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CFA InstituteResearch Challenge 2025

Initiation of Coverage 31 January 2025

Industrie De Nora S.p.A.

Italy | Electrochemical Technologies



HOLD

DNR.MI

Current Price: €7.18

Target Price: €8.12

Upside: 13.1%

Dividend Yield: 1.7%

Stock Data

Market Cap: €1,448 Mn Shares Outstanding: 201.7 Mn 52 week H/L: €16.17 / €6.86 Avg. Daily Volume (90d): 176.0 K TTM (%): -50.89% YTD (%) -5.15%

Exchange: Milan Stock Exchange Segment: Euronext Milan

Stock Performance



	1 <i>M</i>	6M	1Y
Absolute performance	-5.15%	-29.75%	-50.89%
Rel. STOXX 600	-12.02%	-113.61%	-61.98%
Rel. FTSE MIB	-11.84%	-40.75%	-69.52%

Key financials:

	2024E	2025E	2026E
Revenue (€Mn)	843.64	884.65	928.34
EBITDA (€Mn)	150.12	155.69	161.49
EBIT (€Mn)	118.08	122.09	126.23
CAPEX	(65.00)	(80.00)	(100.00)
NWC (€Mn)	265.96	293.94	321.93
FCFF (€Mn)	47.65	16.52	1.26
Profit (€Mn)	76.65	79.15	81.72
EV (€Mn)	1,343.9	1,443.7	1,569.4
EV/Sales	1.6X	1.6X	1.7X
EV/EBITDA	9.0X	9.3X	9.7X
EV/EBIT	11.4X	11.8X	12.4X
P/E	19.9X	18.3X	17.7X
ROIC (after tax)	13.6%	14.1%	14.6%
ROE (after tax)	8.4%	8.7%	9.0%

Investment Summary

We initiate coverage of **Industrie De Nora S.p.A.** (DNR) with a **HOLD** recommendation based on our 12 months **target price of €8.12**, a **13.1% upside** from the €7.18 closing price on January 31, 2025. Our valuation is based on a two stage Discounted Cash Flow (DCF) methodology model, supported by a Montecarlo simulation and a sensitivity analysis.

DNR is going all in on hydrogen which represents a double-edged sword: the business is currently not profitable and may remain so for an extended period. However, the company maintains a solid financial position, supported by net cash, serving as a safeguard and ensuring operational flexibility. Positive cash flows from the company's two other business segments (Electrodes - where DNR is market leader - and Water technologies), along with funds from the IPO, provide financial support for the hydrogen expansion. If the expectations for hydrogen for the next few years are fulfilled, the productive capacity - even more with the implementation of the Italian Gigafactory - will surpass that of other suppliers of electrode components as well as manufacturers of electrodes and cells. DNR is already strategically positioned ahead of its competitors in the hydrogen business, and clean energy future market trends will be crucial: recently, guidance has been revised downward due to delays in the some projects and more muted expectations. A notable concern is the reallocation of funds raised through the IPO, which were originally designated for operating investments and improving net working capital efficiency but were instead directed toward debt repayment and capital expenditures. This decision was primarily driven by delays in the implementation of hydrogen projects, resulting from regulatory and policy uncertainties, as well as significant delays in the disbursement of public funding. Green hydrogen production remains costly (€3–8/kg) compared to grey hydrogen (€1–2/kg), with the lowest costs (€3–5/kg) found in regions rich in low-cost renewables, such as the Middle East, Africa, and Australia, while in Europe higher energy prices drive up costs. Competitive production hinges on technological advancements, increased renewable capacity, and supportive policies. DNR possesses the flexibility to adjust its production based on market conditions, and their production facilities can be adapted to meet demand wherever it is highest.

The company's growth strategy is centred on hydrogen, with its market value heavily influenced by developments in this sector. **Market timing will play a critical role**, as there is a significant risk associated with entering the hydrogen market prematurely. Investing too early could expose the company to regulatory uncertainty and limited demand, potentially leading to suboptimal returns.

Positives

- Leadership in key, niche markets
- Strong balance sheet to finance growth (capex, acquisitions)
- Upside optionality from the new "hydrogen economy"
- Founders' family still at the helm and controlling the company, bringing stability and long-term vision
- Not too expensive at 9x EV/EBITDA and 12x EV/EBIT

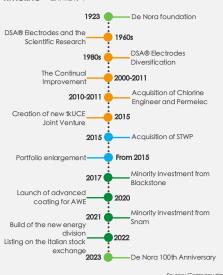
Negatives

- Profitable segments growing at low-to-middle single digits rate
- Capital intensive and (partly) cyclical
- Increasing threat from both larger international players and lower quality (but good enough) / much cheaper products from Asian competitors
- Hydrogen still a (very) long shot

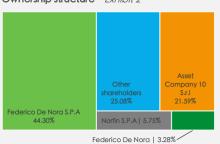
	Grade	Comment
Business Quality & Scale	A	De Nora excels in business quality and scale, leveraging its leadership in electrochemical technologies across key industries like water treatment and energy. Its strong intellectual property, global presence, and diversified customer base provide a solid foundation for growth. With substantial investments in R&D and a broad manufacturing network. De Nora benefits from economies of scale, improving its cost efficiency and market competitiveness. These factors combine to position the company for long-term sustainability and profitability
Industry Prospects	В+	DNR is positioned in industries potentially vital to the future. With water scarcity on the rise, water and wastewater treatment remains essential, while green hydrogen stands out as a promising solution – though uncertainties around its large-scale adoption persist – in the fight against air pollution.
Accounting	Α	High level of disclosure and compliance with International Accounting Standards.
Valuation	В	Given its uniqueness compared to other market players, DNR is challenging to value reliably using multiple-based methods. Therefore, a model based on future cash flows that accounts for inherent risk was deemed more appropriate.
Capital Structure	В	A very solid financial structure, but with debt levels that are too low for a company that has yet to fully benefit from strong growth in the Energy Transition sector while primarily operating in mature businesses with predictable cash flows.
Risks	B-	A high level of uncertainty in the Energy Transition business, exacerbated by political tensions and delays in green hydrogen state aid, mitigated by the diversified DNR's business model.
Leadership	A	De Nora is a global leader in electrochemistry, specializing in sustainable technologies for the Green Economy. It is the largest supplier of high-performance catalytic coatings and insoluble electrodes for industrial applications. The company also leads in water and wastewater disinfection.

filtration, and treatment solutions.

Timeline – Exhibit 1

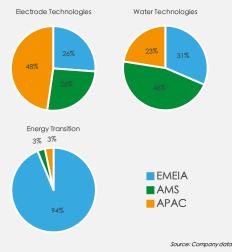


Ownership structure – Exhibit 2



Source: Company data

Revenues breakdown by region - Exhibit 3



Backlog breakdown - Exhibit 4



Source: Company data

Business Description

Company Presentation

Founded by Oronzio De Nora in 1923, Industrie de Nora is the world's largest supplier of high-performance catalytic coatings and insoluble electrodes for electrochemical and industrial applications with a > 50% global market share; DNR is also the leader in providing equipment, systems, and solutions for water and wastewater disinfection, filtration, and treatment. Tapping its know-how in electrodes technology, over the last few years it has also developed innovative technologies for the production of hydrogen through the electrolysis of water.

To accelerate the company's growth prospects, in 2017 **Blackstone** acquired a **32.9%** stake in the company, with the aim of preparing the company for a future stock market listing, while simultaneously strengthening its corporate structure and seeking industrial synergies with companies in Blackstone's portfolio. The investment was sold in 2020 to **Snam**, Italy's national natural gas transport company and one of the biggest players in energy/storage infrastructures in the world, which acts as DNR's new industrial partner with valuable knowledge in the energy transition business.

De Nora was then IPOed in June 2022 and the shares were listed on Euronext Milan at an offer price of €13.5 (lower than the previously communicated range which had a maximum price of €16.5, despite the demand from global institutional investors amounted to 3.5 times the shares offered). The offer included a total of 35 million ordinary shares, representing approximately 17.4% of the share capital. Of these, 14.8 million were newly issued shares offered by the Company, while the remaining 20 million shares were sold by the controlling shareholders, Federico De Nora S.p.A., Asset Company 10 S.r.l., and Norfin S.p.A. The net proceeds from the capital increase were originally intended to support the implementation of the company's strategic objectives, funding productive investments and working capital and evaluate external growth opportunities when deemed appropriate. However, instead of being allocated for these purposes as communicated by De Nora, much of the proceeds were used to repay debt. Currently, the De Nora family maintains a controlling interest in the company's capital, ensuring continuity in governance and strategic vision (Exhibit 2).

Business Model and Key Revenue and Cost Drivers

De Nora is organized along 3 different business lines:

ELECTRODE TECHNOLOGIES (c. 54% of 2024E revenues): this is De Nora's historical core business, offering a broad array of electrochemical technologies, including anodes, cathodes, specialized catalytic coatings, and gas diffusion electrodes, along with a full range of after-sales services. These products are employed in multiple industries, primarily in the **chemicals**, **electronics**, and **mining** sectors. Key end-industries for Electrode Technologies include:

- Chlor-Alkali Industry (c. 69% of the segment's revenues): DNR's technologies are used in the
 production of chlorine and caustic soda-based solutions, essential for manufacturing everyday products
 like soap, detergents, aluminum, PVC, polyurethane foam, and disinfectants.
- Electronics (c. 17%): electrodes are applied in the production of copper foil, which is used in lithium batteries and printed circuit boards
- Specialties and new uses (c. 14%): production of special compounds: synthesis of materials or substances with unique properties, used in areas such as pharmaceuticals, agribusiness and advanced electronics.

WATER TECHNOLOGIES (c. 35% of 2024E revenues): De Nora's offerings in the segment can be divided into four key areas: i) Pool technologies (30% of the segment's revenues), ii) Disinfection & filtration (35%), iii) Electro-chlorination (31%), and iv) Marine technologies (4%), with solutions widely employed across different sectors:

- Residential and Hospitality: DNR is the global leader in providing coated blade electrodes for salt chlorinators used in swimming pools.
- Industrial: the company serves industries focused on water and wastewater treatment, with applications spanning a wide range of sectors, including energy and marine.
- Municipal: DNR's solutions are also applied in large municipal water and wastewater treatment projects, ENERGY TRANSITION (c. 12 % of 2024E revenues)

This segment includes a wide range of technologies focused on the energy transition, primarily for:

- Hydrogen and oxygen generation: electrodes (anodes and cathodes), electrolyzer components, and systems to produce green hydrogen through water electrolysis, central to decarbonizing industries that are hard to electrify.
- 2. Fuel Cells: solutions for use in fuel cells that generate electricity from hydrogen.
- 3. Flow Batteries (Redox Flow Batteries): technologies for flow batteries, which are crucial for storing and managing renewable energy, helping to ensure a stable and sustainable energy supply.

GLOBAL PRESENCE. Employing more than 2,000 people worldwide, De Nora operates 25 locations in 10 countries with 5 R&D centers in the US, Japan and Italy *(Exhibit 3)*. This widespread presence, coupled with its broad product portfolio, allows the company to effectively serve customers in 100 countries across all continents.

Recurring revenues generated from after sales services are an important key feature of De Nora's business model: for all its segments DNR takes an integrated approach that combines the provision of new installations (68% of revenues) with maintenance services (32% of revenues) and technology upgrades. These services entail: (i) re-coating to restore the performance of aging electrodes, thus extending their life, (ii) replacement and upgrades of existing products, allowing customers to stay ahead of technological developments (iii) ongoing technical assistance and performance monitoring to optimize the performance of installed systems, such as electrolyzers and water treatment solutions.

These industries have an established and steady demand supporting **predictable cash flows** and strengthening long-term customer relationships.

Corporate Strategy

SUPPLIER OF TAILOR-MADE COMPONENTS. De Nora's core strategy is to provide not only high-quality products, but mostly to be a supplier of tailor-made components according to their customers' needs, maintaining at the same time a leadership position in the legacy water and electrode segments while also exploiting new opportunities in the hydrogen supply chain business. The company's vision is best delineated along the following key points:

- Organic Growth: DNR sees Energy Transition as the next natural evolution of its electrode technologies business, with a continuously growing demand for green hydrogen, a critical component for decarbonization in industries that rely heavily on fossil fuels (e.g., steel, refineries). Launched internally in 2022, the segment showed substantial acceleration with revenues in 2023 already exceeding €100 million (more than 2.5x the previous year): with essentially the same amount of revenues expected in 2024. De Nora has set ambitious goals of continuous growth with a strong focus on electrolysis technology (alkaline, PEM, and AEM and hydrogen-related applications: for example, it is developing new solutions for the mobility sector (hydrogen-powered vehicles).
- Leadership in Electrochemical Solutions: De Nora continues to focus on maintaining its leadership

Tk nucera insight – Exhibit 5



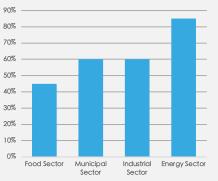
Source: tk nucera report

Other ET linked industry – Exhibit 6

Electronics industry	Mining industry (electrowinning)
Key drivers:	Key drivers:
Digitalization: rising demand for high-quality planting for PCB contacts Implementation of 5G technologies Increase in demand for electric/hybrid vehicles	Sustained demand for strategic metals Replacement of lead (Pb) with new titanium anode technology in electrolytic copper refining

Source: Company data

Projected water demand increase By 2050 – *Exhibit 7*



Source: World Bank Group

position in the water and electrode business segments sustaining product excellence by investing in advanced electrochemical technologies and continuous innovation. To protect its technological innovations, the company relies on a large portfolio of patents (281), in particular in the areas of electrolysis, fuel cells, and water treatment. By investing 1.8% of revenues in 2023 in R&D, DNR maintains a significant competitive advantage.

- Expansion of Manufacturing Capacity: strategic investments are a core part of the strategy, including the construction of a Gigafactory for green hydrogen production technologies in Italy in collaboration with Snam. The total investment is approximately €100 million, partially financed from PNRR funds (€63 million). The facility is expected to have a total capacity of 2 GW, in line with De Nora's goal of meeting growing demand in the green hydrogen sector.
- Strategic acquisitions and partnerships: over the past two decades, the group has complemented its organic growth with product expansion via acquisitions and joint ventures. Two of the most significant partnerships have been with ThyssenKrupp and Snam.

