



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

Ø DE NORA

CFA RESEARCH CHALLENGE 2025

DCFellas



Industrie De Nora SpA

BUY

UPSIDE OF 40.86%

CLOSING PRICE €6.90

TARGET PRICE €9.72

SOTP valuation

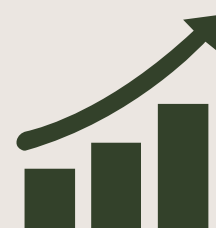
February 5, 2025



BUY

RECOMMENDATION DRIVERS

STRONG PROFITABILITY



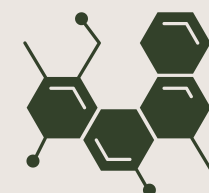
**UNDervalUED
GREEN HYDROGEN EXPOSURE**



**FLEXIBLE AND ADAPTIVE
OPERATIONS**



**RESILIENT
CORE BUSINESS OPERATIONS**

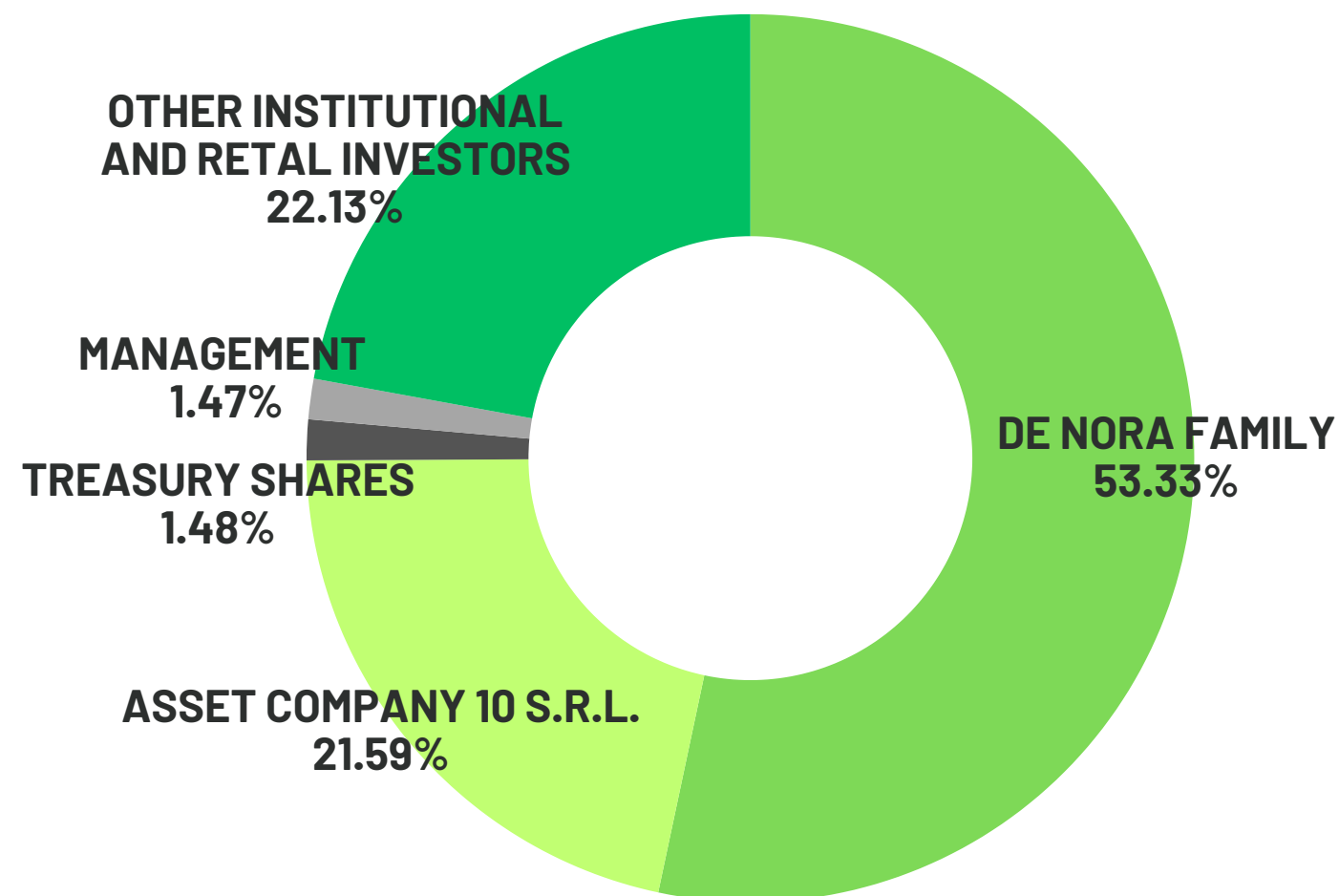


**STRATEGIC PARTNERSHIP
WITH THYSSENKRUPP**



Foundation year: **1923**

Production of well-diversified **electrochemical components** used in a variety of end-markets



Source: Company data

Publicly traded, family controlled company.
Listed on the **Italian Stock Exchange** (June 30, 2022)

24 companies, 10 countries, 5 R&D centers

ONE EXPERTISE...BUT THREE POWER DIMENSIONS

ELECTRODES

ELECTRODE TECHNOLOGIES

CORE BUSINESS

Chlor-alkali
Electronics
Specialties/new applications

54%

WATER TECHNOLOGIES

WATER TREATMENT EQUIPMENT

Disinfection & filtration
Electrochlorination
Swimming pools
Marine technologies

34%

ENERGY TRANSITION

KEY GROWTH DRIVER

Partnership with **tk Nucera** for
green hydrogen
development

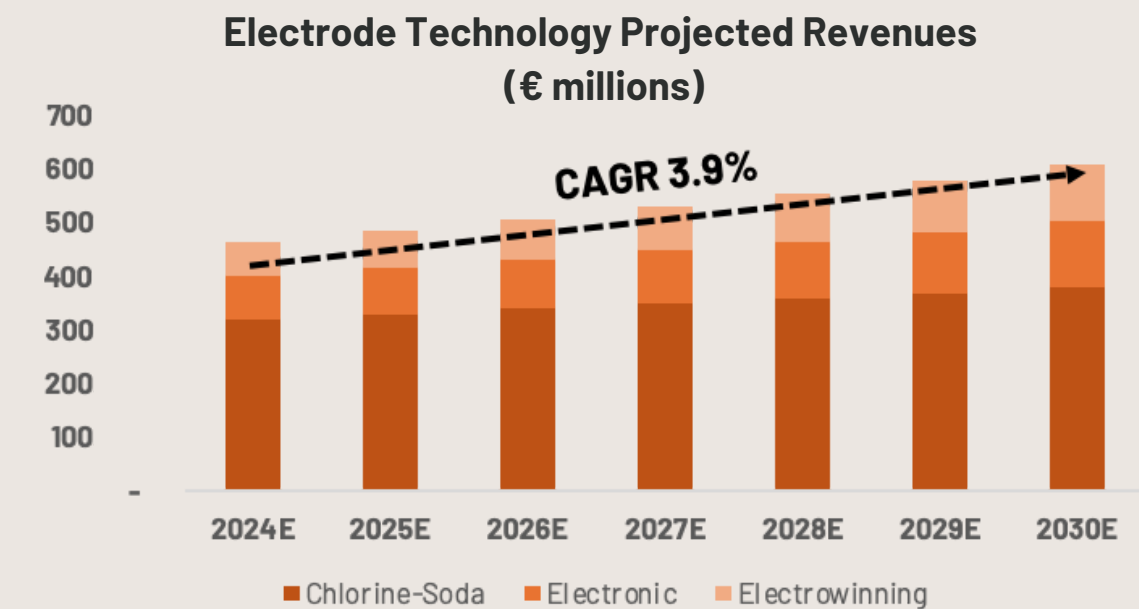
12%

Source: Company data

A CENTENARY BUSINESS

ELECTRODE TECHNOLOGIES

- B2B - Predominantly blue-chip clients
- Approximately 80% of raw material costs come from the purchase of **noble metals**
- Around 70% of the segment's revenues come from the **chlor-alkali** market

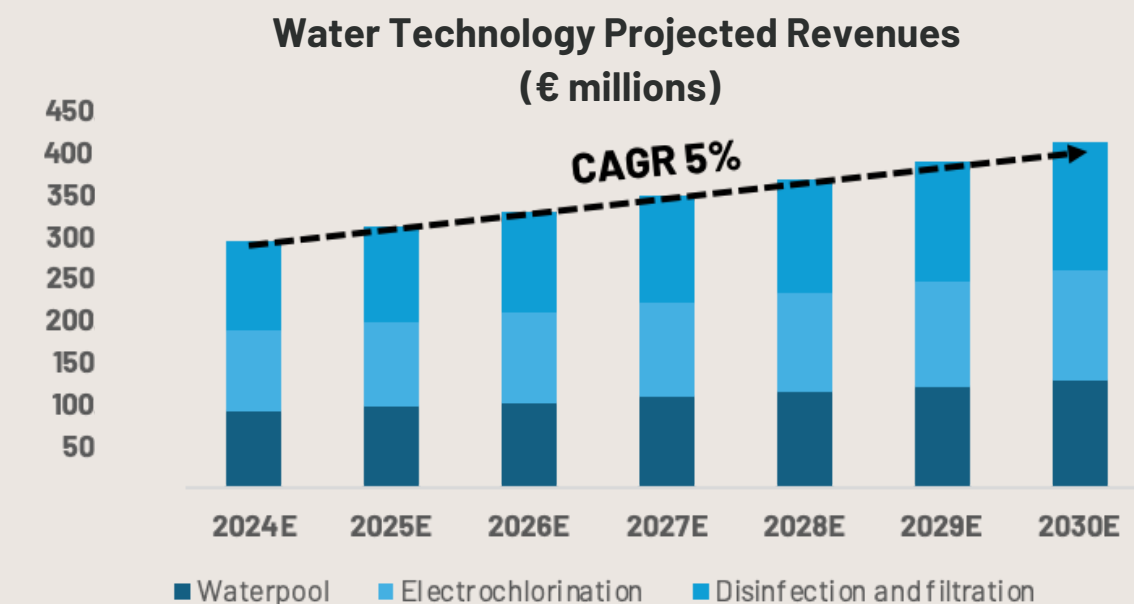


Source: Team assessment

A HISTORY OF SUCCESSFUL M&As

WATER TECHNOLOGIES

- B2B - B2C
- The segment is the result of an **acquisition strategy** started in 2015
- The PFAS Filtration market is expected to grow by approximately **7%** annually through 2030, a subsector that could significantly boost revenues if regulatory developments materialize



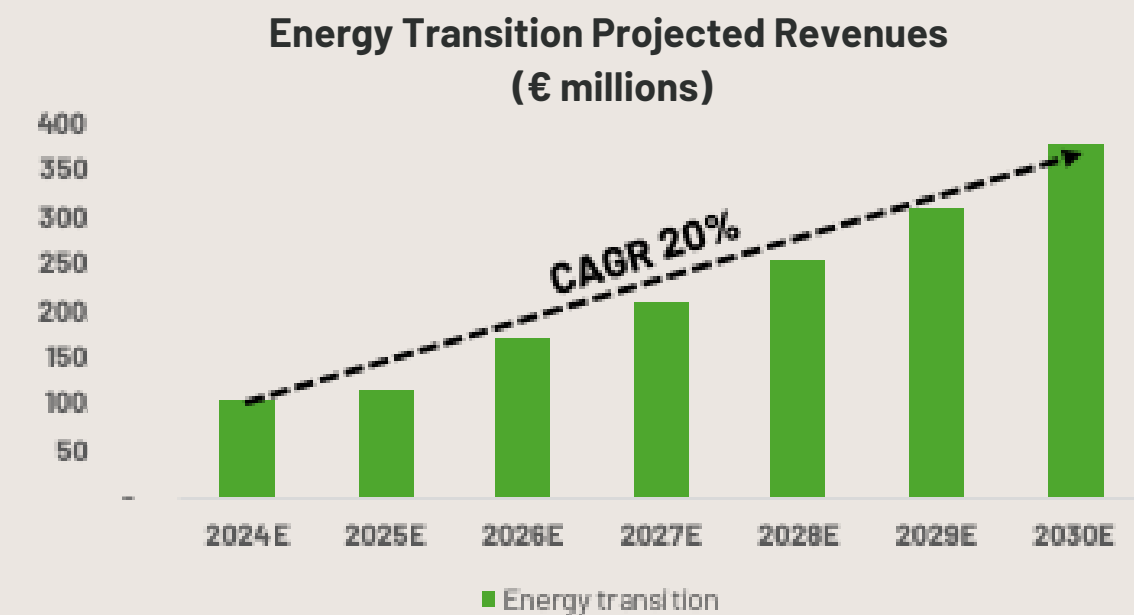
Source: Team assessment

...AND AN OPTION FOR THE FUTURE

ENERGY TRANSITION

- Introduced in 2021
- **TK Nucera** as **major partner** to lead the green hydrogen market

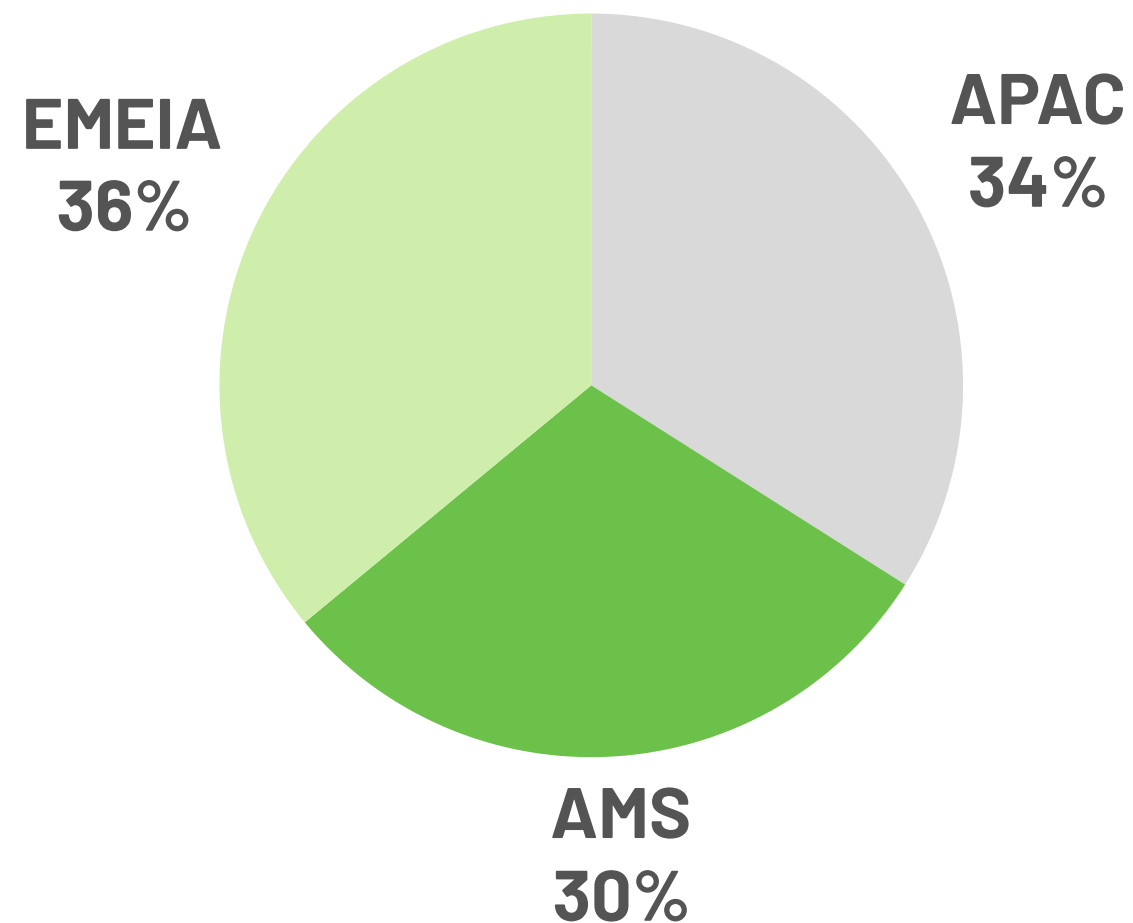
TK Nucera is a long-established leader in chlor-alkali electrolysis technology. The company offers end-to-end solutions, providing innovative and high-performance systems for **industrial electrolysis**.



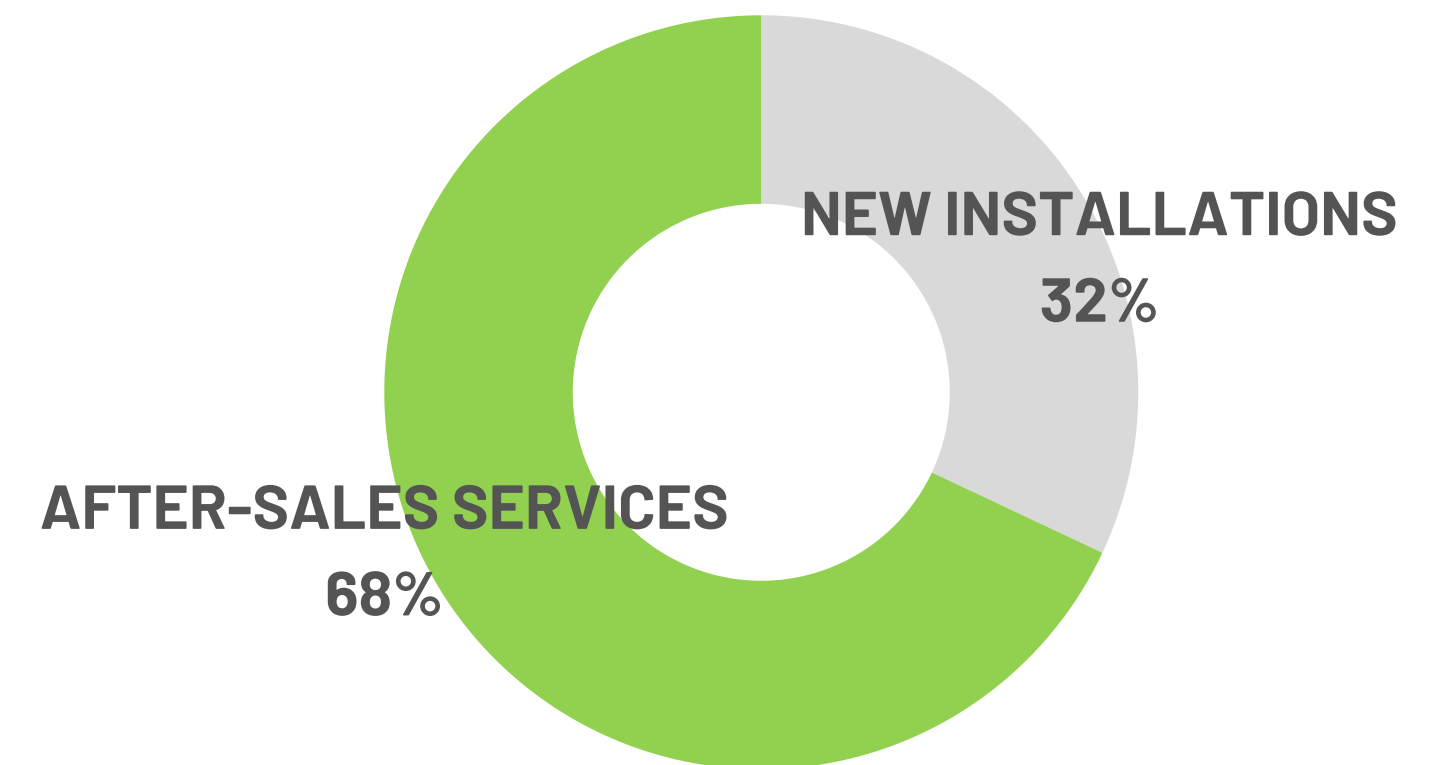
Source: Company data, Team assessment

**REVENUE
DISTRIBUTION**

**GLOBAL PRESENCE
AND
DIVERSIFICATION**



**STRATEGIC
REVENUE BALANCE**



Source: Company data

E 22 METRICS

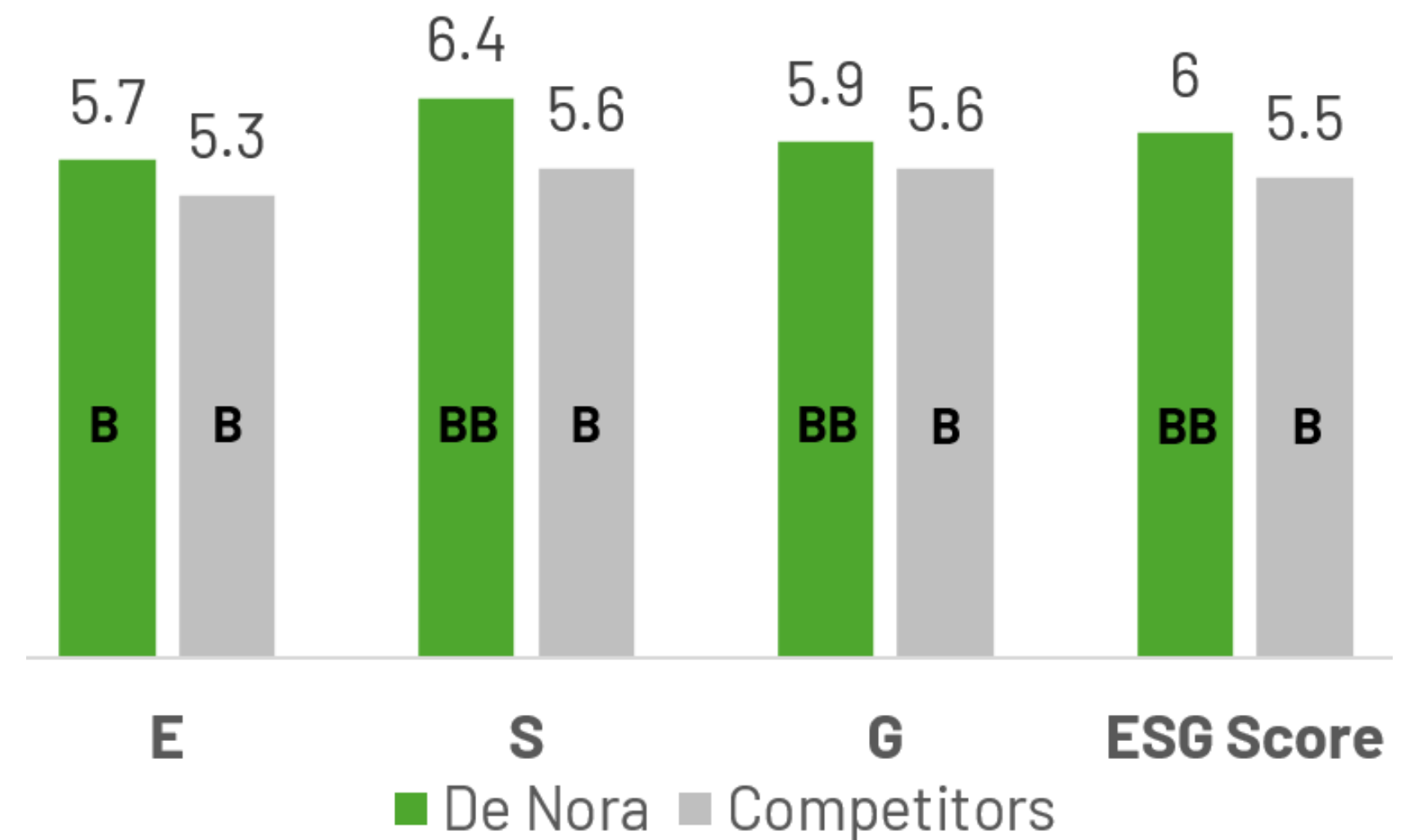
S 22 METRICS

G 17 METRICS



SCORE
6.00

BB

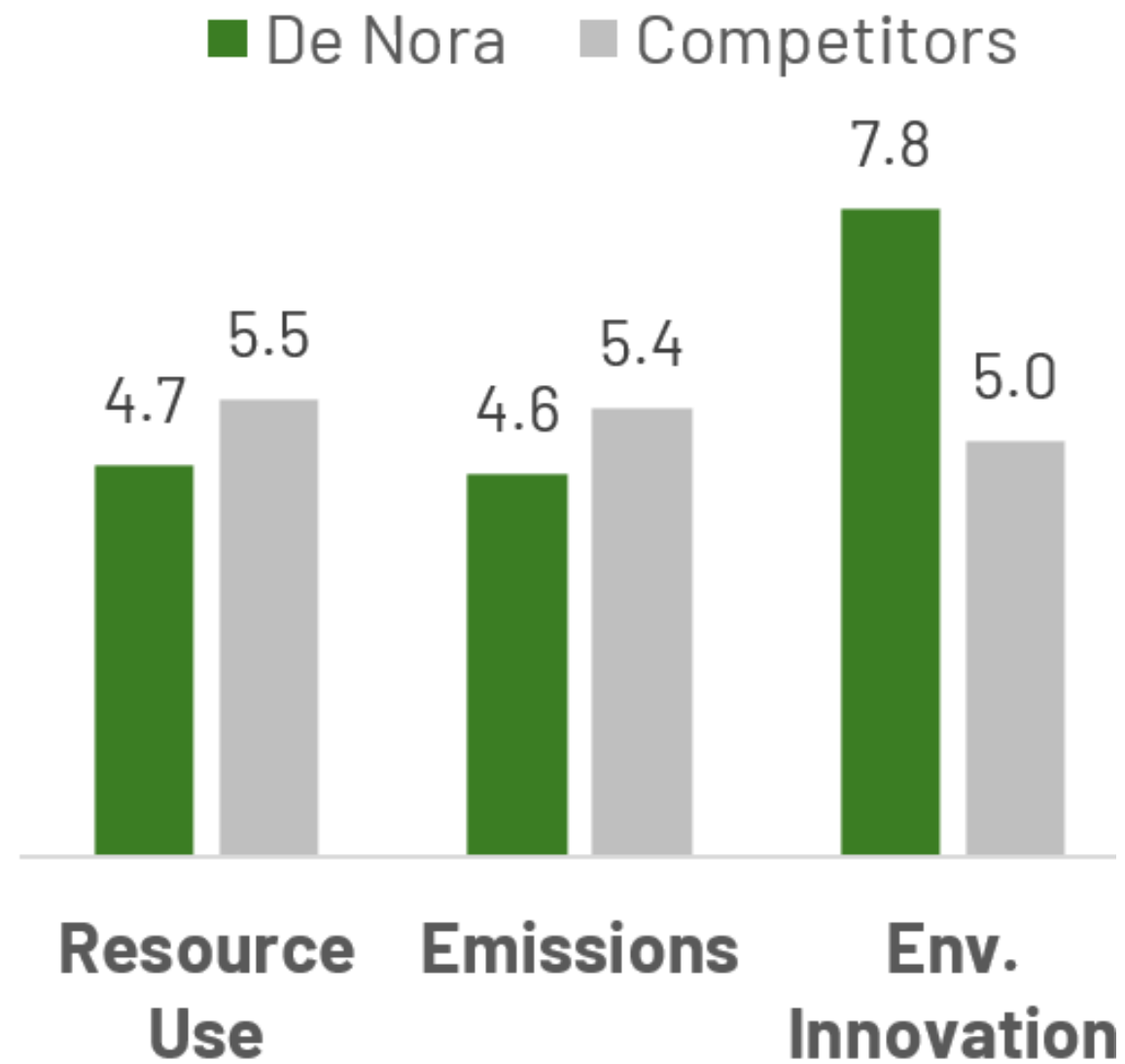


E

Score
5.7 / 10

B

3 KEY FACTORS
22 METRICS



E

Renewable Energy Use Ratio

3.24% vs 11.83%



Energy Use

(GJ / € mln Revenue)

424.06 vs 598.26

Waste Recycled Ratio

41.82% vs 64.17%

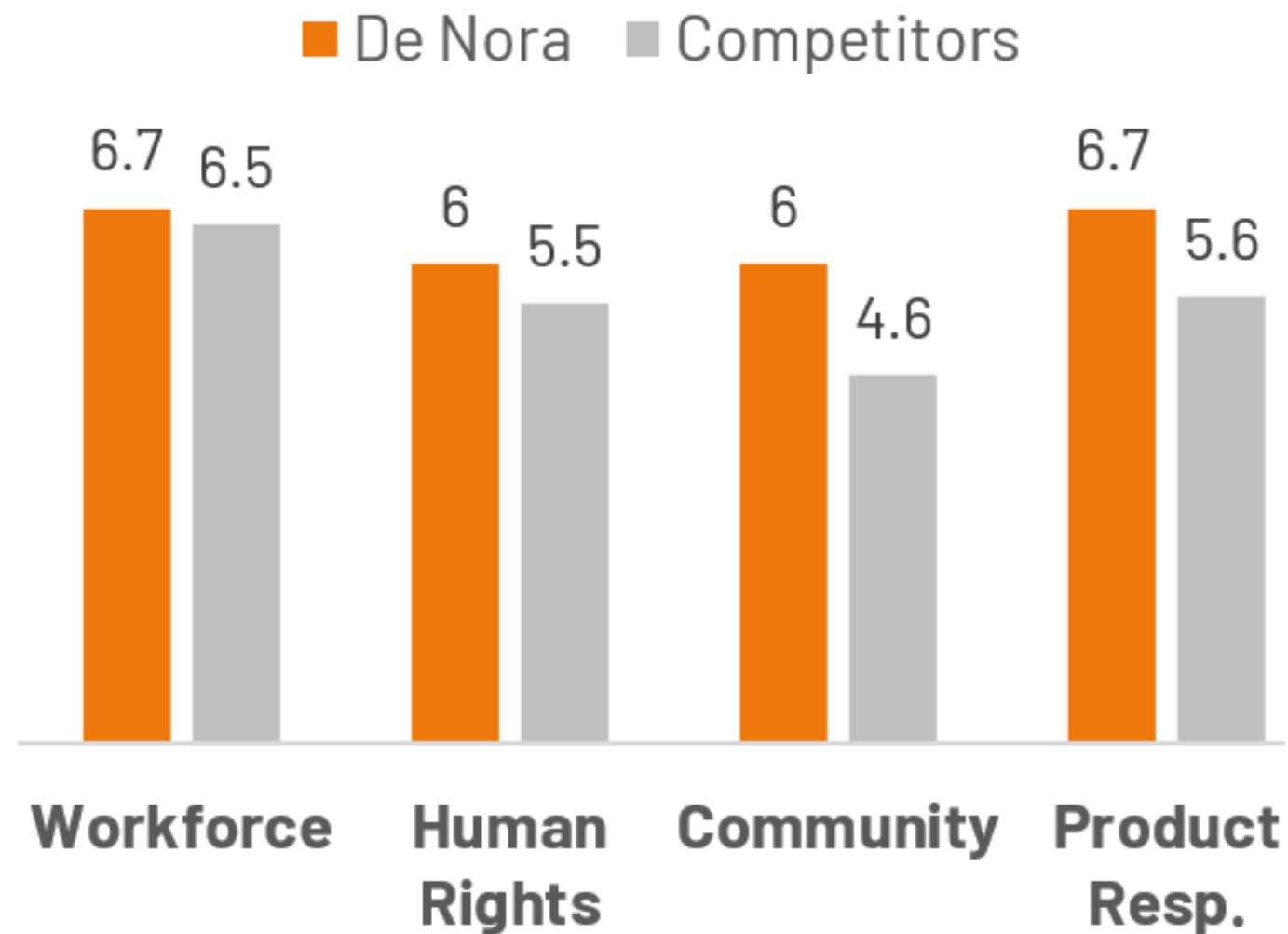


S

Score
6.4 / 10

BB

4 KEY FACTORS
22 METRICS



S

Women Employees

20% vs 24.22%



Women Managers

27.91% vs 24.39%

Total Injury Rate

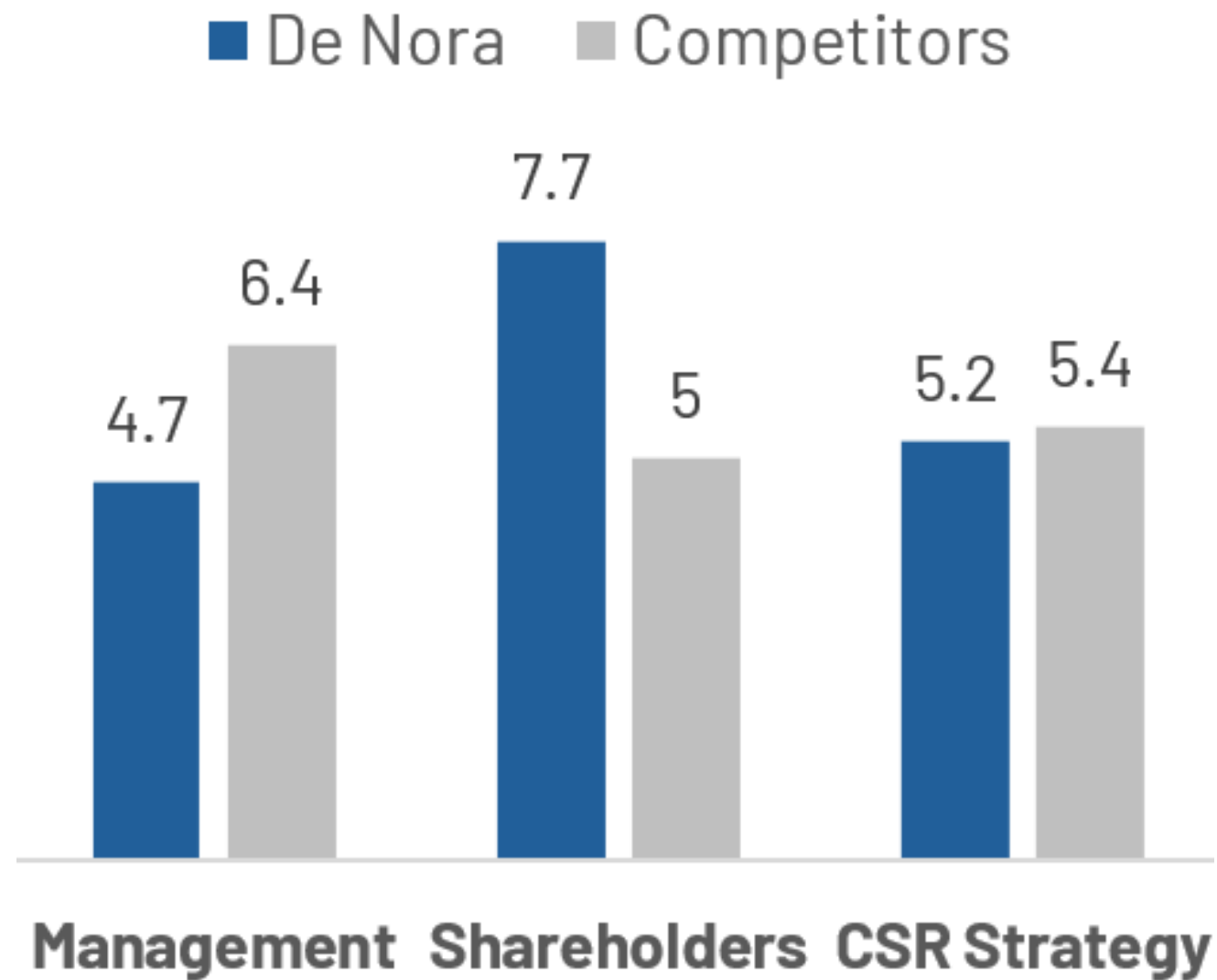
2.81 vs 6.94

G

Score
5.9 / 10

BB

3 KEY FACTORS
17 METRICS



G

Board Gender Diversity

30.77% vs 33.36%



Independent Board Members

46.67% vs 69.75%



Number of SDG

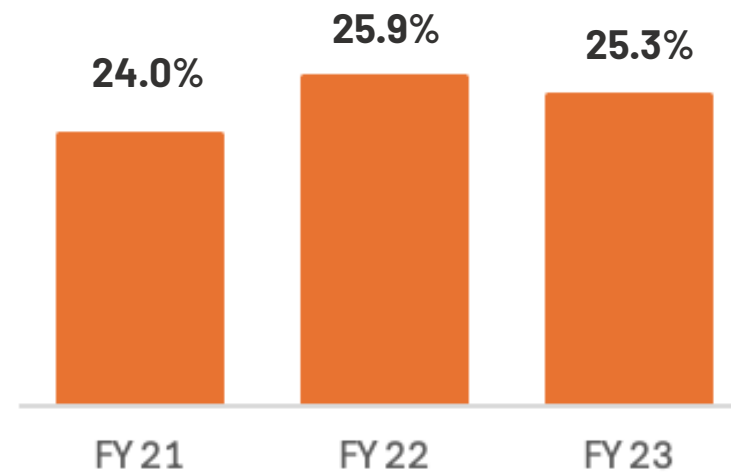
10 vs 8.92

STRONG
PROFITABILITY



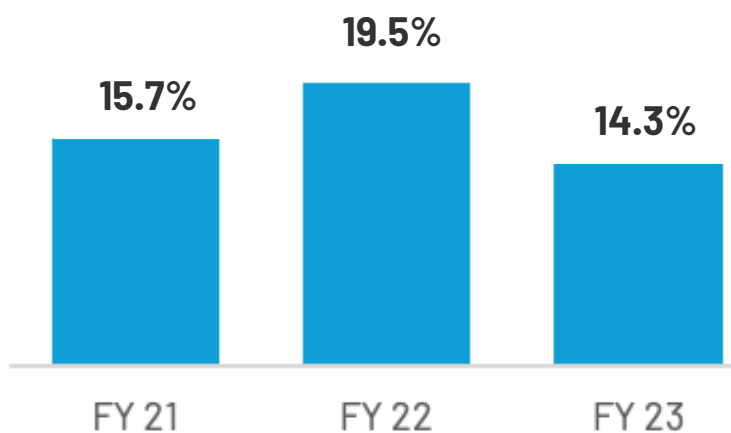
RESILIENT CORE
BUSINESS OPERATIONS

EBITDAm Electrode Technologies

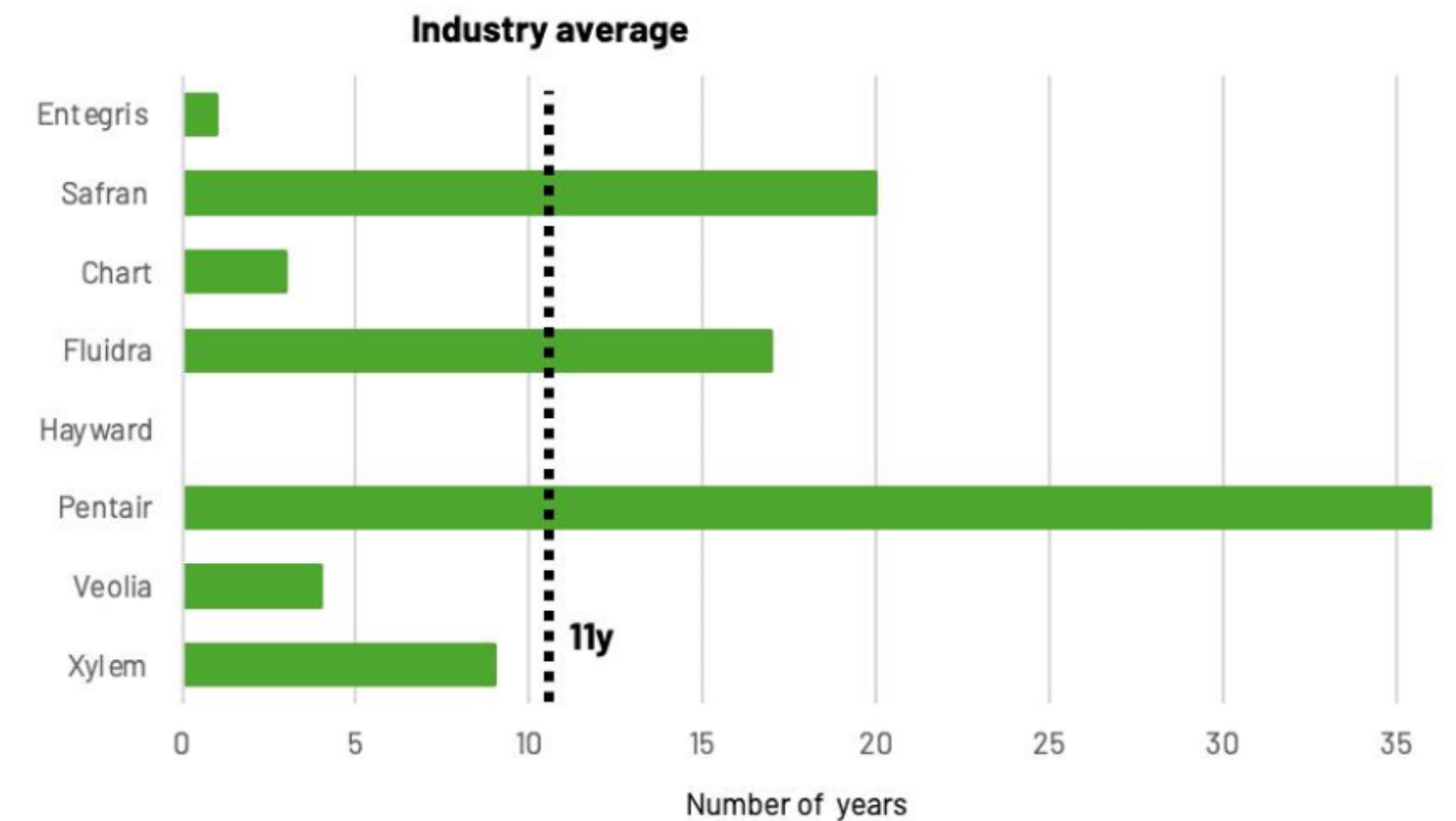


Profit margin assumed **stable** at this level in the future

EBITDAm Water Technologies



Number of years it took to achieve an EBITDAm of 19%



Profit margin assumed at **19%**, equal to the industry average

Source: Company data, Refinitiv, Team assessment

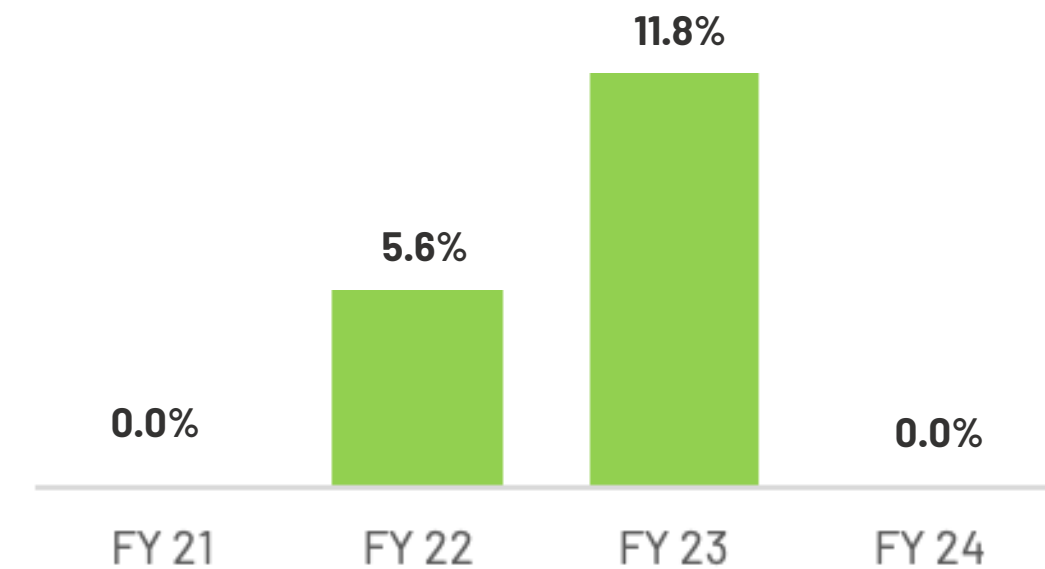
UNDERVALUED GREEN HYDROGEN EXPOSURE

Highly **volatile profitability** of the segment since its inception, fluctuation between 0% - 11%, with certainty that it will return to 0% in 2024.

