2022 Annual financial report

DE NORA

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00 Industrie De Nora

Letter to the Shareholders

Dear Shareholders,

We submit for your attention the consolidated financial statements of the De Nora Group (the "Group") at December 31, 2022 and the separate financial statements of the parent company Industrie De Nora S.p.A. (the "parent company" or the "Company") as at December 31, 2022.

This report presents the Group and the Company's position and the business performance in the financial year 2022, as well as providing an outlook for the coming year.

2022 was a historic year for the De Nora Group thanks to the positive outcome of the listing process, which was successfully achieved despite the volatility that affected global stock markets during the financial year.

The listing on the stock market represents a strategic step to strengthen the Group's pursuit of sustainable development and growth, which aims to play a key role at global level with regard to the issues of energy transition and the scarcity of clean water resources, leveraging its advanced technological portfolio, its centenary experience in the electrode industry and its consolidated leadership in the main segments in which the Group operates.

2022 was also a record year for economic and financial results: the Group recorded a new maximum value of turnover (Euro 853 million, + 38% compared to Euro 616 million in 2021). The positive trend is also reflected by the progress in terms of margins (Adjusted EBITDA of over Euro 190 million, +50% compared to Euro 127 million in the previous financial year); net of all other income statement components, 2022 closed with a profit for the year of almost Euro 90 million, compared to Euro 66 million in 2021. The order backlog at the end of 2022 stood at almost Euro 790 million, +44% compared to the end of 2021, also supported by the development of the Energy Transition Business; the net financial position became positive (Euro 52 million at the end of 2022), also thanks to the share capital increase of Euro 200 million to support the institutional placement of the ordinary shares of Industrie De Nora S.p.A.

The Group confirms itself as an international leader in the development, production and sale of innovative products, technologies and solutions for electrochemical processes (Electrode Technologies Business) and for the implementation of the Energy Transition (with the identification of the specific business segment as of the financial year 2022), as well as systems and equipment for the treatment and disinfection of water (Water Technologies Business). In particular, the Group is the most important global supplier of metal electrodes for the chlor-alkali market, for the electronics industry as well as for the refining of nickel and cobalt, and holds a leading position in global supply of solutions for the energy transition, having invested in research and development in recent years, established partnerships with important players in this rapidly growing market and acquired significant capacities for the manufacture of electrodes and components for the production of green hydrogen by alkaline electrolysis of water.

Energy Transition activities recorded a decisive acceleration in 2022, starting to become a relevant business in a rapidly growing market. The production capacity of the plants has grown and the Group is active on many projects to further expand it also in 2023. In this regard, De Nora Italy Hydrogen Technologies S.r.l., a newco 90% owned by Industrie De Nora S.p.A. and 10% by Snam S.p.A., was established in 2022, entirely dedicated to the "Italian Gigafactory" project, which provides for the construction in Northern Italy of a large-scale production hub with a capacity of up to 2GW for the production of electrolysers for the generation of green hydrogen.

The number of Group employees reached 1,929, over 200 more than at the end of 2021. In fact, the Company believes that the growth of the workforce is fundamental to support the expected expansion of the activities and the business.

In 2022, the Parent Company Industrie De Nora S.p.A., acting as Holding Company and central coordinating entity of the Group, continued to promote several strategic initiatives illustrated later in this report, aimed at creating value for the company.

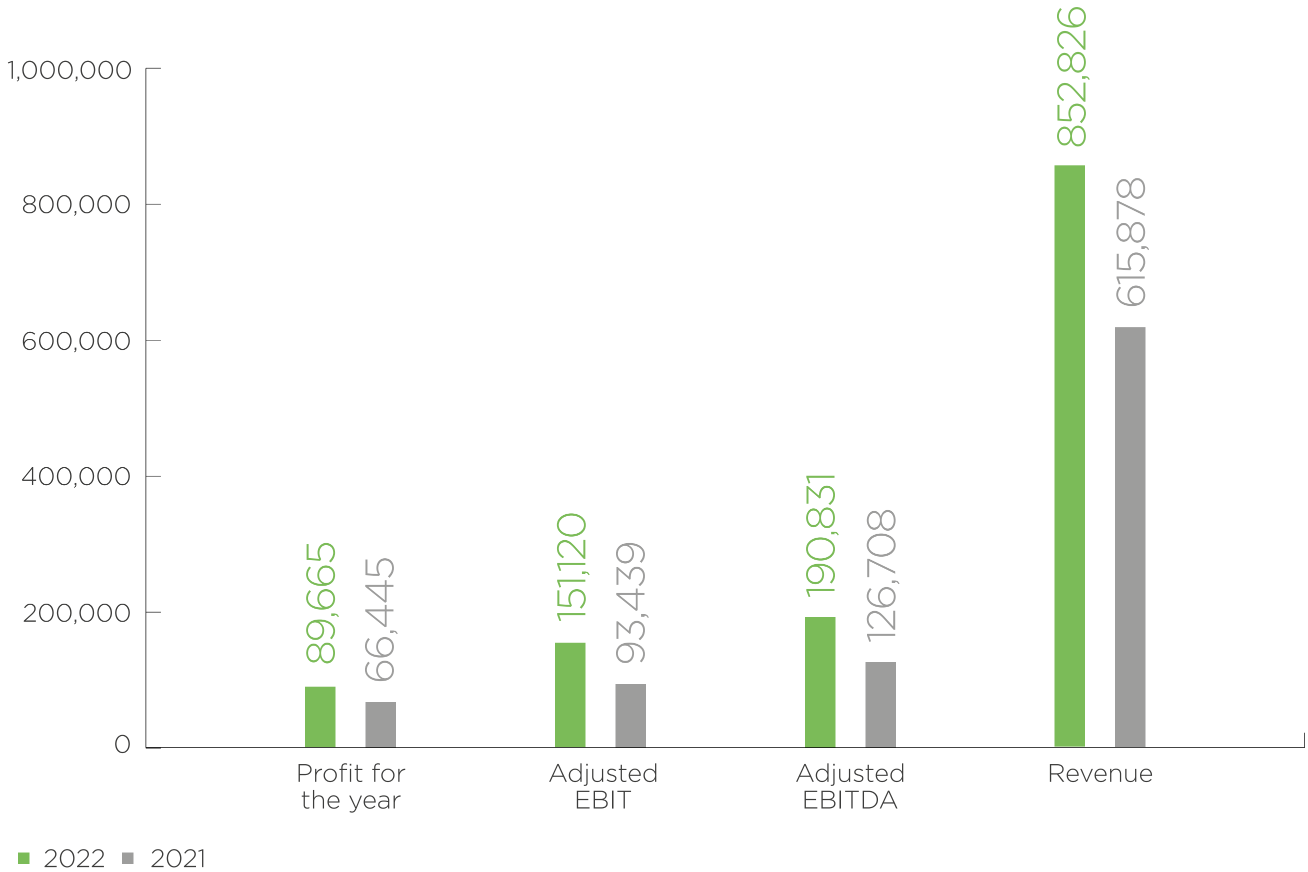
The joint venture with ThyssenKrupp (hereinafter "tk nucera") continues with consistently positive results and will continue to be an important driver for the development of future programs.[1]

2023 is shaping up to be a very challenging year. The global economic outlook is not favourable and promising: high inflation, signs of recession and the energy crisis do not help, even though the record backlog recorded as at December 31, 2022 gives us confidence to face 2023, forecasting a consolidation of the traditional Electrode Technologies and Water Technologies businesses and a major development of the Energy Transition segment. To cope with an increasingly rewarding market, the De Nora Group is actively working on expanding its production capacity, which will see a gradual build-up over the coming quarters. In this context, it is essential to maintain a very high focus on cost control, proper procurement and management of raw materials, planning of production activities, and adapting promptly, aligning promptly with changes in the market.

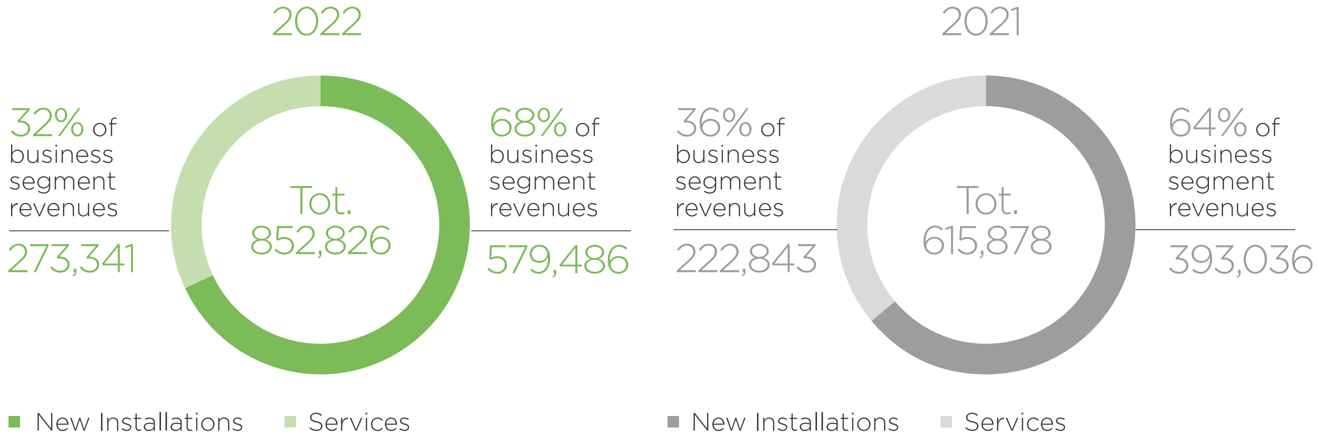
[1] Associated company pursuant to IAS 28 "*Equity investments in associates and joint ventures*"

De Nora in numbers

2022 vs 2021
in € thousands



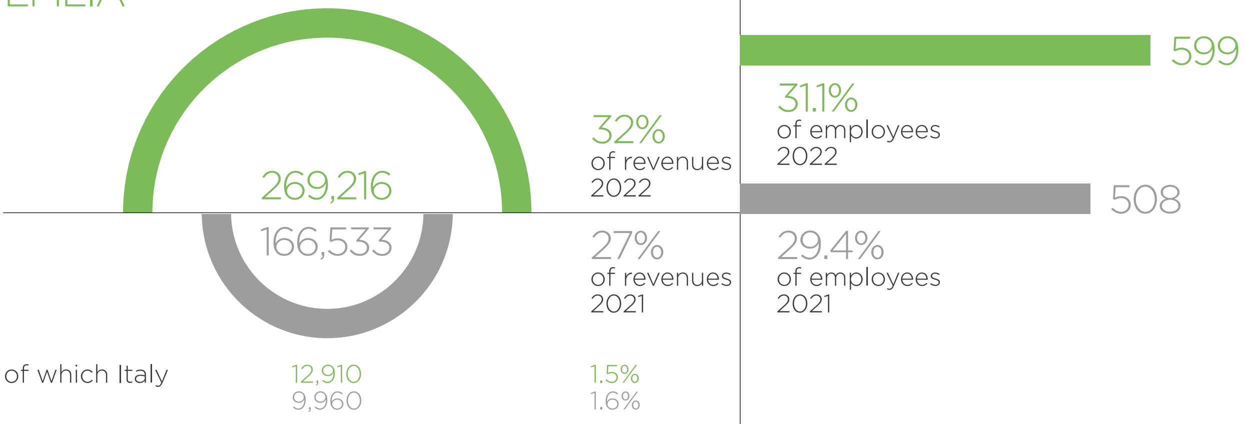
% of business segment revenues
in € thousands



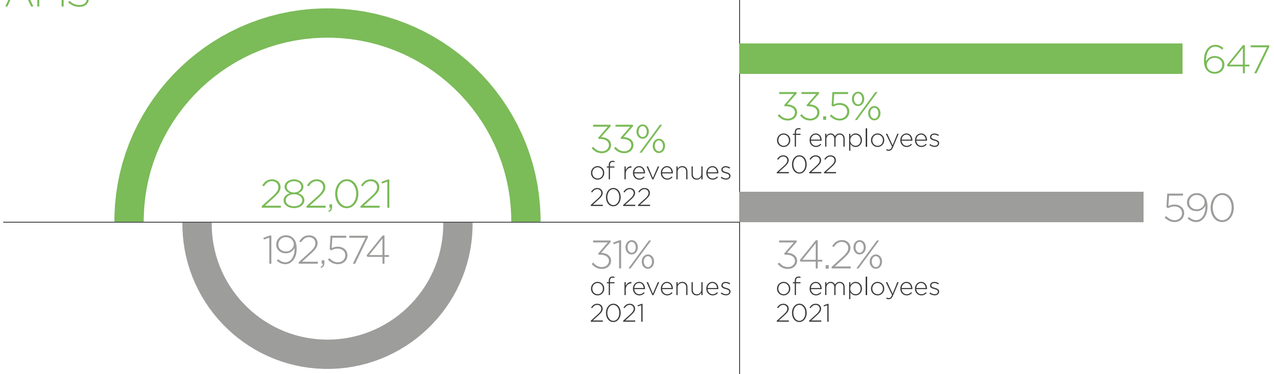
Revenues by Geographic Area
in € thousands

Employees by geographical area
number

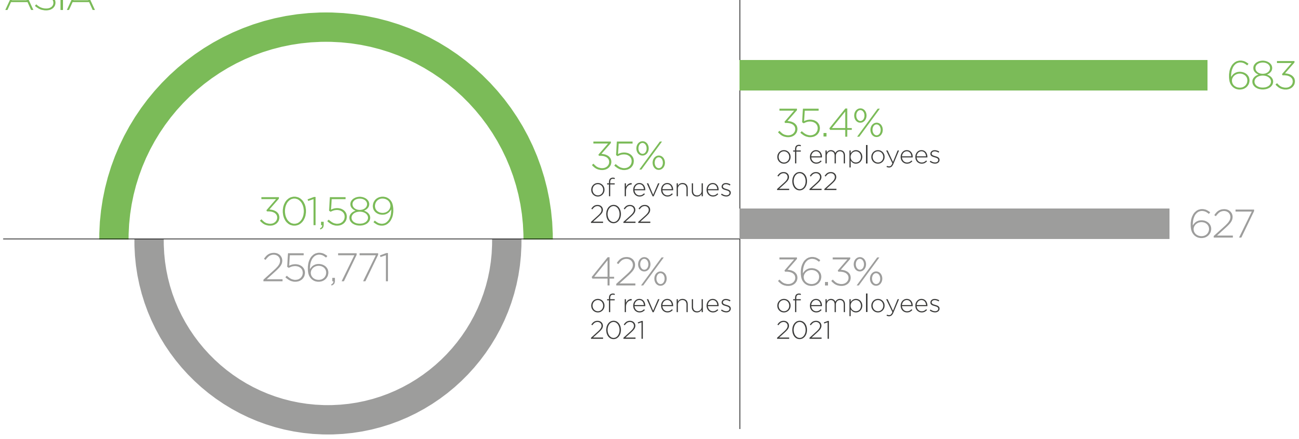
EMEIA[2]



AMS[3]



ASIA



■ 2022 ■ 2021

[2] Indicates the following geographical areas: Europe, Middle East, India, Africa.
[3] Indicates the following geographic areas: North and South America.

Corporate bodies

Board of Directors[4]

Executive Chairperson
Federico De Nora(*)

Chief Executive Officer
Paolo Enrico Dellachà(*)

Directors
Stefano Venier
Maria Giovanna Calloni(**)
Mario Cesari
Michelangelo Mantero
Teresa Cristiana Naddeo(**)
Elisabetta Oliveri(**)
Roberto Cingolani(**)
Giovanni Toffoli(**)
Alessandro Garrone(**)

Board of Statutory Auditors

Chairperson
Marcello Del Prete

Statutory Auditors
Beatrice Bompieri
Guido Sazbon

Alternate Auditors
Pierpaolo Giuseppe Galimi
Gianluigi Lapietra
Raffaella Piraccini

Risk, Control and ESG Committee

Chairperson
Teresa Cristiana Naddeo
Giovanni Toffoli

Appointments and Remuneration Committee

Chairperson
Elisabetta Oliveri
Mario Cesari
Maria Giovanna Calloni

Strategies Committee

Chairperson
Paolo Enrico Dellachà
Federico De Nora
Mario Cesari
Stefano Venier
Roberto Cingolani

Principal Financial Officer

Matteo Lodrini

Independent Auditors

PricewaterhouseCoopers S.p.A.[5]

Related Parties Committee

Chairperson
Maria Giovanna Calloni
Teresa Cristiana Naddeo
Elisabetta Oliveri

Supervisory Board

Chairperson
Gianluca Sardo
Silvio Necchi
Claudio Vitacca

[4] Appointed by the Shareholders' Meeting of March 9, 2022, with the exception of the Directors: Stefano Venier appointed on April 28, 2022, Alessandro Garrone appointed on June 20, 2022 and Roberto Cingolani appointed on February 1, 2023. The Board of Directors is in office until the approval of the Financial Statements as at December 31, 2024.

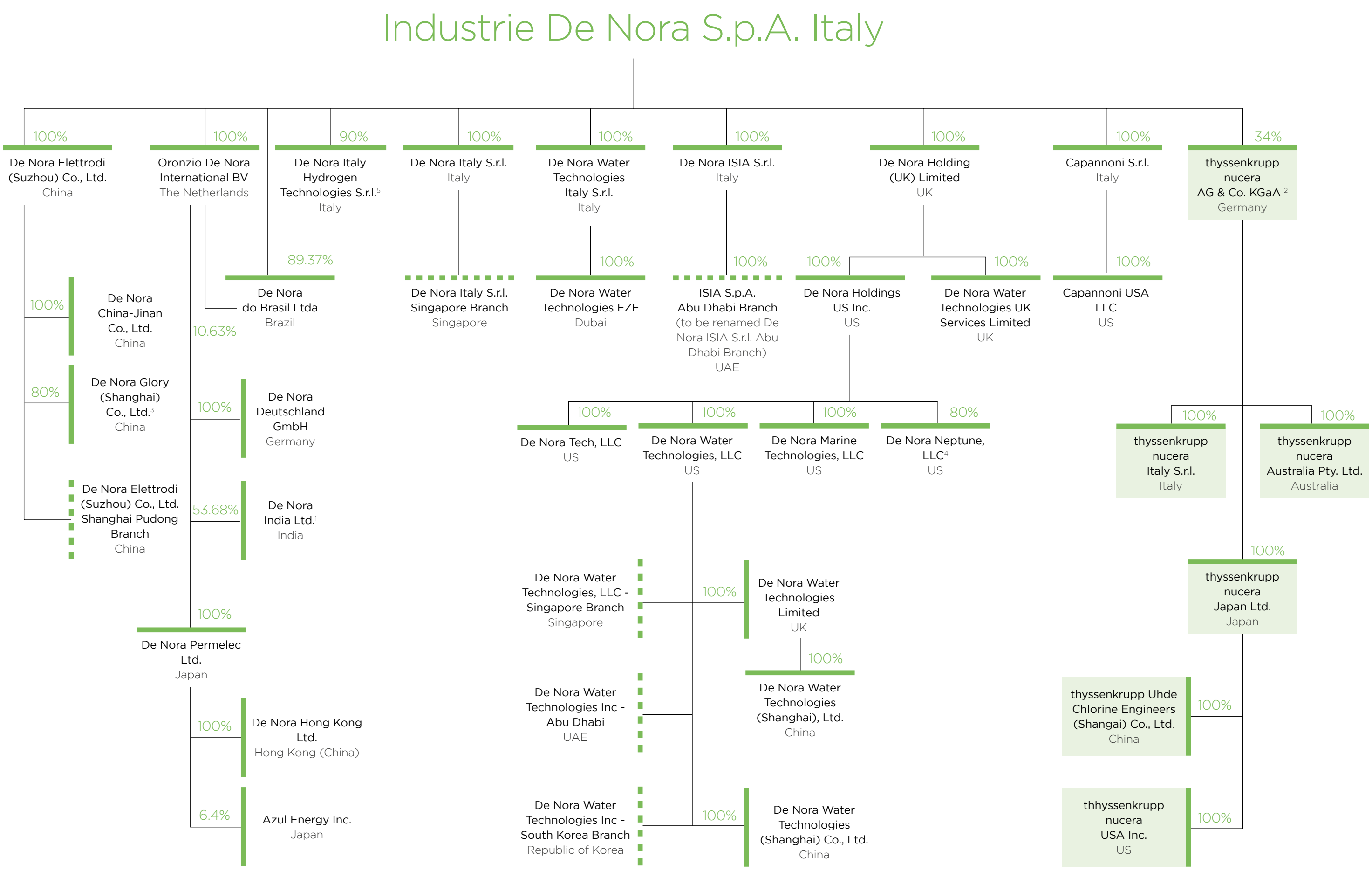
(*) Executive director.

(**) Independent director pursuant to Articles 147-*ter*, paragraph 4, and 148, paragraph 3, of the TUF (Consolidated Law on Finance) and Art. 2 of the Corporate Governance Code.

[5] Appointed by the Shareholders' Meeting on February 18, 2022 for the period covering 2022-2030.

De Nora Group structure

Below the Group structure with an indication of the companies belonging to it and the equity investment held by the parent company, directly or indirectly, in each of them at December 31, 2022.



Corporate functions (AFC, ICT & Legal; HR, Organisation & Internal Communication & Reputation; MBD & Product Management; R&D, IP & Production Technologies; Global Operations & Innovation; Global Procurement) are centralized at the parent company Industrie De Nora S.p.A., thus ensuring financial, strategic and operational consistency within the Group. In particular, the Corporate functions:

— define the strategic guidelines for the entire Group;

— coordinate research and development activities;

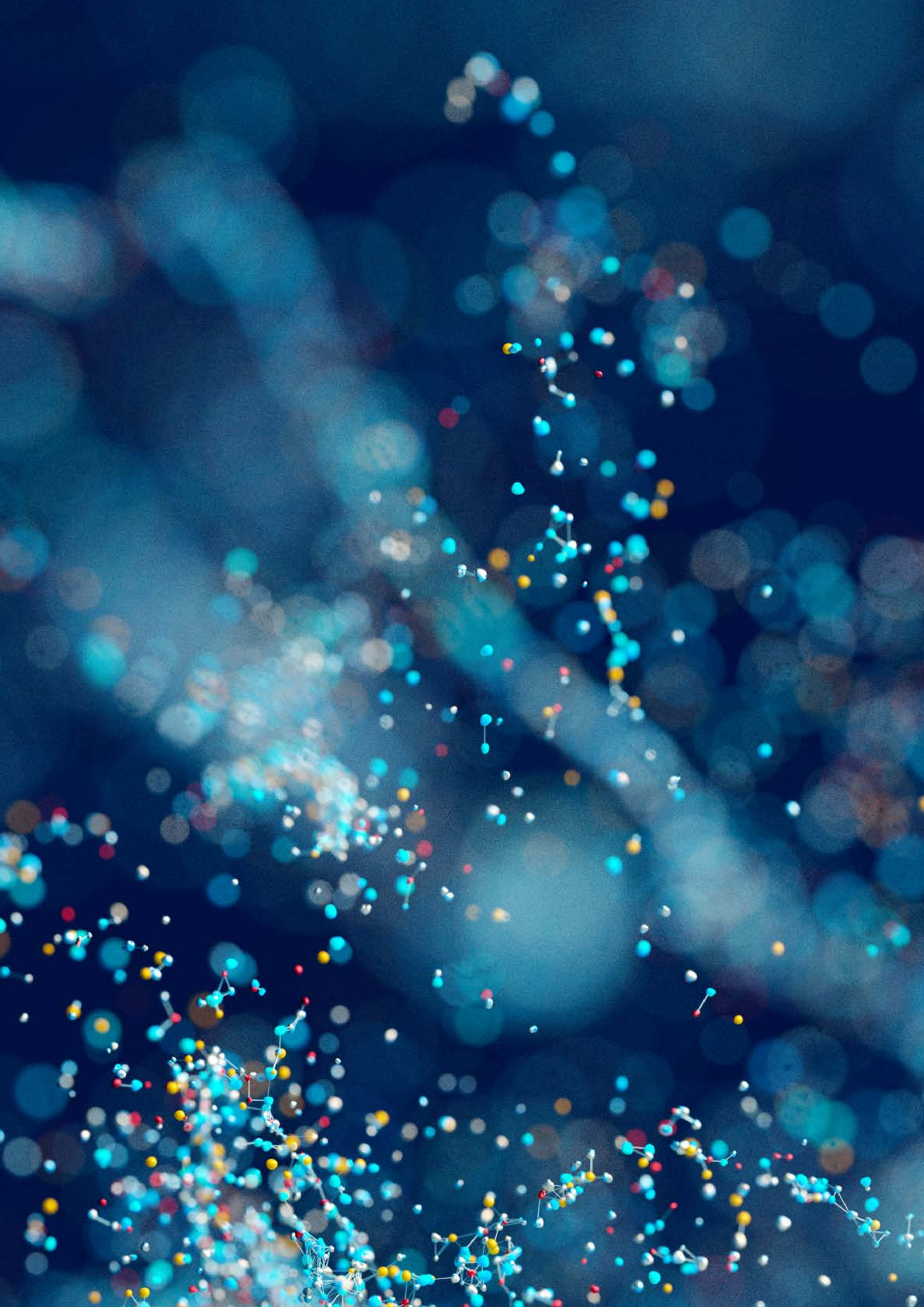
— manage the Group's intellectual property;

— exercise a coordinating and controlling role through the issuance of policies and guidelines to ensure the compliance of initiatives undertaken at the local level with the Group's strategy.

[1] 46.32% Indian Stock exchange + promoters
[2] 66% thyssenkrupp Projekt 1 GmbH
[3] 20% Mr. Bu Bingxin
[4] 20% Biocatters Holding, LLC
[5] 10% SNAM S.p.A.

Legal entity

Branch office



01 Director’s report on business performance for the financial year 2022

De Nora Business within the competitive world scenario

World Economic Outlook[6]

The global fight against inflation, Russia's war in Ukraine, and a resurgence of COVID-19 in China weighed on global economic activity in 2022, and the first two factors will continue to do so in 2023.

Despite these headwinds, real GDP was surprisingly strong in the third quarter of 2022 in numerous economies, including the United States, the Euro area, and major emerging market and developing economies. The sources of these surprises were in many cases domestic: stronger-than-expected private consumption and investment amid tight labor markets and greater-than-anticipated fiscal support. Households spent more to satisfy pent-up demand, particularly on services, partly by drawing down their stock of savings as economies reopened. Business investment rose to meet demand. On the supply side, easing bottlenecks and declining transportation costs reduced pressures on input prices and allowed for a rebound in previously constrained sectors, such as motor vehicles.

Energy markets have adjusted faster than expected to the shock from Russia's invasion of Ukraine. In the fourth quarter of 2022, however, this uptick is estimated to have faded in most—though not all—major economies. US growth remains stronger than expected, with consumers continuing to spend from their stock of savings, unemployment near historic lows, and plentiful job opportunities. But elsewhere, activity indicators generally point to a slowdown. Economic activity in China slowed in the fourth quarter amid multiple large COVID-19 outbreaks in Beijing and other densely populated localities. Renewed lockdowns accompanied the outbreaks until the relaxation of COVID-19 restrictions in November and December, which paved the way for a full reopening. However, consumer and business sentiment remained subdued in late 2022. China's slowdown has reduced global trade growth and international commodity prices.

Signs are apparent that monetary policy tightening is starting to cool demand and inflation, but the full impact is unlikely to be realized before 2024. Global headline inflation appears to have peaked in the third quarter of 2022. Prices of fuel and non-fuel commodities have declined, lowering headline inflation, notably in the United States, the Euro area, and Latin America. But underlying inflation has not yet peaked in most economies and remains well above pre-pandemic levels. Medium-term inflation expectations generally remain anchored, but some gauges are up. These developments have caused central banks to raise rates faster than expected, especially in the United States and the Euro area, and to signal that rates will stay elevated for longer. With the peak in US headline inflation and an acceleration in rate hikes by several non-US central banks, the dollar has weakened since September but remains significantly stronger than a year ago.

European economic growth in 2022 was more resilient than expected in the face of the large negative terms-of-trade shock from the war in Ukraine. This resilience partly reflects government support of about 1.2 percent of European Union GDP to households and firms hit by the energy crisis, as well as

[6] Source IMF World Economic Outlook Update - January 2023

dynamism from economies reopening. Gas prices have declined by more than expected amid higher non-Russian pipeline and liquefied natural gas flows, compression of demand for gas, and a warmer-than-usual winter. However, the boost from reopening appears to be fading. High-frequency indicators for the fourth quarter suggest that the manufacturing and services sectors are contracting. Consumer confidence and business sentiment have worsened. With inflation at about 10 percent or above in several Euro area countries and the United Kingdom, household budgets remain stretched. The accelerated pace of rate increases by the Bank of England and the European Central Bank is tightening financial conditions and cooling demand in the housing sector and beyond.

Global growth, estimated at 3.4 percent in 2022, is projected to fall to 2.9 percent in 2023 before rising to 3.1 percent in 2024. Negative growth in global GDP or global GDP per capita—which often happens when there is a global recession—is not expected.

Nevertheless, global growth projected for 2023 and 2024 is below the historical (2000–19) annual average of 3.8 percent. The forecast of low growth in 2023 reflects the rise in central bank rates to fight inflation as well as the war in Ukraine. The decline in growth in 2023 from 2022 is driven by advanced economies; in emerging market and developing economies, growth is estimated to have bottomed out in 2022. Growth is expected to pick up in China with the full reopening in 2023. The expected pickup in 2024 in both groups of economies reflects gradual recovery from the effects of the war in Ukraine and subsiding inflation. World trade growth is expected to decline in 2023 to 2.4 percent, despite an easing of supply bottlenecks, before rising to 3.4 percent in 2024.

For advanced economies, growth is projected to decline sharply from 2.7 percent in 2022 to 1.2 percent in 2023 before rising to 1.4 percent in 2024. About 90 percent of advanced economies are projected to see a decline in growth in 2023.

- In the United States, growth is projected to fall from 2.0 percent in 2022 to 1.4 percent in 2023 and 1.0 percent in 2024.
- Growth in the Euro area is projected to bottom out at 0.7 percent in 2023 before rising to 1.6 percent in 2024.
- Growth in Japan is projected to rise to 1.8 percent in 2023, with continued monetary and fiscal policy support. In 2024, growth is expected to decline to 0.9 percent as the effects of past stimulus dissipate.

For emerging market and developing economies, growth is projected to rise modestly, from 3.9 percent in 2022 to 4.0 percent in 2023 and 4.2 percent in 2024.

- Growth in emerging and developing Asia is expected to rise in 2023 and 2024 to 5.3 percent and 5.2 percent, respectively, after the deeper-than-expected slowdown in 2022 to 4.3 percent attributable to China's economy.
- Growth in emerging and developing Europe has bottomed out in 2022 at 0.7 percent and is projected rise to 1.5 percent in 2023.
- In Latin America, growth is projected to decline from 3.9 percent in 2022 to 1.8 percent in 2023. Growth in the region is projected to rise to 2.1 percent in 2024.
- Growth in the Middle East and Central Asia is projected to decline from 5.3 percent in 2022 to 3.2 percent in 2023.

About 84 percent of countries are expected to have lower headline inflation in 2023 than in 2022. Global inflation is set to fall from 8.8 percent in 2022 (annual average) to 6.6 percent in 2023 and 4.3 percent in 2024—above pre-pandemic levels of about 3.5 percent. The projected disinflation partly reflects declining international fuel and non-fuel commodity prices due to weaker global demand. It also reflects the cooling effects of monetary policy tightening on underlying (core) inflation, which globally is expected to decline from 6.9 percent in the fourth quarter of 2022 (year over year) to 4.5 percent by the fourth quarter of 2023. By 2024, projected annual average headline and core inflation will, respectively, still be above pre-pandemic levels in 82 percent and 86 percent of economies.

In advanced economies, annual average inflation is projected to decline from 7.3 percent in 2022 to 4.6 percent in 2023 and 2.6 percent in 2024. In emerging market and developing economies, projected annual inflation declines from 9.9 percent in 2022 to 8.1 percent in 2023 and 5.5 percent in 2024, above the 4.9 percent pre-pandemic average. In low-income developing countries, inflation is projected to moderate from 14.2 percent in 2022 to 8.6 percent in 2024—still high, but close to the pre-pandemic average.

With respect to the scenario described above upside risks include more favorable surprises to domestic spending which, however, would increase inflation further. At the same time, there is room for an upside scenario with lower-than-expected inflation and less monetary tightening thanks to the stock of excess private savings from the pandemic fiscal support and tight labor markets and solid wage growth, that can fuel pent-up households' demand.

Moreover, an easing in labor market pressures in some advanced economies due to falling vacancies could cool wage inflation without necessarily increasing unemployment. A sharp fall in the prices of goods, as consumers shift back to services, could further push down inflation.

Numerous downside risks continue to weigh on the global outlook, lowering growth while, in a number of cases, adding further to inflation.

China recovery can stall amid still-low population immunity levels and insufficient hospital capacity, especially outside the major urban areas. A deepening crisis in the real estate market remains a major source of vulnerability, with risks of widespread defaults by developers and resulting financial sector instability. Spillovers to the rest of the world would operate primarily through lower demand and potentially renewed supply chain problems.

An escalation of the war in Ukraine remains a major source of vulnerability, particularly for Europe and lower-income countries. Europe is facing lower-than anticipated gas prices, having stored enough gas to make shortages unlikely this winter. However, refilling storage with much-diminished Russian flows will be challenging ahead of next winter and China's energy demand picks up, causing price spikes. A possible increase in food prices from a failed extension of the Black Sea grain initiative would put further pressure on lower-income countries that are experiencing food insecurity. With elevated food and fuel prices, social unrest may increase.

Since October, sovereign spreads for emerging market and developing economies have modestly declined on the back of an easing in global financial conditions and dollar depreciation. The combination of high debt levels from the pandemic, lower growth, and higher borrowing costs exacerbates the vulnerability of these economies, especially those with significant near-term dollar financing needs.

Persistent labor market tightness could translate into stronger-than-expected wage growth. Higher-than-expected oil, gas, and food prices from the war in Ukraine or from a faster rebound in China's growth could again raise headline inflation and pass through into underlying inflation require an even tighter monetary policy.

The war in Ukraine and the related international sanctions aimed at pressuring Russia to end hostilities are splitting the world economy into blocs and reinforcing earlier geopolitical tensions, such as those associated with the US-China trade dispute. Fragmentation could intensify with more restrictions on cross-border movements of capital, workers, and international payments.

In this complex context policy priorities should be geared to:

- securing global disinflation;
- containing the reemergence of COVID-19;
- ensuring financial stability;
- restoring debt sustainability;
- supporting households and firms that are more vulnerable;
- reinforcing supply and in particular push investment along the supply chain of green energy technologies would bolster energy security and help advance progress on the green transition.
- strengthening multilateral cooperation in particular;

• restraining the pandemic: global coordination is needed to resolve bottlenecks in the global distribution of vaccines and treatments;
• addressing debt distress;
• strengthening global trade;
• using the global financial safety net for example IMF's precautionary financial arrangements and channeling aid from the international community to low-income countries facing shocks;
• speeding the green transition: to meet governments' climate change goals, it is necessary to swiftly implement credible mitigation policies. International coordination on carbon pricing or equivalent policies would facilitate faster decarbonization. Global cooperation is needed to build resilience to climate shocks, including through aid to vulnerable countries.

Currencies

The following table summarises the main reference foreign currencies of the De Nora Group (trade transaction currency or functional currencies of foreign entities belonging to the Group) and the relative foreign exchange rates:

	Average exchange rate for the year ended December 31		Exchange rate at December 31	
Currency	2022	2021	2022	2021
USA Dollar	1.0530	1.1827	1.0666	1.1326
Japanese Yen	138.0274	129.8767	140.66	130.38
Indian Rupee	82.6864	87.4392	88.1710	84.2292
Chinese Yuan Renminbi	7.0788	7.6282	7.3582	7.1947
Brazilian Real	5.4399	6.3779	5.6386	6.3101
GB Pound	0.8528	0.8596	0.8869	0.8402

In addition to the Euro, the most important currencies for the Group are the US Dollar and the Japanese Yen: the US Dollar has revalued by approximately 6% in 2022, while the Japanese Yen recorded a devaluation of approximately 8% in 2022. The appreciation of the Brazilian Real (approx. +11%) and the devaluation of the Indian Rupee (approx. 5%) and the British Pound (approx. 6%) also had an impact, albeit to a lesser extent.

Reference markets for the Group

Below are the characteristics of the Group's reference markets and the developments observed in them during the year just ended.