Partnership with ThyssenKrupp (TKA). De Nora's close collaboration with ThyssenKrupp (TKA) provides a strong foundation in the hydrogen value chain, from production to storage and distribution. By leveraging TKA's scale and global market presence, De Nora is better positioned to compete in the rapidly expanding global hydrogen market. The partnership, which began in 2001 as a joint venture focused primarily on electrolyzers for the chlor-alkali business, later expanded to include the development and manufacturing of electrolyzers for hydrogen production through water electrolysis.

• NCH2 (now listed on Deutsche Börse Xetra since July 2023, with TKA maintaining a 50% stake and DNR ~26%) focuses on large-scale **green hydrogen production**, aiming to support global decarbonization efforts by combining TKA's industrial expertise in large-scale engineering with DNR's cutting-edge electrochemical technology: DNR provides NCH2 the manufacturing capacity to supply all the cells and the electrodes required for the entire green hydrogen generation plant, while NCH2 engineers the plant based on their large-scale 20-megawatt (MW) alkaline water electrolysis module. The JV has already delivered significant projects, including a **Green Steel project** in Sweden (the first large-scale such plant in EU) and the **Neom project** in Saudi Arabia (which is set to **become the world's largest green hydrogen production facility).**

Partnership with Snam. The strategic alliance is focused on hydrogen production technologies, specifically electrolysis systems, which are vital for the decarbonization of various sectors, including transportation and industrial production. Snam's deep knowledge of energy networks and infrastructure has complemented De Nora technological expertise, positioning the partnership as a leader in hydrogen infrastructure development. Together, De Nora and Snam aim to develop projects that support the creation of hydrogen networks in Italy and other European countries. This includes the construction of hydrogen hubs and the integration of green hydrogen into existing energy grids, facilitating the transition towards carbon-free energy. The partnership has been instrumental to capitalize on the growing demand for renewable hydrogen in Europe, driven by EU decarbonization targets and the shift toward clean energy. Finally, in September 2024 De Nora signed an agreement with the Japanese technology company Asahi Kasei to develop and commercialize electrolyzers and containerized systems for small-scale green hydrogen production. De Nora will leverage its Italian Gigafactory, currently under construction, while Asahi Kasei will utilize its global network for sales and post-sale support, targeting fast-growing industrial markets, including mobility.

Industry Overview & Competitive Positioning

A comprehensive understanding of De Nora's business requires an analysis that extends beyond the three business lines in which DNR directly competes, encompassing also its broader market reach.

Electrode Technologies

CHLOR-ALKALI EQUIPMENT INDUSTRY. The chlor-alkali process is an electrochemical method in which sodium chloride (salt) is electrolyzed to produce chlorine and caustic soda, essential elements in the manufacturing of a wide range of chemicals and pharmaceuticals. The chlor-alkali equipment market was worth approximately \$835 million in 2023 and is expected to grow to \$1.1 billion by 2030E for a 3.5% CAGR (source: Fortune Business Insight). The market is relatively mature, characterized by limited competition and a substantial installed base. Prominent players, like Japan's Asahi Kasei and UK's INEOS, pursue an acquisition strategy to diversify their product portfolio and strengthen their geographical footprint (DNR too). Geographically, the Asia-Pacific region leads the market, driven by rapid industrialization and significant infrastructure investments, particularly in China and Japan. A key challenge is the energyintensive nature of chlorine and caustic soda production, making the industry highly sensitive to fluctuations in energy prices, which can significantly impact operating costs and profit margins. Key drivers include: (i) increasing demand for high-purity chemicals for the production of active pharmaceutical ingredients and intermediates; (ii) rising demand for PVC (Polyvinyl chloride) a chlorine-derived hard plastic, with extensive use in construction materials, packaging, automotive parts and various consumer goods; (iii) necessity to upgrade aging plants and replace outdated technologies to reduce environmental impact and adopt more sustainable processes. All these factors are incentivizing the use of advanced electrodes, such as Dimensionally Stable Anodes (DSA), which provide greater energy efficiency and longer operational lifespans compared to traditional models.

Water Technologies

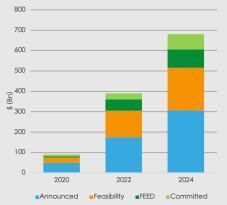
WATER AND WASTEWATER TREATMENT EQUIPMENT INDUSTRY. Water and wastewater treatment involves the removal of contaminants and pollutants through advanced disinfection and filtration technologies, ensuring water is safe for consumption, discharge, or tertiary treatment for reuse. Globally, the market was valued at c.\$65 billion in 2023 and is forecasted to reach \$110 billion by 2033 for a 5.2% CAGR (source: Spherical Insight & Consulting). This is a highly competitive market that features established players such as Xylem (US), Pentair (US), Evoqua Water Technologies (US, now part of Xylem), Aquatech International (US), Ecolab (US) and Veolia Group (France). The market is divided into the municipal (66% of revenues) and industrial (33%) segments (source: Grand View Research). The high cost of water treatment infrastructures represents a significant barrier for small-scale companies and municipalities, with another key constraint for the municipal segment being the heavy reliance on funding allocated to public administrations. Key drivers: (i) as populations grow and urbanisation intensifies, water demand will rise across all sectors of the economy, while water supply will become less predictable, leading to water scarcity and underscoring the critical need for more efficient water utilization (Exhibit 7); (ii) rising awareness of water-related challenges, climate change impacts and sustainable development practises; (iii) stringent environmental regulations aimed at mitigating water pollution (including the removal of emerging contaminants such as PFAS- perand poly-fluoroalkyl substances - known as 'forever chemicals' due to their persistence in the environment and potential health risks) as well as improving water quality have compelled industries and municipalities to invest in advanced treatment technologies and equipment; (iv) government initiatives and investments in water conservation, reuse, and recycling projects.

SWIMMING POOL DISINFECTION EQUIPMENT INDUSTRY. The global swimming pool disinfection equipment market was valued at \$7.3 billion in 2023 and is estimated to reach over \$20 billion by 2031 for a 12.1% CAGR

in Europe – Exhibit 8 45.0 40.0 35.0 30.0 29.8 29.8 20.0 15.0 10.0 5.0 0.0 0.0 1.5 0.0 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

Total electrolyzer installed capacity

Global hydrogen investments growth- Exhibit 9



Source: Hydrogen Council

Main competitors by segment- Exhibit 10



Source: Company data, Team elaboration

Porter's five forces framework - Exhibit 11



Source: Team elaboration

(source: Verified Market Research). It can be segmented into three categories: traditional chlorine disinfection systems, saltwater chlorination systems and ozone disinfection systems. North America is the main market, driven by the widespread presence of residential and commercial swimming pools, with the highest expected growth in the coming years. The market's performance is closely linked to the broader swimming pool industry, which experienced a slowdown in 2023, largely due to a deceleration in the real estate industry. According to GlobeNewswire, the residential swimming pool segment remains the largest, accounting for 52% of the total market value in 2023. Regulations and permits for new pool construction limit market expansion. Additionally, in regions facing water scarcity, swimming pools represent a source of controversy due to their high-water consumption. Key drivers: (i) increase in demand of residential and commercial swimming pools driven by urbanization and rising disposable income; (ii) the environmental impact of chlorine and other chemicals used in pool water treatment have accelerated in recent years the adoption of more sustainable alternatives, such as saltwater chlorination systems where chlorine is generated through the electrolysis of saltwater.

Energy Transition

HYDROGEN ELECTROLYZER MARKET. A hydrogen electrolyzer is a device that produces green hydrogen by using renewable energy sources (wind or solar) to power the electrolysis process that splits water into hydrogen and oxygen molecules, resulting in zero CO2 emissions. The market is currently experiencing rapid growth, with a relatively limited number of major suppliers, but it is also expected to become more competitive in the coming years. It was valued at c.\$588 million in 2023 with a CAGR of 26.5% during the forecast period 2024-2032 (source: Global Market Insights). Key players in the market are Nel Hydrogen (Norway), ITM Power (UK), Siemens (Germany), McPhy Energy (France) and Tk Nucera (Germany). Vertical collaborations are prevalent, as companies work together to drive innovation and compete successfully. Geographically, China accounting for 60% of global electrolyzer capacity in 2023 (according to the International Energy Agency), followed by Europe (Germany, France and the Netherlands) are particularly at the forefront, due to robust governmental backing and aggressive hydrogen initiatives (Exhibit 8). The market is typically segmented into proton exchange membrane (PEM) electrolyzers, alkaline electrolyzers (AE), solid oxide electrolyzers (SOE) and anion exchange membrane (AEM). To enhance competitiveness, companies are transitioning from a high degree of customization to greater standardization, increased volumes and automation (industrialization process) (Annex B.4). For PEM electrolysis, a limiting factor is the heavy reliance on precious metals like iridium and platinum. Another key challenge is the lack of infrastructure for hydrogen transportation. Growth is closely tied to the expansion of the green hydrogen industry: (i) governments' hydrogen-specific policies and incentives (Exhibit 9); however, in 2023, delays have occurred in transitioning from the planning stage to execution of projects and in obtaining subsidies (Annex B.5); (ii) decarbonization process of a wide range of sectors, including heavy industry, long-haul and heavy-duty transport, and energy; (iii) increase in the clean hydrogen demand: according to McKinsey & Company, by 2050, clean hydrogen could account for between 73% to 100% of total hydrogen demand, which today is largely supplied by fossil fuel-based SMR; (iv) growing interest of investors and ESG funds in hydrogen projects.

Competitive Positioning

Considering the different end-markets served by DNR, identifying a group of companies with business mixes fully overlapping with De Nora's can be challenging. As a result, the competitive environment in which the company operates is best analyzed on a segment-by-segment basis.

ELECTRODE TECHNOLOGIES. DNR operates within specialized B2B niches, supplying electrodes to Original Equipment Manufacturers (OEMs) and Engineering, Procurement and Construction (EPC) players that operate in different markets. The chlor-alkali market, a cornerstone of this segment, is highly consolidated, with leadership driven by technological differentiation rather than price competition. Success is based on the ability to provide electrodes that deliver low energy consumption, extended service life and high performance. According to Roland Berger (2021) DNR holds a leadership position with a market share above 50%, supported by a large product portfolio, strong brand reputation, deep know-how, consistent investments in R&D, a robust global footprint (particularly in Asia, a critical growth market) and long-term partnerships. However, the market faces increasing pressure from Asian players focusing on cost reduction over quality to penetrate the market. Among key competitors, Permascand stands out with a more focused product portfolio and a limited geographical reach (concentrated mainly in Europe), which represents a significant constraint in a market, where proximity to customers is crucial to ensure timely assistance and continuity in the efficient functioning of industrial processes. Larger players, like INEOS and Asahi Kasei, due to their larger client portfolio, pose a potentially bigger threat; however, their core businesses lie outside of the niches in which DNR operates, allowing DNR to maintain its leading position. Moreover, DNR's advanced technological expertise has enabled it to secure a significant position in highly specialized segments in the electronics and mining markets.

WATER TECHNOLOGIES. DNR is the major player in industrial chlorination (with a market share close to 80% in the electrode market for salt chlorinators) and maintains a strong position in municipal filtration and disinfection, offering superior solutions that lead to **higher water quality** and **reduced energy consumption** (source: Mediobanca, 2022). Despite being well placed in high-margin, technology-driven segments, it still faces competition from **larger, vertically integrated players** that span the entire value chain and serve both B2B and B2C segments, like Xylem and Veolia. These competitors benefit from enhanced brand visibility and broader product diversification, which could potentially hinder DNR's expansion.

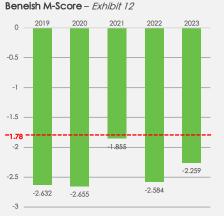
ENERGY TRANSITION. Leveraging decades of expertise, DNR has emerged as the leading provider of alkaline water electrolysis (AWE) components, representing a natural evolution of its core electrodes business. Moreover, the company holds a **manufacturing capacity for electrodes greater than that of the other suppliers** in the segment, including Permascand. Even if future demand will shift toward technologies other than AWE, DNR safeguards its competitive advantage through **significant investments in new solutions** such as the DragonflyTM electrolyzer, AEM and PEM electrodes, and its **strategic partnerships** broadening its market access channels. Competition is from Nel Hydrogen and McPhy in the AWE segment, and Siemens AG and ITM Power in the competing PEM technology field. A potential challenge for the NCH2 joint venture lies in the influx of highly affordable electrolyzers from China, which, despite their cost advantage, face significant opposition in many markets due to domestic hydrogen green project subsidies. On the other hand, the growing competition within the hydrogen electrolyzer industry could ultimately be supportive for DNR, which primarily **aims to solidify its position as the preferred supplier for electrolyzer OEMs**.

Exhibit 11 provides a visual overview of the Porter's Five Forces analysis (Annex B.2).

Financial Analysis

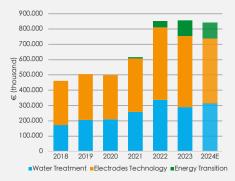
Revenues Breakdown

Electrode Technologies (revenues €464 million in 2023, 2018-2023 CAGR 10%): growth was mostly driven by increasing demand in the chemical, electronics, and mining industries, with the diversification across countries and DNRs business model allowing the company to remain resilient even during the COVID years.



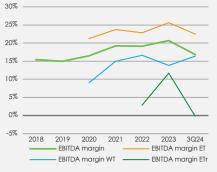
Source: Team elaboration

Revenues breakdown by segment - Exhibit 13



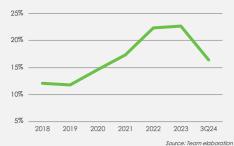
Source: Company data, Team estimate

EBITDA Margin - Exhibit 14

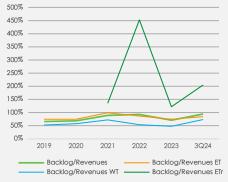


Source: Company data, Team elaboration

ROIC trend - Exhibit 15



Backlog/Revenues breakdown - Exhibit 16



Source: Company data

Despite not being able to complete all their projects due to restrictions, they managed to maintain their revenues around €500 million in 2020, a similar level to 2019. However, revenues dropped in 2023 by 2% and by a further 8.6% YoY in the first 9 months of 2024 due to the destocking phase in the electronics market, a consequence of the post-COVID boom. As a reference, Permascand also experienced a significant increase in its electrode revenues, growing from SEK163 million in 2019 to SEK 273 million in 2023 (CAGR 13%), although it should be noted that their 2023 revenue increase of 40% was primarily driven by aftermarket services, after having also delivered orders for major greenfield projects in the first half of the year, showing much more resilience than De Nora.

