetuity)

 Terminal growth of 3% for Energy Transition capturing long-term green hydrogen potential



# DISENTANGLING OUR DCFs: TRADITIONAL SEGMENTS

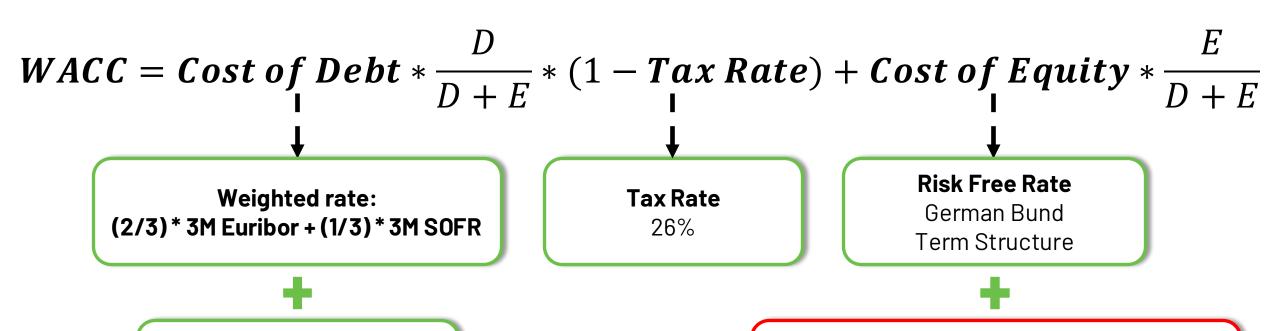
ET - WT €M	2026E	2027E	2028E	2029E	2030E	2035E
Revenues	819	849	879	908	936	1,053
Operating Costs	703	730	756	779	800	902
EBIT	116	119	124	129	136	151
Taxes	30	31	32	34	35	39
NOPAT	86	88	92	96	101	112
D&A	47	49	52	53	53	58
Change in the WC	(1)	(8)	(12)	(13)	(12)	(8)
CapEx	(48)	(49)	(52)	(52)	(53)	(56)
Standard FCF0	85	80	80	84	89	105
Acquisitions	_	_	_	_	_	  - 
Standard FCFF	85	80	80	84	89	105
Present Value	79	68	62	61	59	46
Traditional Segments Value per share	€6.81				Term	inal Value €3 (53.56

# **DISENTANGLING OUR DCFs: ENERGY TRANSITION**

ETR	€M 2026E	2027E	2028E	2029E	2030E	2035E
Revenues	135	165	205	257	311	514
Operating Costs	130	153	187	231	275	441
EBIT	5	12	18	26	37	72
Taxes	1	3	5	7	10	19
NOPAT	4	9	13	19	27	54
D&A	2	5	7	11	14	28
Change in the WC	(0)	(1)	(3)	(4)	(4)	(4)
CapEx	(48)	(49)	(52)	(52)	(53)	(56)
Standard FCF0	(42)	(36)	(34)	(25)	(15)	22
Acquisitions		<del>-</del>			<u>-</u>	   _ 
Standard FCFF	(42)	(36)	(34)	(25)	(15)	22
Present Value	(38)	(30)	(25)	(16)	(9)	8
Energy Transition Val per share	ue €0.19				Term	inal Value €0.0 (9.889

## WEIGHTED AVERAGE COST OF CAPITAL (WACC)

Each DCF employs its own dynamic WACC



#### NFP/EBITDA spread

(In line with recent loans)

#### Beta

The two WACCs differ in the systematic risk (Beta) used to estimate the Cost of Equity.



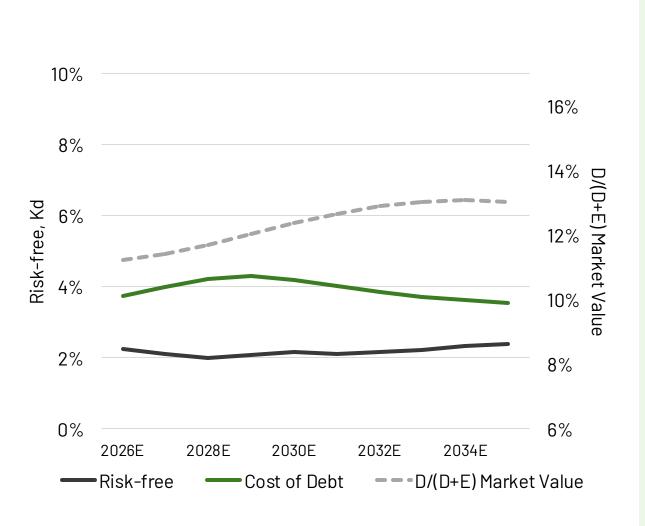
#### **Equity Risk Premium**

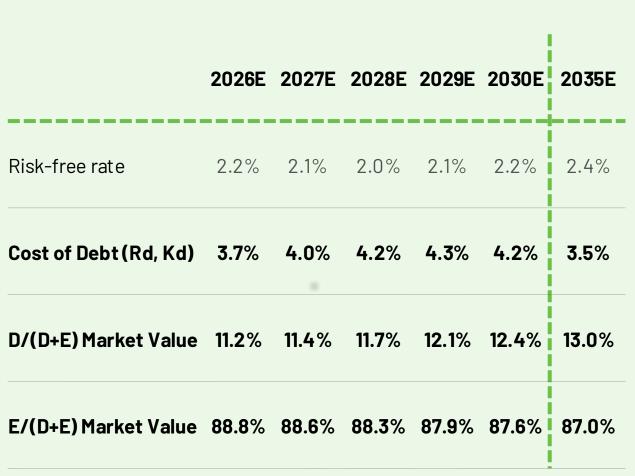
Weighted average by region (source: Damodaran)

- WACCs COMMON COMPONENTS
- **☐** WACCs DCF SPECIFIC COMPONENTS

## TWO DYNAMIC WACCS

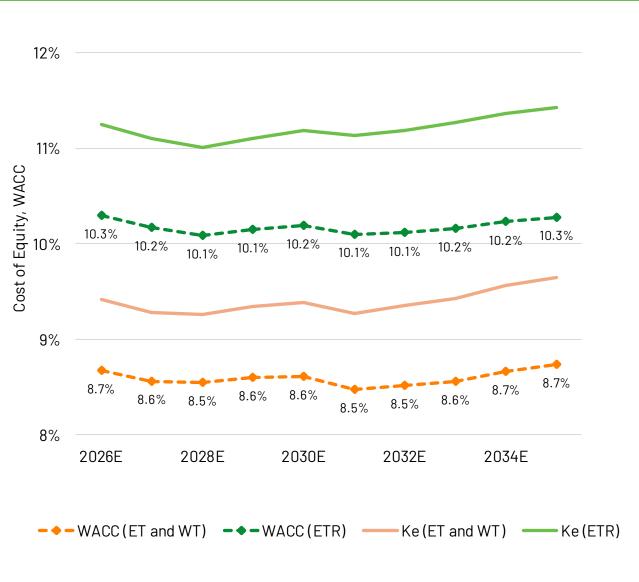
#### **Common Components**





# TWO DYNAMIC WACCs

## **DCF** specific components



#### **ELECTRODE TECHNOLOGIES - WATER TECHNOLOGIES**

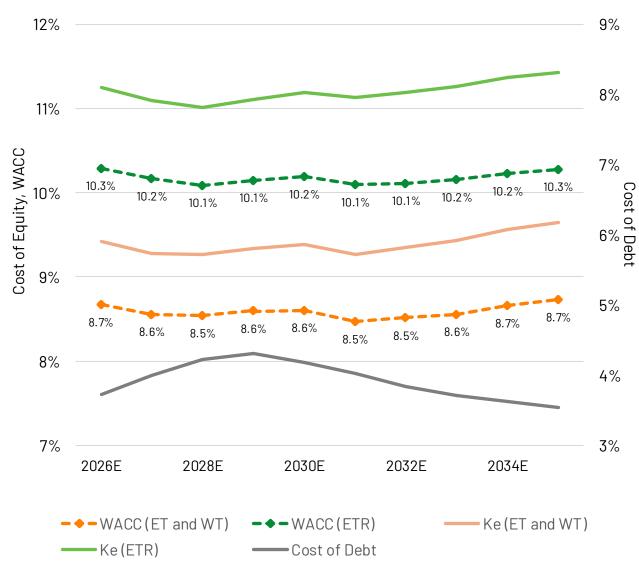
	2026E	2027E	2028E	2029E	2030E	2035E
Cost of Equity (Re, Ke)	9.4%	9.3%	9.3%	9.3%	9.4%	9.7%
Beta	1.16	1.16	1.16	1.16	1.16	1.16
Equity Risk Premium (ERP)	6.2%	6.2%	6.23%	6.3%	6.2%	6.3%
WACC	8.7%	8.6%	8.5%	8.6%	8.6%	8.7%