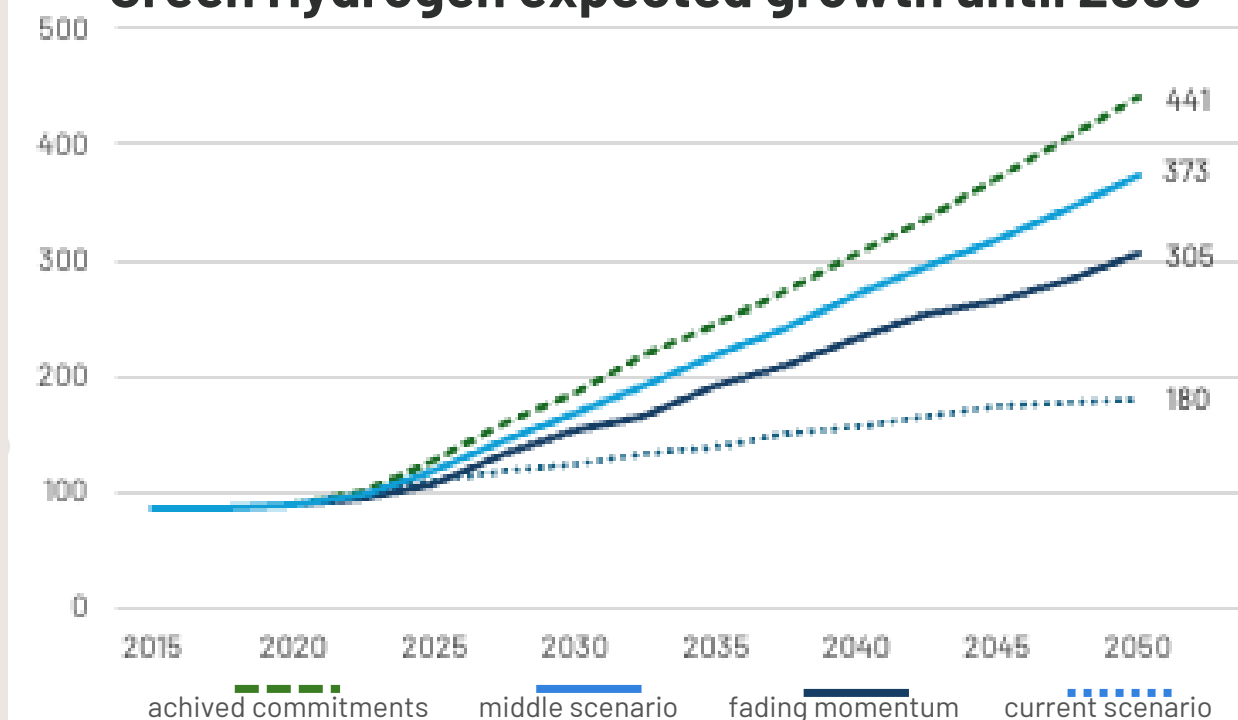
Peers profitability in the sector, also appears **highly volatile** but, more importantly, **predominantly negative** on average.

Green Hydrogen market is expected to grow by an average factor of **3.8x** across different scenarios until 2050.

EBITDAm Energy Transition



Green Hydrogen expected growth until 2050



Source: Company data, McKinsey, Team assessment

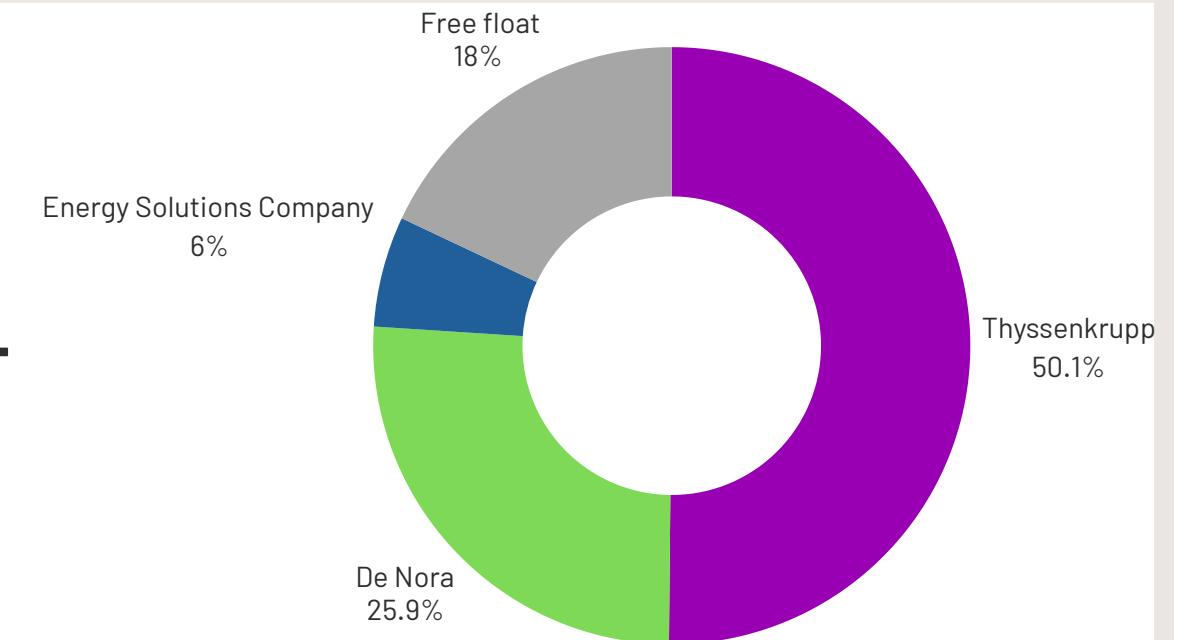
PARTNERSHIP WITH THYSSENKRUPP

Key role in the company's growth and long term **value creation**

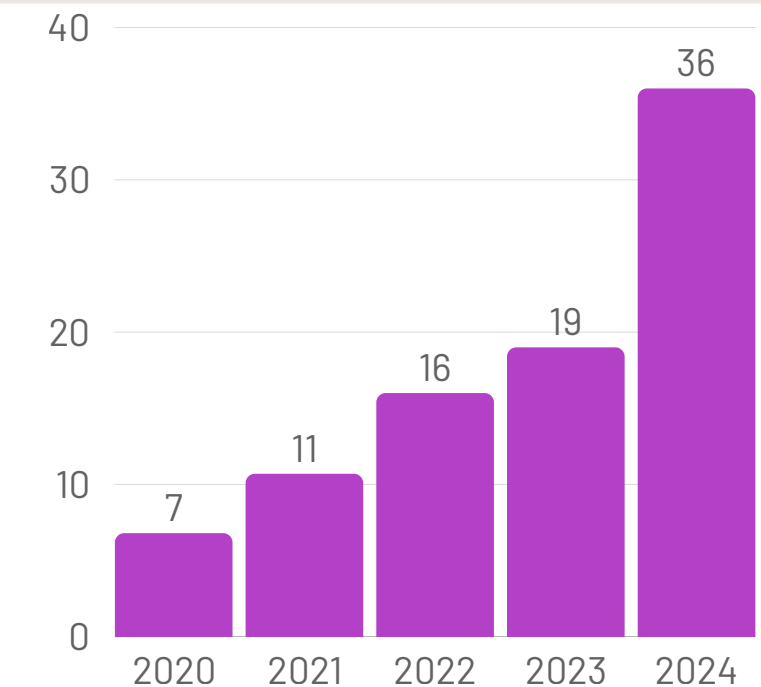
The partnership enables De Nora to reach **more customers and markets** through Thyssenkrupp's network

Sales to TK Nucera account for **more than 20%** of the total revenues in the Electrode Technologies segment

TK Nucera ownership structure



R&D Expenses (€ millions)



Source: Company data

VALUATION - DCF

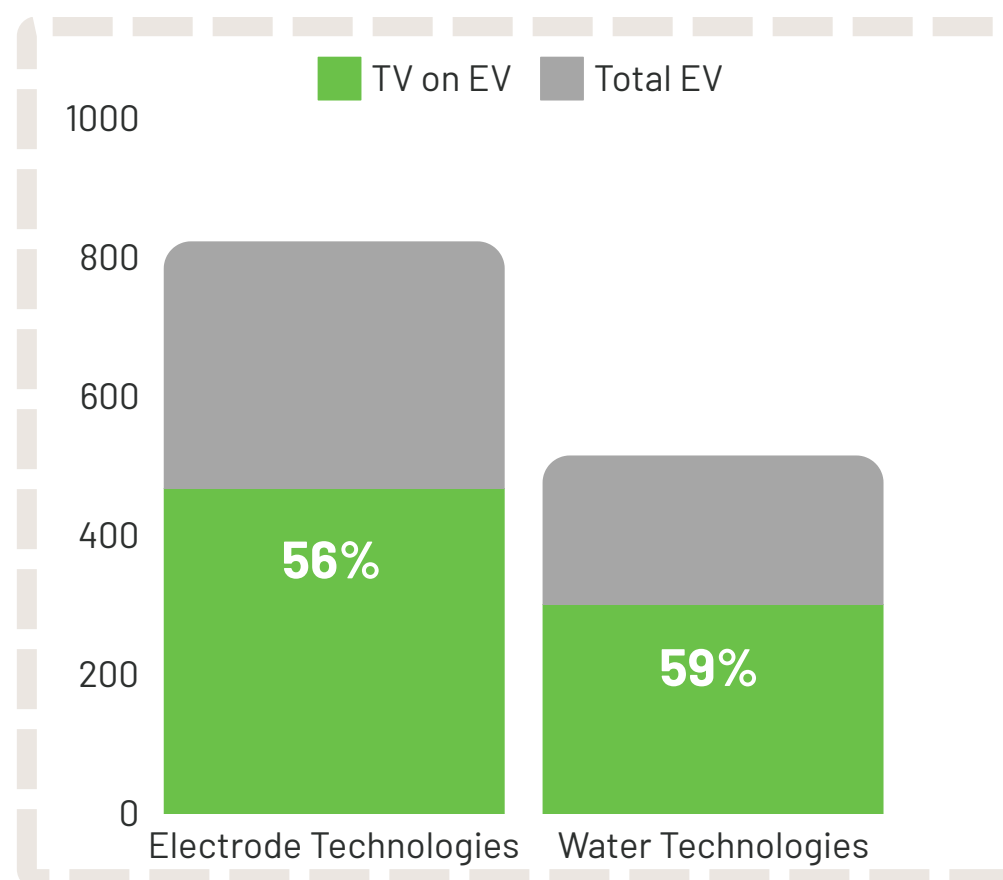
We calculated a combined share price from Electrode and Water Technologies segments of **€6.70**, very close to current price of €6.90

FIRST STAGE

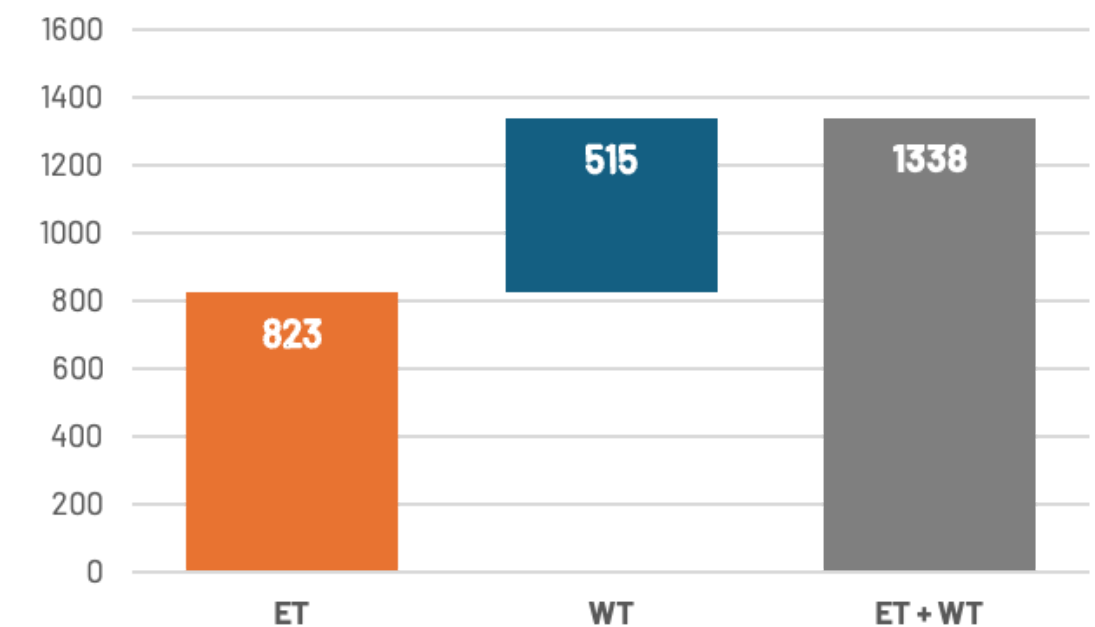
Covering the period from 2024E to 2030E, we assume that **growth** will be primarily **organic**, driven by strong demand across its key business segments

SECOND STAGE

Application of a perpetuity growth method



ENTERPRISE VALUE (€ millions)



Assumptions

Cost of equity	12.8%
Cost of debt	4.0%
D/E	0.19
WACC	11.3%
Terminal Growth rate	2.6%

Source: Team assessment, Refinitiv

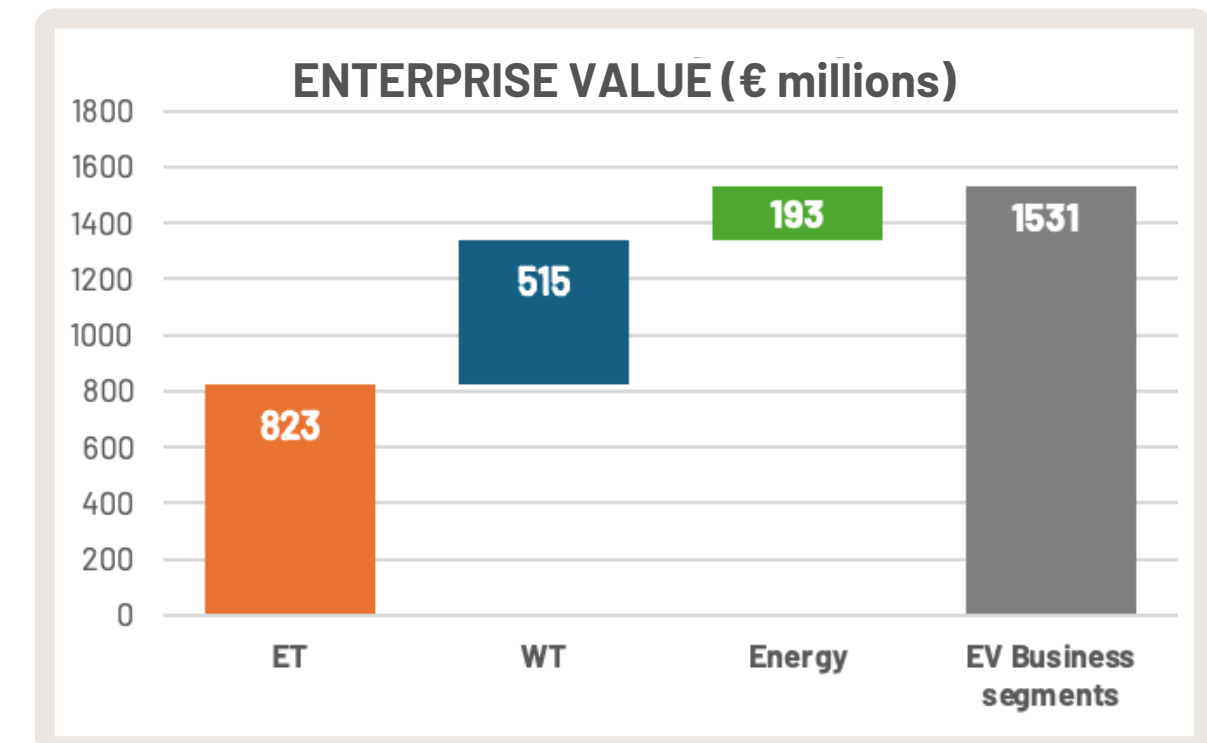
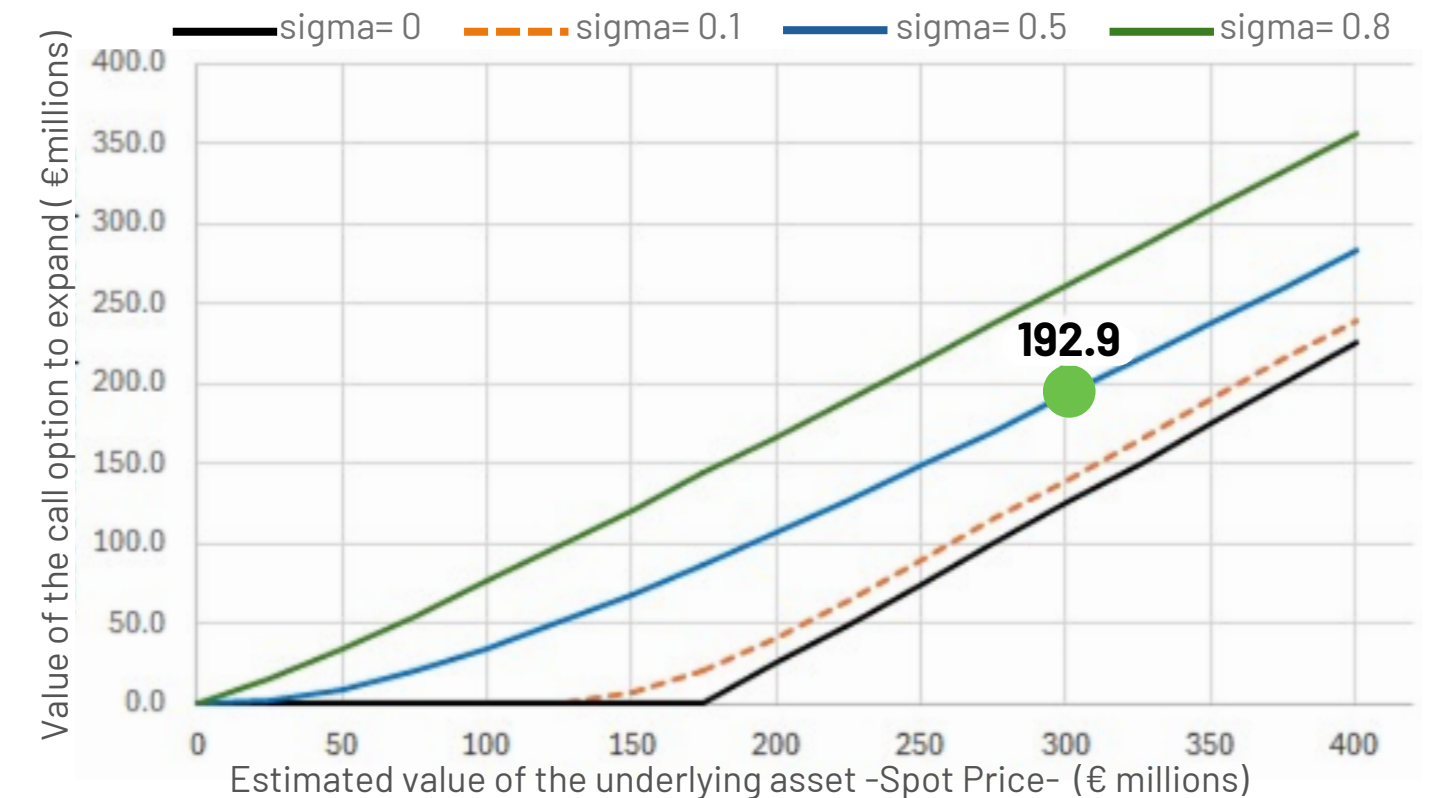
VALUATION - REAL OPTION

DCF fails to capture the strategic value of the option to expand in the **potentially fast-growing** green hydrogen production technology **segment**.

To capture this upside potential, we applied a **REAL OPTION VALUATION** approach.

WHY

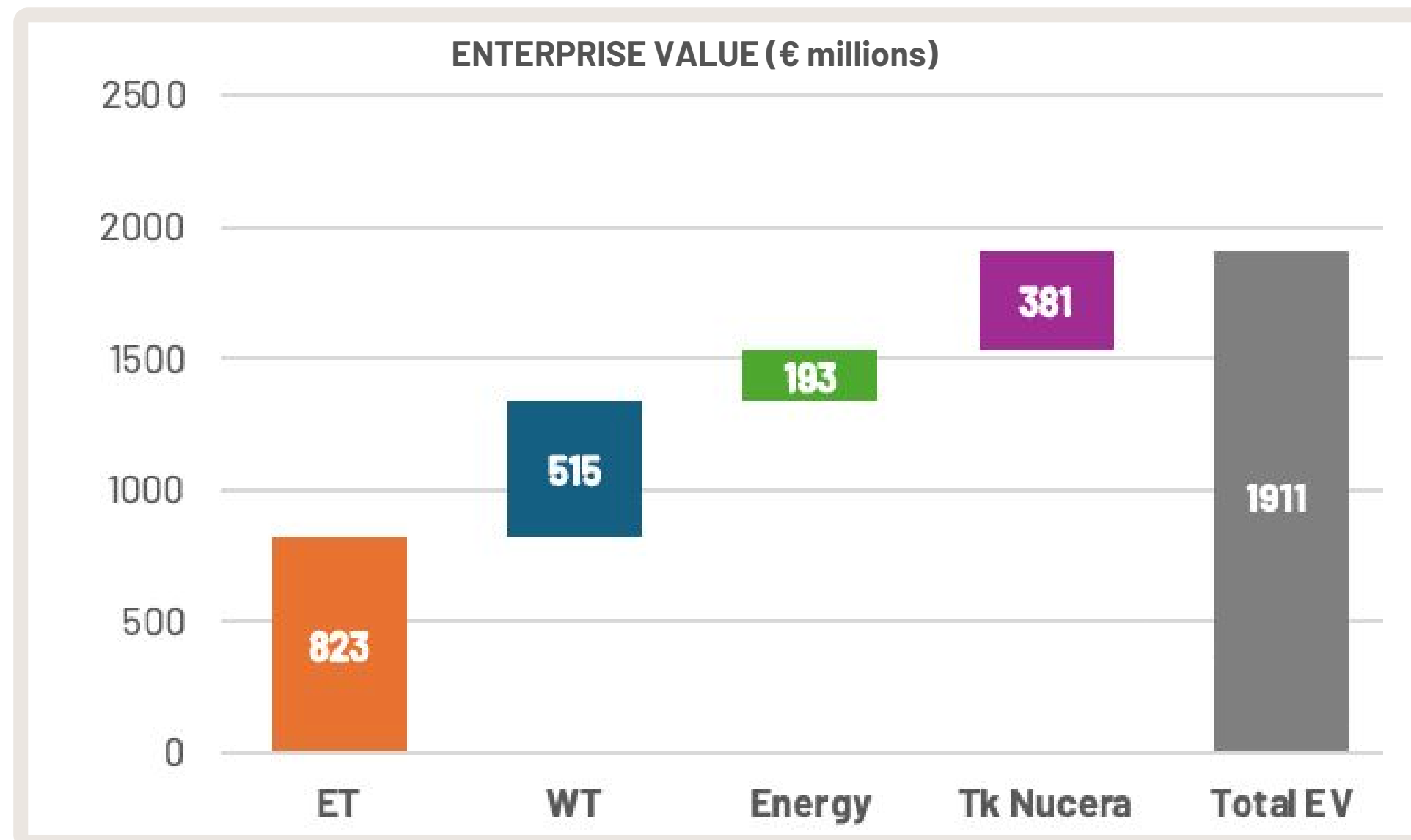
- High volatility
- Negative cash flows
- Industry still in infancy phase
- De Nora's downside is limited to its initial investment



Source: Team assessment, Company data

VALUATION - SOTP

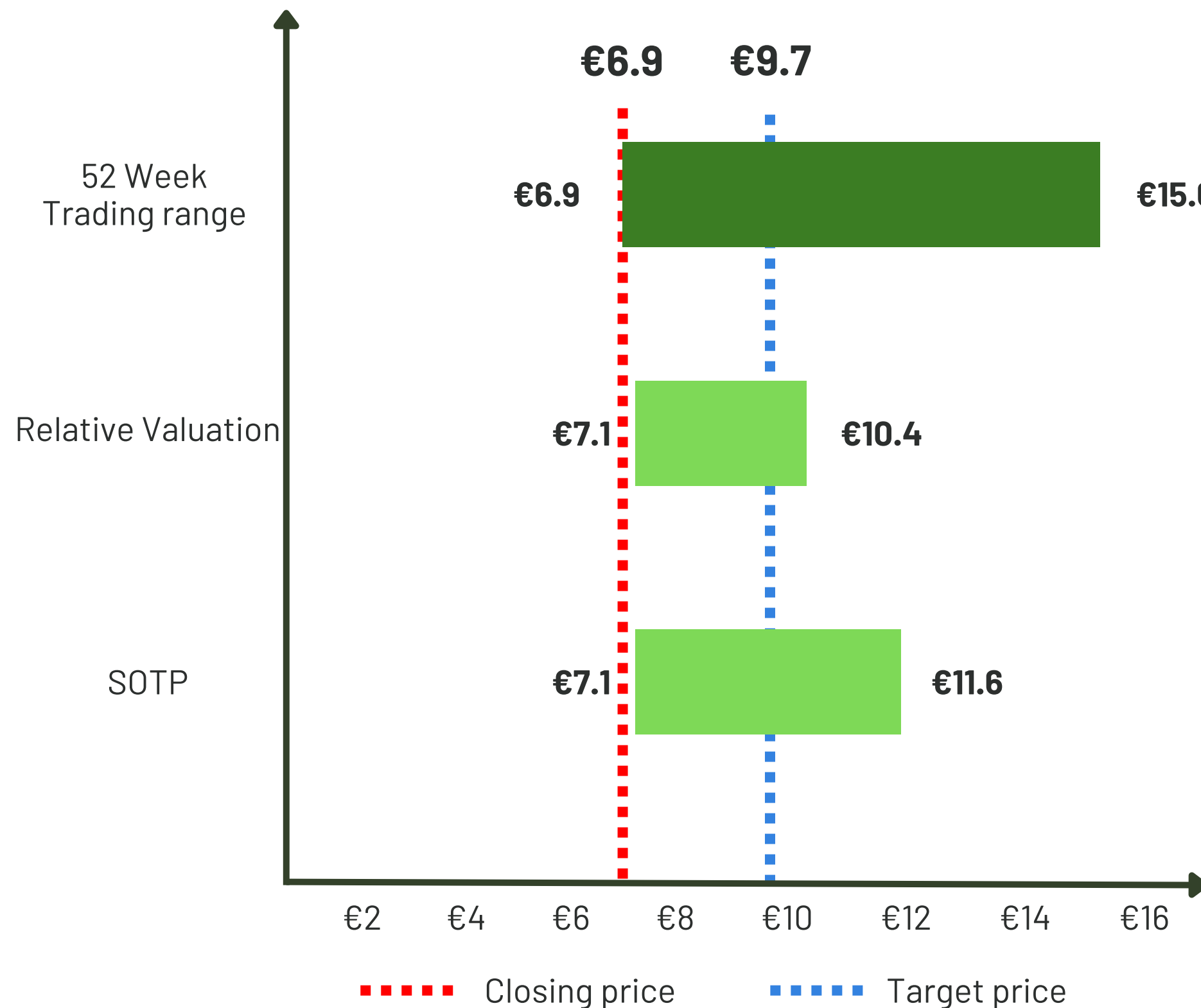
Summing all three we reach a total Enterprise Value for De Nora of €1,530.6 million.
To this EV, we added **25.85%** of the EV **of the joint venture** with Thyssenkrupp.