Water Technologies (revenues €290 million in 2023, 2018-2023 CAGR 11%): growth was the result of a combination of factors. One key driver was the increase in demand from private swimming pools, driven by the "staycation" effect resulting from COVID-19 restrictions. Additionally, the growing scarcity of water resources in critical markets such as the Middle East and China accelerated the demand for solutions to ensure access to safe drinking water and improve wastewater treatment, with particular emphasis on the increasing need for desalination, which implied significant investments. The introduction of stricter regulations to limit chemical contaminants such as PFAS further increased the demand for advanced filtration solutions.

Xylem, the second largest player in the world behind Veolia in water technologies and which provides solutions across the entire water cycle, has demonstrated impressive performance with a revenue CAGR of 15% from 2018 to 2023 in just its water treatment segment. It should be however noted that in 2022 Xylem acquired Evoqua, a strategic move that strengthened its position by offering a more vertically integrated proposition by better meeting the rapidly growing demand for industrial water treatment, especially in Asia, where the market is expected to grow by 60% by 2030. As a result, De Nora now faces increased competitive pressure in Asia, where Xylem and Evoqua, being larger and offering more comprehensive services, can pose a significant challenge.

Energy Transition (revenues €102 million in 2023, 2021-2023 CAGR 230%): revenues shot up in 2023 due to the execution of important projects in Germany acquired through NCH2. As a relatively new and not yet fully established line of business, revenues are primarily derived from new installations (98% of segment revenues) rather than after-sales services, which could create higher volatility in sales and operating profits in the event of a slowdown in demand. One of the main competitors is Nel, which has been operating in the green hydrogen market well before De Nora: Nel has also experienced substantial growth, with revenues from its hydrogen electrolyzers rising from NOK 300 million in 2018 to NOK 1.4 billion in 2023 (CAGR 37%).

Operating Profitability

Following its IPO in 2022. De Nora achieved a notable improvement in operational profitability (Exhibit 14 – Exhibit 15), with ROIC increasing from 12.1% to 22.7% between 2018 and 2023. The energy transition' EBITDA margin. in particular, experienced a significant improvement, increasing from 2.8% in 2022 to 11.7% in 2023, thanks to a marked rise in sales of hydrogen technologies and the execution of orders from the backlog. However, in 2024, operating profits experienced a slight contraction due to delays in the execution of certain projects and the higher costs associated with green hydrogen production: indeed, EBITDA margin in Energy Transition turned marginally negative (-0.2%) in Q3 2024. Similarly, the group's operating margin decreased to 12.8% in Q3 2024, down from 16.1% in 2023 and 14.8% in 2022: management still expects a recovery in the fourth quarter, driven by improvement in demand in the Energy Transition and Water Technologies divisions, particularly within the pool segment.

The Capital Turnover Ratio decreased to 1.28 in 2024, down from 1.41 in 2023 and 1.51 in 2022, indicating that the company is generating fewer sales per unit of invested capital compared to previous years, suggesting a less efficient use of capital.

De Nora's profitability remains robust, supported by its diversified business model

By division, the most profitable business is Electrode Technologies, with EBITDA margin increasing from 21% in 2018 to 26% in 2023 (but now back down again to 22.5% in Q3 2024). Water Technologies ranks second, but with a more erratic trend: EBITDA margin was 16.6% in 2022, went down to 13.8% in 2023 (when segment revenues fell 14% from €336 million to €289 million), and is now up again to 16.4% in the first nine months of 2024 (with revenues flat compared to the same period of the previous year). These fluctuations were due to reduced demand in the residential swimming pool market following a destocking by key customers, the normalization of consumption patterns following the COVID-19 pandemic, and lower average sales prices because of reduction in the ruthenium price which is an important component of pool electrodes. While margins are cyclical, their resilience is supported by the steady contribution from after-market services, which accounted for 26% of the WT segment's revenues.

An analysis of profitability drivers over the 2018–2023 period reveals an improvement in both operating margins and capital productivity (Capital Turnover). Despite these positive trends, the performance across De Nora's three primary sectors has fallen short of the expectations set by management at the time of the IPO, where revenues for 2024 were projected to reach €1.4 billion: at the time, De Nora was presented as a high-growth / high profitability company, mostly for the entry into the (at the time) new Energy Transition sector. Uncertainties surrounding green hydrogen have resulted in weaker-than-expected performance in 2024, raising questions about the medium-term profitability initially promised.

Between 2018 and 2023, De Nora achieved a significant improvement in its workforce profitability indicator, reducing the **Relative Unit Labor Cost** (calculated as Personnel Expenses/Value Added) **from 57.7% to 45.0%**. Labor represents a significant portion of De Nora's cost structure, accounting for 18.9% of revenues in 3Q 2024. If productivity weakens, it could challenge the company's ability to contain price increases in an environment where margins are already under pressure. DNR's ability to fully capitalize on economies of scale, driven by a combination of organic growth and strategic partnerships, has been a key factor in mitigating cost pressures. The construction of a **Gigafactory in Italy**, set to serve all of De Nora's divisions, is expected to enhance production capacity by an additional 2 GW, further supporting operational efficiency and scalability. The Group also intends to continue its plans to expand global manufacturing capacity, aiming to achieve **4.5 GW of production capacity dedicated to the Energy Transition segment by 2026**.

This resilience sets the company apart from peers that are solely focused on green hydrogen - a sector impacted by high capital costs and delays in public support policies and subsidies. Companies such as ITM Power, Nel, and McPhy have all reported negative operating results over the past 24 months.

Efficiency

Over the past five years DNR has consistently maintained a Net Working Capital (NWC)-to-Revenues ratio of approximately 30% (27.7% in 2023), which reflects the company's ability to grow the top line while effectively managing its working capital requirements, ensuring sufficient liquidity to support its operations and not overextending financial resources. The Days of Cash Conversion (DCC) metric also remained relatively stable, averaging ~114 days during the same period and a peak of 146 days in 2021 when DNR strategically started accumulating inventories in anticipation of the business expansion projected for the following years.

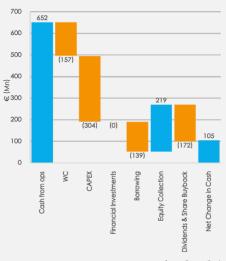
DNR's financial performance has evolved significantly in recent years. In 2020, the company achieved an adjusted EBITDA margin of 16.49% and an Operating Cash Flow-to-Revenues of 9.45%. However, **rising**

Key financials - Exhibit 17

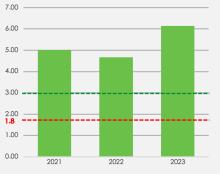
	2021	2022	2023
Value added / sales	39.16%	37.88%	37.39%
Operating Margin	15.85%	14.65%	16.70%
ROIC	17.34%	22.30%	22.67%
Capital Turnover	1.17	1.22	1.29
Interest coverage	7.26	5.90	8.02
EBITDA/ Short term debt	0.54	-0.79	-0.79
D/E	0.42	0.14	-0.06
NWC/sales revenue	39.51%	31.95%	30.33%
DSO	92.7	59.9	69.5
DIH	143.4	131.7	121.4
DPO	89.8	76.9	82.3
DCC	146.3	114.6	108.7

Source: Company data, Team elaboration

Cash Flow Bridge - Exhibit 18



Altman's Z-Score - Exhibit 19



Forecasted Revenues - Exhibit 20



Forecasted EBITDA - Exhibit 21



Source: Team estimates

capex, driven by the costs of entering the green hydrogen market, started to weigh on cash flow efficiency. By 2021, these investments, along with higher inventory levels, resulted in negative free cashflows. Subsequently, financial efficiency improved, with the FCF-to-Revenues ratio turning positive at 8.7% in 2022 and 6.9% in 2023. Over the same period, the adjusted EBITDA margin rose steadily, reaching 20.68% in 2023. Notably, DNR's operating cash flow remains positive, distinguishing it from competitors focused solely on the hydrogen sector, such as Nel and ITM Power. This resilience is attributed to the company's diversified business activities.

Capital Allocation

Exhibit 18 shows that over the past six years up to Q3 2024, cumulative cash from operations before working capital has been mostly allocated to working capital requirements (24%) and capex (47%), with the remaining (26%) returned to shareholders via dividends and buybacks, highlighting the capitalintensive nature of De Nora's operations. The cash raised at the time of the IPO (c.€200 million) has also been used to pay down debt in 2023 and then accumulated as excess cash. In November 2023 DNR announced a buyback program that ended in April 2024, during which the company bought back roughly 1.5% of its own shares for a value of €43 million euros (between January and April 2024 DNR acquired roughly 1.8 million shares at an average price of €14 vs a current €7.34 price). The dividend policy calls for an annual distribution of up to 25% of consolidated net profits.

As a matter of fact, DNR showed strong performance in terms of CAPEX coverage (Operating Cash Flows/Capex), consistently maintaining a ratio above 1, except for 2021. This indicates the company typically generates enough operating cash flow to cover its capital expenditures, reflecting financial stability and operational efficiency. The significant drop of this index in 2021 (-0.29) was due to an inventory accumulation which led to a negative operating cashflow. In the years following 2021, CAPEX coverage jumped to 2.59 in 2022 and 1.65 in 2023, reflecting the company's focus on organic growth through investments, especially in tangible assets. Although CAPEX remained between 5% and 7% of revenue over the years, the substantial increase in 2023 was driven by the investments for the Italian Gigafactory and advance payments related to manufacturing site expansions in China and Germany.

These investments were made to support De Nora's expansion strategy and drive future growth. This suggests that, despite occasional fluctuations, the company can finance its growth without relying too much on external debt. Growth was further facilitated by the IPO in 2022 and by the listing of NCH2 in 2023, which improved DNR's liquidity level. The capital raise and the subsequent allocation of funds to reduce debt (25% of cumulative operating cash flow), significantly improved the Net Financial Position (NFP), reversing from net debt (€107 million in 2018) to **net cash** (€19 million as of Q3 2024). DNR has consistently maintained a strong interest coverage ratio throughout this period, up to a peak of 8x in 2023. Additionally, the funds raised facilitated shareholder payouts (26%) and contributed to a net cash increase of 16%

Solidity

Currently De Nora has €137 million long term debt and does not need a material short debt due to its net cash position of \in 19.83 million (3Q2024). In the pre- and post-IPO periods (2018-2023), the company reduced its Debt-to-Tangible Equity ratio, bringing it into negative territory at -6.9% in 2023. This robust financial solidity was primarily achieved by De Nora due to the strong cash flows generated by the IPO enhancing its liquidity reserves (C&CE€172million as of Q3 2024) and also public funding has contributed. supporting numerous "green" projects, particularly in the Energy Transition sector. Following the public listing, the company's equity saw significant growth, rising from €453 million in 2021 to €744 million in 2022, and reaching €907 million by Q3 2024. As a result, the company's net self-financing began to exceed its total NFP, with a ratio of 2.72 recorded in 2023. The company's decision to hold a positive net cash position aligns with its strategic goals of flexibility, especially in a relatively high-interest rate time. This strategy provides room for future growth opportunities, including potential acquisitions, investments in new technologies, and capacity expansion projects. The downside to this strategy is that holding significant cash and cash equivalents produces very low financial income and the possible benefits of a wellbalanced debt component in the capital structure remain not exploited.

The Altman Z-Score (Exhibit 19) is 5.78 in 2023, driven mainly by high market capitalization relative to debt (no risk of bankruptcy detected). DNR is structurally solid in addressing long-term financial needs, as reflected by a Tangible Equity-to-Fixed Assets ratio of 3.12 in 2023.

Leveraging its strong financial position, the Group decided, at the end of Q1 2023, to repay part of the Pool Financing guaranteed by the Parent Company and De Nora Holdings US Inc. This included a €100 million loan facility granted to IDN S.p.A. and a \$50 million loan facility granted to De Nora Holdings US Inc.

Valuation

Future assumptions: Revenues

We began our analysis by annualizing the fourth quarter (Q4) of 2024, assuming growth trajectories similar to those observed in the fourth quarter (Q4) of 2023. For the Electrode Technologies segment, we projected a 32% growth rate, consistent with the increase seen in Q4 2023. For the Energy Transition segment, we estimated a 49% increase, aligning with the growth trend observed in Q4 2023. Similarly, for Water Technologies, we estimated a substantial 50% growth, primarily driven by the pool segment, which had previously fallen short of revenue expectations. This revision reflects an improvement in market conditions for this sub-seament.

Overall, we expect the company's revenues to grow at a 6.9% CAGR 2024E-2029E, aligning with management's guidance. Breaking down the growth by segment, Electrode Technologies is forecasted to grow at a 3% CAGR, indicating a steady, gradual increase. The Water Treatment segment is projected at a 5% CAGR, in line with management's expectations of low- to mid-single-digit growth.

The Energy Transition segment stands out with an estimated 22.5% CAGR over the 2024E-2029E period. This growth trajectory is segmented into two distinct phases: an initial 12% CAGR from 2024E to 2026E, reflecting sector-wide investment delays, followed by an accelerated 30% CAGR from 2026E to 2029E. This latter phase is expected to be driven by the company's ability to capitalize on capital expenditure (CAPEX) investments and expand its market share in this evolving sector.