Markets pertaining to the Electrode Technologies segment

Chlor-alkali

Chlorine is produced through the electrolysis of aqueous solutions of sodium chloride, and the reference industries that use it are the main sectors of application of the Group. Sodium hydroxide (caustic soda) is a natural co-product of the electrolysis reaction, which is why this industry is commonly referred to as chlor-alkali. The peculiarity of this process is that, producing two basic chemical elements used in a multitude of applications, it is only partially unaffected by economic crises or special situations that substantially alter its growth trajectory. In fact, chlorine, caustic soda and their derivatives are necessary commodities in the production of plastics and polyurethanes, in the pharmaceutical industry, in the production of detergents, disinfectants, in the production of aluminium, and in water treatment.

Within the chlor-alkali industry, the Group's target market is electrodes and electrolysers, key components of production plants.

The market of electrodes for the chlor-alkali industry is relatively mature: it is characterized by the growth of production capacity, mainly stable on a single digit, and by the demand for maintenance and technological updating services of the important installed base, considering both the life cycle of the electrodes and of the obsolescence of the plants in favor of more performing technologies with less environmental impact.

Despite the fact that 2022 was a difficult year for the chlor-alkali industry, impacted by the reduced demand for vinyl products caused by the Russia-Ukraine conflict, by restrictions in China aimed at containing COVID infections, and by the increase in the price of energy, the electrode market showed very good growth, supported by both increased volumes and higher prices. In particular, 2022 was mainly characterized by the demand for service activities aimed at the technological updating of obsolete plants and technologies and the periodic maintenance of the electrodes installed.

Electronics

The reference markets for the Group are represented by: (i) the production of copper foil, a basic raw material used mainly for the production of printed circuits for multiple applications and lithium batteries, (ii) the electrochemical copper plating in printed circuit boards (PCB) and in particular those with high interconnection density (HDI).

The weakening of the global economy in 2022 impacted several sectors of application of the electronics market, whose value was estimated at around USD 2.4 trillion, down slightly compared to the previous year (around -2.6%). There was, especially in the latter part of the year, a lower level of utilisation of copper foil production facilities, caused by the contraction of demand for printed circuit boards for consumer electronic devices, computers and communications. This slowdown in the end markets had an impact on the demand for electrodes which, however, were able to benefit from the increase in prices caused by the cost of raw materials.

Electrolytic refining of non-ferrous metals (Electrowinning)

The electrolytic refining market is based on the process of electrodeposition of non-ferrous metals to remove residual impurities still present in them after the solvent extraction process, with the aim of obtaining metals of high purity and quality, which are used in various industrial sectors.

The Group's offer is concentrated in the segment of titanium anodes with mixed metal oxide coating for the electrolytic refining of nickel and cobalt. In 2022, the demand for insoluble electrodes was determined by service activities and technological upgrades of solutions for existing installations, the value of which was positively impacted by the increase in prices.

Markets pertaining to the Water Technologies segment

Swimming pools

The Group supplies electrodes to the main companies operating in the sector that produce and sell electrochlorination systems (salt chlorinators), used for the disinfection of swimming pool water thus replacing traditional chlorine-based sanitisation methods (tablets, granules, liquids).

The main reference market for De Nora is represented by in-ground residential swimming pools, which in 2022 benefited from a favourable climate characterized by the increase in average seasonal temperatures and by the democratization of swimming pools, partly attributable to the health crisis, which led to the increasing the number of new installations. In addition to the demand for new swimming pools, there has been a demand for the renovation and modernisation of existing pools with environmentally friendly solutions, including salt chlorinators, which are increasingly appreciated for their benefits. The boom in demand combined with the shortage of materials that has characterized the entire 2021, had repercussions on the procurement policies and on the management of inventory of the operators in the sector also in 2022. As a result, the beginning of the year was characterized by strong demand for materials and equipment, including electrodes, which subsided in the second half of 2022, but still showed strong growth for the entire sector.

Electrochlorination

The availability of water with certain chemical and physical characteristics is a critical factor for many industrial sectors, both civil (drinking water plants) and industrial. Disinfection processes are therefore an essential step for the treatment of water used in the various processes, for their reuse and for their discharge into the network, in compliance with current legislation. Of the disinfection processes, chlorination is the most common.

Although chlorine in gaseous form is the most common method of disinfection in industrial plants, followed by the use of hypochlorite solutions (bleach), on-site hypochlorite generation technologies are increasingly favored, mainly for logistical, safety and environmental reasons.

Although the on-site chlorine generation market is growing at an estimated rate slightly higher than the overall growth of the disinfection market, it is still a small market in size compared to that of other key disinfection technologies; the value of the new installations in 2022 is estimated at around Euro 219 million. At regional level, there is greater growth in China and Hong Kong, which increasingly favor on-site generation of chlorine gas or hypochlorite for municipal water treatment.

Disinfection and Filtration systems

In the field of disinfection and filtration systems, the Group mainly addresses the municipal market, designing, developing and selling systems and technologies for water purification and wastewater treatment.

Increasingly, disinfection technologies are being used in combination, with UV or ozone being added to disinfection processes before chlorine, to reduce its use and the formation of by-products, as well as to combat chlorine-resistant pathogens.

The huge need in the Middle East to convert salt water into fresh water has seen the number of projects for reverse osmosis desalinators requiring filtration technologies grow in 2022. The Middle East has the largest water desalination capacity, followed by the United States and China.

Stricter regulations, greater prospects for water reuse and fears of micropollutants are making disinfection and oxidation technologies more attractive in both the industrial and municipal sectors. In particular, the focus on contamination by persistent chemicals such as hyper- and polyfluoroalkyl substances (PFAS) continues to grow, supported by a tightening of the regulatory framework that, especially in the United States and Europe, places ever stricter limits on the threshold values allowed in drinking water.

Marine technologies

The Group serves the marine market by offering ballast and wastewater (grey and black) treatment solutions based on electrochemical, UV and ozone technologies.

In order to stabilize cargo vessels by compensating for weight changes (for stability purposes) and reducing their mechanical stresses during low-load navigation, seawater is introduced into the ballast tanks. To preserve marine biodiversity, regulations are in force that require that ballast water, before being discharged, be appropriately treated through systems that include disinfection processes, thus avoiding contaminating the water with alien organisms.

The market for ballast water treatment systems is a growing sector driven by strict regulations both internationally, dictated by the International Maritime Organization (IMO), and nationally, and in particular by the United States Coast Guard (USCG). It is estimated that in 2022 more than 40,000 ships needed modernization.

Markets pertaining to the Energy Transition segment

Green hydrogen is expected to play a key role in the decarbonisation of industries that currently use hydrogen as a raw material, and for those sectors where there are currently no economically competitive energy alternatives to the use of carbon-intensive power generation and/or where direct electrification is not feasible.

All green hydrogen production methods

are based on the electrolysis of water; the main differences between the various technologies stem from the type of electrolyte used and the operating conditions; they also differ in terms of the level of development achieved and commercial maturity. The main technologies for the production of green hydrogen are: alkaline electrolysis ("AWE"), proton polymer membrane electrolysis ("PEM"), solid oxide electrolysis ("SOEC") and anionic polymer membrane electrolysis ("AEM"). Of these, only the first two technologies have reached a good level of technological development and are currently marketed. It is expected that in the medium and long term, alkaline electrolysis, thanks to the advantages offered, will continue to be preferred over competing technologies such as PEM, especially for large-scale projects (to serve both "hard to abate" industries "such as metallurgy, and the production of "green chemicals", such as ammonia, methanol, and "green fuels" for the aviation sector).

The Group has developed high-performance electrodes and catalysts for alkaline electrolysis of water (AWE) and is developing electrodes and catalysts for the production of hydrogen through both cationic and anionic polymer membrane electrolysis (PEM and AEM).

The conflict between Russia and Ukraine, and the ensuing consequences, including high energy prices, have contributed to strengthening investment plans aimed at promoting green hydrogen by an increasing number of countries, including the United States, Canada, the United Kingdom, as well as Europe, the Middle East, North Africa, Australia and China.

In 2022, the number of green hydrogen production projects announced globally rose to 680. There was also an increase in large-scale (multi-megawatt) projects, the main target market for the De Nora Group's electrodes, especially in the renewables, chemical and refinery, steel and raw materials sectors. Currently, only 10% of the projects announced have been definitively approved and the next two years are expected to be key for the definitive growth of this sector.

Strategy and objectives

The Group intends to continue the strategy of diversifying its business through the expansion of its presence internationally and the expansion of its product portfolio, taking advantage of the growth opportunities offered by technologies for the production of green hydrogen and at the same time consolidating its leadership in the electrode technology and water treatment businesses.

In particular, the strategy pursued by the Group focuses on the following objectives.

Pursuit of new global opportunities in sectors with significant growth potential, including the green hydrogen sector

Through investments in research and development, the Group intends to develop innovative electrochemical technologies to capture and exploit global macroeconomic trends, such as the increase in urbanization, the expansion of technological products, the greater need for drinking water and disinfection, the scarcity of resources, the climate and demographic changes and the increase in energy needs and, with particular reference to the energy transition, the production of green hydrogen.

Electrode Technologies

In the Electrode Technologies Business, the Group intends to preserve its position as a global leader by maintaining its competitive advantage in the reference markets in terms of performance and quality of the electrodes supplied through continuous innovation aimed, in particular, at optimising the use of noble metals such as iridium, ruthenium, platinum, palladium and rhodium, while simultaneously acting on cost reduction to protect margins.

In particular, the Group intends to develop (i) innovative and sustainable electrodes, which allow further reductions in energy consumption and a longer service life for application in the chlor-alkali and electronics industries; and (ii) new anodic configurations for the electrochemical refining of non-ferrous metals (electrowinning). Finally, with reference to the services business, the Group intends to continue to focus on preserving relations with its customers, looking at new business models aimed at the continuous generation of value (from research and development to after-sales services).

Water Technologies

In the Water Technologies Business, the Group intends to preserve its consolidated position in the swimming pool electrodes market, continuing to focus on the quality of services and customer relations, and intends to benefit from the sustained growth in demand for salt chlorinators. In addition, the Group intends to continue to expand its business in the municipal and industrial sector by taking advantage of the ongoing renewal of the technological portfolio and new applications, selectively penetrating new markets and regions. In particular, the Group intends to exploit new business opportunities brought about by the emergence of new contaminants and supported by a tightening of the regulatory framework for the treatment and reuse of drinking water and wastewater by combining different technologies and validating the improvements introduced.

Energy Transition

The Group intends to leverage its globally recognized leadership position in the production of electrodes for electrochemical industrial applications to expand its presence in the green hydrogen production sector, where the market has significant growth potential.

The Group intends to successfully enter the hydrogen production market, benefiting from a wide technological offer and know-how deriving from the consolidated business of electrodes; it also intends to leverage its production capacity, the partnerships developed over time with leading operators in the sector such as the joint venture with tk nucera, as well as the backlog of orders in the portfolio.

In addition, the Group intends to continue investing in the development of new critical components (electrodes and catalysts) for hydrogen generation technologies by means of alkaline electrolysis and alternative electrolysis processes such as PEM and AEM, which are assessed as being interesting in the medium to long term but, at present, not ready to enter the market on a massive scale. In addition, the Group intends to continue to invest in the development and marketing of electrolysers and complete systems, planning future expansions of the scope of supply and commercial penetration in regions where a sustained growth in demand is expected.

Maintaining a flexible approach to external growth strategies

In the past, the growth of the Group has been sustained and also characterized by important acquisitions. In fact, the Group boasts an important track record also in terms of acquisitions and subsequent additions to the related business.

The Group proactively scouts the market for opportunities to acquire technology and business companies. The main objectives are to increase penetration in strategic markets through the expansion of the product portfolio and the offer to customers, and to strengthen its "value chain" with technological solutions consistent with the company's "DNA".

The Group intends to continue to have a flexible approach to the path of growth by external lines, expanding and consolidating its presence in the markets considered strategic, through continuous improvement and expansion of its product portfolio and, at the same time, intends to strengthen the offer in the energy transition sector, exploring alternative technologies for the production of green hydrogen.

Pursuit of sustainability objectives identified globally by the United Nations

The Group, which has been conducting its business for some time in line with the Sustainable Development Goals (SDGs) defined by the United Nations, intends to strengthen this long-term commitment through various activities and projects.

The Group aims to exercise a tangible positive impact in order to achieve the "*carbon neutrality*" and "*net-zero emissions*" objectives thanks to its portfolio of (i) energy saving solutions, (ii) electrolysis systems and components water for the production of green hydrogen and (iii) water and wastewater treatment for the availability and reuse of clean water.

In terms of productivity, the Group aims to achieve operational excellence through the implementation of a lean transformation strategy and the principles of "continuous improvement", pursuing strategic procurement projects aimed at optimising costs, and seizing the opportunities offered by the industrial automation and digitalization of business processes, according to "agile" principles.

De Nora aims to enhance the potential of its people, promoting their continuous development, enhancing their leadership, and encouraging a diversified and inclusive work environment. The Group confirms its commitment to improving the physical and mental well-being of all employees. Reputation and communication continue to be among the Group's priorities.

The main strategic initiatives that characterized 2022 are illustrated below.

In the context of Business Development, activities to promote business growth continue to focus on the development of new opportunities within the energy transition. Also in 2022, the Group consolidated partnerships and collaborations with major international companies, ensuring design, development and testing agreements, and strengthening its positioning within the hydrogen value chain. Collaboration with tk nucera has also increased in synergistically pursuing large multi-year projects in the renewable energy market.

Among the various Marketing & Communication initiatives that affected 2022 were:

— optimization of the website, aimed at improving its indexing and positioning on the main search engines;

— review of the website content, reorganization of the navigation tree, and creation of new sections in preparation for the listing process (Governance, Investor Relations, Sustainability sections);

— creation of new regional sites for India, Germany, Brazil and Japan, in order to customize and optimize corporate communication in terms of language and product portfolio offer;

— activities to optimize the positioning of the Group on social media, in particular on LinkedIn, which led to the achievement of more than 40,500 followers (+81% compared to 2021); levels of engagement were achieved well above the general averages, which led to the inclusion of De Nora's communication among the "best in class" for the technological B2B sector;

— lead generation activities through digital and inbound marketing campaigns, aimed at "retaining" existing customers, as well as attracting and "acquiring" new potential customers.

The innovation and revitalization of the product portfolio are confirmed as strategic activities in support of the growth of the Group and the maintenance of its competitive positioning. In 2022, initiatives to reduce product costs continued, aimed at protecting or improving the profitability of the business segments, as did initiatives aimed at guaranteeing an increasingly efficient execution of orders and projects, seizing the opportunities offered in the field of industrial automation and paying increasing attention to digital transformation.

Close collaboration between research, engineering, business and regulatory affairs ensures that new products fully meet the legal requirements of their reference markets.

In order to continue to promote innovation and continuous improvement throughout the Group, a strategy has been defined aimed at encouraging the generation of ideas, paying particular attention to the issues of security, digitization and sustainability.

In 2022, there was a further increase in the number of ideas generated (+36% compared to 2021) and growing participation by employees (+49% compared to 2021).

With regard to digitalisation, various activities were promoted aimed at improving internal processes, in particular with the setup of a roadmap, which will bring the Group to a high level in the next 3-5 years, consistent with the growth ambitions for data and its management.

Open Innovation activities continued to promote innovation through external resources and expertise. The main activities were focused on strengthening an ecosystem that supports the company in product and process technological innovation, and on the creation of new collaborations in the field of digitization.

The Central Procurement function, the Group's reference point for the purchase of strategic materials, continues to pursue its objective of an ever greater centralization of the management of raw materials and key components, and has proved its effectiveness, guaranteeing price competitiveness and continuity of supply to Group companies in a year characterized by market tension and volatility and supply disruption.

The evolution of the Global Procurement department continues, whereby it is assuming an increasingly strategic role for the Group, and in 2022 was primarily focused on guaranteeing sustainable business growth in the Energy Storage and Water Treatment sectors. This transformation, aimed at evolving the function to a "proactive centre of innovation and profit", materialized in the prior involvement of this function in innovation design and product revision processes. Its involvement in the initial stages of design, definition of the production process and of the marketing logics, is proving to be effective in combining functional and production needs with market availability in the best possible way, with a view to optimising the costs and quality of the final product.

At the same time, with a view to creating value, the Global Procurement function aims to establish Group synergies that have materialized:

- in the consolidation of purchasing procedures;
- in the creation of a community that favours the exchange of information among the companies of the Group;
- in establishing a common purchasing culture through global training courses;
- in the selection of a Supply Relationship Management software that will be implemented in 2023 at Group level in order to minimize low value-added activities while ensuring transparency in purchasing activities;
- in the launch of an ESG-based assessment process of the supply chain, which will continue in 2023.

In any case, the focus remains constant on:

- the control and reduction of costs while maintaining quality and meeting delivery terms;
- the enhancement of titanium scrap and the recovery of noble metals in support of the circular economy and business, activities of significant added value especially in a market characterized, during the year, by a significant volatility in commodity prices.

Operations—The Group's main companies continue to implement their action plans, aimed at the constant improvement of a safety culture, aimed at the constant improvement of productivity and careful optimization of costs, with the support of the corporate departments. The implementation of the Operations strategy according to the Hoshin Kanri method yielded very satisfactory results, with an improvement in almost all KPIs taken into account. 2023 is the last year of Hoshin Kanri's three-year cycle and is expected to bring various service and management accuracy indices to good, if not excellent, levels.

The use of Lean tools such as 5S, Shop Floor Management, Standard Operating Procedures, structured problem solving methods is increasingly widespread. The introduction of Total Productive Maintenance has begun, aimed at improving Overall Equipment Efficiency.

In the sphere of Sales and Operation Planning (S&OP) and Data Driven Culture, a Supply Chain Transformation project was launched which in about three years will lead the Group to have an Integrated Business Plan (IBP) process in all the plants. In 2022, pilot projects were launched in Germany and China and the implementation of the Supply Chain management software in De Nora Tech—United States. The software for monitoring and improving the quality of the ERP system data is in operation, making the output of the new IBP system more robust and reliable in terms of production capacity projections, planning of raw materials purchases and production planning.

The efforts aimed at increasing and consolidating the safety culture have produced an important result. 2022 was the year with fewer days lost due to injuries; the number of accidents remains high but their severity has dropped considerably, and it is therefore necessary to continue to carry out the activities identified and planned for some time such as event analysis, structured problem solving, behavioural sampling, auditing, targeted training.

In the Cyber Security area, during 2022 there was a significant evolution in the prevention of cyber threats to De Nora's IT systems and services thanks to the interventions of the program defined by the new Cyber Security function. We worked on several fronts and mainly with the setting of Group solutions, in order to exploit, both in terms of efficiency and effectiveness, the advantages of a homogeneous operating context.

One of the first elements of attention was the external logical perimeter, i.e. exposed on the Internet, which is the most subject to attacks. A solution for the protection of the institutional portal was integrated into it, and the infrastructure for the prevention of intrusions into the corporate network was completely overhauled, a multifaceted intervention that involved all locations worldwide. A standard solution was then introduced to protect remote access to IT tools located in industrial sites and laboratories. This was mainly defined to manage access by third-party suppliers, but can also be applied, where appropriate, to company personnel. Another important set of measures focused on the technologies used by employees, with the strengthening of web browsing and e-mail protections. A new solution also allows the confidentiality of the company's most important document assets to be safeguarded, enabling control over who can access the protected documents even if they are sent to external collaborators. The set of actions carried out was supported by an analysis of technological weaknesses, conducted by a team specialized in identifying known vulnerabilities and conducting cyber-attack tests.

Alongside the more technical aspects, the governance and procedural part was reset, with the execution of Business Impact Analysis and Risk Assessment activities, with the production of the main policies and the definition of the operating model. This led, among other things, to the reorganization of the security event monitoring and incident management services. Given the scope and complexity of the necessary actions, these activities will continue in 2023 together with the new initiatives of the Cyber Security program.

With regard to developments in the Information and Communication Technologies area, the project to extend ERP systems to Group companies continued in 2022. In particular, in 2022 the De Nora Group completed the go-live of the new SAP S/4HANA solution within its Water Technologies division companies in the Shanghai Pudong (China) and Singapore offices and, at the beginning of 2023, in the office in Tamworth (United Kingdom).

The Group ERP system was also implemented for the new company De Nora Italy Hydrogen Technologies S.r.l., which will operate in the Energy Transition segment.

Another important project started in 2022 involves making valuable business information available to management, in the form of Analytics. This project, which covers all departments, involves the collection and harmonization of data from multiple certified sources, the preparation of dashboards and reports, but also the training of users in the advanced use of the Power BI tool.

In the Legal and Compliance area, the De Nora Group continues its efforts to promote a corporate culture characterized by correct behaviour and a corporate governance system in line with international and listed company best practices. Among other projects, in 2022 the Group adopted an internal policy for the regulation of reports ("*global whistleblowing policy*") concerning possible unlawful acts of commission or omission by employees and third parties, which constitute or may constitute a breach, or inducement to a breach, of laws and regulations, values and principles set forth in the De Nora Code of Ethics. In addition, with a view to guaranteeing a continuous strengthening of the existing controls, the company has launched activities for the analysis of risks and the development of a group anti-corruption procedure, as well as a compliance plan on the control of exports and international economic sanctions.

In the Organization area, the activities identified and launched with the People Strategy 2021-2023 continue. The Strategy's 5 pillars are: *People Development, Communication reputation & networking, HR analytics, processes, digitalization & agility, Diversity, Equity and Inclusion (DEI), Well-being and happiness pursuit*.

Among other projects, in the field of *HR analytics processes, digitalization & agility*, the year 2022 saw:

— the extension to the industrial population of all HR processes already in place on the white-collar population, as well as the continuous improvement and digitalization thereof;

— implementation on SAP-SuccessFactors of three new modules relating to Recruiting, Onboarding and Learning processes;

— Agility methodologies and techniques were tested, with the aim of defining the De Nora Manifesto, Values and Principles. All this was reported in a training on Agility available through the De Nora Academy e-learning platform to the entire organization;

— the definition of templates to monitor the significant increase in personnel expected for the next few years and facilitate knowledge transfer;

— the continuation of the project to overhaul the corporate portal to improve interaction and use by colleagues;

— the extension of the use of the Power BI platform to increase the production and effectiveness of Analytics also in the HR area;

— the launch in Italy of a pilot project of an application dedicated to self-development and monitoring of one's own well-being;

— support for the start-up of the new Internal Audit and Compliance functions and the definition of the Digital Task Force;

— the revision of the Hay Grade of all the Group's corporate positions.

With reference to *Communication reputation & networking*, the following were launched:

— the Company's institutional profiles on the social platforms of Instagram and Facebook, to increase the company's visibility even among a public that is not necessarily technical and potentially younger, dedicating more space to the value enhancement of

De Nora people, through multimedia content and a more fresh and direct language;

— a program of selection, training and activation, among employees, of a community of "ambassadors" who contribute to strengthening the reputation on social media and in every initiative in which they will be involved: presentations, open/career days in target schools and universities, events organized with local communities and associations.

More details on the *People Development* pillar are provided in paragraph *Human Resources Development and Management*.

Information for the investors

Stock market performance

The performance of the international stock markets in 2022 was impacted by the uncertainties relating to the international geopolitical tensions linked to the conflict in Ukraine and in part to the continuation of the effects of the COVID pandemic in some regions.

The markets were also affected by the inflationary tensions recorded both in America and in Europe and the consequent announcements relating to the increase in the cost of money by the Central Banks. Consequently, the main European equity indices reported overall negative performance, despite the recoveries that occurred in the fourth quarter of the financial year: the FTSE MIB index fell by 14.5% while the Euro Stoxx 600 was negative by 13.3%.

Industrie De Nora share

Despite the high volatility and phases of uncertainty that characterized the stock markets in 2022, De Nora successfully completed its listing on the Euronext Milan market on June 30.

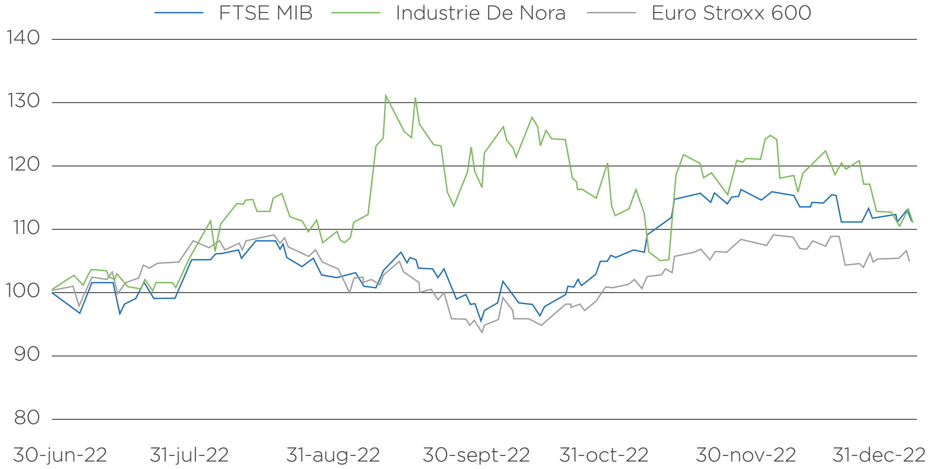
Starting from the listing date until the end of the year, the stock recorded a positive trend with an overall performance of 11.2% (+6.2% compared to the IPO price), managing to positively interpret the recovery that has concerned the Italian and European stock market in the second half of the financial year (FTSE MIB +11.3%, Euro Stoxx 600 +4.3%), demonstrating the interest and appreciation of national and international investors for the Equity Story of the Group characterized by a strong positioning in enabling technologies for the energy transition with particular reference to the green hydrogen segment.

The average daily volumes traded in the period between listing and the end of the 2022 financial year were equal to 0.23 million shares with an average unit price of Euro 14.82 per share.

During the first six months of listing, De Nora developed numerous contacts with the Italian and international financial community, conducting an intense investor relations activity through roadshows both in person and virtually, conferences organized by leading national and international brokers, and conference calls following the publication of quarterly results. Engagement with investors plays a key role for the Group and will continue to be further developed and strengthened over the next few financial years.

Industrie De Nora share - Euronext Milan (Euro)	Period June 30, 2022 - December 31, 2022
IPO price	13.50
Maximum (September 9, 2022)	16.89
Minimum (June 30, 2022)	12.90
Average	14.82
End of period (December 31, 2022)	14.34
Capitalization at December 31, 2022 – € million	2,892

Performance of Industrie De Nora shares in the period June 30, 2022—December 31, 2022, compared with the FTSE MIB and Euro Stoxx 600 indices



Data source: Bloomberg

Share Capital of Industrie De Nora S.p.A. as at December 31, 2022		
	Number of shares	Number of voting rights
Share capital	Euro 18,268,203.90	Euro 18,268,203.90
Total shares	n. 201,685,174	n. 517,256,524
Ordinary shares	n. 43,899,499	n. 43,899,499
Multiple voting shares (1)	n. 157,785,675	n. 473,357,025

(1) Owned by the shareholders Federico De Nora, Federico De Nora S.p.A., Norfin S.p.A. and Asset Company 10 S.r.l. Multiple voting shares are not admitted to trading on Euronext Milan and are not counted in the free float and market capitalization value. The multiple voting shares grants 3 votes at the shareholders' meeting.

Alternative Performance Indicators

In this document, in addition to the financial measures provided for by International Financial Reporting Standards (IFRS), a number of measures derived from the latter are presented even though they are not provided for by IFRS (Non-GAAP Measures) in line with ESMA's guidelines on Alternative Performance Indicators (ESMA/2015/1415 Guidelines, adopted by CONSOB with Communication No. 92543 of December 3, 2015) published on October 5, 2015. These measures are presented in order to enable a better assessment of the Group's operating performance and should not be regarded as alternatives to IFRS. Specifically, the Non-GAAP Measures used are as follows:

— EBITDA is defined as the adjusted profit for the period for the following items of the consolidated income statement: (i) income taxes; (ii) financial charges; (iii) finance income; (iv) share of profit of equity-accounted investees; (v) amortization/depreciation; (vi) impairment and reinstatement of property, plant and equipment; (vii) impairment of goodwill and provisions for risks and charges net of the related releases and utilization, included in the following items of the consolidated income statement: (i) costs for raw materials, consumables, supplies and goods, (ii) personnel expenses, (iii) costs for services, and (iv) other operating expenses.

— Adjusted EBITDA is defined as EBITDA adjusted for certain charges/(income) of a non-recurring nature.

— EBITDA Margin is calculated as the ratio of EBITDA to Revenues.

— Adjusted EBITDA Margin is calculated as the ratio of Adjusted EBITDA to Revenues.

— Adjusted EBIT is defined as EBIT adjusted for: (i) certain charges/(income) of a non-recurring nature; (ii) certain Net provisions and utilizations of provisions for risks and charges of a non-recurring nature.

— Net operating working capital: is determined as the algebraic sum of the following items contained in the Statement of financial position:

- Inventory
- Trade receivables (current portion)
- Trade payables (current portion)
- Construction contracts and Liabilities for contract work in progress

— Net working capital: is determined as the algebraic sum of Net operating working capital and the following items contained in the Statement of financial position:

- Other receivables (current portion)
- Current tax assets (current portion)
- Other payables (current portion)
- Current income tax payables

— Net invested capital: is determined as the algebraic sum of:

- the Net working capital
- the Non-current asset
- net of Employee benefits, Provisions for risks and charges, Deferred tax liabilities, Trade payables (non-current portion), Income tax payables, and Other payables (non-current portion).

— Net Financial Indebtedness - ESMA is determined in accordance with CONSOB Communication DEM/6064293 of July 28, 2006, as amended by CONSOB Communication No. 5/21 of April 29, 2021 and in accordance with ESMA Recommendations contained in Guidelines 32-382-1138 of March

4, 2021 on disclosure requirements under the Prospectus Regulation.

- Net Financial Indebtedness - De Nora as monitored by the Group's management. This indicator differs from Net Financial Indebtedness - ESMA in that it includes the fair value of financial instruments subscribed for the purpose of hedging exchange rate fluctuations.

Events that occurred in 2022

On June 30, 2022, Industrie De Nora S.p.A. completed the process of listing its ordinary shares on Euronext Milan market following (i) the measure of admission to listing on Euronext Milan of the shares, and the measure of admission to trading of the company's shares, issued by Borsa Italiana on June 21, 2022 and June 28, 2022, respectively; and (ii) the communication by the Commissione Nazionale per le Società e la Borsa ("CONSOB") of the measure of approval of the Prospectus relating to the admission to listing on Euronext Milan, market organized and managed by Borsa Italiana S.p.A., of the ordinary shares of Industrie De Nora S.p.A. The free float required for the purpose of listing was obtained through a private placement reserved for qualified investors pursuant to Regulation (EU) 1129/2017 in the European Economic Area and the United Kingdom and institutional investors abroad, pursuant to Regulation S of the U.S. Securities Act of 1933, as amended (the "Securities Act"), as well as in the United States of America, limited to Qualified Institutional Buyers, as defined in Rule 144A of the Securities Act and in accordance with the provisions therein, in each case to the extent permitted by the laws and regulations of the relevant country. No public offering has been made in Italy and/or in any other country.

On May 27, 2022, De Nora Italy Hydrogen Technologies S.r.l. was established, a newco held 90% by Industrie De Nora S.p.A. and the remaining 10% by Snam S.p.A.

Business Performance

Comments on the economic and financial results of the Group

Revenues for the year amounted to Euro 852.8 million, of which approximately Euro 473.4 million is attributable to the Electrode Technologies segment, Euro 336.7 million to the Water Technologies segment and Euro 42.7 million to the Energy Transition segment, with an overall increase of 38% compared to Euro 615.9 million in 2021. At constant exchange rates, the Group's revenues would have been around Euro 818 million.

EBITDA reached Euro 165.2 million up from Euro 121.2 million in 2021 (+36%), while Adjusted EBITDA was almost Euro 191 million, up 51% from Euro 126.7 in the previous financial year.

Similarly, the operating result (EBIT) of Euro 125.8 million, recorded an increase of 44% compared to the previous financial year, while the Adjusted EBIT stood at Euro 151.1 million, +62% compared to Euro 93.4 million in 2021.

The share of profit of equity investments, valued at equity, referring to the 34% stake in tk nucera, was negative for Euro 1.2 million, compared to the positive Euro 8.8 million in 2021. The result for the year includes the net profit of the associated company for the period from January 1, 2022 to 31 December 2022 (Euro 5.1 million is De Nora's portion of the result), but reflects some negative adjustments referring to the financial year ended December 31, 2021, which became known only after the date of approval of the Consolidated Financial Statements of Industrie De Nora S.p.A. as at December 31, 2021.

Financial activity showed net charges of Euro 4.2 million, compared to Euro 2.9 million in the previous financial year.

After income taxes for the period, including current and deferred, which together totalled Euro 30.8 million (compared to Euro 27.1 million in 2021), the financial year closed with a Net Profit (parent company's portion) of Euro 89.6 million, a significant improvement over the Euro 66.7 million in the comparative financial year.

At the statement of financial position level, net invested capital of Euro 693 million (Euro +50 million compared to the end of 2021) corresponds to an equity of Euro 745 million (Euro 291 million higher than at December 31, 2021, including Euro 200 million in capital increase, net of transaction costs) and net financial assets of approximately Euro 52 million (compared to net debt of approximately Euro 189 million at the end of 2021). The net financial position, which improved by about Euro 241 million, benefited from the capital increase to support the institutional placement of Industrie De Nora S.p.A.'s ordinary shares and was affected by Euro 20 million in dividends distributed during the financial year.

The increase in net invested capital is attributable to both net operating working capital which, at the end of 2022, amounted to Euro 355 million, up by Euro 31 million compared to the end of 2021, essentially as a result of the increase in inventories, and to the increase in non-current assets (Euro 438 million at the end of 2022, approximately Euro +16 million compared to the previous financial year) as a result of the investments made during the financial year.

Investments of the Group

The table below shows the breakdown by category of the investments made by the Group in property, plant and equipment and intangible assets in the financial years ended December 31, 2022 and 2021:

	At December 31			
	2022	% of total investments	2021	% of total investments
	(in € thousands except percentages)			
Buildings	1,263	2.54%	1,406	4.10%
Plants and machinery	2,286	4.60%	5,267	15.40%
Other assets	710	1.43%	864	2.50%
Leased assets	8,053	16.19%	1,261	3.70%
Rights of use of Property, Plant and Equipment:	3,588	7.21%	3,277	9.60%
- of which Buildings	*3,386*	*6.81%*	*3,017*	*8.80%*
- of which Other assets	*202*	*0.41%*	*260*	*0.80%*
Assets under construction and advance payments	25,803	51.89%	15,108	44.10%
Total Property, Plant and Equipment	41,704	83.86%	27,183	79.30%
Industrial patents and intellectual property rights	411	0.83%	398	1.20%
Concessions, licences and trademarks	719	1.45%	1,228	3.60%
Development costs	1,022	2.06%	82	0.20%
Assets under construction and advance payments	5,874	11.81%	5,375	15.70%
Total Intangible assets	8,026	16.14%	7,083	20.70%
Total investments	49,730	100.00%	34,267	100.00%

During the period under review, the Group invested a total of Euro 49,730 thousand, of which Euro 41,704 thousand related to property, plant and equipment and Euro 8,026 thousand related to intangible assets. Investments in property, plant and equipment included increases in the rights of use of property, plant and equipment equal to Euro 3,588, thousand and Euro 3,277 thousand, in the financial years ended December 31, 2022 and 2021, respectively. These investments mainly refer to buildings for industrial use and warehouses, in addition to other assets mainly relating to motor vehicles and industrial vehicles and office equipment.

Investments in Property, Plant and Equipment

Investments in property, plant and equipment for the financial year ended December 31, 2022, excluding increases in the rights of use of property, plant and equipment, amounted to a total of Euro 38,116 thousand and mainly refer to:

(i) leased assets for Euro 8,053 thousand related to anodes to be leased within the Electrode Technologies business segment;

(ii) buildings for Euro 1,263 thousand relating to buildings in Italy, Germany and the United States;

(iii) plant and machinery for Euro 2,286 thousand, mainly related to the plant in Germany intended primarily for the expansion of production capacity to support the expansion of the Energy Transition business segment.

(iv) assets under construction amounting to Euro 25,803 thousand, of which Euro 14,702 thousand related to plant and machinery, Euro 2,797 thousand to buildings, Euro 413 thousand to anodes to be leased and related to the Electrode Technologies business segment, and Euro 942 thousand to other assets under construction. Advance payments of Euro 6,949 relate to the subsidiaries De Nora Elettrodi (Suzhou) Co., Ltd for the purchase of an electrode coating oven and for works on buildings and equipment for the expansion of the coating area, and De Nora Deutschland GmbH for the purchase of a laser cutting machine for the production of electrodes for the Energy Transition business segment and for the purchase and installation of solar panels.