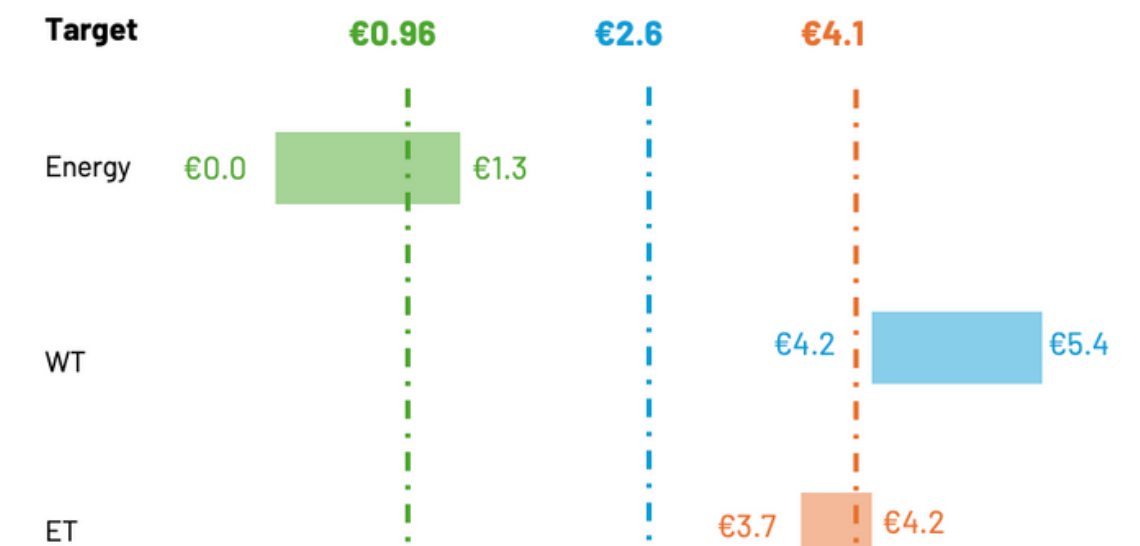
Source: Team assessment

We applied the same multiple used to evaluate De Nora's Energy Transition segment in the multiple valuation, that is the industry multiple average - the EV/Revenue 2027E - equal to **1.3x**

PLAYING FIELD



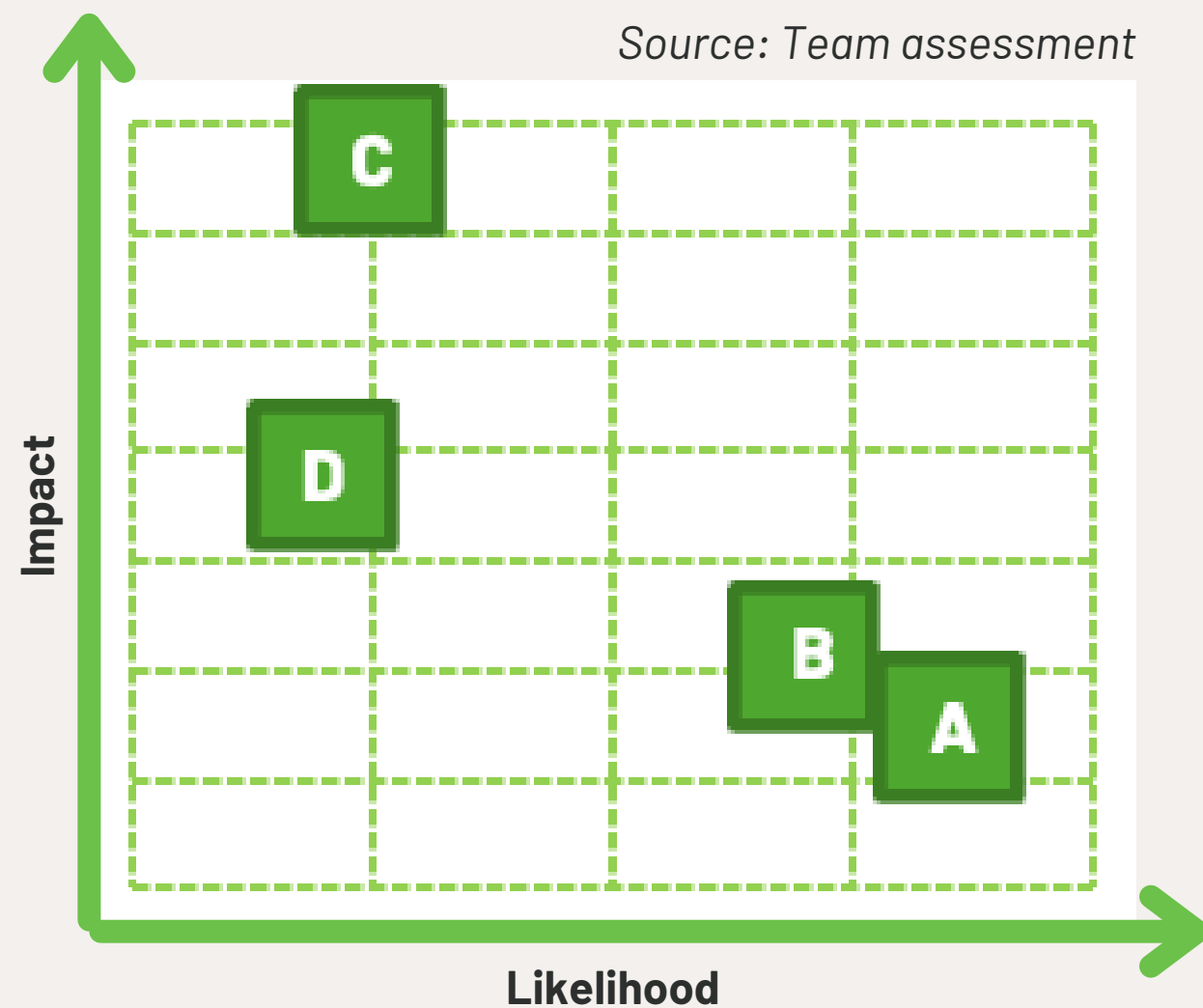
Relative Valuation by segment



Source: Team assessment

Significant differences between peers and De Nora in WT segment:

- Market Cap
- D/E ratio



(A) SUPPLY CHAIN

Material Expenses

↑ 5.6%

↓ 9.2%

(B) REGULATION

Green Hydrogen CAGR

20% → 13%

↓ 10.9%

(C) TECHNOLOGICAL COMPETITION

Gradual shut down of Energy
Transition segment

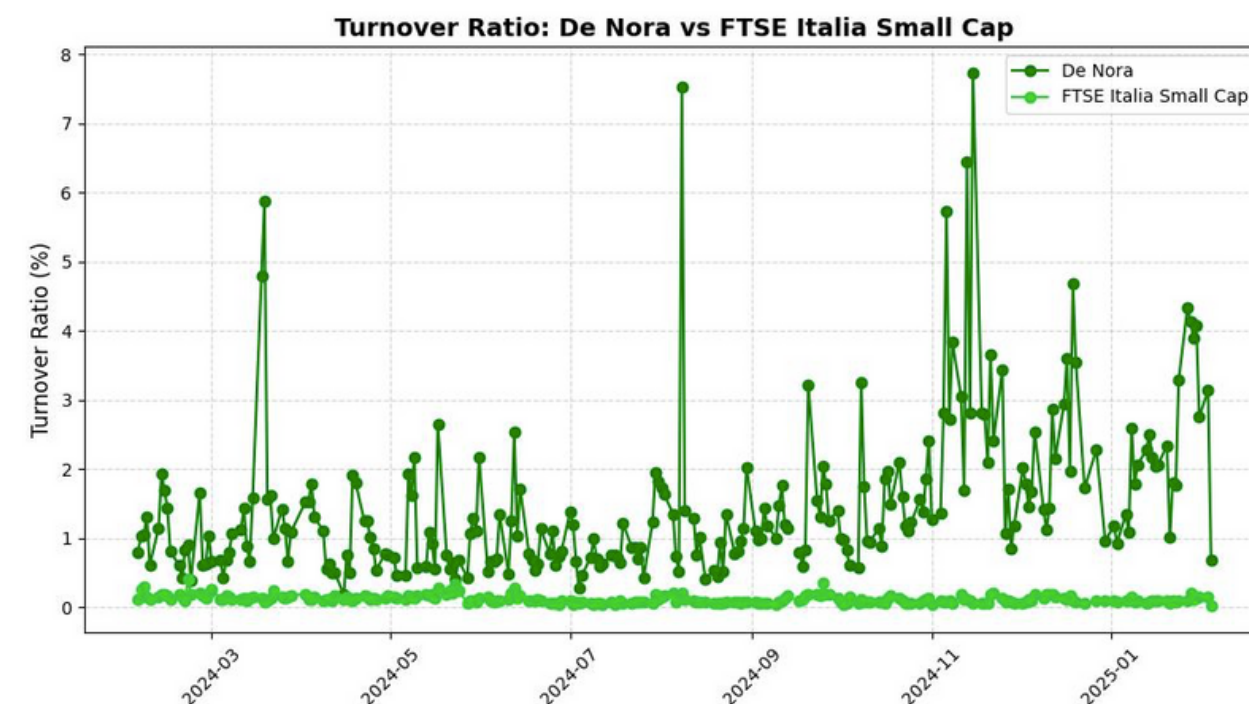
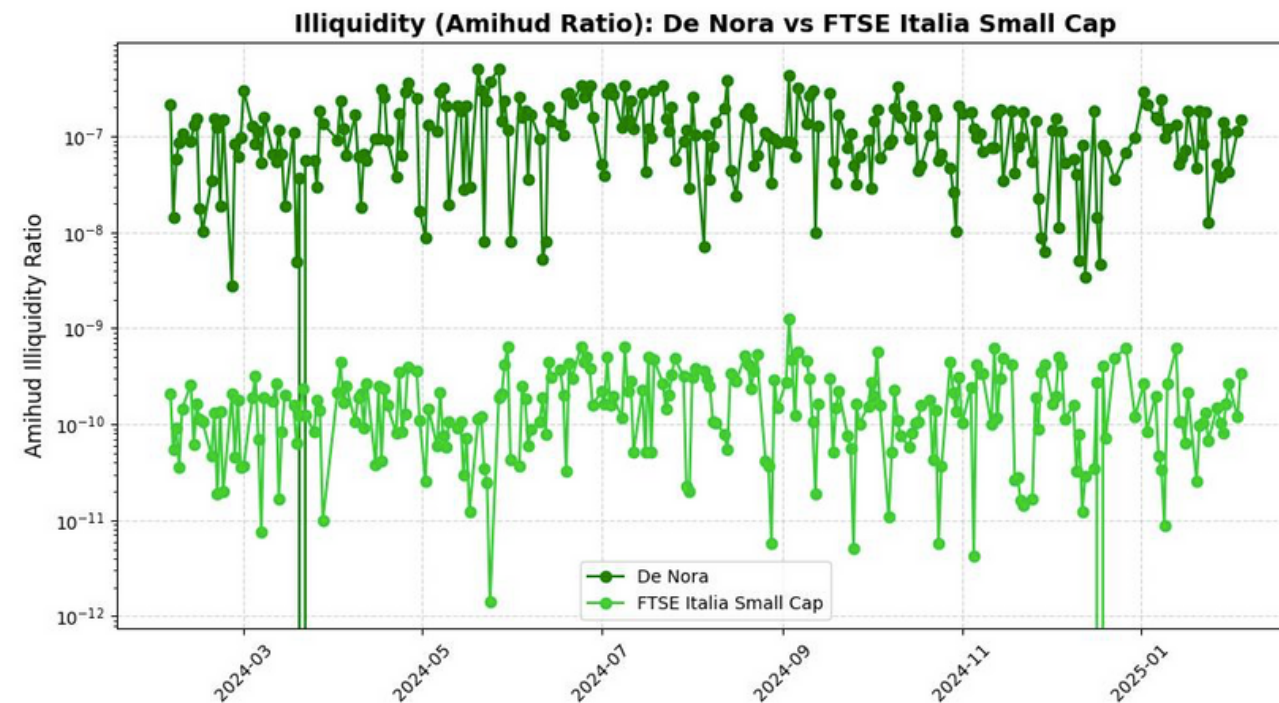
↓ 6.8%

(D) TK NUCERA

Adverse conditions on Green
Hydrogen market

↓ 3.9%

HIGH INSIDER OWNERSHIP LOW FREE FLOAT



Source: Team assessment

Only **51M** shares are available for trading out of **201M** issued. This limited amount of free float reduces market depth and increases price volatility.

The De Nora family owns **53% of total shares**, keeping a large portion in long-term holdings and further limiting availability in the market

Despite a higher Turnover Ratio, De Nora's elevated Amihud Ratio indicates **lower liquidity**. The higher turnover occurs within a limited share pool, leading to **greater price sensitivity** compared to peers

Industrie De Nora SpA

BUY

UPSIDE OF 40.86%

CLOSING PRICE €6.90

TARGET PRICE €9.72

SOTP valuation

February 5, 2025



THANKS FOR THE ATTENTION

CFA RESEARCH CHALLENGE 2025

NENSI BALLA
MICHELLE CHIAVAROLI
BLERINA MEMISI
NICOLÒ PAOLETTI
DANIELE SARACINO



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DELLE MARCHE

PRESENTATION

- 1. Recommendation
- 2. Key buy drivers
- 3. Company overview
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- 6. Water technologies segment
- 7. Energy transition segment
- 8. Revenue breakdown
- 9. ESG overall score
- 10. Environmental score
- 11. Social score
- 12. Governance score
- 13. Investment thesis 1
- 14. Investment thesis 2
- 15. Investment thesis 3
- 16. Valuation - DCF
- 17. Valuation- Real Option
- 18. Valuation - SOTP
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- 20. Investment Risks 1
- 21. Investment Risks 2

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- 25. De Nora vs Major Indices
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- 91. Regulatory Risk - Impact
- 92. Technological Competition Risk - Impact
- 93. TK Nucera Risk - Impact

APPENDIX MAP

BUSINESS OVERVIEW – DE NORA’S TIMELINE

1923

ORONZIO DE NORA FOUNDS THE COMPANY

1970

REGISTRATION OF THE DSA® TRADEMARK

1980

START OF THE INTERNATIONAL EXPANSION

2001

CREATION OF A JOINT VENTURE WITH THYSSENKRUPP

2015

BIRTH OF WT BUSINESS AFTER MANY ACQUISITION

2021

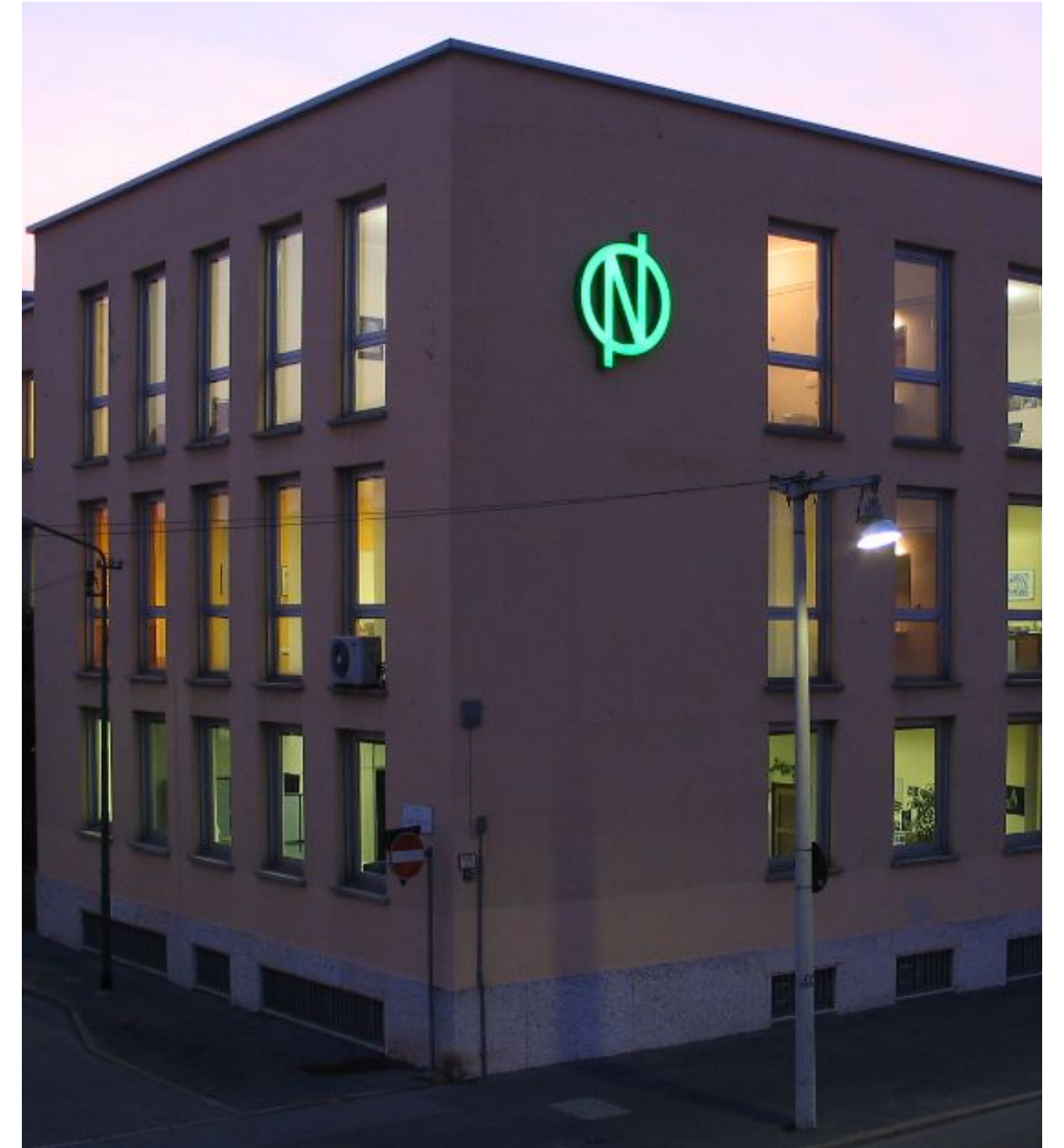
DEVELOPMENT OF ADVANCED COATING FOR AWE

2022

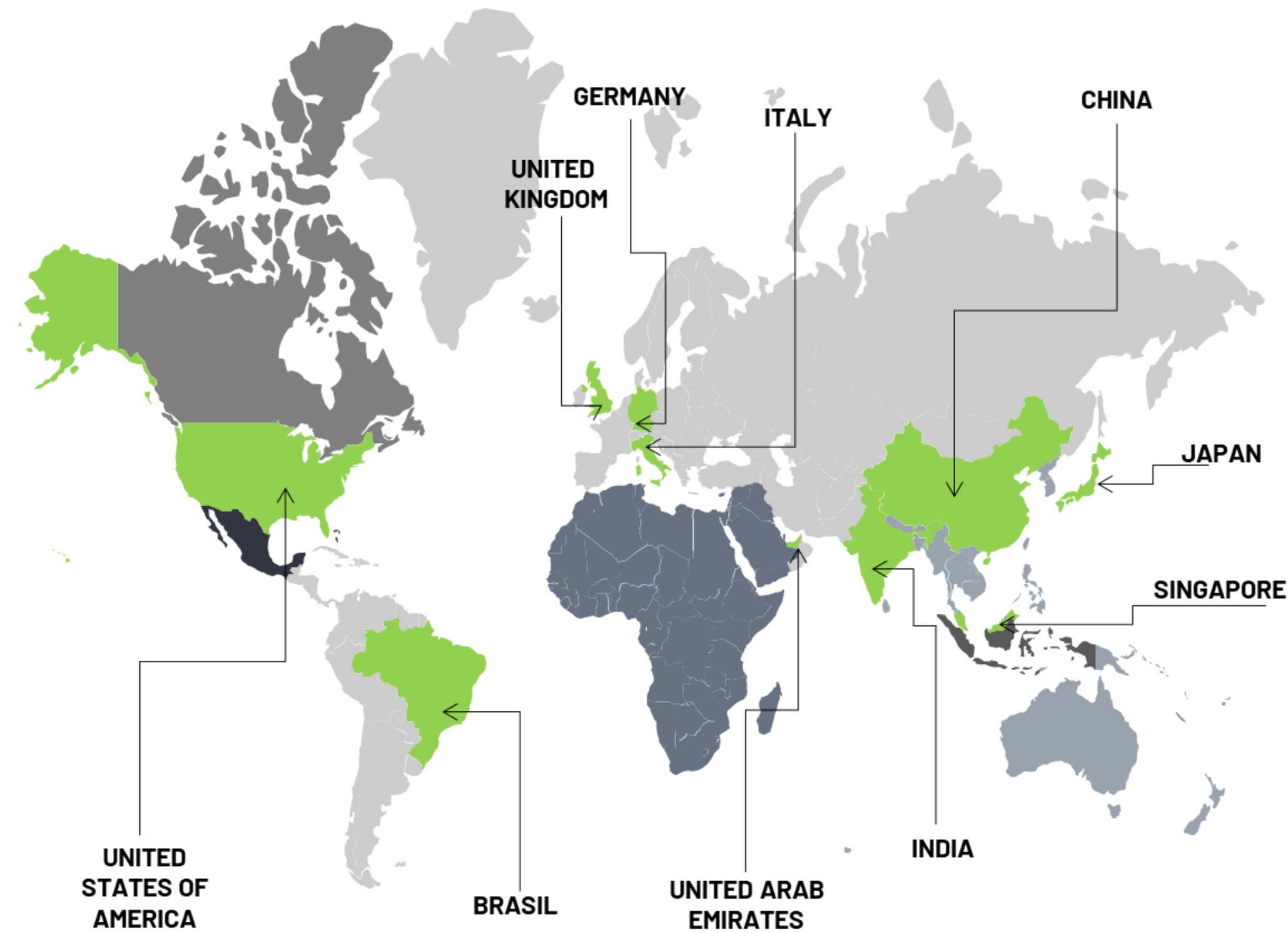
CREATION OF THE ENERGY TRANSITION BUSINESS

2022

LISTING ON THE ITALIAN STOCK EXCHANGE



BUSINESS OVERVIEW- ORGANIZATION AND LOCATION



AMS (NORTH AND LATIN AMERICAS)

UNITED STATES OF AMERICA

De Nora Tech - Concord & Mentor
De Nora Water Technologies - Philadelphia
De Nora Water Technologies - Pittsburgh
De Nora Water Technologies - Houston
De Nora Neptune

BRASIL De Nora Do Brasil

EMEIA + INDIA

ITALY De Nora Italy De Nora Water Technologies Italy

GERMANY De Nora Deutschland Shotec

UNITED KINGDOM De Nora Water Technologies UK

UNITED ARAB EMIRATES De Nora Water Technologies - Abu Dhabi

De Nora Water Technologies FZE - Dubai

INDIA De Nora India Limited

APAC (ASIA AND SOUTH PACIFIC)

CHINA

De Nora Elettrodi Suzhou

De Nora China Jinan

De Nora Water Technologies Shanghai

SINGAPORE De Nora Italy Singapore Branch

De Nora Water Technologies Singapore Branch

JAPAN De Nora Permelec Ltd Fujisawa

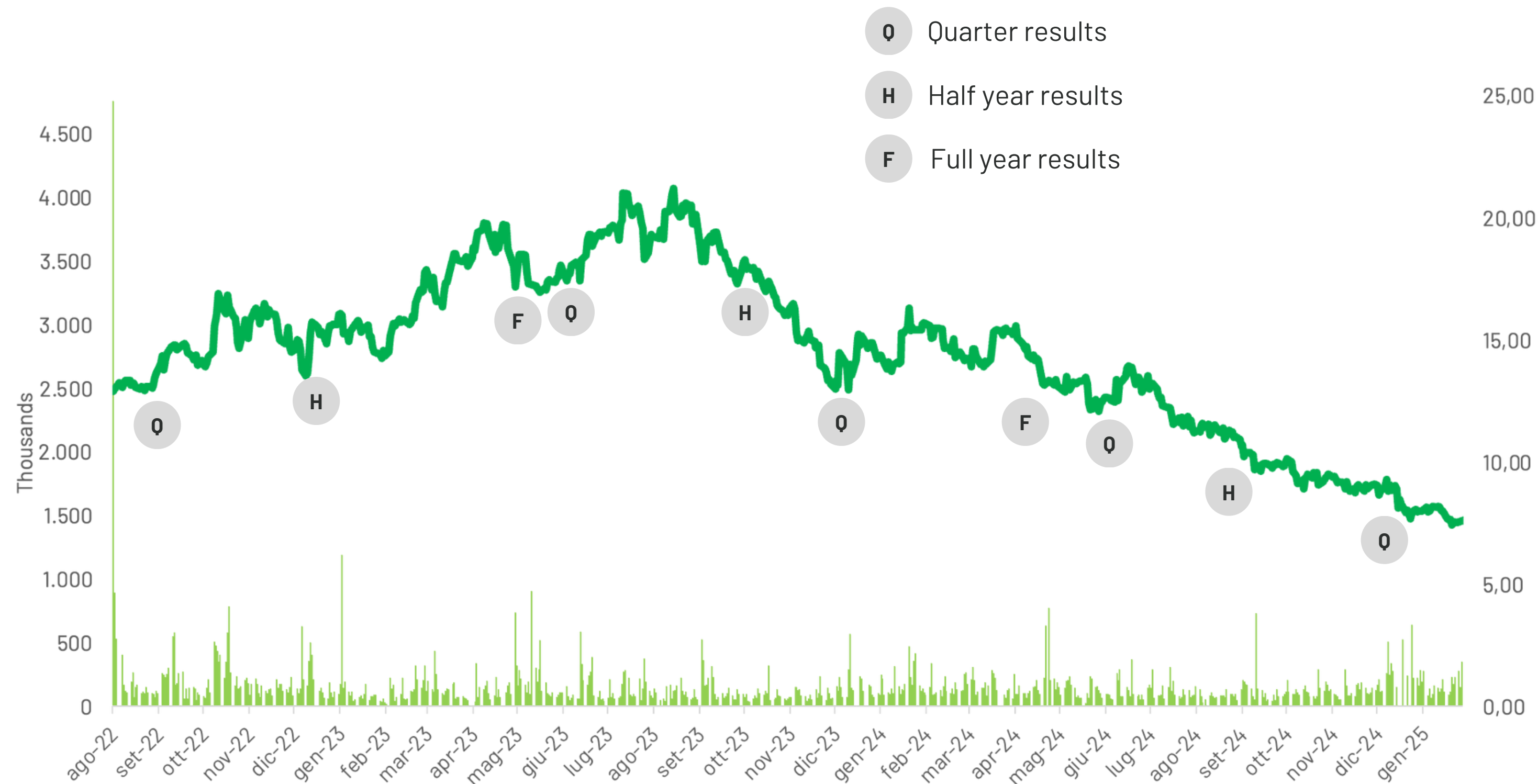
De Nora Permelec Ltd Okayama

De Nora Permelec Ltd Yokohama (Head Office)

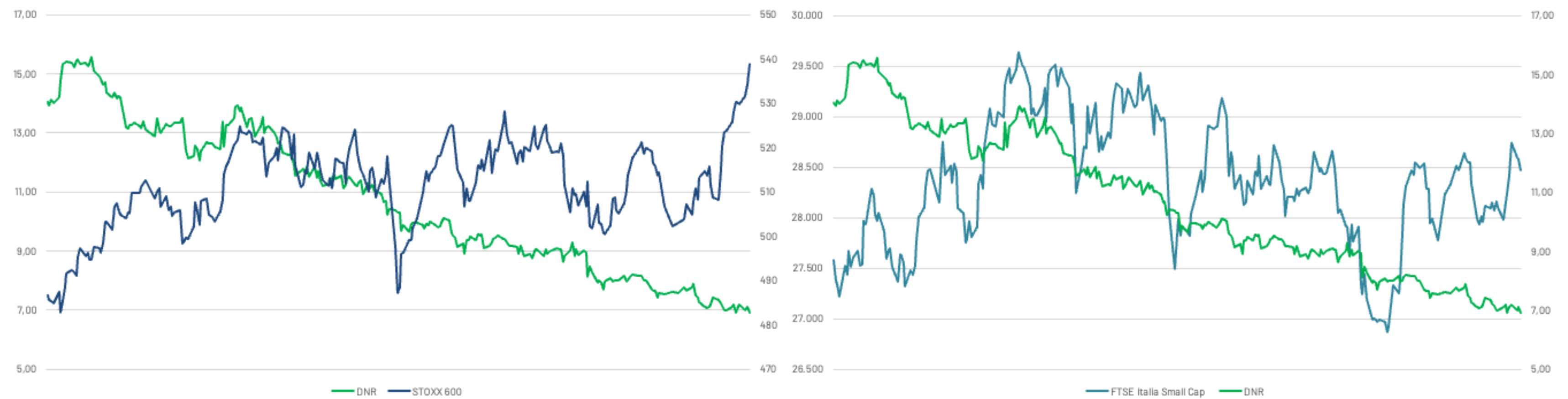
5 R&D CENTRES

The "US R&D" unit (Cleveland Area) - Ohio,
The "Water Technologies Innovation Center", located in Albuquerque, New Mexico, i
The "R&D Japan" unit is located in Fujisawa (Tokyo area) and Okayama
The "R&D Italy" unit is located primarily in the Industrie De Nora headquarters in Milan and, in part, at De Nora Italy Hydrogen Technologies S.r.l.

BUSINESS OVERVIEW- STOCK PERFORMANCE



BUSINESS OVERVIEW- DE NORA VS MAJOR INDICES



Stock Performance

1Month	-11.45%
6Months	-33.59%
1Year	-50.82%
1 Year High	€ 15.56
1 Year Low	€ 6.90

BUSINESS OVERVIEW- FIRM TOP INVESTORS

Investor Rank	Investor Name	% O/S	Position (\$M)
1	Norges Bank Investment Management (NBIM)	6,49%	3,32
2	Schroder Investment Management Ltd. (SIM)	3,61%	1,85
3	Ninety One UK Limited	2,78%	1,43
4	Erste Asset Management GmbH	1,93%	0,99
5	Schroder Investment Management (Switzerland) AG	1,92%	0,98
6	Janus Henderson Investors [Activist]	1,85%	0,95
7	Deka Investment GmbH	1,56%	0,80
8	Swedbank Robur Fonder AB	1,52%	0,78
9	DNB Asset Management AS	1,39%	0,71
10	CPR Asset Management	1,33%	0,68
11	Robeco Switzerland Ltd.	1,24%	0,64
12	Robeco Institutional Asset Management B.V.	1,21%	0,62
13	The De Nora Family	1,21%	0,62
14	Mediolanum Gestione Fondi SGR p.A.	1,19%	0,61
15	Legal & General Investment Management Ltd.	1,12%	0,57
16	Thematics Asset Management SAS	1,07%	0,55
17	ARCA Fondi SGR S.p.A	0,88%	0,45
18	BlackRock Investment Management (UK) Ltd.	0,87%	0,45
19	DWS Investment GmbH	0,85%	0,44
20	Amundi SGR SpA	0,74%	0,38

SHARES OUTSTANDING (M): 51,20

FREE FLOAT (M): 50,55

42% INSTITUTIONAL
ESG INVESTORS



Appendix

BUSINESS OVERVIEW- FIRM OWNERSHIP SUMMARY

BREAKDOWN OF INVESTORS

Style	Investors	% Outstanding Shares	Position (M)	Value (\$, M)
GARP (Growth at a Reasonable Price)	14	4.08%	2.09M	18.81M
Index (ETFs, Index Funds)	13	2.10%	1.08M	8.59M
Momentum	N/A	N/A	N/A	N/A
Hedge Fund	4	0.76%	0.39M	3.18M
Growth (Growth-Oriented Investors)	23	18.27%	9.35M	87.89M
Income (Dividend-Oriented Investors)	2	0.25%	0.13M	1.93M
Value (Value Investors)	10	7.85%	4.02M	45.93M
Other (Unclassified Investors)	2	1.31%	0.67M	5.58M
GRAND TOTAL	68	34.61%	17.72M	171.92M

GARP: Funds seeking growth but at reasonable valuations.
INDEX: Passive funds that track market indices.
MOMENTUM: the stock is not being bought for speculative trends.
HEDGE FUND: Speculative funds with aggressive strategies.
GROWTH: largest category, indicating that many funds see the stock as having strong growth potential
INCOME: Minimal presence of investors interested in dividends, suggesting that the stock is not considered a strong dividend-yielding option.
VALUE: These investors see the stock as undervalued with long-term growth potential.
OTHER: Residual category with investors that do not fit into other strategies.

BREAKDOWN OF INVESTORS BY LOCATION

Region	Investors	% Outstanding Shares	Position (\$M)	Value (\$, M)
Europe	74	41.94%	21.47M	216.06M
North America	15	1.91%	0.98M	9.04M
Asia / Pacific	3	0.06%	0.03M	0.25M
GRAND TOTAL	92	43.90%	22.48M	225.35M

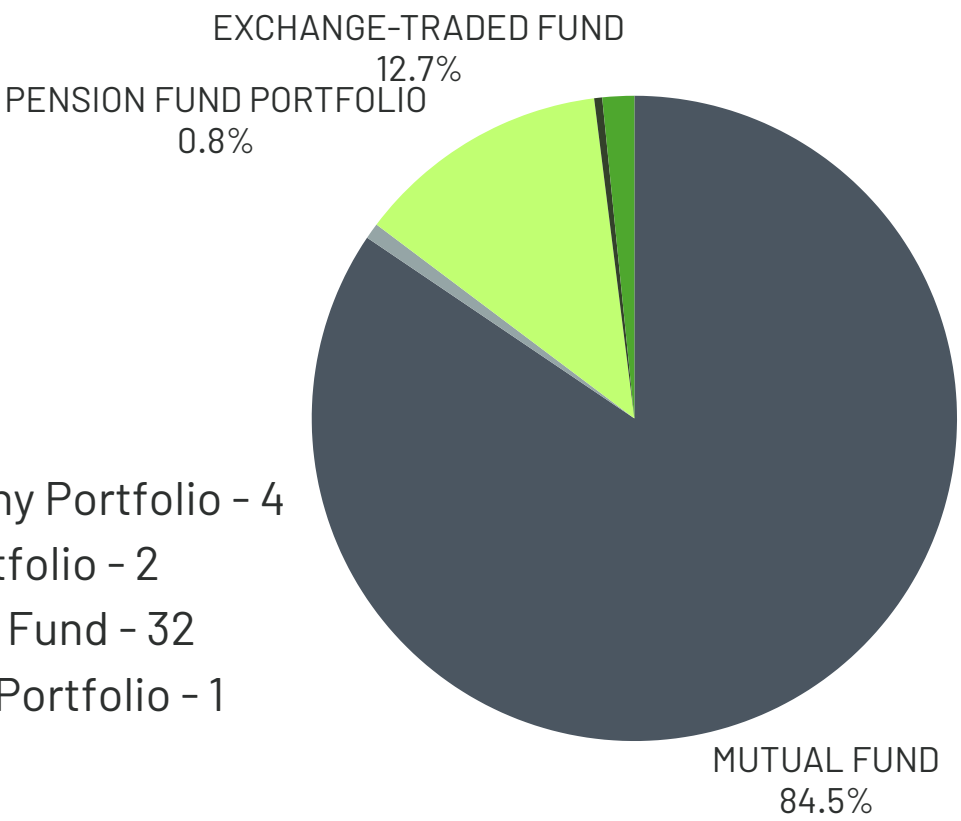
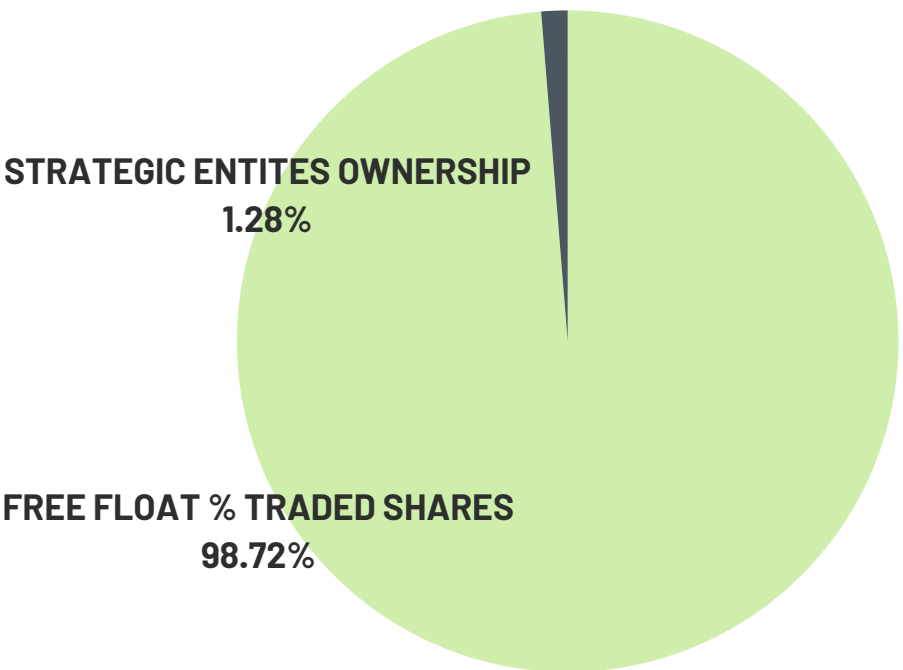
Strong European Institutional Presence, given the De Nora’s Italian roots and listing on the Italian stock Market.
Lower Us and Canadian investment and very low investment from Asia,

BUSINESS OVERVIEW- FUND OWNERSHIP SUMMARY

Appendix

Investor Rank	Investor Name	% O/S	Position (M)
1	Statens Pensjonsfond Utland	6.49%	3.32
2	Schroder ISF Global Energy Transition	2.21%	1.13
3	Ninety One Global Environment Fund	1.92%	0.98
4	Deka Umweltinvest	1.56%	0.80
5	Swedbank Robur Smabolagsfond Europa	1.52%	0.78
6	CPR Invest - Hydrogen	1.29%	0.66
7	Janus Henderson European Mid and Large Cap Fund	1.25%	0.64
8	Robeco Sustainable Water	1.21%	0.62
9	ERSTE WWF Stock Environment	1.02%	0.52
10	ERSTE GREEN INVEST	0.91%	0.47
11	DNB Miljoinvest	0.90%	0.46
12	Schroder Global Energy Transition Fund	0.87%	0.44
13	1895 Aandelen Thematic Opportunities Fonds	0.86%	0.44
14	Ninety One GSF Global Environment Fund	0.84%	0.43
15	Thematics Water Fund	0.81%	0.42
16	Nikko Global Hydrogen Equity Fund	0.73%	0.37
17	DWS Smart Industrial Technologies	0.65%	0.33
18	L&G Clean Water UCITS ETF Fund	0.62%	0.32
19	M Climate Solutions	0.61%	0.31
20	Mediolanum Flessibile Futuro Italia	0.59%	0.30

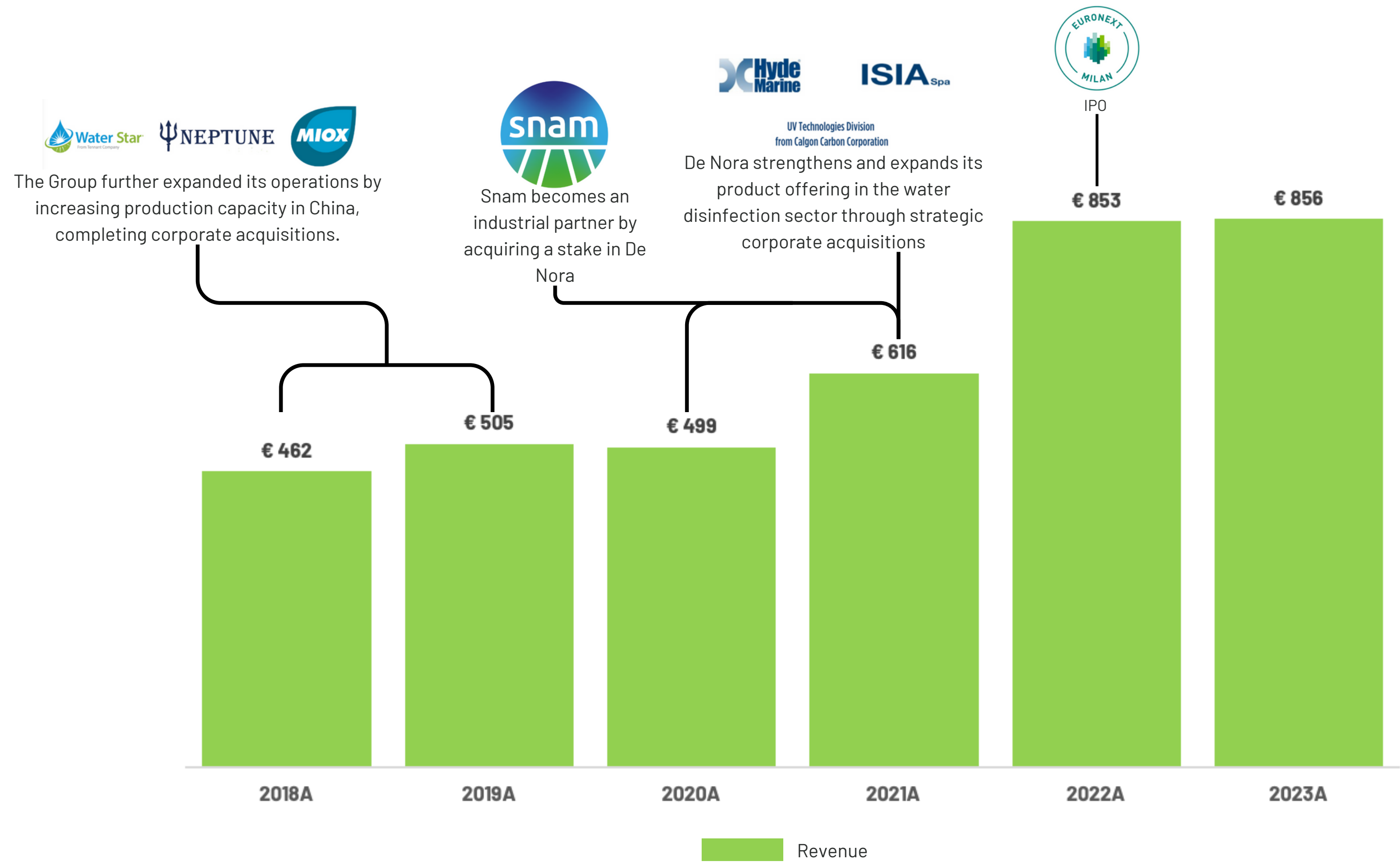
Shareholding Structure



Investor Type

- Mutual Fund - 212
- Insurance Company Portfolio - 4
- Pension Fund Portfolio - 2
- Exchange-Traded Fund - 32
- Investment Trust Portfolio - 1

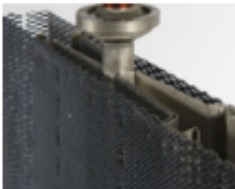
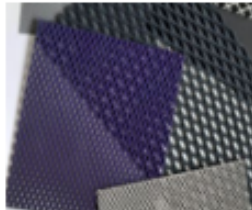
BUSINESS OVERVIEW - DE NORA'S REVENUE BOOST