#### **ENERGY TRANSITION**

	2026E	2027E	2028E	2029E	2030E	2035E
Cost of Equity (Re, Ke)	11.3%	11.1%	11.0%	11.1%	11.2%	11.4%
Beta	1.69	1.69	1.69	1.69	1.69	1.69
Equity Risk Premium (ERP)	5.3%	5.3%	5.4%	5.4%	5.4%	5.4%
WACC	10.3%	10.2%	10.1%	10.2%	10.2%	10.3%

# TWO DYNAMIC WACCs

## A summary



#### **ELECTRODE TECHNOLOGIES - WATER TECHNOLOGIES**

	2026E	2027E	2028E	2029E	2030E	2035E
Risk-free rate	2.2%	2.1%	2.0%	2.1%	2.2%	2.4%
Cost of Debt (Rd, Kd)	3.7%	4.0%	4.2%	4.3%	4.2%	3.5%
D/(D+E) Market Value	11.2%	11.4%	11.7%	12.1%	12.4%	13.0%
Cost of Equity (Re, Ke)	9.4%	9.3%	9.3%	9.3%	9.4%	9.7%
Beta	1.16	1.16	1.16	1.16	1.16	1.16
Equity Risk Premium (ERP)	6.2%	6.2%	6.23%	6.3%	6.2%	6.3%
WACC	8.7%	8.6%	8.5%	8.6%	8.6%	8.7%

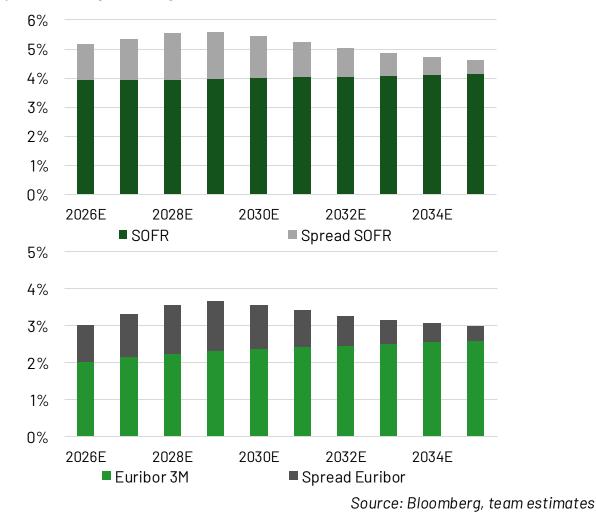
#### **ENERGY TRANSITION**

	2026E	2027E	2028E	2029E	2030E	2035E
Risk-free rate	2.2%	2.1%	2.0%	2.1%	2.2%	2.4%
Cost of Debt (Rd, Kd)	3.7%	4.0%	4.2%	4.3%	4.2%	3.5%
D/(D+E)Market Value	11.2%	11.4%	11.7%	12.1%	12.4%	13.0%
Cost of Equity (Re, Ke)	11.3%	11.1%	11.0%	11.1%	11.2%	11.4%
Beta	1.69	1.69	1.69	1.69	1.69	1.69
Equity Risk Premium (ERP)	5.3%	5.3%	5.4%	5.4%	5.4%	5.4%
WACC	10.3%	10.2%	10.1%	10.2%	10.2%	10.3%

## **COST OF DEBT**

#### Our future projections based on financing conditions

The **Cost of Debt** is calculated as a weighted average of the 3-month Euribor and 3-month SOFR (with weights 2/3 and 1/3 respectively) with a spread applied to both rates. This spread varies in line with the Group's evolving leverage levels.

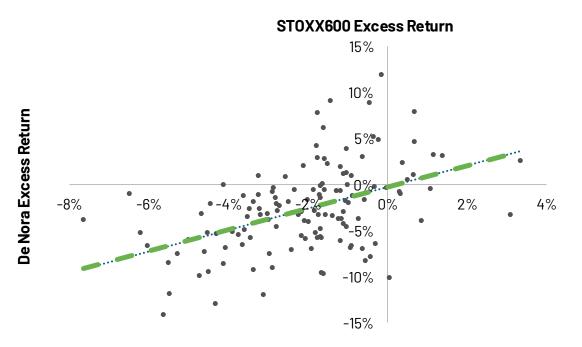


#### **FOUR COMPONENTS:**

- SOFR 3-month rate
- Euribor 3-month rate
- Spread on SOFR
  The spread moves in a range between
  Minimum of 50bps
  Maximum of 160bps
- Spread on Euribor
  The spread moves in a range between
  Minimum of 41bps
  Maximum of 134bps

# TWO DYNAMIC WACCs, TWO DIFFERENT BETAS

#### **ELECTRODE TECHNOLOGIES - WATER TECHNOLOGIES**



**3Y weekly** Linear Regression (since IPO Date) of De
Nora **excess returns** on **STOXX600 Europe** excess returns

Our Regression gives an estimated Beta equal to **1.16** 

#### **ENERGY TRANSITION**

	D/E	Tax rate	Unlevered Beta	Levered Beta
Ballard	1.8%	26.5%	1.54	1.56
Nel ASA	4.2%	22.0%	1.37	1.42
McPhy	5.6%	25.0%	1.08	1.13
Plug Power	33.4%	25.0%	1.55	1.94
ITM Power	4.7%	25.0%	1.53	1.58
thyssenkrupp nucera	1.3%	30.0%	1.43	1.45
De Nora (ETR)	11.82%	26.00%	1.55	1.69

To estimate the equity Beta for De Nora's Energy Transition segment, we analyze selected **green hydrogen comparables**, unlevering the Betas we obtain from their stock returns.

We select the highest unlevered Beta and re-lever it to match De Nora's capital structure, resulting in an

estimated Beta equal to **1.69** 

Source: FactSet, team estimates

# TWO DYNAMIC WACCs, TWO DIFFERENT COST OF EQUITY

Electrode Technologies and Water Technologies

### **CAPM**

$$K_e = r_f + \beta * ERP$$

In our model, we constructed a **risk-free** rate using the **German Bund** term structure.

We obtain the Beta from a **3Y weekly**Linear Regression (since IPO Date) of De
Nora **excess returns** on **STOXX600 Europe** excess returns

An **Equity Risk Premium** that changes over time according to De Nora's traditional segments geographical Revenues breakdown.

COST OF EQUITY		2026E	2027E	2028E	2029E	2030E	2035E
ERP	Damodaran (2024E)	6.19%	6.21%	6.27%	6.26%	6.23%	6.28%
Europe	5.3%	26.2%	26.2%	25.7%	25.8%	25.7%	26.7%
North America	4.1%	36.1%	35.8%	34.7%	34.9%	35.6%	33.8%
Asia	8.8%	37.7%	38.1%	39.6%	39.3%	38.7%	39.5%
Beta (vs. STOXX Europe 600)		1.16	1.16	1.16	1.16	1.16	1.16
COST OF EQUITY (Ke, Re)		9.42%	9.28%	9.26%	9.34%	9.39%	9.65%

Source: team estimates

# TWO DYNAMIC WACCS, TWO DIFFERENT COST OF EQUITY

**Energy Transition** 

### **CAPM**

$$K_e = r_f + \beta * ERP$$

In our model, we constructed a **risk-free** rate using the **German Bund** term structure.

We obtain a Beta for De Nora's Energy
Transition segment by analyzing **green hydrogen comparables** and selecting
the highest unlevered Beta. This Beta is
then relevered to align with De Nora's
capital structure.

An **Equity Risk Premium** that changes over time according to De Nora's Energy Transition geographical revenue breakdown.