Among the most important investments in progress are those related to: (i) a project that includes both the upgrading of the production plant located in Germany for the purpose of electrode production with Alkaline Water Electrolysis (AWE) technology and the design of new (greenfield) plants envisaged in the Company's business plan related to AWE technology; (ii) new investments and extraordinary maintenance work on existing plant and machinery mainly in Germany, the United States, China, Italy, Brazil, Japan and India; (iii) laboratory equipment to serve R&D activities in Italy mainly intended for alkaline water electrolysis (AWE) technology related to the Energy Transition segment; (iv) hardware related to the implementation of firewalls to improve the security of the Group's IT systems; and (v) expansion and extraordinary maintenance work on buildings in Italy, Germany, Japan and Brazil.

Investments in intangible assets

Investments in intangible assets for the financial year ended December 31, 2022 amounted to Euro 8,026 thousand and mainly refer to:

(i) industrial patent rights and intellectual property rights for Euro 411 thousand, mainly attributable to the registration and acquisition of industrial patents in Italy;

(ii) concessions, licenses and trademarks for Euro 719 thousand, mainly relating to the implementation of SAP management system and other ICT systems;

(iii) product development costs relating to the Water Technologies business segment for Euro 1,022 thousand;

(iv) intangible assets under construction as of December 31, 2022 in the amount of Euro 5,874 thousand, related to industrial patents and intellectual property rights attributable to the registration and acquisition of industrial patents by the Japanese subsidiary De Nora Permelec Ltd, concessions, licences and trademarks mainly related to the implementation of the SAP management system and other ICT systems, and other intangible assets mainly related to product development costs and certifications pertaining to the Water Technologies business segment.

Consolidated Income Statement, Reclassified

	At December 31			
in € thousands	2022		2021	
Revenue	852,826	95.4%	615,878	94.0%
Change in inventory of finished goods and work in progress	34,815	3.9%	35,324	5.4%
Other income	6,451	0.7%	4,009	0.6%
Value of production	894,092	100.0%	655,211	100.0%
Material Consumption	(401,752)	-44.9%	(290,977)	-44.4%
Personnel costs	(154,657)	-17.3%	(116,769)	-17.8%
External services	(162,110)	-18.1%	(116,415)	-17.8%
Other operating expenses/income	(10,397)	-1.2%	(9,845)	-1.5%
EBITDA	165,176	18.5%	121,206	18.5%
Amortization of intangible assets	(9,758)	-1.1%	(9,726)	-1.5%
Depreciation of property, plant and equipment	(18,365)	-2.1%	(16,508)	-2.5%
Write-downs, accruals and releases of provisions for risks	(2,255)	-0.3%	(4,432)	-0.7%
Impairment and write-backs	(8,988)	-1.0%	(2,947)	-0.4%
Operating profit (EBIT)	125,809	14.1%	87,593	13.4%
Share of profit of equity-accounted investees	(1,196)	-0.1%	8,834	1.3%
Finance income	23,505	2.6%	13,456	2.1%
Finance expenses	(27,689)	-3.1%	(16,330)	-2.5%
Profit before tax	120,430	13.5%	93,553	14.3%
Income taxes	(30,765)	-3.4%	(27,108)	-4.1%
Profit for the period	89,665	10.0%	66,445	10.1%
Attributable to:				
Owners of the parent	89,564	10.0%	66,696	10.2%
Non-controlling interests	101	0.0%	(251)	0.0%
EBITDA	165,176	18.5%	121,206	13.6%
Non-recurring costs (income)	25,655		5,502	
Adjusted EBITDA	190,831	21.3%	126,708	14.2%
Operating Profit (EBIT)	125,809	14.1%	87,593	9.8%
Non-recurring costs (income)	25,655		5,502	
Accrual/(utilization) of provisions for risks	(344)		344	
Adjusted Operating Profit (EBIT)	151,120	16.9%	93,439	10.5%

Consolidated Statement of Financial Position, Reclassified

	At December 31			
in € thousands	2022		2021	
Trade receivables	123,421		139,974	
Trade payables	(80,554)		(61,425)	
Inventory	295,476		233,033	
Construction contracts, net of progress payments and advances	16,432		12,351	
Net Operating Working Capital	354,775	51.2%	323,933	50.4%
Other current assets/(liabilities)	(74,620)		(69,641)	
Net Working Capital	280,155	40.4%	254,292	39.6%
Goodwill and intangible assets	131,552		132,805	
Property, plant and equipment	184,177		167,627	
Equity-accounted investees	122,664		121,785	
Non-current assets	438,393	63.3%	422,217	65.7%
Employee benefits	(20,628)	(3.0)%	(26,036)	(4.1)%
Provisions for risks and changes	(20,688)	(3.0)%	(21,105)	(3.3)%
Deferred tax assets/(liabilities)	4,432	0.6%	154	0.0%
Other non-current assets/(liabilities)	11,174	1.6%	13,266	2.1%
Net Invested Capital	692,838	100.0%	642,788	100.0%
Covered by:				
Medium/long term financial debt	(267,544)		(3,784)	
Short-term financial debt	(13,655)		(258,449)	
Financial assets and derivatives	158,392		478	
Cash and cash equivalents	174,129		73,843	
Net Financial Indebteness—ESMA*	51,322	7.4%	(187,912)	(29.2)%
Fair value of financial instruments	644		(914)	
Net Financial Indebteness—De Nora	51,966	7.5%	(188,826)	(29.4)%
Equity attributable to minority interests	(3,586)	(0.5)%	(3,503)	(0.5)%
Equity attributable to the Parent	(741,218)	(107.0)%	(450,459)	(70.1)%
Total Equity and Minority interests	(692,838)	(100.0)%	(642,788)	(100.0)%

Reconciliation of the result for the year and equity of Industrie De Nora S.p.A. and the Group

The result for the year and equity of the Company are reconciled with those of the Group taken from the consolidated financial statements in the table below:

	At December 31, 2022	
	Profit for the year	Equity
	(in € thousands)	
As for the financial statements of the Parent Company	11,814	482,828
Dividends collected by the Parent Company	(17,670)	-
Equity-accounted investments in JV/associates (net of deferred taxes)	(1,183)	20,039
Adjusted profit of subsidiaries and difference between adjusted equity of the consolidated companies and relevant carrying amount	96,673	241,759
Consolidated entries of the Parent Company	31	178
As of the Consolidated Financial Statements of the De Nora Group	89,665	744,804

Financial performance of the companies of the Group

The parent company **Industrie De Nora S.p.A.**, the Group's Holding Company, does not generate business revenues derived directly from core business activities. The Company closed the financial year with a negative operating result of about Euro 4.3 million after the write-down of the investments in the subsisiaries De Nora Water Technologies Italy S.r.l. and De Nora ISIA S.r.l., a pre-tax profit of Euro 14.5 million, thanks to dividends received from its subsidiaries, and a net profit for the year of Euro 11.8 million, after recognising the tax effects within the framework of the national tax consolidation in place with the other Italian subsidiaries De Nora Italy S.r.l., De Nora Water Technologies Italy S.r.l., De Nora ISIA S.r.l. and Capannoni S.r.l. In the absence of industrial activities, the revenue for the Company derives essentially from the services provided by the following Corporate functions: Administration, Finance and Control, ICT, Human Resources, Global Procurement, Production Technology, Marketing, Business Development, Product Management, Global Operations, and by the royalties paid by the subsidiaries for the use of patents, trademarks and know-how (intellectual property).

De Nora Tech LLC (USA) made a decisive contribution in 2022 to the improvement of the Group's results thanks to a contribution of revenues of Euro 214 million, compared to Euro 140 million in 2021.

De Nora Permelec Ltd. (Japan) reported revenues in 2022 (only third parties) of Euro 159 million, also a significant increase compared to the Euro 120 million realized in the previous financial year.

De Nora Deutschland GmbH (Germany) also recorded a significant increase in revenues compared to the previous financial year, with Euro 144 million in revenues in 2022, compared to Euro 90 million in 2021.

In 2022, **De Nora Water Technologies LLC** (USA) generated revenues from third parties of approximately Euro 64 million, up compared to Euro 42 million in the previous financial year. In the entire 2022 financial year, De Nora Marine Technologies LLC achieved revenues from third parties of approximately Euro 11 million, down slightly compared to Euro 12 million in 2021. Both companies benefited in 2022 from the contribution of the business lines relating to the former De Nora UV Technologies LLC, transferred to them at the beginning of 2022 after the acquisition of the company in mid-2021. In the post-acquisition half-year 2021, De Nora UV Technologies LLC had revenues of almost Euro 6 million. Also in the United States, De Nora Neptune contributed revenues of approximately Euro 5 million, in line with the previous financial year.

The Chinese subsidiaries De Nora China Suzhou and De Nora Jinan, operating in the Electrode Technologies Business, jointly contributed revenues for Euro 55 million, compared to approximately Euro 40 million in 2021. The Chinese companies operating in the Water Technologies Business, on the other hand, have reduced their revenues from third parties compared to the previous year, with approximately Euro 22 million realized in the year just ended compared to Euro 36 million in 2021; the reduction in revenues reflects both the slowdowns due to the lockdown of the Shanghai area, and an exceptionally high volume of revenues in 2021 in China due to a significant backlog at the end of 2020.

In Italy, De Nora Italy S.r.l. achieved a significant improvement in revenues from third parties, which amounted to approximately Euro 65 million in 2022, almost double the previous year's figure; the Italian company in the Water Technologies segment (De Nora Water Technologies Italy S.r.l.) showed a slight decrease in revenues, with Euro 16.5 million generated in 2022, almost Euro 2 million less than the previous financial year. While De Nora ISI S.r.l., already with a view to the subsequent merger in 2023 into De Nora Water Technologies Italy S.r.l., has generated revenues of almost Euro 2 million in 2022, down from the almost Euro 3 million realized in the second half of 2021 alone after its acquisition.

The Brazilian company De Nora do Brasil Ltda recorded a significant increase in revenues from third parties, amounting to almost Euro 26 million in 2022, compared to Euro 17 million in 2021.

The Singapore branch operating in the Electrode Technologies Business posted further growth in revenue contribution in 2022, approaching Euro 28 million in the financial year just ended, almost Euro 3 million more than in the previous year; while the Singapore branch operating in the Water Technologies Business contributed over Euro 16 million in revenue in 2022, also an improvement over the Euro 14 million in 2021.

De Nora India Ltd posted revenues (from third parties) of more than Euro 8 million in 2022, which more than doubled from almost Euro 4 million in the previous financial year.

De Nora Water Technologies UK Services Limited (UK) came close to Euro 8 million in revenues from third parties in 2022, compared to almost Euro 7 million in the previous financial year.

In the United Arab Emirates, the De Nora Water Technologies Free Zone Establishment in Dubai and the Abu Dhabi branch of De Nora Water Technologies LLC cumulatively generated revenues of almost Euro 8 million in 2022, up from Euro 2 million in the previous financial year.

Revenue, EBITDA and Capex by Business Segment

As of December 31, 2022, the Group is organized into three business segments each with its own portfolio of specific products and services:

- Electrode Technologies Business;
- Water Technologies Business;
- Energy Transition Business, whose activities until December 31, 2021 were included in the Electrode

Technologies Business and from 2022 are monitored separately. For comparative purposes, the Energy Transition Business for the financial year ended December 31, 2021 is shown separately in the following tables only at the revenue level, as the EBITDA figures are not available and therefore remain included in the Electrode Technologies segment.

The following tables show the Group's revenues for each business segment, for the two financial years ended December 31, 2022 and 2021.

Revenues by *Business Line*	2022	% of total revenues	2022 constant exchange rates	2021	2022 vs 2021	2022 vs 2021 at constant exchange rates
			(in € thousands)			
Electrode Technologies	473,444	56%	465,217	348,817	124,627	116,400
Water Technologies	336,719	39%	309,767	257,668	79,051	52,100
Energy Transition	42,663	5%	43,070	9,393	33,270	33,676
Total Revenue	852,826	100%	818,054	615,878	236,948	202,176

Revenues by *geographical area* and by *business* segment	2022	% of revenues	2021	% of revenues
		(in € thousands)		
Electrode Technologies	473,444	56%	348,817	56%
EMEIA	150,412	18%	106,187	17%
AMS	103,321	12%	78,033	12%
ASIA	219,711	26%	164,597	27%
Water Technologies	336,719	39%	257,668	42%
EMEIA	83,885	10%	55,081	9%
AMS	178,376	21%	114,511	19%
ASIA	74,458	9%	88,076	14%
Energy Transition	42,663	5%	9,393	2%
EMEIA	34,920	4%	5,265	1%
AMS	323	0%	30	0%
ASIA	7,420	1%	4,098	1%
Total Revenue	852,826	100%	615,878	100%

At consolidated level, revenues stood at Euro 852.8 million, of which Euro 473.4 million in the Electrode Technologies segment, Euro 336.7 million in the Water Technologies segment, and Euro 42.7 million in the Energy Transition segment. In particular, total revenues were up by Euro 236.9 million during the financial year, with a positive exchange rate effect of Euro 34.8 million. At constant exchange rates, the Group's revenues in 2022 would have increased by Euro 202.2 million compared to the previous financial year.

EBITDA by business segment

EBITDA by *business* segment	2022	% (total)	2021	% (total)
	(in € thousands and as a percentage of segment revenues)			
Electrode Technologies	107,980	65%	82,659	68%
Water Technologies	55,987	34%	38,547	32%
Energy Transition	1,209	1%		
Total	165,176	100%	121,206	100%

	2022				2021		
Non-recurring costs (income) by Business segment	Electrode Technologies	Water Technologies	Energy Transition	Total	Electrode Technologies	Water Technologies	Total
	(in € thousands)						
Costs related to the fire in De Nora Deutschland GmbH	-	-	-	-	1,244	-	1,244
Termination costs	24	464	-	488	109	417	526
IPO costs	1,993	1,418	228	3,639	701	495	1,196
M&A, integration, and company reorganization costs	303	-	-	303	-	870	870
Start-up cost of De Nora Tech, LLC – US plant	1,164	-	-	1,164	605	-	605
COVID-19 costs	-	-	-	-	460	38	498
Advisory costs for special projects	505	-	-	505	323	168	491
Management Incentive Plan	10,748	7,643	969	19,360	-	-	-
Other non-recurring costs	39	154	3	196	42	30	72
Total	14,776	9,679	1,200	25,655	3,484	2,018	5,502

Adjusted EBITDA by business segment	2022	% of the total	2021	% of the total
	(in € thousands)			
Electrode Technologies	122,756	64%	86,143	68%
Water Technologies	65,666	35%	40,565	32%
Energy Transition	2,409	1%		
Total	190,831	100%	126,708	100%

Group EBITDA increased by Euro 44 million (+36.3%) from Euro 121.2 million in the financial year ended December 31, 2021 to Euro 165.2 million in the financial year ended December 31, 2022.

The increase is seen on both the Electrode Technologies and Water Technologies segments, and is proportionally larger on the Water Technologies segment, with its contribution to Group EBITDA increasing from 32% in 2021 to 35% in 2022.

Adjusted EBITDA increased by Euro 64.1 million (+50.6%), from Euro 126.7 million in the financial year ended December 31, 2021 to Euro 190.8 million in the financial year ended December 31, 2022.

Adjusted EBITDA margin increased from 20.6% in the financial year ending December 31, 2021 to 22.4% in the financial year ending December 31, 2022.

CAPEX by business segment

Capex by business segment	2022	% of total Capex	2021	% of total Capex
		(in € thousands)		
Intangible	8,026	17%	7,083	23%
Electrode Technologies	1,940	4%	971	3%
Water Technologies	5,941	13%	5,601	18%
Energy Transition	104	0%	-	-
Not Allocated	41	0%	511	2%
Tangible	38,116	83%	23,906	77%
Electrode Technologies	28,029	62%	21,270	69%
Water Technologies	2,074	4%	2,535	8%
Energy Transition	7,539	16%	-	-
Not Allocated	474	1%	101	0%
Total Capex	46,142	100%	30,989	100%

Electrode Technologies Business

Electrode Technologies' core business is the production and sale mainly of:

- electrodes used for the production of (a) basic chemicals (chlorine, caustic soda and their derivatives), (b) printed circuits for the electronics industry and critical components for the manufacture of lithium batteries such as foil copper;
- catalytic coatings that use noble metals such as iridium, ruthenium, platinum, palladium and rhodium, the formulations of which, many of them patented, have been developed by the Group and differ according to the many applications in electrochemical processes;
- electrolytic cells for chlorine and caustic soda production, as well as their components and other accessories, and anode structures complete with accessories for the production of non-ferrous metals (nickel, cobalt).

For the financial year ended December 31, 2022, the Electrode Technologies Business represented 56% of the Group's revenues.

The table below shows the revenues generated by the Electrode Technologies Business for the financial years ended December 31, 2022 and December 31, 2021, broken down by business lines.

	2022	%	2022 constant exchange rates	2021	Δ 2022 vs 2021	Δ 2022 vs 2021 at constant exchange rates
	(in € thousands and as a percentage of segment revenues)					
Chlor-alkali	319,161	67%	312,295	236,871	82,290	75,424
Electronics	88,284	19%	88,882	75,804	12,480	13,078
Specialties and New Applications	65,999	14%	64,040	36,142	29,857	27,898
Total Electrode Technologies	473,444	100%	465,217	348,817	124,627	116,400

Revenues related to the Electrode Technologies Business segment increased by Euro 124,627 thousand (+35.7%), from Euro 348,817 thousand in the year ended December 31, 2021 to Euro 473,444 thousand in the year ended December 31, 2022. The growth is significant in all lines and can be attributed to both the increase in prices as a result of higher purchase costs for noble metals (pass-through) and volume increases.

At constant exchange rates, revenues related to the Electrode Technologies Business would have increased by Euro 116,400 thousand (+33.4%), from Euro 348,817 thousand in the year ended December 31, 2021 to Euro 465,217 thousand in the year ended December 31, 2022.

Chlor-alkali

Revenues from the Chlor-alkali line increased by Euro 82,290, thousand (+34.7%), from Euro 236,871 thousand in the year ended December 31, 2021 to Euro 319,161 thousand in the year ended December 31, 2022. This increase is mainly attributable to:

- the increase of Euro 42,146 thousand in sales of the Membrane product line, equally distributed between the volume effect for new opportunities in Asia and the effect of the increase in the price of noble metals;
- the increase of Euro 27,694 thousand in sales of the hydrochloric acid (HCl) product line due to new maintenance projects commissioned

by third-party customers to tk nucera, which in turn is supplied by the Group;

- the increase of Euro 12,342 thousand in sales of the Diaphragm product line mainly due to the volume effect of services in Latin America and EMEIA and the exchange rate effect of sales in USD.

At constant exchange rates, revenues related to the Chlor-alkali line would have increased by Euro 75,424 thousand (+31.8%), from Euro 236,871 thousand in the year ended December 31, 2021 to Euro 312,295 thousand in the year ended December 31, 2022. For the year ended December 31, 2022, the Chlor-alkali business line accounted for 67% of Electrode Technologies segment revenues and 37.4% of the Group's total revenues.

Electronics

Revenues from the Electronics line increased by Euro 12,480 thousand (+16.5%), from Euro 75,804 thousand in the year ended December 31, 2021 to Euro 88,284 thousand in the year ended December 31, 2022. This increase is attributable to both the price increase resulting from higher noble metal prices and the volume effect in China. At constant exchange rates, revenue for the Electronics line would have increased by Euro 13,078 thousand (+17.3%). For the year ended December 31, 2022, the Electronics business line accounts for 19% of the Electrode Technologies segment's revenues and 10.3% of the Group's total revenues, respectively.

Specialties and new applications

Revenues related to Specialties and New Applications increased by Euro 29,857 thousand (+82.6%), from Euro 36,142 thousand in the year ended December 31, 2021 to Euro 65,999 thousand in the year ended December 31, 2022. This increase is mainly attributable to:

- a Euro 13,969 thousand increase in Electrowinning product line revenues, especially in EMEIA, due to new orders from the Russian customer Norilsk Nickel. For more information on the management of relations with entities operating in Russia, please refer to section "Other Information —Russian-Ukrainian Conflict" in the explanatory notes to these consolidated financial statements;
- the increase of Euro 5,545 thousand related to electrode revenues intended for the electrochemical synthesis of sodium chlorate mainly in the Americas and Asia;
- the increase of Euro 5,015 thousand in revenues related to electrodes for Systems and Plants in Japan;
- the increase of Euro 5,327 thousand in revenues related to other materials and other product lines.

At constant exchange rates, revenues related to Specialties and New Applications would have increased by Euro 27,898, thousand (+77.2%), from Euro 36,142 thousand in the year ended December 31, 2021 to Euro 64,040 thousand in the year ended December 31, 2022. For the year ended December 31, 2022, Specialties and New Applications accounted for 14% of Electrode Technologies segment revenues and 7.7% of total Group revenues, respectively.

The following table shows the revenues generated by the Electrode Technologies Business for the financial years ended December 31, 2022 and 2021, broken down by new installations or newly constructed facilities ("New Installations") and periodic maintenance or modernization services for existing plants and facilities ("Services").

	2022	%	2021	%
	(in € thousands and as a percentage of segment revenues)			
New Installations	272,230	57%	180,926	52%
Services	201,214	43%	167,891	48%
Total Revenue	473,444	100%	348,817	100%

New Installations accounted for 57% of the segment's turnover for 2022, up from 2021.

Services during 2022 accounted for 43% of the segment's turnover; the related activities include the periodic maintenance of the electrodes or replacement with new products and/or latest generation products capable of improving the performance of the process for which they are intended, supply of spare parts, design and re-engineering of the electrodes, technical assistance, lease contracts, performance monitoring, laboratory analysis.

In particular, the electrodes at the end of their useful life must be replaced or suitably treated in order to restore the catalytic coating through a process called re-coating or reactivation. The re-coating process allows the metal structure of the electrode, whether titanium or nickel, to be preserved and a new coating to be applied, thus allowing the initial characteristics of the electrode to be restored.

The continuous improvement of the product portfolio allows the Group to offer customers technologies capable of responding to new process targets and market demands also in terms of sustainability. In particular, in the Electrode Technologies Business, the extension of the customer base is a significant growth factor for Services sales.

	2022	2021	∆ 2022 vs 2021
		(in € thousands)	
Electrode Technologies EBITDA	107,980	82,659	25,321
Electrode Technologies Adjusted EBITDA	122,756	86,142	36,614

EBITDA related to the Electrode Technologies Business increased by Euro 25,321 thousand (+30.6%), from Euro 82,659 thousand in the year ended December 31, 2021 to Euro 107,980 thousand in the year ended December 31, 2022. This increase is mainly attributable to the increase in revenues described above.

Adjusted EBITDA recorded an increase of Euro 36,614 thousand (+42.5%), from Euro 86,142 thousand in the year ended December 31, 2021 to Euro 122,756 thousand in the year ended December 31, 2022, with an incidence on revenues of the segment, which increased from 24.7% in the year ended December 31, 2021 to 25.9% in the year ended December 31, 2022.

Water Technologies Business

The main activity of the Water Technologies Business is the manufacture and sale of equipment, systems and technologies used in the water treatment sector. The Group has long experience in the water treatment sector and a broad portfolio of products and solutions that meet a wide range of requirements for the treatment of various types of water.

In particular, the Group develops, manufactures, and sells systems and technologies for swimming pool disinfection, electrochlorination of seawater and brine for on-site production of low concentration sodium hypochlorite, disinfection and filtration of drinking water and wastewater, and water treatment systems in marine applications.

In addition to supplying equipment, products, and systems for new installations or newly constructed facilities ("New Installations"), the Group provides after-sales services for maintenance, supply of spare parts, re-engineering of existing systems, on-site or remote monitoring activities, and other services that maintain product performance while ensuring consistency in treated water quality ("Services").

The table below shows the revenues generated by the Water Technologies Business for the financial years ended December 31, 2022 and December 31, 2021, broken down by business lines.

	2022	%	2022 constant exchange rates	2021	△ 2022 vs 2021	△ 2022 vs 2021 at constant exchange rates
	(in € thousands and as a percentage of segment revenues)					
Pools	161,751	48%	147,438	98,228	63,523	49,210
Electrochlorination	84,607	25%	78,918	63,314	21,293	15,604
Disinfection and Filtration	79,061	24%	73,349	83,073	(4,012)	(9,724)
Marine technologies	11,300	3%	10,062	13,053	(1,753)	(2,991)
Total Water Technologies	336,719	100%	309,767	257,668	79,051	52,009

Revenues relating to the Water Technologies Business segment recorded an increased by Euro 79,051 thousand (+30.7%), from Euro 257,668 thousand in the financial year ended December 31, 2021 to Euro 336,719 thousand in the financial year ended December 31, 2022. This increase is mainly attributable to an increase in revenues relating to the Swimming pools business line and the Electrochlorination product line. In contrast, the Disinfection and Filtration business line and the Marine Technologies business line saw their 2021 revenue levels decline (by 4.8% and 13.4%, respectively). Overall, revenues are up in all geographic areas except Asia, mainly as a consequence of the months of lockdown in Shanghai due to a new pandemic wave and the so-called "zero-COVID Policy" implemented by the Chinese government.

At constant exchange rates, revenues related to the Water Technologies Business would have increased by Euro 52,099 thousand (+20.2%), from Euro 257,668 thousand in the financial year ended December 31, 2021 to Euro 309,767 thousand in the financial year ended December 31, 2022.

The Water Technologies Business as a percentage of Group revenue decreased slightly from 41.8% in the financial year ended December 31, 2021 to 39.5% in the financial year ended December 31, 2022.

Swimming pools

Revenues from the Swimming pools line increased by Euro 63,523 thousand (+64.7%), from Euro 98,228 thousand in the financial year ended December 31, 2021 to Euro 161,751 thousand in the financial year ended December 31, 2022. This increase can be attributed to both a high level of market demand, especially in the first half of the financial year 2022, still due to the so-called *Staycation* effect, related to the restrictions imposed by the COVID-19 pandemic, and a higher selling price, indexed to that of ruthenium, the noble metal used in the production process, which is on average higher than its value in 2021. In the second half of the financial year ended December 31, 2022, the demand eased and stood at levels of volumes similar to those of the financial year ended December 31, 2021.

At constant exchange rates, revenue related to the Swimming pools line would have increased by Euro 49,210 thousand (+50.1%), from Euro 98,228 thousand in the financial year ended December 31, 2021 to Euro 147,438 thousand in the financial year ended December 31, 2022. For the financial year ending December 31, 2022, the Swimming pools business line represented 48% of Water Technologies revenue and 19% of the Group's total revenue, respectively.

Electrochlorination

Revenues from the Electrochlorination line increased by Euro 21,293 thousand (+33.6%), from Euro 63,314 thousand in the financial year ended December 31, 2021 to Euro 84,607 thousand in the financial year ended December 31, 2022. This increase is mainly attributable to:

(i) increase of Euro 8,809 thousand related to revenues from the installation of OSHG (on-site hypochlorite generation) electrochlorination systems, mainly due to higher revenues in the United States;

(ii) increase of Euro 6,911 thousand in revenues from sales of the electrochlorination of seawater (SWEC) business line, due to a backlog level at the end of 2021, with expected execution in 2022, greater than that recorded at the end of 2020 with expected execution in 2021;

(iii) increase of Euro 3,562 thousand in revenues pertaining to IEM (Brine Electrochlorination Plants) technology, recognized and executed in Asia, by the Japanese subsidiary, which developed this technology, mainly due to the installation of new plants in Latin America and the growing demand the North African, Australian and Middle Eastern markets;

(iv) increase of Euro 2,005 thousand in revenues from sales of "Omnipure" electrolytic water treatment plants, mainly attributable to higher sales of after-market services in North America.

At constant exchange rates, the Electrochlorination line would have recorded an increase in revenue of Euro 15,604 thousand (+24.6%), from Euro 63,314 thousand in the financial year ended December 31, 2021 to Euro 78,918 thousand in the financial year ended December 31, 2022. For the financial year ended December 31, 2022, the Electrochlorination business line represents 25% of the revenues of the Water Technologies Business and 9.9% of the Group's total revenues.

Disinfection and Filtration

Disinfection and Filtration revenues decreased by Euro 4,012 thousand (-4.8%), from Euro 83,073 thousand in the financial year ended December 31, 2021 to Euro 79,061 thousand in the financial year ended December 31, 2022. This change is mainly attributable to the combined effect of the following factors:

(i) decrease of Euro 12,225 thousand in revenues relating to the "bed filter systems" (so-called Deep Bed Filtration) line, predominantly due to two factors both attributable to the Asian region: the aforementioned lockdown of the Shanghai area and an exceptionally high volume of revenues in 2021 in China due to a backlog at the end of 2020 of more than Euro 20 million against a backlog at the end of 2021 of approximately half that amount;

(ii) increase of approximately Euro 4,000 thousand in revenues related to the ultraviolet ray disinfection line, which benefited from the contribution of the acquisition and merger of the relative division from Calgon Carbon UV Technologies LLC, included in the 2021 company scope for only six months;

(iii) increase of Euro 3,791 thousand in revenues related to Media and Chemicals technology, respectively for Euro 3,193 thousand and Euro 598 thousand. For the first case, the expected recovery of the U.S. market due to new regulations for the treatment of pollutants is beginning to take shape. For the second case, the increase is related to the acquisition of orders for after-market services in the United States.

At constant exchange rates, revenues from Disinfection and Filtration would have decreased by Euro 9,724 thousand (-11.7%), from Euro 83,073 thousand in the financial year ended December 31, 2021 to Euro 73,349 thousand in the financial year ended December 31, 2022. For the financial year ended December 31, 2022, the Disinfection and Filtration business line accounted for 23.5% of the Water Technologies Business' revenues and 9.3% of the Group's total revenues.

Marine Technologies

Revenues related to the Marine Technologies line decreased by Euro 1,753 thousand (-13.4%), from Euro 13,053 thousand in the financial year ended December 31, 2021 to Euro 11,300 thousand in the financial year ended December 31, 2022. This decrease is attributable to a less dynamic market scenario and, in this context, the acquisition of orders for the installation of new plants was lower than expected. However, this decrease was partially offset by volumes of revenues deriving from better after-market services, compared to the financial year ended December 31, 2021, for more than Euro 700 thousand.

At constant exchange rates, revenues relating to the Marine Technologies line would have decreased by Euro 2,991 thousand (-22.9%), from Euro 13,053 thousand in the financial year ended December 31, 2021 to Euro 10,062 thousand in the financial year ended December 31, 2022. For the financial year ended December 31, 2022, the Marine Technologies business line accounted for 3% of the Water Technologies business line's revenue and 1.3% of the Group's total revenue.

The following table shows the revenues generated by the Water Technologies Business for the financial years ended December 31, 2022 and 2021, broken down by new installations or newly constructed facilities ("New Installations") and periodic maintenance or modernization services for existing plants and facilities ("Services").

	2022	% of business segment revenues	2021	% of business segment revenues
		(in € thousands)		
New Installations	265,185	79%	202,897	79%
Services	71,534	21%	54,771	21%
Total Revenue	336,719	100%	257,668	100%

New Installations accounted for 79% of the Water Technologies segment's revenue in the financial year 2022, in line with the previous financial year. Within this classification, revenues from the Swimming pools line are entirely included.

Services cover the entire product portfolio and in 2022 accounted for 21% of segment revenues.

These activities include the replacement of electrodes or their reactivation, maintenance of installed equipment and systems, supply of spare parts, and technological improvements (including automation) aimed at maximizing performance and ensuring optimal operation of the products during the entire life cycle. In addition to these activities, the Group offers technical assistance services in the field and remotely, training programs, test agreements and contracts for the use of the systems against a fee linked to the quantity of water treated.

	2022	2021	∆2022 vs 2021
		(in € thousands)	
Water Technologies EBITDA	**55,987**	38,547	17,440
Water Technologies Adjusted EBITDA	**65,666**	40,567	25,099

EBITDA related to the Water Technologies Business segment increased by Euro 17,440 thousand (+45.2%), from Euro 38,547 thousand in the financial year ended December 31, 2021 to Euro 55,987 thousand in the financial year ended December 31, 2022. This increase is mainly attributable to the combined effect of the following factors:

(i) the increase in sales volumes of Euro 79,051 thousand (+30.7%), from Euro 257,668 thousand to Euro 336,719 thousand, described above;

(ii) the improvement of operating margins with an impact on EBITDA in the Water Technologies business segment, especially in the Swimming pools business line, which benefits from a price effect related to ruthenium price fluctuation;

(iii) the increase in operating expenses with an impact on the EBITDA from the Water Technologies business segment less than proportional to the aforementioned increase in revenues. This change is mainly attributable to a containment: (i) in personnel expenses and costs related to general and administrative activities to support the business; (ii) the costs associated with sales force travel and trade shows.

The impact of the EBITDA of the Water Technologies Business segment on the segment revenue increased from 15.0% in the financial year ended December 31, 2021 to 16.6% in the financial year ended December 31, 2022.

Adjusted EBITDA recorded an increase of Euro 25,099 thousand (+61.9%) from Euro 40,567 thousand in the financial year ended December 31, 2021 to Euro 65,666 thousand in the financial year ended December 31, 2022, with the segment's percentage of revenue increasing from 15.7% in the financial year ended December 31, 2021 to 19.5% in the financial year ended December 31, 2022.

Energy Transition Business

The Energy Transition Business includes the offering of electrodes (anodes and cathodes), electrolyzer components, and systems (i) for the generation of hydrogen and oxygen through water electrolysis processes, (ii) for use in fuel cells for electricity generation from hydrogen or another energy carrier (e.g., methanol, ammonia) without CO_2 emissions, and (iii) for use in redox flow batteries.

The following table shows the revenues generated by the Energy Transition Business for the financial years ended December 31, 2022 and 2021.

	2022	2022 constant exchange rates	2021	△2022 vs 2021	△2022 vs 2021 at constant exchange rates
	(in € thousands)				
Energy Transition Business	42,664	43,070	9,393	33,271	33,677

Revenues from the Energy Transition Business increased by Euro 33,271 thousand, from Euro 9,393 thousand in the year ended December 31, 2021 to Euro 42,664 thousand in the year ended December 31, 2022. This significant increase is mainly due to business growth in EMEIA. At constant exchange rates, revenues related to the Energy Transition business would have increased by Euro 33,677 thousand, from Euro 9,393 thousand in the year ended December 31, 2021 to Euro 43,070 thousand in the year ended December 31, 2022.

The following table shows the revenues generated by the Energy Transition Business for the financial years ended December 31, 2022 and 2021, broken down by new installations or newly constructed facilities ("New Installations") and periodic maintenance or modernization services for existing plants and facilities ("Services").

	2022	%	2021	%
	(in € thousands zand as a percentage of segment revenues)			
New Installations	42,071	99%	9,213	98%
Services	593	1%	180	2%
Total Revenue	42,664	100%	9,393	100%

	2022	2021
	(in € thousands)	
Energy Transition EBITDA	1,208	-
Energy Transition Adjusted EBITDA	2,409	-

The EBITDA of the Energy Transition Business is monitored from the financial year 2022 onwards; EBITDA and Adjusted EBITDA are respectively Euro 1,208 thousand and Euro 2,409 thousand, thus recording positive values already in the first year of identification of the business segment.

Organization of Human Resources

At December 31, 2022, the Group's workforce amounted to 1,929, almost 204 more than the previous financial year, confirming the growth trend that will probably also characterize the next few financial years. The increase, across all regions, involved mostly the Electrode Technologies segment, with a significant increase in personnel in the Manufacturing area.

In detail, the situation by professional macro-family can be broken down as follows:

Employees by Functional Area	December 31, 2022	December 31, 2021
Manufacturing	1,090	951
Engineering	153	142
Sales & Tech. Assistance	242	230
G&A	335	305
R&D	109	97
Total	1,929	1,725

The main organizational changes relating to the 2022 financial year are listed below:

— Corporate structure: all functions were strengthened to ensure a higher efficiency and service level to support business growth, especially in view of and following the listing on June 30. In particular:

- specific *Investor Relations Management and ESG, Internal Audit* and *Compliance functions* were created;
- the *Energy Transition & Hydrogen Task Force* acquired the status of a function and was better structured and reinforced with new resources;
- a *Digitalization Task Force* was established to direct and create synergies between all digitization initiatives;
- the corporate HR was strengthened in particular with the creation of the *Global Compensation & Benefit* function;
- the *Global Operations & Innovation* function was reorganized and enhanced with the creation of the *Operations Excellence Management* structure;
- the *CEO Office* function was created for strategic support.

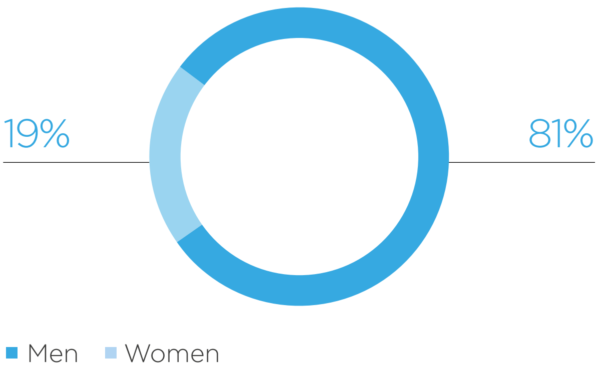
— Water Technologies segment: the business units and regional hubs have continued their reorganization and strengthening. *WT Americas* and *WT EMEA* hubs were reorganized to better integrate new business areas.