BUSINESS OVERVIEW- PRODUCTS PORTFOLIO

Appendix

ELECTRODE TECHNOLOGIES

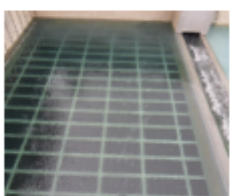
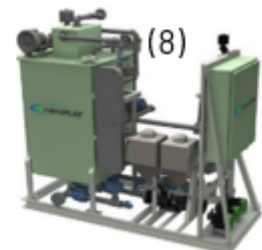
ET	BRANDS	PRODUCTS	APPLICATIONS
Chlor-Alkali	DSA® NRG®	Electrodes (anodes and cathodes) Catalytic coating Diaphragm Cells Membrane Technologies  	Electrodes to produce chlorine and caustic soda
Electronics	DSA®	Electrode (anodes)   	1) Anodes to produce: -Electrodeposited Copper Foil -Printed Circuit Boards (PCB) -Lithium Batteries 2) Anodes for surface finishing, chromium plating and electrogalvanizing
Specialties and New Applications	DSA® LIDA® ELGARD®	MMO Anodes (Mixed Metal Oxide) 	1) Refining of non-ferrous metals by electrowinning 2) Anti-corrosion protection of steel-reinforced concrete and steel structures

ENERGY TRANSITION

ETr	BRANDS	PRODUCTS	APPLICATIONS
	Dragonfly®	Electrolyser 	Advanced Alkaline Water Electrolysis, which allows the production of green hydrogen on site
	NRG® DSA®	Electrode for AWE Gas Diffusion Electrodes (GDE)	H2 Production by Alkaline Water Electrolysis (AWE)

BUSINESS OVERVIEW- PRODUCTS PORTFOLIO

WATER TECHNOLOGIES

WT	BRANDS	PRODUCTS	APPLICATIONS
Pools Technologies	DSA®	Electrodes for pool chlorinators (1) 	Saltwater pool chlorination
Electrochlorination	SANILEC® ClorTec® SEACLOR® MIOX® CECHLO®	SANILEC® TRP Offshore Seawater Biofouling Control System ClorTec® On-site Hypochlorite Generators (2)  SEACLOR® systems CECHLO® On-Site generation system (3)  MIOX® (many models)	1) Municipal Water and Wastewater Treatment 2) Water Reuse and Reclamation 3) Water treatment for Power Generation 4) Water Treatment for the Food & Beverage industry 4) Fire Protection Water Treatment for the Offshore Rig
Disinfection Systems	Capital Control® MicroChem®	Capital Control® Gas Feed System Capital Control® Scrubbers Capital Control® UV water disinfection System (4)  Capital Control® Chlorine Dioxide Generators (5)  Capital Control® Ozone Generators (5) MicroChem® 450 Controller	1) Municipal and Industrial Water and Wastewater treatment 2) Water Reuse and Reclamation 3) Cooling Water Treatment for Power Generation 4) Water treatment for the Food & Beverage Industry
Filtration Systems	DE NORA TETRA® SORB™	DE NORA TETRA Filter Underdrain (6)  DE NORA TETRA Biological Filtration DE NORA TETRA ABF Active Biological Filter SORB™FX Contaminant Removal (PFAS)(7) 	1) Municipal Water and Wastewater Treatment 2) Water Treatment for the Food & Beverage industry 3) Filtration Systems for the Steel production industry 4) Water Reuse and Reclamation
Marine Technologies*	OMNIPURE™	OMNIPURE 64 G2 (8)  OMNIPURE MC/MX	Offshore Wastewater Treatment

Appendix

*Business line closed in December 2023 because it was considered non-strategic and in 2024 it was sold to Optimarin AS, with the Hyde Marine® and Hyde Guardian® brands

BUSINESS OVERVIEW –tk Nucera JV

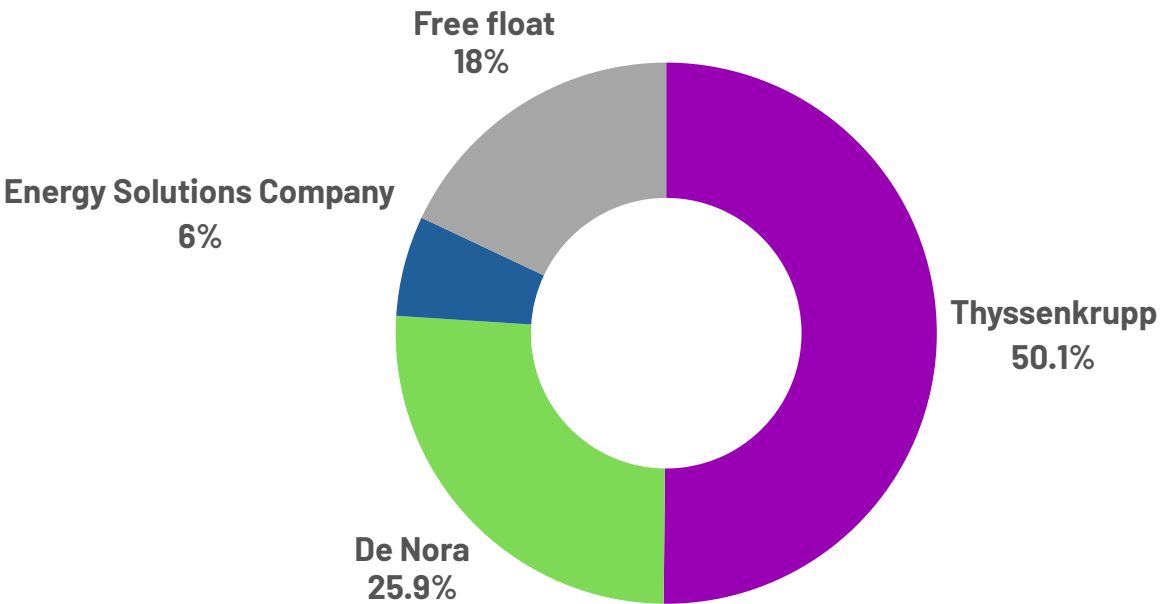
De Nora holds a **25.85%** stake in Thyssenkrupp Nucera, leader in CA electrolysis technology, key player in **industrial-scale electrolysis** for decades, with over **60 years of expertise** in electrolysis technologies, focusing on chlor-alkali (CA) and alkaline water electrolysis (AWE).

July 7, 2023:
Thyssenkrupp Nucera shares began trading on the **Frankfurt Stock Exchange**, **30,262,250 shares** placed at **€20 each**.



Leading player in Europe, expanding into North America, plans to enter in strategic growth regions in Middle East, India, and Australia.

PLAN: serve all key hydrogen markets by 2030.



BUSINESS OVERVIEW – tk Nucera JV

Toll Manufacturing and Services Agreement

Appendix

- On April 1, 2015, industrie de Nora and TK Nucera signed the TMA, last amended on October 15, 2021, governing Industrie De Nora's supply of products and services to TK Nucera. It expires on November 4, 2038, with automatic five-year renewals.
- TK Nucera and its subsidiaries in Japan, China, the U.S., Australia, and Italy ("TK Nucera Group") commit to **exclusively purchasing electrodes** (anodes and cathodes) and electrochemical cells from Industrie De Nora and its subsidiaries for their technologies. In turn, Industrie De Nora agrees to **produce and supply these products** to the TK Nucera Group.
- Industrie De Nora, also on behalf of its group companies, has committed **not to produce or supply third parties with products based on TK Nucera Group's intellectual property**. This IP cannot be used or sublicensed for such purposes, except as permitted by existing license agreements between TK Nucera Group and De Nora Group.
- Products and services must meet TK Nucera Group's **specifications**, with **mechanical warranties** provided by Industrie De Nora. TK Nucera supplies raw materials (not noble metals), while De Nora sources other components. TK Nucera grants a free IP license for manufacturing its products. Joint R&D programs aim to enhance processes, efficiency, cost reduction.
- **Exclusive Supply Agreement:** TK Nucera Group exclusively buys electrodes and electrochemical cells from Industrie De Nora, which commits to producing and supplying them.
- **Intellectual Property Restrictions:** Industrie De Nora cannot produce or supply third parties with products based on TK Nucera's IP, nor use or sublicense it, except under existing agreements.
- **Product Specifications & R&D:** Products must meet TK Nucera's specifications, with De Nora providing warranties. TK Nucera supplies raw materials (except noble metals), while De Nora sources other components. A free IP license is granted for manufacturing, and joint R&D improves processes, efficiency, and costs.
- **Liability Limitations:** Neither party is liable for lost profits, lost production, lost contracts, or other indirect damages, except in cases of confidentiality breaches, willful misconduct, gross negligence, or personal injury. Industrie De Nora's liability is capped at 100% of the product price per order, except for willful misconduct, gross negligence, health damages, patent violations, or insurance proceeds.
- **Force Majeure:** Obligations under the TMA are suspended in case of force majeure. If the suspension lasts over two months, parties may terminate the TMA in good faith.
- **Termination for Breach:** Either party may terminate the TMA for willful misconduct or gross negligence, with written notice. If the breach is not remedied within 15 days, the contract can be immediately terminated.

BUSINESS OVERVIEW- FOCUS ON THE VALUE CHAIN

Electrodes & Energy Transistion Businesses



Water Technologies Business



BUSINESS OVERVIEW - A HISTORY OF SUCCESSFUL M&As

YEAR	SEGMENT	TARGET	COUNTRY
2005	Electrode Technologies	Eltech Systems Corporation	US
2010	Electrode Technologies	Permelec (Mitsui)	JAPAN
2011	Electrode Technologies	Chlorine Engineer Group (Mitsui)	JAPAN
2015	Electrode Technologies & Energy Transition	ThyssenKrupp Uhde Chlorine Engineers JV (now Thyssenkrupp Nucera)	GERMANY
2015	Water Technoogies	Seven Trent's Water Purification	UK/US
2015	Water Technoogies	Ozono Elettronica Internazionale (IT)	ITALY
2018	Electrode Technologies	Water Star	US
2019	Water Technologies	MIOX	US
2019	Water Technologies	Neptune	US
2021	Energy Transition	Azul Energy	JAPAN
2021	Water Technologies	ISIA (Grundfos)	ITALY
2021	Water Technologies	UV Technologies Division (Calgon Carbon)	US
2023	Electrode Technologies	Shotec Gmbh	GERMANY

BUSINESS OVERVIEW- ZOOMING IN ON THE GOALS

Appendix

ELECTRODE TECHNOLOGIES

Optimization of the use and recovery of precious metals to improve **cost efficiency**

Expansion of **manufacturing capacity** to meet growing demand

Strengthening of **relationships** with customers and partners

Further strengthening of the company's commitment to delivering long-term value through the development of **aftermarket services** and the introduction of **innovative electrode solutions**

Preserving its **leadership position** in the pool electrode market

Water treatment systems business: growth in key strategic markets (municipal and industrial) through an optimized technology portfolio

Improving **differentiation** through product optimization and cost reduction

WATER TECHNOLOGIES

ENERGY TRANSITION

Establishing itself as a **leader** in the **hydrogen production market**

Creation of the largest electrolyzer production hub in Italy - **the Gigafactory** - through the joint venture with Snam

Development of **critical components** for hydrogen generation

BUSINESS OVERVIEW – GIGAFACTORY

De Nora and **Snam** established De Nora Italy Hydrogen Technologies on **May 27, 2022**, to meet the growing demand for green hydrogen in Italy and beyond. The Gigafactory, with a capacity of up to **2GW for electrolyzer manufacturing**, will play a key role in energy transition, providing cutting-edge solutions for decarbonization and the circular economy.



De Nora plans to invest approximately **€100 million** in the construction of its Italian Gigafactory. This investment is supported by up to **€63 million in public funding**, as the project is considered strategically important at both national and European levels.

JUNE 11, 2024 – CERNUSCO SUL NAVIGLIO (MILAN)

Construction ON one of Italy's largest green hydrogen production facilities, strengthening the country's energy independence

DECEMBER 2024 / FEBRUARY 2025

ongoing works

END 2025/ BEGINNING 2026

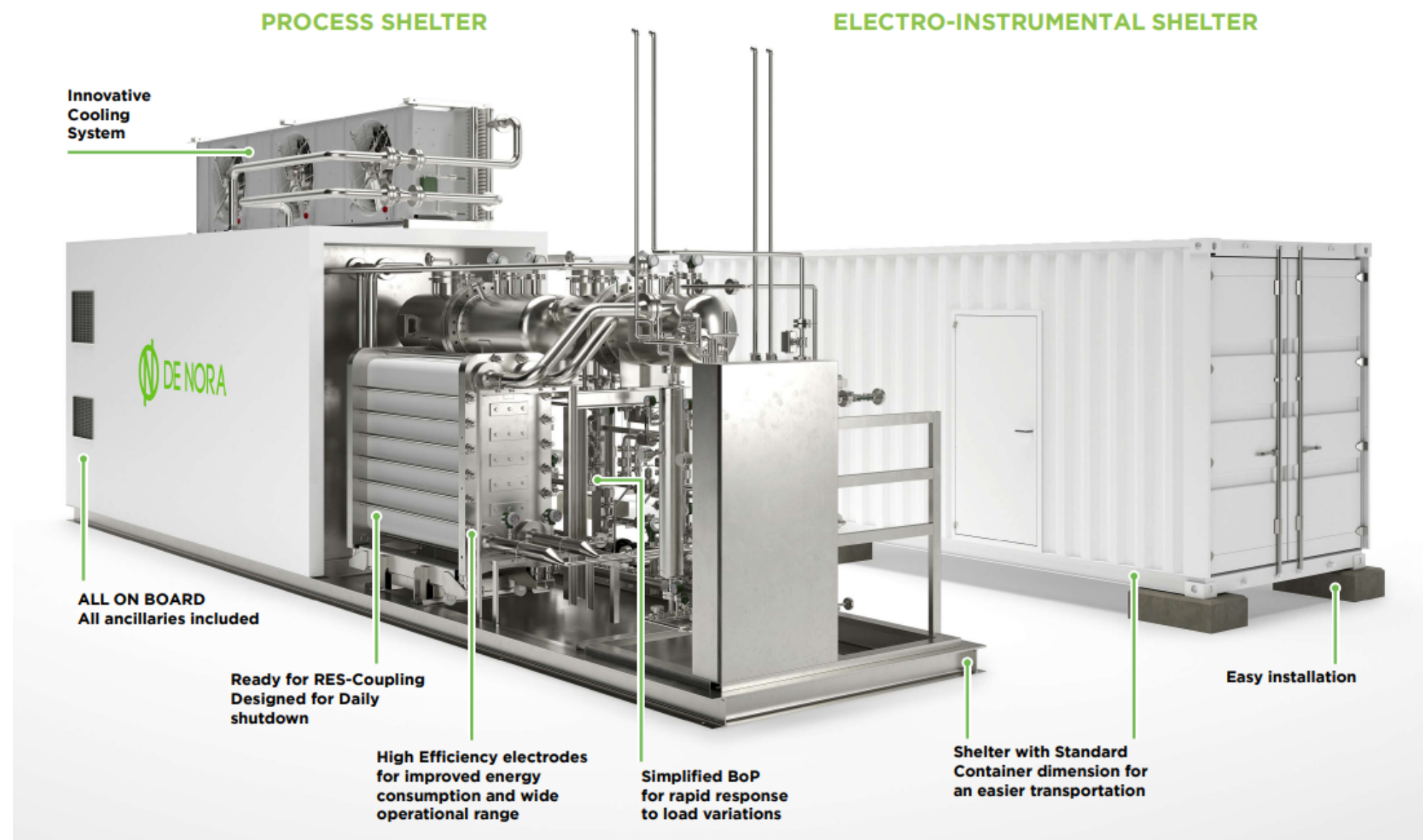
Expected end of construction

Appendix

BUSINESS OVERVIEW – GIGAFACTORY – DRAGONFLY

Appendix

Dragonfly® is an advanced alkaline water electrolyzer designed to bridge the gap between efficiency and affordability in green hydrogen production. Its **compact** and **user-friendly** design ensures easy installation and operation, even **for non-specialized users**. With a pressurized system generating H₂ and O₂ at 30 bar, Dragonfly® eliminates the need for additional compression, making it an optimal solution for **industrial applications**.



DESIGNED TO

- Reduce power consumption
- Optimize CAPEX for small and medium-scale applications
- Maximize operating current density (CD)
- Push AWE technology closer to PEMWE performance levels

COST-EFFICIENT HYDROGEN PRODUCTION

- Hydrogen generation with only power and water supply
- Designed to reduce Total Cost of Ownership (TCO):
- Lower Initial Investment → High current density reduces material consumption; no Noble Metals used as catalysts.
- Reduced Maintenance Costs → Simplified BoP and EoL electrode refurbishment.
- Lower Operational Costs → High efficiency leads to power consumption savings.

BUSINESS OVERVIEW- SWOT ANALYSIS

Appendix

ET

Undisputed industry leadership

Proprietary technologies, continuous R&D

Strong knowledge and know-how

Long-term customer relationship

WT

Leadership in Pools market (electrochlorination)

High revenue diversification (many geographic areas, markets and applications)

Brand recognition and solid reputation

ETr

Cutting-edge proprietary technology

Distinctive global manufacturing capacity (2.5 GW)

Solid partnership with Thyssenkrupp

Best in-class R&D activities

S

W

High R&D costs to maintain the leadership position in some industry

Dependence on the supply chain of noble metals

ETr

Need for significant initial investments to expand production capacity and infrastructure

O

Possibility of new acquisitions in the next years

WT

Stricter regulations regarding contaminants, including PFAS substances

Water scarcity in many regions, especially in emerging economies

ETr

Growing demand for solutions for green hydrogen (produced by electrolysis)

Expansion of the global hydrogen market as a key element of the energy transition

T

Regulatory changes that could impact the use of certain chemicals or technologies, particularly the use of noble metals

Risks related to the supply chain, especially for noble metals

ETr

High competition in the hydrogen production, an expanding industry

Industry not yet exploded, with uncertainty about when it will happen

INDUSTRY OVERVIEW - ELECTRODE TECHNOLOGY DEMAND DRIVERS

ELECTRODE TECHNOLOGIES

Chlor-Alkali

CAGR 3.5%

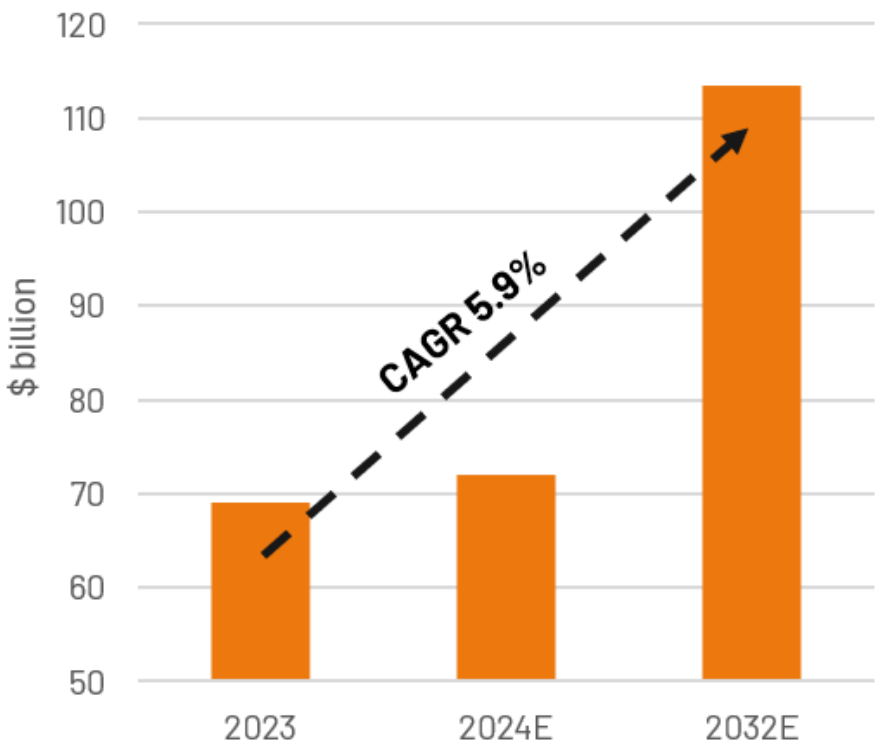
- 1. acceleration of the **replacement process** for first-generation membrane electrolyzers;
- 2. increase in chlorine and caustic soda production;
- 3. rise in average selling prices;
- 4. migration towards membrane technology.

Electronics

CAGR 7.5%

Increase in demand for consumer electronics and innovations in the automotive sector (for example, higher PCB content in electric vehicles compared to traditional ones; the rise of advanced driver-assistance systems, etc.).

Printed Circuits Board Market Size (\$ bln)



Specialities and New Applications

CAGR 8.7%

- 1. **Expansion in Copper Electrolytic Refining** - due to increased adoption
- 2. **Service Demand** - Ongoing maintenance and support for existing plants
- 3. **Price Increases** - rising costs of noble metals used in catalytic coatings are driving higher electrode prices.

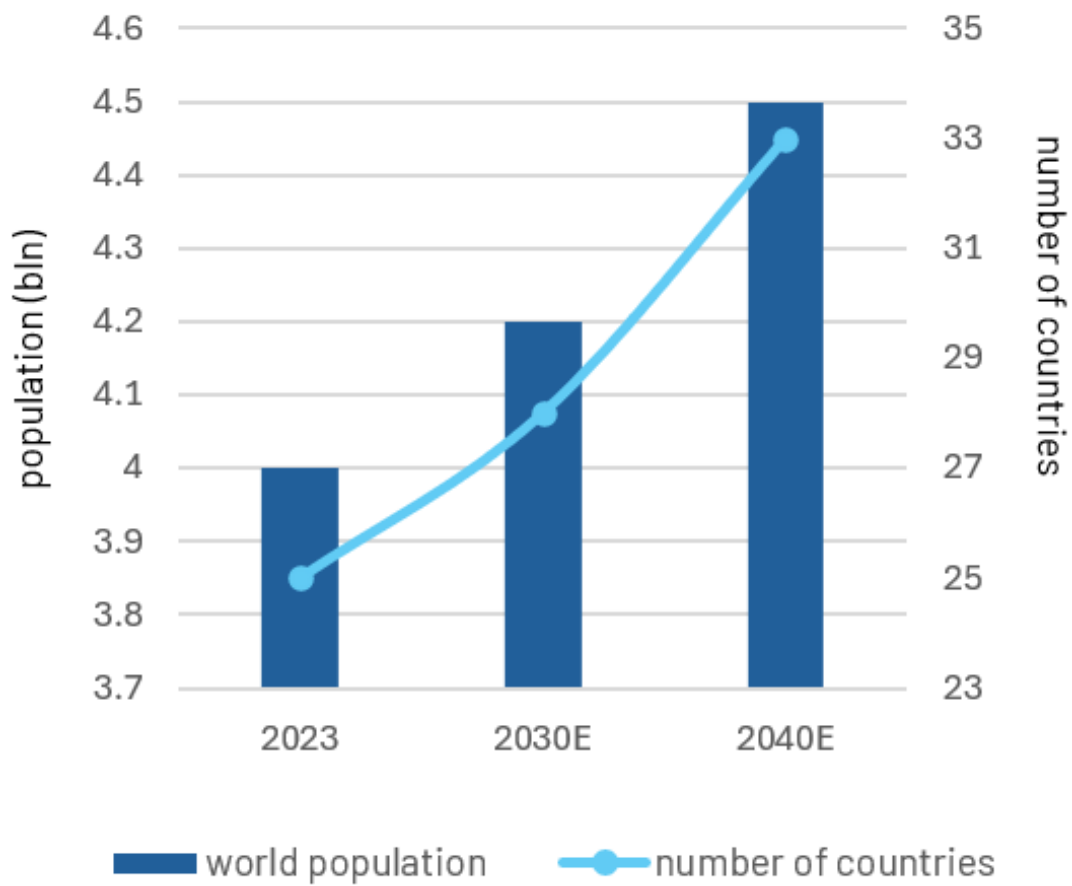
INDUSTRY OVERVIEW - WATER TECHNOLOGY DEMAND DRIVERS

Appendix

WATER TECHNOLOGIES

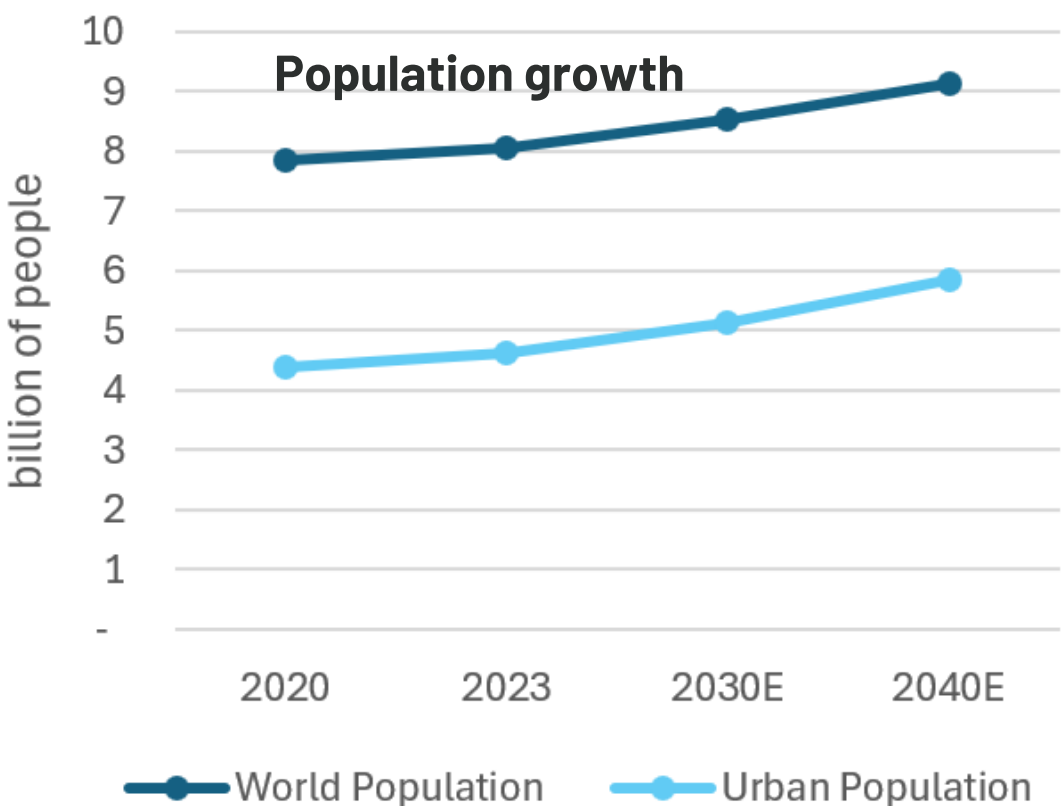
CAGR 7.5%

Population and number of countries facing high water stressed



The growth in demand for municipal disinfection and filtration systems is driven by:

- **growth of population and urbanization**
- water scarcity in many regions
- climate change
- stricter regulations regarding contaminants including **PFAS**



The growth of the industrial chlorination market is mainly attributed to **growth of industrialization and the need for disinfection systems**

INDUSTRY OVERVIEW – ENERGY TRANSITION DEMAND DRIVERS

ENERGY TRANSITION

- 1. **Growing Global Energy Demand:** Global energy demand is expected to increase by 11% to 18% by 2050, driven by a more complex geopolitical landscape and the emergence of new demand sources.
- 2. **Climate Goals:** Renewable hydrogen plays a crucial role in limiting global temperature rise, ensuring it stays below 2°C by 2050, in line with the long-term targets set by the Paris Agreement for climate neutrality.
- 3. **Zero Emissions:** Green hydrogen does not produce greenhouse gas emissions during its production or use, making it a key contributor to reducing CO2 emissions and promoting a cleaner environment.
- 4. **Renewable Energy:** Green hydrogen is produced using renewable energy sources, which are sustainable and non- depletable, unlike fossil fuels. Renewables currently provide 32% of global power and are projected to reach 65–80% by 2050, driven by falling costs (source: global-energy-perspective).
- 5. **Versatility:** Green hydrogen can be applied across various sectors, including transportation, energy, and industry, making it a flexible solution for the clean energy transition.

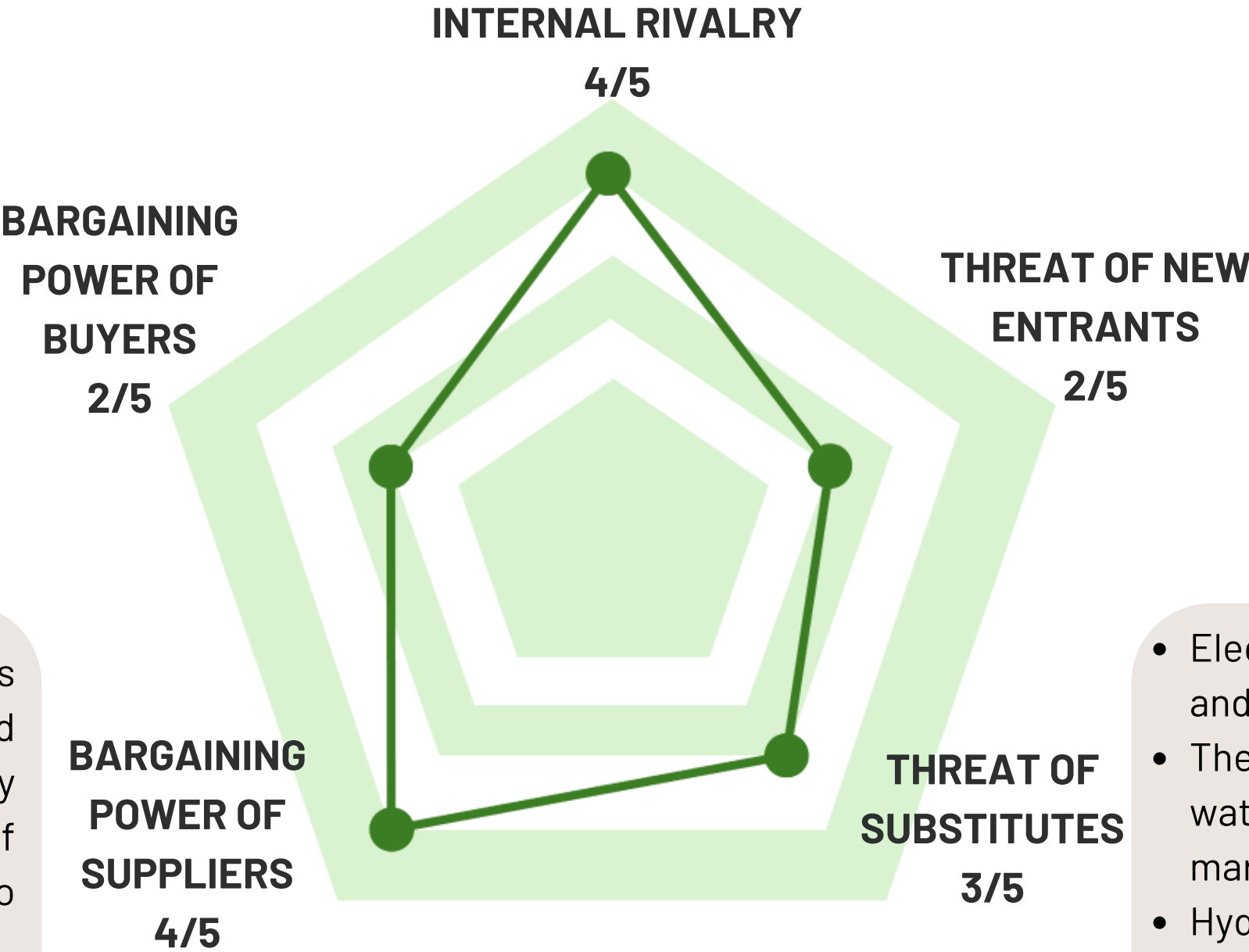
	AWE	PEM	SOEC
Development phase	Consolidated	Expansion	Emerging
Cost	Low	High	High
Flexibility	Low	High	-
Efficiency	Low	Medium-high	High

INDUSTRY OVERVIEW – PORTER’S FORCES

- ET: relatively stable industry
- WT: fragmented industry with many multinational companies and regional players
- ETr: the green hydrogen industry is expected to grow rapidly in the future, attracting new players and increasing competition

Given the wide range of applications of these products across many different markets, there are many customers willing to purchase, so their bargaining power is relatively low.

The production of electrodes requires various metals (like noble metals), and suppliers of these are highly concentrated and large. The power of suppliers is somewhat reduced due to competition among them.



- There are many barriers to entry:
- Strict regulations and standards
 - Incumbent experience
 - Stable relationships
 - Need of large financial resources

- Electrodes are used in a wide range of products, and it is not possible to replace them.
- There are various technologies and systems for water treatment, but none of them can meet all market demands on their own.
- Hydrogen is not the only renewable energy source, but it is produced without CO₂ emissions.

INDUSTRY OVERVIEW – COMPETITIVE POSITIONING



De Nora’s competitive advantage in the Electrode Technologies segment is supported by its cutting-edge technologies, an evolving and innovative product portfolio, and robust global operational capabilities.

Chlor-alkali: approximately 50% of the global electrodes market share

Electronics: 50-60% market share in copper foil and printed circuit board (PCB) applications

Electrowinning: market share of 50-65% in titanium anodes



De Nora holds a distinct competitive edge in the water treatment and electrochlorination markets, positioning itself as a global leader in these industries, and has established itself as the benchmark for performance and reliability

De Nora’s global reach and vertical integration allow it to dominate not only in industrial electrochlorination but also across broader water treatment solutions

Leadership position in Pool technologies and in Industrial chloration



De Nora occupies a critical position in the green hydrogen market as a leading supplier of advanced components for electrolyzers, with a focus on alkaline water electrolysis (AWE) technologies and ongoing development of proton exchange membrane (PEM) technologies

Its high-performance electrodes are recognized for their efficiency, durability, and adaptability, making them essential for multiple electrolyser technologies

De Nora is strategically expanding into the integrated electrolyser market with the construction of a Gigafactory and the planned launch of its proprietary Dragonfly electrolyser

INDUSTRY OVERVIEW – PESTEL ANALYSIS

P	E	S	T	E	L
• Government subsidies for the green hydrogen industry • Geopolitical conflicts: The electrode production industry depends on the supply of noble metals, that are primarily sourced from geopolitically unstable regions. • New US government: it is expected to slow the energy transition and decarbonization efforts. • International Electrotechnical Commission (IEC): Develops global technical standards and regulations for the production, and application of electrodes. • World Health Organization (WHO): Issues the Guidelines for Drinking Water Quality.	• Currency fluctuations: Companies operating internationally are exposed to exchange rate risks due to currency fluctuations affecting commercial transactions. • Global economic growth: The OECD estimates global GDP growth of 3.2% in 2024 and 2025, accompanied by further inflation reduction, improvements in real incomes, and less restrictive monetary policies in many economies. This will help support demand.	• Demographic changes: The World Bank projects a 15% population growth and a 30% increase in the urban population by 2040. • Growing industrialization: The increasing demand for water treatment solutions to meet industrial water needs will positively impact De Nora's WT business. • Environmental awareness: Consumers and businesses are becoming more concerned about environmental issues.	• Material innovations: Continuous research on graphene-based electrodes, innovative coatings, and hybrid materials aims to improve electrode performance and durability. • Emerging technologies: New applications of electrodes, such as electrochemical desalination, and advancements in green hydrogen production technologies using electrodes positively impact the electrode manufacturing industry.	• Resource scarcity: The World Resource Institute estimates a 56% gap between water supply and demand by 2030. • Climate change: Increasing concerns about climate change are driving demand for clean energy solutions and optimizing processes to reduce the use and waste of critical materials like noble metals.	• Patent regulations: Protecting intellectual property is essential for companies developing new technologies. • New PFAS regulations: Stringent regulations are in place for PFAS due to their risks to human health and the environment.

ESG ANALYSIS - METHODOLOGY

To assess the Company's adherence to ESG principles, we conduct a detailed evaluation based on **61 key metrics** along the 3 dimensions.
The De Nora's position was evaluated using the **average performance of the 12 peers** already selected for the multiple analysis.

- This is our methodology:
- 1. Each metric was assigned a value for De Nora based on its **relative position** to the peers' average.
 - 2. With the average of the individual values, the score for each key factor (bucket) was obtained and then the grade for each dimension was calculated by the weighted average of the factor scores.
 - 3. The weighted average of the three dimensions' values led to the **final score and to the rating** for De Nora, using Refinitiv's weights and conversion scale.