COST OF EQUITY		2026E	2027E	2028E	2029E	2030E	2035E
ERP	Damodaran (2024E)	5.34%	5.34%	5.35%	5.35%	5.35%	5.37%
Europe	5.3%	94.1%	94.0%	93.9%	93.8%	93.7%	93.2%
North America	4.1%	2.5%	2.5%	2.5%	2.5%	2.5%	2.6%
Asia	8.8%	3.4%	3.5%	3.6%	3.7%	3.8%	3.4%
Beta		1.69	1.69	1.69	1.69	1.69	1.69
COST OF EQUITY (Ke, Re)		11.25%	11.10%	11.01%	11.10%	11.19%	11.43%

Source: team estimates

## SENSITIVITY: WACC & TERMINAL GROWTH

A WACC

**AWACC** 

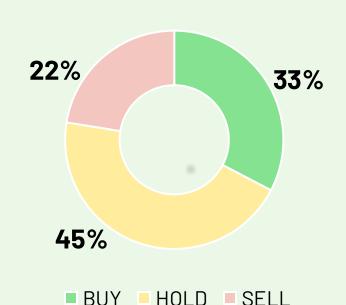
## To investigate changes in the discount factors

					A WACC			
ш	PRICE	-1.5%	-1.0%	-0.5%	0%	0.5%	1.0%	1.5%
RATE	1.5%	10.8	9.7	8.8	8.0	7.4	6.8	6.5
GROWTH	1.0%	10.0	9.1	8.3	7.6	7.0	6.5	6.3
3R0\	0.5%	9.4	8.6	7.9	7.3	6.8	6.3	5.9
	0%	8.9	8.2	7.5	7.0	6.5	6.1	5.7
TERMINAL	-0.5%	8.5	7.8	7.2	6.7	6.3	5.9	5.6
	-1.0%	8.1	7.5	7.0	6.5	6.1	5.7	5.4
◁	-1.5%	7.8	7.2	6.7	6.3	5.9	5.6	5.3

RETURN	-1.5%	-1.0%	-0.5%	0%	0.5%	1.0%	1.5%
1.5%	55%	39%	26%	15%	6%	-2%	-6%
1.0%	44%	31%	19%	10%	1%	-6%	-9%
0.5%	36%	24%	14%	5%	-3%	-9%	-15%
0%	28%	18%	9%	1%	-6%	-12%	-18%
-0.5%	22%	12%	4%	-3%	-9%	-15%	-20%
-1.0%	16%	8%	0%	-6%	-12%	-17%	-22%
-1.5%	12%	4%	-3%	-9%	-15%	-19%	-24%

Source: team estimates

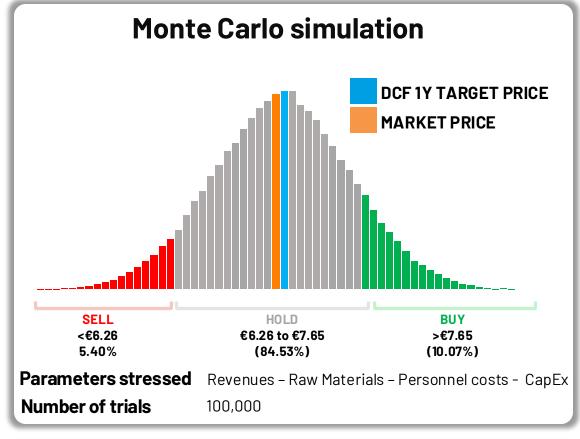
We perform a sensitivity analysis to highlight the impact that **perpetual WACC** and **longrun growth rate** have on the Target Price.



The results highlight a maximum drawdown of 24% in case of large adverse variations in the parameters and significant growth opportunities in case of positive variations.

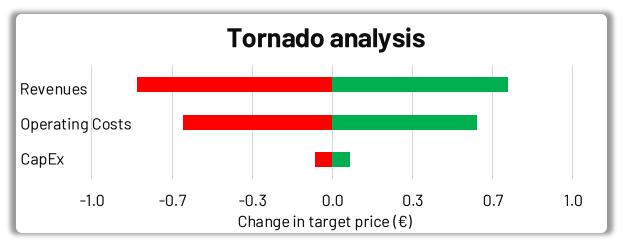
# **ROBUSTNESS CHECKS**

## To reinforce the validity of our model



What-if scena	ario analysis	
Operational Hurdles	Hydrogen Surge	

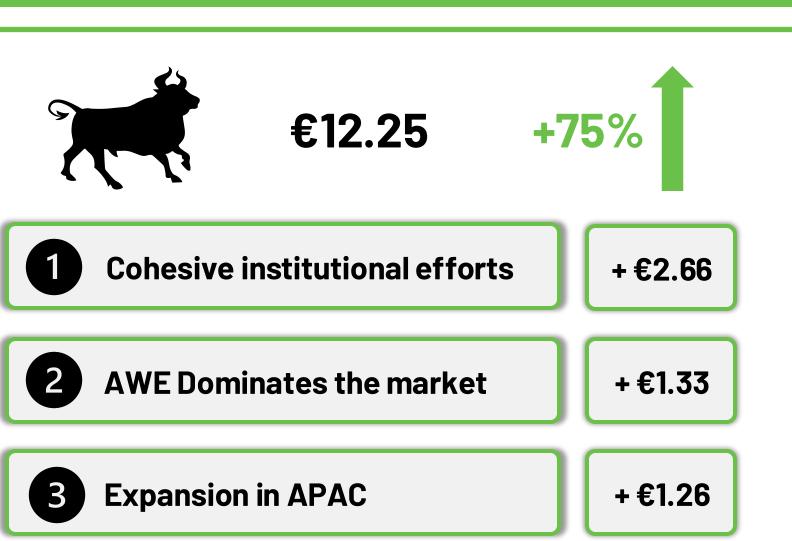
	Sensitivity analysis										
ш	PRICE	-1.5%	-1.0%	-0.5%	0%	0.5%	1.0%	1.5%			
RAT	1.5%	10.8	9.7	8.8	8.0	7.4	6.8	6.5			
A TERMINAL GROWTH RATE	1.0%	10.0	9.1	8.3	7.6	7.0	6.5	6.3			
3R0\	0.5%	9.4	8.6	7.9	7.3	6.8	6.3	5.9			
AL (	0%	8.9	8.2	7.5	7.0	6.5	6.1	5.7			
MΜ	-0.5%	8.5	7.8	7.2	6.7	6.3	5.9	5.6			
TEF	-1.0%	8.1	7.5	7.0	6.5	6.1	5.7	5.4			
۷	-1.5%	7.8	7.2	6.7	6.3	5.9	5.6	5.3			