- *Electrode Technologies segment*: a Regional Controlling structure has been set up in EMEIA to ensure greater coordination and synergy, in line with the evolution of the business.

Group workforce demographics at December 31, 2022

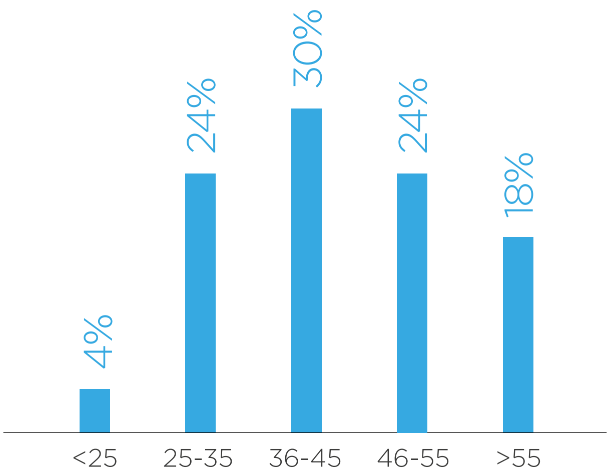
Gender Distribution

The female component is 19%, a very slight decrease (-1%) compared to the previous financial year (mainly due to the more than proportional increase in manufacturing personnel).



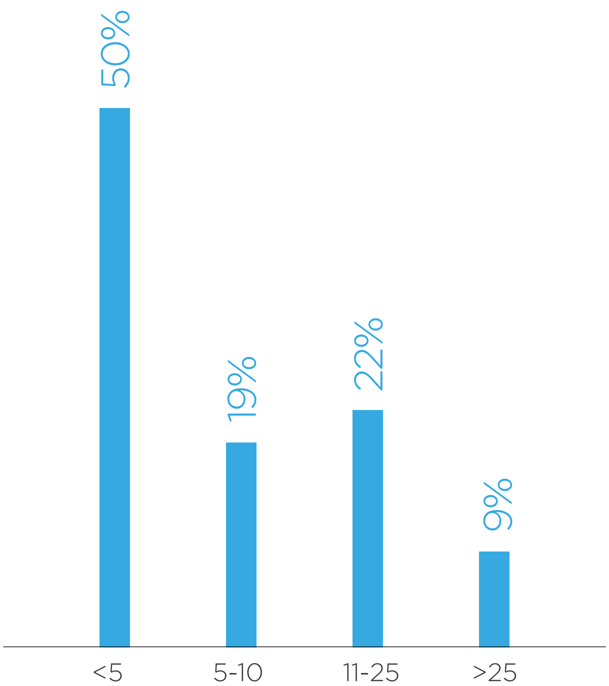
Age Distribution

De Nora confirms itself as a "young" business, with almost 60% of its staff under 45 years of age, a percentage rising (+1%) compared to the previous financial year.



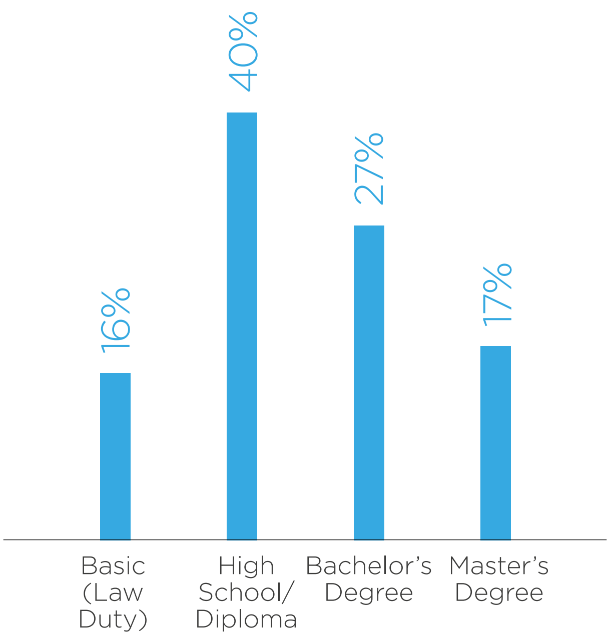
Seniority

The *seniority* of the Group has decreased further compared to the previous financial year, due to the significant increase in the workforce: 50% of the staff have been with De Nora for less than five years, while the "over 10 years" account for more than 30 percent.



Education level

De Nora confirms her excellent education level. More than 80% of colleagues have at least a high school diploma, and 44% have a degree, a master's degree or a doctorate.



Development and Management of Human Resources

People are at the heart of the organization. The People Development pillar is by far the one with the highest number of projects and initiatives within the People Strategy. The focus is on the continuous growth and engagement of people, who must be the protagonists of their own project, co-create their own training and development paths, and be enabled to strive for self-fulfilment. The main new initiatives of the year were:

— definition and monitoring of the Individual Development Plans, including the training actions agreed with the Line Managers following the annual Competence Assessment process;

— launch of the Career Target Check (CaTCh) in Italy and Germany, i.e. the assessment of potential and readiness for assuming a managerial role by top performers, including in Operations;

— definition of the potential assessment to identify the organizational skills and behaviors expected by internal candidates, former managers, for the possible assumption of a role of Director;

— launch of the "digital coaching" platform to expand the use of coaching programs, accelerating individual growth while aligning with the use of common best practices across the Group;

— launch on the De Nora Academy e-learning platform of the training program "The new us" to educate the De Nora population on the correct application of the behaviours as laid down in laws and regulations concerning listed companies;

— definition of the CLEARER (Connected Leadership Empowering Actions and Rules for Effective Remote-working) training to refocus communication and the way of working in hybrid working times (in-presence or remote) by building on what was learnt during the pandemic, with particular reference to the issues of individual well-being, work-personal time balance and effective leadership.

Environmental, Social and Governance factors

Environmental, social and governance factors (so-called ESG factors), which are at the heart of the Group's values and strategy, are a long-term commitment and the Group is establishing, building and strengthening its ESG commitment through various activities and projects.

In this regard, it should be noted that Italian Legislative Decree 254/2016 (implementing Directive 2014/95/EU) introduced the obligation for large companies/groups to provide, together with the annual management report, a "Non-financial Statement" or "NFS" containing information on environmental, social, personnel-related, human rights compliance and the fight against both active and passive corruption. These issues must be represented in line with the principle of materiality, i.e. providing relevant information in relation to one's business profile, strategies, stakeholders' expectations and the impact produced. Following the listing on the Italian Stock Exchange, De Nora therefore published the first Consolidated Non-Financial Statement ("NFS") for the reporting year 2022 (January 1, 2022-December 31, 2022), drawn up pursuant to Articles 3 and 4 of Italian Legislative Decree 254/2016, in compliance with the standards defined by the GRI – Global Reporting Initiative. The NFS is approved by the Board of Directors called to approve the draft Financial Statements as at December 31, 2022 and is made available to the Shareholders in accordance with the law. It is also available on the De Nora website.

Research and Development and Patents

Research and Development

Excellence in Research and Development is one of the main levers used by De Nora to boost organic and sustainable growth. The Group is focused on the development of innovative and technologically advanced solutions designed to meet the needs of the markets in order to preserve its competitive edge, defend its margins and market shares.

The Group operates through research centres with offices located in Italy, the United States and Japan and, in addition to being able to boast a highly specialized research and development team, maintains a network of collaborations with the main international research institutes and universities as well as with its customers. Relationships with customers originate in many cases from research projects aimed at meeting their specific requirements and in some cases participated in by the customers themselves, which over time can lead to the commercialization of the products developed and, consequently, to the consolidation of the relationship. The strong link is also based on a continuous technological renewal of the product portfolio and the Group's ability to guarantee after-sales services and other sales.

— The *"R&D USA"* unit (Cleveland Area) – Ohio, is focused on the development of enabling technologies for Energy Transition (electrolysis of water, conversion of hydrogen into energy through Fuel Cells, conversion of CO_2 into organic molecules and short-chain hydrocarbons, etc.) and the development of new products for existing markets.

— The "*R&D Albuquerque*" unit, located in Albuquerque – New Mexico, is the research unit specialising in products in the Water Technologies segment. The unit deals both with the improvement of existing products by coordinating standardization, certification, value engineering and cost reduction "by design" activities and by conducting experimental activities on small pilot units for disinfection of water, ozone, advanced oxidants and UV.

— The "*R&D Japan*" unit, mainly located in Fujisawa (Tokyo area) and Okayama, has also a branch office at De Nora Elettrodi (Suzhou) Co., Ltd. – China. The team supports the development of solutions for global markets in Energy Transition, Electronics, Chlor-alkali and Water Treatment.

— The "*R&D Italy*" unit, located at the Milan headquarters, develops primarily technologies for future markets and for the several existing markets currently served by the Group. The team also includes the Product Engineering unit and the Production Technologies group which aim to accelerate the introduction of new products and oversee technology transfers between the different plants and the Process Engineering and Product Development team, seconded to the newly established De Nora Italy Hydrogen Technologies S.r.l.

The R&D function employs 109 employees of which 81 resources covering the Electrode Technologies and Energy Transition Business (47 in Italy, 24 in Japan and 10 in the US) and 28 Product Technology Management resources covering the Water Technologies business (21 in the US, 4 in Italy, 2 in the UK, 1 in China).

In addition to the development of new products and the continuous improvement of existing ones, the Research and Development units support, with their services, the sales and operations of the various regions.

In support of the corporate strategy, the Group invests, on an on-going basis, in new projects to feed the innovation pipeline. At the same time, product improvement activities continue and the objective of contributing electrochemical solutions to the challenges of a sustainable economy is being pursued. The allocation of resources takes place through the management of the project portfolio which aims, in accordance with the Strategic Business Objectives, to maximize the value of the portfolio itself, to balance the projects to develop new products or technologies in order to cover the different business lines and comply with the commercial launch roadmap in the short, medium and long term.

The work of the "Energy Transition and Hydrogen Task Force (ET&H)", reporting directly to the CEO, continued during the year. The task force involves, among others, several members of R&D and Production Technologies and its main objective is to grow De Nora in the Energy Transition commercial segment. More specifically, the role of ET&H is to:

— consolidate the offer of products with existing customers in the field of water electrolysis for energy transition;

— generate new business opportunities through the acquisition of new customers, supporting them in the adoption of the Group's products;

— identify and develop new technological partnerships and contribute to the launch of new products;

— support the definition of new Energy Transition business models.

The research programs are effectively integrated at several sites and coordinated at a central level.

With reference to the Electrode Technologies Business, the focus is on the development of innovative and sustainable electrodes with low energy consumption for all electrochemical industrial applications and in particular for the chlorine (chlor-alkali, chlorate, hydrochloric acid), water treatment, electronics, primary copper and nickel hydrometallurgy (mined) industries. Specific attention was paid to reducing the content of noble metals, and in particular iridium and ruthenium, used in the coatings of all business lines, both for reasons of cost competitiveness and sustainability (rarity of the same), all this without compromising on the operational quality of the product. With a view to the longer term, projects are underway for the development of new electrode geometries and electrode packages that do not involve the use of noble metals.

With regard to the Water Technologies Business, the aim is to update and improve existing products and to develop new solutions that integrate different technologies to meet more stringent regulatory requirements in relation to drinking water and wastewater. Work also continued on the commercial optimization of existing product lines focused on cost reduction through "value engineering" and standardization. Among the most important results are the commercial launch of the latest generation drainage plates for TETRA filters, the new Mariner-64 model for the treatment of sewage in the naval sector and the MIOX 3.5 OSHG chlorinator for the disinfection of drinking water.

The development of new products concerned in particular water disinfection systems via in-situ product bromine, removal and destruction of micro-pollutants such as polyfluoroalkyls (PFAS) through a process based on exchange resins, water treatment systems based on Advanced Oxidation Processes (AOP) and a new generation of chlorine dioxide production units for the disinfection of drinking water.

The commitment in the Energy Transition segment was further intensified in 2022 with numerous projects carried out synergistically between all Group research units.

The Group has active programs for the development of technologies (electrodes and systems) (i) for alkaline water electrolysis (AWE) and (ii) for cationic polymer membrane electrolysis (PEM) and anionic polymer membrane electrolysis (AEM) for the production of hydrogen, preferably green. Projects dedicated to the development of electrolysers for the storage of hydrogen using organic compounds (LOHC – Liquid Organic Hydrogen Carriers) are, on the other hand, at a more advanced stage of development involving field tests of demo units to validate these solutions.

The Group directly participates in several public projects including (i) the European projects "Djewels" (2020-2025/6), "NextH2" (2021-2024), "PROMETH2EUS" (2021-2025), HyTecHeat (2022-2026), CleanHyPRO (2022-2025) in the of alkaline water electrolysis sector (ii) the European project Anemel (2022-2027) in the water electrolysis sector through anion exchange membranes (AEM); (iii) the Italian project Maine (2022-2025) in the water electrolysis sector in general; and (iv) the European projects "Select CO_2" (2020-2022) and "ECO2FUEL" (2021-2026), for the conversion and value enhancement of carbon dioxide (in the sector of the electrochemical conversion of CO_2).

The Group also participates as a consultant (in the role of "industrial advisor") in various European public projects (Licrox, Telegram, CO2EnRich).

With reference to the research and development activity carried out in the United States, the Group has received funding from the federal Department of Energy (DoE) for the development of components related to polymer membrane technology for water electrolysis (PEM) and the conversion of carbon dioxide into short-chain organic molecules, while in Japan it is participating in a project to develop technologies relevant to water electrolysis and the electrochemical synthesis of ammonia, with funding from NEDO (Japan's National Agency for the Development of Technologies in the Energy and Industrial Sectors).

Furthermore, the Group is carrying out research projects aimed at the development of new electrodes and catalysts for fuel cells and for the conversion of CO_2 into chemicals (i.e. methane and formic acid) and other green fuels (so-called *e-fuels*), as well as studies aimed at the use of metal electrodes in redox flow batteries. Many of these research projects are co-participated by industrial partners, including the tk nucera joint venture, and are managed by the Group through joint development agreements, most of the time covered by secrecy agreements.

The Group is also participating in public tenders (at national and European level) relating to initiatives focused on the issues of energy transition and, in particular, on hydrogen, in order to have access to the loans granted by the Italian State within the IPCEI framework (reserved for projects that are part of the strategic value chains identified by the European Commission on the basis of their ability to generate technological innovation, improve products and production processes, as well as foster sustainable economic growth). On August 1, 2021, in collaboration with Snam, the Group submitted to the Ministry of Economic Development a project portfolio relating to the construction and development of a Gigafactory for the production of electrolysers to be used for producing green hydrogen as part of the so-called IPCEI Hydrogen and, in the course of 2022, the request to access the financial facilities under the Ministerial Decree activating the intervention of the IPCEI Fund in support of IPCEI Hydrogen 1 (IPCEI H2 Technology) was finalized following decision C(2022) 5158 final of July 15, 2022 / SA. 64644.

In addition to the above, at the European level the Group is also participating (with the tk nucera joint venture) in a research initiative promoted by the German Federal Ministry of Education and Research (BMBF). This initiative, aimed at supporting Germany's entry into the hydrogen market and promoting large-scale production of alkaline water electrolysis (AWE), provides for the expansion of the production capacity of the Group's German plant, located in Rodenbach, from 1 to 5 GigaWatt.

Patents

Intellectual property rights represent a key element for the creation of value of the Group's activities. The Group aims to protect intellectual property, which includes, among others: copyrights, software, know-how and trade secrets, designs, utility models, patents, trademarks and trade names, through the appropriate procedures and national and international practices. To this end, the Group has put in place adequate policies for identifying, protecting and enhancing its intellectual property rights, which result, for example, in the continuous filing of trademarks registration and patent applications, and in the preparation of suitable measures to protect the confidentiality of sensitive technical and commercial information, in particular of the trade secrets.

The protection of the Group's proprietary rights with respect to its corporate identity, services, products and know-how is essential to maintain its competitive advantage and market recognition.

The Group's intellectual property, including part of that of the tk nucera JV, is managed at corporate level through the respective Milan and Fujisawa offices, part of the Intellectual Property Department, which coordinate a network of local and foreign agents and professionals. The Intellectual Property Department aims, inter alia, to create and protect all property rights deriving from any of the Group's activities through: the identification of the appropriate legal protection applicable and the performance of the formal and substantive activities arising therefrom—such as filing, continuation, maintenance and enforcement of one's property rights against third parties.

Decisions regarding the geographical coverage of intellectual property rights to ensure protection in countries where the Group operates and/or which are deemed to be of strategic value are implemented by the Intellectual Property Department in accordance with the guidelines received from the Marketing and Business Development function as well as the Research and Development function and the sales offices in the regions concerned. Access to the use of these intangible assets by the various Group companies is guaranteed and governed by appropriate inter-company agreements.

The Group also constantly monitors the titles in its portfolio of intellectual property assets, whether granted, registered or pending and subject to renewal, expiry or other official action requiring replication, as well as any events that may be potentially detrimental to the value of the portfolio in order to be able to react in a timely manner, where necessary.

The Group has always been encouraging innovation and creativity by consistently recognising the contributions to the value of De Nora generated by its employees' inventions that are filed for patent applications. Continuing the employee incentive and recognition program started in previous years, financial awards were given to inventors throughout the Group, as well as certificates of recognition published on the company intranet.

Pursuing the objective of continuous improvement, another phase of the Group's "*Protection and Management of Trade Secrets*" project was completed in 2022. Specifically, the remediation phase was completed, relating to the subsidiary De Nora Tech LLC, based in the United States, following the diagnosis phase carried out in 2021. In 2022, again for the same project, the diagnosis phase relating to the subsidiary De Nora Permelec, Ltd, based in Japan, was also completed; the remediation phase for the latter is expected to be completed in 2023.

Trademarks

In order to defend itself against possible counterfeiting and other potentially damaging events, the Group also uses monitoring services, in connection with which it receives information on the filing by third parties of trademark applications that are similar to or may be confused with the Group's trademarks. The Group uses this information to develop the most appropriate strategy to defend its proprietary rights.

As of December 31, 2022, the Group owns 587 registered trademarks in 78 countries, and has 4 trademarks under consideration or trademark applications in 3 countries.

Patents

The Group operates through a portfolio of patents and utility models registered in countries relevant to the business and relies on the legal protection of its registered patent rights. As of December 31, 2022, it has 2,393 patents or utility models in 82 countries and has more than 420 patent or utility model applications pending in over 40 countries or regional organizations, including the European Patent Office, the *Gulf Cooperation Council Patent Office* (in Saudi Arabia), the African Regional Intellectual Property Organization and the Eurasian Patent Convention.

In 2022, 9 new patent applications were filed: 4 concerning the water electrolysis field, 2 of chlor-alkali, 1 of electrodes for electronics and 2 of the Water Technologies segment

Risks

Foreword

Assessing the factors that can affect the business is essential to direct strategies and operate sustainably in the long term. The proper implementation of the Internal Control and Risk Management System—ICRMS—allows for the identification, monitoring and management of the main risks that arise from the type of business, the activities carried out within the organization and along the value chain, the reference sector and the sustainability trends.

De Nora's ICRMS is inspired by the COSO ERM Framework, which is an international reference model and a guide for companies wishing to adopt robust risk management processes that can best guide performance-based strategies. The Framework proposes a conceptual structure according to which an organization should integrate risk management processes into the management of its business with the aim of creating strategy, improving the measurement of results (performance) and creating long-term value. In addition, De Nora's ICRMS incorporates the elements contained in ISO 31000:2009.

The Internal Control System consists of three levels:

— at the first level, the risk-owner or process manager is responsible for identifying, assessing, managing and monitoring risks, and implementing actions to mitigate them;

— at the second level, the risks are monitored and the level of efficiency and effectiveness of the measures taken to mitigate them is examined. Support is also provided in the definition and implementation of risk management systems;

— the third level of control is carried out by Internal Audit, whose task is to independently and objectively assess the functioning of the ICRMS.

Lastly, the Board of Directors of Industrie De Nora S.p.A. retains control of the ICRMS, supported by the Risk, Control and ESG Committee. This Committee plays an advisory role in order to promote the integration of ESG issues into the governance and business strategies of the Group.

For the 2021 listing project, the Company began a process to identify its risks, which it then included in the Prospectus. During 2022, the risk assessment process was further strengthened also by the newly established Internal Audit function, with the definition of a methodology for the systematic identification, assessment and monitoring of the main risks, current and prospective, connected to the strategy and the Group's operations, as well as sustainability trends. In fact, along with strategic, compliance, operational and financial risks, the Company has also identified ESG issues that may have an impact on the organization's sustainable development. Some of these issues, identified through the materiality analysis, represent the organization's potential and current ESG risks.

The results of the risk identification and assessment activities and related mitigation actions were presented to the Risk, Control and ESG Committee, the Board of Statutory Auditors and the Board of Directors of the Company.

The main risk scenarios identified as a result of the risk assessment process are illustrated below. The risk scenarios are classified into Strategic, Legal and Compliance, Operational and Financial based on the objectives that could be impacted. For details on the materiality analysis carried out on sustainability issues and a more exhaustive representation of ESG risks, please refer to the dedicated section within the Non-financial Statement.

Strategic risks

Delay by contractors in the construction of plants for the production of green hydrogen

Growth in the green hydrogen production sector and electrolysis and electrolyser solutions is highly dependent on increased renewable energy production, continuing political and industrial commitment, the development of an adequate global outlet market for green hydrogen, and the actual ability of major contractors to make the necessary investments to set up the green hydrogen production capacity required by the market.

With reference to the latter aspect, it cannot be excluded that technical, operational or financial difficulties may slow down the actual ability of the contractors to proceed with the investments announced in the short-medium term. The occurrence of this scenario could have negative effects on the Group's activities and prospects as well as its economic and financial position.

The actions taken by the Group to mitigate the risk scenario in question consist of the consolidated partnership with tk nucera, which is establishing itself as the leading technology provider, and the differentiation of the offer with other key technology providers. The synergistic work between De Nora, which is able to develop and produce high-performance electrodes for the production of high quality hydrogen with low energy consumption, and the leading technology OEMs for the supply of solutions for the generation and utilization of hydrogen on a large scale, makes it possible to face and hopefully overcome the technical difficulties that could be the cause of delays in the construction of the plants.

Through the joint venture with tk nucera, De Nora has access to customers who have passed an internal qualification and selection system, within the joint venture, that ensures their reliability in the market and financial standing.

Increase in the prices of essential raw materials or their unavailability

Several of the Group's products are the result of complex production processes that require the use of raw materials available in illiquid commodity markets characterized by a small number of suppliers concentrated in specific geographical areas, limited quantities of raw materials extracted annually and in a limited number of sites.

De Nora is therefore exposed to the risk that as a result of (even temporary) interruptions in mining activities due to disasters, accidents, wars, riots or political stances of supplier countries (trade restrictions, duties, sanctions, etc.) there could be an unavailability or a sharp rise in the prices of essential raw materials and this could have significant negative effects on the Group's activities and prospects as well as its economic and financial position. The risk scenario in question is further confirmed by the ongoing war between Russia and Ukraine in consideration of the fact that for some metals (titanium and nickel) Russia is one of the main producers in the world.

De Nora mitigates the risk scenario in question through a coordinated range of actions aimed at ensuring production continuity. In particular, the Group: undertakes to guarantee its suppliers of essential raw materials minimum purchase volumes to be made during the contract term (usually not exceeding one year); plans its purchasing requirements in coordination with production and future production forecasts, ensuring minimum stock quantities to meet production requirements for certain periods of time; holds trade negotiations with major producers and traders in order to limit its dependence on suppliers.

In addition, to cope with the price increase of some essential materials, the Group adopts commercial policies aimed at ensuring that the sale price is adjusted, in whole or in part, to the price of raw materials (so-called pass-through mechanism).

Effect of competition on growth expectations in the green hydrogen market

Along the green hydrogen value chain, the Group is currently positioned as a supplier of components (electrodes, and cell components) for the latest generation of alkaline electrolysers (hydrogen generators). Electrodes represent one of the key components of electrolysers since they determine their performance, and therefore have an impact on the economy of the systems in terms of LCOH (*Levelized Cost of Hydrogen*). De Nora's business model today provides for the supply of high quality electrodes and cell components (in terms of performance and duration over time) produced on a large scale, with a capacity that in 2021 was already approx. 2,000 MW per year. In the medium term, the company is also expected to become a supplier of electrolysers and systems, thus expanding its scope of supply. The Group's main competitors in the electrodes sector are currently limited in number, and are characterized by a reduced production capacity compared to De Nora. Competitive benchmark analyses show the consolidated leadership of the Group with respect to each parameter considered (installed production capacity, product quality, consumption, etc.).

On the other hand, with reference to the production of large-scale plants, tk nucera competes with key technology providers.

De Nora's business model, as a supplier of electrodes and components to other players in addition to tk nucera, increases De Nora's offer and mitigates the risk of customer failure from a portfolio perspective.

Despite its current leadership position in the supply of both components and, in synergy with tk nucera, of large-scale plants, it should be noted that the sector is sought after by numerous offtakers (energy players, industrial gas suppliers & traders, chemical companies, etc.) that could enter the market, albeit not immediately, in direct competition with tk nucera through direct investments, or through partnerships and consortia transactions with other operators already active in the hydrogen and low-carbon energy sector in general. Furthermore, it cannot be ruled out that other offtakers may develop technological solutions such that they place themselves in direct competition with De Nora in the supply of components so as to be accredited as alternative suppliers to operators.

The Group is therefore exposed to the risk that, due to intensified competition, there may be significant unfavorable effects on its activities and prospects as well as on its economic and financial position.

De Nora mitigates the risk scenario in question through a coordinated number of actions, also in collaboration with tk nucera, aimed at maintaining the technological and competitive gap with respect to the competition. In particular: investments in research and development continue to be a distinctive element of the De Nora Group with four R&D laboratories worldwide; significant investments in plant and machinery already made or underway to upgrade the production plant in Germany to meet both the needs of producing electrodes with AWE technology and the design of new plants (greenfield) provided for in the Business Plan, again relating to AWE technology; strong protection of corporate know-how, both through the continuous filing of patent applications or licences, and through specific actions aimed at protecting access to confidential information by unauthorized third parties.

Uncertainty about the possible evolution of the tk nucera joint venture

The Group manages part of its business through thyssenkrupp nucera ("tk nucera"), a joint venture established in

2015 with the ThyssenKrupp Group, in which the Group holds a minority interest. tk nucera, in addition to being the Group's main customer in the Electrode Technologies Business segment, is a key partner for the achievement of the development goals in the energy transition sector envisioned by the Group over the plan period, as these relate to tk nucera's ability to establish itself as a key player in the construction of green hydrogen production plants.

The commercial relations between the joint venture tk nucera and De Nora are governed by the contract called TMA (*Toll Manufacturing Agreement*) which governs the reciprocal commercial and operational commitments. The TMA requires tk nucera to purchase from De Nora (i) cell construction and assembly services for the various tk nucera technologies; (ii) activated anode and cathode electrodes; and (iii) cell recoating, retrofitting and repair services. Pursuant to the TMA, De Nora has undertaken not to produce or supply to third parties with respect to tk nucera products manufactured on the basis of the intellectual property of tk nucera, which may therefore not be used or sublicensed by the Group, without prejudice to the provisions of the existing license agreements between tk nucera and the Group. In addition, the TMA provides for an exclusive right in favor of the Group, limited to the quantities defined in the TMA itself, for the entire duration of the contract.

Governance relations are instead regulated by a shareholders' agreement originally signed in 2013 and fully replaced by a new agreement signed on September 23, 2022. The new shareholders' agreement will be effective until November 4, 2038 and will be automatically renewed for another five years in the absence of notice of termination communicated by one of the parties.

Due to the minority interest held by the Group, the Group's influence on the corporate governance structure and on the activities carried out by tk nucera is limited and may not be sufficient to prevent decisions that De Nora believes are not in the best interest of the joint venture or the Group in general and, as a result, the Group could suffer significant negative impacts on its business, economic position and results of its operations.

De Nora mitigates the risk scenario in question through the continuous search for cutting-edge technological solutions able to fully comply with the specifications required by tk nucera. Moreover, the TMA does not bind De Nora to an exclusive relationship with tk nucera, and therefore De Nora remains free to operate with third parties who are active, among other things, in the green hydrogen sector.

Legal and non-compliance risks

Failure to comply with product marketing regulations

The De Nora Group sells its products in more than 120 countries. Depending on the uses and application purposes of the equipment and products manufactured by the Group, the following reference standards could find applications (the list proposed cannot be considered exhaustive):

— the European Regulation 1907/2006 (concerning registration, evaluation, authorization and restriction of chemicals—so called REACH Regulation);

— European Regulation 528/2012/EU, concerning the making available on the market and the use of biocides and in particular the program for the revision of active substances generated in-situ, which includes some solutions produced by the generators made by the Group;

— European Regulation 1272/2008 (concerning the classification, labeling and packaging of substances and mixtures);

— European Directive 1998/83/EC concerning the quality of water intended for human consumption;

— Directive 2021/19/EC on waste of

electric and electronic equipment (WEEE);

— European legislation on dual-use items in light of Regulation (EU) 2021/821.

Moreover, due to the presence of its customers in different geographical areas, it cannot be excluded that unforeseeable geopolitical developments may occur such that the countries in which these customers and partners of the Group operate are subject to sanctions or restrictive measures by the United States of America, the European Union and/or the United Nations Organization, which could limit the Group's ability to continue to operate with them.

In particular, as a result of the ongoing geopolitical tensions between Russia and Ukraine, the governments of the European Union, the United States and other jurisdictions have adopted sanctions and restrictive measures in relation to some industrial sectors and/or specific Russian subjects, as well as greater controls on exports of some products intended for the Russian market.

If the Group does not comply with the regulations for the export of its products or the regulations that impose limitations or restrictions on certain countries, the Group companies could suffer significant financial and administrative sanctions, with negative impacts on the Group's reputation and on the economic and financial position of the Group.

De Nora mitigates the risk scenario relating to product compliance through the preparation by the Regulatory Affairs department of specific internal procedures aimed at monitoring the development of reference regulations and ensuring compliance with the aforementioned procedures by the sales departments. In addition, the Legal function, through the Compliance office, is involved in verifying all the activities of the counterparties and the restrictions applicable to the export of the Group's products to ensure that the Group does not incur sanctions and/or does not violate the restrictive measures applicable to international trade.

Operational risks

Protection of De Nora technological know-how

The Group operates through research centres with offices located in Italy, the United States and Japan and, in addition to being able to boast a highly specialized research and development team, maintains a network of collaborations with the main international research institutes and universities as well as with its customers. Relationships with customers originate in many cases from research projects aimed at meeting their specific requirements and in some cases participated in by the customers themselves, which over time can lead to the commercialization of the products developed and, consequently, to the consolidation of the relationship. The strong link is also based on a continuous technological renewal of the product portfolio and the Group's ability to guarantee after-sales services and other sales. The research programs are effectively integrated in the various centres and coordinated at central level, contributing to the creation of a portfolio of projects that is balanced between the development of new products and the optimization of existing ones.

The protection of the Group's intellectual property (understood in its entirety) is a key element for the creation of value and is fundamental to maintaining the competitive advantage and recognition of the market. Therefore, if due to unauthorized access, industrial espionage or employee disloyalty, part of the technological know-how is lost, the Group could suffer significant negative impacts on its business, economic position and results of operations.

De Nora mitigates the risk scenario in question by means of an important oversight of internal procedures aimed at ensuring that only authorized personnel have access to confidential information according to the *"need to know"* principle and in any case in compliance with strict control procedures, including IT controls. In addition, the Group's intellectual property is managed centrally through the respective Milan and Fujisawa offices, part of the Intellectual Property Department, which coordinate a network of local and foreign agents and professionals. The Intellectual Property Department aims to protect all property rights deriving from any of the Group's activities through: the identification of the appropriate legal protection applicable and the performance of the formal and substantive activities arising therefrom—such as filing, continuation, maintenance and enforcement of one's property rights against third parties. The Group constantly monitors its portfolio of licensed, registered or pending intellectual property assets subject to filing as regards renewals, expiry dates or other official actions and deadlines, as well as any events that may be potentially detrimental to the value of the portfolio in order to be able to react in a timely manner, where necessary.

In this regard, it should be noted that although the Group's intellectual property rights, understood in their entirety, represent a key element, the Group's results do not depend on patents or licenses, industrial, commercial or financial contracts, or new manufacturing processes.

Production facilities inoperative due to accidents

The Group is exposed to the risk of having to interrupt or suspend its production activities due to malfunctions, breakdowns, accidents or natural disasters that may occur at its production plants.

The occurrence of these events could have negative effects on the activities and prospects as well as on the economic, financial and equity situation of the Group.

De Nora mitigates this risk scenario through adequate internal procedures aimed at reducing the possibility of accidents and adopting the safety measures required by local regulations and best practices on health and safety. In addition, as part of the insurance program, the Group has taken out insurance policies that provide adequate coverage for direct damage to property (i.e. buildings, equipment, inventory or goods), and indirect damage (business interruptions or losses). Lastly, the various production lines are redundant on the various plants in order to ensure the continuity of supplies in the event of interruption of production activities in one plant.

Environmental risks

De Nora Group activities are characterized by the use of energy and raw materials for the production of goods that might negatively impact the Group from a reputational point of view. Nonconformity issues at environmental level might actually arise. Moreover, from a financial point of view, the continuous price increase of energy and raw materials (such as noble metals) might impact the profitability of the Group.

De Nora manages these risks through the set-up of an environmental management system ISO 14001 certified, implemented in 21% of the plants of the Group. Such certification includes the evaluation of environmental risks, planning of the actions to reduce the hazards and the implementation of monitoring and control activities of the adequacy of the management systems. All De Nora sites are evaluating the feasibility of energy production from renewable sources. In particular, in the first half of February 2023 a photovoltaic system has been put in operation in the German plant with production capacity of 1,3 GWh per year. This is a first step of the plan that will involve other three sites in 2023.

This strategy must be seen both in the current geopolitical context the undermines the supply of fossil fuels and in the broader horizon of the energy transition towards renewable sources to reduce the greenhouse gas emissions (GHG).

With reference to the climate change risks the Group is committed over the coming reporting years to integrate is analyses – and consequently its disclosure – with deeper analyses of the effects of those risks might have on the Group. Physical and transition risks related to climate change will be evaluated in the framework of the risk analysis activities and valuations that will lead the Group to define a Sustainability Plan. In this process, moreover, De Nora will take into account the methodology provided by the Task Force on Climate-related Financial Disclosure (TFCD) of the Financial Stability Board and the development of the legislation on this matter.

Financial risks

Please refer to what is described in the Explanatory Notes to the Consolidated and Separate Financial Statements of Industrie De Nora S.p.A.

Related Party Transactions, Atypical and/or Unusual Transactions, Other Information

Related Party Transactions

With regard to transactions carried out with related parties, it should be noted that they cannot be classified as atypical or unusual, as they fall within the normal course of business of the Group companies. These transactions are settled at market conditions, taking into account the characteristics of the goods and services provided.

Information on transactions with related parties, including that required by CONSOB Communication of July 28, 2006, is included in the Explanatory Notes to the Consolidated Financial Statements as at December 31, 2022.

It should be noted that in the reference period:

- no significant transactions were concluded with related parties;
- no transactions were concluded with related parties that significantly affected the financial position or results of the companies;
- there were no changes or developments in the related party transactions described in the last annual report that had a material effect on the companies' financial position or results.

The Board of Directors of Industrie De Nora S.p.A., on July 5, has approved a procedure for transactions with related parties ("**RPT Procedure**"), subject to the favorable opinion of the Related Parties Committee, adjusted to provisions on related party transactions adopted by CONSOB. The RPT Procedure can be consulted, together with the other documents on corporate governance, on the website www.denora.com.

Atypical and/or unusual transactions

Pursuant to CONSOB Communication No. DEM/6064293 of July 28, 2006, it should be noted that there were no atypical and/or unusual transactions, as defined in the Communication.

Other Information

As regards the list of secondary offices and the main corporate information of the legal entities that make up the Group, please refer to the section on the Consolidation area included in the Explanatory Notes to these Consolidated Financial Statements.

As at December 31, 2022, the Parent Company does not hold directly or through trustees or nominees, any treasury shares or shares of other parent companies, nor has it acquired or sold such shares or quotas during the financial year.

The employees of the De Nora Group companies are bound by the Code of Ethics, which establishes the ethical and behavioural standards to be followed in the conduct of day-to-day activities.

The Group is committed to maintaining a consistent standard of ethical conduct at a global level, with respect for the cultures and the commercial practices of the countries and communities in which it operates.

Compliance with the Code by directors, managers and employees, as well as by all those who work to achieve the Group's objectives, each within their own area of responsibility, is fundamentally important to De Nora's efficiency, reliability and reputation, factors that play a crucial role in the Group's success.