22 METRICS

Resource Use
Emissions
Innovations



22 METRICS

Workforce
Human Rights
Community
Product Responsibility



17 METRICS

Management
Shareholders
CSR Strategy



SCORE
6.00



ESG Conversion Scale

[9.17 - 10]	AAA
[8.34 - 9.16]	AA
[7.51 - 8.33]	A
[6.67 - 7.50]	BBB
[5.84 - 6.66]	BB
[5.01 - 5.83]	B
[4.17 - 5.00]	CCC
[3.34 - 4.16]	CC
[2.51 - 3.33]	C
[0 - 2.50]	D

ESG ANALYSIS-ENVIRONMENTAL SCORE: 5.7

ENVIRONMENTAL

BUCKET	METRIC	DE NORA	COMPETITORS average (Max-Min)	SCORE	
				METRIC	BUCKET
RESOURCE USE 7.60%	Resource Reduction Policy	TRUE	100% T	6.0/10	4.7/10
	Policy Water Efficiency	TRUE	100% T	6.0/10	
	Policy Energy Efficiency	FALSE	92% T - 8% F	0.3/10	
	Policy Sustainable Packaging	TRUE	17% T - 83% F	9.3/10	
	Policy Environmental Supply Chain	TRUE	100% T	6.0/10	
	Resource Reduction Targets	FALSE	75% T - 25% F	1.0/10	
	Targets Water Efficiency	FALSE	58% T - 42% F	1.7/10	
	Targets Energy Efficiency	FALSE	50% T - 50% F	2.0/10	
	Total Energy Use / Million in Revenue \$	424.06	598.26 (2,435.18 - 173.35)	7.0/10	
	Renewable Energy Use Ratio	3.24%	11.83% (18.66% - 0.13%)	1.7/10	
	Total Water Use / Million in Revenue \$	225.36	21,427.49 (220,562 - 40.34)	8.0/10	
	Policy Resource Efficiency	TRUE	58% T - 42% F	7.7/10	
EMISSIONS 8.50%	Policy Emissions	FALSE	92% T - 8% F	0.3/10	4.6/10
	Targets Emissions	TRUE	83% T - 17% F	6.7/10	
	Emissions Reduction Target Percentage	50%	37.40% (100% - 3%)	5.0/10	
	Total CO2 Emissions / Million in Revenue \$	41.88	77.23 (407.6 - 16.74)	1.0/10	
	Total Waste / Million in Revenue \$	7.61	25.80 (149.03 - 2.96)	8.0/10	
	Waste Recycled to Total Waste	41.82%	64.17% (99.80% - 18.51%)	4.2/10	
	ISO 14000 or EMS	ISO 14000	84% ISO - 8% no - 8% both	6.7/10	
ENVIRONMENTAL INNOVATION 18%	Renewable/Clean Energy Products	TRUE	58% T - 42% F	7.7/10	7.8/10
	Water Technologies	TRUE	50% T - 50% F	8.0/10	
	Life Cycle Analysis	TRUE	58% T - 42% F	7.7/10	



Appendix

Source: Refinitiv, Team assessment

ESG ANALYSIS - SOCIAL SCORE: 6.4

SOCIAL

BUCKET	METRIC	DE NORA	COMPETITORS average (Max-Min)	SCORE	
				METRIC	BUCKET
WORKFORCE 7.80%	Health & Safety Policy	TRUE	100% T	6.0/10	6.7/10
	Policy Employee Health & Safety	TRUE	100% T	6.0/10	
	Policy Supply Chain Health & Safety	TRUE	100% T	6.0/10	
	Policy Career Development	TRUE	92% T - 8% F	6.3/10	
	Women Employees	20%	24.22% (31% - 15%)	6.5/10	
	Women Managers	27.91%	24.39% (31% - 5.40%)	9.0/10	
	Total Injury Rate Employees	2.81	6.94 (14.08 - 0.71)	9.0/10	
	Accidents Total	12	107.25 (411 - 11)	9.0/10	
	Average Training Hours	9	30.43 (45.72 - 16.71)	2.0/10	
	Supplier ESG training	TRUE	58% T - 42% F	7.7/10	
HUMAN RIGHTS 11.4%	Human Rights Policy	TRUE	100% T	6.0/10	6.0/10
	Policy Human Rights	TRUE	92% T - 8% F	6.3/10	
	Equal Pay for Equal Work	FALSE	67% T - 33% F	1.3/10	
	Policy Minimum Wage	TRUE	58% T - 42% F	7.7/10	
	Policy Working Hours	TRUE	33% T - 67% F	8.7/10	
COMMUNITY 9.5%	Donations / Million in Revenue	235.52	318.37 (851.32 - 32.96)	2.8/10	6.0/10
	Crisis Management Systems	TRUE	75% T - 25% F	7.0/10	
	Corruption Due Diligence	TRUE	42% T - 58% F	8.3/10	
PRODUCT RESPOSABILITY 9.5%	Policy Customer Health & Safety	TRUE	50% T - 50% F	8.0/10	6.7/10
	Policy Data Privacy	TRUE	100% T	6.0/10	
	Policy Cyber Security	TRUE	92% T - 8% F	6.3/10	
	ISO 9000	TRUE	92% T - 8% F	6.3/10	



Appendix

Source: Refinitiv, Team assessment

ESG ANALYSIS - GOVERNANCE SCORE: 5.9

GOVERNANCE

BUCKET	METRIC	DE NORA	COMPETITORS average (Max-Min)	SCORE	
				METRIC	BUCKET
MANAGEMENT 19%	Compensation Board Committee	FALSE	100% T	0.0/10	4.7/10
	Policy Board Diversity	TRUE	100% T	6.0/10	
	Policy Executive Compensation ESG Performance	TRUE	92% T - 8% F	6.3/10	
	Audit Committee Independence	66.67%	87.32% (100% - 50%)	6.7/10	
	Number of Board Meetings	10	9.5 (15 - 5)	6.7/10	
	Board Size	13	10 (16 - 6)	8.1/10	
	Board Gender Diversity, Percent	30.77%	33.36% (50% - 12.5%)	6.2/10	
	Average Board Tenure	3.02 Yrs	6.36 Yrs (10.35 - 2-72)	2.9/10	
	Independent Board Members	46.67%	69.75% (92.31% - 30%)	5.1/10	
	Sustainability Compensation Incentives	FALSE	92% T - 8% F	0.3/10	
SHAREHOLDERS 5.7%	Board Member Compensation, \$	1,117,395	1,695,757	3.5/10	7.7/10
	Shareholder Rights Policy	TRUE	100% T	6.0/10	
CSR STRATEGY 3.8%	Different Voting Right Share	TRUE	17% T - 83% F	9.3/10	5.2/10
	CSR Sustainability Reporting	TRUE	100% T	6.0/10	
	GRI Report Guidelines	TRUE	100% T	6.0/10	
	Number of SDG	10	8.92 (16 - 0)	6.3/10	
	Policy Tax Transparency	FALSE	33% T - 67% F	2.7/10	



Source: Refinitiv, Team assessment

Appendix

ESG STRATEGY

GREEN INNOVATION



CLIMATE ACTION
AND
CIRCULAR ECONOMY



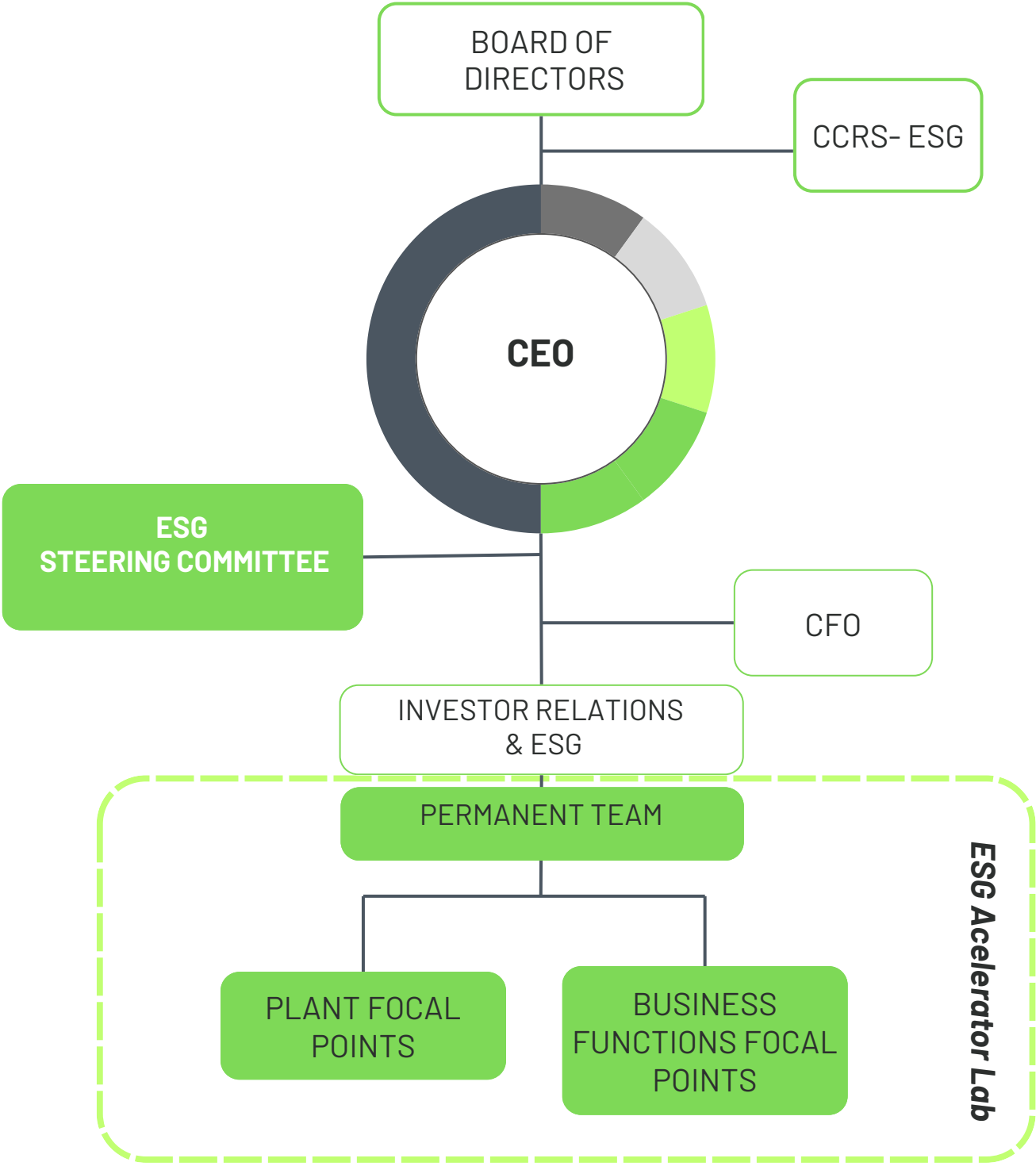
PEOPLE:
INCLUSION & WELLBEING



ENGAGEMENT OF LOCAL
COMMUNITIES, PARTNERSHIPS,
SUSTAINABLE SUPPLY CHAIN

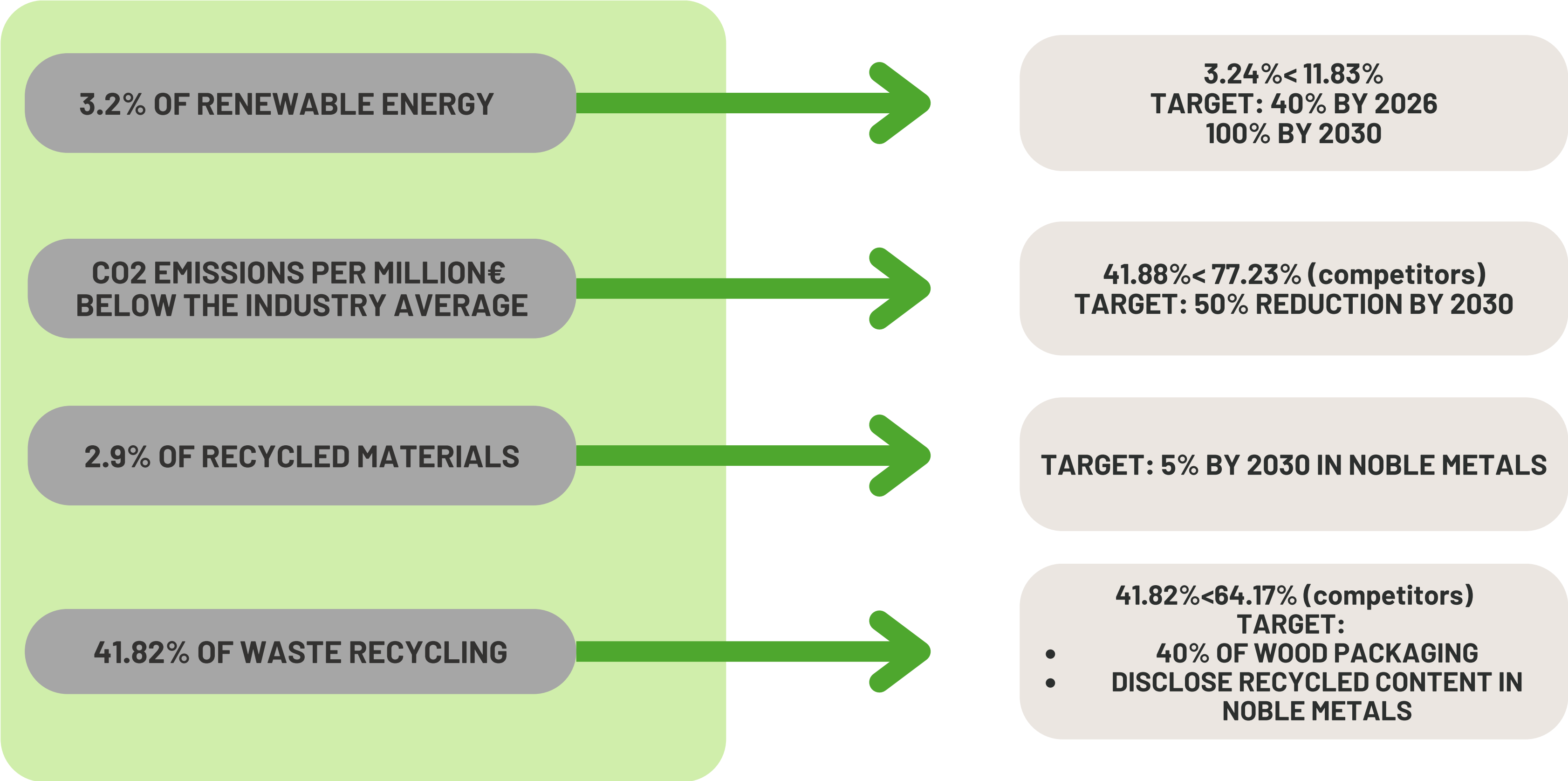


ORGANIZATIONAL STRUCTURE INVOLVED IN DEVELOPING AND MONITORING THE STRATEGY



ESG PERFORMANCE - ENVIRONMENTAL (1)

Appendix



ESG PERFORMANCE - ENVIRONMENTAL (2)

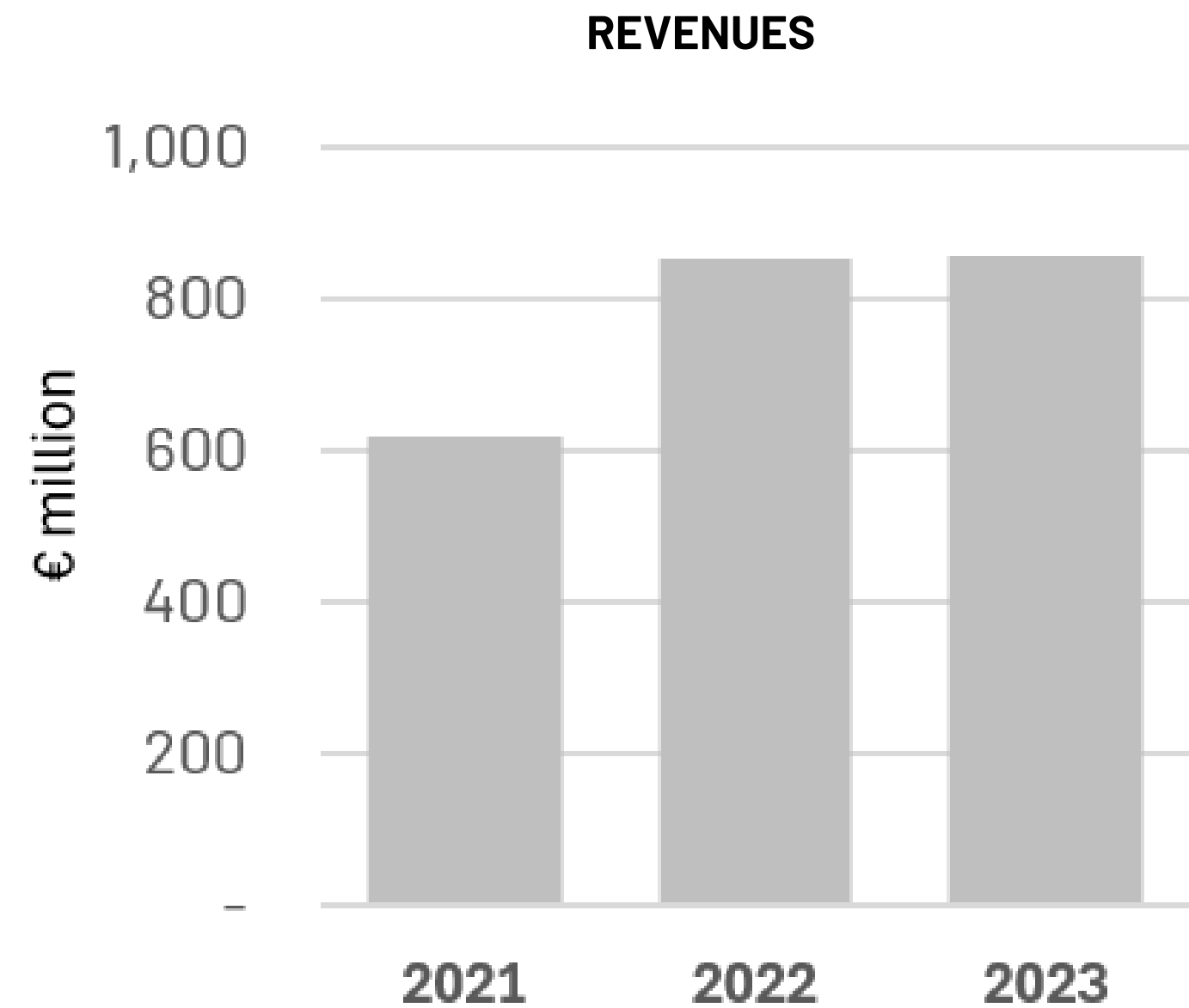
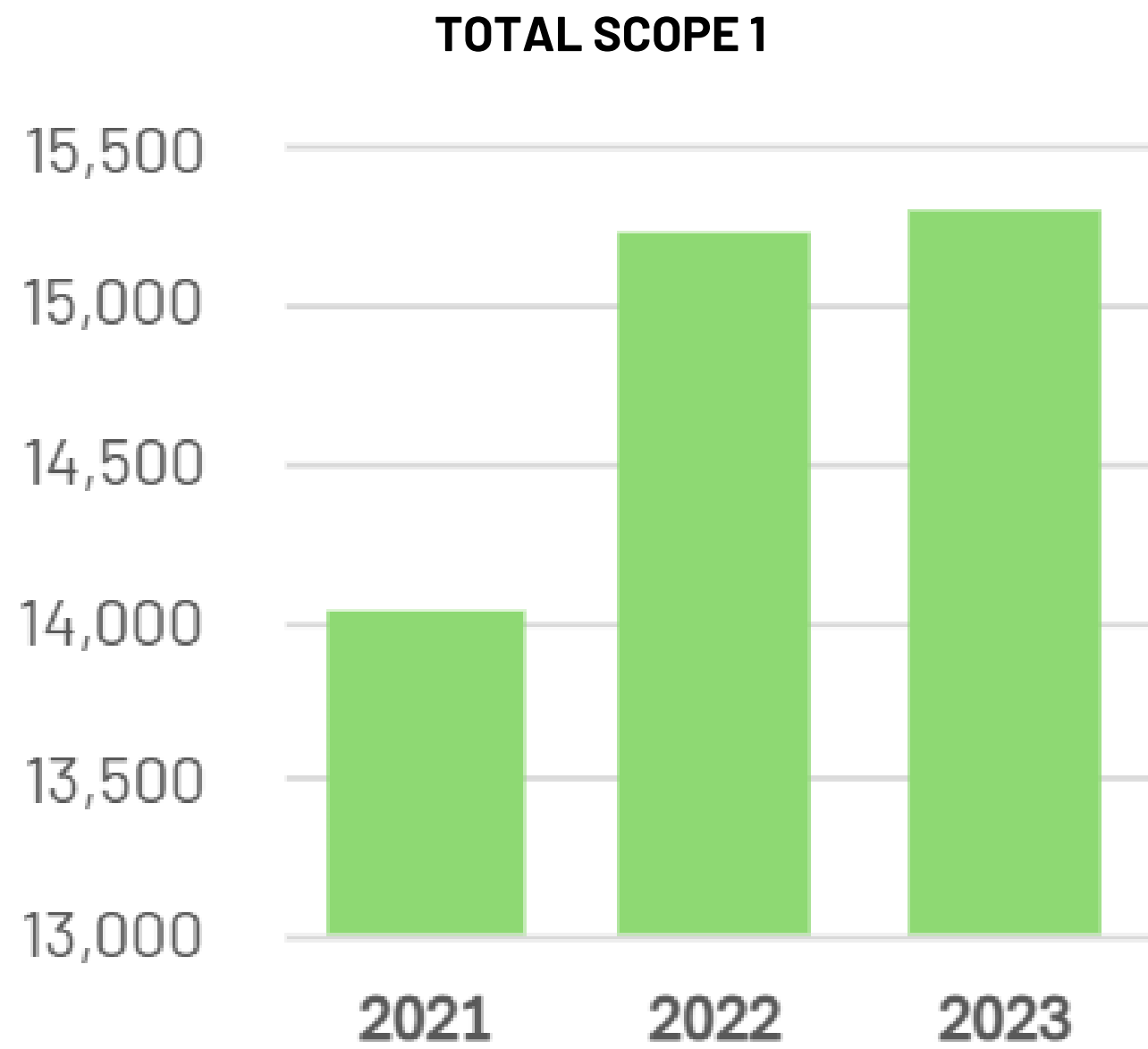
INTERNATIONAL CERTIFICATIONS RELATED TO ENVIRONMENTAL RESPONSIBILITY OBTAINED

LEGAL ENTITY	COUNTRY	ISO 14001	ISO 50001
De Nora Deutschland Gmbh	Germany		
De Nora India Ltd.	India		
De Nora Permalec Ltd.	Japan		
De Nora Italy S.r.l	Italy		
De Nora Water Technologies Italy S.r.l	Italy		

ISO 14001: 2023 13% - TARGET: 100% BY 2025

ISO 50001: 2023 27% - TARGET: 100% BY 2025

ESG PERFORMANCE - ENVIRONMENTAL- SCOPE 1



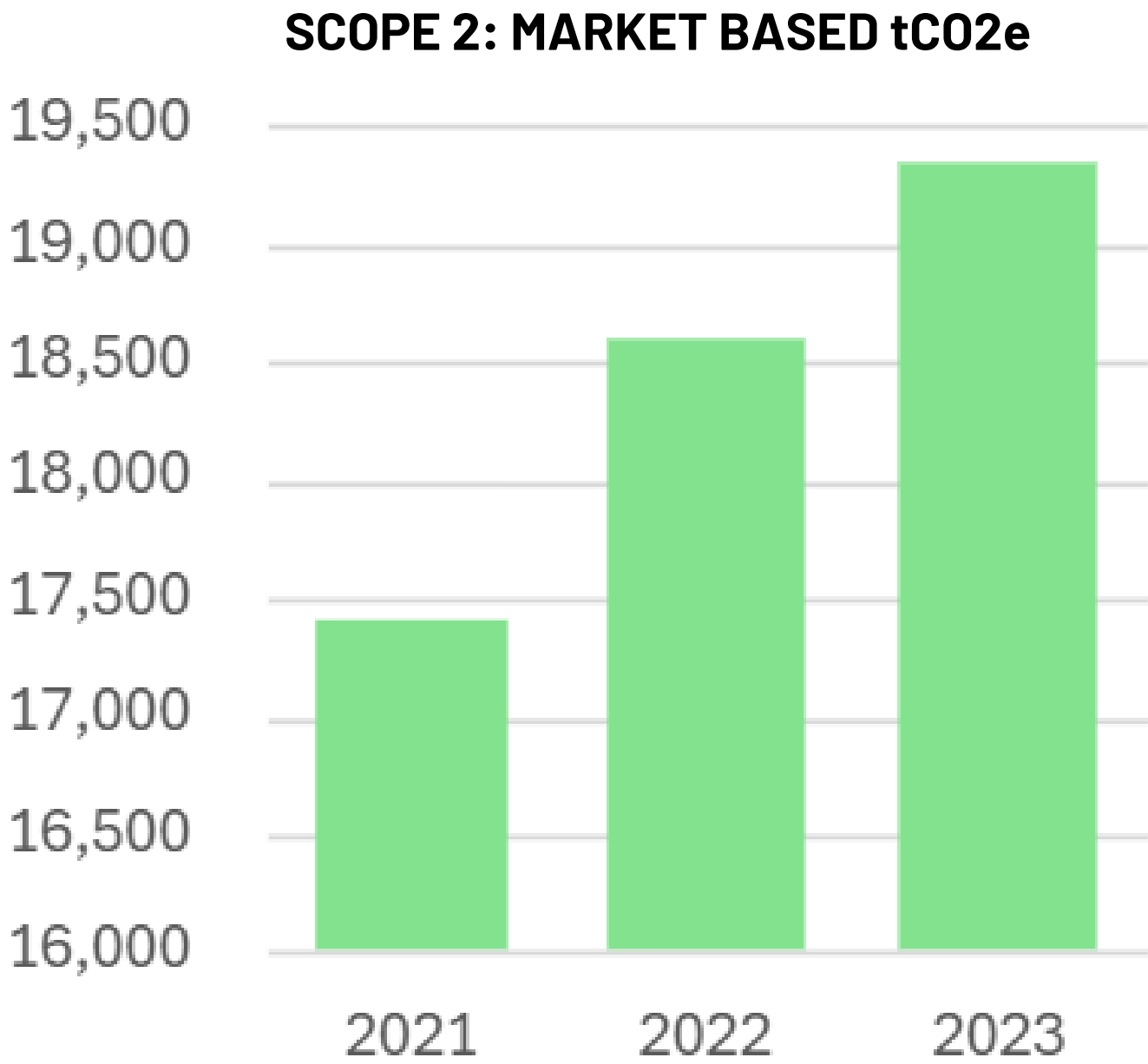
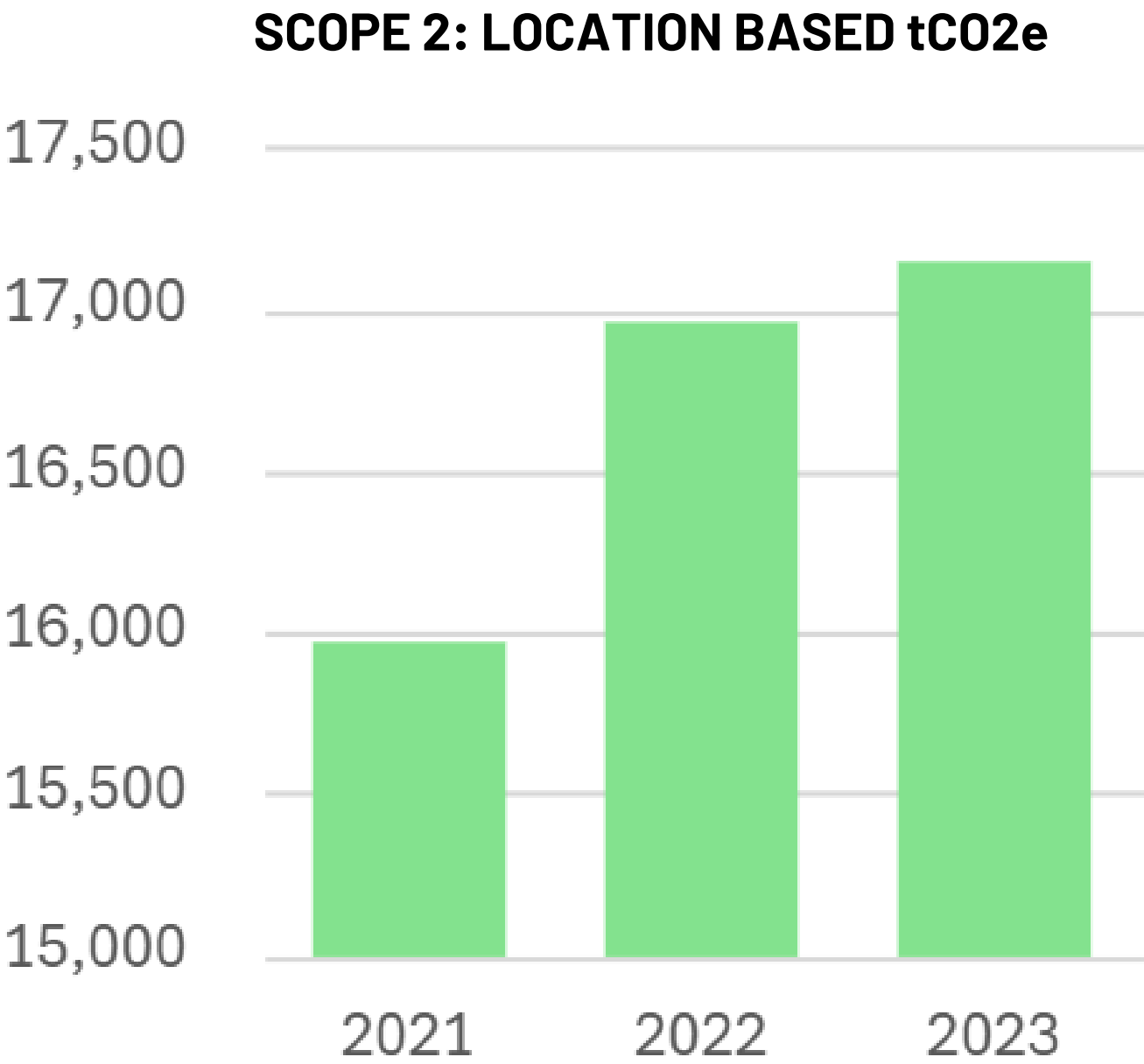
Scope 1 emissions increased slightly in 2023, primarily driven by higher natural gas consumption, which accounted for 93% of total Scope 1 emissions.

Scope 1 emissions reduction -50% by 2030 -25% by 2027

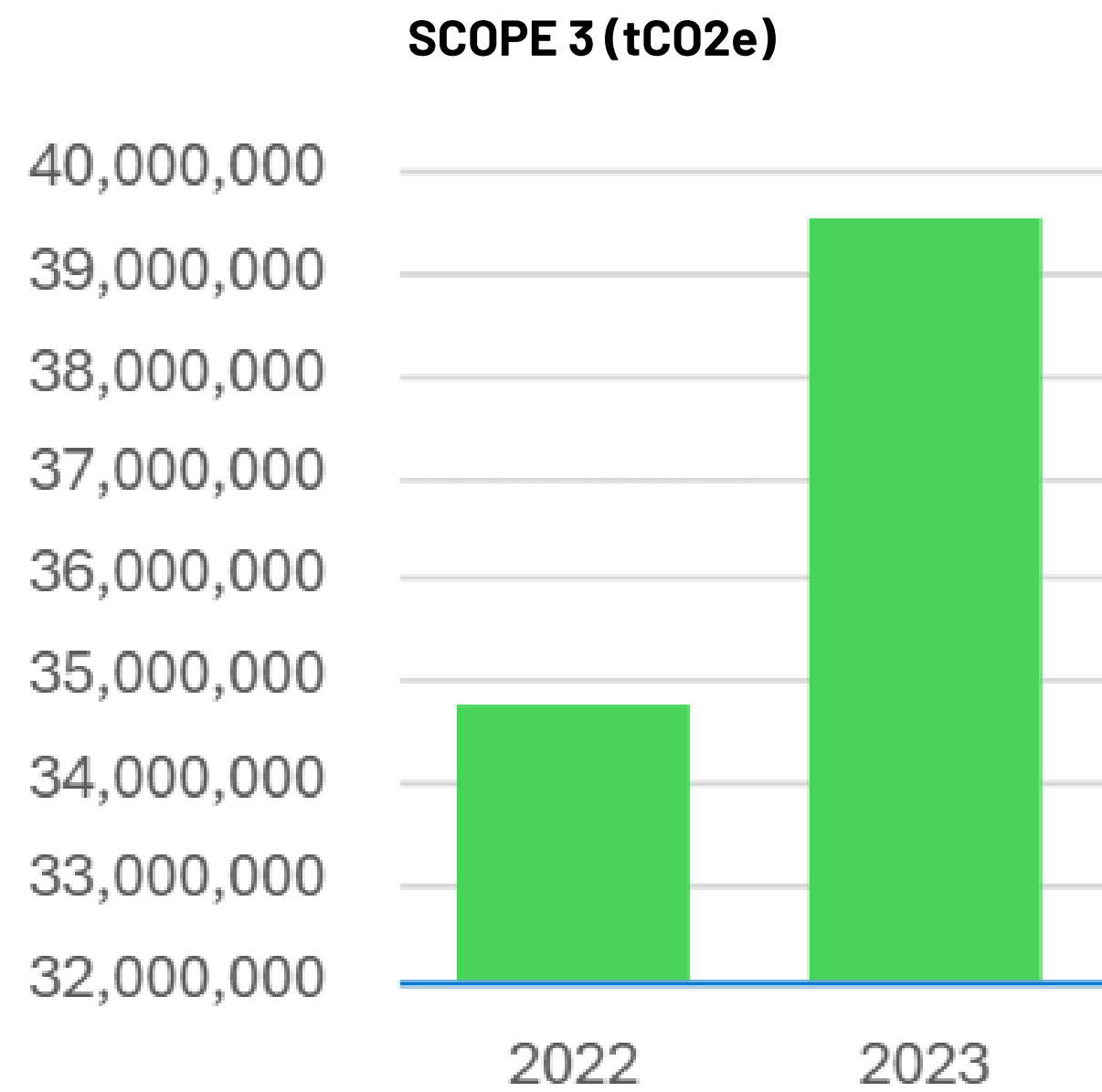
ESG PERFORMANCE - ENVIRONMENTAL- SCOPE 2

Appendix

INDIRECT GHG EMISSIONS- Market-based emissions have been higher than location-based emissions every year, indicating that the company is purchasing a larger share of energy from non-renewable sources.
Scope 1 and 2 emissions reduction -50% by 2030 -25% by 2027



ESG PERFORMANCE - ENVIRONMENTAL- SCOPE 3

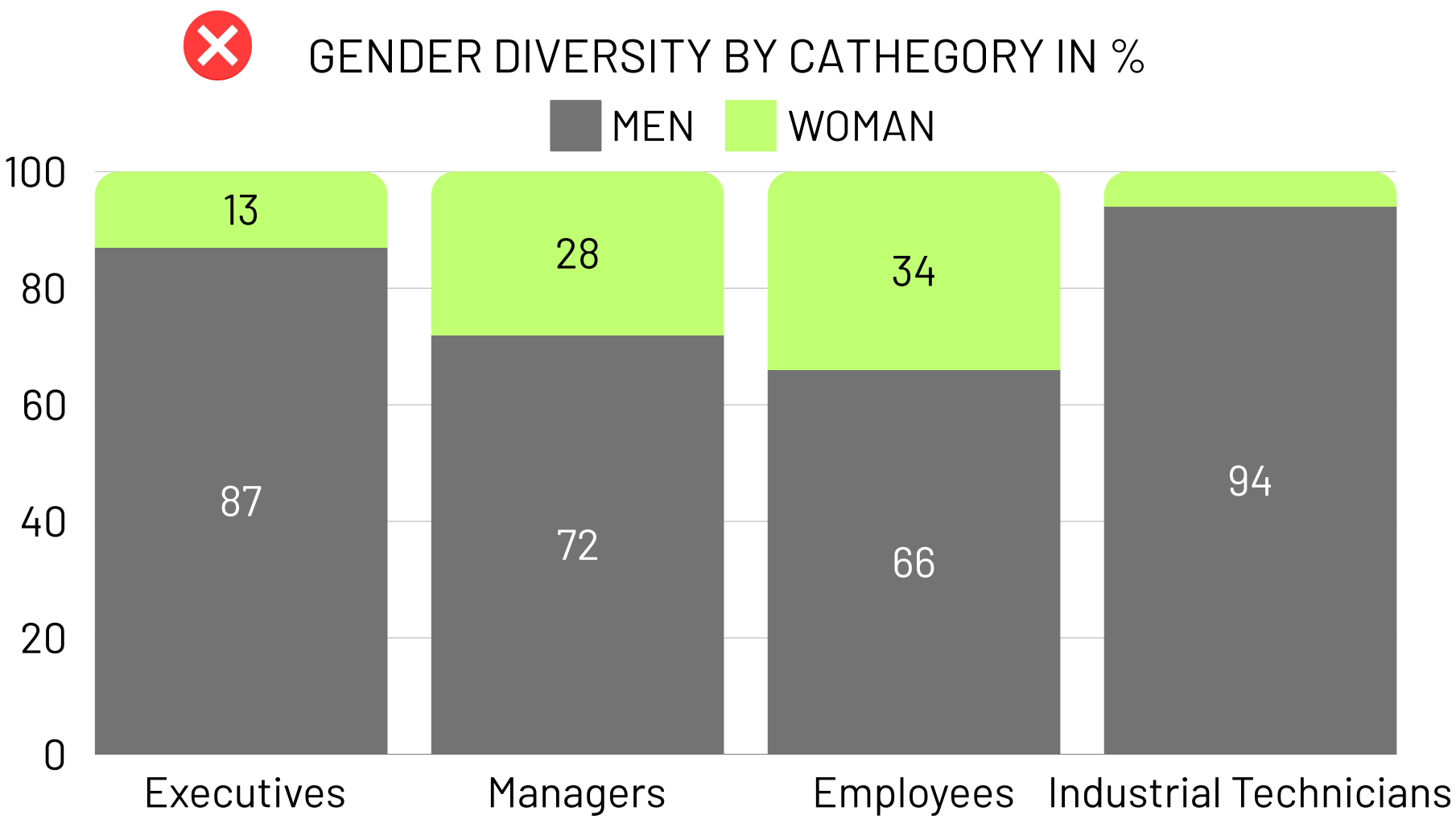
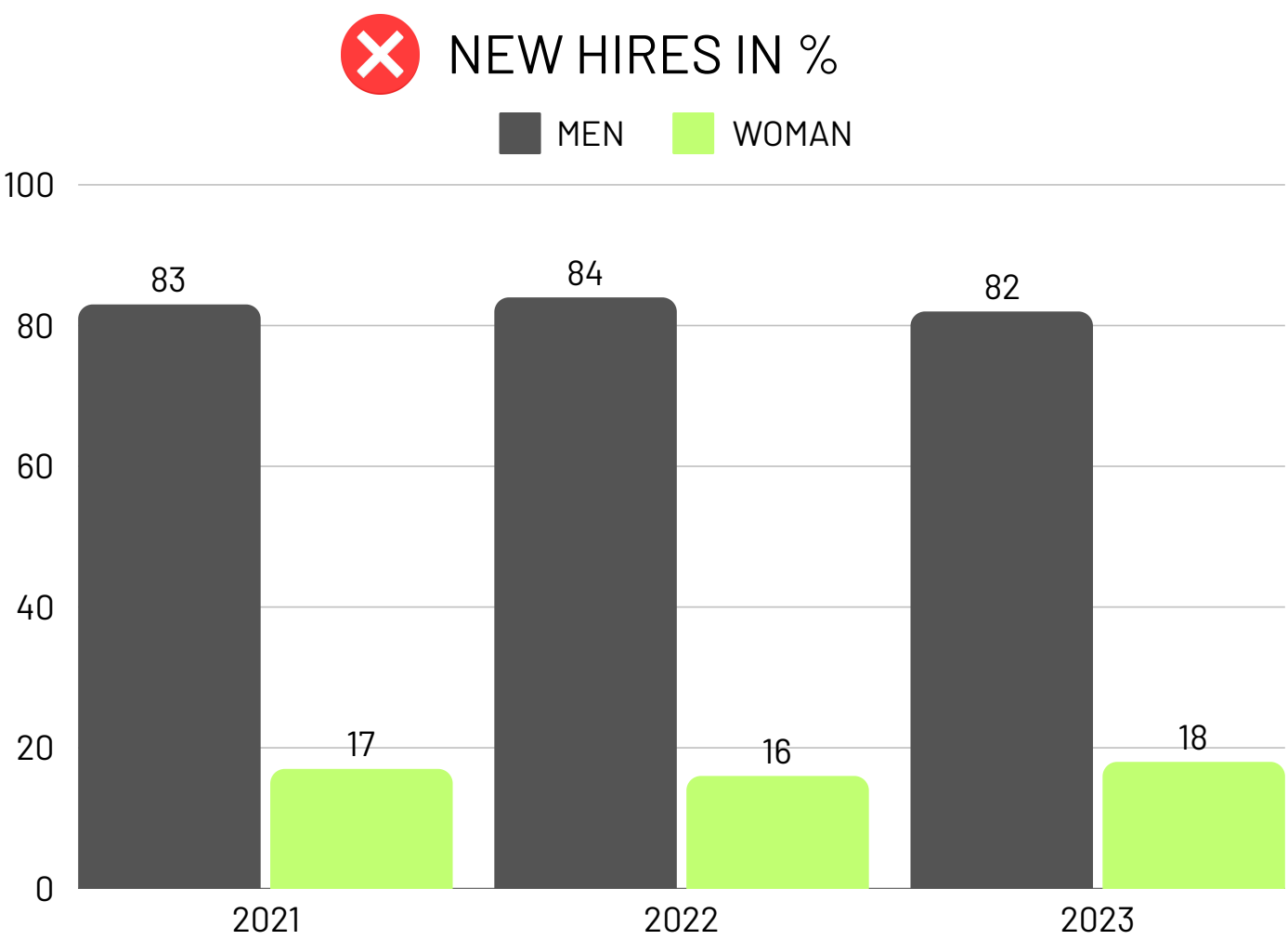