Future assumptions: Profitability

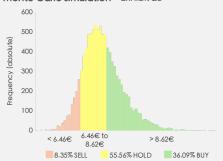
We project an overall EBITDA margin of 17.6% for 2025E, in line with management's squidance, with a slight decline to 17.3% by 2029E driven by the increasing contribution of the less profitable Energy Transition segment. Our projections are based on historical EBITDA margins of 23.7% for Electrode Technologies and 15.5% for Water Treatment, which serve as reference benchmarks. From 2027E onward, we anticipate the "Gigafactory effect", generating economies of scale across all business segments, leading to a 1.5% EBITDA margin increase for the Electrodes and Water divisions between 2027E and 2029E. In the Energy **Transition** seament, we expect minimal profitability in the short term, with an **EBITDA margin of just 1% for** 2024E-2027E, reflecting high production costs and sector-wide challenges. However, from 2028E onward, margins are projected to improve, reaching 8% by 2029E, supported by the enhancements of green hydrogen production and the Dragonfly realization. Despite market share expansion, high production costs are expected to constrain profitability in the medium term. We apply DNR's effective tax rate of 25.55%

Forecasted FCFF/Revenues – Exhibit 22



Source: Team estim

Monte Carlo simulation - Exhibit 23



Source: Company data, Team estimates

DCF Target price - Exhibit 24

Enterprise Value (Mn)	€1,354
Net cash (Mn)	€20
Minority interest (Mn)	€ (7)
Pensions (Mn)	€ (21)
25.85% of Tk Nucera (Mn)	€292
Equity value (Mn)	€1,638
# of shares (Mn)	202
TP	€8.12

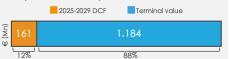
Source: Team estimate:

Target price sensitivity analysis 1 – Exhibit 25

CAGR Energy Transition 2024-2029 -10% -5% 10% 20% 25% 109 6.59 6.04 5.57 -5% 6.51 6.27 6.13 5.96 0% 6.98 6.98 6.98 T Energy T 5% 7.22 7.45 7.68 7.83 10% 8.67 9.02 7.36 7.46 7.91 8.38 Marain 9.08 15% 7.55 7.70 7.89 8.38 9.52 9.32

Source: Team estimates

Enterprise value composition - Exhibit 26



Source: Team elaboration

Target price sensitivity analysis 2 – Exhibit 27

					WAC	2		
		6.5%	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%
	1.5%	9.66	8.82	7.53	6.59	5.88	5.32	4.86
	2.0%	10.52	9.51	8.00	6.93	6.13	5.51	5.02
erpetual growth	2.5%	11.60	10.35	8.56	7.32	6.41	5.72	5.18
inni d	3.0%	12.98	11.41	9.22	7.77	6.74	5.96	5.37
5	3.5%	14.82	12.77	10.04	8.30	7.11	6.24	5.58
	4.0%	17.40	14.58	11.05	8.95	7.55	6.55	5.81
	4.5%	21.27	17.11	12.36	9.73	8.06	6.91	6.07

Source: Team estimates

throughout the entire forecast period. Regarding **Depreciation & Amortization (D&A)**, we observed no seasonality effects and have projected these expenses as a percentage of revenue: 1.29% for Amortization and 2.51% for Depreciation. For **CAPEX**, we forecast total investments of **€245 million for 2024E-2026E**, slightly below management's guidance of **€290 million**, due to delays in Energy Transition projects. The **€45 million** difference is deferred and allocated on a decreasing basis until 2029. From 2027E onward, CAPEX is expected to stabilize at a level above the historical average, reaching **€50 million** by 2029E, incorporating adjustments for prior investment delays, particularly those related to green hydrogen initiatives. The **total increase in Net Working Capital (NWC) over 2025E-2029E is projected at €112 million**, in correlation with revenue growth. This figure is adjusted by a 5% incremental factor, reflecting historical trends from 2018 to 2024 between revenues and NWC growth. The increase is allocated in decreasing increments, considering DNR's improvements in NWC management, leading to more efficient inventory control and stronger supplier and customer relationships.

WACC

WACC		
Cost of Equity	9.60%	Computed with the Capital Asset Pricing Model
Risk Free Rate	2.5%	10-year German government bonds yield at 31/01/2025 (<i>source: investing.com</i>)
Beta	1.23	Estimated as a linear regression of DNR's weekly returns against STOXX Europe 600 Index from 30/06/2022
Equity Risk Premium	5.79%	Computed as the weighted average of implied country equity risk premium for Asia, America and EMEA (<i>source: Damodaran</i>) following DNR's geographical exposure
Equity	1.45 Bn	Market value of equity as of 31/01/2025
Cost of Debt	2.62%	Is the sum of the risk-free rate and a spread derived by a synthetic rating (<i>source: Damodaran</i>) depending on DNR's interest coverage ratio
Default Risk Premium	0.95%	Estimated using a synthetic A-rating (source: Damodaran)
Marginal Tax Rate	24%	Marginal DNR's tax rate
Debt	139.76 Mn	Market value of debt as of 31/01/2025 calculated as present value of future principal and interests cashflow considering the average duration of debt
WACC	8.98%	

DCF

Using a two-stage Discounted Cash Flow (DCF) model, the one-year target price for DNR is €8.12, representing a 13.1% upside from the €7.18 market price as of 31/01/2025. This results in a HOLD recommendation, as we believe the anticipated price increase is insufficient to mitigate the risks DNR faces, especially due to uncertainty in the green hydrogen segment. We incorporate a five-year explicit forecast period to reflect varying market growth and profitability trends across DNR's three business segments, followed by a perpetuity FCF growth phase that captures the company's progression toward long-term stability, including in the Energy Transition segment. Given DNR's global presence, the chosen growth rate of 3.3% aligns with the IMF's estimate for global GDP growth in 2025. (Full details are provided in Annexes D.3 and D.41.

Our model projects low cash flows until 2027, consistent with a high level of investments and NWC needs, as also indicated in management's guidance. This will not pose a short-term issue for DNR, given its net cash position and low debt levels, which we expect to remain largely stable throughout the forecast period. From 2028 onward, revenues are projected to exceed €1 billion, and the reduced need for NWC and CAPEX will support a higher level of Free Cash Flow to the Firm. Given DNR's unique market positioning, we consider the DCF model to be the most reliable approach for accurately capturing the company's intrinsic risks in the valuation process.

Given capex requirements and energy transition's low profitability in the explicit forecast period, **terminal** value represents 88% of the entire enterprise value.

To arrive at DNR's equity value, we deducted not only the net cash position of \in 19.8 million and minority interest of \in 7.3 million but also future pension employee benefits of \in 20.8 million. We include the **26% stake** in tk nucera (\in 292 million, calculated at market price as at 31/01/2025) to the equity value of DNR.

Robustness of DCF: Monte Carlo simulation

Through a Monte Carlo simulation, we tested the robustness of our DCF-derived target price (Exhibit 23). We simulated 10,000 scenarios, testing the growth rate (g), the cost of capital and both EBITDA margin in FY29E and revenue CAGR from FY25E for each business line. The analysis is based on the assumption that the growth for water and electrode technologies remain close to our estimates, given the stability demonstrated by both segments during 2020-2023. On the other hand, due to the inherent risk in the energy transition segment, we assumed an 8.1% probability of negative revenue CAGR and an 11.3% probability of growing below double digits (<10%), though we remain optimistic about its future (Annex D.6). The simulation results in a 56% hold, 8% sell and 36% buy "recommendation distribution", with a positive skewness, reflecting the target price's sensitivity to hydrogen market development.

Robustness of DCF: Sensitivity analysis

ENERGY TRANSITION SENSITIVITY. The sensitivity analysis shown in *Exhibit 25* was conducted to assess how De Nora's stock price might evolve under various growth and profitability scenarios, while keeping baseline conditions constant. The goal is to **understand the potential impact of dynamics within the hydrogen sector**, which is subject to **uncertainties related to sales growth**, **energy policies**, **and the adoption of areen technologies**.

The analysis reveals that **EBITDA** margin is a key driver of market price, even more than growth in revenues. Holding sales growth constant, expanding margins has a significant impact on the intrinsic value: for instance, increasing the margin for the hydrogen segment from negative to a positive 30% leads to a marked increase in the target price, highlighting again the importance of operational profitability in justifying a higher valuation.

A key takeaway from the analysis also concerns negative scenarios. If the EBITDA margin falls below 0% or the sales CAGR turns negative, the stock price experiences a significant downward correction. This underscores the importance of maintaining healthy margins and growth in order to support the company's valuation in a volatile and evolving market like hydrogen.

PERPETUAL GROWTH/WACC SENSITIVITY. The **terminal value** represents a significant component in calculating the overall value of the company *(Exhibit 26)*, **accounting for 88% of the total value derived from the DCF method**. This highlights the crucial importance of variables such as WACC (Weighted

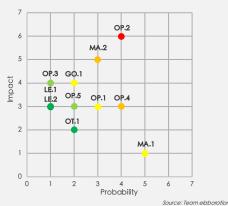
Source: FactSet

Multiples - Exhibit 29

Multiples evolution	2022 IPO	2022	2023	2024E
EV/Revenues	4.30x	3.32x	3.62x	1.59x
EV/EBITDA	20.80x	17.33x	17.52x	8.95x
EV/EBIT	29.13x	21.93x	23.50x	11.38x
P/E	37.80x	30.45x	13.75x	19.92x

Source: Company data, FactSet, Team estimates

Investment risks scatter - Exhibit 30



Average Cost of Capital) and perpetuity growth rate (g), as changes in these metrics have a direct and significant impact on the company's terminal value. To quantify this impact, we conducted a sensitivity analysis (Exhibit 27) on these two variables to better understand how the target price may fluctuate as they chanae.

If the WACC decreases significantly and the growth rate (g) increases, the target price can rise up to €21.27, showing how a reduction in risk and higher growth can substantially increase the value. Conversely, in a worst-case scenario, with a very high WACC and low growth, the target price can drop to €4.86. These results clearly demonstrate how sensitive the company's valuation is to changes in these two variables.

Industry Peer Multiple Comparison

Due to DNR's unique market positioning, our multiples analysis aims to understand the competitive landscape rather than serve as a direct valuation cross-check.

The multiples presented for DNR in Exhibit 28 are aggregated across its two largest business segments. This makes direct comparisons with competitors like Veolia, Xylem, and Ecolab less precise because these companies are primarily focused on the water sector spanning the entire water value chain. Their multiples do not fully account for the structural differences in DNR's diversified business model.

Additionally, we decide not to include the Energy Transition segment, as its peers faces persistently negative operating margins, and this trend is expected to continue in the years ahead. These negative margins make the multiples for this segment less meaningful and distort the overall comparison.

EV/EBIT is the most suitable multiple for evaluating capital intensive companies like DNR and its peers. However, since DNR's water segment accounts for only 35% of its total business, while competitors are almost entirely focused on water-related activities, their EV/EBIT multiples tend to be higher. Larger, more established players in the sector benefit from stronger market positioning and higher margins, whereas DNR's diversification introduces varying growth and profitability levels.

The primary reason for DNR's lower EV/EBIT multiple is the decline in its stock price, largely due to its exposure to the underperforming Energy Transition segment. Additionally, market expectations have been lowered regarding the pace at which DNR can capitalize on hydrogen and energy transition opportunities. Therefore, DNR appears undervalued compared to its peers, especially those operating in more stable, high-margin sectors like water.

When comparing DNR's multiples at the IPO (source: evaluation it) to those today (Exhibit 29), the company experienced a notable de-rating: the significant declines in EV/Revenues (4.3x to 1.6x), EV/EBITDA (20.8x to 9.0x), EV/EBIT (29.1x to 11.4x), and P/E (37.8x to 19.9x) reflect the shift in market perception. The initial optimism surrounding DNR's IPO led to a high valuation, as investors were overly optimistic about the rapid growth of the green hydrogen market. However, when the market realized the transition to green hydrogen would take longer than expected, it led to a correction in both DNR's stock price and its multiples.

Investment Risks

In this section, we identify the key risks associated with our investment case. Each risk is evaluated based on its likelihood of occurring and the magnitude of its impact on the company if realized (Exhibit 30). Both factors are rated on a scale from 1 (very low) to 7 (very high).

OP.1 Increase in strategic raw materials' price: Several of DNR's products rely on strategic raw materials with limited annual production and limited substitutability in their applications. These materials exhibit high price volatility and are experiencing increasing demand, particularly driven by the transition to low-carbon energy systems. A sharp rise in the cost of these raw materials could significantly compress DNR's operating margins.

DNR, leveraging its procurement strategies, efficient recycling processes and strong pricing power, which enables the company to pass on raw material cost increases to clients, is well-positioned to withstand moderate price fluctuations.

Probability	3/7
Impact	3/7

OP.2 Green hydrogen market development: The dynamics of the green hydrogen market pose a significant risk for DNR. The company has allocated substantial CAPEX towards a market heavily relied upon for its growth prospects that, despite high expectations, has yet to reach a tipping point. This could result in a scenario where the market falling significantly short of expectations, potentially turning into a complete misstep and leading to significant financial losses for DNR.

DNR reassesses its investment plan for the energy transition business based on revenue performance, increasing production capacity in anticipation of potential market acceleration, while avoiding blind alignment with market trends. DNR also highlights that energy transition investments could eventually be leveraged for its chloralkali business and other segments through process adjustments and machinery reconfigurations (source: company's management).

Probability

OP.3 R&D: DNR operates in markets where R&D is critical to maintaining a competitive edge. The company faces the risk of being unable to sustain the level of innovation required and R&D investments may fail to deliver the expected outcomes, potentially diminishing its competitiveness and market share.

R&D is a fundamental pillar of DNR's strategy, supported by five global laboratories (located in Italy, United States, Japan), a highly skilled research team and a robust network of collaborations with research institutes and its clients.

1/7

OP.4 Strong reliance on tk Nucera: Tk Nucera represents both DNR's largest customer, accounting for 24.7% of total revenues in FY23 (source: annual report), and key operational partner, with DNR holding a minority stake (limited influence). Any deterioration in tk Nucera's financial performance would have direct repercussions on DNR's revenue stream.

DNR is committed to advancing innovative solutions that enable its joint venture to maintain a competitive edge in the markets it operates. Moreover, with a broad and well-established customer portfolio, the company expects to expand its base, primarily in the energy transition segment.

2/7 3/7 Risk Buffe

OP.5 Expansion in water technologies industry: Given DNR's focus on highly specialized niche solutions and the presence of major players offering integrated and broader solutions portfolios, the company could face challenges expanding in the water and wastewater technologies market. This is critical as especially the municipal and DNR's market niches are not growing at high double digit rates. Failure to capture market share will negatively impact the profitability of this business line (source: Global Water Intelligence).

DNR aims to improve its water margins by increasing the revenue portion from after-sales services, which offer higher profit margins, and plans to pursue strategic acquisition to expand into new markets

robability 4

MA.1 Currency, inflation, and interest rate risk: Given DNR's international operations and exposure to various markets, the company faces risks from currency fluctuations, inflationary pressures and rising interest rates, which could affect revenue, costs, and financing conditions.