Source: team estimates

# WHAT IF SCENARIO: BULL CASE

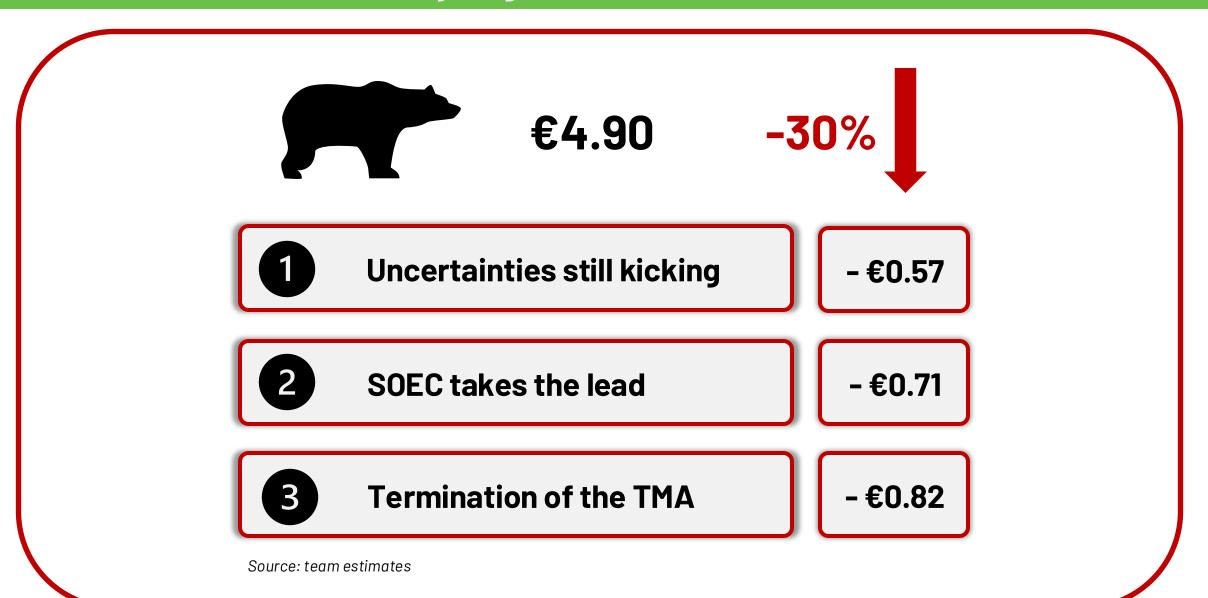
## De Nora's Triumph in Green Hydrogen



Source: team estimates

# WHAT IF SCENARIO: BEAR CASE

De Nora's Downfall Amid Green Hydrogen Turbulence



## DE NORA'S MULTIPLES OVERVIEW

## Past and future dynamics



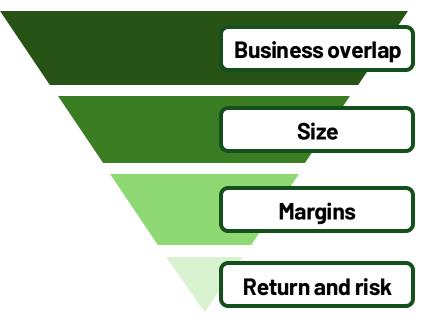
Source: FactSet

# PROPRIETARY SCORING MODEL

### A multi-dimensional process



### **Peers' Selection Process**





## **Scoring Mechanism**

- We start by identifying appropriate comparables across the three business segments: **Electrode Technologies**, **Water Technologies**, and **Energy Transition**.
- Our Proprietary Scoring Model assigns a different score to each peer, resulting from a weighted average based on 3 dimensions:
  - 40% Business consistency
  - 30% Size (Market Capitalization and Revenues)
  - 30% Financial Metrics (margins, returns, risk and leverage)
- 3 Each score reflects the **proximity to De Nora's values**: higher the score, higher the proximity. As a result, we identify **7 comparables** to De Nora

Source: team estimates

# PEERS' SELECTION

GENERAL		SIZ	ZE & GROW	/TH	MAR	GINS		RETURNS		RIS	K & LEVER	AGE	CAS	H GENERA	ΓΙΟΝ	COMPA	ARABLE
Company Name	Country	Market Cap (€)	Revenue (€)	Revenue CAGR FY20-23	EBITDAm	EBITm	ROA	ROE	ROC	D/E	Net Debt to Total Capital	Beta	Price to Cash Flow	WC Turnover	Capex / Sales	SCORE	OUTCOME
De Nora	ITA	1.40B	0.86B	20%	20%	16%	10%	23%	13%	12%	<b>-7</b> %	1.2	53.4	1.9	10%		
ELECTRODE TECHNOLOGIES																	
Asahi Kasei	JP	8.81B	17.79B	3%	12%	5%	1%	3%	5%	53%	22%	0.7	5.2	3.8	6%	0.65	YES
thyssenkrupp nucera	DE	1.13B	0.66B	38%	4%	3%	3%	5%	4%	1%	-101%	1.5	-152.4	1.0	1%	0.70	YES
Metso Corporation	Fl	7.74B	5.39B	18%	18%	15%	8%	22%	21%	59%	21%	1.5	25.1	3.8	3%	0.43	NO
							WATE	R TECHNOL	<u>.OGIES</u>								
Xylem Inc.	US	28.39B	6.81B	15%	18%	15%	5%	9%	8%	26%	13%	1.0	29.8	4.4	4%	0.66	YES
Ecolab Inc.	US	66.14B	14.17B	9%	20%	14%	6%	18%	13%	109%	47%	0.5	23.6	11.8	5%	0.45	NO
Veolia SA	FR	20.46B	45.35B	20%	14%	6%	1%	11%	7%	368%	57%	0.8	4.6	-20.8	7%	0.59	YES
							ENER	RGYTRANS	ITION		,						
NEL ASA	NO	0.33B	0.12B	45%	-12%	-32%	-11%	-15%	-9%	4%	-48%	1.4	-16.6	0.4	44%	0.56	YES
ITM	UK	0.26B	0.02B	57%	-192%	-228%	-7%	-10%	-13%	5%	-78%	1.6	-8.2	0.1	85%	0.37	NO
Plug Power Inc.	US	2.2B	0.82B	43%	-109%	-117%	-26%	-39%	-24%	33%	16%	1.9	-2.4	1.1	78%	0.57	YES
Ballard Power System	CA	0.46B	0.09B	1%	-146%	-158%	-13%	-14%	-15%	2%	-73%	1.6	-10.4	0.1	40%	0.43	NO
McPhy Energy Sa	FR	0.03B	0.02B	11%	-259%	-274%	-25%	-43%	-44%	6%	-62%	1.1	-1.3	0.6	131%	0.50	YES

Source: FactSet

# FROM THE SCORE TO THE FINAL BASKET

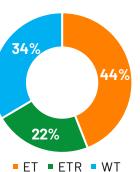
## Accounting for De Nora's Revenues breakdown

### STEPS:

- We start from the score assigned to each peer (see the Proprietary Scoring Model)
- All comparables' scores belonging to the same segment are transformed into a relative weight

To obtain the final weights, each relative weight is rescaled according to De Nora's expected **Revenues breakdown.** 

Company Name	SCORE (1)	RELATIVE WEIGHT (2)	FINAL WEIGHT (3)
Electrode Technologies			
Asahi Kasei	0.65	43.95%	19.37%
thyssenkrupp nucera	0.70	56.05%	24.70%
SUM		100%	44.07%
Water Technologies			
Xylem Inc.	0.66	56.73%	19.01%
Veolia SA	0.59	43.27%	14.50%
SUM		100%	33.51%
<b>Energy Transition</b>			
NEL ASA	0.56	35.73%	8.01%
Plug Power Inc.	0.57	37.87%	8.49%
McPhy Energy Sa	0.50	24.40%	5.92%
SUM		100%	22.42%



Source: team estimates

## **RELATIVE VALUATION**

3 divisions in our model...

1Y Forward 1Y Forward PEER GROUP **EV/SALES** P/SALES Asahi **KASEI Electrode Technologies** 0.7x1.0x thyssenkrupp nucera **VEOLIA** Water **Technologies** xylem 2.5x 2.1x nel. **Energy** McPhy **Transition** 1.6x 2.1x

Source: FactSet, team estimates

Peers' Average Peers' Average P/SALES **EV/SALES** 1.6x 1.5x Target Price Target Price €7.09 €7.24 (+2.04% Upside) (+4.17% Upside) **DE NORA** Asahi **KASEI** xylem McPhy nel. **VEOLIA** 3 3.5 0 0.5 1.5 2.5 1Y Forward EV/SALES **DE NORA** Asahi **KASEI** xylem thyssenkrupp nucera nel. **VEOLIA** McPhy 1.5 2.5 3 3.5 0 0.5 1Y Forward P/SALES

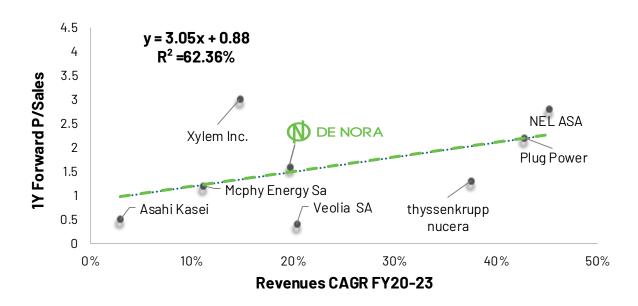
## PREDICTIVE REGRESSIONS

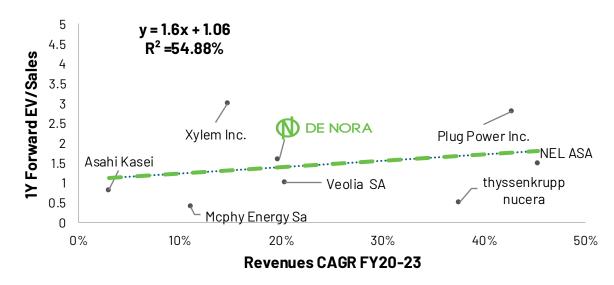
As a further sanity check...

To assess the predictive goodness of our model, we regress the 1Y Forward **P/SALES** and **EV/SALES** on the peers' FY20-23 Revenues CAGR.

We find a **strong relationship** between the variables, with an R<sup>2</sup> coefficient of **62.36% and 54.88%**, respectively.