Scope 3 emissions reduction -50% by 2030 (intensity)

ESG PERFORMANCE - SOCIAL

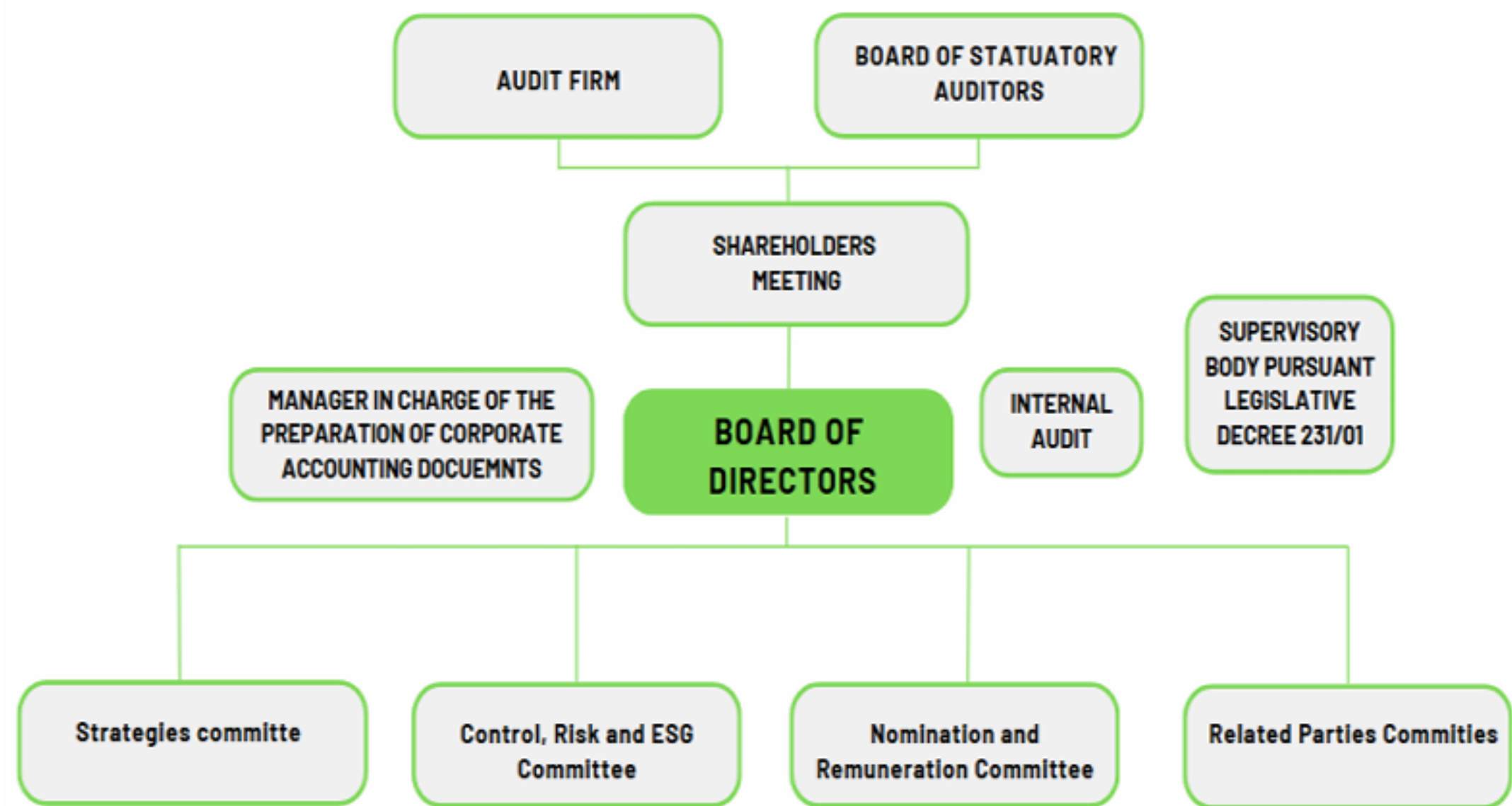


- ✓ 27.9% **WOMEN IN MANAGERIAL ROLES** > 24.39% (COMPETITORS)
- ✓ 63.88% OF **SPENDING** DIRECTED TO **LOCAL SUPPLIERS**
- ✗ **EQUAL PAY FOR EQUAL WORK**
- ✓ EDUCATION AND RESEARCH: THE **DE NORA FOUNDATION**



ESG ANALYSIS- GOVERNANCE: BOARD OF DIRECTORS (1)

Appendix



De Nora's governance is built on a structured system of rules, processes, and responsibilities aimed at ensuring effective and transparent management.

At the center of this structure is the Board of Directors, responsible for strategic oversight, risk management, and the integration of ESG principles. is organized follows: **the Board of Directors** is supported by key committees, including the Control, Risk and ESG Committee and the Nomination and Remuneration Committee, responsible for overseeing risk management and remuneration policies, respectively.

Supervisory bodies such as the Supervisory Body and the **Board of Statutory Auditors** play a crucial role in ensuring compliance and transparency.

Additionally, governance is strengthened by the contributions of the **Audit Firm** and **Internal Audit**, which provide oversight of financial and operational activities.

The Board consists of **12 members**, with **33% women** and **46.67% independent members**. While gender diversity is a positive element, the level of independence falls short of the industry average (69.75%), highlighting an area for improvement.

The **average tenure is 3.02 years**, significantly below the industry average of 6.36 years, suggesting the need for greater stability.

The mix of independent and non independent members provides balance, but increasing independence could enhance transparency and impartiality in decision-making.

ESG ANALYSIS- GOVERNANCE: BOARD OF DIRECTORS (2)

Appendix



Federico De Nora
Chairman



Paolo Dellachà
CEO



Stefano Venier
Non-executive
Director



Alessandro Garrone
Independent
non-executive
Director



Mario Cesari
Non-executive
Director



Maria Giovanna Calloni
Independent
non-executive
Director



Michelangelo Mantero
Non-executive
Director



Elisabetta Olivieri
Independent
non-executive
Director



Paola Bonandrini
Non-executive
Director



Giovanni Toffoli
Non-executive
Director



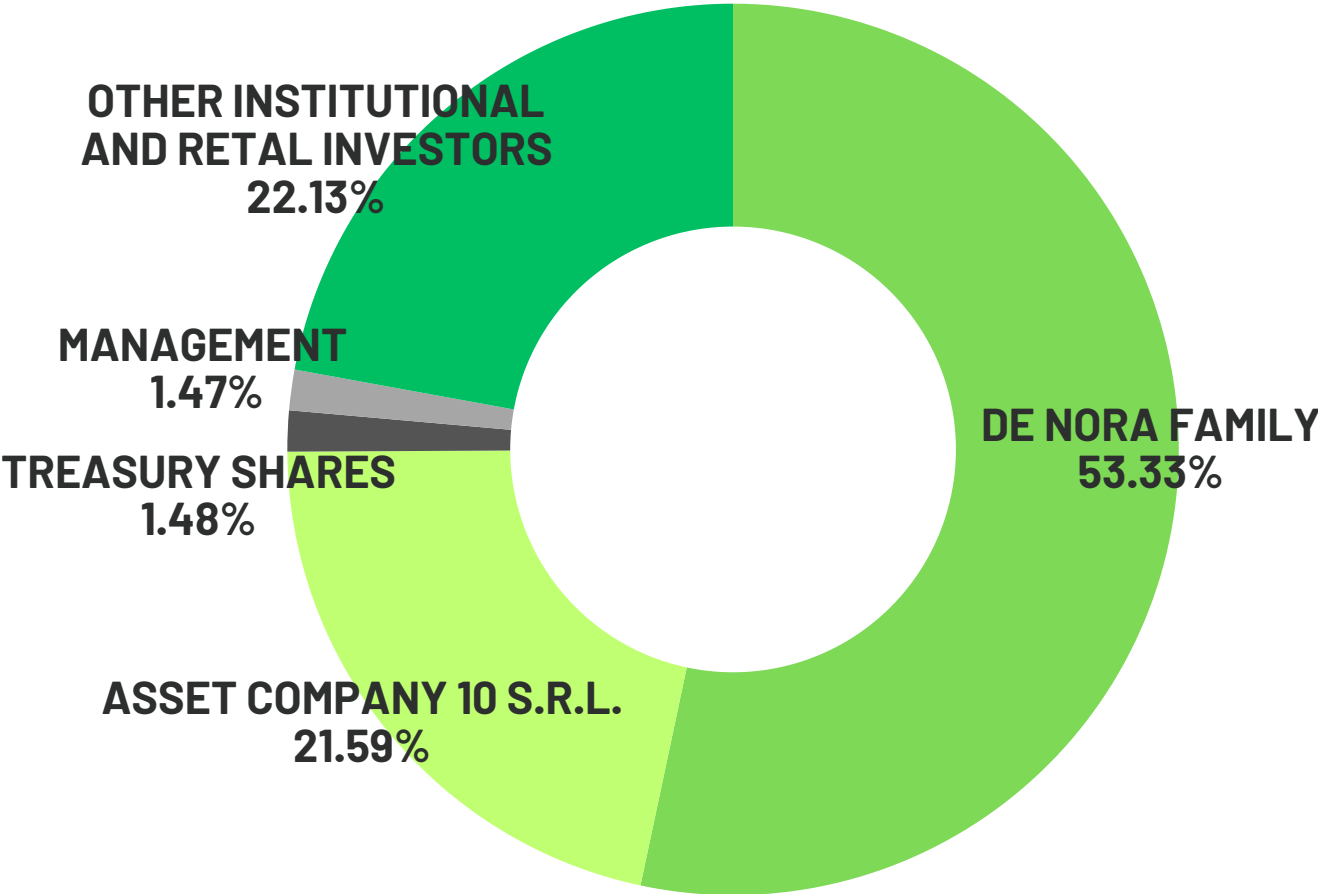
Giorgio Metta
Independent
non-executive
Director



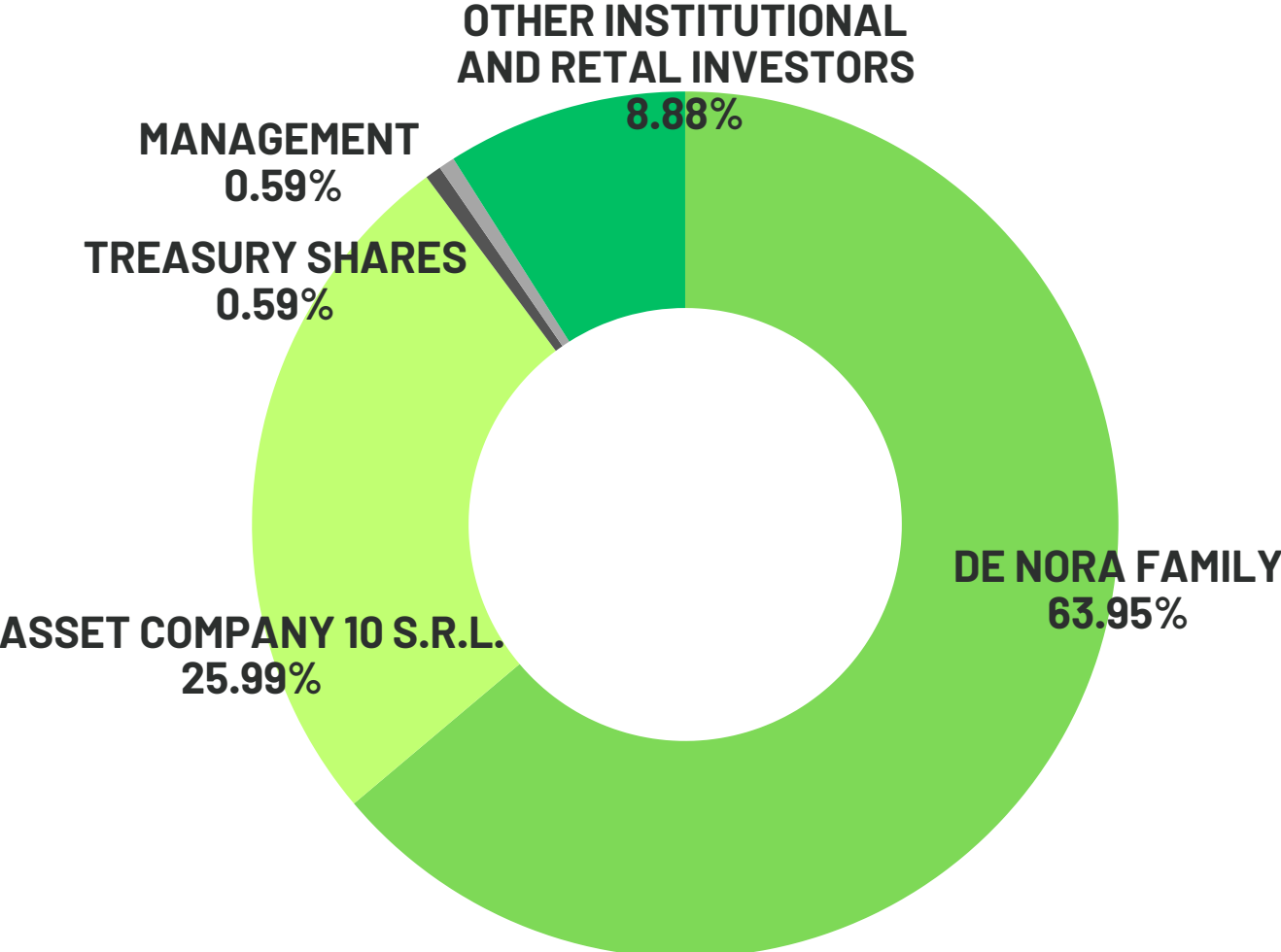
Anna Chiara Svelto
Independent
non-executive
Director

ESG ANALYSIS- OWNERSHIP STRUCTURE AND VOTING RIGHTS

OWNERSHIP STRUCTURE



VOTING RIGHTS



ESG STRATEGY: SUSTAINABILITY PLAN 2026-2030 (1)

	PLAN	KPI	TARGET	in 2023
GREEN INNOVATION	- Embed Circular esign Guideline - Develop product scorecard - Optimize noble metals content	- guideline adoption % of products assessed - t noble metals/m^2 of electrodes	- 100% new products by 2025 100% products assessed by 2027 -4% by 2026	- ongoing - -1% in 2023 vs 2022
CLIMATE ACTION	- Reduce Carbon footprint - Use of renewable energy - Submit to SBTi (in 2024) - Introduction of GHG emission criteria in investments planning	- Scope 1 and 2 emissions reduction - Scope 3 emissions reduction % electricity from renewables	-50% by 2030 -25% by 2027 -50% by 2030 (intensity) 100% by 2030 40% by 2026	32K tCO2 e 39M tCO2 3%
CIRCULAR ECONOMY	- Optimize waste management and Increase wood packaging reused - Wood packaging "deforestation-free" - Increase/Disclose recycled content in noble metals - Strengthen circular services (re-coating)	% of wood packaging waste reused % of "deforestation-free" wood packaging % share of recycled content in noble metals (by weight) % of products (in terms of m2) designed for 2° life	40% of wood packaging reused by 2026 >80% by 2030 5% by 2030	12% of wood packaging reused - - 19% of revenues Eu Taxonomy Eligible
BIODIVERSITY	- Map ecological zones to define Biodiversity targets and plan - Adhere to third-party initiatives for biodiversity preservation	- -	- -	6 water distressed areas -

ESG STRATEGY: SUSTAINABILITY PLAN 2026-2030 (2)

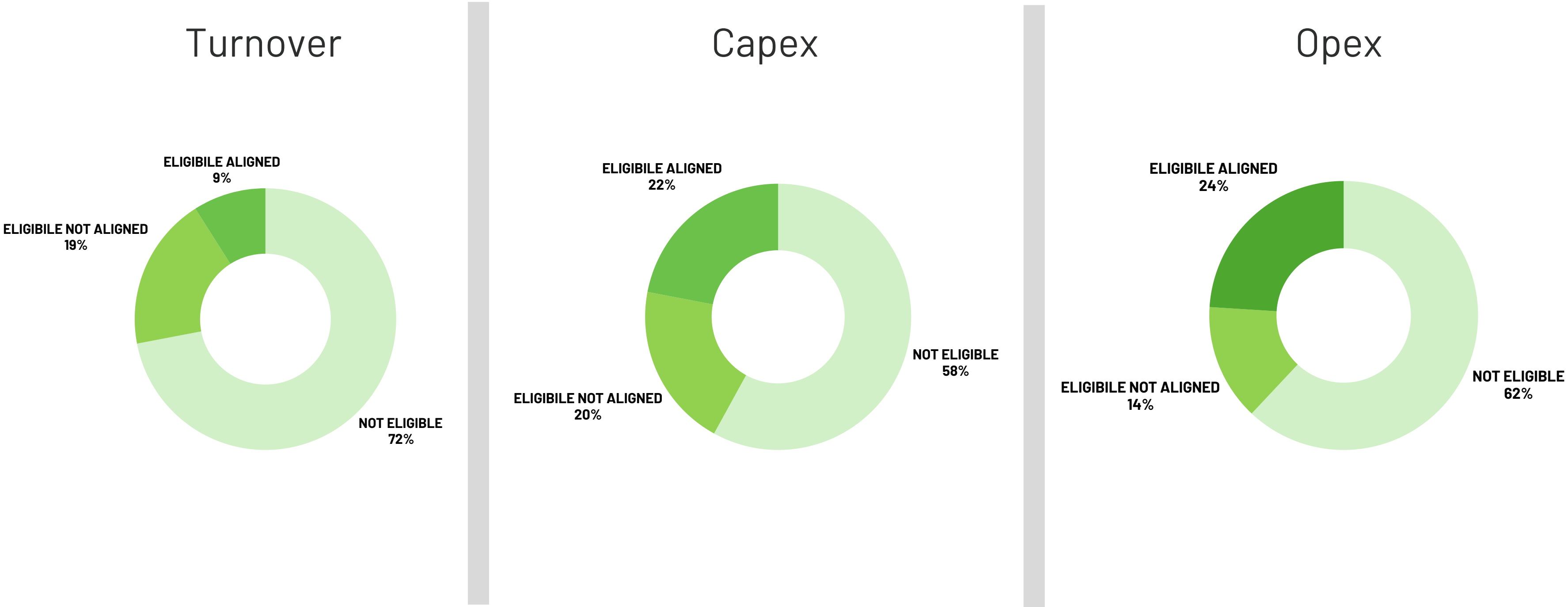
	PLAN	KPI	TARGET	in 2023
EMPLOYEE HEALTH & SAFETY	- Periodic “gemba walk” in the plants - Periodic report on H&S “Safety day” in the plants - Introduce mental health training module - Introduce mental health first aid training (for a selected number of staff) - Establish a mental health hotline or other form of support channel - Certifications	#plants with “gemba walks” - Frequency of reports # plants with “Safety days” % employees trained on general module # employees trained for mental health 1st aid #territories - ISO45001	- All plants by 2025 - Quarterly report - All plants by 2025 25% by 2026 1 person for each major site by 2026 100% by 2026 100% by 2025	-5% of injuries -5% of injuries -5% of injuries - - - 20%
EMPLOYEE DIVERSITY, EQUITY AND INCLUSION	- Extension of parental and relocation policy to same-sex couples and single parents - Enhance methodology for Gender Pay Gap Calculation - Affinity network for LGBTQ+ - Enhance recruitment processes to ensure inclusion - Internal and external comms campaign on DE&I through success stories - DE&I policy adoption - Introduce targets for share of women among new hires (by category). - Introduce upskilling, networking and mentorship schemes specifically for women	- - Gender pay gap # territories that completed the review # stories per year - Policy adoption % of women among new hires (white collar) -	- - - - All DN group by 2026 4-8 (at least 1 per quarter) - -	< 5%, 0 in new hires - - - - 20% women in the workforce (19.4% in 2022) - ongoing

ESG STRATEGY: SUSTAINABILITY PLAN 2026-2030 (3)

Appendix

	PLAN	KPI	TARGET	in 2023
COMMUNITY ENGAGEMENT	- Promote initiatives of employee donations - Employee engagement in charitable or local events in all DN locations Donations to local communities 202K (+4% vs 2022) - Introduce gender considerations in existing partnerships with universities, high schools, research institutes etc. - Host visits to laboratories and plants, occupational lectures and problem solving training	- - % of female students engaged - students engaged	- - > 40% of female students engaged > 20 students engaged per major site/year by 2026	- Donations to local communities 202K (+4% vs 2022)
RESPONSIBLE SUPPLY CHAIN	Increase share of suppliers evaluated on sustainability - Engage high risk suppliers - Train selected suppliers - Auditing for high risk suppliers	% selected suppliers assessed (by spend) % of high-risk suppliers engaged # suppliers audited per year	>50% of suppliers7 by 2030; >25% of suppliers7 by 2026 100% by 2026 2 in 2025 (pilot)	945 engaged suppliers, 105 evaluated (17% of spend) - -
PRODUCT QUALITY SAFETY	- Track customer satisfaction across the Group (Net Promoter Score - Certification ISO 9001 (Quality Management)	- Net Promoter Score # sites certified	- NPS across the Group by 2025 100% of sites certified by 2025	- NPS across the Group by 2025 100%
GOVERNANCE, BUSINESS, ETHICS	- Human rights policy adoption - Roll out a monitoring system on anti-corruption policy and ad-hoc deepening training sessions for each geography - Adopt a region/country-based guideline for Export Control and economic activities - Disclosure related to “Conflict of Minerals” - Remuneration linked to ESG targets	- Policy adoption # of white collars that completed the training # region/guidelines with guideline adopted - % target MBO ana PSP - Adopt a region/country-based guideline	- 100% by 2026 100% by 2026 - 20% - CEO 10% + Top Management	- Policy adopted 90% - - Ongoing 20% - CEO 10% + Top Management

ESG ANALYSIS: EU TAXONOMY COMPLIANCE



For ESG-conscious investors, improvements in CapEx and OpEx alignment will be critical to reinforcing De Nora’s position as a sustainability leader.

ESG ANALYSIS: SDGs COMMITMENT OF DE NORA



De Nora aligns its strategy with 10/17 key UN SDGs, focusing on clean energy, water management, climate action, and sustainable innovation.

ESG: external awards



VALUATION – REVENUE BUILD

Statement Data	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenues										
Revenue from Business Activities – Total	615.878	852.826	856.411	862.822	911.407	1.006.224	1.085.716	1.175.912	1.278.785	1.396.718
Income from electrode technologies segment	348.818	473.444	464.214	464.214	484.708	506.384	529.322	553.613	579.353	606.643
Chlorine – Soda	236.872	319.161	320.906	320.906	329.891	339.128	348.624	358.385	368.420	378.736
Electronic	75.804	88.284	79.903	79.903	85.896	92.338	99.263	106.708	114.711	123.314
Specialties and new uses	36.142	65.999	63.405	63.405	68.921	74.917	81.435	88.520	96.221	104.593
Income from water technologies segment	257.667	336.719	289.962	294.448	311.499	329.540	348.628	368.825	390.194	412.804
Waterpool	98.228	161.751	86.038	91.114	96.490	102.183	108.212	114.596	121.357	128.517
Electrochlorination	63.313	84.607	91.410	96.346	101.549	107.032	112.812	118.904	125.325	132.092
Disinfection and filtration	83.073	79.061	100.884	106.987	113.460	120.325	127.604	135.324	143.511	152.194
Marine technologies	13.053	11.300	11.630	-	-	-	-	-	-	-
Income from energy transition segment	9.393	42.664	102.235	104.160	115.200	170.300	207.766	253.475	309.239	377.271

We have forecasted the revenue on **Chlorine – Soda** to grow at a conservative 2.8% CAGR compared to expected global growth of 3.5%

We have forecasted the revenue on **Electronics** to grow at **7.5%** CAGR in line with the **company guidance** and market global expectations

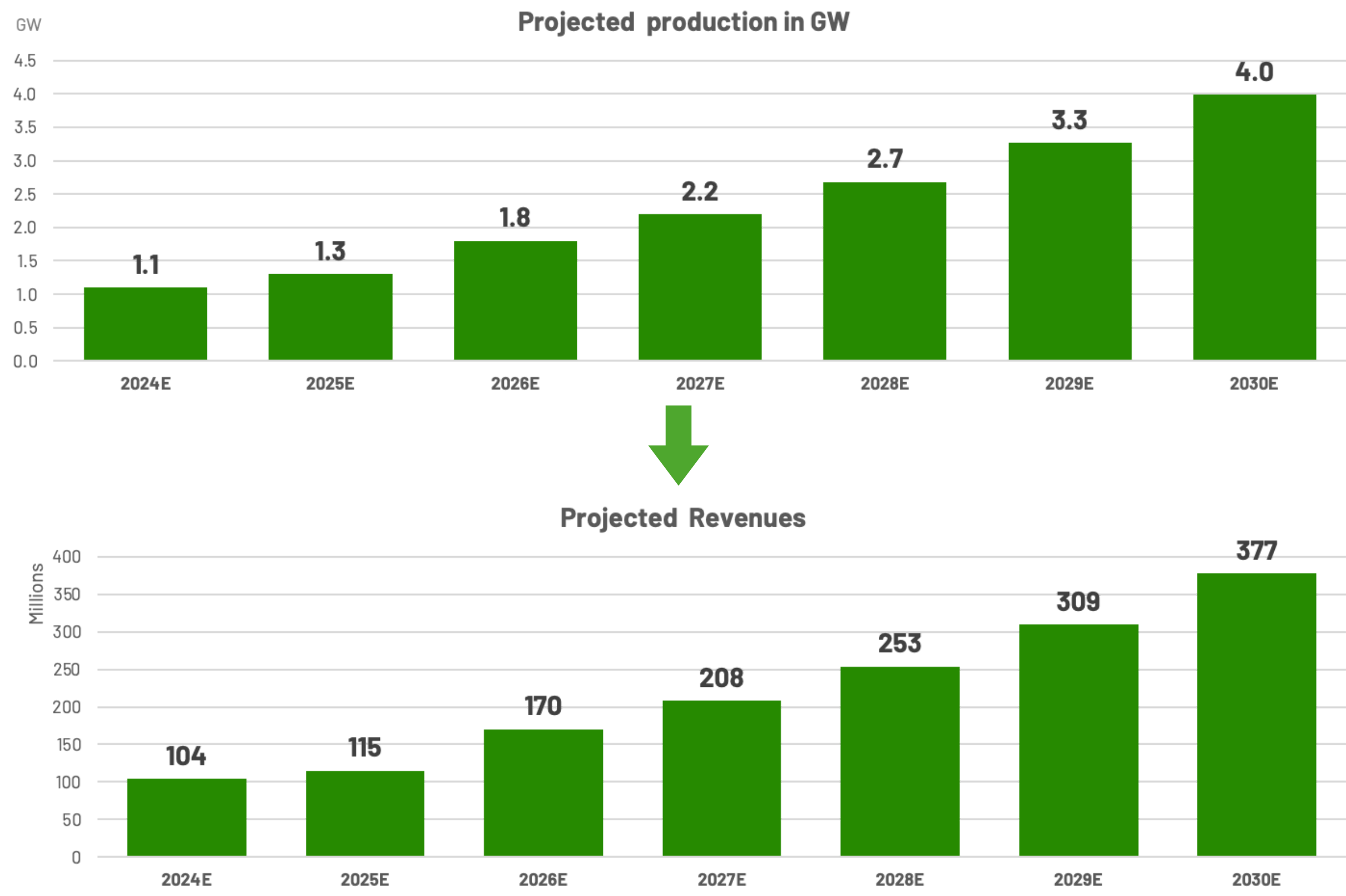
We set a **8.7%** CAGR on **Specialties**, an higher grow than the company guidance, because of the goal to enter the copper electrolytic refining market

The **Waterpool** segment is closely related to the macroeconomic growth and inflation expectations, for that we set a CAGR of **5.9%**

We have forecasted the **Electrochlorination** revenues almost aligned with the company guidance and market expecations until 2030

We have set a conservative CAGR of **6%**, compared to the global market’s 7.5%, as future growth is expected to be largely driven by increased **PFAS** regulation

VALUATION - REVENUE BUILD - ENERGY TRANSITION



VALUATION – DCF VALUATION – ET & WT

ELECTRODE TECHNOLOGIES	2022A	2023A	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBITDA	85,645	96,006	116,817	123,395	118,717	125,996	136,463	138,508	140,475
Ammortization	(5,417)	(5,779)	(4,813)	(4,805)	(4,592)	(4,492)	(4,381)	(4,257)	(4,122)
Depreciation	(10,195)	(10,817)	(14,905)	(18,095)	(20,303)	(22,750)	(24,944)	(26,867)	(27,717)
EBIT	154,274	177,117	97,099	100,496	93,822	98,754	107,138	107,384	108,636
Less taxes	(37,026)	(42,508)	(23,304)	(24,119)	(22,517)	(23,701)	(25,713)	(25,772)	(26,073)
NOPAT	117,248	134,609	73,795	76,377	71,305	75,053	81,425	81,612	82,564
Less Inc in NWC	(294,583)	70,548	1,432	12,561	4,902	7,581	6,187	4,718	3,707
Less Capex	(24,104)	(46,046)	(28,739)	(30,664)	(32,590)	(34,517)	(36,443)	(33,399)	(34,785)
Plus Dep&Amort	15,612	16,596	19,719	22,899	24,894	27,242	29,324	31,124	31,839
Free Cash Flow	(185,827)	175,707	66,206	81,173	68,511	75,359	80,493	84,054	83,325
Discounted Free Cash Flow			59,508	65,578	49,748	49,184	47,220	44,320	39,490
Terminal Value									468,021

WATER TECHNOLOGIES	2022A	2023A	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBITDA	60,912	59,968	50,065	49,358	68,116	71,398	72,780	74,200	75,641
Ammortization	(3,853)	(3,610)	(3,053)	(3,088)	(2,988)	(2,959)	(2,919)	(2,867)	(2,805)
Depreciation	(7,251)	(6,757)	(9,454)	(11,629)	(13,212)	(14,984)	(16,618)	(18,095)	(18,861)
EBIT	49,808	49,601	37,557	34,642	51,916	53,455	53,244	53,239	53,975
Less taxes	(11,954)	(11,904)	(9,014)	(8,314)	(12,460)	(12,829)	(12,779)	(12,777)	(12,954)
NOPAT	37,854	37,697	28,543	26,328	39,456	40,626	40,465	40,461	41,021
Less Inc in NWC	(17,143)	(28,762)	908	8,073	3,190	4,993	4,122	3,177	2,523
Less Capex	(17,143)	(28,762)	(9,580)	(10,221)	(10,863)	(11,506)	(12,148)	(11,133)	(11,595)
Plus Dep&Amort	11,104	10,367	12,507	14,716	16,201	17,942	19,536	20,962	21,666
Free Cash Flow	14,671	(9,460)	32,379	38,895	47,983	52,056	51,976	53,468	53,614
Discounted Free Cash Flow			29,103	31,423	34,842	33,975	30,490	28,192	25,409
Terminal Value									301,141

VALUATION - FREE CASH FLOWS ENERGY TRANSITION

ENERGY TRANSITION	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBITDA	21,144	-	13,594	20,095	24,516	29,910	36,490	44,518
Ammortization	-1,273	(1,080)	(1,142)	(1,544)	(1,763)	(2,006)	(2,272)	(2,563)
Depreciation	-2,382	(3,344)	(4,301)	(6,828)	(8,930)	(11,421)	(14,340)	(17,237)
EBIT	17,488	(4,424)	8,151	11,723	13,824	16,484	19,877	24,717
Less taxes	-4,197	1,062	(1,956)	(2,814)	(3,318)	(3,956)	(4,771)	(5,932)
NOPAT	13,291	(3,363)	6,195	8,910	10,506	12,528	15,107	18,785
Less Inc in NWC	15,537	321	2,985	1,648	2,976	2,833	2,518	2,305
Less Capex	-10,141	(57,477)	(61,329)	(65,181)	(69,034)	(72,887)	(66,798)	(69,569)
Plus Dep&Amort	3,655	4,424	5,442	8,372	10,693	13,426	16,613	19,801
Free Cash Flow	22,342	(56,094)	(46,706)	(46,251)	(44,859)	(44,100)	(32,560)	(28,678)
Discounted Free Cash Flow		(50,419)	(37,733)	(33,584)	(29,278)	(25,870)	(17,168)	(13,591)

VALUATION - WACC BUILDUP

TAX RATE	24.0%
COST OF DEBT	4.0%
COST OF EQUITY	12.8%
D/E RATIO	0.19
PORTION OF DEBT	16.0%
PORTION OF EQUITY	84.0%
GROWHT RATE	2.6%

WACC: 11.3%

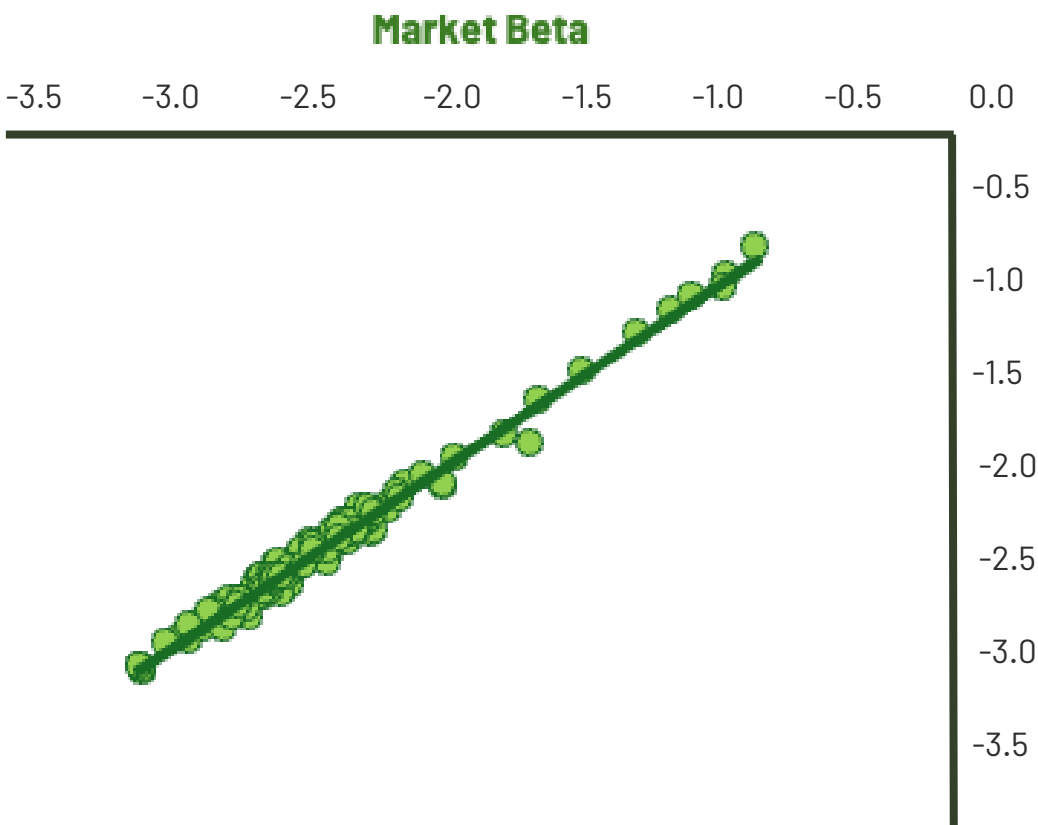
VALUATION - WACC BUILDUP - COST OF EQUITY

The cost of equity was calculated using a two-factor model, incorporating two of the three factors from the Fama-French framework: the **market factor** and the **size factor**. The decision to use this model instead of the traditional CAPM stems from the need to account for additional risk factors that significantly impact De Nora, particularly the size factor. Given that De Nora is a small company, this factor is highly relevant and could not be ignored. Initially, we considered employing the full Fama- French three-factor model, but since the value factor proved to be statistically insignificant, we decided to exclude it.