DNR mitigates these risks through hedging strategies and geographic diversification, reducing its exposure to region-specific economic fluctuations.

Probability 5/7

MA.2 Geopolitical tensions: Strategic raw materials used by DNR are primarily sourced from China, Russia and South Africa. An escalation of the Russia-Ukraine conflict, resulting in further sanctions on Russia (a major nickel exporter), along with potential Chinese tariffs on critical raw materials (CRMs) – over which China holds production dominance – in retailation to U.S. tariff hikes (with an estimated 36% probability, source: Morningstar) and Middle East tensions disrupting access to the Suez canal (crucial for titanium supply), could severely damage or even disrupt the supply chains upon which DNR relies or increase raw material cost.

DNR adopts strategic procurement policies, increasing purchases of strategic raw materials in anticipation of potential price increases or supply shortages, thereby ensuring timely order fulfilment and maintaining production continuity.

Probability 3/7

LE.1 Patents: The protection of the DNR's intellectual property and know-how is critical to its commercial success. If not adequately safeguarded, competitors could undermine the company's competitive advantage.

DNR mitigates this risk by implementing internal procedures to ensure that only authorized personnel have access to sensitive information, while its intellectual property is managed by a dedicated department focused on protecting all proprietary rights arising from the company's activities.

Probability 1/7
Impact 3/7

LE.2 Legal compliance: DNR and its products are subject to various local, national and supranational laws and regulations. Failure to comply with these regulations could result in additional costs, sanctions and damages to the company's reputation.

DNR's Regulatory Affairs department establishes processes and controls to monitor the evolution of relevant regulations and ensure compliance, as well as the proper application of these laws.

Probability 1/7
Impact 3/7

GO.1 Leadership continuity: There is evident instability in key roles. The resignation of members such as the CFO and from important committees raises concerns about continuity. This can lead to potential inefficiencies in long-term strategic decision-making.

DNR could establish more robust succession plans for key positions, particularly executive roles, to ensure stability and continuity.

Probability 2/7

OT.1 Incidents and malfunction: DNR is exposed to the risk of equipment malfunctions, fires, and machinery accidents, given the nature of the materials used and its production processes. These events could threaten employee safety and lead to disruptions or suspensions of production activities, affecting operational continuity.

DNR manages this risk through internal procedures designed to minimize accidents and ensures compliance with local safety regulations. The company has also secured insurance policies to protect against these events.

 Probability
 2/7

 Impact
 2/7

ESG key factors – Exhibit 31

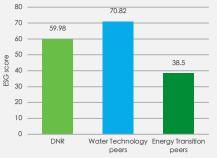
G Е S ewable Energy products Non-Financial Reporting Relations Green Capex Internal Audit Health & Safety Life-cycle analysis **Business Ethics** esource Reduction development Control Water Efficiency Environmental Supply Chain Remuneration incentives Workforce Inclusion

Environmental, Social, Governance

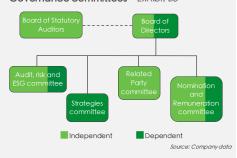
As at December 2023, DNR earned an ESG score of **59.98** (**Grade B**) from *Refinitiv*, with Environmental, Social, and Governance pillars weighted at 34%, 37%, and 29%, respectively. *Refinitiv* positions DNR in the **third quartile** of its industry (*Machinery, Tools, Heavy Vehicles, Trains & Ships*), with an above average degree of transparency in reporting material ESG public data. DNR has always demonstrated a peculiar sensitivity to ESG issues, aligning with the expectations of its investors base: **ESG-dedicated shareholders** account for **42%** of the total (source: DNR Annual Report 2023). Its policies not only strengthen its commitment to sustainability but also enhance corporate reputation, attractiveness to new investors, and long-term value creation.

Given the recent listing, it is not possible to obtain data regarding the ESG position prior to 2023. However, since its listing DNR has developed a positive public exposure since it has been recognized with **prestigious recognitions** through the **2024 Sustainability Award** by LC Publishing Group and a strong **AA ESG rating by**

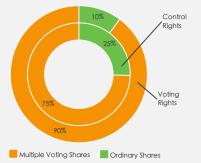
ESG positioning compared to peers- Exhibit 32



Governance committees - Exhibit 33



Distribution of shares by type – Exhibit 34



Source: Company data

MSCI. DNR is such a unique company that it is not possible to identify direct peers. Instead, we have considered peers based on its specific business segments: while there are challenges in water technology, DNR is performing relatively well within the energy transition landscape (*Exhibit 32 – Annex E.1*).

Environmental: B

The environmental pillar, at 61.94, reflects DNR deep-rooted commitment to environmental sustainability. As a company that defines itself as 'sustainable by DNA', DNR embeds it into its core strategy, operations, and innovation efforts, ensuring that environmental responsibility is not just a goal but a fundamental part of its identity. An Emissions Score of B- reflects the company's above-average commitment and effectiveness in addressing environmental emissions within its production and operational processes. DNR monitors direct and indirect emissions ensuring transparency and alignment with international sustainability frameworks such as the GHG Protocol. An Environmental Innovation grade of A- indicates a strong capacity for reducing environmental costs and burdens for customers while creating new market opportunities. This reflects the company's effective development and implementation of innovative environmental technologies and processes such as circular design, Life Cycle Assessment (LCA: principles for calculating the environmental impact of products or services throughout their entire lifecycle) and sustainability scorecards. The **Resource Use** category, rated **D+**, is the company's lagging area, indicating significant room for improvement despite ongoing efforts to advance sustainable business models across the value chain. The company's performance in reducing the consumption of materials, energy, and water remains a challenge that requires a more structured and systematic approach. By implementing ISO 14001 and ISO 50001, the company can significantly improve its resource use efficiency aligning with sustainability taraets.

Social: A+

Among the three pillars, the Social pillar performed the best, with a score of 92.14. Over the past year, Community (A+), Workforce (A+), and Human Rights (A) were the top-performing categories. With a strong international presence, DNR fosters a culture of Diversity, Equity and Inclusion through its "Each for Equal" (E4E) Committee to raise awareness among colleagues related to cultures found in the countries of operations. DNR has been ranked among the Best Workplaces™ for Blue Collar 2024 by Great Place to Work, with a Trust Index© score of 73%, reflecting a 3% increase in employee satisfaction compared to the previous year. DNR is committed to fostering local communities by initiating and supporting charitable projects and programs tailored to the specific needs of its operating regions, including partnerships with technical high schools and STEM universities. DNR has its own Code of Ethics and Supplier Code of Ethics in order to build a network aligned with ESG principles and establish a sustainable supply chain, ensuring that employee behaviours and relationships with partners and suppliers are governed by proper ethical standards. 90% of employees have additionally been trained on anti-corruption topics.

As for gender diversity the company's Gender Pay Gap Percentage (95.2%), being aligned with its peers, suggests that while there is relative pay equity, there is still a gap to reach full parity (100%). However, the fact that women constitute only 20% of total employees and 28% of managerial positions indicates that gender diversity remains a challenge, both for DNR and its competitors. A notable positive trend is the 22% increase in women in executive positions in 2023 compared to the previous year, signalling a stronger commitment to gender diversity at the leadership level.

Governance: D

DNR's Corporate Governance System is developed in line with the main contents of the Corporate Governance Code for Listed Companies, promoted by Borsa Italiana, of which the company is part. Still, the **Governance pillar** is DNR's Achilles' heel, scoring just 19. DNR has a **dual-class share structure** (Exhibit 34): multiple voting shares (granting 3 votes each vs 1 vote for ordinary shares) are only owned by member of the De Nora family (via Norfin Spa and Federico De Nora S.p.a and by Federico De Nora personally) and Asset Company 10 (Snam). Multiple voting shares are not admitted for trading on Euronext Milan and they are also not counted in the free float.

The negative score (D+) of the Shareholders pillar is reflected in the dual-class share structure that grants disproportionate voting rights to the De Nora family and Asset Company 10 (Snam), leading to a governance framework where strategic decision-making is primarily influenced by these key shareholders. While this structure provides stability and long-term vision, it may also limit the influence of the free float, potentially leading to governance imbalances and conflicts of interest. Ordinary shareholders hold only a fraction of the total voting rights (approximately 10% of voting power). The Management pillar is another area with a particularly weak performance, reflected in a D rating. The BoD includes 13 members, six of whom are considered independent which represents a positive aspect of its governance structure. Board members have an average age of 58 years and an average tenure of 6 years. There is duality in the role of CEO and Chairman and there is the presence of a Lead Independent director. The CEO is not part of the controlling shareholders, but the Chairman is. The BoD composition is already voluntarily aligned with gender balance regulations for newly listed companies. Five of its members (approximately 40%) are women, meeting the required standards ahead of the first board renewal after the Trading Date. This demonstrates a proactive approach, a commitment to inclusivity and aligns with global best practices. Board members supervise four committees: (i) Audit, Risk and ESG, (ii) Appointments and Remuneration, (iii) Strategies, (iv) Related Parties. In determining the composition of the Committees, the Board prioritized the expertise and experience of the members, avoiding an excessive concentration of offices and guaranteeing heterogeneity (Annex E.2).

ESG SKELETON. 100% of the members of the BoD have **expertise in ESG topics**, mainly understood as: participation in the Control and Risk Committees of other companies, experience in foundations or charities, specific educational qualifications, ministerial positions (source: DNR Sustainability Report 2023). The emphasis on ESG expertise aligns with the implementation of a full blown **ESG governance framework** as permanent organization to support effective implementation of the **Sustainability Plan**, formalized in early 2024 and outlined until 2026 and 2030 with a detailed **roadmap and agenda implying quantitative targets and KPIs**.

TURMOIL AT TOP. After its stock market debut on June 30, 2022, there has been significant instability in the key CFO role, with the position changing hands once a year. Matteo Lodrini, DNR's long-serving CFO for nearly 18 years, stepped down in May 2023 to focus on personal projects (he went on to found his own investment company) and was succeeded by Massimiliano Moi: DNR board was likely looking to appoint a CFO with specific expertise to tackle the challenges of operating in a public market and to support growth in strategic areas. Moi's resignation in May 2024 caught the market by surprise, signalling potential instability or unresolved challenges within the leadership team. The current CFO is Luca Oglialoro, who has held the position since May 2024. In addition, 2 non-independent, non-executive directors resigned from their role during 2023: Paola Rastelli who had served on the Control, Risk, and ESG Committee for one year (replacing Alessandra Pasini) and Roberto Cingolani (who replaced Sami Petteri Pelkonen in 2022) from the Strategic Committee who resigned following his promotion to CEO at Leonardo, a position that created a conflict of interest with his role on DNR board. Turnover among committee members may disrupt the continuity of governance and decision-making processes, particularly in critical areas such as risk management, ESG oversight, and strategy further than the Head of Finance.

As for the **remuneration structure**, there is alignment between individual performance and the company's sustainability and value-creation goals. For alignment of actions to the sustainability plan, a percentage (both short-term with a weight between 10%-20% and long term with a weight of 20%) of the CEO and top management's salary has a **variable component linked to ESG targets** (source: DNR Sustainability Report 2023). It is worth noting that the compensation for DNR's CEO appears to be lower than that of its peers. The overall remuneration system appears to **align well with the interests of minority shareholders** by focusing on profitability, financial stability, and responsible business practices through ESG. The absence of weight given to individual or functional targets could be viewed as a sign of the company's emphasis on broader, systemic goals that are more likely to drive long-term value. Minority shareholders would likely interpret this as a strategy aimed at increasing shareholder value and ensuring the company's sustained success in the market. DNR effectively links variable compensation to long-term performance through a **deferred payment system** structured over multiple years. The plan includes an initial three-year vesting period, followed by an additional vesting phase of 1 + 1 years for the issuance of performance shares. It should be noted that the CEO and some members of the Key Executives are bound by a **lock-up commitment on the ordinary shares** which will expire in 2025. A **clawback mechanism** applies to all variable incentives, both short-term and medium-to-long-term to hold employees accountable, ensuring they act in the company's best interest: this is a positive policy.

Industrie De Nora S.p.A. – ANNEX

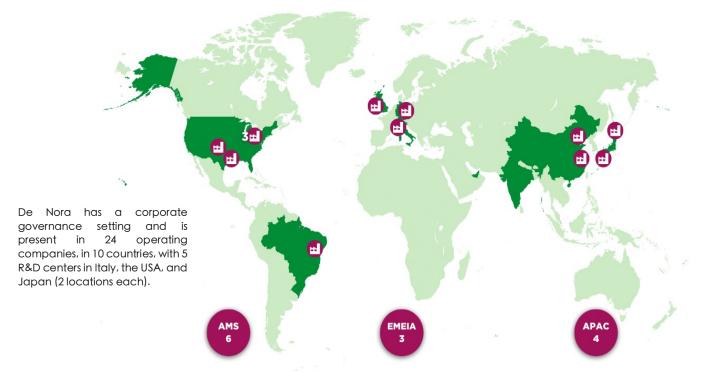
A. Business Description

A.1 Product Lines



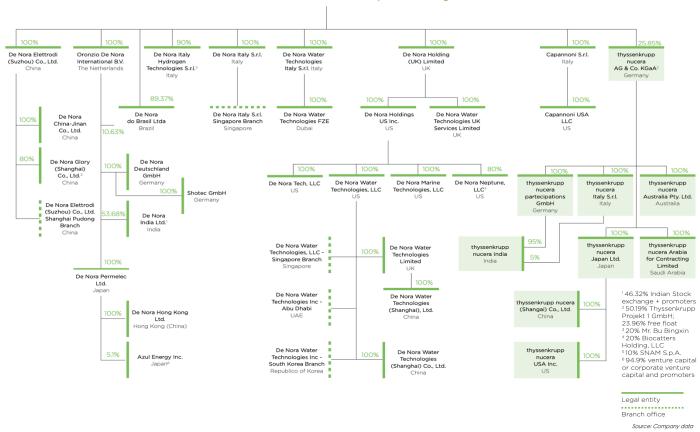
Source: Company data

A.2 Group Structure



Source: Company data

Industrie De Nora S.p.A. Italy



B. Business Description

B.1 PESTEL Analysis

To better evaluate the macro-environment of the business in which De Nora operates, we run a PESTEL analysis. Through political, economic, social, technological, environmental, and legal analysis, we can have a comprehensive overview to better understand possible threats and opportunities that may affect the company's performance.