The principles and guidelines set out in the Code are addressed and analysed in further detail in other policies and business procedures.

The offices of the Group companies at December 31, 2022 are shown below:

Company	Sites
Industrie De Nora S.p.A.	Italy, Milan
De Nora Italy S.r.l.	Italy, Milan Italy, Cologno*
De Nora Water Technologies Italy S.r.l.	Italy, Milan Italy, Cologno*
De Nora Italy Hydrogen Technologies S.r.l.	Italy, Milan
De Nora Water Technologies FZE	UAE, Dubai
De Nora Italy S.r.l. Singapore Branch	Singapore
De Nora Water Technologies, LLC—Singapore Branch	Singapore
De Nora Deutschland GmbH	Germany, Rodenbach
De Nora Water Technologies Inc—Abu Dhabi	UAE, Abu Dhabi
De Nora India Ltd.	India, Goa
De Nora Water Technologies UK Service Limited	UK, Tamworth
De Nora Permelec Ltd	Japan, Fujisawa Japan, Okayama*
De Nora Hong Kong Ltd	China, Hong Kong
De Nora Elettrodi (Suzhou) Co., Ltd.	China, Suzhou
De Nora China—Jinan Co., Ltd.	China, Jinan
De Nora Elettrodi (Suzhou) Co., Ltd. Shanghai Pudong Branch	China, Shanghai
De Nora Water Technologies (Shanghai), Ltd.	China, Shanghai
De Nora Glory (Shanghai) Co., Ltd.	China, Shanghai
De Nora Water Technologies (Shanghai) Co. Ltd.	China, Shanghai
De Nora do Brasil Ltda	Brazil, Sorocaba
De Nora Tech, LLC	USA, Concord (OH) USA, Chardon (OH)* USA, Mentor (OH)*
De Nora Water Technologies, LLC	USA, Coraopolis, Pittsburgh (PA) USA Albuquerque, NM* USA, Sugar Land (Texas)* USA, Colmar (PA)*
De Nora Marine Technologies, LLC	USA, Sugar Land (Texas)
De Nora Neptune, LLC	USA, Fort Stockton (TX)
De Nora ISIA S.r.l.	Italy, Marghera (VE)
ISIA S.p.A. Abu Dhabi Branch	UAE, Abu Dhabi

*Secondary offices.

The corporate governance system adopted by Industrie De Nora S.p.A. complies with the indications contained in the Corporate Governance Code published by Borsa Italiana S.p.A. In compliance with regulatory obligations, the Report on corporate governance and ownership structures (the "CG Report"), which contains a general description of the corporate governance system adopted by the Group and contains information on the ownership structure and compliance with the Corporate Governance Code, including the main governance practices applied and the characteristics of the internal control and risk management system also in relation to the financial reporting process.

The aforementioned CG Report is available on the website www.denora.com in the "Governance—Shareholders' Meetings" section.

The Corporate Governance Code is available on the Borsa Italiana S.p.A. website www.borsaitaliana.it.

On an annual basis, the Board of Directors, on the proposal of the Appointments and Remuneration Committee, defines the remuneration policy, in compliance with the regulatory provisions and the recommendations of the Corporate Governance Code. Pursuant to the law, the remuneration and compensation paid policy constitutes the first section of the Report on the remuneration policy and compensation paid and will be submitted to the Shareholders' Meeting called to approve the 2022 Financial Statements.

Significant events after the year-end

- Effective January 1, 2023, De Nora ISIA S.r.l. was merged by incorporation into De Nora Water Technologies S.r.l. The two companies had already been working closely together since 2021, and the merger now allows them to operate with a single organization that simplifies processes and increases efficiency and agility.
- In February 2023, the acquisition of a dismantled industrial area south-east of Cernusco sul Naviglio (Milan) was finalized for the implementation of the "Italian Gigafactory" project.

The project is part of the expansion plan of the De Nora Group's production capacity and provides, following the demolition of the existing buildings, for the construction of a large-scale production center with a capacity of up to 2GW for the manufacture of electrolysers for generation of green hydrogen, systems and components for the electrolysis of water and fuel cells, in addition to the construction of facilities to service the other divisions of the Group.

The construction of the Gigafactory is expected to start in the second half of 2023, subject to the successful completion of the authorization process that will take place in the coming months.

Outlook

2023 is shaping up to be a very challenging year. The global economic outlook is not as favorable and promising as in the year just ended: high inflation, signs of recession, and the energy crisis do not help, even though the record backlog as at December 31, 2022 gives us confidence to face 2023, foreseeing a consolidation of the traditional Electrode Technologies and Water Technologies businesses and a major development of the Energy Transition segment. To cope with an increasingly rewarding market, the De Nora Group is actively working on expanding its production capacity, which will see a gradual build-up over the coming quarters. In this context, it is essential to maintain a very high focus on cost control, proper procurement and management of raw materials, planning of production activities, and adapting promptly, aligning promptly with changes in the market.

The 2023-2025 Business Plan has been updated and is submitted for approval to the Board of Directors of the parent company together with these consolidated financial statements of the De Nora Group as at December 31, 2022.

On behalf of the Board of Directors
The Chief Executive Officer
Paolo Enrico Dellachà

02 Consolidated Financial Statements

Consolidated Statement of Financial Position

Assets	Notes	2022 (As of December 31,)	Of which Related Parties	2021	Of which Related Parties
		(in € thousands)			
Goodwill and other intangible assets	18	131,552		132,805	
Property, plant and equipment	19	184,177		167,627	
Equity-accounted investees	20	122,664		121,785	
Financial assets, including derivatives	21	4,610		5,421	
Deferred tax assets	22	13,096		8,220	
Trade receivables	27	9,030	52	10,313	52
Employee benefits	30	3,331		-	
Total non current assets		468,460		446,171	
Inventory	23	295,476		233,033	
Financial assets, including derivatives	21	159,036		478	
Current tax assets	24	4,893	376	20,965	376
Construction contracts	25	29,135		22,037	
Trade receivables	26	123,421	7,267	139,974	21,637
Other receivables	27	33,074		29,028	
Cash and cash equivalents	28	174,129		73,843	
Total current assets		819,164		519,358	
Total assets		1,287,624		965,529	
Liabilities					
Equity attributable to the parent		741,218		450,459	
Equity attributable to non-controlling interests		3,586		3,503	
Total Equity	29	744,804		453,962	
Employee benefits	30	23,959		26,036	
Provisions for risks and charges	31	2,142		2,336	
Deferred tax liabilities	22	8,664		8,066	
Financial liabilities, net of current portion	32	267,544		3,784	
Trade payables	33	83		177	
Income tax payable	34	-		108	
Other payables	35	2,384	444	2,183	488
Total non-current liabilities		304,776		42,690	
Provisions for risks and charges	31	18,546		18,769	
Financial liabilities	32	13,655		259,363	
Construction contracts	25	12,702		9,686	
Trade payables	33	80,554	889	61,425	969
Income tax payable	34	10,970	-	27,392	1,786
Other payables	35	101,617	34,869	92,242	27,240
Total current liabilities		238,044		468,877	
Total equity and liabilities		1,287,624		965,529	

Consolidated Income Statement

		For the year ended December 31,			
	Notes	2022	Of which Related Parties	2021	Of which Related Parties
			(in € thousands)		
Revenue	4	852,826	148,324	615,878	97,464
Change in inventory of finished goods and work in progress	5	34,815		35,324	
Other income	6	6,451	752	4,009	794
Costs for raw materials, consumables, supplies and goods	7	(399,904)	(1,056)	(289,578)	(480)
Personnel expenses	8	(154,561)	(23,283)	(116,067)	(4,871)
(of which Management Incentive Plan)	*8*	*(19,360)*	*(17,679)*	-	-
Costs for services	9	(161,819)	(1,617)	(116,868)	(1,586)
Other operating expenses	10	(9,676)	(3)	(9,427)	(1)
Amortization and depreciation	18-19	(28,123)		(26,234)	
Impairment (losses)/revaluations and provisions for risks and charges	11	(14,200)		(9,444)	
Operating profit		125,809		87,593	
Share of profit of equity-accounted investees	12	(1,196)		8,834	
Finance income	13	23,505		13,456	
Finance expenses	14	(27,688)	(1)	(16,330)	-
Profit before tax		120,430		93,553	
Income tax expense	15-16	(30,765)		(27,108)	
Profit for the period		89,665		66,445	
Attributable to:					
Owners of the parent		*89,564*		*66,696*	
Non-controlling interests		*101*		*(251)*	
Basic earnings per share (in Euro)	17	0.47		-	
Diluted earnings per share (in Euro)	17	0.47		-	
Basic earnings per share (A, B and C shares) (Euro)	17	-		0.38	
Diluted earnings per share (A, B and C shares)(Euro)	17	-		0.38	
Basic earnings per share (D shares) (Euro)	17	-		0.04	
Diluted earnings per share (D shares) (Euro)	17	-		0.04	

Consolidated Statement of Comprehensive Income

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Profit for the period	89,665	66,445
Items that will not be reclassified to profit or loss:		
Actuarial reserve	7,238	1,399
Tax effect	(2,105)	(551)
Total items that will not be reclassified to profit or loss, net of the tax effect (A)	5,133	848
Items that may be reclassified subsequently to profit or loss:		
Effective portion of the change in fair value of financial instruments hedging cash flows	589	1,400
Change in fair value of financial assets	218	32
Translation reserve	(690)	14,408
Tax effect	(214)	(351)
Total items that may be reclassified subsequently to profit or loss, net of the tax effect (B)	(97)	15,489
Total other comprehensive income net of the tax effects (A) + (B)	5,036	16,337
Total comprehensive income	94,701	82,782
Attributable to:		
Owners of the parent	*94,714*	*82,797*
Non-controlling interests	*(13)*	*(15)*

Consolidated Statement of Cash Flows

	Notes	2022	Of which Related Parties	2021	Of which Related Parties
		For the year ended December 31,			
		(in € thousands)			
Cash flows from operating activities					
Profit for the period	29	89,665		66,445	
Adjustments for:					
Amortization and depreciation	18-19	28,123		26,234	
Impairment losses/(reversal) of property, plant and equipment	11-18-19	8,988		2,947	
Finance expenses	14	27,688	1	16,330	
Finance income	13	(23,505)		(13,456)	
Share of profit of equity-accounted investees	12	1,196	1,196	(8,834)	(8,834)
(Gains) losses on the sale of property, plant and equipment and intangible assets	18-19	330		1,803	
Income tax expense	15	30,765		27,108	
Share based payments	29	19,464	17,679	-	-
Change in inventory	23	(60,408)		(105,237)	
Change in trade receivables and construction contracts	25-26	15,614	14,344	(42,991)	(12,058)
Change in trade payables	33	19,509	(61)	11,904	351
Change in other receivables/payables	27-35	5,494	7,731	25,267	18,541
Change in provisions and employee benefits	30	(6,537)		976	
Cash flows generated by operating activities		156,386		8,496	
Interest and other finance expenses paid	14	(24,889)		(11,909)	
Interest and other finance income collected	13	18,226		5,448	
Income tax paid	15	(36,748)		(17,554)	
Net cash flows (used in) generated by operating activities		112,975		(15,519)	
Cash flows from investing activities					
Sales of property, plant and equipment and intangible assets	18-19	382		770	
Investments in property, plant and equipment	18-19	(38,116)		(23,906)	
Investments in intangible assets	18-19	(8,026)		(7,083)	
Investments in associated companies	19	(17)	(17)	-	-
Investment in financial activities	21	159,291		3,779	
Acquisitions, net of cash acquired		-		(6,352)	
Net cash flows used in investing activities		(205,068)		(32,792)	
Cash flows from financing activities					
Share capital increase	29	196,707		18,090	
New loans	32	276,412		107,803	
(Repayments) of loans	32	(257,265)		(20,859)	
Payement of leases	32	(2,497)		(1,479)	
Increase (decrease) in other financial liabilities	32	(8)		(8)	
Dividends paid	29	(20,030)		(60,028)	
Net cash flows generated by (used in) financing activities		193,319		43,519	
Net increase (decrease) in cash and cash equivalents		101,226		(4,792)	
Opening cash and cash equivalents		73,843		75,658	
Exchange rate gains/(losses)		(940)		2,977	
Closing cash and cash equivalents	28	174,129		73,843	

Statement of Changes in the Net Consolidated Equity

(in € thousands)	Share capital	Legal reserve	Share premium	Retained earnings	Translation reserve	Other reserves	Profit for the period	Equity attributable to the parent	Equity attributable to non-controlling interests	Total Equity
Balance as of December 31, 2020	16,569	3,314	7,042	367,955	(8,621)	(9,321)	32,634	409,572	3,546	413,118
Transactions with shareholders:										
Share capital increase	217	-	17,873	-	-	-	-	18,090	-	**18,090**
Allocation of profit for 2020	-	43	-	32,591	-	-	(32,634)	-	-	**-**
Distribution of Dividends	-	-	-	(60,000)	-	-	-	(60,000)	(28)	**(60,028)**
Comprehensive income statement:										
Profit for the period	-	-	-	-	-	-	66,696	66,696	(251)	**66,445**
Actuarial reserve	-	-	-	-	-	838	-	838	10	**848**
Effective portion of the change in fair value of financial instruments hedging cash flows	-	-	-	-	-	1,059	-	1,059	-	**1,059**
Change in fair value of financial assets	-	-	-	-	-	20	-	20	2	**22**
Translation reserve	-	-	-	-	14,184	-	-	14,184	224	**14,408**
Balance as of December 31, 2021	16,786	3,357	24,915	340,546	5,563	(7,404)	66,696	450,459	3,503	453,962
Transactions with shareholders:										
Share capital increase	1,482	-	198,518	-	-	(3,419)	-	196,581	126	**196,707**
Allocation of profit for 2021	-	-	-	66,696	-	-	(66,696)	-	-	**-**
Distribution of Dividends	-	-	-	(20,000)	-	-	-	(20,000)	(30)	**(20,030)**
Other movements – Share based payments	-	-	-	-	-	19,464	-	19,464	-	**19,464**
Comprehensive income statement:										
Profit for the period	-	-	-	-	-	-	89,564	89,564	101	**89,665**
Actuarial reserve	-	-	-	-	-	5,137	-	5,137	(4)	**5,133**
Effective portion of the change in fair value of financial instruments hedging cash flows	-	-	-	-	-	429	-	429	-	**429**
Change in fair value of financial assets	-	-	-	-	-	88	-	88	76	**164**
Translation reserve	-	-	-	-	(504)	-	-	(503)	(186)	**(689)**
Balance as of December 31, 2022	18,868	3,357	223,433	387,242	5,059	14,295	89,564	741,218	3,586	744,804

Notes to the Consolidated Financial Statements

A. General information

The Group

Industrie De Nora S.p.A. (hereinafter the "**Company**" or "**IDN**" and together with its subsidiaries the "Group" or the "**De Nora Group**") is a joint-stock company incorporated and registered in Italy at the Company Register Office of Milan. The registered office is located at Via Bistolfi 35, Milan (Italy). The Company has been listed on Euronext Milan since June 30, 2022.

The Group was founded by the engineer Oronzio De Nora and prides itself of 100 years in the electro-chemical industry. Today it is known as a world leader in the supply of technologies for the production of chlorine and caustic soda and is the largest supplier of electrodes for the electrochemical industry.

As at December 31, 2022, the Company is controlled by Federico De Nora S.p.A., with registered office at Via Bistolfi 35, Milan.

1. Statement of compliance

The Consolidated financial statements of the De Nora Group for the financial year ended December 31, 2022 (hereinafter the "**Consolidated Financial Statements**") have been prepared in accordance with international accounting standards (International Accounting Standard – IAS and International Financial Reporting Standard – IFRS) issued by the International Accounting Standards Board (IASB) and endorsed by the European Union in European Parliament and the European Council with Regulation no. 1606/2002 of July 2002 issued by the European Parliament and the European Council in July 2002 and in force at December 31, 2022, with the interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC), as well as the interpretations of the Standing Interpretations Committee (SIC), in force at the same date. All the above standards and interpretations are collectively referred to below as "**IFRS**". The IFRS have been applied consistently in all the years presented. The Consolidated Financial Statements consist of the mandatory financial statements required by IAS 1, namely the consolidated statement of financial position, the consolidated income statement, the consolidated statement of comprehensive income, the statement of changes in net consolidated equity and the consolidated statement of cash flows, as well as the related notes. For comparative purposes, the data relating to the financial year ended December 31, 2021 have been presented.

The Consolidated Financial Statements were prepared on a going concern basis, as the Directors verified the absence of financial, management or other indicators that could indicate significant uncertainties about the Group's ability to meet its obligations in the foreseeable future and, in particular, in the 12 months following the closing date.

The assessments made confirm that the Group is able to operate in compliance with the going concern assumption and in compliance with financial covenants.

These Consolidated Financial Statements were approved by the Board of Directors of the Company on March 22, 2023 and are subject to an audit by the independent auditors PricewaterhouseCoopers S.p.A.

The main accounting criteria and standards applied in the preparation of the Consolidated Financial Statements are shown below.

Changes in accounting standards

1. Accounting standards, amendments and interpretations that came into effect and applied as at January 1, 2022

The following new amendments were issued by the International Accounting Standards Board ("IASB") and adopted by the European Union, and are effective as of January 1, 2022:

- in May 2020, the IASB issued amendments to *IFRS 3 - Business Combinations* to update a reference in IFRS 3 to the *Conceptual Framework for Financial Reporting* without changing the accounting requirements for business combinations;
- in May 2020, the IASB issued amendments to IAS 16 - Property, Plant and Equipment. The amendments prohibit a company from deducting from the cost of property, plant and equipment, the amounts received from the sale of items produced while the company is preparing the asset for its intended use. Instead, a company should recognise such sales proceeds and the associated cost in the income statement;
- in May 2020, the IASB issued amendments to IAS 37 - Provisions, contingent liabilities and contingent assets, which specify what costs a company includes when assessing whether a contract will be loss-making;
- in May 2020, the IASB issued the *Annual Improvements to IFRSs 2018 - 2020 Cycle*. The improvements amended four standards with an effective date of January 1, 2022: (i) IFRS 1 - First-time Adoption of International Financial Reporting Standards, in relation to whether a subsidiary can measure cumulative translation differences using the amounts reported by its parent, (ii) IFRS 9 - Financial Instruments, in relation to what consideration an entity includes when applying the "10 percent" test for derecognition of financial liabilities, (iii) IAS 41 - Agriculture, in relation to the exclusion of tax cash flows in measuring the fair value of a biological asset, and (iv) IFRS 16 - Leases, in relation to an illustrative example of repayment for leasehold improvements.

These amendments did not result in any noteworthy impacts on the Group's Consolidated Financial Statements.

2. Accounting standards, amendments and interpretations not yet applicable

Accounting standards not yet applicable, as they have not been endorsed by the European Union

At the date of approval of these Consolidated Financial Statements, the competent bodies of the European Union have not yet completed the approval process necessary for the adoption of the following accounting standards and amendments.

Accounting standard/amendment	Approved by the EU	Effective date
Amendments to IFRS 17 (Insurance contracts): First application of IFRS 17 and IFRS 9 - Comparative information	NO	January 1, 2023
Amendments to IAS 1 Presentation of the Financial Statements: classification of liabilities as current or non-current	NO	January 1, 2023
Amendments to IAS 12 Income taxes: deferred taxes relating to assets and liabilities deriving from a "Single Transaction"	NO	January 1, 2023

Accounting standards issued by the IASB but not applied in advance by the Group

At the date of approval of these Consolidated Financial Statements, the competent bodies of the European Union have approved the adoption of the following accounting standards and amendments, which have not been adopted in advance by the Group.

Accounting standard/amendment	Approved by the EU	Effective date
IFRS 17 (Insurance contracts), including amendments to IFRS 17	YES	January 1, 2023
Amendments to IAS 1 Presentation of the Financial Statements and to IFRS Practice Statement 2: information on accounting policies	YES	January 1, 2023
Amendments to IAS 8 Accounting standards, changes in accounting estimates and errors: definition of accounting estimates	YES	January 1, 2023
Deferred taxes relating to assets and liabilities arising from a single transaction (Amendments to IAS 12)	YES	January 1, 2023

No impacts are expected on the Group's Condensed Consolidated Interim Financial Statements, from the future application of these accounting standards or amendments.

Structure and content of the Consolidated Financial Statements

The Consolidated Financial Statements include the equity, economic and financial situation of the Company and of the subsidiaries approved by the respective administrative bodies, prepared on the basis of the related accounting situations and, where applicable, appropriately adjusted to make them compliant with IFRS.

The following table summarises, with reference to the subsidiaries of the Company and its associates, the information relating to the company name, registered office, functional currency, share capital and the share held directly as at December 31, 2022.

Entity	Registered office	Currency	Share of capital as of December 31, 2022		% of capital held as of December 31,		Consolidation Criteria
			in local currency	in Euro	2022	2021	
Oronzio De Nora International BV - THE NETHERLANDS:	Prins Bernhardplein, 200 - Amsterdam - THE NETHERLANDS	Euro	4,500,000.00	4,500,000.00	100%	100%	full
*De Nora Deutschland GmbH - GERMANY	Industriestrasse 17 63517 Rodenbach - GERMANY	Euro	100,000.00	100,000.00	100%	100%	full
*De Nora India Ltd - INDIA	Plot Nos. 184, 185 & 189 Kundaim Industrial Estate Kundaim 403 115, Goa, INDIA	INR	53,086,340.00	602,083.91	53.67%	53.67%	full
*De Nora Permelec Ltd - JAPAN:	2023-15 Endo, Fujisawa City - Kanagawa Pref. 252 - JAPAN	JPY	90,000,000.00	639,840.75	100%	100%	full
*De Nora Hong Kong Limited - HONG KONG	Unit D-F 25/F YHC Tower 1 Sheung YUET Road Kowllon Bay KL - HONG KONG	HKD	100,000.00	12,024.58	100%	100%	full
De Nora do Brasil Ltda - BRASIL	Avenida Jerome Case No. 1959 Eden - CEP 18087-220 - Sorocoba/SP - BRASIL	BRL	9,662,257.00	1,713,591.49	100%	100%	full
De Nora Elettrodi (Suzhou) Ltd - CHINA:	No. 113 Longtan Road,Suzhou Industrial Park 215126, CHINA	USD	25,259,666.00	23,682,417.03	100%	100%	full

Entity	Registered office	Currency	Share of capital as of December 31, 2022		% of capital held as of December 31,		Consolidation Criteria
			in local currency	in Euro	2022	2021	
*De Nora China - Jinan Co Ltd - CHINA	Building 3,No.5436,Wenquan Rd.,Lingang Development Zone, Licheng District, Jinan City. Shandong Province CHINA	CNY	15,000,000.00	2,038,542.03	100%	100%	full
*De Nora Glory (Shanghai) Co Ltd - CHINA	No.2277 Longyang Rd. Unit 1605 Yongda Int'l Plaza - Shanghai - CHINA	CNY	1,000,000.00	135,902.80	80%	80%	full
De Nora Italy S.r.l. - ITALY	Via L.Bistolfi, 35 - 20134 Milan - ITALY	Euro	5,000,000.00	5,000,000.00	100%	100%	full
De Nora ISIA S.r.l. - ITALY	Banchina Molini 8 - 30175 Venezia - ITALY	Euro	200,000.00	200,000.00	100%	100%	full
De Nora Water Technologies Italy S.r.l. - ITALY:	Via L.Bistolfi, 35 - 20134 Milan - ITALY	Euro	78,000.00	78,000.00	100%	100%	full
*De Nora Water Technologies FZE – DUBAI	Office No: 614, Le Solarium Tower, Dubai Silicon Oasis - DUBAI	AED	250,000.00	63,822.73	100%	100%	full
De Nora Italy Hydrogen Technologies S.r.l. - ITALY	Via L.Bistolfi, 35 - 20134 Milan - ITALY	Euro	110,000.00	110,000.00	90%	-	full
De Nora Holding UK Ltd. – UNITED KINGDOM:	c/o hackwood Secretaries Limited, One silk Street, London UK, EC2Y8HQ - UNITED KINGDOM	Euro	19.00	19.00	100%	100%	full
*De Nora Water Technologies UK Services Ltd. – UNITED KINGDOM	Arley Drive, Birch Coppice Business Park; Tamworth, Warwickshire - UNITED KINGDOM	GBP	7,597,918.00	8,566,536.25	100%	100%	full
*De Nora Holding US Inc. – USA	7590 Discovery Lane, Concord, OH 4407 - USA	USD	10.00	9.38	100%	100%	full
*De Nora Tech LLC – USA	7590 Discovery Lane, Concord, OH 4407 - USA	USD	no share capital	-	100%	100%	full
*De Nora Water Technologies LLC (ex De Nora Water Technologies Inc.) - USA:	3000 Advance Lane 18915 - Colmar - PA - USA	USD	968,500.19	908,025.68	100%	100%	full
*De Nora UV Technologies LLC - USA	-	USD	-	-	-	100%	full
*De Nora Water Technologies (Shanghai) Co. Ltd - CHINA	2277 Longyang Road, Unit 305 Yongda International Plaza - 201204 - Pudong Shanghai - CHINA	CNY	16,780,955.00	2,280,578.81	100%	100%	full
*De Nora Water Technologies Ltd. - UNITED KINGDOM:	c/o hackwood Secretaries Limited, One silk Street, London UK, EC2Y8HQ - UNITED KINGDOM	GBP	1.00	1.13	100%	100%	full
*De Nora Water Technologies (Shanghai) Ltd - CHINA	No 96 Street A0201 Lingang Marine Science Park, Pudong New District, Shanghai - CHINA	CNY	7,757,786.80	1,054,304.97	100%	100%	full

Entity	Registered office	Cur-rency	Share of capital as of December 31, 2022		% of capital held as of December 31,		Conso-lidation Criteria
			in local currency	in Euro	2022	2021	
*De Nora Marine Technologies LLC – USA	1110 Industrial Blvd., Sugar Land, TX 77478 - USA	USD	no share capital	-	100%	100%	full
*De Nora Neptune LLC – USA	305 South Main Street, Fort Stockton, Texas 76735 - USA	USD	no share capital	-	80%	80%	full
Capannoni S.r.l. - ITALY:	Via L.Bistolfi, 35 - 20134 Milan - ITALY	Euro	8,500,000.00	8,500,000.00	100%	100%	full
*Capannoni LLC - USA	7590 Discovery Lane, Concord, OH 4407 - USA	USD	3,477,750.00	3,260,594.41	100%	100%	full
thyssenkrupp nucera AG & Co. KGaA	Germany	Euro	100,000,000.00	100,000,000.00	34%	34%	equity
*thyssenkrupp nucera Italy S.r.l.	Italy	Euro	1,080,000.00	1,080,000.00	34%	34%	equity
*thyssenKrupp nucera Australia Pty.	Australia	AUD	500,000.00	318,613.39	34%	34%	equity
*thyssenkrupp nucera Japan Ltd.	Japan	JPY	150,000,000.00	1,066,401.25	34%	34%	equity
*thyssenkrupp Uhde Chlorine Engineers (Shan-ghai) Co., Ltd.	China	CNY	20,691,437.50	2,812,024.34	34%	34%	equity
*thyssenkrupp nucera USA Inc.	Usa	USD	700,000.00	656,291.02	34%	34%	equity
tk nucera Management AG	Germany	Euro	50,000.00	50,000.00	34%	-	equity

The reporting date of the consolidated financial statements used coincides with that of the Company (December 31), which is the same as all of the consolidated companies, with the exception of:

- De Nora India Ltd (whose financial year ends on March 31) for which specific annual data as of December 31 of each financial year have been prepared;
- the company ThyssenKrupp (the financial year of the parent company thyssenkrupp nucera AG & Co. KGaA closes as at September 30) for which annual data as at December 31 of each financial year have been prepared.

The main changes in the consolidation area are briefly described below:

- effective January 1, 2022, the wholly owned subsidiary De Nora UV Technologies, LLC, was dissolved by transferring its net assets partly to De Nora Marine Technologies LLC and partly to De Nora Water Technologies LLC, for reasons related to better corporate organisation of the different businesses;
- the incorporation, on May 27, 2022, of De Nora Italy Hydrogen Technologies S.r.l, based in Milan, a company 90% owned by Industrie De Nora S.p.A. and the remaining 10% by Snam S.p.A;
- in 2022, the new associated company tk nucera Management AG, 34% owned by IDN SpA, was also incorporated.

Basis of consolidation

The financial statements of the companies in which the Company directly or indirectly has control have been consolidated using the "full consolidation method", through the full assumption of the assets and liabilities and the costs and revenues of the subsidiaries. Companies that are jointly controlled by the Group, in accordance with IFRS 11, and those in which the Group exercises significant influence are measured using the "equity method", which foresees the initial recognition of the equity investment at cost and the subsequent adjustment of its carrying amount to reflect the investor's share of the related company's profits or losses after the acquisition date.

Consolidation policies

The criteria adopted by the Group for the definition of the consolidation area and the related consolidation principles are shown below.

Subsidiaries

An investor controls an entity when: (i) has power over the entity being invested in, (ii) is exposed to, or has the right to participate in, the variability of its economic returns and (iii) is able to exercise decision-making power over the entity's relevant operations in a manner that influences those returns. The exercise of control is verified whenever facts and/or circumstances indicate a change in one of the aforementioned elements qualifying for control. Subsidiaries are consolidated on a line-by-line basis starting from the date on which control was acquired and cease to be consolidated from the date on which the loss of control occurs. The criteria adopted for line-by-line consolidation are as follows:

- the assets and liabilities, charges and income of the subsidiaries are assumed on a line-by-line basis, attributing to minority shareholders, where applicable, the share of shareholders' equity and of the net result for the period due to them; these portions are shown separately in the shareholders' equity and in the statement of comprehensive income;
- the profits and losses, including the related tax effects, deriving from transactions carried out between fully consolidated companies and not yet realized in relation to third parties, are eliminated, except for losses which are not eliminated if the transaction provides evidence of an impairment of the transferred asset. Furthermore, the reciprocal debt and

credit relationships, costs and revenues, as well as Finance income and expenses are derecognized;

— dividends distributed by the consolidated companies are eliminated from the income statement and reinstated in equity;

— in the presence of equity investments acquired subsequent to the assumption of control (acquisition of third party interests), any difference between the purchase cost and the corresponding fraction of the net assets acquired is recognized in the shareholders' equity attributable to the Group; similarly, the effects deriving from the sale of non-controlling interests without loss of control are recognized in equity. On the other hand, the sale of equity investments involving the loss of control determines the recognition in the statement of comprehensive income:

(i) of any capital gain/loss calculated as the difference between the consideration received and the corresponding portion of net consolidated equity transferred;

(ii) of the effect of remeasuring any residual equity investment retained to align it with its fair value;

(iii) of any values recognized in the other components of the comprehensive income relating to the subsidiary whose control no longer exists, for which the reversal to the statement of comprehensive income is provided for, or if the reversal to the statement of comprehensive income is not envisaged, to the equity item "Retained earnings".

The value of any equity investment retained, aligned with its fair value at the date of loss of control, represents the new carrying amount of the equity investment, which also constitutes the reference value for the subsequent valuation of the investment in accordance with the applicable valuation criteria.

Jointly controlled and associated companies

Companies that are jointly controlled by the Group, in accordance with IFRS 11, and those in which the Group exercises significant influence are measured using the equity method, which foresees the initial recognition of the equity investment at cost and the subsequent adjustment of its carrying amount to reflect the investor's share of the related company's profits or losses after the acquisition date.

Business combinations

Business combinations, by virtue of which control of a business is acquired, are recognized in accordance with IFRS 3, applying the so-called "acquisition method". In particular, the identifiable assets acquired and liabilities and contingent liabilities assumed are recognized at their fair value at the acquisition date, i.e. the date when control is acquired, except for deferred tax assets and liabilities, assets and liabilities relating to employee benefits and assets held for sale, which are recognized in accordance with the relevant accounting standards. The difference between the fair value of the consideration transferred and the current value of the assets and liabilities, if positive, is recognized in intangible assets as goodwill, or, if negative, after having rechecked the correct measurement of the current values of the assets and liabilities acquired and of the acquisition cost, is recognized directly in the statement of comprehensive income, as income. The shares of non-controlling interests, at the acquisition date, can be valued at fair value or at the pro quota value of the net assets recognized for the acquired company. The choice of the valuation method is made on a transaction-by-transaction basis. When the determination of the values of the assets and liabilities of the business acquired is made provisionally, it must be concluded within a maximum period of twelve months from the acquisition date, taking into account only the information relating to facts and circumstances existing at the acquisition date. In the financial year in which the aforementioned determination is concluded, the provisionally recognized values are adjusted with a retrospective effect. Accessory charges to the transaction are recognized in the statement of comprehensive income at the time they are incurred.

The acquisition cost is the fair value at the acquisition date of the assets transferred, the liabilities assumed and the equity instruments issued for the purpose of the acquisition, and also includes contingent consideration, i.e. that portion of consideration whose amount and timing depend on future events. Contingent consideration is recognized at its acquisition-date fair value and subsequent changes in fair value are recognized in the statement of comprehensive income if the contingent consideration is a financial asset or a financial liability, while contingent consideration classified as equity is not remeasured and the subsequent settlement is recognized directly in equity.

In the case of assumption of control in subsequent phases, the purchase cost is determined by adding the fair value of the equity investment previously held in the acquired company and the amount paid for the additional share. Any difference between the fair value of the previously held equity investment and its carrying amount is recognized in the income statement. On assumption of control, any amounts previously recognized in other comprehensive income are recognized in the statement of comprehensive income, or in another equity item if there is no reclassification to the statement of comprehensive income.

* * *

Business combinations whereby the participating companies are controlled by the same entity or by the same entities both before and after the business combination, for which control is not transitory, are classified as "under common control". These transactions are not governed by IFRS 3, nor by other IFRSs. In the absence of a reference accounting standard, the choice of method of accounting for the transaction must ensure compliance with IAS 8, i.e. the reliable and faithful representation of the transaction. Furthermore, the accounting standard chosen to represent transactions "under common control" must reflect their economic substance, regardless of their legal form. The existence of economic substance is therefore the key element that guides the methodology to be followed for accounting for the transactions in question. Economic substance must refer to a generation of value added that results in significant changes in the cash flows of the net assets transferred. Current interpretations and guidelines should also be taken into consideration when accounting for the transaction; in particular, reference should be made to the provisions of OPI 1 (Revised) (*Orientamenti Preliminari Assirevi* as regards IFRS), concerning the "accounting treatment of business combinations of entities under common control in the separate and consolidated financial statements".

The net assets transferred must therefore be recognized at the book values they had in the company being acquired or, if available, at the values resulting from the consolidated financial statements of the common parent company. In this sense, the Company has chosen to refer, in the case of transactions such as the one in question, to the historical values of the net assets they had in the financial statements of the company being acquired.

Transactions with minority shareholders

The Group accounts for transactions with minority shareholders as "equity transactions". Therefore, in the case of acquisitions and sales of additional shares, after acquiring control the difference between the acquisition cost and the carrying amount of the acquired minority interests is recognized in the Group's equity.

Translation of the financial statements of foreign companies

The financial statements of subsidiaries are drawn up using the currency of the country in which they have their registered office. The rules for translating the financial statements of companies expressed in currencies other than the Euro are as follows:

— assets and liabilities are translated using the exchange rates in effect at the reporting date;

— costs and revenues are translated at the average exchange rate for the financial year, calculated using the monthly averages of official figures;

— the "translation reserve", whose changes are included in the items of the statement of comprehensive income, includes both exchange differences generated by the translation of income statement amounts at an exchange rate different from the closing rate and those generated by the translation of opening shareholders' equity at the historical exchange rate;

— goodwill, if any, and fair value adjustments related to the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the year-end exchange rate.

The following table summarises the exchange rates used to convert the financial statements of companies that have a functional currency other than the Euro for the periods indicated:

Currency	For the year ended December 31, 2022	For the year ended December 31, 2021	As of December 31, 2022	As of December 31, 2021
US Dollar	1.0530	1.1827	1.0666	1.1326
Japanese Yen	138.0274	129.8767	140.6600	130.3800
Indian Rupee	82.6864	87.4392	88.1710	84.2292
Chinese Yuan (Renminbi)	7.0788	7.6282	7.3582	7.1947
Brazilian Real	5.4399	6.3779	5.6386	6.3101
Pound sterling (GBP)	0.8528	0.8596	0.8869	0.8403

Translation of foreign currency items

Transactions in currencies other than the functional currency are recognized at the exchange rate in effect as at the transaction date. Monetary assets and liabilities denominated in currencies other than the euro are subsequently adjusted at the exchange rate prevailing as at the reporting date. Any exchange differences that may arise are reflected in the income statement under the items relating to finance income or charges.