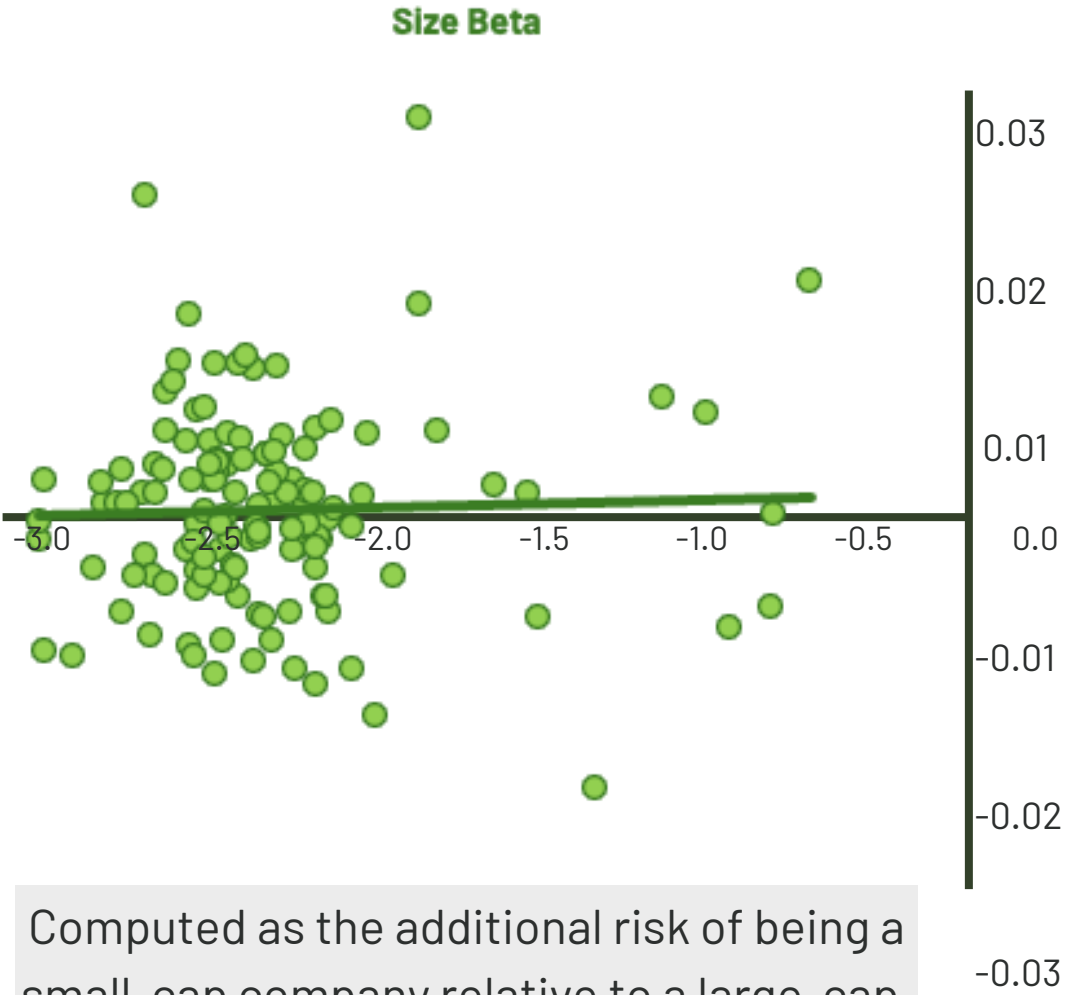
Multifactor model	
Risk Free rate	2.4%
Market Beta	1.02
ERP Market	0.09
Size Beta	1.4
ERP Size	0.01
Cost of equity	12.8%

VALUATION – WACC BUILDUP – BETA FACTORS

$$CoE = R_f + \beta_{market}(ERP) + \beta_{size}(ESP)$$



Calculated using the excess return of the STOXX Europe 600 over the risk-free rate as a proxy for the overall market



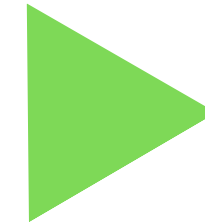
Computed as the additional risk of being a small-cap company relative to a large-cap. This was determined by subtracting the returns of the STOXX Europe Small 200 from those of the STOXX Europe 600

	Coefficients	Significance values
Market Beta	1.014670404	1.5662E-124
Size Beta	1.385414909	0.000764604

VALUATION – WACC BUILDUP – COST OF DEBT (1)

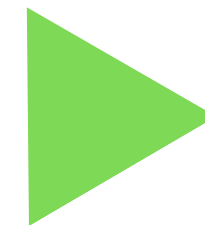
De Nora's current borrowing costs are regulated by covenants and split between euro-denominated and USDdenominated debt.

For euro-denominated debt, the reference rate is the
3-month Euribor



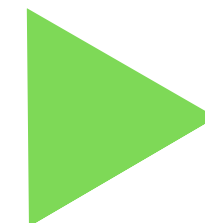
2.6%

For for USD-denominated debt, it is the **3-month SOFR**



4.3%

Additional spread set by the covenants



0.8% – 1.1%

Given that De Nora's net financial position is
positive, we applied the minimum spread

Appendix

VALUATION - WACC BUILDUP - COST OF DEBT (2)

Name	7 years	Country / Region	Rating	Sector
BBB Rating EUR Industrial Sector	3,8%	Euro Zone	BBB	Industrials
Italy Country BBB Rating EUR Energy Sector	3,6%	Italy	BBB	Energy
Germany Country BBB Rating EUR Industrial Sector	3,8%	Germany	BBB	Industrials
BBB Rating EUR Industrial LPS Credit	3,9%	Euro Zone	BBB	Industrials
Spain Country BBB Rating EUR Industrial Sector	4,0%	Spain	BBB	Industrials
BBB Rating EUR ECB CSPP Energy	3,3%	Euro Zone	BBB	Energy
Italy Country BBB Rating EUR Industrial Sector	3,9%	Italy	BBB	Industrials
Spain Country BBB Rating EUR Energy Sector	4,0%	Spain	BBB	Energy
Sweden Country BBB Rating EUR Industrial Sector	3,6%	Sweden	BBB	Industrials
Ireland Country BBB Rating EUR Industrial Sector	3,0%	Ireland	BBB	Industrials
France Country BBB Rating EUR Industrial Sector	3,8%	France	BBB	Industrials
Denmark Country BBB Rating EUR Industrial Sector	3,5%	Denmark	BBB	Industrials
AVERAGE	3,4%			

Name	7 years	Country / Region	Rating	Sector
BBB Rating USD International Chemicals Sector	6,0%	United States	BBB	Chemicals
BBB Rating USD Domestic Chemicals Sector	5,7%	United States	BBB	Chemicals
BBB Rating USD International Energy Sector	6,1%	United States	BBB	Energy
BBB Rating USD Industrial Domestic Sector	5,6%	United States	BBB	Industrials
BBB Rating USD Domestic Energy Sector	5,8%	United States	BBB	Energy
United States Country BBB Rating EUR Industrial Sector	3,7%	United States	BBB	Industrials
AVERAGE	5,8%			

$$\frac{2}{3} \times 3.4\%$$

+

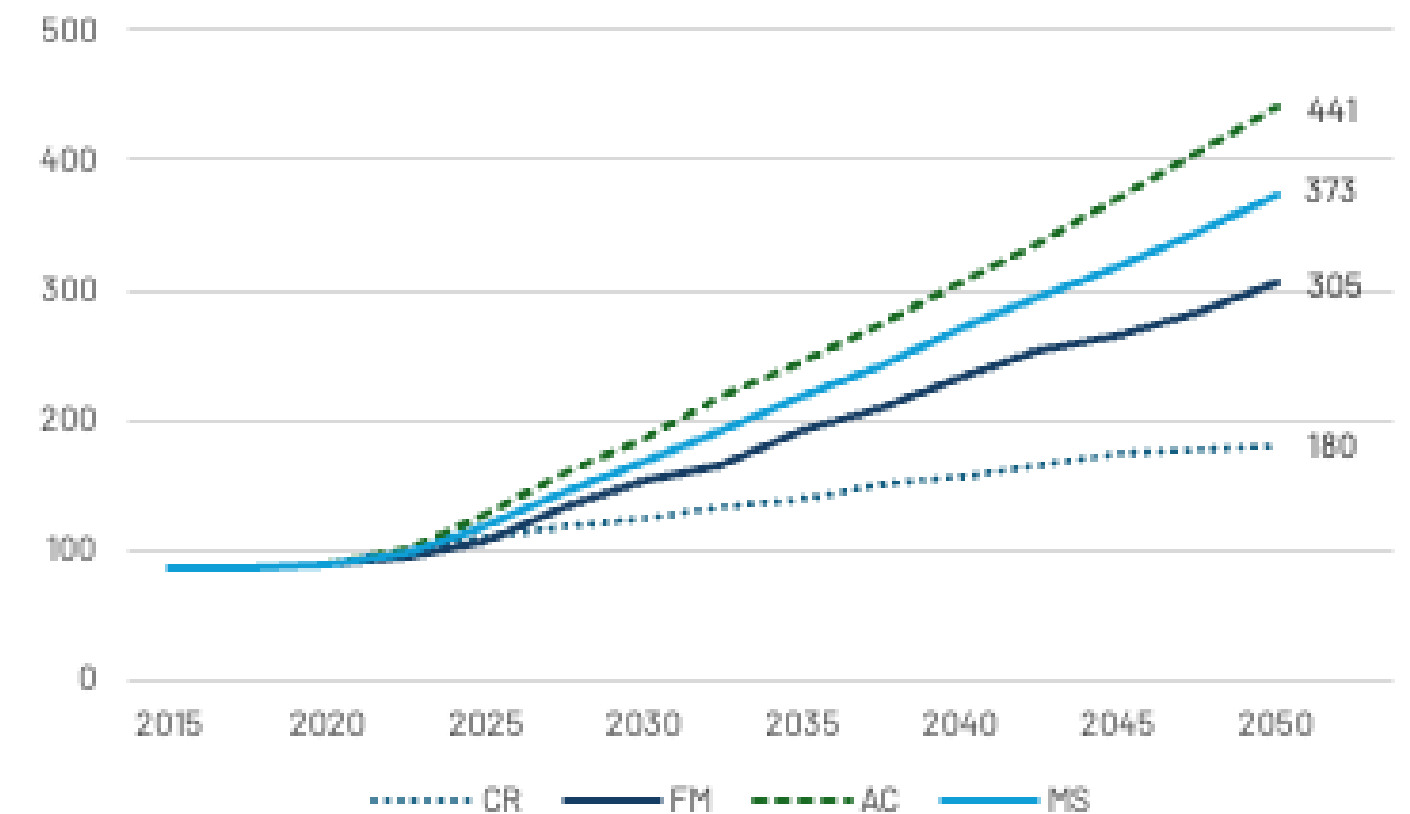
$$\frac{1}{3} \times 5.2\%$$

=

$$4.2\%$$

VALUATION – REAL OPTION VALUATION

- **Time to expiration (T):** We set a time horizon of seven years, representing the period within which De Nora can effectively exercise its option in the hydrogen market. This timeframe aligns with the first stage of our DCF model, which concludes in 2030. The formula allows the early exercise of the option to expand as in the standard American-type option pricing models.
- **Strike price (K):** The strike price corresponds to the investment De Nora has disclosed for the hydrogen market, which amounts to €174 million.
- **Spot price (S):** It represents the potential cash flows De Nora could generate from its hydrogen investments. To estimate this, we need to project how the hydrogen market will evolve by 2030. According to McKinsey's "Hydrogen Insights 2024" report, the market is expected to grow by an average factor of 3.8x across different scenarios. Given that De Nora has been an early mover in this sector, it is reasonable to assume that the company will maintain its current market share. Consequently, its revenues should also scale proportionally—from the current €102 million to approximately €391 million by 2030. Assuming De Nora sustains an 11% EBITDA margin—in line with its last reported margin in the hydrogen segment for 2023—this would result in annual cash flows of €43 million. Over a 7-year period, this equates to a spot price (S) of €301 million.
- **Volatility (σ):** To estimate the volatility of the underlying asset, we calculated the standard deviation of the returns of publicly traded companies operating in the hydrogen sector. For this, we used the Global X Hydrogen ETF as a benchmark, arriving at a standard deviation of 45.8%. By applying these parameters to the Black-Scholes model, we arrived at an option value of €193 million, which aligns with our estimated Enterprise Value for De Nora's Energy Transition segment.



VALUATION - ENTERPRISE VALUE

	EV	WEIGHT ON TOTAL EV	SHARE PRICE
ELECTRODE TECHNOLOGIES	823mln	43.1%	€4.1
WATER TECHNOLOGIES	515mln	26.9%	€2.6
ENERGY TRANSITION	193mln	10.1%	€1
TK NUCERA	381mln	19.9%	€2
TOTAL	1,911mln	100%	€9.7

VALUATION - HISTORICAL BALANCE SHEET

Statement Data	2021	2022	2023
Current Assets			
Cash & Cash Equivalents	73.843	174.129	198.491
Derivative Financial Instruments - Hedging	478	159.036	14.185
Loans & Receivables	189.967	161.388	190.628
Inventories	233.033	295.476	257.146
Other Current Assets	22.037	29.135	39.767
Total Current Assets	519.358	819.164	700.217
Non-Current Assets			
Investments in Associates, Joint Ventures and Unconsolidated Subsidiaries	121.785	122.664	231.511
Receivables	10.313	9.030	7.360
Derivative Financial Instruments - Hedging	5.421	4.610	3.180
PP&E	167.627	184.177	254.273
Other Non-Current Assets	29.431	16.427	19.681
Intangible Assets	132.805	131.552	115.787
Total Non-Current Assets	467.382	468.460	631.792
Total Assets			
Total Assets	986.740	1.287.624	1.332.009
Current Liabilities			
Trade Accounts & Trade Notes Payable	61.425	80.554	106.752
Short-Term Debt & Current Portion of Long-Term Debt	257.774	13.655	10.199
Derivative Liabilities - Hedging	1.589	-	-
Income Taxes - Payable	27.392	10.970	19.196
Other Current Liabilities	120.697	132.865	113.101
Total Current Liabilities	468.877	238.044	249.248
Non-Current Liabilities			
Trade Accounts Payable	177	83	86
Debt - Long-Term	3.784	267.544	133.716
Deferred Tax	29.277	8.664	8.873
Other Non-Current Liabilities	30.663	28.485	29.898
Total Non-Current Liabilities	63.901	304.776	172.573
Total Liabilities			
Total Liabilities	532.778	542.820	421.821
Shareholders' Equity			
Shareholders' Equity	450.459	741.218	904.488
Minority Interest - Equity	3.503	3.586	5.700
Total Shareholders' Equity			
Total Shareholders' Equity - including Minority Interest	453.962	744.804	910.188
Total Liabilities & Shareholders' Equity			
Total Liabilities & Equity	986.740	1.287.624	1.332.009

De Nora has a sufficient cash balance to manage day to day operations and to be ready for potential future acquisition opportunities

De Nora low level of debt gives the company the possibility to get big boost from increased leverage in the future

VALUATION – FORECASTED BALANCE SHEET

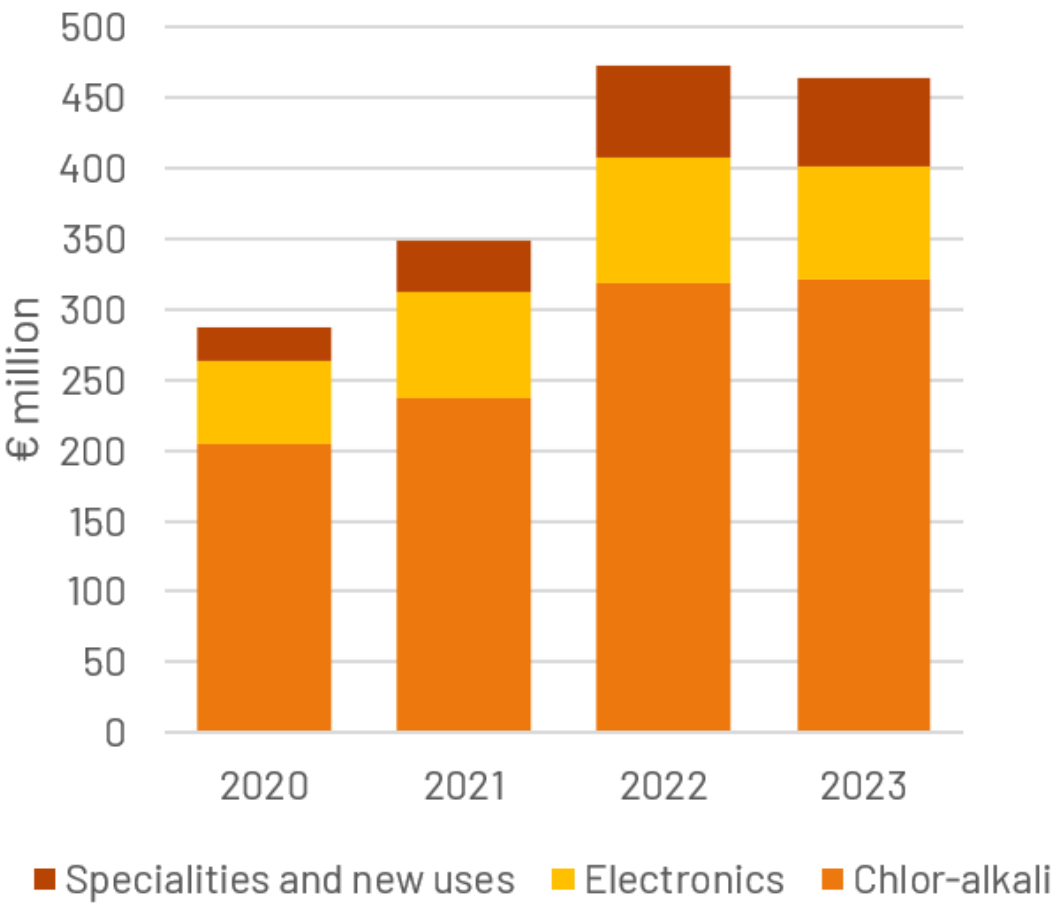
Statement Data	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Current Assets							
Cash & Cash Equivalents	193,578	185,343	168,430	158,712	149,680	158,586	172,079
Cash & Cash Equivalents	156,708	114,901	71,886	28,060	(16,849)	(63,168)	(111,588)
Derivative Financial Instruments – Hedging	14,291	15,096	16,666	17,983	19,477	21,181	23,134
Loans & Receivables	207,157	218,822	241,587	260,672	282,328	307,027	335,341
Inventories	300,547	320,728	355,542	385,506	418,859	456,223	497,001
Other Current Assets	33,471	35,356	39,034	42,118	45,617	49,608	54,183
Total Current Assets	749,044	775,346	821,259	864,992	915,960	992,624	1,081,739
Non-Current Assets							
Investments in Associates, Joint Ventures and Unconsolidated Subsidiaries	231,511	231,511	231,511	231,511	231,511	231,511	231,511
Receivables	10,333	10,915	12,050	13,002	14,083	15,315	16,727
Derivative Financial Instruments – Hedging	5,154	5,444	6,011	6,486	7,024	7,639	8,343
PP&E	312,273	370,273	428,273	486,273	544,273	585,702	627,130
Other Non-Current Assets	23,580	28,250	33,847	40,551	48,584	58,208	69,738
Intangible Assets	116,932	118,088	119,256	120,435	121,626	122,829	124,043
Total Non-Current Assets	699,783	764,482	830,947	898,258	967,101	1,021,202	1,077,493
Total Assets							
Total Assets	1,448,826	1,539,828	1,652,206	1,763,250	1,883,061	2,013,827	2,159,231
Current Liabilities							
Trade Accounts & Trade Notes Payable	92,800	99,032	109,781	119,033	129,331	140,868	153,459
Short-Term Debt & Current Portion of Long-Term Debt	8,974	9,964	10,953	11,943	12,932	13,922	14,912
Derivative Liabilities – Hedging	-	-	-	-	-	-	-
Income Taxes – Payable	22,938	24,229	26,750	28,863	31,261	33,996	37,131
Other Current Liabilities	139,154	146,990	162,281	175,102	189,648	206,239	225,259
Total Current Liabilities	263,866	280,214	309,766	334,941	363,173	395,026	430,762
Non-Current Liabilities							
Trade Accounts Payable	140	147	163	176	190	207	226
Debt – Long-Term	150,287	166,859	183,430	200,002	216,573	233,145	249,716
Deferred Tax	40,052	42,307	46,708	50,398	54,585	59,360	64,835
Other Non-Current Liabilities	31,381	32,938	34,572	36,287	38,087	39,976	41,959
Total Non-Current Liabilities	221,860	242,251	264,873	286,862	309,435	332,688	356,735
Total Liabilities							
Total Liabilities	485,726	522,465	574,639	621,803	672,608	727,714	787,497
Shareholders' Equity							
Shareholders' Equity	958,531	1,012,688	1,072,475	1,136,039	1,204,658	1,279,845	1,364,827
Minority Interest – Equity	4,570	4,675	5,093	5,408	5,795	6,268	6,907
Total Shareholders' Equity							
Total Shareholders' Equity – including Minority Interest	963,101	1,017,362	1,077,568	1,141,447	1,210,453	1,286,113	1,371,734
Total Liabilities & Shareholders' Equity							
Total Liabilities & Equity	1,448,826	1,539,828	1,652,206	1,763,250	1,883,061	2,013,827	2,159,231

VALUATION - HISTORICAL AND FORECASTED IS

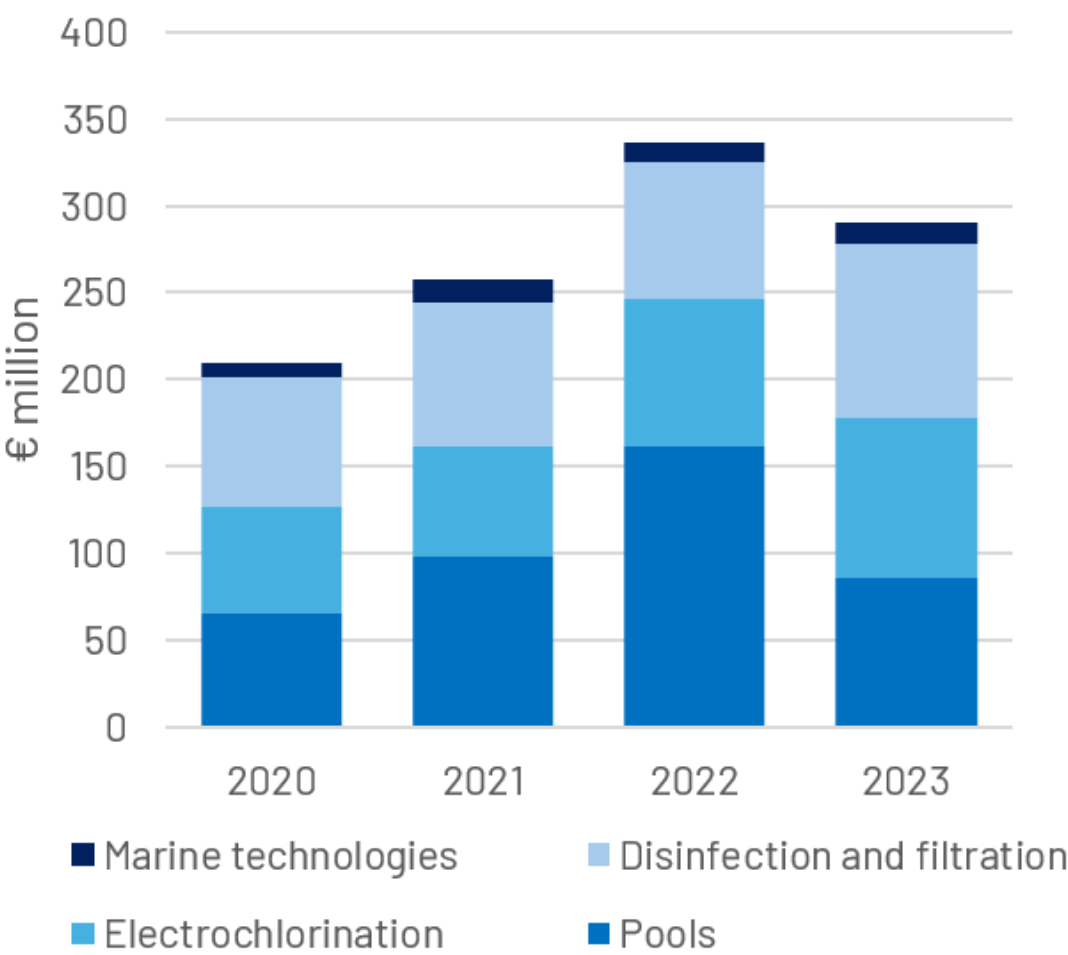
Statement Data	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenues										
Revenue from Business Activities - Total	615,878	852,826	856,411	862,822	911,407	1,006,224	1,085,716	1,175,912	1,278,785	1,396,718
Income from electrode tecnologies segment	348,818	473,444	464,214	464,214	484,708	506,384	529,322	553,613	579,353	606,643
Chlorine - Soda	236,872	319,161	320,906	320,906	329,891	339,128	348,624	358,385	368,420	378,736
Electronic	75,804	88,284	79,903	79,903	85,896	92,338	99,263	106,708	114,711	123,314
Specialties and new uses	36,142	65,999	63,405	63,405	68,921	74,917	81,435	88,520	96,221	104,593
Income from water technologies segment	257,667	336,719	289,962	294,448	311,499	329,540	348,628	368,825	390,194	412,804
Waterpool	98,228	161,751	86,038	91,114	96,490	102,183	108,212	114,596	121,357	128,517
Electrochlorination	63,313	84,607	91,410	96,346	101,549	107,032	112,812	118,904	125,325	132,092
Disinfection and filtration	83,073	79,061	100,884	106,987	113,460	120,325	127,604	135,324	143,511	152,194
Marine technologies	13,053	11,300	11,630	-	-	-	-	-	-	-
Income from energy transition segment	9,393	42,664	102,235	104,160	115,200	170,300	207,766	253,475	309,239	377,271
				0.02	0.11	0.48	0.22	0.22	0.22	0.22
Total	615,878	852,827	856,411	862,822	911,407	1,006,224	1,085,716	1,175,912	1,278,785	1,396,718
Operating Expenses										
Material Expenses	(254,254)	(366,937)	(362,087)	(364,078)	(384,580)	(424,588)	(458,132)	(496,191)	(539,599)	(589,363)
Personnel costs	(116,742)	(154,657)	(143,982)	(155,027)	(163,756)	(180,792)	(195,075)	(211,281)	(229,765)	(250,954)
Selling, General & Administrative Expenses	(2,800)	(13,357)	(10,109)	(9,207)	(9,725)	(10,737)	(11,585)	(12,548)	(13,646)	(14,904)
Other Operating Expense/(Income)	(123,506)	(163,602)	(163,116)	(167,628)	(177,067)	(195,488)	(210,932)	(228,455)	(248,441)	(271,353)
Operating Profit										
EBITDA	118,576	154,274	177,117	166,882	176,279	194,618	209,993	227,438	247,335	270,145
Non-Operating Expenses										
Amortization	(9,727)	(9,758)	(10,662)	(8,946)	(9,034)	(9,124)	(9,214)	(9,305)	(9,397)	(9,490)
Depreciation	(16,507)	(18,365)	(19,956)	(27,704)	(34,024)	(40,343)	(46,663)	(52,982)	(59,302)	(63,815)
EBIT	92,342	126,151	146,499	130,231	133,221	145,151	154,116	165,151	178,636	196,839
Interest Expense	(4,663)	(6,417)	(8,733)	(4,000)	(4,427)	(4,915)	(5,403)	(5,891)	(6,379)	(6,867)
Interest Income	5,384	2,042	114,386	2,985	2,357	1,728	1,081	422	(253)	(950)
Sale of Tangible & Intangible Fixed Assets - Gain/(Loss)	(1,802)	(331)	(645)	(1,170)	(1,236)	(1,364)	(1,472)	(1,594)	(1,734)	(1,894)
Equity Earnings/(Loss)	8,834	(1,196)	5,435	5,435	5,435	5,435	5,435	5,435	5,435	5,435
Other Non-Operating Income/(Expense)	(1,531)	24,000	(34)	-	-	-	-	-	-	-
Normalized Pre-tax Profit	98,564	144,249	256,908	133,482	135,350	146,035	153,757	163,522	175,705	192,564
Non-Recurring Income/Expense										
Non-Recurring Income/(Expense)	(5,011)	(32,807)	8,372	(7,395)	(9,082)	(10,769)	(12,455)	(14,142)	(15,829)	(17,034)
Pre-Tax Income										
Income before Taxes	93,553	111,442	265,280	126,087	126,268	135,266	141,302	149,380	159,876	175,530
Taxes										
Income Taxes	27,108	30,765	34,231	30,261	30,304	32,464	33,912	35,851	38,370	42,127
Net Income After Tax										
Net Income after Tax	66,445	80,677	231,049	95,826	95,964	102,802	107,389	113,529	121,506	133,403

VALUATION - HISTORICAL BUSINESS LINES REVENUES

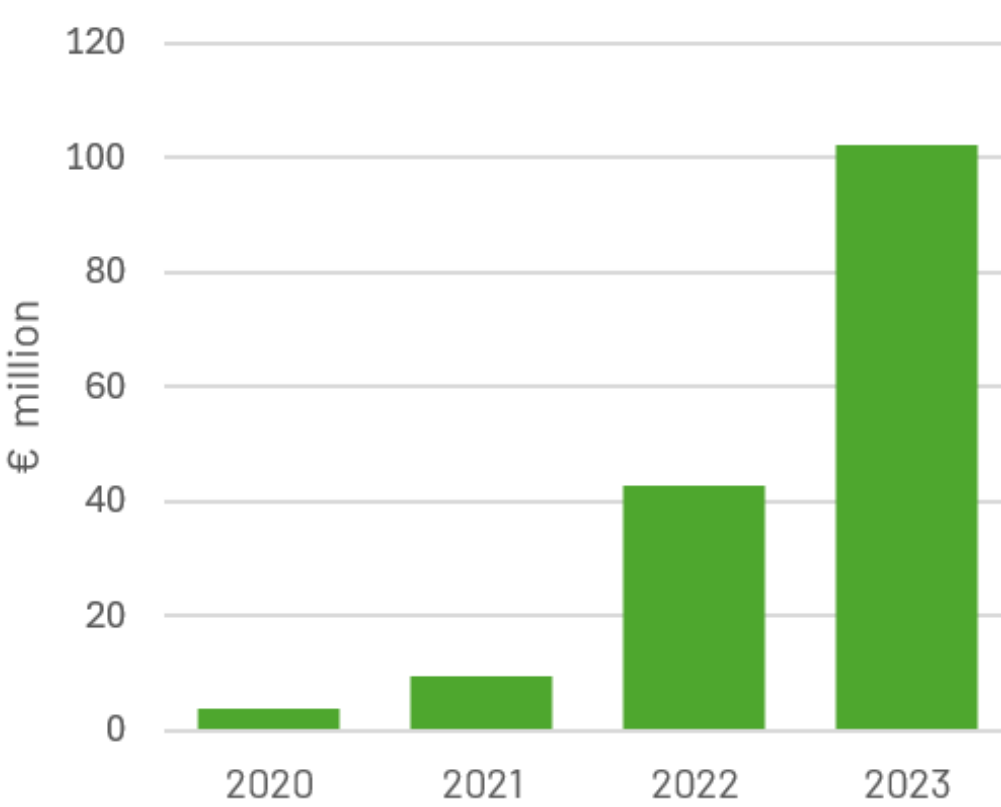
ELECTRODE TECHNOLOGIES



WATER TECHNOLOGIES

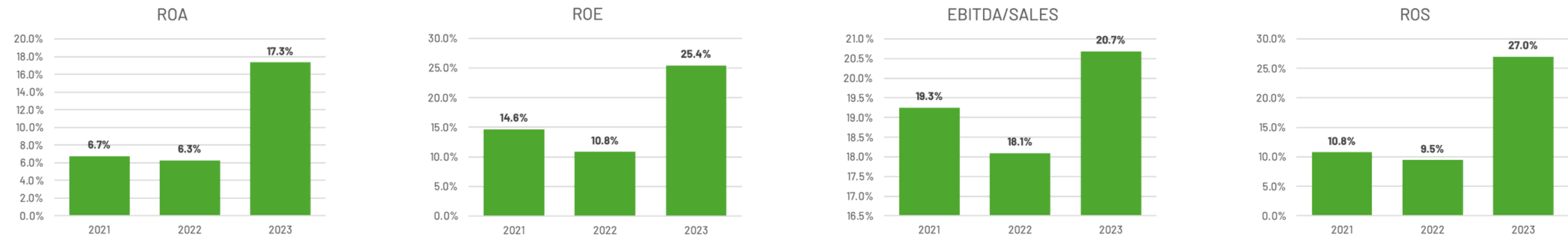


ENERGY TRANSITION

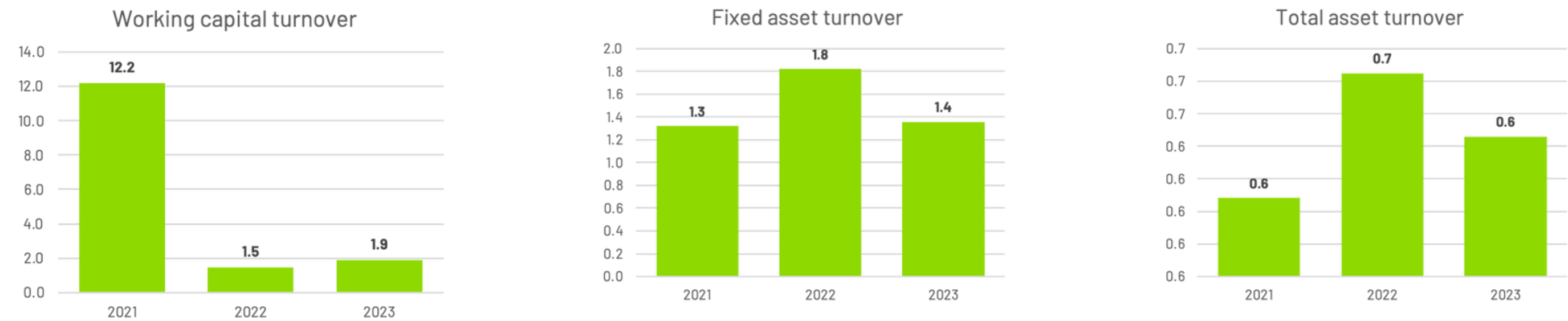


VALUATION - HISTORICAL RATIO ANALYSIS

Profitability ratios

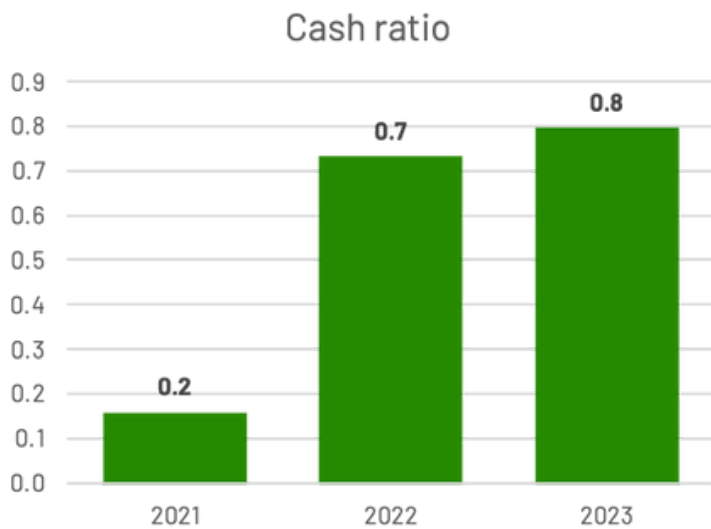
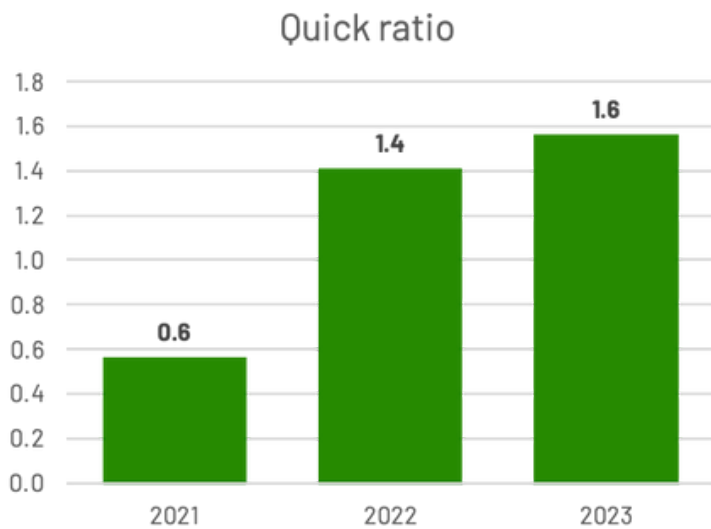
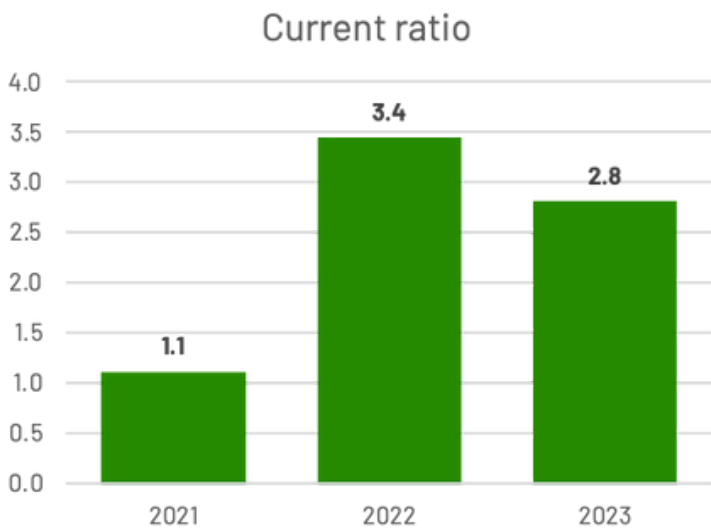


Activity ratios

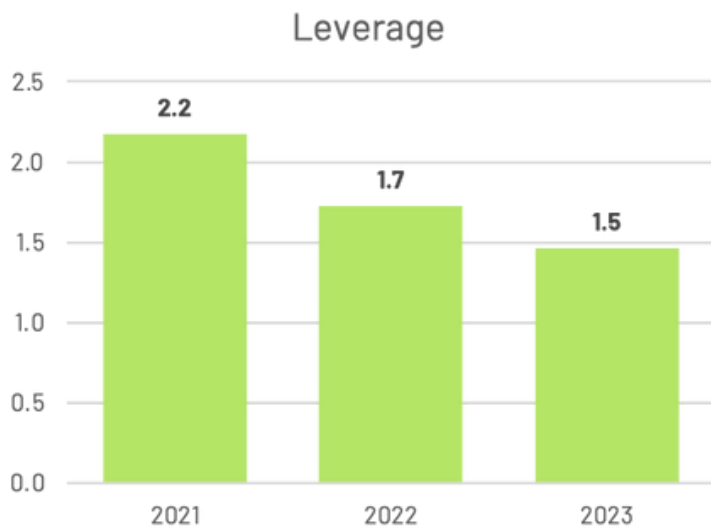
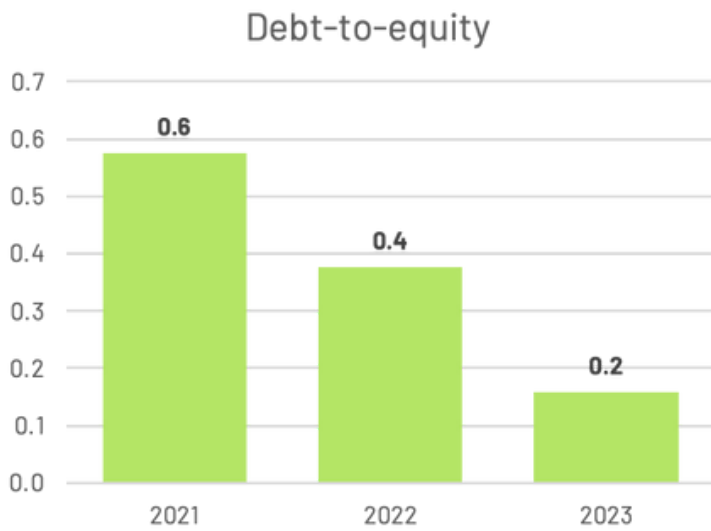