POLITICAL	Government Subsidies: Subsidies aimed at developing infrastructure for wastewater treatment and green hydrogen production can play a key role regarding the growth of the sector. Policy Influence: The political agendas of key global powers can significantly impact end-markets relevant to De Nora, particularly in green hydrogen. Sustained political and industrial support is essential for the continued growth of these sectors, while abrupt policy shifts could pose substantial risks to the company's outlook.
ECONOMIC	Forex Fluctuations: De Nora's business is highly linked to changes in the foreign exchange market. Fluctuations in these markets (mainly EURO, US Dollar and Japanese Yen) due to global macroeconomic changes could have an impact on margins. Global Economic Growth: The expansion of emerging markets and the growth of developed economies may stimulate demand for technology solutions offered by De Nora. Green Energy Transition: Increase in the cost of fossil fuel-generated energy exacerbated by global tensions (such as the Russia-Ukraine conflict) may accelerate the shift towards alternative energy sources.
SOCIAL	Urbanization and Population Growth: The expansion of urban areas and demographic growth will lead to a growing demand for water treatment technologies. Sustainability Awareness: Increasing global attention to climate change may lead to an increased search for energy production solutions with low environmental impact.
TECHNOLOGICAL	Technologies and Patents : Owning proprietary technologies is a key competitive advantage. Continuous investment in R&D and the acquisition of new patents are crucial to staying ahead of competitors. Strategic partnerships, mergers, or acquisitions may be necessary to remain at the forefront of innovation. Digitization : New technologies such as artificial intelligence are expected to grow. The ability of companies to implement them within production processes for greater efficiency resulting in lower costs will be crucial.

ENVIRONMENTAL	Environmental sustainability : Environmental impact is a growing issue worldwide. The technologies provided by De Nora help companies adapt to their respective guidelines regarding the environment. Climate Change : Climate change and water scarcity are global challenges that are pushing companies and world governments to find an effective solution.
LEGAL	Intellectual Property Protection: The sectors in which De Nora operates are high-demand technology sectors where patents and other forms of intellectual property make a difference in maintaining an advantage over competitors. Changes in legislation regarding the protection of intellectual property could change the competitive dynamics of the industry. Regulatory Framework and Environmental Regulations: De Nora operates in businesses linked to highly regulated markets. Consequently, its performance is closely tied to government and supranational laws. Environmental legislation, particularly in water treatment and renewable energy, directly influences demand for its solutions. The introduction of stricter regulations and new compliance standards could create growth opportunities for companies like De Nora that offer innovative solutions to meet these requirements.

Source: Team elaboration

B.2 Porter's five forces

AREAS	Electrode Technologies	Water Technologies	Energy Transition	SCORE						
Threat of new	components require specialized Consequently, substantial CA Technological know-how: Give	ion of advanced technologies such d facilities, testing laboratories, and l APEX investments are necessary to e en the complexity of the products, n cant technological know-how over o curve.	highly sophisticated machinery. nter these business segments. ew entrants must compete with							
entrants Low	provides companies with strong more mature segments such as el	d enhances customer confidence	High growth potential: The green hydrogen market is experiencing rapid expansion. This growth trajectory is likely to attract new entrants, particularly from adjacent industries such as renewable energy, chemicals, and technology.	2/7						
		mers: High number of customers, pri hlor-alkali industry, municipal utilities	, 0							
Bargaining power of buyers	that price. As a result, DNR is able, in	sions are primarily driven by quality on the event of an increase in the prior gits selling price to reflect the rising o or fully.	=	3/7						
Medium- Low	processes, replacing them wo operational systems, resulting in	those advanced technologies are to ould require substantial modifications significant switching costs for custor tion and customization, they cannot	s to existing infrastructures and ners. Moreover, due to their high							
Bargaining power of suppliers Medium- High	platinum, sourced from illiquid com regions. In response to this "sourci metals and improving recycling eff	cal material sourcing: Many products in these markets rely heavily on noble metals like iridium and im, sourced from illiquid commodity markets with a limited pool of suppliers concentrated in specific is. In response to this "sourcing challenge", companies are increasingly working to replace nobles and improving recycling efficiency. Specifically, to ensure stable access to these critical materials, DNR commits to minimum purchase volumes and maintains multiple supply agreements.								

Threat of substitute Medium	Highly Specialized Products : Products in these markets offer high durability, low power consumption, and optimized performance, making suitable substitutes difficult to find and enhancing customer reliance on established solutions.	Alternative energy solutions: Given the significant cost of green hydrogen, primarily driven by electrolyzer investment and the cost of electricity from renewable sources, hydrogen produced via SMR with carbon capture technology (blue hydrogen) can be seen as a more viable option to kick-start the market, even if it remains intrinsically tied to fossil fuel utilization. Moreover, the emergence of alternative energy carriers can provide a more costeffective solution.	4/7
Rivalry among existing competitors Medium- Low	Market concentration: The electrode technology segment is highly concentration. The water technology segment is fragmented and consists transition segment currently has few competitors but is expected to be the coming years. Price competitors: Some Asian companies are focusing on cost reduction order to capture market shares. Strategic alliances and M&A: Partnerships and M&A play a crucial result of the more established segments. Horizonta new technologies by sharing resources, knowledge and technological which enable companies to develop and deliver products that alignores.	of numerous players. The energy ecome increasingly competitive in uction at the expense of quality in ole not only in the emerging green all partnerships, aimed at developing expertise, and vertical partnerships,	3/7

Score: Very Low (1), Low (2), Medium-Low (3), Medium (4), Medium-High (5), High (6), Very High (7)

Source: Team elaboration

B.3 SWOT Analysis

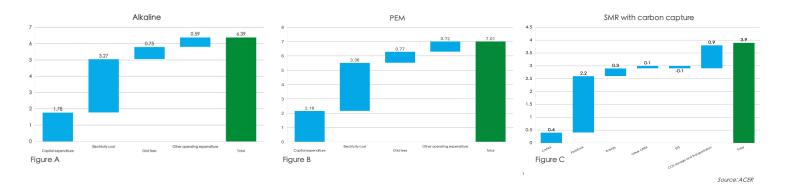
STRENGTHS	WEAKNESS
 1st largest supplier in the world of coated electrodes, and leader position in water treatment and energy transition business Very diversified clients portfolio significant investment in R&D has placed DNR in a leadership position and giving the company a big competitive advantage strategic partnership recurring revenues in after sale market 	 High dependence on raw materials and especially precious metals, which can have high volatile prices Capital intensive projects Complex supply chain Regulatory and policy making changes can have an ambiguous affect on energy transition market
OPPORTUNITIES	THREATS
 A huge development in scale of green hydrogen market New emerging markets especially in Asia New government support and state funds New acquisitions and partnership 	 Potential new incumbent especially in energy transition market Political instability in some key countries where DNR operates Surge of raw material prices Risk technology, if DNR fails to continue keep up with the advancement of technology, it could lead to a loss in market position.

B.4 Will green hydrogen gain competitive edge?

The development of significant economies of scale is essential to reduce the cost of green hydrogen and make it competitive with blue hydrogen, qualified as low-carbon. Blue hydrogen is produced through Steam Methane Reforming (SMR)-a chemical process in which natural gas reacts with high-temperature steam in the presence of a catalyst, generating hydrogen, carbon dioxide and carbon monoxide—coupled with carbon capture technologies capable of reducing CO₂ emissions by at least 70% compared to conventional SMR without carbon capture (grey hydrogen). According to the EU Agency for the Cooperation of Energy Regulators (ACER), the Levelized Cost of Hydrogen (LCOH) for green hydrogen is currently two times higher than that of blue hydrogen.

The higher cost of green hydrogen is shaped by two main components: the capital cost of electrolyzers and the supply cost of electricity (Figure A and B). Specifically, alkaline electrolyzers currently cost around 1900 €/kW, while PEM electrolyzers are priced at approximately 2300 €/kW. In recent years, these costs have increased mainly due to inflationary pressures and slower-than-anticipated production scale-up (partly due to delays in freeing up public funding). By contrast, Chinese alkaline electrolyzers are significantly cheaper, with costs ranging between 700 €/kW and 1200 €/kW. However, ACER anticipates a 40-50% reduction in average capital costs for both alkaline and PEM electrolyzers by 2030.

On the other hand, the relatively lower cost of blue hydrogen is driven largely by natural gas prices, which dominate the cost structure, and by the expenses associated with capturing and storing CO_2 emissions (Figure C). Nevertheless, is crucial to consider the potential risk of lockin effects in carbon emitting technologies, as continued reliance on them can hinder long-term efforts to achieve full decarbonization.



B. 5 Big talk on projects, but where's the action?

Despite the increasing number of announced green hydrogen production projects, many have faced delays in their final investment decision (FID) or have been cancelled. According to the International Energy Agency (IEA), committed projects – those that have taken FID or are under construction – account for only 7% of the new green hydrogen capacity announced for 2030 (improvement from the 4% recorded in 2023). This is driven by several factors: (i) regulations are not yet clear (e.g. pending implementation of RED III (1) in Europe and the rulebook for IRA 45V (2) in the U.S.), prompting companies to postpone their hydrogen initiatives while awaiting clarity; (ii) the slow development of the green hydrogen market, coupled with insufficient demand, prevents project developers from securing stable offtake agreements to underpin investments; (iii) the significant cost gap between green hydrogen production and fossil fuel alternatives remains a barrier, despite governments are attempting to close this gap, due to delays in funding allocation that have caused companies to defer investments in numerous projects; (iv) significant cost increases for renewable power and electrolyzers.

C. Financial Analysis

C.1 Reengineered Balance Sheet – source of funds (€ thousand)

C. I Reenginee										_				_
	2018		2019	%	2020	%	2021	%	2022		2023	%	Q324	%
NWC CORE	150,039	27.91%	149,017	27.12%	127,425	25.01%	250,227	38.90%	271,525	31.87%	258,650	30.23%	279,997	31.539
Receivables	101,474	18.87%	108,004	19.65%	101,037	19.83%	158,510	24.64%	141,787	16.64%	165,440	19.34%	176,624	19.899
Inventory	148,537	27.63%	139,464	25.38%	123,776	24.29%	245,384	38.15%	311,909	36.61%	288,883	33.76%	295,183	33.249
Payables	99,972	18.60%	98,451	17.92%	97,388	19.11%	153,667	23.89%	182,171	21.38%	195,673	22.87%	191,810	21.60%
Other current A/L	660	0.12%	(1,372)	(0.25%)	4,283	0.84%	(6,863)	(1.07%)	933	0.11%	1,107	0.13%	241	0.039
Other current assets	38,986	7.25%	44,712	8.14%	52,597	10.32%	47,472	7.38%	39,113	4.59%	45,875	5.36%	42,076	4.749
Other current liabilities	38,326	7.13%	46,084	8.39%	48,314	9.48%	54,335	8.45%	38,180	4.48%	44,768	5.23%	41,835	4.719
NWC	150,699	28.03%	147,645	26.87%	131,708	25.85%	243,364	37.83%	272,458	31.98%	259,757	30.36%	280,238	31.559
Other non current A/L	(31,320)	(5.83%)	(34,405)	(6.26%)	(28,945)	(5.68%)	(28,214)	(4.39%)	(22.623)	(2.66%)	(23,081)	(2.70%)	(22,344)	(2.52%)
Fixed operating assets	274,237	51.01%	299,693	54.53%	284,977	55.93%	300,432	46.70%	315,729	37.06%	370,060	43.25%	386,384	43.509
Tangible	137,922	25.65%	156,046	28.40%	153,896	30.21%	167,627	26.06%	184,177	21.62%	254,273	29.72%	275,582	31.039
Intangible	136,315	25.36%	143,647	26.14%	131,081	25.73%	132,805	20.65%	131,552	15.44%	115,787	13.53%	110,802	12.489
Fixed operating liabilities	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.009
NFOI	274,237	51.01%	299,693	54.53%	284,977	55.93%	300,432	46.70%	315,729	37.06%	370,060	43.25%	386,384	43.50%
NOCE	393,616	73.21%	412,933	75.14%	387.740	76.10%	515,582	80.15%	565,564	66.39%	606,736	70.91%	644,278	72.549
Financial Investments	144,007	26.79%	136,612	24.86%	121,749	23.90%	127,684	19.85%	286,310	33.61%	248,876	29.09%	243,882	27.46%
NIC	537,623	100.00%	549,545	100.00%	509,489	100.00%	643,266	100.00%	851,874	100.00%	855,612	100.00%	888,160	100.009
Assets held for sale	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.009
Financed by														
NFP	313,928	58.39%	290,170	52.80%	96,371	18.92%	189,304	29.43%	107,070	12.57%	(54,576)	(6.38%)	(19,837)	(2.23%
Equity	223,695	41.61%	259,375	47.20%	413,118	81.08%	453,962	70.57%	744,804	87.43%	910,188	106.38%	907,997	102.239
Long term financial debt	339,770	63.20%	344,763	62.74%	154,755	30.37%	3,784	0.59%	267,544	31.41%	133,716	15.63%	137,619	15.499
Short term debt	17,050	3.17%	996	0.18%	17,274	3.39%	259,363	40.32%	13,655	1.60%	10,199	1.19%	15,166	1.715
Cash & cash equivalents	42,892	7.98%	55,589	10.12%	75,658	14.85%	73,843	11.48%	174,129	20.44%	198,491	23.20%	172,622	19.449
STNFP	(25,842)	(4.81%)	(54,593)	(9.93%)	(58,384)	(11.46%)	185,520	28.84%	(160,474)	(18.84%)	(188,292)	(22.01%)	(157,456)	(17.73%
Total Funds	537,623	100.00%	549,545	100.00%	509,489	100.00%	643,266	100.00%	851,874	100.00%	855,612	100.00%	888,160	

Source: Team elaboration

⁽¹⁾ Renewable Energy Directive (RED) III, published in 2023, sets the legal framework for renewable energy development across all EU industries. It mandates that at least 42.5% of the EU's total energy consumption come from renewables by 2030.