2. Accounting standards and criteria

General principles

The Consolidated Financial Statements were prepared:

— on the basis of the best knowledge of the IFRS and taking into account the best doctrine on the subject; any future directives and updates in interpretation will be adopted in subsequent financial years, in accordance with the procedures from time to time provided for by the reference accounting standards;

— in the assumption of the continuity of the company's business, according to the principle of accrual basis of accounting, in compliance with the principle of relevance and significance of the information, of the prevalence of substance over form and with a view to favouring consistency with future presentations. The assets and liabilities, costs and revenues are not offset against each other, unless this is permitted or required by International Accounting Standards;

- on the basis of the conventional historical cost criterion, except for the valuation of financial assets and liabilities in cases where the application of the fair value criterion is mandatory, and for the financial statements of companies operating in economies subject to hyperinflation, drawn up on the basis of the current cost criterion.

A description of the financial reporting formats and the most significant accounting standards applied in the preparation of the Consolidated Financial Statements is provided below.

Financial statements formats

The Consolidated Financial Statements consist of the mandatory financial statements required by IAS 1 (consolidated income statement, consolidated statement of financial position, consolidated statement of cash flows, statement of changes in the net consolidated equity and consolidated statement of comprehensive income) and are accompanied by these explanatory notes. The formats used are those that best represent the Group's economic, equity and financial situation.

The consolidated income statement is presented by the nature of the expenses, highlighting the intermediate results relating to the operating result and the result before tax.

The statement of financial position is prepared using the format whereby assets and liabilities are presented on a "current/non-current" basis. An asset is classified as current when:

- it is assumed that this activity is carried out, or is held for sale or consumption, in the normal course of the operating cycle;
- it is mainly owned for the purpose of trading it;
- it is assumed that it will take place within twelve months from the closing date of the financial year;
- it consists of cash and cash equivalents (unless it is forbidden to exchange it or use it to settle a liability for at least twelve months from the closing date of the financial year).

All other assets are classified as non-current. In particular, IAS 1 includes property, plant and equipment, intangible assets and long-term financial assets among non-current assets.

A liability is classified as current when:

- it is expected to be settled in the normal operating cycle;
- it is mainly owned for the purpose of trading it;
- it will be settled within twelve months from the closing date of the financial year;
- there is no unconditional right to defer its settlement for at least twelve months after the end of the financial year. The clauses of a liability that could, at the option of the counterparty, give rise to its settlement through the issue of equity instruments, do not affect its classification.

All other liabilities are classified by the company as non-current.

The operating cycle is the time that elapses between the acquisition of assets for the production process and their realisation in cash or cash equivalents. When the normal operating cycle is not clearly identifiable, its duration is assumed to be twelve months.

The statement of cash flows is prepared using the indirect method.

The statement of changes in the net consolidated equity shows the changes in shareholders' equity items related to:

- the recognition of the result for the period and allocation of the result of the previous period;
- amounts relating to transactions with shareholders;
- all gains and losses, net of tax, which, as required by IAS/IFRS, are taken directly to equity (actuarial gains and losses arising from defined benefit plans and hedging reserves);

- changes in the fair value reserves relating to cash flow hedges, net of taxes;
- changes in the consolidation scope;
- the effect of the differences deriving from the conversion of the financial statements of foreign companies;
- changes in accounting standards.

The consolidated statement of comprehensive income presents, on a separate basis, the result for the period and any income and expense not taken to income statement, but is instead recognized directly in equity, in accordance with specific IFRS standards.

The Consolidated Financial Statements have been drawn up in Euro, the Company's functional currency. The financial position and income statements, the explanatory notes and the tables are expressed in thousands of Euros, unless otherwise indicated.

Accounting standards and criteria

The criteria adopted with reference to the classification, recognition, valuation and derecognition of the various asset and liability items, as well as the criteria for recognizing the income components, are described below.

Intangible assets

An intangible asset is an asset which, at the same time, meets the following conditions:

- is identifiable;
- it is non-monetary;
- it has no physical consistency;
- it is under the control of the company preparing the financial statements;
- it is expected to produce future economic benefits for the company.

If an asset does not meet the above requirements to be defined as an intangible asset, the expense incurred to purchase the asset or to generate it internally is recognized as an expense when it is incurred.

Intangible assets are initially recognized at cost. The cost of intangible assets acquired from outside includes the purchase price and any directly attributable costs.

Internally generated goodwill is not recognized as an asset in the same way as intangible assets arising from research (or from the research phase of an internal project).

An intangible asset deriving from the development or development phase of an internal project is recognized if compliance with the following conditions is met:

- the technical feasibility of completing the intangible asset so that it is available for use or for sale;
- the intention to complete the intangible asset in order to use or sell it;
- the ability to use or sell the intangible asset;
- the way in which the intangible asset is capable of generating future economic benefits and in particular the existence of a market for the output of the intangible asset or for the intangible asset itself or, if it is to be used for internal purposes, its usefulness;
- the availability of adequate technical, financial and other resources to complete the development and for the use or sale of the asset;
- the ability to reliably assess the cost attributable to the intangible asset during its development.

Intangible assets are measured using the cost method in accordance with IAS 38. The cost method provides that after initial recognition an intangible asset must be recognized at cost net of accumulated amortization and any accumulated impairment loss.

The following main intangible assets can be identified within the Group:

(a) Goodwill

Goodwill is classified as an intangible asset with an indefinite useful life and is initially accounted for at cost, as previously described, and subsequently subjected to valuation, at least annually, aimed at identifying any impairment losses (see in this regard what is reported in the following paragraph "*Impairment of goodwill and of property, plant and equipment and of intangible assets and right-of-use assets*"). The reinstatement of the value is not allowed in the event of a previous write-down due to impairment.

(b) Intangible assets with a finite useful life

Intangible assets with a finite useful life are recognized at cost, as previously described, net of accumulated amortization and any impairment losses.

Amortization begins when the asset is available for use and is allocated systematically in relation to the residual possibility of its use, i.e. on the basis of its estimated useful life; for the value to be depreciated and the recoverability of the book value, the criteria indicated respectively in the paragraphs "*Property, plant and equipment*" and "*Impairment of Goodwill, Property, plant and equipment and intangible assets and right-of-use assets*" apply.

The useful life estimated by the Group for the various categories of intangible assets is shown below:

Intangible asset category	Useful life
Industrial patents and intellectual property rights	from 3 to 5 years
Concessions, licences and trademarks	from 3 to 10 years
Know-how and Technologies	from 13 to 25 years
Customer Relationships	from 10 to 25 years
Development costs	from 5 to 15 years
Others	from 3 to 11 years

Right-of-use assets and liabilities and leasing

In accordance with IFRS 16, a contract is, or contains, a lease if, in exchange for consideration, it grants the right to control the use of a specified asset for a period of time; this right exists if the contract gives the lessee the right to direct the use of the asset and substantially obtain all the economic benefits from its use. The contract is re-valued to verify whether it is, or contains, a lease only in the event of a change in the terms and conditions of the contract.

For a contract that is, or contains, a lease, each lease component is separate from the non-lease component, unless the Group applies the practical expedient referred to in paragraph 15 of IFRS 16. This practical expedient allows the lessee to choose, for each underlying asset class, not to separate the non-lease components from the lease components and to account for each lease component and the associated non-lease components as a single lease component.

The duration of the lease is determined as the non-cancellable period of the lease, to which both the following periods must be added:

- periods covered by a lease extension option, if the lessee has reasonable certainty that he is exercising the option;
- periods covered by the lease termination option, if the lessee has reasonable assurance that it will not exercise the option.

In assessing whether the lessee has reasonable certainty to exercise the option to extend the lease or not to exercise the option to terminate the lease, all relevant facts and circumstances that create an economic incentive for the lessee to exercise the option to extend the lease or not to exercise the option to terminate the lease are considered. The lessee must re-determine the duration of the lease in the event of a change in the non-cancellable period of the lease.

At the effective date of the contract, the Group recognises right-of-use asset and the related lease liability.

At the effective date of the contract, the right-of-use asset is valued at cost. The cost of the right-of-use asset includes:

a) the amount of the initial measurement of the lease liability;

b) the lease payments made on or before the effective date net of the lease incentives received;

c) the initial direct costs incurred by the lessee;

d) the estimate of the costs that the lessee will have to incur for the dismantling and removal of the underlying asset and for the restoration of the site in which it is located or for the restoration of the underlying asset under the conditions set out in the terms and conditions of the lease, unless that these costs are incurred for the production of inventories. The obligation related to the aforementioned costs arises on the lessee on the effective date or as a result of the use of the underlying asset during a given period.

At the effective date of the contract, the lessee must assess the lease liability at the current value of the payments due for the lease not yet paid at that date. Payments due for the lease include the following amounts:

a) fixed lease amounts, net of any lease incentives to be received;

b) variable lease amounts that depend on an index or rate, initially measured using an index or rate as at the effective date;

c) the amounts that the lessee is expected to pay as guarantees of the residual value;

d) the price to exercise the call option, if the lessee is reasonably certain that he is exercising the option;

e) the lease termination penalty payments, if the lease term takes into account the lessee's exercise of the lease termination option.

Payments due for the lease should be discounted using the implied lease interest rate if this can be easily determined. If this is not possible, the lessee must use its marginal borrowing rate, which is the incremental interest rate that the company would have to pay to obtain a loan of the same duration and amount as the lease.

After initial recognition, the right-of-use asset is valued at cost:

a) net of accumulated amortization and accumulated impairment;

b) adjusted to take into account any restatements of the lease liability.

After initial recognition, the lease liability is assessed:

a) increasing the carrying amount to take into account the interest on the lease liability;

b) decreasing the carrying amount to take into account the payments due for the leases made;

c) restating the carrying amount to reflect any revaluation or modification of the lease or revision of payments due on leases that are fixed in substance.

In the event of changes to the lease that do not qualify as a separate lease, the right-of-use asset is restated (up or down), in line with the change in the lease liability at the date of the change. The lease liability is restated on the basis of the new conditions set out in the lease contract, using the discount rate at the date of the change.

It should be noted that the Group avails itself of the exemption provided for by IFRS 16, with reference to the leasing of low value assets (i.e. when the value of the underlying asset, if new, is indicatively lower than USD 5,000). In such cases, the right-of-use asset and the related lease liability are not recognized, and the payments due for the lease are recognized in the income statement.

The Group has decided to avail itself of the exemption provided for by IFRS 16 in relation to short-term leases (i.e. lease contracts that have a duration equal to or less than twelve months from the effective date).

The lessor must classify each of its leases as operating or financial. A lease is classified as a financial lease if it essentially transfers all the risks and benefits associated with the ownership of an underlying asset. A lease is classified as operating if, in substance, it does not transfer all the risks and benefits associated with the ownership of an underlying asset. In the case of a financial lease, on the effective date the lessor must recognise the assets held under financial leases in the statement of financial position and present them as a receivable at a value equal to the net investment in the lease. In the case of operating leases, the lessor must recognise the payments due as income on a straight-line basis or on another systematic basis. The lessor must also recognise the costs, including depreciation, incurred to realise the proceeds of the lease.

If an entity transfers an asset to another entity which obtains it in operation, it shall determine, based on the provisions of IFRS 15, whether the transfer should be accounted for as a sale. In such a case, the lessee-seller shall measure the asset consisting of the right of use arising from the leaseback at the proportion of the previous carrying amount of the asset that relates to the right of use retained by the lessee-seller. Consequently, the lessee-seller needs to recognise only the amount of profits or losses that relate to the rights transferred to the lessor-buyer. If the fair value of the consideration for the sale of the asset is not equal to the fair value of the asset, or if the payments due for the lease are not at market prices, the entity must make the following adjustments to measure the proceeds of the sale at fair value: (i) terms below market prices shall be accounted for as an upfront payment of lease instalments and (ii) terms above market prices shall be accounted for as additional financing provided by the lessor-buyer to the lessee-seller.

Property, Plant and Equipment

The recognition of property, plant and equipment takes place only when the following conditions are met at the same time:

- it is likely that the future economic benefits referable to the asset will be enjoyed by the company;
- the cost can be reliably determined.

Property, plant and equipment are initially valued at purchase or replacement cost, defined as the amount of cash or cash equivalents paid or the fair value of other consideration given to acquire an asset, or at production cost. After initial recognition, property, plant and equipment are valued using the cost method, net of any depreciation and any accumulated impairment.

The cost includes charges directly incurred to make possible their use, as well as any dismantling and removal charges that will be incurred as a result of contractual obligations requiring the asset to be restored to its original condition.

The cost of an internally produced asset includes the cost of materials used and direct personnel expenses, as well as any costs directly attributable to bringing the asset to the location and in the condition necessary for it to be capable of operating in the manner intended by management and the costs of dismantling and removing the asset and restoring the site on which it is located.

The charges incurred for maintenance and repairs of an ordinary and/or cyclical nature are directly charged to the income statement when incurred. The capitalization of costs relating to the extension, modernization or improvement of structural elements owned or used by third parties is made to the extent that they meet the requirements to be separately classified as an asset or part of an asset.

The depreciation criterion used for property, plant and equipment is the straight-line method, over their useful life.

The useful life estimated by the Group for the various categories of property, plant and equipment is shown below:

Property, Plant and Equipment category	Useful life
Buildings	from 25 to 35 years
Plants and machinery	from 8 to 25 years
Equipment	from 5 to 10 years
Leased assets	from 3 to 25 years
Others	from 4 to 10 years

Owned land is not depreciated.

At the end of each financial year, the Group verifies whether significant changes have occurred in the expected characteristics of the economic benefits deriving from capitalized assets and, if so, it modifies the depreciation criteria, which is considered as a change in estimate in accordance with IAS 8.

The value of property, plant and equipment is derecognized in full upon disposal or when the company expects that no economic benefit will derive from its disposal.

Gains or losses generated on the sale of property, plant and equipment are calculated as the difference between the net sale consideration and the asset's carrying amount and are recognized in the income statement under "other income". When a revalued item of property, plant and equipment is sold, the amount included in the revaluation reserve is reclassified to retained earnings.

Capital grants are recognized when there is reasonable certainty that they will be received and that all the conditions relating to them are satisfied. Contributions are then suspended under liabilities and credited pro rata to the income statement over the useful life of the related assets.

Impairment of goodwill, property, plant and equipment and intangible assets and right-of-use assets

(a) Goodwill

As previously indicated, goodwill is subject to an annual impairment test or more frequently, in the presence of indicators that could lead to believe that it may be subject to an impairment, in accordance with the provisions of IAS 36 (Impairment of assets). The test is normally carried out at the end of each financial year and, therefore, the reference date for this test is the closing date of the financial statements.

The impairment test is carried out with reference to the group of cash generating units ("CGU") corresponding to the business segment to which the goodwill has been allocated. The CGU of an asset is the smallest group of assets that includes the asset itself and that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Any impairment of goodwill is recognized in the event that its recoverable value is lower than its book value in the financial statements. The recoverable value is understood to be the greater of the fair value of the CGU, net of disposal costs, and the related value in use, meaning the present value of the future cash flows estimated for this asset. In determining value in use, expected future cash flows are discounted using a pre-tax discount rate that reflects current market assessments of the cost of money, relative to the period of the investment and the risks specific to the asset. In the event that the impairment deriving from the impairment test is greater than the value of the goodwill allocated to the CGU, the residual excess is allocated to the assets included in the CGU in proportion to their book value. This allocation has as a maximum amount the higher of the following:

- the fair value of the asset net of selling expenses;
- the value in use, as defined above;
- zero.

The original value of goodwill may not be reinstated if the reasons for the impairment no longer apply.

(b) Assets (tangible, intangible and right-of-use assets) with a finite useful life

At each reporting, an assessment is carried out to ascertain whether there are indicators that the property, plant and equipment, intangible assets and right-of-use assets may be subject to an impairment. To this end, both internal and external sources of information are considered. With regard to the former (internal sources), the following are considered: obsolescence or physical deterioration of the asset, any significant changes in the use of the asset and the economic performance of the asset with respect to that foreseen. With regard to external sources, the following are considered: the trend in the market prices of the assets, any technological, market or regulatory discontinuities, the trend in market interest rates or the cost of capital used to evaluate investments.

If the presence of such indicators is identified, an estimate is made of the recoverable value of the aforementioned assets, recognising any write-down, with respect to the relative book value, in the statement of comprehensive income. The recoverable value of an asset is represented by the greater of the fair value, net of ancillary costs of sale, and the related value in use, determined by discounting the estimated future cash flows for that asset, including, if significant and reasonably determinable, those deriving from the sale at the end of its useful life, net of any disposal costs. In determining value in use, expected future cash flows are discounted using a pre-tax discount rate that reflects current market assessments of the cost of money, relative to the period of the investment and the risks specific to the asset. For an asset that does not generate largely independent cash flows, the recoverable value is determined in relation to the CGU to which the asset belongs.

A loss in value is recognized in the statement of comprehensive income if the book value of the asset, or of the CGU to which it is allocated, is higher than the related recoverable value. Reductions in the value of a CGU are firstly charged to reduce the carrying amount of any goodwill attributed to it and then, to reduce other assets, in proportion to their carrying amount and within the limits of the related recoverable value. If the conditions for a previously carried out write-down no longer exist, the carrying amount of the asset is restored with recognition in the income statement, within the limits of the net book value that the asset in question would have had if the write-down had not been carried out and the related depreciation had been made.

Financial assets

At the time of their initial recognition, financial assets must be classified in one of the three categories indicated below on the basis of the following elements:

- the entity's business model for managing financial assets;
- the characteristics relating to the contractual cash flows of the financial asset.

Financial assets are subsequently derecognized only if the sale has resulted in the transfer of substantially all the risks and benefits associated with the assets. On the other hand, if a significant portion of the risks and benefits related to the financial assets sold has been maintained, they continue to be recognized in the financial statements, even if legal ownership of the assets has actually been transferred.

a) Financial assets measured at amortized cost

Financial assets that meet both of the following conditions are included in this category:

- the financial asset is held according to a business model whose objective is achieved by collecting the cash flows provided for in the contract ("Hold to Collect" business model);
- the contractual terms of the financial asset provide, on certain dates, financial flows represented solely by payments of capital and interest on the amount of capital to be repaid (so-called "SPPI test" is passed).

Upon initial recognition, these assets are accounted for at fair value, including any transaction costs or income directly attributable to the instrument itself. After initial recognition, such financial assets are valued at amortized cost, using the effective interest rate method. The amortized cost method is not used for assets – valued at historical cost – whose short duration makes the effect of applying the discounting logic negligible, and for assets without a defined maturity as well as for revocable loans.

b) Financial assets measured at fair value through other comprehensive income

Financial assets that meet both of the following conditions are included in this category:

- the financial asset is held in accordance with a business model whose objective is achieved both by collecting the contractual cash flows and by selling the financial asset ("Hold to Collect and Sell" business model);
- the contractual terms of the financial asset provide, on certain dates, financial flows represented solely by payments of capital and interest on the amount of capital to be repaid (so-called "SPPI test" is passed).

This category includes equity interests that do not qualify as subsidiaries, associates and joint ventures, that are not held for trading purposes, for which the option to designate them at fair value with an impact on comprehensive income has been exercised.

Upon initial recognition, the assets are accounted for at fair value, including transaction costs or income directly attributable to the instrument itself. Subsequent to initial recognition, non-controlling, associating and jointly controlled equity interests are measured at fair value, and the amounts recognized as a balancing entry in equity (statement of comprehensive income) are not subsequently required to be transferred to income statement, even if they are sold. The only component referable to the equity securities in question that is recognized in the income statement is represented by the related dividends.

For equities included in this category that are not quoted in an active market, cost is used as an estimate of fair value only on a residual basis and in a limited number of circumstances, i.e. when the most recent information available to measure fair value is insufficient, or if there is a wide range of possible fair value measurements and cost is the best estimate of fair value in that range.

c) Financial assets measured at fair value through the income statement

Financial assets other than those classified under "Financial assets measured at amortized cost" and "Financial assets measured at fair value through comprehensive income" are classified in this category.

This category includes financial assets held for trading and derivative contracts that cannot be classified as hedges (which are represented as assets if the fair value is positive and as liabilities if the fair value is negative).

Upon initial recognition, financial assets measured at fair value through the income statement are recognized at fair value, without considering transaction costs or income directly attributable to the instrument. At subsequent reporting dates, they are measured at fair value and the valuation effects are recognized in the income statement.

Derivative financial instruments and hedging transactions

Derivative financial instruments are accounted for in accordance with the provisions of IFRS 9.

At the date of stipulation of the contract, derivative financial instruments are initially recognized at fair value, as financial assets measured at fair value through the income statement when the fair value is positive, or as financial liabilities measured at fair value through the income statement when the fair value is negative.

If the financial instruments are not accounted for as hedging instruments, the changes in fair value recognized after the first entry are treated as components of the result for the year. If, on the other hand, the derivative instruments meet the requirements to be classified as hedging instruments, the subsequent changes in fair value are accounted for according to specific criteria, described below.

A derivative financial instrument is classified as a hedging instrument if the relationship between the hedging instrument and the hedged item is formally documented, including the risk management objectives, the strategy for hedging and the methods that will be used to verify its prospective and retrospective effectiveness. The effectiveness of each hedge is verified both when each derivative instrument is entered into and during its life, and in particular at each balance sheet or interim report date. Generally, a hedge is considered highly "effective" if, either at inception or during its life, changes in the fair value, in the case of a fair value hedge, or in the expected future cash flows, in the case of a cash flow hedge, of the hedged item are substantially offset by changes in the fair value of the hedging instrument.

The IFRS 9 accounting standard provides for the possibility of designating the following three hedging relationships:

a) fair value hedge: when the hedge concerns changes in the fair value of assets and liabilities recognized in the financial statements, both changes in the fair value of the hedging instrument and changes in the object of the hedge are recognized in the income statement;

b) cash flow hedge: in the case of cash flow hedges aimed at neutralising the risk of changes in cash flows arising from the future performance of contractual obligations at the reporting date, changes in the fair value of the derivative instrument recorded subsequent to initial recognition, are reported, to the extent of the effective portion only, in the statement of comprehensive income and therefore in an equity reserve. When the economic effects of the hedged item occur, the portion recognized in the statement of comprehensive income is reversed through the income statement. If the hedge is not fully effective, the change in fair value of the hedging instrument relating to the ineffective portion of the hedge is immediately recognized in the income statement;

c) hedge of a net investment in a foreign transaction (net investment hedge).

If the tests do not confirm the effectiveness of the hedge, hedge accounting is discontinued and the hedging derivative contract is reclassified either to financial assets measured at fair value through the income statement or to the financial liabilities measured at fair value through the income statement. Furthermore, the hedging relationship also ceases when:

- the derivative expires, is sold, terminated or exercised;
- the hedged item is sold, expires or is refunded;
- it is no longer highly probable that the future hedged transaction will take place.

Trade receivables

Trade receivables arising from the transfer of goods and the provision of services are recognized in accordance with the terms of the contract executed with the customer in compliance with the provisions of IFRS 15 and classified according to the nature of the debtor and/or the due date of the receivable (this definition includes invoices to be issued for services already rendered).

Furthermore, since trade receivables are generally short-term and do not provide for the payment of interest, the amortized cost is not calculated, and they are accounted for on the basis of the nominal value reported in the invoices issued or in the contracts stipulated with customers: this provision is also adopted for trade receivables with a contractual maturity of more than twelve months, unless the effect is particularly significant. The choice derives from the fact that the amount of short-term receivables is very similar when applying either the historical cost method or the amortized cost method and the impact of the discounting logic would therefore be completely negligible.

Trade receivables are subject to impairment testing on the basis of the provisions of IFRS 9. For the purposes of the valuation process, trade receivables are divided into overdue time bands. For performing receivables, a collective assessment is carried out by grouping individual exposures on the basis of similar credit risk. The valuation is made on the basis of expected losses over the life of the receivables, determined from losses recorded for assets with similar credit risk characteristics based on historical experience, and adjusted to reflect expected future economic conditions.

Inventory

Inventories are assets:

- held for sale in the normal course of business;
- employed in production processes for sale;
- in the form of materials or supplies of goods to be used in the production process or in the provision of services.

Inventories are recognized at cost and subsequently valued at the lower of cost and net realisable value. Net realisable value reflects the estimated sale price less estimated costs to completion and estimated selling costs.

The cost of inventories includes all purchase costs, transformation costs as well as other costs incurred to bring the inventories to their current location and condition, while it does not include exchange differences in the case of inventories invoiced in foreign currencies. In compliance with the provisions of IAS 2, the weighted average cost method is used to determine the cost of inventories.

When the net realizable value is lower than the cost, the excess is immediately written down in the income statement.

Assets held for sale and discontinued operations

Non-current assets and current and non-current assets of disposal groups (i.e. discontinued operations) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is met when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition. Non-current assets held for sale, current and non-current assets relating to disposal groups and directly associated liabilities are recognized separately from the other current assets and liabilities in the statement of financial position.

Non-current assets held for sale are not depreciated and are measured at the lower of carrying amount and fair value less costs to sell. The classification of an equity investment measured at equity, or a portion of such equity investment, as an asset held for sale, implies the suspension of such measurement criterion to the entire equity investment or to the sole portion classified as an asset held for sale; therefore, in these cases the carrying amount is that resulting from the application of the equity method at the reclassification date. Any portion of the equity investment not classified as an asset held for sale continues to be measured at equity until the end of the disposal plan.

Any difference between the carrying amount and fair value less costs to sell is recognized in the income statement as an impairment loss; any subsequent reversals of impairment losses are recognized to the extent of the previously recognized impairment losses, including those recognized before the asset qualified as an asset held for sale.

Non-current assets and current and non-current assets of disposal groups classified as held for sale constitute discontinued operations if, either (i) they represent a significant stand-alone business unit or a significant geographical area of operations; (ii) they are part of a plan to dispose of a significant stand-alone business unit or a significant geographical area of operations; or (iii) they are a subsidiary acquired exclusively for the purpose of selling it. The results of discontinued operations, as well as any gains/losses arising on the disposal, are recognized separately in a specific item in the income statement, net of the related tax effects; income statement components of discontinued operations are also disclosed for the comparative financial years.

In the event of a plan to dispose of a subsidiary which involves loss of control, all assets and liabilities of this investee are classified as held for sale, regardless of whether, after the sale, an equity investment is maintained or not in the subsidiary.

Construction contracts

Construction contracts are recognized based on the progress (or percentage of completion) according to the following assumptions: a) the product does not have an alternative use (or the costs of modification to obtain an alternative use are significant in relation to the value of the asset) and b) the Group has the contractual right to be paid for the work carried out up to any termination. According to this criterion, the costs, revenues and margins are identified based on the activities carried out.

The percentage of completion is determined applying the cost-to-cost method.

The assessment reflects the best estimate of work performed at the reporting date. The assumptions at the basis of the assessments are periodically updated. Any effects of these updates on the income statement are recognized in the financial year when they arise. Contract revenues include: contractually agreed considerations, variations in contract work, price revisions and incentive payments, to the extent that they can be reliably determined.

Contract costs include: all costs that relate directly to the contract, costs that are attributable to contract activity in general and can be allocated to the contract and any other costs that are specifically chargeable to the customer under the terms of the contract.

Contract costs also include: pre-operating costs, i.e., costs incurred in the initial start-up phase of the contract before the commissioned work begins, post-operating costs incurred after the contract is closed and, finally, costs for any services to be provided subsequent to contract completion.

In the event that the completion of a contract is expected to generate a loss, the loss will be recognized in full in the financial year when it becomes reasonably foreseeable.

When the profit or loss of a contract cannot be reliably estimated, contract work in progress is calculated on the basis of costs incurred, when it is reasonably expected that they will be recovered, without the recognition of a contract profit or loss. If, after the reporting date, favourable or unfavourable events arise due to situations that were already existing at the reporting date, the recognized amounts are adjusted to reflect the consequences of such events on results of operations, financial position and equity.

Construction contracts are stated net of any allowances for write-downs and/or final losses, as well as progress payments and advances. In this respect, the amounts invoiced on a progress basis (progress payments) are taken as a reduction in the gross value of the contract, to the extent that they are covered, and any excess is recognized in liabilities. Conversely, the invoicing of advances is of a financial nature and is not recognized as revenue. Accordingly, advances have a mere financial nature and are always recognized in liabilities, as they are received in exchange for work to be performed.

Cash and cash equivalents

Cash and other cash equivalents are recognized, depending on their nature, at nominal value or amortized cost. The other cash equivalents represent short-term and highly liquid financial investments that are readily convertible into known cash values and subject to an insignificant risk of changes in their value, whose original maturity or at the time of purchase is not greater than 3 months.

Payables

Trade payables and other payables are initially recognized at fair value and subsequently valued according to the amortized cost method.

Bank loans and borrowings and loans and borrowings from other financial backers are initially designated at fair value, net of directly imputable accessory costs and are subsequently valued at the amortized costs, by applying the effective interest rate criterion. In the event that, following a change in the conditions of a financial liability, there is a change in the estimate of expected cash flows that entails a change of less than 10% of these flows, it is necessary to recalculate the amortized cost of the financial liability and recognise a profit or loss deriving from the modification in the net result. The amortized cost of the financial liability must be recalculated as the present value of the renegotiated or modified financial flows discounted to the original effective interest rate of the financial liability. Any costs or fees incurred in connection with the modification adjust the carrying amount of the modified financial liability and are amortized over the remaining term of the modified financial liability.

If, as a result of a change in the terms of a financial liability, there is a change in the estimate of expected cash flows that results in a change of more than 10% in those cash flows, the terms are considered to be materially different. If that change in terms is accounted for as an extinction, any costs or fees incurred are recognized as part of the gain or loss associated with the extinction. If the exchange or modification is not accounted for as an extinction, any costs or fees incurred shall adjust the carrying amount of the liability and will be amortized over the remaining term of the modified liability.

Payables are removed from the financial statements when they are extinguished and when the Group has transferred all the risks and charges relating to the instrument itself.

Employees benefits

Employee benefits include benefits provided to employees or their dependants and may be settled by payments (or the provision of goods and services) made directly to employees, their spouses, children or other dependants or to third parties such as insurance companies and are divided into short-term benefits, termination benefits and post-employment benefits.

Short-term benefits, which also include incentive schemes such as annual bonuses, MBOs and one-off renewals of national collective agreements, are accounted for as a liability (accrual of costs) after deducting any amounts already paid, and as an expense, unless some other IFRS requires or permits the inclusion of the benefits in the cost of an asset (e.g. the cost of personnel employed in the development of internally generated intangible assets).

The category of employment termination benefits includes redundancy incentive plans, which arise in the event of voluntary resignation whereby the employee or a group of employees enters into the union agreements for the activation of so-called solidarity funds, and redundancy plans, which arise in the event of termination of employment following a unilateral choice by the company. The company recognises the cost of those benefits as a liability in the financial statements on the earliest date between the time when the company cannot withdraw the offer of those benefits and the time when it recognises the costs of a restructuring that falls within the scope of IAS 37. Provisions for redundancies are reviewed at least every six months.

Post-employment benefit plans are broken down into two categories: defined contribution plans and defined benefit plans.

Defined contribution plans mainly include:

- supplementary pension funds which involve a defined amount of contribution by the company;
- the post-employment benefits (Fondo Trattamento di Fine Rapporto or TFR), limited to the portions accruing from January 1, 2007 for Italian companies with over 50 employees, whatever the allocation option chosen by the employee;
- the portions of post-employment benefits (TFR) accrued from January 1, 2007 and intended for supplementary pensions, in the case of Italian companies with fewer than 50 employees;
- the supplementary health care funds.

Defined benefit plans, on the other hand, include:

- post-employment benefits (TFR) limited to the portion accrued up to December 31, 2006 for all Italian companies, as well as the portions accrued from January 1, 2007 and not intended for supplementary pension schemes for Italian companies with fewer than 50 employees;
- supplementary pension funds whose conditions provide for the payment to members of a defined benefit;
- seniority bonuses, which provide for an extraordinary payment to the employee upon reaching a certain level of seniority.

In the defined contribution plans, the obligation of the company preparing the financial statements is determined on the basis of the contributions due for that financial year and therefore the valuation of the obligation does not require actuarial assumptions and there is no possibility of actuarial gains or losses.

The accounting of defined benefit plans is characterized by the use of actuarial assumptions to determine the value of the obligation. This valuation, normally entrusted to an external actuary, is carried out annually by estimating the amount of future benefits that employees have vested in exchange for their service in the current and previous financial years. For discounting purposes, the Group uses the projected unit credit method which provides for the projection of future disbursements based on historical statistical analyses, the demographic curve and the financial discounting of these flows on the basis of a market interest rate. Actuarial gains and losses are recognized as a balancing entry in equity (under the item “Reserve for actuarial profit and loss”) as required by accounting standard IAS 19. Any unrecognized costs relating to past service and the fair value of any plan assets are deducted from liabilities.

Other long-term benefits

The Group’s net obligation for long-term benefits other than pension plans relates to the amount of the future benefits that employees have vested in exchange for their service in the current and previous financial years. This benefit is discounted, while the fair value of any assets is deducted from liabilities. The discount rate is the return at the reporting date on primary obligations whose maturity approximates the terms of the Group’s obligations. The obligation is calculated using the projected unit credit method. Any actuarial gains and losses are taken to the income statement when they arise.

Share-based payments

Share-based payment plans for employees are recognized on the basis of the fair value of the financial instruments attributed at the grant date, dividing the expense over the period of the plan. The fair value of the shares underlying the incentive plan is determined on the grant date, taking into account, where applicable, the forecasts regarding the achievement of the performance parameters associated with market conditions and is not subject to adjustment in subsequent financial years. In the presence of options, their fair value is calculated using a model that considers, in addition to information such as the exercise price and the life of the option, the current price of the shares and their expected volatility, the expected dividends and the risk-free interest rate, also the specific characteristics of the existing plan. In the valuation model, the option and the probability of the conditions to materialise on the basis of which the options were assigned, are evaluated separately. Any reduction in the number of financial instruments assigned is accounted for as a cancellation of a part thereof.

Provisions for risks and charges and contingent assets and liabilities

Contingent assets and liabilities can be broken down into several categories according to their nature and their accounting effects. In particular:

- provisions are actual obligations of uncertain amount and contingency/expiration that arise from past events and for which an outflow of economic resources is probable and for which a reliable estimate of the amount can be made;
- contingent liabilities are possible obligations for which the probability of an outlay of economic resources is not remote;
- remote liabilities are those for which disbursement of economic resources is unlikely;
- contingent assets are assets for which the requirement of certainty is lacking and cannot be accounted for in the financial statements;
- the onerous contract is a contract in which the non-discretionary costs necessary to fulfil the obligations assumed are greater than the economic benefits that are supposed to be obtainable from the contract;
- the restructuring is a program scheduled and controlled by the company management that significantly changes the field of action of an activity undertaken by the company or the way in which the activity is managed.

For the purpose of recognising the expense, provisions are accounted for when there is uncertainty about the maturity or amount of the flow of resources required to settle the obligation or other liabilities and in particular trade payables or provisions for assumed liabilities.

Provisions are distinguished from other liabilities in that there is no certainty as to the due date or amount of the future expense required for settlement. Given their different nature, provisions are shown separately from trade payables and provisions for presumed payables.

The recognition of a liability or the accrual to a provision occurs when:

- there is a current legal or constructive obligation as a result of past events;
- it is likely that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate of the amount of the obligation can be made.

Provisions require the use of estimates. In extremely rare circumstances in which a reliable estimate can not be made, a liability that cannot be reliably determined arises and which is therefore described as a contingent liability.

The provision for risks and charges is made for an amount that represents the best possible estimate of the expenditure necessary to liquidate the related obligation existing at the reporting date and takes into account the risks and uncertainties that inevitably surround many facts and circumstances. The amount of the provision reflects any future events that may affect the amount required to settle an obligation if there is sufficient objective evidence that said events will occur.

Once the best possible estimate of the expenditure required to settle the related obligation existing at the reporting date has been determined, the present value of the provision is determined, if the effect of the present value of money is a material consideration.

Revenue from contracts with customers

Revenues from contracts with customers are recognized when the following conditions are met:

- the customer contract has been identified;
- the performance obligations set forth in the contract have been identified;
- the price has been determined;
- the price has been allocated to the individual performance obligations set out in the contract;
- the contractual obligation set out in the contract has been fulfilled.

The Group recognises revenue from contracts with customers when (or as) it fulfils its obligations by transferring the promised goods or services (i.e. the asset) to the customer. The asset is transferred when (or as) the customer gains control of it.

The Group transfers control of the goods or services over time, and therefore fulfils the contractual obligation and recognises revenues over time, if one of the following criteria is met:

- the customer simultaneously receives and uses the benefits deriving from the entity's performance as the latter performs it;
- the Group's performance creates or improves the asset (e.g. work in progress) which the customer controls as the asset is being created or improved;
- the Group's performance does not create an asset with an alternative use for the Group and the Group has an enforceable right to payment for the completed performance up to the set out date.