VALUATION- HISTORICAL RATIO ANALYSIS

Liquidity ratios



Solvency ratios



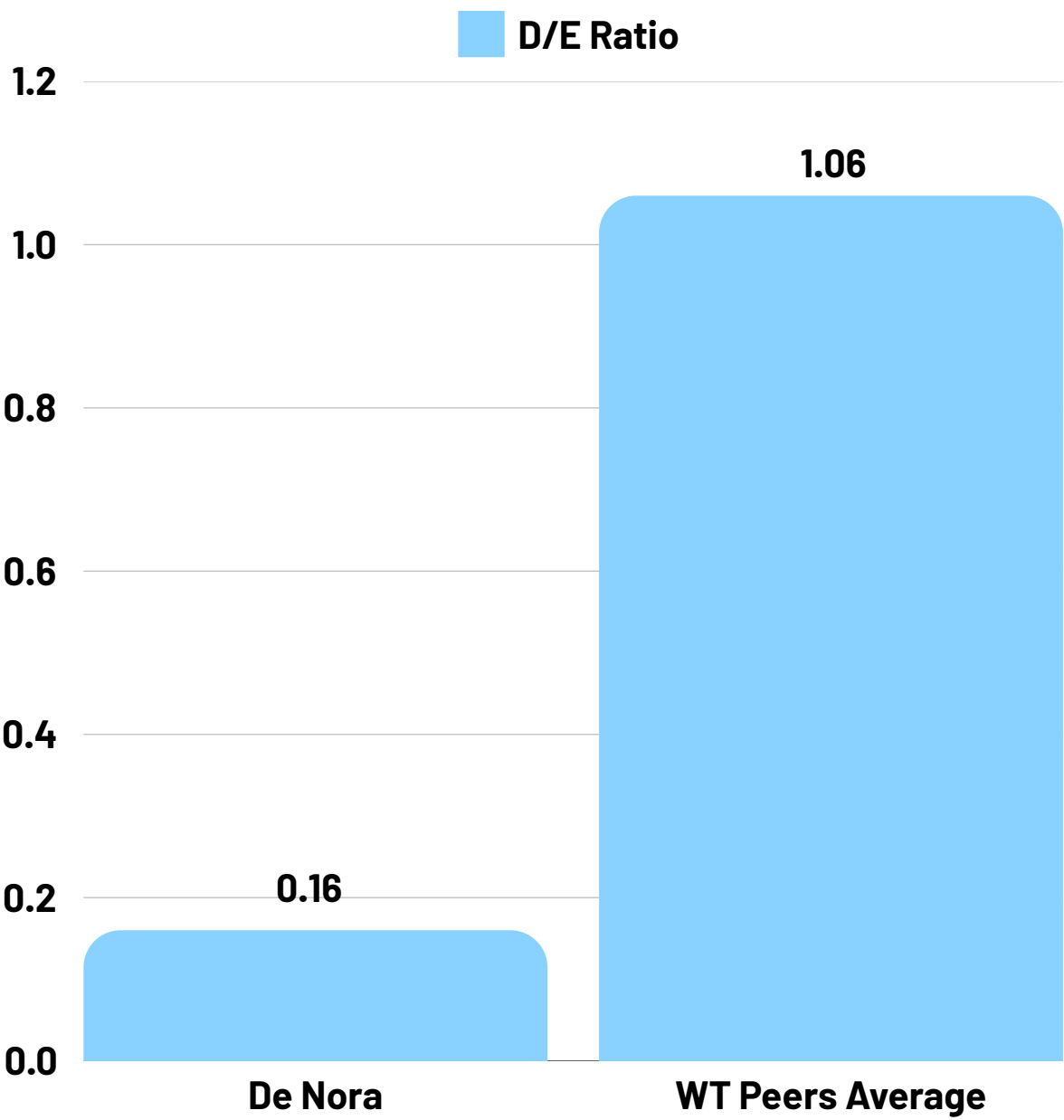
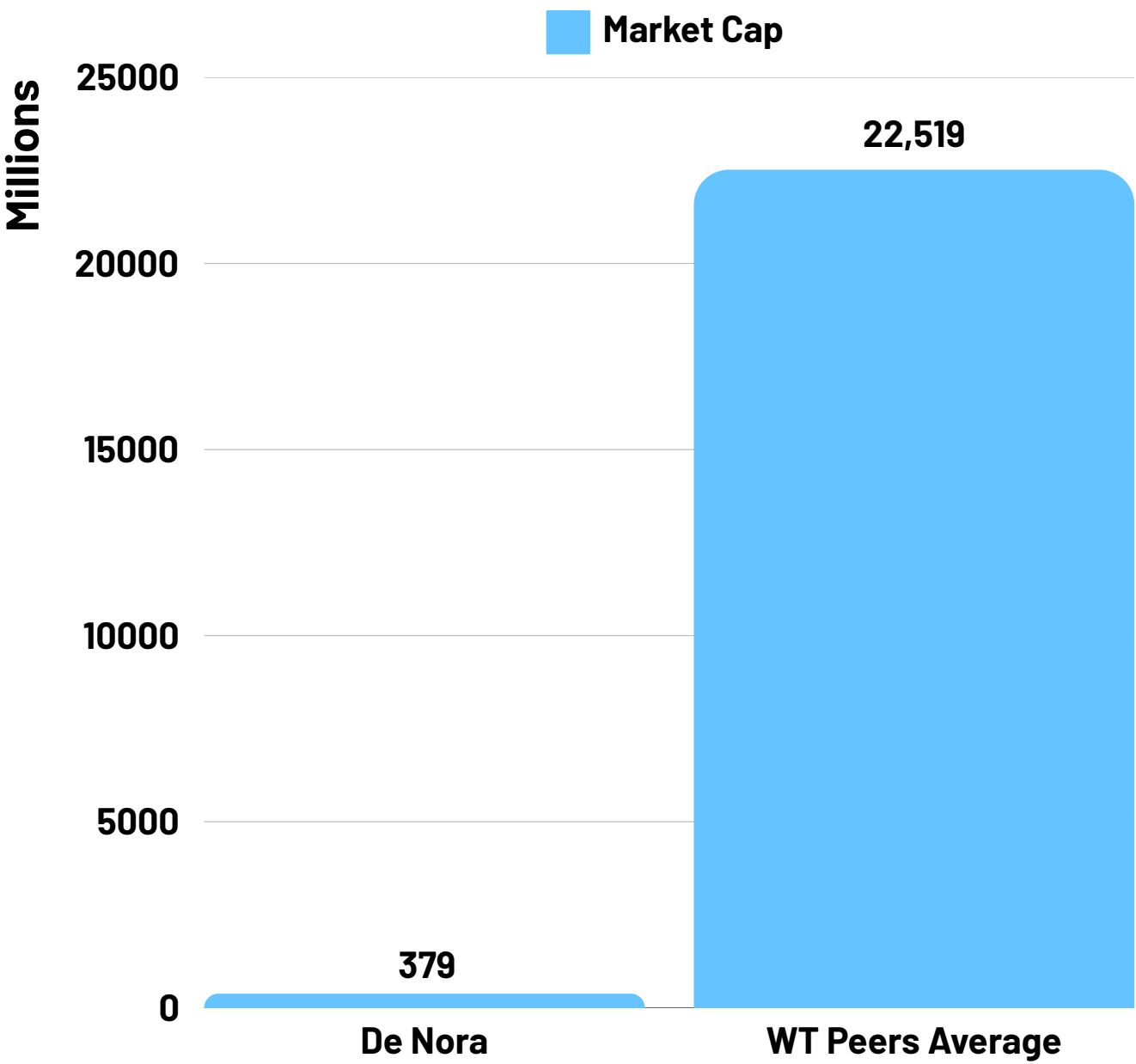
VALUATION – PEERS VALUATION

Appendix

Company name	Country	Listed	Market cap (€)	Revenue (€)	EBITDA m	EBIT m	ROA	ROE	D/E	Net Debt to Capital	Price to Cash Flow	Capex/Sales	Score	Outcome
ELECTRODE TECHNOLOGIES														
Carlit Co LTD	Japan	Yes	163,760,000	233,620,000	13%	9%	4%	7%	0.02	-2%	8.54	0.05	1.7106	YES
Osaka Soda Co LTD	Japan	Yes	1,581,250,000	603,950,000	18%	14%	6%	8%	0.07	-25%	18.68	0.06	1.5486	YES
Asahi Kasei Corp	Japan	Yes	9,491,570,000	17,787,340,000	14%	8%	2%	4%	0.65	22%	4.85	0.06	2.5649	YES
Umicore	Blegium	Yes	2,491,387,208	25,435,523,000	5%	3%	6%	17%	1.32	19%	14.55	0.05	2.4265	YES
Johnson Matthey	UK	Yes	3,838,490,000	14,883,870,000	15%	11%	2%	4%	0.63	23%	6.38	0.03	2.4120	YES
Vesuvius	UK	Yes	1,501,540,000	2,219,480,000	14%	11%	8%	16%	0.42	14%	5.20	0.05	1.9381	YES
Element Solutions	US	Yes	5,064,080,000	2,158,130,000	21%	18%	2%	5%	0.87	40%	16.66	0.03	2.2218	YES
Victrex	UK	Yes	1,015,880,000	352,750,000	36%	29%	10%	12%	0.11	3%	30.13	0.13	1.6010	YES
AVERAGE			3,143,494,651	7,959,332,875	17%	13%	5%	9%	0.51	12%	13.12	0.06		
WATER TECHNOLOGIES														
Xylem	US	Yes	24,955,860,000	6,811,450,000	21%	14%	5%	8%	0.19	19%	24.69	0.04	1.9902	YES
Veolia	France	Yes	19,175,695,428	44,736,700,000	15%	8%	2%	10%	3.37	67%	4.84	0.07	3.5820	YES
Pentair	UK	Yes	10,890,670,000	3,796,520,000	22%	19%	10%	21%	0.47	32%	19.48	0.02	2.1069	YES
Hayward	US	Yes	2,626,330,000	917,980,000	27%	22%	6%	14%	0.71	39%	18.62	0.03	1.8876	YES
Fluidra	Spain	Yes	4,823,133,022	2,083,496,000	19%	11%	3%	7%	0.82	42%	8.33	0.03	2.3251	YES
Chart	US	Yes	5,281,100,000	3,100,950,000	14%	9%	2%	4%	1.31	55%	59.61	0.04	3.0016	YES
Safran	France	Yes	96,279,206,793	23,651,000,000	19%	14%	7%	31%	0.45	-1%	15.60	0.05	2.3859	YES
Entegris	US	Yes	16,116,012,377	3,523,926,000	27%	16%	2%	5%	1.15	52%	28.73	0.13	2.5646	YES
AVERAGE			22,518,500,953	11,077,752,750	20%	14%	5%	13%	1.06	38%	16.34	0.05		
ENERGY TRANSITION														
McPhy	France	Yes	40,820,000	18,774,000	-252%	-267%	-25%	-43%	0.07	-62%	(1.82)	1.31	4.1793	NO
Green Hydrogen System	Denmark	Yes	64,510,000	5,640,000	-636%	-825%	-21%	-47%	1.39	34%	(3.48)	6.65	5.1946	NO
Hydrogen Pro	Norway	Yes	93,270,000	49,860,000	-6%	-10%	-11%	-15%	0.05	-30%	(5.29)	0.04	2.6937	YES
Siemens Energy	Germany	Yes	40,450,000,000	34,465,000,000	-2%	-6%	3%	15%	0.42	-20%	11.31	0.04	2.5574	YES
Cummins	US	Yes	47,640,000,000	31,508,960,000	13%	10%	3%	8%	0.74	40%	8.62	0.04	2.8402	YES
ITM	UK	Yes	368,090,000	19,180,000	-185%	-221%	-7%	-10%	0.05	-78%	(8.19)	0.85	3.7415	NO
NEL	Norway	Yes	451,000,000	118,430,000	-16%	-33%	-11%	-15%	0.04	0%	(16.61)	0.00	2.5914	YES
Plug Power	US	Yes	2,454,590,000	824,460,000	-109%	-117%	-26%	-39%	0.02	16%	(2.42)	0.78	3.0242	YES
AVERAGE			11,445,285,000	8,376,288,000	-149%	-184%	-12%	-18%	0.35	-13%	(2.24)	1.21		
Inustrie De Nora S.P.A.	Italy	Yes	379,421,484	856,411,000	21%	17%	6%	11%	0.16	-7%	22.56	10.33		

Similarity score = 0,2 * (revenue+market cap) + 0,3 * (EBITDAm+EBITm+ROA) + 0,25 * (net debt to capital) + 0,25 * (capex/sales + price to cash flow)

VALUATION - WT PEERS



INVESTMENT RISKS - SCENARIO ANALYSIS (1)



INVESTMENT RISKS - SCENARIO ANALYSIS (2)

WORST CASE ASSUMPTIONS

Combined result of all the key risks that De Nora could face

Supply Chain risk	-9.2%
Regulatory risk	-10.9%
Technology Competition risk	-6.8%
TK Nucera risk	-3.9%

Target Price **€7.1**

BEST CASE ASSUMPTIONS

- Disinfection and filtration CAGR
- Energy Transition 27 - 30 CAGR
- Real Option
- Cost of Debt
- M&A Strategy

6.1% -> 7.5%

22% -> 28%

193mln -> 200mln

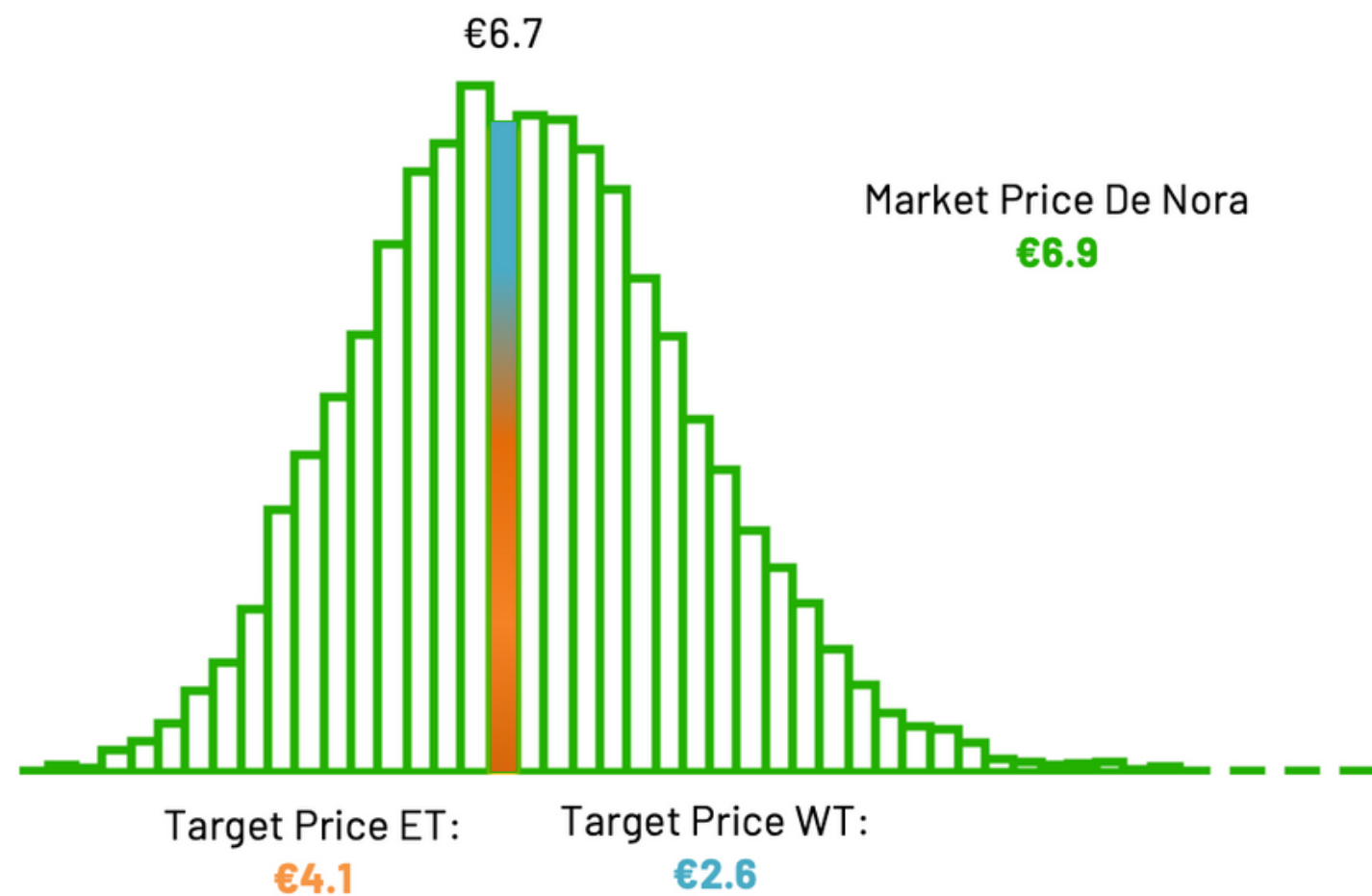
4.0% -> 4.3%

60% Cash
40% Debt

Target Price **€11.6**

INVESTMENT RISKS - ROBUSTNESS ANALYSIS

MONTECARLO ANALYSIS



SENSITIVITY ANALYSIS

	9.0%	10.0%	11.3%	12.0%	13.0%
1.0%	1560	1382	1208	1123	1026
2.0%	1706	1490	1284	1186	1076
2.6%	1816	1568	1338	1231	1111
3.0%	1901	1628	1378	1263	1136
4.0%	2173	1812	1499	1360	1209

Share price	9.0%	10.0%	11.3%	12.0%	13.0%
1.0%	7.8	7.0	6.1	5.7	5.2
2.0%	8.6	7.5	6.5	6.0	5.4
2.6%	9.1	7.9	6.7	6.2	5.6
3.0%	9.5	8.2	6.9	6.4	5.7
4.0%	10.9	9.1	7.5	6.8	6.1

INVESTMENT RISKS - MULTIPLE ANALYSIS

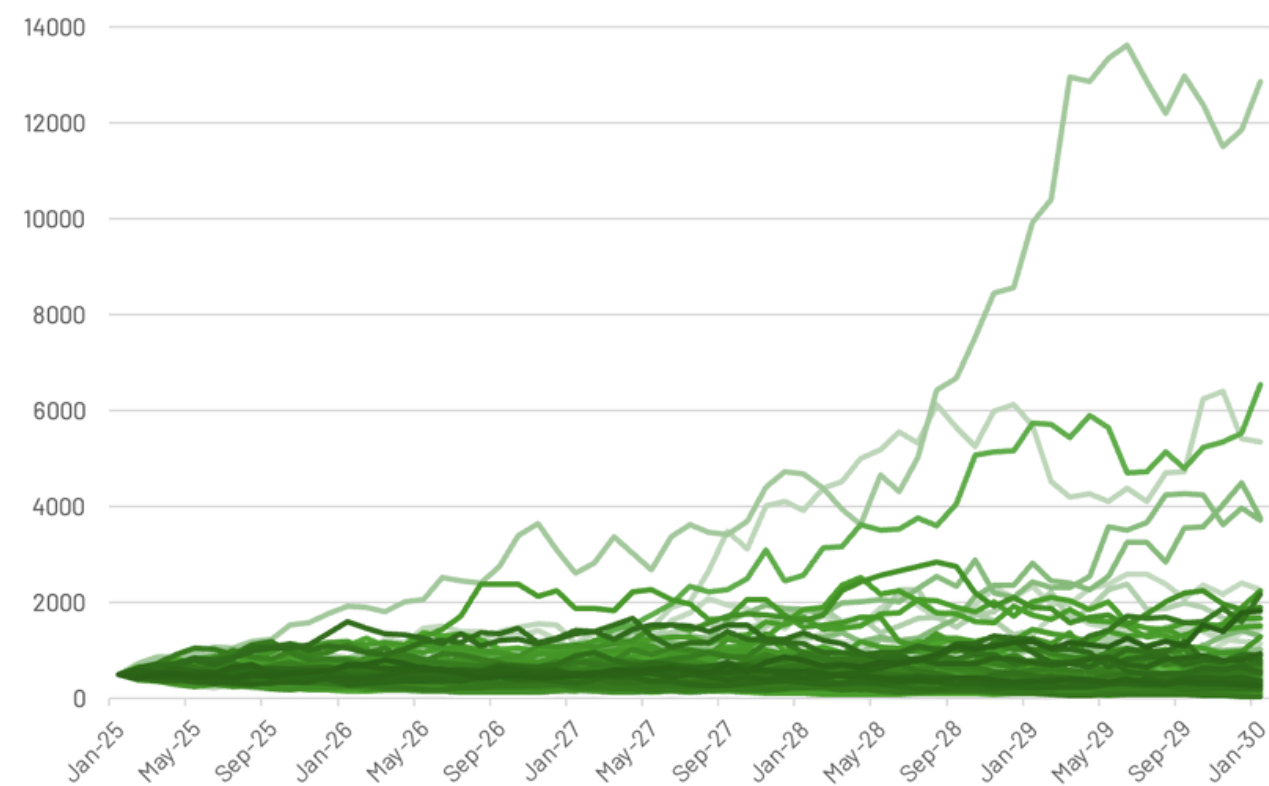
Company name	EV/Revenue	EV/EBITDA	EV/EBIT
ELECTRODE TECHNOLOGIES			
Carlit Co LTD	0.61	3.57	5.60
Osaka Soda Co LTD	1.66	8.20	7.20
Asahi Kasei Corp	0.70	5.43	9.50
Umicore	0.99	4.64	7.69
Johnson Matthey	0.84	4.33	6.15
Vesuvius	0.73	4.83	6.29
Element Solutions	3.01	12.56	13.98
Victrex	2.71	7.99	10.39
AVERAGE	1.41	6.44	8.35

Company name	EV/Revenue	EV/EBITDA	EV/EBIT
WATER TECHNOLOGIES			
Xylem	3.27	14.65	18.65
Veolia	0.85	5.95	10.37
Pentair	4.27	15.62	17.02
Hayward	3.36	12.20	14.77
Fluidra	2.63	11.02	15.32
Chart	2.50	9.63	11.33
Safran	2.85	14.06	17.44
Entegris	5.11	16.30	19.76
AVERAGE	3.11	12.43	15.58

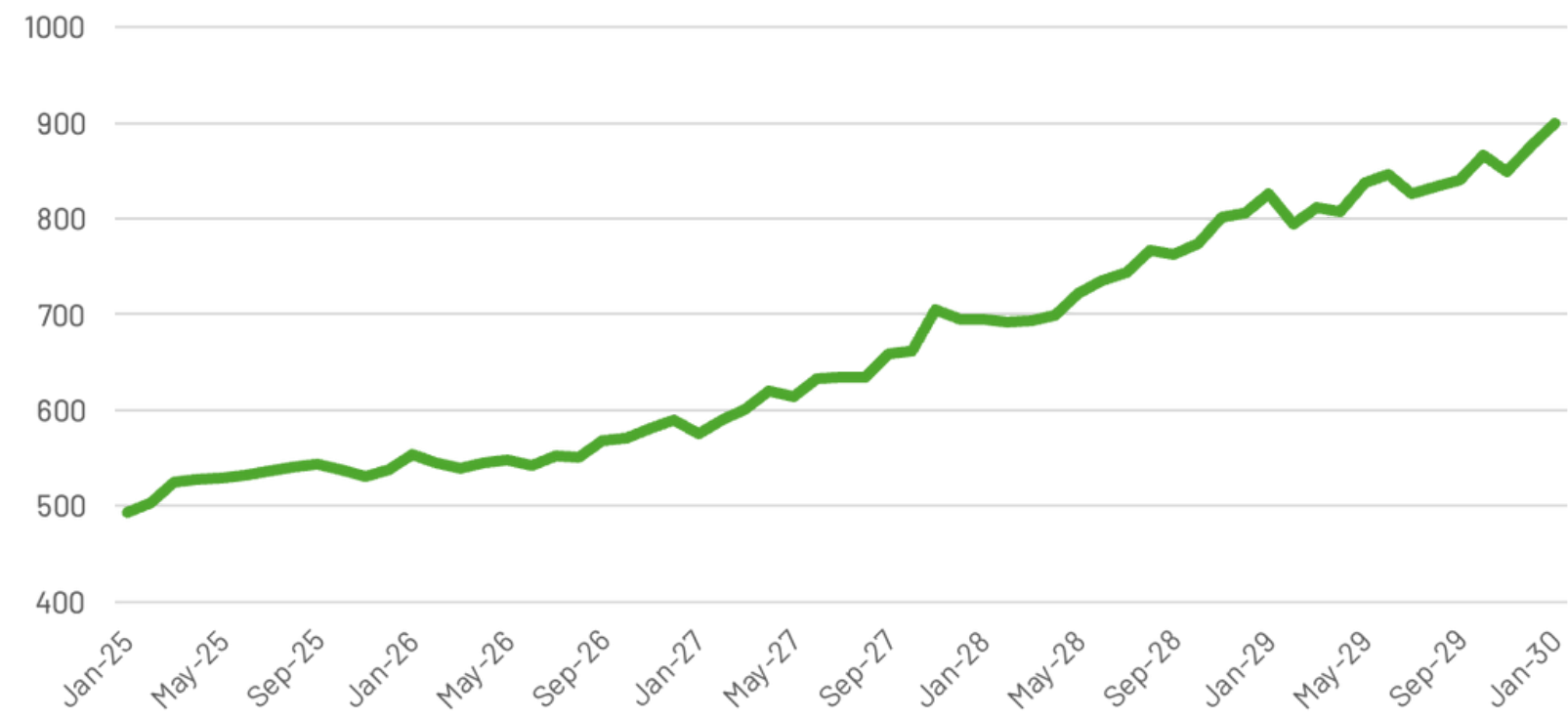
Company name	EV/Revenue	EV/EBITDA	EV/EBIT
ENERGY TRANSITION			
Hydrogen Pro	0.15	1.80	3.00
Siemens Energy	0.88	7.24	10.34
Cummins	1.51	9.03	11.40
ITM	0.04	-0.33	-0.18
NEL	1.00	-16.13	-6.40
Plug Power	2.19	-22.26	-7.75
AVERAGE	1.30	-4.06	2.12

INVESTMENT RISKS - SUPPLY CHAIN RISK - Ruthenium

Ruthenium price trajectory simulations

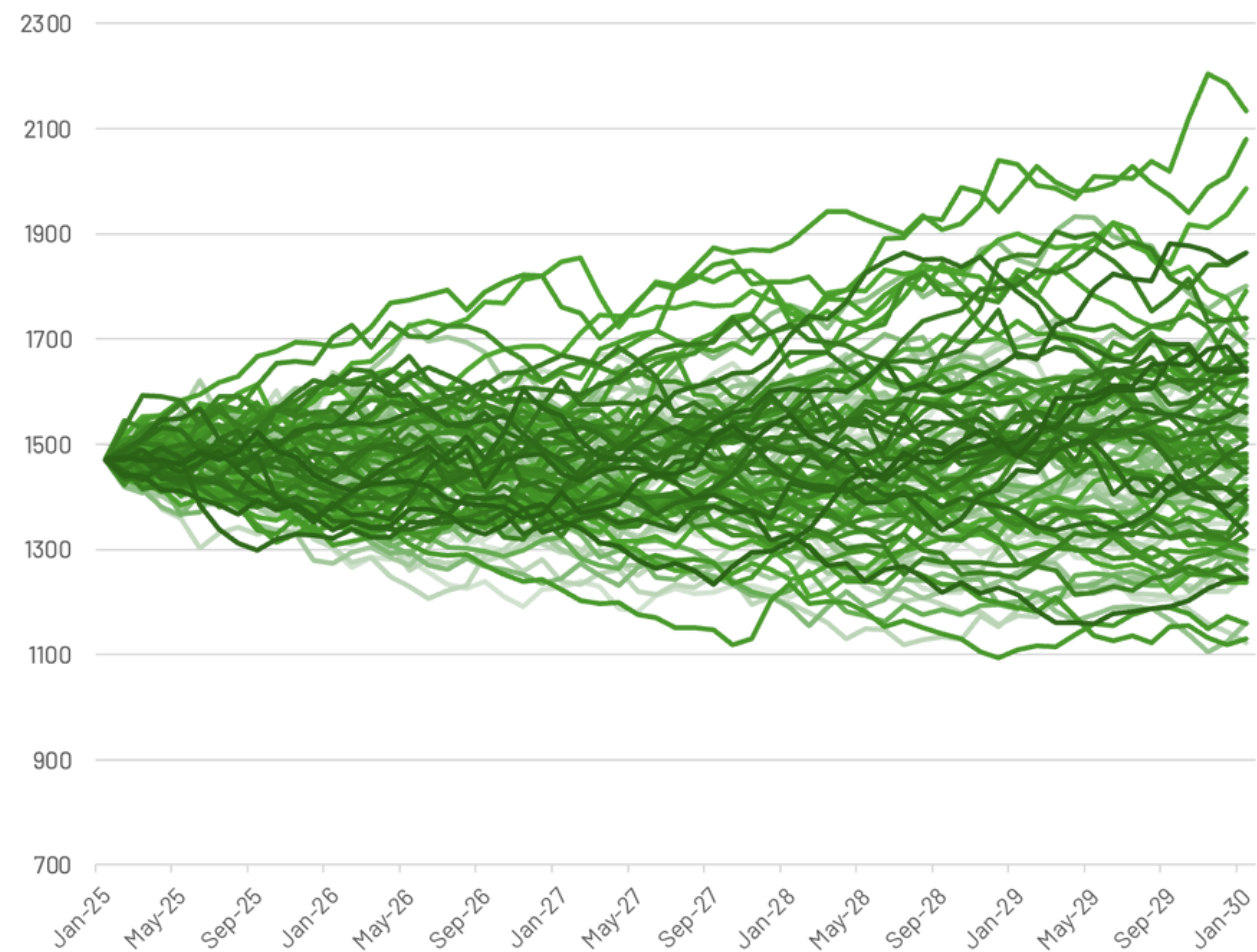


Expected Ruthenium price tred



INVESTMENT RISKS - SUPPLY CHAIN RISK - Iridium

Iridium price trajectory simulations

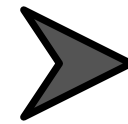


Expected Iridium price tred



INVESTMENT RISKS -SUPPLY CHAIN RISK - Impact

We have estimated an average annual price increase of around 11% for **rhutenium** and 0.25% for **iridium**

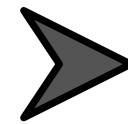


Cumulative cost increase of approximately **5.6%** by 2030

-7.4%

Further assessment

More conservative inventory management strategy to mitigate potential supply disruptions



Inventories Turnover ratio to **305 days** (from actual level of 240 days)

-1.8%

INVESTMENT RISKS -REGULATORY RISK - Impact

Energy
Transition CAGR
(27-30)

CAPEX on
segment

Real Option
Value

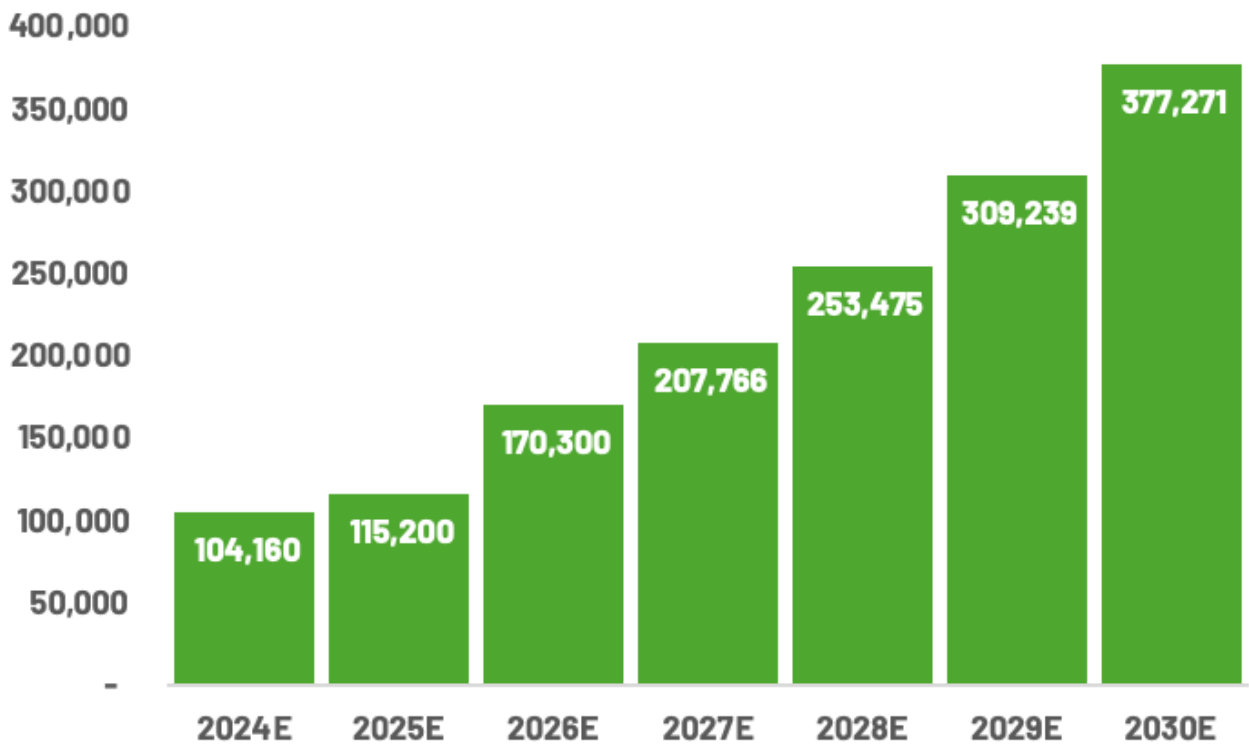
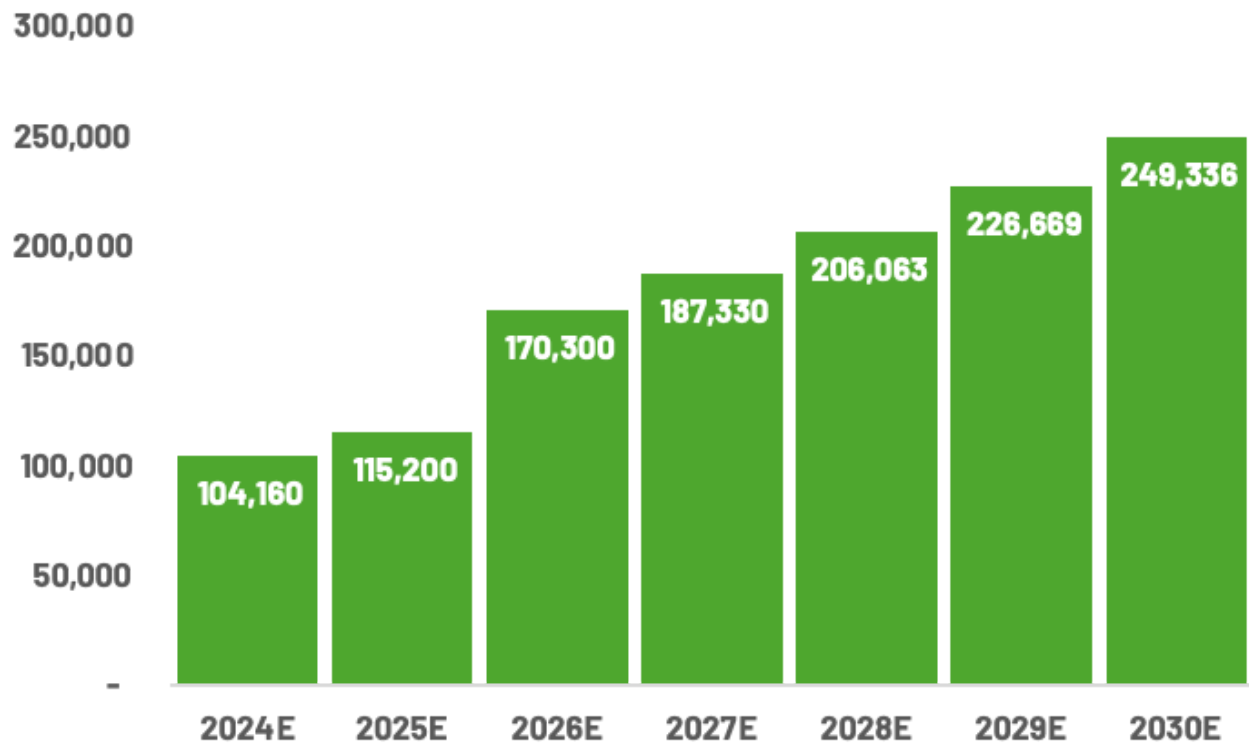
22% →10%

175mln →145mln

193mln → 85mln



-10.9%



INVESTMENT RISKS -TECHNOLOGICAL COMPETITION RISK - Impact

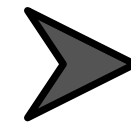
Major threats

- Solid Oxide Electrolysis (SOEC)
- Blue Hydrogen
- Nuclear – powered hydrogen



Mitigation

- Investments in R&D
- Development of SOEC technology with TK Nucera



Scenario in which De Nora gradually phases out the energy transition segment



-6.8%

INVESTMENT RISKS - TK NUCERA RISK - Impact

Slow down in regulation

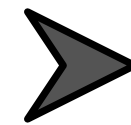
+

Potential emergence of competing technologies



Mitigation

- Possibility to work with other parties also under the TMA
- Ownership structure of JV



-3.9%