Plugging De Nora's FY20-23 Revenues CAGR, **both regressions reinforce our HOLD recommendation** (6.73€ and 6.54€)





Source: FactSet, team estimates

## HISTORICAL MULTIPLE VALUATION

### ...Insights into De Nora's Record Lows





To have a deepen understanding of De Nora's multiple dynamics, we analyse the historical time series of two 1Y forward multiples: **EV/EBITDA** and **P/E** 

Both multiples have reached **lows** due to structural changes, therefore caution is needed when using **historical multiples influenced by enthusiasm for green hydrogen** 

Therefore, to determine the fair value more accurately, it is advisable to rely on more recent multiples, which better capture the current market context

## **BUYBACK PROGRAM**

### **Motivations behind it**

DATE	SHARES BOUGHT	% SHARE CAPITAL	PERIOD RETURN	Avg. % DNR TRADE VOLUMES
09/11/23 - 08/12/23	737,719	0.366%	-0.29%	25.75%
09/12/23 - 08/01/24	647,221	0.321%	9.78%	23.36%
09/01/24 - 08/02/24	685,017	0.340%	-8.78%	20.53%
09/02/24 - 08/03/24	343,791	0.170%	2.57%	12.75%
09/03/24 - 12/04/24	586,252	0.291%	-6.26%	16.29%
TOTAL	3,000,000	1.487%	-4.39%	19.64%

On 8 November 2023, De Nora announced the start of its share buyback program. By the end of the program on 12 April 2024, the company had purchased ~1.5% of its share capital, at a total cost of €43,410,213

### The company justifies the buyback as follows:

- **Compensation**: Implementing remuneration policies through financial instruments
- **Strategic Projects**: Supporting extraordinary finance operations such as mergers and acquisitions

In addition to stated goals, we believe it aimed to **support the stock price** following disappointing Q3\_23 financial results, which led to a **6.15% drop in share price on the same day** and further declined in the next days

Source: Company data, team estimates

### <u>Index</u>

# WEIGHTED AVERAGE COST OF CAPITAL (WACC)

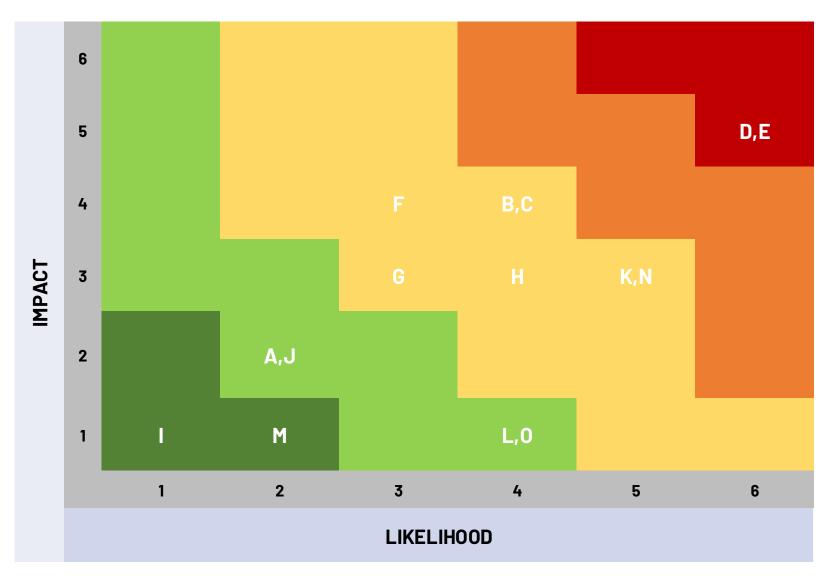
## **Summary Statistics**

	Avg	Min	Max	<b>2026E</b>	2035E
Risk-free rate	2.18%	2.00%	2.38%	2.25%	2.38%
Cost of Debt	3.92%	3.54%	4.30%	3.73%	3.54%
Cost of Equity (ET and WT)	9.39%	9.26%	9.65%	9.42%	9.65%
WACC (ET and WT)	8.59%	8.47%	8.73%	8.67%	8.73%
Cost of Equity (ETR)	11.20%	11.01%	11.43%	11.25%	11.43%
WACC (ETR)	10.18%	10.09%	10.29%	10.29%	10.28%

Source: FactSet

# RISK FACTORS IN OUR VALUATION

### A likelihood-impact matrix



### **MARKET**



- A. <u>Interest rate risk</u>
- B. <u>Inflation risk on margins</u>
- C. Macroeconomic conditions risk
- D. Supply-chain market breakdown risk
- E. <u>Green hydrogen underdevelopment risk</u>

#### **OPERATIONAL**



- F. <u>Employee turnover risk</u>
- G. Loss of key figure risk
- H. <u>Customer bargaining power risk</u>
- I. Competition risk
- J. <u>Technological risk</u>



### **LEGAL**

- K. Regulatory and legal risk
- L. Reputational risk



### **FINANCIAL**

- M. <u>Liquidity risk</u>
- N. <u>Exchange rate risk</u>
- 0. Credit risk

## **WORST-CASE SCENARIO**

### The impact on our target price

- Our analysis encompasses a wide set of variables, from market dynamics to regulatory shifts, ensuring the understanding of the risks inherent in our investment thesis
- We delve into the risk factors surrounding De Nora, assessing their likelihood and impact on the Company's core financial metrics and ultimate target price

The Worst-Case scenario
(WCS) analysis allows to obtain
the impact that each key driver
has on the target price



Source: Team estimates

# **MARKET RISKS 1**

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION	IMPACT
INTEREST RATE RISK (LOW)	De Nora's debt is exposed to interest rate risk, tied to 3M Euribor (EUR) and SOFR (USD), with variable margins adjusting semi-annually based on leverage ratio, impacting financing costs as rates fluctuate.	using <b>its net cash as a buffer</b> against rising costs while preserving flexibility for	WCS: +150bps Euribor WCS: -0.12€ (-1.52%)
INFLATION RISK ON MARGINS (MEDIUM)	The Group faces risk from <b>personnel expenses and raw materials</b> , including titanium, platinum group metals, nickel and special steels. Volatility from export restrictions, conflicts and inflation may raise procurement costs, squeezing margins and affecting financial stability.	and Global Procurement, optimizing resources to reduce costs and ensure	WCS: -225bps EBITm  WCS: -0.28€ (-3.72%)

# MARKET RISKS 2

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION	IMPACT
MACROECONOMIC RISK (MEDIUM)	The Group's performance is closely <b>tied to global economic dynamics</b> and the inherent cyclicality of its key markets, such as Europe, the United States, Latin America, China and Japan. <b>Fluctuations in the business cycle</b> , could directly <b>affect demand</b> for De Nora's products.	There is no direct hedge against this risk, especially in the Energy Transition division. However, management mitigates it by (i) diversifying its customer base geographically and (ii) shifting key customer relationships from transactional to strategic.	WCS: -0.27€ (-3.71%)
SUPPLY CHAIN MARKET BREAKDOWN RISK (HIGH)	Interruptions in the supply of essential components, such as titanium and nickel, could adversely affect De Nora's production. The absence of certified raw materials may require the approval of alternatives.	De Nora mitigates these risks through monitoring, audits, and centralized inventory management. Stability is ensured via supplier diversification, longterm contracts and minimum purchase agreements. It also reduces raw material dependency by negotiating with producers and promoting titanium scrap recovery and metal recycling, ensuring cost efficiency and supply continuity.  Source: Team estimates	WCS: +150bps Raw Material purchase  WCS: -0.46€ (-6.08%)

# **OPERATIONAL RISKS 1**

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION	IMPACT
EMPLOYEE TURNOVER RISK (MEDIUM)	The inability to <b>retain highly qualified personnel</b> can be a significant challenge for the Company. Losing skilled and experienced employees can lead to <b>disruptions in productivity</b> , increased recruitment costs and <b>loss of know-how</b> .	"InCLUDe" for executives to enhance	WCS: +125bps Personnel costs  WCS: -0.30€ (-3.89%)
CUSTOMER BARGAINING POWER RISK (MEDIUM)	De Nora operates in a sector with strong bargaining power from large players. High-volume buyers demand better pricing or terms, squeezing margins. Dependence on key clients increases vulnerability to order reductions or strategic shifts.	The Company mitigates risk by diversifying its customer portfolio, including medium and smaller operators to reduce reliance on major customers. It establishes long-term strategic partnerships to ensure pricing stability and protect margins.  Source: Team estimates	WCS: -1.5% Revenues  WCS: -0.21€ (-2.77%)