⁽²⁾ Clean Hydrogen Production Tax Credit (45V), established in 2022, introduced a new 10-year incentive for clean hydrogen production of up to \$3.00/kilogram. It provides a varying, four-tier incentive depending on the carbon intensity of the hydrogen production process.

C.2 Reengineered Income Statement (€ thousand)

	Q324 %
Sales of electrodes 176,179 38.12% 196,405 38.86% 206.567 41.36% 284,316 46.16% 462,198 54.20% 447,789 52.29% 3	17,340 52.78%
Sales of systems 33,312 7.21% 28,136 5.57% 38,453 7.70% 34,210 5.55% 31,928 3.74% 33,458 3.91%	23,667 3.94%
After-market and other sales 200.641 43.42% 215.403 42.62% 196.282 39.30% 223.837 36.34% 287,906 33.76% 283,650 33.12% 2	00,387 33.33%
Change in construction contacts 51,983 11.25% 65,420 12.95% 58,152 11.64% 73,515 11.94% 70,794 8.30% 91,514 10.69%	59,829 9.95%
	01,223 100.00%
Other income 16,849 3.65% 19,674 3.89% 6.831 1.37% 3,979 0.65% 6,294 0.74% 14,671 1.71%	5,430 0.90%
Change inventory of WP&FP 8,623 1.87% (1,245) (0.25%) 8.038 1.61% 35,324 5.74% 34,815 4.08% (4,096) (0.48%)	3,364 0.56%
Fixed assets internally produced 20,074 4.34% 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0.00%	0 0.00%
Value of production 507.661 109.86% 523.793 103.65% 514.323 102.98% 655,181 106.38% 893,935 104.82% 866,986 101.23%	0.017 101.46%
Costs for raw materials, consumables, suppliers and goods (188,213) (40.73%) (206,228) (40.81%) (214,376) (42.92%) (289,578) (47.02%) (399,904) (46.89%) (357,991) (41.80%) (2	3,199) (42.11%)
	2,654) (22.06%)
Other OPEX (7,254) (1.57%) (6,737) (1.33%) (6,528) (1.31%) (7,586) (1.23%) (9,178) (1.08%) (10,427) (1.22%)	7,351) (1.22%)
Value Added 185,500 40.14% 189,012 37,40% 194,268 38,90% 241,149 39,16% 323,034 37,88% 320,238 37,39% 2	6,813 36.06%
Personnel expenses (106.943) (23.14%) (108.440) (21.46%) (106.564) (21.34%) (116.067) (18.85%) (154.561) (18.12%) (143.982) (16.81%) (1	4,033) (18.97%)
Provision (3.661) (0.79%) (3.610) (0.71%) (2.644) (0.53%) (4.767) (0.77%) (3.367) (0.39%) (1.606) (0.19%)	1,555) (0.26%)
Write-down of NWC components (3.458) (0.75%) (1.269) (0.25%) (2.717) (0.54%) (1.739) (0.28%) (1.854) (0.22%) 2.448 0.29%	(46) (0.01%)
EBITDA 71,438 15.46% 75,693 14.98% 82,343 16.49% 118.576 19.25% 163,252 19.14% 177,098 20.68% 1	16.83%
Impairment of fixed	7,206) (2.86%)
assets 0 0.00% 0 0.00% 798 0.16% 240 0.04% (4,666) (0.55%) (831) (0.10%)	0 0.00%
EBITA 58,860 12.74% 59,486 11.77% 67,367 13.49% 102.309 16.61% 140,221 16.44% 156,312 18.25%	33,973 13.97%
Amortization (11,255) (2.44%) (10,843) (2.15%) (10,701) (2.14%) (9,727) (1.58%) (9,758) (1.14%) (10,662) (1.24%) Impairment of intangible assets 0 0.00% 0 0.00% 0 0.00% (3,187) (0.52%) (4,323) (0.51%) (8,087) (0.94%)	7,206) (1.20%) 0 0.00%
Net Operating Profit	76,767 12.77%
Gains from financial	
assets 861 0.19% 5.067 1.00% 3,991 0.80% 8,834 1.43% 0 0.00% 5,435 0.63% Losses from financial assets 0 0.00% 0 0.00% 0 0.00% 0 0.00% (1,196) (0,14%) 0 0.00%	0 0.00%
	(378) (0.06%) 76,389 12.71%
	6,536) (1.09%)
Financial income 5,404 1.17% 7,163 1.42% 8,626 1.73% 13,456 2.18% 23,505 2.76% 11,795 1.38%	11,907 1.98%
	8,443) (3.07%)
EBT adjusted 37.455 8.11% 41.658 8.24% 45.397 9.09% 95.355 15.48% 120.761 14.16% 132.703 15.50%	9,853 11.62%
Taxes adjusted 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0.00%	0 0.00%
Net profit adjusted 37.455 8.11% 41.658 8.24% 45.397 9.09% 95.355 15.48% 120.761 14.16% 132.703 15.50%	9,853 11.62%
Non recurring income 8 0.00% 103 0.02% 9 0.00% 30 0.00% 157 0.02% 133,235 15.56% Non recurring	5,816 0.97%
expenses (615) (0.13%) (955) (0.19%) (1,152) (0.23%) (1,832) (0.30%) (488) (0.06%) (657) (0.08%)	(218) (0.04%)
Pre tax profit 36,848 7.97% 40,806 8.07% 44,254 8.86% 93,553 15.19% 120,430 14.12% 265,281 30.98%	75,451 12.55%
	2,988) (3.82%)
·	52.463 8.73%
Non controlling interests 250 0.05% (62) (0.01%) 129 0.03% (251) (0.04%) 101 0.01% 1.000 0.12%	(187) (0.03%)

Source: Team elaboration

		% of		% of		% of		% of		% of		% of		% of
	2018	sales	2019	sales	2020	sales	2021	sales	2022	sales	2023	sales	3Q24	sales
Profit for the year + non monetary item + taxes	62,300	13.48%	68,563	13.57%	71,074	14.23%	124,537	20.22%	157,871	18.51%	305,460	35.67%	94,265	15.68%
financial income	(861)	(0.19%)	(5,067)	(1.00%)	(3,991)	(0.80%)	(22,290)	(3.62%)	(22,309)	(2.62%)	(150,453)	(17.57%)	(11,529)	(1.92%)
financial expenses	11,011	2.38%	12,052	2.38%	15,260	3.06%	16,330	2.65%	27,688	3.25%	22,090	2.58%	18,443	3.07%
operating gross self financing adj	72,450	15.68%	75,548	14.95%	82,343	16.49%	118,577	19.25%	163,250	19.14%	177,097	20.68%	101,179	16.83%
income taxes paid	(8,090)	(1.75%)	(9,102)	(1.80%)	(15,343)	(3.07%)	(17,554)	(2.85%)	(36,748)	(4.31%)	(28,804)	(3.36%)	(22,847)	(3.80%)
operating net self financing	64,360	13.93%	66,446	13.15%	67,000	13.41%	101,023	16.40%	126,502	14.83%	148,293	17.32%	78,332	13.03%
change in NWC	(26,235)	(5.68%)	3,849	0.76%	7,310	1.46%	(110,081)	(17.87%)	(6,864)	(0.80%)	(1,864)	(0.22%)	(23,190)	(3.86%)
current operating cash flow	38,125	8.25%	70,295	13.91%	74,310	14.88%	(9,058)	(1.47%)	119,638	14.03%	146,429	17.10%	55,142	9.17%
investments in intangible and tangible asset	(34,126)	(7.38%)	(36,457)	(7.21%)	(27,410)	(5.49%)	(30,989)	(5.03%)	(46,142)	(5.41%)	(88,496)	(10.33%)	(43,302)	(7.20%)
disposal of intangible & tangible asset	112	0.02%	187	0.04%	301	0.06%	770	0.13%	382	0.04%	1,126	0.13%	6,147	1.02%
free operating cash flow	4,111	0.89%	34,025	6.73%	47,201	9.45%	(39,277)	(6.38%)	73,878	8.66%	59.059	6.90%	17.987	2.99%
financial investment Income (expenses) from	(8,186)	(1.77%)	(8,514)	(1.68%)	(437)	(0.09%)	(2,581)	(0.42%)	(159,316)	(18.68%)	142,527	16.64%	4,349	0.72%
financial investments	664	0.14%	14,425	2.85%	16,842	3.37%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
free cash flow to debt	(3,411)	(0.74%)	39,936	7.90%	63,606	12.74%	(41,858)	(6.80%)	(85,438)	(10.02%)	201,586	23.54%	22,336	3.72%
Repayment of loans Interest	0	0.00%	(20,235)	(4.00%)	(50,648)	(10.14%)	(22,338)	(3.63%)	(259,762)	(30.46%)	(153,480)	(17.92%)	(3,009)	(0.50%)
(paid)/collected	(6,746)	(1.46%)	(9,358)	(1.85%)	(5,588)	(1.12%)	(6,461)	(1.05%)	(6,663)	(0.78%)	(6,179)	(0.72%)	(3,453)	(0.57%)
free cash flow to equity	(10,157)	(2.20%)	10,343	2.05%	7,370	1.48%	(70,657)	(11.47%)	(351,863)	(41.26%)	41,927	4.90%	15,874	2.64%
share buyback	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	(17,042)	(1.99%)	(25,923)	(4.31%)
dividends paid	(37)	(0.01%)	0	0.00%	0	0.00%	(60,028)	(9.75%)	(20,030)	(2.35%)	(24,257)	(2.83%)	(24,438)	(4.06%)
Net cash flow generated/(absorbed) during the period	(10,194)	(2.21%)	10,343	2.05%	7,370	1.48%	(130,685)	(21,22%)	(371,893)	(43.61%)	628	0.07%	(34,487)	(5.74%)
New debt collection	4,867	1.05%	0	0.00%	15,674	3.14%	107,803	17.50%	276,412	32.41%	0	0.00%	10,097	1.68%
new equity collection	0	0.00%	1,675	0.33%	0	0.00%	18,090	2.94%	196707	23.07%	1,300	0.15%	1,100	0.18%
change in STNFP (current)	(5,327)	(1.15%)	12,018	2.38%	23,044	4.61%	(4,792)	(0.78%)	101,226	11.87%	1,928	0.23%	(23,290)	(3.87%)
non recurring items	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	26,439	3.09%	0	0.00%
Increase in cash and cash equivalents	(5,327)	(1.15%)	12,018	2.38%	23,044	4.61%	(4,792)	(0.78%)	101,226	11.87%	28,367	3.31%	(23,290)	(3.87%)
Opening cash amount	47,040	10.18%	42,892	8.49%	55,589	11.13%	75,658	12.28%	73,843	8.66%	174,129	20.33%	198,491	33.01%
Effects of exchange rate on cash and cash									4	4			,	4
eq.	1,179	0.26%	678	0.13%	(2,975)	(0.60%)	2,977	0.48%	(940)	(0.11%)	(4,005)	(0.47%)	(2,579)	(0.43%)
closing cash amount	42,892	9.28%	55,589	11.00%	75,658	15.15%	73,843	11.99%	174,129	20.42%	198,491	23.18%	172,622	28.71%
cash generated	(5,327)	(1.15%)	12,018	2.38%	23,044	4.61%	(4,792)	(0.78%)	101,226	11.87%	28,367	3.31%	(23,290)	(3.87%)

Source: Team elaboration

D. Valuation

D.1 Revenue Growth breakdown

	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E
Electrodes Technologies	290.8	299.1	290.4	348.8	473.4	464.2	424.3	437.0	450.1	463.6	477.5	491.8
Growth % YoY		2.9%	-2.9%	20.1%	35.7%	-1.9%	-8.6%	3.0%	3.0%	3.0%	3.0%	3.0%
% of Total	62.9%	59.2%	58.1%	56.6%	55.5%	54.2%	50.3%	49.4%	48.5%	46.4%	44.1%	41.6%
Water Technologies	171.3	206.2	209.1	257.7	336.7	290.0	314.8	330.6	347.1	364.4	382.7	401.8
Growth % YoY		20.4%	1.4%	23.3%	30.7%	-13.9%	8.6%	5.0%	5.0%	5.0%	5.0%	5.0%
% of Total	37.1%	40.8%	41.9%	41.8%	39.5%	33.9%	37.3%	37.4%	37.4%	36.5%	35.4%	34.0%
Energy Transition				9.4	42.7	102.2	104.6	117.1	131.2	170.5	221.7	288.1
Growth % YoY					354.2%	139.6%	2.3%	12.0%	12.0%	30.0%	30.0%	30.0%
% of Total				1.5%	5.0%	11.9%	12.4%	13.2%	14.1%	17.1%	20.5%	24.4%
TOTAL	462.1	505.3	499.5	615.9	852.8	856.4	843.6	884.7	928.3	998.5	1081.8	1181.8

Source: Team estimates

	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E
NWC	150.0	149.0	127.4	250.2	271.5	258.7	266.0	293.9	321.9	347.7	364.5	377.9
as % Revenues	32.5%	29.5%	25.5%	40.6%	31.8%	30.2%	31.5%	33.2%	34.7%	34.8%	33.7%	32.0%
Changes in NWC		(1.0)	(21.6)	122.8	21.3	(12.9)	7.3	28.0	28.0	25.7	16.8	13.4

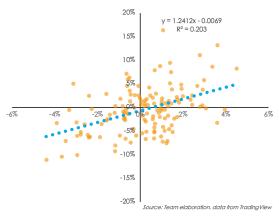
Source: Team estimates

D.3 FCFF projection

	2024E	2025E	2026E	2027E	2028E	2029E
Revenues	843.6	884.7	928.3	998.5	1,081.8	1,181.8
EBITDA margin	17.8%	17.6%	17.4%	17.1%	17.8%	17.3%
EBITDA	150.1	155.7	161.5	170.3	192.5	204.2
D&A	(32.0)	(33.6)	(35.3)	(37.9)	(41.1)	(44.9)
EBIT	118.1	122.1	126.2	132.3	151.4	159.4
NOPLAT (tax rate 25.55%)	87.9	90.9	94.0	98.5	112.7	118.7
CAPEX	(65.0)	(80.0)	(100.0)	(75.0)	(65.0)	(50.0)
as % of Revenue	-7.7%	-9.0%	-10.8%	-7.5%	-6.0%	-4.2%
Changes in NWC	(7.3)	(28.0)	(28.0)	(25.7)	(16.8)	(13.4)
as % of Revenue	-0.87%	-3.16%	-3.01%	-2.58%	-1.55%	-1.14%
D&A	32.0	33.6	35.3	37.9	41.1	44.9
FCFF	47.6	16.5	1.3	35.7	72.0	100.1
PV FCFF (analytic forecast)	47.6	15.2	1.1	27.6	51.1	65.1
Total PV FCFF (analytic forecast)	161.2			Termina Vo	alue	1820.02
				PV of Term	inal Value	1192.56

D.4 Regression beta

To estimate the levered beta, we performed a regression of DNR's log return against the log return of the Stoxx Europe 600's, using weekly data (27/06/2022 – 27/01/2025) as a reference due to the stock's relatively low liquidity.