If the contractual obligation is not fulfilled over time, the contractual obligation is fulfilled at a point in time. In this case, the Group recognises the revenue when the customer acquires control of the promised asset.

The contractual consideration included in the contract with the customer can include fixed amounts, variable amounts or both. If the contractual consideration includes a variable amount (e.g. discounts, price concessions, incentives, penalties or other similar elements), the Group estimates the amount of consideration to which it will be entitled in return for the transfer of the promised goods or services to the customer. The Group includes in the price of the transaction the amount of the variable consideration estimated only to the extent that it is highly probable that when the uncertainty associated with the variable consideration is subsequently resolved, there will not be a significant downward adjustment in the amount of accumulated revenues recognized.

In the event that the Group has the right to receive a consideration in exchange for goods or services transferred to the customer, the Group recognises an asset deriving from contracts with customers. In the case of an obligation to transfer to the customer goods and services for which consideration has been received from the customer, the Group recognises a liability arising from contracts with customers.

The incremental costs for executing contracts with customers are accounted for as assets and are amortized over the duration of the underlying contract, if the Group expects to recover them. The incremental costs for executing the contract are the costs that the Group incurs to obtain the contract with the customer and that it would not have incurred if it had not executed the contract. The costs for executing the contract that would have been incurred even if the contract had not been executed, must be recognized as costs at the time they are incurred, unless they are explicitly chargeable to the customer even if the contract is not executed.

Costs incurred for the fulfilment of contracts with customers are capitalized as assets and amortized over the life of the underlying contract only if these costs are not within the scope of application of another accounting standard (e.g. IAS 2 - Inventories, IAS 16 - Property, plant and equipment and IAS 38 - Intangible assets) and meet all the following conditions:

- the costs are directly related to the contract or an expected contract, which the entity can specifically identify;
- the costs allow the entity to have new or increased resources to use to fulfil (or continue to fulfil) its obligations in the future;
- these costs are expected to be recovered.

Operating lease income

Operating lease income is recognized as revenue on a straight-line basis over the term of the lease. Lease incentives are recognized as an integral part of total lease income over the term of the lease.

Government research grants

Government grants are recognized in the income statement as income when the government grant becomes collectable.

Cost recognition

Costs are recognized in the income statement according to the accrual principle.

Finance income and expenses

Finance income and expenses are taken to the income statement on an accruals basis.

In particular, interest income and expenses are recognized on an accruals basis considering the financed amount and the applicable effective interest rate, which is the rate that discounts estimated future collections/payments over the expected life of the financial asset/liability to align them to the asset's book value.

Income tax expense

The tax charge for the year includes the current and deferred tax charges. Income taxes are recognized in the income statement, except for those relating to transactions taken directly to equity, which are recognized in equity as well.

Current taxes reflect the estimated amount of income tax expense due, calculated on taxable income of the year, determined at the tax rates currently or substantially enacted at the reporting date, and any adjustments to the prior financial year balance.

Deferred taxes are recognized by calculating the temporary differences between the carrying amounts of recognized assets and liabilities and their corresponding tax bases. Deferred taxes are not recognized for the following temporary differences: the initial recognition of assets or liabilities in a transaction other than a business combination that does not affect profit (or loss) or taxable income (or the tax loss), or differences relating to investments in subsidiaries or joint ventures in which it is not probable that the temporary difference will reverse in the foreseeable future. Furthermore, the Group does not recognise deferred tax liabilities arising from the initial recognition of goodwill. Deferred taxes are measured at the tax rates expected to apply in the financial year in which the related asset will be realized or the liability settled, on the basis of the tax rates established by measures enacted or substantially enacted at the reporting date. Deferred taxes are offset when the Group has a legally enforceable right to offset current tax assets against current tax liabilities and if the deferred tax assets and liabilities relate to income taxes levied by the same tax authorities on the same tax subject or other subjects that intend to settle current tax assets and liabilities on a net basis, or realise assets and settle liabilities at the same time.

Deferred tax assets are recognized insofar as it is probable that the company will generate future taxable profit against which such assets can be used. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realized. Additional income taxes resulting from the distribution of dividends are recognized when the liability for the payment of the dividend is recognized.

In the presence of uncertainties in the application of the tax regulations: (i) in cases where it is considered probable that the tax authority will accept the uncertain tax treatment, income taxes (current and/or deferred) are determined according to the tax treatment applied or expected to be applied in the tax return; (ii) in cases where it is considered unlikely that the tax authority will accept the uncertain tax treatment, this uncertainty is reflected in the determination of income taxes (current and/or deferred) to be recognized in the financial statements.

Dividends received/distributed

Dividends received are recognized in the income statement according to the accrual principle, i.e. in the financial year in which the related credit right arises, following the shareholders' resolution for the distribution of dividends by the investee company.

Dividends distributed are shown as a change in equity in the financial year in which they are approved by the shareholders' meeting.

Earnings per share

Basic earnings per share is calculated by dividing the Group's share of net income by the weighted average number of ordinary shares outstanding during the financial year, excluding treasury shares.

Diluted earnings per share is calculated by dividing the Group's result by the weighted average number of ordinary shares outstanding during the financial year, excluding treasury shares. For the purpose of calculating the diluted earnings per share, the weighted average number of shares in circulation is modified by assuming the exercise by all the assignees of rights that potentially have a dilutive effect, if any, while the result pertaining to the Group is adjusted to take into account any effects, net of taxes, of the exercise of said rights.

Operating segments

An operating segment is a component of an entity:

- who undertakes entrepreneurial activities that generate revenues and costs (including revenues and costs related to transactions with other components of the same entity);
- whose operating results are periodically reviewed by the highest operational decision-making level of the entity for the purpose of making decisions regarding the resources to be allocated to the segment and of evaluating the results;
- for which separate financial information is available.

Please refer to Note 37 for segment reporting.

Estimates and assumptions

The preparation of the financial statements requires the directors to apply accounting standards and methods which, in some circumstances, are based on difficult and subjective valuations and estimates, based on historical experience and on assumptions that are considered reasonable and realistic from time to time according to the relevant circumstances.

The application of these estimates and assumptions affects the amounts reported in the financial statements, such as the statement of financial position, the income statement, the statement of comprehensive income, the cash flow statement, as well as the related explanatory notes. The final results of the items in the financial statements for which the aforementioned estimates and assumptions were used, could differ, even significantly, from those reported in the financial statements that represent the effects of the occurrence of the event being estimated, due to the uncertainty that characterises the assumptions and conditions on which the estimates are based.

The areas that require more than others greater subjectivity on the part of the directors in preparing the estimates and for which a change in the conditions underlying the assumptions used could have a significant impact on the financial results of the Group are the following:

a) *Impairment of property, plant and equipment and intangible assets with a finite useful life*: property, plant and equipment and intangible assets with a finite useful life are subject to assessment in order to ascertain whether an impairment has occurred when there are indicators that it will be difficult to recover its net book value through use. Verification of the existence of the aforementioned indicators requires directors to make subjective assessments based on information available from both internal and external sources, as well as on historical experience. Furthermore, if it is determined that a potential impairment may have been generated, this is determined using valuation techniques deemed suitable. The correct identification of indicators of potential impairment losses, as well as the estimates used to determine them, depend on subjective assessments as well as factors that may vary over time affecting the assessments and estimates made by management.

b) *Impairment of intangible assets with an indefinite useful life (goodwill)*: the value of goodwill is checked annually in order to ascertain the existence of any impairment to be recognized in the income statement. In particular, the verification in question involves the allocation of goodwill to the cash-generating units and the subsequent determination of the related recoverable value, understood as the greater of the fair value and the value in use. If the recoverable value is lower than the carrying amount of the cash-generating units, the goodwill allocated to them is written-down.

c) *Bad debt reserve*: the determination of this reserve reflects the management's estimates linked to the historical and expected solvency of customers.

d) *Provisions for risks and charges and contingent liabilities*: *the Group is involved in legal and tax disputes that could create complex and difficult issues and which present varying degrees of uncertainty, including the events and circumstances relating to each dispute, the jurisdiction and the different applicable laws.* Given the uncertainties of these issues, it is difficult to predict with any certainty the amount of expenditure that could arise as a result of the disputes. Accordingly, on the basis of its legal advisors and legal and tax experts, management recognises a liability in relation to these disputes when it believes that a financial disbursement is probable and when the amount of the related losses can be reasonably estimated. When the directors believe that the occurrence of a liability is only possible, the risks are indicated in the specific information note on commitments and risks, without giving rise to any provision.

e) *Useful life of property, plant and equipment and of intangible assets*: the useful life is determined at the time of recording the asset in the financial statements and reviewed at least at the end of each financial year. Valuations on the duration of the useful life are based on historical experience, on market conditions and on the expectations of future events that could affect the useful life itself, including technological changes. As a result, it is possible that the actual useful life may differ from the estimated useful life.

f) *Deferred tax assets and liabilities*: the Group recognises deferred tax assets in accordance with the current legislation enacted in the countries where it operates. The recognition of taxes requires the use of estimates and assumptions relating to how to interpret the applicable regulations concerning transactions performed in the financial year and their tax effect on the individual companies. Furthermore, the recognition of deferred tax assets requires the use of estimates relating to the forecast taxable income of the individual group companies and their developments, as well as the tax rates that are effectively applicable. These activities are carried out by analysing transactions and their tax profiles, also with the support, where necessary, of external consultants for the various issues addressed and through simulations of prospective income and sensitivity analyses of the same.

g) *Inventory*: the final inventory of products with obsolescence or slow moving characteristics is periodically subject to valuation tests and written-down if their recoverable value is lower than the carrying amount. The write-downs that were carried out were based on the assumptions and estimates of the directors according to their experience and the historical results achieved.

h) *Recognition of revenues and costs related to construction contracts*: the Group uses the percentage of completion method to account for long-term contracts. The margins recognized in the income statement are a function of both the progress of the order and the margins that it is believed will be recognized on the entire work upon its completion; therefore, the correct recording of the work in progress and of the margins relating to works not yet completed assumes the correct estimate by the directors of the revenues and the final costs, including any contractual changes and any extra costs and penalties that could reduce the expected margin. The use of the percentage of completion method requires the Group to estimate the costs of completion, which involves the assumption of estimates that depend on factors that are potentially changeable over time and which could therefore have significant effects on the recognition of revenues and margins in progress.

i) *Determination of the fair value of share-based payments:* the Group recognises such plans on the basis of uncertain events and valuation assumptions that include volatility, dividend yield and risk free rates. The Group ulilizes valuations prepared by external consultants to determine Fair Value of share-based payments at the grant date using estimates and assumptions on the basis of the future plans of the Group and suitable valuation techniques.

3. Other information

Seasonality

The Group's activities show no significant seasonal or cyclical variations.

Russia-Ukraine conflict

The Group did not encounter any significant critical issues attributable to the ongoing Russia-Ukraine conflict in terms of procurement, production and sales.

As of December 31, 2022, the Group's main suppliers of strategic materials are located outside Russia and Ukraine. Group customers located in the area affected by the conflict accounted for 2.6% of Group revenues for the financial year ended December 31 2022. As at December 31, 2022, the exposure to Russian or Ukrainian customers totalled approximately Euro 0.5 million.

However, it cannot be ruled out that the continuation of a situation of military conflict in Ukraine and the increase in tensions between Russia and the countries in which the Group operates could negatively affect global macroeconomic conditions and the economies of those countries, leading to a possible contraction in demand and a consequent decrease in production levels, also taking into account the continuous evolution of the sanctions framework, which is constantly monitored by the Group's management.

B. Notes to the main financial statements items - income statement

4. Revenue

The table below shows the detail of revenues from contracts with customers by division for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Sales of electrodes	462,198	284,316
Sales of systems	31,928	34,210
After-market and other sales	287,906	223,837
Change in construction contracts	70,794	73,515
Total	852,826	615,878

Revenues for the financial year ended December 31, 2022 amounted to Euro 852,826 thousand (Euro 615,878 thousand for the financial year ended December 31, 2021). Revenues in 2022 refer to the Electrode Technologies segment for Euro 473,444 thousand (Euro 348,817 thousand in 2021), to the Water Technologies segment for Euro 336,719 thousand (Euro 256,668 thousand in 2021) and to the Energy Transition segment for Euro 42,664 thousand (Euro 9,393 thousand in 2021). Revenues increased by a total of Euro 236,948 thousand, with a positive exchange rate effect of Euro 34,772 thousand; at constant exchange rates, Group revenues in 2022 would have increased by Euro 202,176 thousand compared to the previous financial year.

Operating lease income are included in the item "After-market and other sales" and amounted to Euro 32,623 thousand for the financial year ended December 31, 2022 (Euro 27,838 thousand for the financial year ended December 31, 2021), and relate to electrodes and their components leased to customers under long-term contracts.

The following table shows the operating lease income to be recognized in subsequent years in relation to the non-cancellable portion of the contract for the financial years ended December 31, 2022 and December 31, 2021, for each of the first five years and the total amounts for the remaining years.

(in € thousands)	Within one year	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 4 years	Between 4 and 5 years	Over 5 years
Non-cancellable lease portion as of December 31, 2022	18,754	18,074	15,385	12,948	10,674	50,365
Non-cancellable lease portion as of December 31, 2021	20,705	17,479	12,993	11,312	10,110	56,910

Revenue is analysed in detail, by geographical area, here below:

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Europe, Middle East, India and Africa (EMEIA)	269,216	166,533
(of which Italy)	*12,910*	*9,960*
North and Latin Americas (AMS)	282,021	192,574
Asia and South Pacific (ASIA)	301,589	256,771
Total	852,826	615,878

Almost all the contracts with customers stipulated by the Group do not provide for variable fees.

Almost all contracts do not contain a significant financial component, i.e. for which the period between the transfer of the agreed asset to the customer and the payment made by the customer exceeds twelve months. Therefore, the Group did not make any adjustment to the transaction consideration so as to take into account the effects of the time value of money.

For the financial year ended December 31, 2022, almost all of the obligations to be fulfilled by the Group refer to contracts with a duration of less than 12 months.

For revenues from construction contracts with contractual obligations fulfilled over time, the Group recognizes revenues from contracts with customers on the basis of methods based on the inputs used to fulfil the contractual obligation, consisting of the costs incurred. For contractual obligations fulfilled at a point in time, revenue from contracts with customers are recognized at the time of the transfer of control of the assets, based on the contract.

For further information on the trend in revenues, please refer to what is reported in the Directors' report on business performance.

5. Change in inventory of finished goods and work in progress

For the financial year ended December 31, 2022, the Group shows a positive change in inventories of semi-finished and finished products equal to Euro 34,815 thousand (Euro 35,324 thousand for the financial year ended December 31, 2021) and includes the amount of Euro 2,780 thousand relating to the release to the income statement of the excess portions of the inventory write-down provision for finished and work-in-progress products (Euro 1,469 thousand for the financial year ended December 31, 2021).

6. Other income

The table below shows the detail of other income for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Sundry income	4,380	2,983
R&D grants	940	497
R&D tax credit	773	302
R&D income	154	104
Gain on sale of non-current assets	157	30
Insurance refund	47	93
Total	6,451	4,009

Other income mainly refers to income from ancillary operations, including rental income.

7. Costs for raw materials, consumables, supplies and goods

The table below shows the cost for raw materials, consumables, supplies and goods for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Purchase of raw materials	320,202	287,802
Change in inventory	(21,796)	(77,498)
Purchase of semi-finished and finished goods	90,177	76,158
Purchase of consumables and supplies	16,629	10,030
Purchase of packaging material	1,929	1,114
Other purchases and related charges	127	205
(Capitalized costs related to assets built internally)	(7,364)	(8,233)
Total	399,904	289,578

Capitalized costs related to assets built internally refer to costs incurred by the Group companies for the internal development of capitalized projects and products.

8. Personnel expenses

The table below shows the detail of personnel expenses for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Wages and salaries	111,450	96,033
Management Incentive Plan (MIP)	19,360	-
Social security contributions	23,058	19,375
Post-employment benefits and other pension plans	2,467	2,469
Other personnel net (income)/expenses	2,277	2,158
(Capitalized costs related to assets built internally)	(4,051)	(3,968)
Total	154,561	116,067

Personnel expenses amounted to Euro 154,561 thousand for the financial year ended December 31, 2022, compared to Euro 116,067 thousand for the financial year ended December 31, 2021.

The increase in personnel expenses, totaling Euro 38,494 thousand, is partly attributable to the increase in the Group's workforce.

The table below shows the average number of Group employees for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
Average number of employees	1,829	1,685

The MIP Incentive Plan item, recognized in accordance with IFRS 2, refers to the costs related to the amendments made to the 2021 MIP Incentive Plan, as communicated by the Group to the beneficiaries on April 11, 2022, which provide, in the event of successful listing by December 31, 2022, among other things, for (i) the modification of certain lock-up obligations with regard to certain categories of beneficiaries in relation to the ordinary shares resulting from the conversion of category C shares and category D shares granted to them under the 2021 MIP Plan, including the elimination of the "guaranteed minimum value" of the shares subject to lock-up, and (ii) the commitment to grant additional ordinary shares to some beneficiaries as consideration for the waivers referred to in paragraph (i). At the placement price, a total of no. 10,676,594 ordinary shares have been allocated to the MIP beneficiaries.

The changes introduced resulted in an increase in the fair value of the incentive plan of Euro 19,360 thousand. Valuation of the incremental fair value as of the MIP modification date (April 11, 2022) was carried out using an option pricing model methodology (Monte Carlo), based on the following parameters and assumptions:

— the enterprise value was determined according to the discounted cash flows methodology based on the business plan;

— the risk-free rate curve was determined using liquid interbank instruments;

— the probability of realisation of the

exit event (listing) was estimated to be 90% by December 31, 2022; 5% by December 31, 2023; 5% by December 31, 2024;

- volatility was estimated to be 19.4%, based on the historical series of the MSCI Chemicals Global Index;
- the dividend yield was estimated to be in the range of 1.03% to 0.93%.

The higher fair value, amounting to Euro 19,360 thousand, was accounted for in the second quarter of 2022 as it accrued following the listing of the Company completed on June 30. The charge to the income statement accounted for in personnel expenses was recognized with a corresponding offset in Other reserves in equity.

Salaries and wages of personnel expenses in the financial year 2022 also includes costs related to the Performance Share Plan (PSP), a regulation accounted for on the basis of IFRS 2 (approved by the Company's corporate bodies) that provides for the assignment to a certain number of beneficiaries, identified in the regulation itself, of rights of subscription of ordinary shares of the Company based on the achievement of performance objectives. In particular, the total number of attributable rights is 126,556, which could increase to 239,972. The launch of the PSP formally took place on October 14, 2022 with a multi-year vesting period and pay-out expected between 2025 and 2027. The fair value measurement of the PSP for the 2022-2024 cycle, totalling Euro 1,854 thousand, was carried out according to a Monte Carlo method on the basis of the following parameters and assumptions:

- the risk-free rate used was obtained from the zero-coupon government bond yield of the European Central Bank ("ECB") as at the performance period end date and is equal to 1.85%;
- the volatility of De Nora shares was estimated at 35.1%, based on the three-year time series of the comparable companies included in the STOXX Europe 600;
- the dividend yield was estimated at 0.74%;
- the lack of marketability was estimated at 15%;
- participants are not expected to leave the group;
- correlation: on the basis of the time series of daily returns with a depth of 3 years, the correlation matrix between the companies included in the STOXX Europe 600 and De Nora.

The charge for the financial year 2022 (calculated at Euro 103 thousand) was recognized in the income statement under personnel expenses, with a corresponding counter-entry in Other reserves in equity.

Capitalized costs related to assets built internally refer to costs incurred by the Group companies for the internal development of capitalized projects and products; see Notes 18 and 19 for further details.

"Other personnel expenses", in the amount of Euro 454 thousand, is related to redundancy incentives and charges (versus Euro 499 thousand in 2021) and, for the remaining part, to healthcare and insurance coverage and expatriate benefits.

9. Costs for services

The table below shows the detail of costs for services for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Outsourcing expenses	54,073	45,881
Consultancies:		
- Production and technical assistance	15,304	6,723
- Selling	220	227
- Legal, tax, administrative and ICT	18,081	11,172
- M&A and Business development	199	202
Utilities	10,333	7,925
Maintenance	15,952	13,878
Travel expenses	8,339	4,567
R&D	1,149	602
Statutory auditors' fees	134	123
Insurance	3,603	2,754
Rents and other lease expenses	2,676	2,251
Commissions and royalties	7,822	4,375
Freight	13,233	8,355
Waste disposal, office cleaning and security	3,340	2,802
Promotional, advertising and marketing expenses	1,839	1,070
Patents and trademarks	1,326	924
Canteen, training and other personnel expenses	3,378	2,362
Board of Directors' fees	819	675
Total	161,819	116,868

The costs for services amounted to Euro 161,819 thousand in 2022 (Euro 116,868 thousand in 2021) and mainly refer to outsourcing expenses, consultancy, utilities, maintenance and transport costs. The overall increase of Euro 44,951 thousand is a direct consequence of the higher volumes of activity.

10. Other operating expenses

The table below shows the detail of other operating expenses for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Indirect taxes and duties	6,998	5,705
Losses on sale of non-current assets	488	1,832
Losses on receivables (not covered by utilization of bad debt provision)	10	9
Other miscellaneous expenses	2,180	1,881
Total	9,676	9,427

Other operating expenses amounted to Euro 9,676 thousand in 2022 (Euro 9,427 thousand in 2021).

11. Impairment (losses)/revaluations of non-current assets and provisions

The following table shows the detail of the item impairment (losses)/revaluations of non-current assets and provisions for the financial years ended December 31, 2022 and 2021:

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Net allocations to provisions for risks and charges	3,367	4,767
Net allocations to the bad debt provision	1,844	1,730
Write-backs of Property, plant and equipment	-	(240)
Write-down of Intangible Assets - Property, Plant and Equipment	8,989	3,187
Total	14,200	9,444

The write-down of Intangible Assets - Property, Plant and Equipment includes:

- Euro 4,323 thousand relating to the intangible asset (Development costs) recognized in the company De Nora Water Technologies Italy S.r.l. for the development of a water treatment system onboard the cruise ships (Advanced Wastewater Treatment Plant, hereinafter "AWTP")
- Euro 2,848 thousand relating to plant and machinery of the Cash Generating Unit De Nora Neptune used as part of hydraulic fracturing activities (so-called Fracking), a write-down made following the assessment of current market prospects. This Cash Generating Unit is part of the Water Technologies segment.

The write-down for the financial year 2021 (Euro 3,187 thousand) also referred to the same Cash Generating Unit Fracking US, and in particular to the elimination of the goodwill recorded at the time.

For more information on the write-down of Intangible Assets - Property, Plant and Equipment, see Note 18 "Goodwill and Intangible Assets" and Note 19 "Property, Plant and Equipment", respectively.

12. Share of profit of equity-accounted investees

For the financial year ended December 31, 2022, the item amounted to a net loss of Euro 1,196 thousand, compared to income of Euro 8,834 thousand for the financial year ended December 31, 2021, and represented 34% of the consolidated net result for the period of the associated company tk nucera, active in the design, supply, construction and commissioning of electrolysis plants for the production of chlor-alkali.

In detail, the result for the year, ended December 31, 2022, includes the net profit of the associated company for the period from January 1, 2022 to December 31, 2022 (Euro 5.1 million is De Nora's portion of the result), but reflects some negative adjustments referring to the financial year ended December 31, 2021, which became known only after the date of approval of the Consolidated Financial Statements of Industrie De Nora S.p.A. as at December 31, 2021.

13. Finance income

The table below shows the detail of finance income for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Exchange rate gains	20,700	11,290
Fair value (positive) on financial instruments	1,847	1,724
Profit from non-current financial assets	96	9
Bank interest	713	282
Interest on trade receivables	-	2
Other Finance income	149	149
Total	23,505	13,456

14. Finance expenses

The table below shows the detail of finance expenses for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Bank interest and interest on loans and borrowings	6,417	4,663
Exchange rate losses	19,371	6,190
Fair value (negative) on financial instruments	-	3,788
Finance expenses on personnel costs	306	240
Bank fees	997	664
Other finance expenses	597	785
Total	27,688	16,330

15. Income tax expense

The table below shows the detail of income tax expense for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Current taxes	34,098	26,185
Deferred taxes	(6,425)	863
Prior years taxes	3,092	60
Total	30,765	27,108

16. Reconciliation of the effective tax rate

The following is a reconciliation of the effective tax provision with the theoretical tax provision that would have been obtained by applying the current tax rate to the profit before tax for the years ended December 31, 2022 and 2021.

	For the year ended December 31,			
	2022		2021	
	(in € thousands, except percentages)			
Profit for the period		89,665		66,445
Income tax expense		30,765		27,108
Profit before tax		120,430		93,553
Income tax expense at Italian nominal tax rate	24.0%	28,903	24.0%	22,453
Effect of foreign tax rates - higher rate	4.0%	4,833	3.6%	3,334
Effect of foreign tax rates - lower rate	(1.0%)	(1,164)	(2.8%)	(2,579)
Italian Regional Tax (IRAP) and other taxes	1.3%	1,614	0.9%	836
Tax effect of non-deductible expense	6.1%	7,319	7.6%	7,090
Tax effect of non-taxable revenue and income	(5.5%)	(6,654)	(3.7%)	(3,468)
Tax benefits	(0.7%)	(804)	(0.02%)	(21)
Tax losses carried forward	(0.7%)	(884)	(0.4%)	(383)
Change in tax rates	(0.1%)	(70)	(0.1%)	(45)
Change in previously unrecognized temporary differences	(2.0%)	(2,442)	(0.4%)	(353)
Other	0.1%	114	0.3%	244
Total	25.55%	30,765	28.98%	27,108

17. Earnings per share

On June 30, 2022, the composition of the share capital of Industrie De Nora S.p.A. was changed (for more details, please refer to note 29), which now includes ordinary shares all with the same rights to participate in the profit for the period. Previously, the share capital consisted of four categories of ordinary shares with different rights to participate in the profit for the period. In particular, the ordinary shares of categories A, B and C participated equally in dividends or other distributions, while the shares of category D participated in an amount equal to 10% of the percentage represented by the shares of category D with respect to the total number of shares representing the entire share capital.

The following tables show basic and diluted earnings per share for the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
Profit for the period attributable to the owners of the parent distributable to shareholders (in € thousands)	89,564	66,696
Weighted average number of ordinary shares for basic and diluted earnings per share	190,180,575	177,065,493
Basic and diluted earnings per share (in Euro)	0.47	-
Basic and diluted earnings per share (A, B and C shares) (in Euro)	-	0.38

	For the year ended December 31,	
	2022	2021
Profit for the period attributable to the owners of the parent distributable to D shareholders (in € thousands)	-	0.20
Weighted average number of ordinary shares for basic and diluted earnings per share	-	5,306
Basic and diluted earnings per share (D shares) (in Euro)	-	0.04

C. Notes to the main financial statements items - statement of financial position - assets

18. Goodwill and other intangible assets

The table below shows the breakdown and changes in intangible assets for the financial years ended December 31, 2022 and 2021.

(in € thousands)	Goodwill	Industrial patents and intellectual property rights	Concessions, licenses and trademarks	Know-how and Technologies	Customer relationships	Development costs	Other	Assets under construction and advance payments	Total intangible assets
Historical cost at December 31, 2020	61,625	12,780	32,231	47,014	47,387	14,349	8,480	10,955	234,821
Change in scope of consolidation	-	734	-	-	-	-	-	-	734
Increase	-	398	1,228	-	-	82	-	5,375	7,083
Decrease	-	-	(411)	-	-	(87)	(699)	(205)	(1,402)
Impairment	(3,187)	-	-	-	-	-	-	-	(3,187)
Reclassifications/other changes	-	375	649	-	-	608	123	(1,580)	175
Translation differences	4,788	(34)	1,224	895	2,975	957	472	310	11,587
Historical cost at December 31, 2021	63,226	14,253	34,921	47,909	50,362	15,909	8,376	14,855	249,811
Increase	-	411	719	-	-	1,022	-	5,874	8,026
Decrease	-	(75)	(2)	-	-	-	(67)	(126)	(271)
Impairment	-	-	-	-	-	(4,323)	-	-	(4,323)
Reclassifications/other changes	-	409	1.820	6	-	9,498	540	(11,869)	403
Translation differences	3,755	(119)	239	(474)	2,069	649	287	235	6,640
Historical cost at December 31, 2022	66,981	14,878	37,697	47,441	52,430	22,754	9,136	8,969	260,286
Amortisation fund as at December 31, 2020	-	11,333	22,643	28,607	31,441	5,001	4,715	-	103,740
Increase	-	1,142	2,784	1,611	2,213	1,549	428	-	9,727
Decrease	-	-	(225)	-	-	(87)	(699)	-	(1,011)
Reclassifications/other changes	-	-	(3)	-	-	-	-	-	(3)
Translation differences	-	(15)	667	1,011	2,337	281	272	-	4,553
Amortisation fund as at December 31, 2021	-	12,460	25,866	31,229	35,991	6,744	4,716	-	117,006
Increase	-	1,077	2,934	1,588	1,172	2,571	416	-	9,758
Decrease	-	(65)	-	-	-	-	(67)	-	(132)
Reclassifications/other changes	-	-	-	5	-	-	-	-	5
Translation differences	-	(72)	(80)	161	1,768	161	157	-	2,096
Amortisation fund as at December 31, 2022	-	13,400	28,720	32,984	38,931	9,476	5,221	-	128,733
Net carrying value as at December 31, 2021	63,226	1,793	9,055	16,680	14,371	9,165	3,660	14,855	132,805
Net carrying value as at December 31, 2022	66,981	1,478	8,977	14,457	13,499	13,278	3,915	8,969	131,552

Investments in intangible assets for the financial year ended December 31, 2022 amounted to Euro 8,026 thousand and mainly refer to:

(i) industrial patent rights and intellectual property rights for Euro 411 thousand, mainly attributable to the registration and acquisition of industrial patents in Italy by the Parent Company Industrie De Nora S.p.A.;

(ii) concessions, licenses and trademarks for Euro 719 thousand, mainly relating to the implementation of SAP management system and other ICT systems;

(iii) product development costs relating to the Water Technologies business segment for Euro 1,022 thousand;

(iv) intangible assets under construction in the amount of Euro 5,874 thousand, related to industrial patents and intellectual property rights attributable to the registration and acquisition of industrial patents by the Japanese subsidiary De Nora Permelec Ltd, concessions, licences and trademarks mainly related to the implementation of the SAP management system and other ICT systems, and other intangible assets mainly related to product development costs and certifications pertaining to the Water Technologies business segment.

Intangible assets with a finite useful life

Industrial patents and intellectual property rights

This item mainly relates to costs incurred to acquire or file new industrial patents or for the geographical extensions of existing rights.

Concessions, licences and trademarks

The item mainly consists of costs relating to the implementation of the SAP management system and other ICT systems. These rights are amortized on a straight-line basis over the estimated period of use.

Know-how and Technologies

It represents the adoption of specific technologies in the production and sale of products and systems; these are typically assets identified in the purchase price allocation following business combinations that involved the Group companies in previous financial years. These rights are amortized on a straight-line basis over the estimated period of use.

Customer Relationships

It represents the valuation of customer relationships; these assets were identified in the purchase price allocation following business combinations that involved Group companies in previous financial years.

Development costs

This is the capitalization of the development costs incurred by some Group companies, relating to activities/projects where the technical and commercial feasibility for development and subsequent sale has been determined.

As at December 31, 2022, a check was carried out on the recoverability of the book value of the Development costs recognized in the company De Nora Water Technologies Italy S.r.l. relating to a water treatment system onboard the cruise ships (Advanced Wastewater Treatment Plant, hereinafter "AWTP"). After years of development, the asset was capitalized as a definitive asset in 2022, starting the amortisation process.

The net book value of this intangible asset as at December 31, 2022 was Euro 6,623 thousand. On the basis of the forecast data relating to turnover and expected operating profitability deriving from the exploitation of this asset, the related value in use was determined using the "DCF Method". The main parameters used to estimate the present value of cash flows relating to said asset are shown below:

Asset analysed	WACC	G-rate
AWTP	11.1%	2.1%

The EBIT CAGR of the AWTP underlying the determined cash flows is approximately 22%.

Based on the impairment test, the value in use attributable to this asset is equal to Euro 2,300 thousand. Therefore, a total write-down of Euro 4,323 thousand was recognized in the financial statements as at December 31, 2022.

This amount represents the only write-down that affects the intangible assets as a whole.

A sensitivity analysis was carried out in order to corroborate the write-down made: an increase in the WACC of a further 2% would result in an additional write-down of Euro 253 thousand, while a deterioration of the EBIT over the plan period of 10% would result in an additional write-down of Euro 230 thousand.

Other intangible fixed assets

The item mainly includes, for Euro 2,966 thousand as at December 31, 2022 (Euro 3,051 thousand as at December 31, 2021), the valuation of trademarks identified in the purchase price allocation, following business combinations that involved the Group companies in previous financial years.

Assets under construction and advance payments

This item relates to costs incurred to implement and develop software projects and new products which have not yet gone into use.

As at December 31, 2022, a check was carried out on the recoverability of the book value of the following intangible assets under construction:

1. Euro 3,279 thousand recognized in the company De Nora Water Technologies LLC (U.S.A.)

2. Euro 821 thousand recognized in the company De Nora Water Technologies Italy S.r.l. (Italy)

3. Euro 1,342 thousand recognized in the company De Nora Marine Technologies LLC (U.S.A.) relating to product development costs (R&D) in the Water Technologies area, subject to capitalization.

The recoverability of the intangible assets referred to in points 1. and 2. was verified at Water Technologies Systems sub-segment level, which essentially groups together all the assets pertaining to the Water Technologies segment, with the exclusion of the business line pertaining to the Pools. This is because the Product Technology Management assets subject to capitalization developed by the companies De Nora Water Technologies LLC and De Nora Water Technologies Italy S.r.l. are in the interest and to the benefit of all the companies operating in the aforementioned sub-segment.

The recoverability of the intangible assets referred to in point 3. was by contrast verified at individual company level (De Nora Marine Technologies LLC), as the Product Technology Management assets subject to capitalization are incurred for its direct and exclusive benefit.

The main parameters used to estimate the present value of cash flows relating to said asset are shown below:

Asset analysed	WACC	G-rate
Water Technologies Systems	10.9%	2.5%
De Nora Marine Technologies LLC	10.3%	2.1%

Over the years of the plan, EBIT is expected to grow by approximately Euro 17 million with regard to the Water Technologies Systems sub-segment and by approximately Euro 2 million with regard to De Nora Marine Technologies LLC.

The checks carried out confirmed the recoverability of the values of the intangible assets subject to analysis, highlighting excesses of the value in use with respect to the corresponding book values, higher than 10% in relation to Water Technologies Systems and around 50% in relation to De Nora Marine Technologies LLC.

The related sensitivity analysis is provided below:

- for Water Technologies Systems, an increase in WACC of up to 12.4%, or a zero g-rate or a reduction in EBIT over the plan period of 13%, with a similar impact on terminal flow, would not lead to impairment;
- for De Nora Marine Technologies LLC, an increase in WACC of up to 17%, or a zero g-rate or a reduction in EBIT over the plan period of 34%, with a similar impact on terminal flow, would not lead to impairment.

Intangible assets with an indefinite useful life

At December 31, 2022 and 2021, the value of goodwill refers to:

- the acquisition of the company De Nora Tech LLC (U.S.A.) (Electrode Technologies segment) in 2005;
- the acquisition in 2015 of De Nora Ozone S.r.l. (subsequently merged into De Nora Water Technologies Italy S.r.l. (Italy) (Water Technologies segment).

In line with the requirements of IAS 36, at December 31, 2022 and 2021 an impairment test was carried out to ascertain the existence of any impairment of goodwill. To this end, it should be noted that, for the purposes of verifying the recoverability of the goodwill recorded under intangible assets, the following Cash Generating Units have been identified:

	December 31,	
	2022	2021
	(in € thousands)	
Electrode Technologies segment	65,481	61,726
Water Technologies segment	1,500	1,500
Total	66,981	63,226

In order to identify the groups of CGUs, the elements referred to in the reference standards were considered, including the way in which management monitors the Group's operations and makes strategic decisions, with particular reference to product offerings and investment decisions. In particular, the goodwill relating to the acquisition of the company De Nora Tech LLC (U.S.A.) is verified at the Electrode Technologies business segment level, while the goodwill relating to the acquisition of De Nora Ozone S.r.l. (now incorporated into De Nora Water Technologies Italy S.r.l.) is verified at the Water Technologies business segment level.

As at December 31, 2022, the goodwill was subjected to an impairment test in accordance with the provisions of accounting standard IAS 36, or by comparing the book value of the CGU group which includes goodwill with its recoverable value. Specifically, the configuration of the recoverable value is that of the value in use, determined by discounting the forecast data of the CGU group ("**DCF Method**") relating to the three-year period following the reporting date. The key assumptions used to determine the forecast data are the estimate of the growth levels in revenue, EBITDA, operating cash flows, the growth rate of the terminal value and the weighted average cost of capital (discount rate), taking into consideration past economic-income and financial performance and future expectations. For the data as at December 31, 2022, these future expectations were derived from the 2023-2025 business plan approved on March 22, 2023 by the Board of Directors.