# **OPERATIONAL RISKS 2**

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION	IMPACT		
COMPETITION RISK (MEDIUM)	Although the Company operates in niche markets with limited competitors, the risk of intensifying competition and the emergence of alternative technologies that could replace De Nora's solutions pose significant threats.	The Company safeguards competitiveness through know-how protection, patent filings, targeted acquisitions (e.g., Permelec FY15), R&D investments, and joint ventures, enhancing existing solutions rather than developing new technologies.	WCS: -1.50% Market Share WCS: -0.24€ (-3.12%)		
LOSS OF KEY FIGURES RISK (LOW)	De Nora's governance is family-driven, with 53.33% shares and 69.95% voting rights, ensuring strategy but centralizing decisions. Key departures risk weakening confidence, affecting long-term relationships.	The family's commitment makes withdrawal unlikely, while a non-executive Board with experts like Giorgio Metta ensures continuity. However, a formal succession plan is lacking, though reviews are ongoing with committee support.	WCS: +75bps WACC  WCS: -0.06€ (-0.83%)		
TECHNOLOGICAL RISK (LOW)	Innovation is crucial in electrolysis-related sectors. Emerging technologies, like advanced electrode materials or alternative electrolytic processes, threaten De Nora's position. Without continuous innovation, the Group risks losing its competitive edge, with financial consequences.	To maintain a competitive edge, De Nora adopts an <b>innovation-focused approach</b> . Through partnerships (e.g., Asahi Kasei, Hydrolite), the Company develops new solutions, improves products, anticipates client needs, and aligns innovations to market demands.  Source: Team estimates	WCS: -75bps Terminal Growth  WCS: -0.13€ (-1.64%)		

# LEGAL RISKS

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION	IMPACT
REGULATORY AND LEGAL RISK (HIGH)	Operating in 90+ countries, De Nora faces stringent regulations on safety, quality, exports, and environment, including green hydrogen. Regulatory changes may require adjustments, impacting compliance costs and operations, with delays hindering strategy.	enforces compliance policies, ongoing training, specific export procedures and	WCS: -1% Revenues  WCS: -0.14€ (-1.85%)
REPUTATIONAL RISK (MEDIUM)	De Nora's reputation may suffer if <b>product quality declines</b> , leading customers to seek alternatives. <b>Reputational damage could also arise from failing to implement its Sustainability Plan.</b> Missing 2026 and 2030 targets may generate negative perceptions among clients, investors, and stakeholders, impacting the Company's image and strategy.	quality risk through consistent high standards and customer trust. Its	WCS: +50bps WACC  WCS: -0.04€ (-0.56%)

# FINANCIAL RISKS

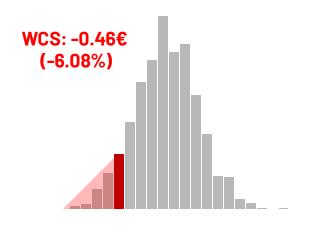
RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION	IMPACT
LIQUIDITY RISK (LOW)	If financial resources are insufficient to ensure current operations and meet obligations, De Nora may face <b>difficulties in securing necessary funds</b> , potentially incurring high costs or reputational impacts.	De Nora adopts a <b>conservative financial strategy</b> with centralized treasury, strong banking relationships, and coordinated financing, ensuring liquidity, stability, and flexibility for green hydrogen and electrode investments amid market volatility.	WCS: +125bps Cost of Debt  WCS: -0.05€ (-0.62%)
EXCHANGE RISK (HIGH)	De Nora <b>operates internationally</b> , facing exchange rate fluctuations impacting sales margins, trade payables, and receivables, with FY24 Euro appreciation causing a €13.5M Revenues loss.	The Company lacks a comprehensive derivative strategy but uses hedging for intra-group USD transactions. Centralized treasury and regional production mitigate currency risk, though expanded derivatives could enhance protection.	WCS: -1.5% FX Profits  WCS: -0.22€ (-2.82%)
CREDIT RISK (MEDIUM)	De Nora may incur financial losses if a client or financial counterparty fails to fulfil payment obligations. While the risk is contained, <b>exposure to trade receivables remains significant</b> , with 45% of receivables overdue by more than 60 days in FY23.	The Company monitors client and counterparty solvency, setting impairment provisions for trade receivable losses, focusing on overdue receivables with thorough recoverability assessments to ensure prudent credit risk management.  Source: Team estimates	WCS: -10% Trade Receivables  WCS: -0.05€ (-0.61%)

# SUPPLY CHAIN MARKET BREAKDOWN RISK

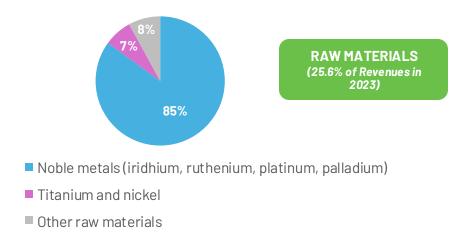
## A WCS analysis on target price

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION
SUPPLY CHAIN MARKET BREAKDOWN RISK (HIGH)	Interruptions in the supply of essential components, such as titanium and nickel, could adversely affect De Nora's production. The absence of certified raw materials may require the approval of alternatives.	De Nora mitigates these risks through monitoring, audits, and centralized inventory management. Stability is ensured via supplier diversification, long-term contracts and minimum purchase agreements. It also reduces raw material dependency by negotiating with producers and promoting titanium scrap recovery and metal recycling, ensuring cost efficiency and supply continuity.





### Dependence from Raw Materials



Source: Team estimates

# GREEN HYDROGEN MARKET UNDERDEVELOPMENT RISK

## A WCS analysis on target price

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION
GREEN HYDROGEN UNDERDEVELOPMENT RISK (HIGH)	The green hydrogen market is in its <b>early stages</b> , depending on <b>renewable expansion</b> , infrastructure and policy support. Currently, only a small portion of hydrogen comes from electrolysis, with no guarantee of economic competitiveness. Competition from <b>blue hydrogen and innovative electrolytic solutions poses risks to revenues and financial stability.</b>	<b>framework</b> , market stability is uncertain. De Nora invests in technology and collaborates with public and

### **Green Hydrogen Collaborations**

Asahi Kasei	Partnership for the development of small-scale green hydrogen production systems.
Crete-Aegean Hydrogen Valley	Project to create a hydrogen production hub on the island of Crete.
Duferco	Partnership for green hydrogen projects to decarbonize mobility, energy, and logistics in Italy.
HyTecHeat	Project aimed at low-carbon steel production.
X-SEED	Project to develop a supercritical electrolyzer for more efficient and cost-effective green hydrogen production.

### Unfolding our H2 worst case scenario



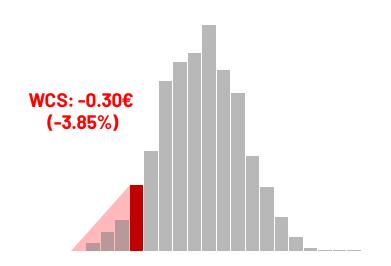
Source: Company data, Team estimates

# **EMPLOYEE TURNOVER RISK**

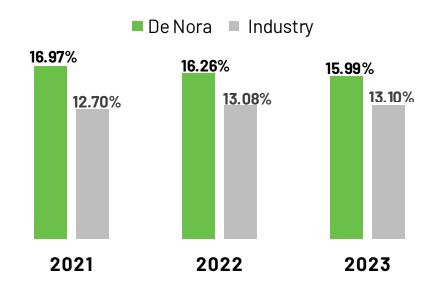
## A WCS analysis on target price

RISK (LIKELIHOOD)	DESCRIPTION	MITIGATION
EMPLOYEE TURNOVER RISK (MEDIUM)	The inability to <b>retain highly qualified personnel</b> can be a significant challenge for the Company. Losing skilled and experienced employees can lead to <b>disruptions in productivity</b> , increased recruitment costs and <b>loss of know-how</b> .	based compensation, training, and growth paths. It launched "InCLUDe" for executives to enhance emotional

### WCS: +125bps Personnel costs



### Employee turnover rate



Source: Team estimates

# **ENABLING MARKET LIQUIDITY**

## The role of a liquidity provider

De Nora's stock faces potential liquidity risks primarily because only about **25%** of the **ordinary shares are actively traded on the market**, while the majority remains with controlling shareholders through non-listed multiple-voting shares.

The **share buyback program**, initiated on November 8, 2023, with the goal of enhancing shareholder value, further reduces the number of shares available on the market, increasing liquidity risk.

At the end of the buyback on April 12, 2024, the Company had purchased **3** million of its own shares, equivalent to 1.48% of the Company's share capital.