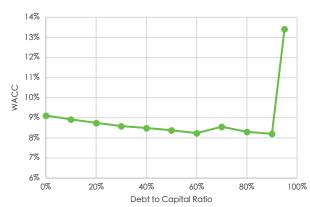


D.5 Optimal WACC

We conducted a detailed WACC optimization analysis to determine the theoretical optimal Debt-to-Capital ratio for DNR and evaluate how sensitive WACC is to changes in this variable. This analysis allows us to identify whether adjustments to DNR's financial structure could lead to potential cost savings and improved financial efficiency. It is important to underline that, as of now, DNR has no plans to increase its debt position. This decision is rooted in the company's robust ability to generate cash flow from its two well-established business segments-Electrode Technologies and Water Treatment—which have provided a stable financial foundation. Moreover, DNR aims to maintain a conservative financial profile to be strategically prepared for future investments in the Energy Transition sector. This approach is crucial to mitigate the risks of entering the market prematurely, ensuring that investments are timed to align with market conditions and opportunities. To carry out the optimization analysis, several assumptions were made to simplify the model and align it with industry standards: i) The debt ratio is assumed to decrease when the company issues new equity and retires outstanding debt, while it increases when DNR borrows additional funds or repurchases shares; ii) Pretax operating income is presumed to remain unaffected by changes in the firm's financing mix or credit rating, ensuring that the operating performance of the business is isolated from capital structure decisions; iii) The levered beta at each debt ratio is calculated based on an unlevered beta of 1.15, adjusted for DNR's marginal tax rate of 24%, reflecting the company's risk profile; iv) The risk-free rate is held constant at 2.46%, derived from the 10-year German Bund yield as of January 31, 2025, and an equity risk premium (ERP) of 5.79% is applied, consistent with our assessment of market risk; v) The cost of debt (Kd) is determined using the interest coverage ratio table for small-cap non-financial companies, sourced from Damodaran's 2025 data, which provides a reliable benchmark for this analysis; vi) If interest expenses exceed EBIT in any scenario, the marginal tax rate is adjusted to reflect the reduced tax shield benefit realistically. We identify an optimal WACC of 8.20% at a high Debt-to-Capital ratio of 90%, indicating that DNR's hurdle rate is primarily driven by the cost of equity. DNR should evaluate whether, in the near future, as the Energy Transition sector matures beyond its current early stage, it would be advantageous to adjust its capital structure to take advantage of the benefits of debt financing.

Source: Team estimates

Debt to Capital Ratio	Beta	Cost of Equity	Cost of Debt (after-tax)	WACC
0%	1.15	9.11%	2.21%	9.11%
10%	1.25	9.67%	2.21%	8.93%
20%	1.37	10.37%	2.21%	8.74%
30%	1.52	11.28%	2.32%	8.59%
40%	1.73	12.48%	2.51%	8.49%
50%	2.02	14.17%	2.59%	8.38%
60%	2.46	16.69%	2.59%	8.23%
70%	3.19	20.91%	3.26%	8.55%
80%	4.64	29.33%	3.05%	8.30%
90%	9.01	54.61%	3.05%	8.20%
95%	17.75	105.16%	3.05%	13.41%



Source: Team elaboration

D.6 Montecarlo Simulation

Montecarlo simulation is structured according to precise specifications: (i) for the growth rate g, we assumed an asymmetric distribution ranging from 2.5% to 5%, assigning a higher probability to the lower part of the distribution to maintain a conservative stance (ii) the standard deviation of the WACC distribution is calibrated using estimates of other analysts (market consensus), ranging substantially from 6% to 12% (i) for the distributions of the EBITDA margin of electrode technologies and water technologies segments, we relied on historical standard deviations over the 2020-2023 period (iv) for both the EBITDA margin and revenue CAGR of the energy transition segment, we applied a left-shifted beta distribution, centred on our optimistic estimate, allowing for negative values.



DISTRIBUTION ASSUMPTION

	Perpetual Growth	WACC	EBITDA margin ET	EBITDA margin WT	EBITDA margin ETr	CAGR ETr
DISTRIBUTION	Beta	Normal	Normal	Normal	Beta	Beta
SPECIFICATION	Alpha: 102.38 Beta: 3000	Mean: 8.98% Std. dev: 0.70%	Mean: 24.00% Std. dev: 1.59%	Mean: 15.70% Std. dev: 1.16%	Alpha: 60 Beta: 25.71 Left-shift: 0.62	Alpha: 6 Beta: 2 Left-shift: 0.53
	15 April 15 S S S S S S S S S S S S S S S S S S	40 Apparation 20 20 20 20 0.00 WACC 0.10 0.12	8 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	50 00 00 00 00 00 00 00 00 00 00 00 00 0	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 , , , , , , , , , , , , , , , , , , ,

For CAGR of ET segment revenues has been used a Uniform distribution with mean: 3.00%, min: 1.00%, max: 5.00% For CAGR of ET segment revenues has been used a Uniform distribution with mean: 5.00%, min: 2.00%, max: 8.00%

Source: Team estimates

E. ESG

E.1 ESG industry comparison

DNR is such a unique company that it is not possible to identify direct peers. Instead, we have considered peers based on its specific business segments. We implemented a proxy comparison approach since it was not possible to distinguish among the different ESG rating assigned to the specific DNR business segments. We compared DNR overall ESG to the peers we initially selected according to the segment. It is a comparison DNR vs Company belonging to the specific segment (considered in its overall score). It is necessary to highlight that the peers are classified by *Refinitiv* as belonging to different industries, with different corresponding relative percentages assigned to the Environmental, Social and Governance, so the comparison is not perfect. The ESG scores were all extracted from *Refinitiv* and the comprehensive result for each segment derives from team elaboration. We did not find public available information for the ESG score of peers producer of Electrodes.

						co	MMITTEE:	S	
Board members	Position	Independent	Age	BoD Tenure (Yrs)	Strategic	Related Party	Control Risk & ESG	Nomination & Remuneration	Professional and Academic Background
Federico de Nora	Executive Chairman		56	22	Х				Chairman at Thyssenkrupp Uhde Chlorine Engineers (Italia) Srl and Federico De Nora SpA. Also, Chairman of Fondazione De Nora, Director at Porsche Club Italia, and Partner at PCH 23033 LLC and Considerate Hoteliers Ltd., Previously Vice Chairman at De Nora Permelec Ltd., Director & Partner at Frog Valley Miami LLC, and Partner at Inspire Srl.
Paolo Enrico Dellachà	Chief Executive Officer & Executive Director		56	16	X (chair)				Deputy Chairman-Supervisory Board at thyssenkrupp nucera AG & Co. KGaA, Director at De Nora Permelec Ltd., Co-Managing Director at De Nora Deutschland GmbH, President & Director at De Nora Holdings US, Inc., Director at De Nora Holding UK Ltd. and Ekon Capital Srl. Independent Director at Technoprobe SpA, Manager at De Nora Water Technologies LLC and De Nora Tech LLC. Formerly General Manager at Sympak Corazza SpA. Holds an undergraduate degree in
Anna Chiara Svelto	Director		56	<1					Electronic and Management Engineering from Politecnico di Milano. Corporate Governance expert and Independent Director at Interpump Group SpA, Credito Emiliano SpA, TERNA Rete Elettrica Nazionale SpA, Technoprobe SpA, and Nedcommunity. Previously Independent Director at Enel SpA, ASTM SpA, Banca Investis SpA, Prelios SpA, and Avvale SpA; Lead Independent Director at Brunello Cucinelli SpA; Head of Legal Affairs at Edison SpA; Secretary & Head of Corporate Affairs & Compliance at Pirelli & C. SpA; Head of Corporate Affairs at Shell Italia SpA; and Chief General Counsel at UBI Banca SpA. Holds a Law degree from the University of Milan.
Alessandro Garrone	Non- Executive Director	X	61	3					Executive Vice Chairman at ERG SpA. Chairman of Edoardo Garrone Foundation and Mus-e Italia Onlus, Vice Chairman of Associazione Italiana delle Aziende Familiari. Independent Non-Executive Director at Industrie De Nora SpA, Director at SQ Invest SpA, Minerval·lub SpA, Federazione tra le Associazioni Confederate Comparto Energia, Carfin SpA, IAIA SRL, and Chisone Immobiliare SRL. Formerly Chairman at ERG Renew SpA, Creditonline SpA, Vice Chairman at ERG Petroli SpA, i-Faber SpA, and Unione Petrolifera. Holds a degree in Economics from University of Bergamo.
Stefano Venier	Non- Executive Director		61	3	X				Chief Executive Officer, Director & GM at SNAM SpA. Board member at SNAM SpA and MIB Trieste School of Management. Formerly CEO & Executive Director at Hera SpA, Vice President-Energy & Utilities at A.T. Kearney Italia, Head of Strategic Projects at Syndial SpA and Ente Nazionale Idrocarburi SpA, and Vice Chairman at Hera Comm SpA. Also served on the boards of Acantho SpA, AcegasApsAmga SpA, EstEnergy SpA, Hera Trading SrI, Herambiente SpA, Inrete Distribuzione Energia S.p.A., and Marche Multiservizi SpA. Holds degrees in Physics and Mathematics from the University of Udine and a Master's degree in Economics of Energy and the Environment from the Institute of Higher Education "E. Mattei."
Maria Giovanna Calloni	Non- Executive Director	X	60	3		X (chair)		X	Founder of Tuctos Srl. Currently holds multiple positions, including Independent Director at Philogen SpA, Industrie De Nora SpA, CY4Gate SpA, and EuroGroup Laminations SpA, and is a member of Nedcommunity. Additionally, she is a Partner at ReeVo SpA, WorkInvoice Srl, S.A.Co.P Srl, Bridge Insurance Services Srl, and The Pyure Co., Inc. Previously, she served as Independent Director at Pininfarina SpA, Credito Valtellinese SpA, and CAD IT SpA, and worked as Director-Equity Capital Markets at Merill Lynch Mortgage Capital, Inc. and CFO & Director at Deus Technology Srl. She has partnerships with Smartika SpA and Skinlabo Srl. Holds an undergraduate degree in Economics from the University of Bocconi and an MBA from The Leonard N. Stern School of Business.
Teresa Cristiana Naddeo	Non- Executive Director	Х	66	3		X	X (chair)		Independent Director at Webuild SpA and Member of Ragioneria Generale dello Stato and the Ordine dei Dottori Commercialisti di Milano. Formerly CEO at Zenit Alternative Investments SGR SpA, Director at Credito Valtellinese SpA, Independent Director at TXT e-solutions SpA and Astaldi SpA, and Director at Gardena Capital Ltd. Holds a degree in Economics from the University of Turin.
Elisabetta Oliveri	Non- Executive Director	x	61	3		X		X (chair)	Chairman of Fondazione Furio Solinas ONLUS, Autostrade per l'Italia SpA, Società Azionaria Gestione Aeroporto Torino SpA, and Sagat Handling SpA. Currently, Independent Director of CIR SpA, Independent Non-Executive Director of ERG SpA, Stella SpA, Trevi-Finanziaria Industriale SpA, Industrie De Nora SpA, and a Member of Federazione dell'Impiantistica Italiana. Formerly CEO of Gruppo Fabbri Vignola SpA, Chairman-Supervisory Board of Azienda Trasporti Milanesi SpA, Independent Director of Eutelsat Communications SA, Independent Non-Executive Director of GEDI Gruppo Editoriale SpA, SNAM SpA, and Eutelsat SA. Holds a degree in Electronic Engeneering from the Università di Genova.
Giovanni Toffoli	Non- Executive Director	Х	56	5			X		Co-Chief Executive Officer & Director at Adriatica Dunav doo, CEO & Director at Adriatica SpA, Chairman at Assofertilizzanti Federchimica, Chairman at K-Logistica SRL. Formerly Chairman at Agroalimentare Sud SpA. Holds an undergraduate degree in Economics from Università Ca' Foscari di Venezia.
Mario Cesari	Non- Executive Director		57	13	X			X	Director at De Agostini SpA, PetrolValves SpA, MeteoGroup Ltd., and Larry S.P.A., Lead Independent Director at Carel Industries SpA, and Partner at Abionic SA. Formerly Director and Head of Corporate Development & Strategy at TBG AG, Independent Director at Piovan SpA, Executive Director at Vestar Capital Partners Europe S.a.r.I., Principal at Berkshire Partners LLC, Senior Manager at McKinsey & Co., Inc. (Switzerland) and McKinsey & Co. SAS. Holds an MBA from INSEAD and a graduate degree in Industrial Engineering from Politecnico di Milano.
Michelangelo Mantero	Non- Executive Director		56	13					Founder of GenCap Advisory SRL, Managing Director at Xenon Private Equity SARL, Non-Executive Director at Industrie De Nora SpA, Director & Partner at E.C.S. SrI (Lecco), Director at WeBravo SrI, S.A.Co.P SrI, and GN Techonomy SrI. Graduated in Economics from the University of Bocconi.
Giorgio Metta	Non- Executive Director	Х	55	2					Independent Non-Executive Director at Gefran SpA and Scientific Director at Istituto Italiano di Tecnologia. Holds an undergraduate degree in Electronic Engineering and doctorate degree from the University of Genoa.
Paola Bonandrini	Non- Executive Director		51	2	X		Х		Director at Teréga SAS and Teréga SA. Formerly Director of Health, Safety, Environment & Quality at SNAM SpA. Holds an undergraduate degree in Civil Engineering from the University of Pavia and a graduate degree in Economics of Energy and Environment from Scuola Mattei e Master Medea.

Source: FactSet. LinkedIn, Company data