DATE	SHARES BOUGHT	% SHARE CAPITAL	PERIOD RETURN
9/11/23 - 31/12/23	1,158,505	0.57%	11.99%
1/1/24 - 29/2/24	1,154,125	0.57%	0.00%
1/3/24 - 12/4/24	687,370	0.33%	-3.08%
TOTAL	3,000,000	1.48%	-4.39%

Source: Company data

# REAL INTEREST RATE RISK

### The historical impact on company price

A change in Real Interest Rates can strongly affect De Nora's valuation through a reduction of the present value of future expected cashflows and a higher WACC.

The regression on the right shows the historical effect on De Nora'a price of the change in Real Interest Rates.



Source: Team estimates

# **Our ESG proprietary framework**

### A bottom-up approach for a BB rating

To verify De Nora's declared commitment to ESG principles, we perform a comprehensive evaluation based on **71 key metrics** across three dimensions. Our methodology follows a **bottom-up approach**:

- 1. Each metric receives a grade that represents **De Nora's standing relative to industry peers**.
- 2. These individual grades are then combined using a **weighted average**, first at the bucket level and subsequently at the pillar level, ultimately determining **De Nora's final grade**.
- 3. The conversion from numerical scores to letters grade is derived from Refinitiv.

E 24 metrics 3 key factors

S 27 metrics 4 key factors

G 20 metrics 3 key factors

### **ENVIRONMENTAL**

Resource Use Emissions Innovation



SOCIAL

Workface
Human Rights
Community
Product Responsibility

Score

6.14

#### **GOVERNANCE**

Board and Committees
Shareholders
CSR Strategy

BB

ESG Grade	D	С	CC	CCC	В	ВВ	BBB	Α	AA	AAA
Attribution	[0-2.50]	[2.51 – 3.33]	[3.34 – 4.16]	[4.17 – 5.00]	[5.01 – 5.83]	[5.84 – 6.66]	[6.67 – 7.50]	[7.51 – 8.33]	[8.34 – 9.16]	[9.17 – 10]

# **ENVIRONMENTAL KEY METRICS – SCORE: 6.60**

BUCKET	METRIC	De Nora	Previous	COMPETITORS	Previous	SCORE		
(weight)	FIETRIC	De Noi a	Previous	Average [Min - Max]	rievious	METRIC	BUCKET	
	Resource Reduction Policy	Т	Unchanged	100% T	Unchanged	6/10		
	Policy Water Efficiency	Т	Unchanged	17% F - 83% T	Unchanged	6.5/10		
	Policy Energy Efficiency	F	Unchanged	33% F - 67% T	Unchanged	4.5/10		
	Policy Sustainable Packaging	Т	Unchanged	67% F - 33% T	Unchanged	7/10		
RESOURCE USE	Policy Environmental Supply Chain	Т	Unchanged	100% T	Unchanged	6/10		
(7.60%)	Environment Management Team	F	Unchanged	17% F - 83% T	Unchanged	4/10	6.21/10	
	Environment Management Training	Т	Unchanged	17% F - 83% T	Unchanged	6.5/10	0.21/10	
	Total Energy Use/Million in Revenue	468	462	\$1,121.72 [10.76 - 2,435.18]	\$1,147.05 [12.94 - 2,570.30]	8/10		
	Renewable Energy Use	Т	Unchanged	100% T	Unchanged	6/10		
	Green Buildings	F	Unchanged	100% F	33% F - 67% T	6/10		
	Total Water Use / Million in Revenue	225.36	58.60	4,239.84[40.34 - 11,932.39]	\$4,687.88[39.31 - 13,197.48]	8/10		
	Environmental Supply Chain Management	Т	Unchanged	100% T	Unchanged	6/10		
	Policy Emissions	F	Unchanged	17% F -83% T	Unchanged	4/10		
	Target Emissions	Т	Unchanged	100% T	Unchanged	6/10		
	Total CO2 Emissions / Million in Revenue \$	\$40.50	\$39.33	\$126.59 [9.86 - 407.60]	\$147.66[15.41-470.63]	8/10		
	Total Waste / Million in Revenue \$	\$7.61	\$6.37	\$47.30 [5.29 - 149.03]	\$40.86 [4.50 - 158.93]	8/10		
EMISSIONS	Total Hazardous Waste / Million in Revenue \$	\$4.46	\$3.12	\$7.81[0.02 - 27.89]	\$7.31[0.02 - 26.71]	7/10	6.10/10	
(8.50%)	Waste Reduction Initiatives	Т	Unchanged	17% F – 83% T	Unchanged	6.5/10	0.10/10	
	Waste Recycling Ratio	41.82%	38.56%	62.15% [22.39 – 99.14]	78.03% [ 37.54 – 99.69 ]	4/10		
	e-Waste Reduction	F	Unchanged	17% F- 83% T	Unchanged	5/10		
	ISO 14000 or EMS	ISO 14000	Unchanged	83% ISO14000 - 17% Both	Unchanged	6/10		
	Environmental Partnerships	Т	Unchanged	33% F - 67% T	Unchanged	6.5/10		
INNOVATION	Environmental Products	Т	Unchanged	100% T	Unchanged	6/10	7.00/10	
(18.00%)	AnimalTesting	F	Unchanged	67% F- 33% T	Unchanged	8/10		

# SOCIAL KEY METRICS – SCORE: 6.09

BUCKET	METRIC	De Nora	Previous	COMPETITORS	Previous	SCORE	
(weight)	FILTRIC	De Noia	FIEVIOUS	Average [Min - Max]	FIEVIOUS	METRIC	BUCKET
WORKFORCE	Health & Safety Policy Policy Employee Health & Safety	T	Unchanged	100% T	Unchanged	6/10	
	Policy Supply Chain Health & Safety	'-	Unchanged	100% T	Unchanged	6/10	
	Health & Safety Training	'-	Unchanged	100% T	Unchanged	6/10	5.85/10
	Salary Gap	18	Unchanged	100% T	Unchanged	6/10	
(7.60%)	Net Employment Creation(%)		20	24 [5 - 36]	52.5 [4 - 131]	7/10	
(7.0070)	Turnover of Employees (%)	4.20%	12%	9.25% [-3.49 - 29.21]	28.32% [2.89 - 104.76]	4.5/10	
	Women Employees (%)	15.99%	16.26%	13.10% [2.04 - 57.00]	13.08% [0.72 - 20.00]	5.5/10	
	Total Injury Rate	20%	19.40%	25.67% [22.40 - 29.10%]	35.89% [23.00 - 52.73]	5.5/10	
	Average Training Hours	2.81	3.30	31.11[2.70 - 105.85]	19.70 [ 3.20 - 66.04 ]	8/10	
	Human Rights Policy	9	15	24.60 [16.71 - 29.00]	24.88[14.00 - 38.40]	4/10	
	Policy Freedom of Association	I	Unchanged	100% T	Unchanged	6/10	6.17/10
HUMAN RIGHTS	Policy Child Labor	I	Unchanged	17% F - 83% T	Unchanged	6.5/10	
(11.40%)	Policy Human Rights	I	Unchanged	100% T	Unchanged	6/10	
(11.40%)	Fundamental Human Rights ILO UN	I	Unchanged	100% T	Unchanged	6/10	
	Human Rights Contractor	I	Unchanged	17% F - 83% T	Unchanged	6.5/10	
	Policy Fair Competition	I	Unchanged	100% T	Unchanged	6/10	
		I	Unchanged	17% F - 83% T	Unchanged	6.5/10	
COMMUNITY	Policy Bribery and Corruption Policy Business Ethics	I	Unchanged	100% T	Unchanged	6/10	0.4/10
(9.50%)	Improvement Tools Business Ethics		Unchanged	100% T	Unchanged	6/10	
	Whistleblower Protection		Unchanged	100% T	Unchanged	6/10	
			Unchanged	100% T	Unchanged	6/10	
PRODUCT RESPONSIBILITY	Policy Customer Health & Safety	<u> </u>	Unchanged	17% F - 83% T	Unchanged	6.5/10	
	Policy Data Privacy	T _	Unchanged	100% T	Unchanged	6/10	
	Policy Cyber Security	<u> </u>	Unchanged	100% T	Unchanged	6/10	6.17/10
(8.90%)	ISO 9000	T _	Unchanged	17% F - 83% T.	33% F- 67% T	6.5/10	
	Armaments	F -	Unchanged	100% T	Unchanged	6/10	
	Oil and Gas Producer	F	Unchanged	100% T	Unchanged	6/10	

# **GOVERNANCE KEY METRICS – SCORE: 5.65**

BUCKET	METRIC	De Nora	Previous	COMPETITORS	Previous	SCORE	
(weight)				Average [Min - Max]	Trevious	METRIC	BUCKET
BOARD AND COMMITTEES	Audit Board Committee	Т	Unchanged	17% F - 83% T	Unchanged	6.5/10	
	Compensation Board Committee	F	Unchanged	100% T	Unchanged	3.5/10	
	Policy Board Independence	Т	Unchanged	33% F - 67% T	Unchanged	7/10	
	Policy Board Diversity	Т	Unchanged	17% F - 83% T	Unchanged	6.5/10	
	Succession Plan	Т	Unchanged	33% F - 67% T	Unchanged	7/10	
	Board Size	12	13	10.33 [7 - 14]	9.83 [6 - 13]	6/10	
(19.00%)	Board Background and Skills	Т	Unchanged	100% T	Unchanged	6/10	
	Independent Board Members (%)	50.00%	46.67%	68.42% [30.00 - 100.00]	70.89% [ 36.36 – 100.00 ]	4/10	
	Board Gender Diversity (%)	33.30%	30.77%	33.69% [12.50 - 50.00]	34.74% [11.11 - 53.85]	6/10	
	CEO Chairman Duality	F	Unchanged	67% F - 33% T	Unchanged	6.5/10	
	CEO Board Member	Т	Unchanged	100% T	Unchanged	6/10	
	Chairman is ex-CEO	F	Unchanged	67% F - 33% T	Unchanged	6.5/10	
CHAREHOLDERO	Shareholder Rights Policy	Т	Unchanged	100% T	Unchanged	6/10	
SHAREHOLDERS (5.70%)	Equal Shareholder Rights	F	Unchanged	17% F - 83% T	Unchanged	4/10	4.50/10
	Veto Power or Golden Share	Т	Unchanged	100% F	Unchanged	3.5/10	
CSRSTRATEGY	CSR Sustainability Committee	Т	Unchanged	100% T	Unchanged	6/10	
	Global Compact Signatory	F	Unchanged	33% F - 67% T	Unchanged	4/10	
(3.80%)	ESG Reporting Scope(%)	100%	Unchanged	100% [100 - 100]	Unchanged	6/10	5.80/10
	UNPRI Signatory	F	Unchanged	100% F	Unchanged	6/10	
	Number of SDG	10	Unchanged	8 [3 – 15]	7[3-15]	7/10	

# THE COMPANY'S LEADERSHIP

### **Board of Directors 1**

Federico De Nora



**Executive Chairman** 

CEO of De Nora in 2000

Grandson of founder Oronzio

Paolo Dellachà



Chief Executive Officer

Over 25 years of experience

Graduated in Electronic and Management Engineering

#### **Stefano Venier**



Non-Executive Director

CEO of Snam since April 2022

Ex director of Hera

#### Paola Bonardini



Non-Executive Director

Senior Vice President Plants in Snam

Master in Management and Economics of Energy

**Mario Cesari** 



Non-Executive Director

Founder of Ischyra Europe Gmbh

Master in Industrial Engineering

### Michelangelo Mantero



Non-Executive Director

Ex Financial analyst at Merril Lynch

Founder of GenCap Advisory

# THE COMPANY'S LEADERSHIP

### **Board of Directors 2**

#### Maria Giovanna Calloni



<u>Independent Director</u>

Ex Director in Equity Capital Markets of Merril Lynch

Degree in Economics

#### Alessandro Garrone



<u>Independent Director</u>

Ex CEO of ERG SpA

Degree in Economics

#### **Anna Chiara Svelto**



<u>Independent Director</u>

Ex Chief General Counsel of UBI Banca SpA

Degree in Law

#### Elisabetta Oliveri



<u>Independent Director</u>

Ex CEO of Sirti Group and Autostrade per l'Italia

Degree in Electronic Engineering

#### Giorgio Metta



<u>Independent Director</u>

Scientific Director at the Italian Institute of Technology

Phd from University of Genova

### Giovanni Toffoli



<u>Independent Director</u>

Chairman of Federchima Assofertilizzanti since 2018

Degree in Economics

# THE COMPANY'S LEADERSHIP

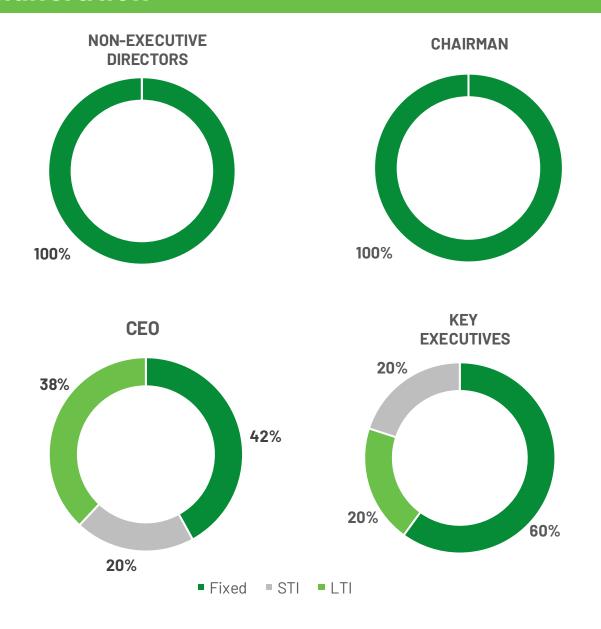
## **Board of Directors details**

	FULL NAME	COMMITTEES					
OFFICES	(year of birth)	APPOINTMENT & REMUNERATION	CONTROL, RISK & ESG	RELATED PARTIES	STRATEGIES		
Executive Chairman (since 2003)	Federico De Nora (1969)				<b>✓</b>		
Chief Executive Officer (since 2009)	Paolo Enrico Dellachà (1969)				<b>✓</b>		
Non-Executive Director (since 2022)	Stefano Venier (1964)				<b>✓</b>		
Non-Executive Director (since 2023)	Paola Bonardini (1974)		<b>✓</b>		<b>✓</b>		
Non-Executive Director (since 2012)	Mario Cesari (1968)	<b>✓</b>			<b>✓</b>		
Non-Executive Director (since 2012)	Michelangelo Mantero (1969)						
Independent Director (since 2022)	Maria Giovanna Calloni (1965)	<b>✓</b>		<b>✓</b>			
Independent Director (since 2022)	Alessandro Garrone (1964)						
Independent Director (since 2023)	Anna Chiara Svelto (1969)		<b>✓</b>	<b>✓</b>			
Independent Director (since 2022)	Elisabetta Olveri (1964)	<b>✓</b>		<b>✓</b>			
Independent Director (since 2023)	Giorgio Metta (1970)						
Independent Director (since 2020)	Giovanni Toffoli (1969)		<b>✓</b>				

Source: Refinitiv, FactSet

# **BOARD OF DIRECTORS**

### Remuneration



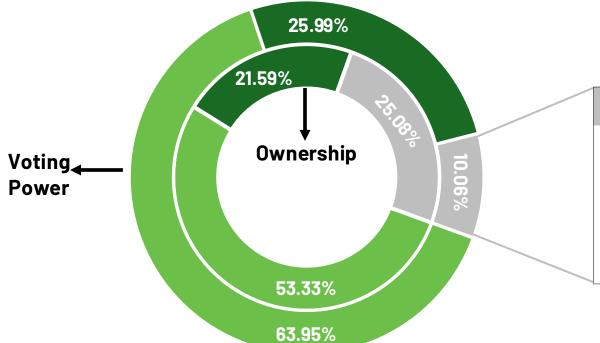
		CE0	Key Executive	
Long term incentives (LTI)	Absolute TRS		20%	
	Relative TRS	20%		
y term ind	Delta Group EBIT	40%		
Long	ESG	20%		
STI)	Group EBIT	50%	15% - 30%	
centives (	Financial Objective	30%	35% - 75%	
Short term incentives (STI)	ESG Objective	20%	10%-20%	
	Individual Targets	×	×	

# SHAREHOLDERS' STRUCTURE

### **Investors share**

Total number of shares	201,685,174
Multiple-vote shares	150,481,195
Ordinary shares	51,203,979

Considering the total number of shares, **74.61%** grant multiple votes while **25.39%** are ordinary shares. The Multiple-vote shares, owned by Federico De Nora, Federico De Nora SpA, Norfin SpA, and Asset Company 10 S.r.l., are not admitted to trading on Euronext Milan and are not counted as part of the free float



Other Investors	% Ownership	%Voting Power
Treasury shares	1.47%	0.59%
Management	1.48%	0.59%
Other institutional and retail investors	22.13%	8.88%

De Nora Family

Asset Company 10 S.r.l.

Others