The terminal value was determined on the basis of the perpetuity criterion of the normalized cash flow of the CGUs, with reference to the last period of the forecast data considered, applying an annual inertial growth (rate "**g**" or "**g-rate**").

For the purposes of estimating the value in use of the CGU to which the goodwill is allocated, the following sources of information were used:

- internal sources: IAS 36 requires that the estimate of value in use be based on the most up-to-date cash flow projections made by senior management. For the purposes of the impairment test of goodwill at the reference dates, the business plans indicated above were used;
- external sources: for the purposes of the impairment test of goodwill, external sources of information were used to calculate the weighted average cost of capital (WACC), determined using the *capital asset pricing model* ("**CAPM**"). In particular, as required by IAS 36, the cost of capital was calculated considering the target financial structure deriving from the analysis of the financial structure of comparable listed companies. In determining the cost of capital, an increase was also applied to take into account the smaller size/liquidity of the CGU compared to comparable listed companies.

The parameters used to estimate the present value of cash flows are shown in the following table:

	December 31,	
	2022	2021
WACC		
Electrode Technologies segment	10.5%	8.4%
Water Technologies segment	9.7%	6.5%
G-rate		
Electrode Technologies segment	2.0%	1.4%
Water Technologies segment	2.3%	1.7%

The EBIT CAGR of the Electrode Technologies segment underlying the determined cash flows is approximately 5%; while the EBIT CAGR of the Water Technologies underlying the determined cash flows is approximately 21%.

The impairment test as at December 31, 2022 revealed that, for both business segments tested, the value in use, determined by discounting the reference forecast data using the "DCF Method", is higher than the corresponding value of the net invested capital (including goodwill). Both in relation to the Electrode Technologies segment and the Water Technologies segment, the value in use determined is equal to approximately double the net invested capital pertaining to these segments.

A sensitivity analysis was also carried out to verify the stability of the book values of goodwill in the presence of worsening changes in the main assumptions.

In particular, in relation to the financial year ended December 31, 2022:

- for the Electrode Technologies segment, an increase in WACC of up to 19.3%, or a zero g-rate or a reduction in EBIT over the plan period of 44%, with a similar impact on terminal flow, would not lead to impairment;
- for the Water Technologies segment, an increase in WACC of up to 19%, or a zero g-rate or a reduction in EBIT over the plan period of 49%, with a similar impact on terminal flow, would not lead to impairment.

19. Property, Plant and Equipment

The following table shows the breakdown and changes in property, plant and equipment for the financial years ended December 31, 2022 and 2021.

(in € thousands)	Land	Buildings	Plant and Machinery	Other assets	Leased assets	Right of use of PPE:	*- of which Buildings*	*- of which Other assets*	Assets under construction and advance payments	Total property, plant and equipment
Historical cost as of December 31, 2020	30,803	80,689	88,356	18,737	117,097	6,079	*3,859*	*2,220*	5,971	347,732
Change in scope of consolidation	-	748	3,061	242	-	-	-	-	24	4,075
Increase	-	1,406	5,267	864	1,261	3,277	*3,017*	*260*	15,108	27,183
Decrease	-	(726)	(3,519)	(1,748)	(2,115)	(1,689)	*(1,189)*	*(500)*	(428)	(10,225)
Write-backs	-	-	-	-	240	-	-	-	-	240
Reclassifications/other changes	-	4,928	4,882	199	6,340	-	-	-	(16,573)	(224)
Translation differences	(489)	3,539	3,114	500	(518)	412	*363*	*49*	371	6,929
Historical cost as of December 31, 2021	30,314	90,584	101,161	18,794	122,305	8,079	*6,050*	*2,029*	4,473	375,710
Increase	-	1,263	2,286	710	8,053	3,588	*3,386*	*202*	25,803	41,704
Decrease	-	(33)	(1,129)	(247)	(1,742)	(753)	*(650)*	*(102)*	-	(3,903)
Impairment	-	-	(2,848)	-	(1,817)	-	-	-	-	(4,665)
Reclassifications/other changes	-	1,174	6,897	1,381	83	-	-	-	(10,157)	(622)
Translation differences	(1,509)	761	704	(61)	(4,290)	(60)	*(94)*	*35*	(19)	(4,474)
Historical cost as of December 31, 2022	28,805	93,750	107,071	20,577	122,591	10,855	*8,691*	*2,163*	20,100	403,750
Depreciation fund as at December 31, 2020	10	31,334	50,190	14,963	94,963	2,376	*1,376*	*1,000*	-	193,836
Change in scope of consolidation	-	684	2,257	200	-	-	-	-	-	3,141
Increase	-	2,819	5,965	1,115	4,844	1,764	*1,175*	*589*	-	16,507
Decrease	-	(537)	(2,274)	(1,733)	(1,812)	(1,161)	*(780)*	*(381)*	-	(7,517)
Reclassifications/other changes	-	43	1	(90)	-	-	-	-	-	(46)
Translation differences	-	800	1,665	346	(797)	148	*116*	*32*	-	2,162
Depreciation fund as at December 31, 2021	10	35,143	57,804	14,801	97,198	3,127	*1,887*	*1,240*	-	208,083
Increase	-	3,201	6,442	1,197	5,675	1,851	1,352	*499*	-	18,365
Decrease	-	(6)	(810)	(227)	(1,530)	(299)	*(197)*	*(102)*	-	(2,871)
Reclassifications/other changes	-	32	(131)	293	(269)	-	-	-	-	(75)
Translation differences	-	(147)	137	(94)	(3,834)	10	*(14)*	*24*	-	(3,929)
Depreciation fund as at December 31, 2022	10	38,224	63,442	15,969	97,240	4,688	*3,028*	*1,660*	-	219,572
Net carrying value as at December 31, 2021	30,304	55,441	43,357	3,993	25,107	4,952	*4,163*	*789*	4,473	167,627
Net carrying value as at December 31, 2022	28,795	55,526	43,629	4,608	25,351	6,167	*5,663*	*503*	20,100	184,177

Additions to property, plant and equipment, amounted to Euro 41,704 thousand for the financial year ended December 31, 2022. In particular, investments in property, plant and equipment, excluding increases in the rights of use of property, plant and equipment, amounted to a total of Euro 38,116 thousand and mainly refer to:

(i) leased assets for Euro 8,053 thousand related to anodes to be leased within the Electrode Technologies business segment;

(ii) buildings for Euro 1,263 thousand relating to buildings in Italy, Germany and the United States;

(iii) plant and machinery for Euro 2,286 thousand, mainly related to the plant in Germany intended primarily for the expansion of production capacity to support the expansion of the Energy Transition business segment;

(iv) assets under construction and advance payments amounting to Euro 25,803 thousand, of which Euro 14,702 thousand related to plant and machinery, Euro 2,797 thousand to buildings, Euro 413 thousand to anodes to be leased and related to the Electrode Technologies business segment, and Euro 942 thousand to other assets under construction. Advance payments of Euro 6,949 relate to the subsidiaries De Nora Elettrodi (Suzhou) Co. Ltd for the purchase of an electrode coating oven and for works on buildings and equipment for the expansion of the coating area, and De Nora Deutschland GmbH for the purchase of a laser cutting machine for the production of electrodes for the Energy Transition business segment and for the purchase and installation of solar panels.

Among the most important investments in progress are those related to: i) a project that includes both the upgrading of the production plant located in Germany for the purpose of electrode production with Alkaline Water Electrolysis (AWE) technology and the design of new (greenfield) plants envisaged in the Company's business plan related to AWE technology; ii) new investments and extraordinary maintenance work on existing plant and machinery mainly in Germany, the United States, China, Italy, Brazil, Japan and India; iii) laboratory equipment to serve R&D activities in Italy mainly intended for alkaline water electrolysis (AWE) technology related to the Energy Transition segment; iv) hardware related to the implementation of firewalls to improve the security of the Group's IT systems; and v) expansion and extraordinary maintenance work on buildings in Italy, Germany, Japan and Brazil.

The write-down of Euro 2,848 thousand refers to plant and machinery used in hydraulic fracturing activities (so-called "Fracking"). This write-down reflects the results of the impairment test carried out on the De Nora Neptune Cash Generating Unit. The main parameters used to estimate the present value of cash flows relating to said CGU are shown below:

CGU analysed	WACC	G-rate
De Nora Neptune LLC	9.3%	2.1%

Based on the impairment test, the value in use attributable to this CGU was negative and equal to Euro -763 thousand, compared to a net invested capital of Euro 3,081 thousand. In the consolidated financial statements for the year ended December 31, 2022, the value of the plant and equipment relating to this CGU was therefore fully written down.

In addition, during the financial year ended December 31, 2022, the Group recognized write-downs of Euro 1,817 thousand in the result for the year concerning leased assets related to the Electrode Technologies business segment.

The cumulative write-downs as at December 31, 2022 concerning Property, plant and equipment amounted to a total of Euro 5,059 thousand.

The following table provides the main information relating to lease agreements in which the Group acts as a lessee.

	As of December 31,	
	2022	2021
	(in € thousands)	
Historical cost of assets for right of use (buildings)	8,691	6,050
Historical cost of assets for right of use (other assets)	2,163	2,029
Total historical cost of assets for right of use	10,855	8,079
Accumulated depreciation of the right of use of buildings	3,028	1,887
Accumulated depreciation of the right of use of other assets	1,660	1,240
Total accumulated depreciation for right of use	4,688	3,127
Net book value of assets for right of use (buildings)	5,663	4,163
Net book value of assets for right of use (other assets)	503	789
Total net book value of assets for right of use	6,167	4,952
Current lease liabilities	1,633	1,637
Non-current lease liabilities	4,803	3,784
Total lease liabilities	6,436	5,421
Depreciation of assets for right of use (buildings)	1,352	1,175
Depreciation of assets for right of use (other assets)	499	589
Total depreciation for right of use	1,851	1,764
Lease instalments paid	2,697	1,608
of which interest expense for leases paid	*200*	*129*
Short-term and low-value leases	2,676	2,251

In the financial year ended December 31, 2022, a total of Euro 2,697 thousand in lease payments were made, of which Euro 2,497 thousand as a reduction of financial liabilities and Euro 200 thousand as interest, recognized under financial expenses. The overall cost recognized in the income statement relating to rents and leases excluded from the scope of application of IFRS 16 amounts to Euro 2,676 thousand.

During the financial year ended December 31, 2021, a total of Euro 1,608 thousand of lease payments were made, of which Euro 1,479 thousand as a reduction of the financial liability and Euro 129 thousand as interest, recognized under finance expenses. The overall cost recognized in the income statement relating to rents and leases excluded from the scope of application of IFRS 16 amounts to Euro 2,251 thousand.

20. Equity-accounted investees

This item consists almost entirely of the associate thyssenkrupp nucera AG & Co. KGaA (Germany). The following table provides details and changes in equity investments accounted for using the equity method for the years ended December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Opening balance	121,785	111,572
Share of profit	(1,196)	8,834
(Dividends)	-	-
Other increases (decreases)	2,075	1,379
Closing balance	122,664	121,785
Investment %	34%	34%

The share of the loss for the period of Euro 1,196 thousand includes the result of the associate for the period from January 1, 2022 to December 31, 2022, as well as reflecting certain adjustments to the associate's financial statements related to previous periods and of which it became known only after the date of approval of the consolidated financial statements of Industrie De Nora S.p.A. as at December 31, 2021.

With regard to the equity investment in thyssenkrupp nucera AG & Co. KGaA, accounted for using the equity method, the following tables also sets out the main consolidated income statement and statement of financial position data as of and for the financial years ended December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Intangible assets	57,438	58,842
Property, plant and equipment	7,987	8,219
Deferred tax assets	10,329	9,192
Other non-current assets	2,493	786
Inventory	76,605	71,321
Trade receivables	39,491	29,565
Financial assets and other current receivables	339,204	241,028
Cash and cash equivalent	27,239	9,832
Total assets	560,786	428,785
Share Capital	100,000	10,000
Reserves	117,139	201,769
Deferred tax liabilities	9,516	12,870
Employees benefits	7,220	8,666
Financial liabilities	1,370	1,999
Other non current payables	1,744	2,899
Trade payables	42,368	46,218
Construction contracts and other current payables	281,429	141,042
Total liabilities and equity	560,786	428,785

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Revenues	437,795	363,777
Operating costs (*)	(426,852)	(324,417)
Finance income/(expense)	2,355	(467)
Income tax expense	(4,744)	(9,827)
Profit for the period	8,554	29,066
Other components of the comprehensive income statement	(2,758)	4,056
Profit of the comprehensive income statement for the year	5,796	33,122

(*) For the financial year ended December 31, 2022, it includes amortization, depreciation and write-downs for Euro 3,542 thousand. For the financial year ended December 31, 2021, it includes amortization, depreciation and write-downs for Euro 3,124 thousand.

21. Financial assets, including derivatives

The table below shows the breakdown of non-current financial assets at December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Non-current		
Financial receivables	1,823	2,665
Investments in financial assets	2,787	2,756
Total	4,610	5,421

Financial receivables refer to financial lease contracts related to water treatment products (Hydraulic Fracturing - Fracking). The receivable recorded represents the present value of the future lease payments contractually due beyond the next financial year.

Financial receivables are shown net of the related bad debt provision equal to Euro 3,398 thousand as at December 31, 2022 (Euro 2,252 thousand as at December 31, 2021).

Investments in financial assets mainly refer to some pension funds and supplementary company funds for employees.

The table below shows the breakdown of current financial assets at December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Current		
Financial receivables	150,234	1
Investments in financial assets	8,158	477
Fair value of derivatives	644	-
Total	159,036	478

Financial receivables refer essentially to the parent company. In order to temporarily invest the surplus cash, mainly derived from the capital increase related to the company's listing on June 30, 2022, Industrie De Nora S.p.A. entered into time deposits with maturities ranging from 1 to 6 months with a number of leading banks.

The main characteristics are described below:

Bank	Inception date	Expiration date	Amount	Interest rate
Banca Popolare di Sondrio	23/12/2022	31/01/2023	45,000,000	1.70%
Unicredit	22/12/2022	31/01/2023	25,000,000	1.35%
Banca Nazionale del Lavoro	22/12/2022	23/01/2023	25,000,000	1.60%
Banca Nazionale del Lavoro	09/11/2022	09/02/2023	20,000,000	1.60%
Banca Popolare di Sondrio	08/11/2022	08/05/2023	7,500,000	2.10%
Banca Nazionale del Lavoro	09/11/2022	09/05/2023	7,500,000	2.05%
Mediobanca	10/11/2022	10/05/2023	20,000,000	2.10%
			150,000,000	

The amounts shown are restricted for the time period indicated and can be closed early, with minimum notice, but with penalty on the returns recognized to the company.

Investments in financial assets relate primarily to investments subject to short-term time restrictions, but can be liquidated at any time.

Derivatives for hedging the fluctuation of the exchange rate

The fair value of the derivative instruments at December 31, 2022 refers to:

- for Euro 415 thousand to the parent company related to forward currency derivative contracts entered into by the Company against USD-denominated financial receivables from the US subsidiary De Nora Tech. LLC.;
- for Euro 229 thousand to De Nora Water Technologies Italy S.r.l., related to forward currency derivative contracts entered into by the subsidiary against a contract with a customer in USD.

The fair value is determined using the forward exchange rate at the reporting date.

The details of the derivative contracts hedging the exchange rate fluctuation executed by the Group and in effect at December 31, 2022 are shown below:

Derivative	Description	Notional (USD thousands)	Notional (€ thousands)	Inception date	Expiration date
CCIRS	pay amount EUR / receive amount USD	6,000	5,765	November 2022	February 2023
CCIRS	pay amount EUR / receive amount USD	9,100	8,646	December 2022	March 2023
CCIRS	pay amount EUR / receive amount USD	15,000	14,252	December 2022	March 2023
CCIRS	pay amount EUR / receive amount USD	2,000	1,991	October 2022	December 2023
CCIRS	pay amount EUR / receive amount USD	360	357	October 2022	January 2024
CCIRS	pay amount EUR / receive amount USD	360	355	October 2022	July 2024
CCIRS	pay amount EUR / receive amount USD	360	353	October 2022	December 2024
Total		33,180	31,719		

22. Deferred tax assets and liabilities

Deferred tax assets of the Group as at December 31, 2022 amounted to Euro 13,096 thousand (Euro 8,220 thousand as at December 31, 2021); while the deferred tax liabilities of the Group as at December 31, 2022 amounted to Euro 8,664 thousand (Euro 8,066 thousand as at December 31, 2021).

Deferred tax assets and liabilities are offset when the group has the legal right to offset current tax assets and liabilities and when the deferred taxes relate to the same tax jurisdiction. For a better comparison previous year balances have been reclassified to consider such offset. Deferred tax assets on tax losses carried forward are recognized to the extent that the group expects to realise the related tax benefits as it is probable that it will generate future taxable income.

During the financial year, deferred taxes were recognized on the temporary differences between the carrying amounts of assets and liabilities and their tax bases.

These differences mainly arose on changes between the profit before taxation and the taxable income in one financial year and will reverse in one or more subsequent financial years.

The following tables show the changes in 2022 and 2021 in the net difference between deferred tax assets and deferred tax liabilities.

	At December 31, 2021	(Charges) Credits to profit or loss	(Charges) Credits to equity	Exchange rate difference	At December 31, 2022
			(in € thousands)		
Property, plant and equipment	(5,479)	(4,942)	-	162	**(10,219)**
Intangible assets	(12,495)	9,861	-	(317)	**(2,951)**
Equity-accounted investees	(83)	13	(22)	-	**(217)**
Trade receivables and inventory	5,019	(332)	-	(29)	**4,658**
Financial assets/liabilities	132	207	(192)	8	**280**
Other assets	455	676	-	20	**1,151**
Employee benefits	461	953	(2,105)	70	**(621)**
Provisions for risks and charges	6,120	914	-	150	**7,184**
Trade payables	2,865	635	-	175	**3,675**
Other liabilities	2,774	(970)	-	(104)	**1,700**
Other sundry	385	(590)	-	37	**(168)**
	154	**6,425**	**(2,319)**	**172**	**4,432**

	At December 31, 2020	Change in scope of consolidation	(Charges) Credits to profit or loss	(Charges) Credits to equity	Exchange rate difference	At December 31, 2021
			(in € thousands)			
Property, plant and equipment	(8,195)	-	2,949	-	(233)	(5,479)
Intangible assets	(12,977)	-	947	-	(465)	(12,495)
Equity-accounted investees	(98)	-	(95)	(15)	-	(208)
Trade receivables and inventory	4,186	-	665	-	168	5,019
Financial assets/liabilities	326	-	(12)	(336)	279	257
Other assets	5,163	-	(4,922)	-	214	455
Employee benefits	3,013	17	(1,837)	(551)	(181)	461
Provisions for risks and charges	3,644	1,285	944	-	247	6,120
Trade payables	2,091	-	589	-	185	2,865
Other liabilities	2,930	-	(196)	-	40	2,774
Other sundry	(280)	304	105	-	256	385
	(197)	**1,606**	**(863)**	**(902)**	**510**	**154**

Deferred tax assets not recognized in the financial statements as at December 31, 2022 for losses carryforward not yet utilized amount to Euro 2,449 thousand.

23. Inventory

The table below shows the breakdown of inventory at December 31, 2022 and 2021.

	As of December 31,					
	2022			2021		
	Gross amounts	Allowance for inventory write-down	Net amounts	Gross amounts	Allowance for inventory write-down	Net amounts
	(in € thousands)					
Raw materials and consumables	135,731	(1,597)	134,134	115,225	(3,778)	111,447
Work in progress and semi-finished products	107,407	(13,564)	93,843	90,534	(12,313)	78,221
Finished products and goods	70,731	(8,080)	62,651	44,303	(5,871)	38,432
Goods in transit	4,848	-	4,848	4,933	-	4,933
Total	318,717	(23,241)	295,476	254,995	(21,962)	233,033

Inventory is shown net of the write down reserve equal to Euro 23,241 thousand as at December 31, 2022 (Euro 21,962 thousand as at December 31, 2021).

The change in the allowance for inventory write-down is as follows:

	Raw materials and consumables	Work in progress and semi-finished products	Finished products and goods	Total
	(in € thousands)			
Balance as of December 31, 2020	1,431	5,518	3,488	10,437
Change in scope of consolidation	1,515	-	-	1,515
Accruals of the year 2021	1,277	8,430	1,944	11,651
Utilization and releases of the year 2021	(625)	(958)	(518)	(2,101)
Reclassifications/other changes	26	(803)	777	-
Exchange rate difference	154	126	180	460
Balance as of December 31, 2021	3,778	12,313	5,871	21,962
Accruals of the year 2022	136	3,147	1,842	5,125
Utilization and releases of the year 2022	(734)	(1,462)	(1,318)	(3,514)
Reclassifications/other changes	(1,733)	(60)	1,612	(181)
Exchange rate difference	150	(374)	73	(151)
Balance as of December 31, 2022	1,597	13,564	8,080	23,241

24. Current tax assets

Current tax assets amounted to Euro 4,893 thousand as at December 31, 2022 (Euro 20,965 thousand as at December 31, 2021) and refer mainly to income tax advances paid by some companies of the Group, net of the related liability.

Current tax assets include, at December 31, 2022, Euro 376 thousand (unchanged versus the same figure as of December 31, 2021) of receivables from Federico De Nora S.p.A. against the national tax consolidation agreement that was in place between the parent company Federico De Nora S.p.A., the Company, De Nora Italy S.r.l, De Nora Water Technology Italy S.r.l. and Capannoni S.r.l., extinguished during 2022 following the listing of Industrie De Nora S.p.A.

25. Construction contracts

Details of construction contracts classified as current assets, and progress payments related to them at December 31, 2022 and 2021 are shown in the tables below:

	As of December 31,	
	2022	2021
	(in € thousands)	
Current assets		
Construction contracts	107,946	96,685
(Progress payments)	(77,544)	(73,402)
Provision for losses on construction contracts	(1,267)	(1,246)
Total	29,135	22,037

	As of December 31,	
	2022	2021
	(in € thousands)	
Current liabilities		
Construction contracts	67,993	81,846
(Progress payments and Advances)	(80,695)	(91,532)
Provision for losses on construction contracts	-	-
Total	(12,702)	(9,686)
Total Construction contracts (net of advances)	16,433	12,351

Construction contracts (net of contractual advances) amounted to Euro 16,433 thousand at December 31, 2022 (Euro 12,351 thousand at December 31, 2021) and mainly refer to contracts relating to the Water Technologies business segment.

26. Trade receivables

The table below shows the detail of trade receivables at December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Current		
Third parties	124,008	125,724
Related parties	7,267	21,637
Bad debt reserve	(7,854)	(7,387)
Total	123,421	139,974

Trade receivables, recognized entirely under current assets, derive from sales transactions and the provision of services and amounted, at December 31, 2022, to Euro 123,421 thousand (Euro 139,974 thousand at December 31, 2021).

The carrying amount of trade receivables, net of the bad debt provision, is deemed to approximate its fair value. Following are the changes in the bad debt provision.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Current		
Opening balance	7,387	6,711
Change in scope of consolidation	-	1,010
Accruals of the year	1,186	1,280
Utilisation and releases of the year	(1,418)	(1,060)
Reclassifications/other changes	489	(897)
Exchange rate difference	211	343
Closing balance	7,854	7,387

27. Other receivables

The following table shows the detail of the other receivables at December 31, 2022 and 2021, with the distinction between the current and non-current amounts.

	As of December 31,	
	2022	2021
	(in € thousands)	
Non-current		
Tax receivables	6,416	7,795
Other - third parties	2,561	2,461
Prepayments and accrued income	1	5
Related parties	52	52
Total	9,030	10,313

	As of December 31,	
	2022	2021
	(in € thousands)	
Current		
Tax receivables	14,708	10,492
Advances to suppliers	9,017	10,926
Other - third parties	2,377	1,597
Prepayments and accrued income	6,972	6,013
Total	33,074	29,028

As at December 31, 2022, other receivables, between current and non-current portion, amounted to Euro 42,104 thousand (Euro 39,341 thousand as of December 31, 2021).

The other non-current receivables from third parties are mainly attributable to the contributions paid by the Italian companies of the Group against existing supplementary pension funds as a counter-entry to the contribution due by the employer.

Tax receivables from the tax authorities mainly refer to VAT credits and other tax credits, primarily receivables for withholding taxes.

28. Cash and cash equivalents

The table below provides a breakdown of cash and cash equivalents at December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Bank and postal accounts	170,639	72,555
Cash on hand	28	36
Deposit accounts	3,462	1,252
Cash and cash equivalents	174,129	73,843

Cash and cash equivalents are made up of effectively available values and deposits. As regards the amounts on deposits and current accounts, the related interests have been recognized on accrual basis.

Cash and cash equivalents, amounting to Euro 174,129 thousand as at December 31, 2022, increased by Euro 100,286 thousand compared to December 31, 2021; for details on cash and cash equivalents generated during the financial year, please refer to the consolidated cash flow statement.

D. Notes to the main financial statements items - statement of financial position - liabilities

29. Equity

Equity as of December 31, 2022 is 744,804 thousand, up from Euro 453,962 thousand as of December 31, 2021.

The shares issued are fully paid up and have no nominal value.

During the financial year ended December 31, 2022, dividends in the amount of Euro 20,030 thousand (Euro 60,028 in the financial year ended December 31, 2021) were distributed.

Equity attributable to the shareholders of the parent company

Share capital

To service the institutional placement of Industrie De Nora S.p.A.'s ordinary shares on Euronext Milan, which took place on June 30, 2022, the Company issued 14,814,814 new shares offered in the placement at a price of Euro 13.50 per share. Therefore, a total capital increase of Euro 199,999,989.00 was realized, including Euro 1,481,481.30 as share capital increase and Euro 198,518,507.70 as share premium.

The certificate pursuant to Art. 2444 of the Italian Civil Code regarding the amount of the share capital was filed with the Milan Company Register on June 30, 2022, with the updated text of the Company's Articles of Association. The current composition of the share capital of Industrie De Nora S.p.A. is shown below:

Share Capital as of December 31, 2022

	Euro	Number of shares
Total of which:	**18,268,203.90**	**201,685,174**
Ordinary Shares (regular entitlements)	3,326,857.89	43,899,499
Multiple voting shares (*)	14,941,346.01	157,785,675

(*) Owned by the shareholders Federico De Nora, Federico De Nora S.p.A., Norfin S.p.A. and Asset Company 10 S.r.l. Multiple voting shares are not admitted to trading on Euronext Milan and are not counted in the free float and market capitalization value.

Legal Reserve

The legal reserve as at December 31, 2022 amounted to Euro 3,357 thousand, unchanged compared to December 31, 2021.

Share Premium Reserve

The share premium reserve as at December 31, 2022 amounted to Euro 223,433 thousand, up compared to Euro 24,915 thousand as at December 31, 2021 due to the capital increase described above.

Retained earnings, Translation reserve and other reserves

Retained earnings, translation reserve and other reserves pertaining to the Group as of December 31, 2022, amounted to Euro 406,596 thousand (Euro 338,705 thousand as of December 31, 2021), a net increase of Euro 67,891 thousand over December 31, 2021, including:

— Euro 66,696 thousand increase due to the allocation of the previous financial year's results pertaining to the parent company shareholders;

- Euro 20,000 thousand decrease due to the distribution of dividends to shareholders;
- Euro 19,360 thousand increase in Other Reserves, related to the MIP Incentive Plan, the charge for which was recorded in the income statement under personnel expenses;
- Euro 104 thousand increase in Other Reserves, related to the Performance Share Plan, the charge for which was recorded in the income statement under personnel expenses;
- Euro 5,150 thousand net increase due to the effect of the other components of the statement of comprehensive income, including a reduction of Euro 504 thousand due to differences arising from the translation of financial statements of foreign subsidiaries.

Equity attributable to non controlling interests

The table below shows the breakdown of equity attributable to non controlling interests as of December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Share capital and reserves	3,599	3,518
Profit (Loss) for the period	101	(251)
Other comprehensive income	(114)	236
Total	3,586	3,503

30. Employee benefits

The table below shows the detail of the employees benefits at December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Present value of "Trattamento di fine rapporto"	17,846	22,876
Present value of Pension Plans for employees	18,277	20,143
Fair value of plan assets	(15,495)	(16,983)
Total	20,628	26,036

The Group companies offer post-employment benefits to their employees both directly and by contributing to funds outside the Group. The methods by which these benefits are ensured varies on the basis of the relevant legal, tax and economic conditions in each country in which the Group operates. The benefits are normally based on employee remuneration and years of service. The obligations relate to both active and no longer active employees. The Group companies ensure post-employment benefits on the basis of defined contribution and/or defined benefit plans. With defined contribution plans, the Group companies pay public or private insurance companies, contributions in accordance with legal or contractual obligations or on a voluntary basis. With payment of these contributions, the companies meet all their obligations. On the other hand, defined benefit plans may be unfunded or entirely or partially funded by contributions paid by the company and, at times, by the employees, to a company or fund that is legally separate from the company providing the employee benefits.

Post-employment benefits

The following table shows the composition of and changes in the benefits for employees in the financial years ended December 31, 2022 and 2021.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Opening liability	22,876	23,691
Change in scope of consolidation	-	265
Current service cost	922	965
Interest cost	316	164
Actuarial (profit) loss	(5,412)	(1,223)
Benefits paid	(856)	(986)
Total	17,846	22,876

Post-employment benefits as at December 31, 2022 stood at Euro 17,846 thousand (Euro 22,876 thousand as at December 31, 2021). The item also includes employee benefits attributable to the German subsidiary similar to post-employment benefits.

The obligation to employees is calculated by an independent actuary as follows:

— projection of the post-employment benefits already vested at the measurement date and of the future amounts that will be vested until termination of employment or of the partial payment of vested amounts in the form of advances;

— discounting at the measurement date of the expected cash flows that will be paid to employees in the future;

— re-proportioning of discounted service costs on the basis of the seniority reached at the measurement date compared to the expected seniority when termination might occur.

The actuarial method has a technical basis consisting of the demographic and financial assumptions related to the parameters used for the calculation.

In short, the main actuarial assumptions applied for the Group companies' calculation are the following:

	As of December 31,			
	2022		2021	
	Italy	Germany	Italy	Germany
Annual discount rate (*)	3.77%	3.65%	0.98%	1.25%
Annual inflation rate	2.30%	N/A	1.75%	N/A
Annual increase in obligation	3.23%	2.00%	2.81%	1.75%
Annual rate of salary increase	2.30%	2.00%	1.75%	2.00%

(*) The discount rate used to determine the present value of the Italian post-employment benefits obligation was inferred, consistently with par. 83 of IAS 19, by the Iboxx Corporate AA index with duration 10+ recorded at the valuation date. For this purpose, the yield with a duration comparable to the duration of the collective of workers subject to valuation was chosen.

The mortality assumptions are based on published statistics concerning mortality rates.

The following table summarises the sensitivity analysis for each actuarial, financial and demographic assumption relating only to the Italian companies of the Group, showing the effects (in absolute value) that would have occurred following changes in the reasonably possible actuarial assumptions at December 31, 2022 and 2021.

	Annual discount rate		Annual inflation rate		Annual rate of turnover	
	0.25%	-0.25%	0.25%	-0.25%	1.00%	-1.00%
			(in € thousands)			
Employees Benefits as of December 31, 2022 (*)	(81)	85	63	(63)	21	(23)
Employees Benefits as of December 31, 2021 (*)	(102)	106	79	(77)	(38)	43

(*) The sensitivity analysis on the actuarial assumptions refers to the post-employment benefits for companies under Italian law.

Pension plans

The item "pension plans" includes obligations of De Nora Group companies operating mainly in the United States, Japan and India.

The existing pension plans generally provide for the payment of contributions to a trust which independently administers the plan assets. The trusts provide for fixed contributions from employees and variable contributions from employers to at least meet the minimum funding requirements provided for by legislation and regulations in each country. If the plans are overfunded, i.e., they show a surplus beyond the legal requirements, the concerned Group companies may be authorized to suspend contributions as long as they remain overfunded.

The strategy for managing plan assets depends on the characteristics of the plan and the maturity of the obligations; typically, pension plans with long-term maturities are funded through investments in equity securities; those with medium to short-term maturities are funded through investments in fixed income securities.

In short, the main actuarial assumptions applied for the Group companies' calculation are the following:

	As of December 31,					
	2022			2021		
	USA	India	Japan	USA	India	Japan
Annual discount rate	5.00%	7.48%	1.10%	2.65%	6.62%	0.30%
Annual rate of salary increase	N/A	8.00%	1.00%	N/A	8.00%	1.00%

The changes in the pension funds are summarized in the following table:

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Opening balance	20,143	20,436
Current service cost	1,407	759
Interest cost	36	61
Benefits paid	(1,531)	(1,224)
Curtailment (past service cost)	-	19
Actuarial (profit) loss	(1,043)	248
Exchange rate differences	(735)	(156)
Closing balance	18,277	20,143

The pension plan fund, as of December 31, 2022, amounted to Euro 18,277 thousand, (Euro 20,143 thousand as of December 31, 2021).

Changes in plan assets are analysed below:

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Opening fair value of plan assets	16,983	16,947
Contributions paid	88	630
Benefits paid	-	(878)
Expected return on plan assets	26	66
Adjustment of plan assets	(365)	726
Exchange rate differences	(1,237)	(508)
Closing fair value of plan assets	15,495	16,983

The main risks to which the Group is exposed in relation to pension funds are detailed below:

— volatility of the assets serving the plans: in order to balance liabilities, the investment strategy cannot limit its horizon exclusively to risk-free assets. This implies that some investments, such as listed shares, exhibit high volatility in the short term and that this exposes the plans to risks of reduction in the value of assets in the short term and consequently to an increase in imbalances. However, this risk is mitigated by the diversification of investments in numerous investment classes, through different investment managers, different investment styles and with exposures to multiple factors that are not perfectly correlated with each other.

Furthermore, investments are continually reviewed in light of market conditions, with adjustments to keep the overall risk at adequate levels;

- changes in bond yields and expected inflation: expectations of falling bond yields and/or rising inflation lead to an increase in liabilities. The plans reduce this risk by investing in liability hedging assets;
- life expectancy: the increase in life expectancy leads to an increase in the plan's liabilities.

31. Provisions for risks and charges

The following table shows the composition of the provisions for risks and charges for the years ended December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Non-current		
Provision for contractual warranties	179	219
Provision for other risks	1,963	2,117
Total	2,142	2,336
Current		
Provision for contractual warranties	11,605	9,313
Provision for other risks	6,941	9,456
Total	18,546	18,769
Total provisions for risks and charges	20,688	21,105

The provisions for risks and charges mainly include: (i) the provision for other risks, which includes provisions for environmental and fiscal risks; and (ii) the provision for contractual warranties, which represents an estimate of the costs for the guarantees given in contracts in relation to the supply of the plants and has a value of Euro 11,784 thousand for the year 2022 (Euro 9,532 thousand as at December 31, 2021).

The provision for other risks, at December 31, 2022, amounted to Euro 8,904 thousand (Euro 11,573 thousand at December 31, 2021).

The changes for the financial year ended December 31, 2022 were as follows:

	Provision for contractual warranties	Provision for other risks
	(in € thousands)	
Balance as of December 31, 2021	9,532	11,573
Accruals of the year	4,894	1,570
Utilization and releases of the year	(2,536)	(4,818)
Exchange rate differences	(106)	579
Balance as of December 31, 2022	11,784	8,904

32. Financial liabilities

The following table shows the detail of financial liabilities at December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Non-current		
Bank loans and borrowings	262,741	-
Lease payables	4,803	3,784
Total	267,544	3,784
Current		
Bank overdrafts	282	36
Bank loans and borrowings	11,740	256,101
Lease payables	1,633	1,637
Fair value of derivatives	-	1,589
Total	13,655	259,363
Total financial liabilities	281,199	263,147

Bank loans and borrowings

The table below shows the details of bank loans and borrowings and bank overdrafts.

	As of December 31,					
	2022			2021		
(in € thousands)	Non Current	Current	Total	Non Current	Current	Total
New Pool Financing (IDN)	178,772	-	178,772	-	-	-
New Pool Financing (De Nora Holdings US Inc)	83,969	10	83,979	-	-	-
Sumitomo Mitsui Banking Co. (De Nora Permelec Ltd)	-	9,953	9,953	-	-	-
Sumitomo Mitsui Trust Bank (De Nora Permelec Ltd)		355	355	-	-	-
Bank of Yokohama (De Nora Permelec Ltd)	-	1,422	1,422	-	-	-
Pool Financing (IDN)		-	-	-	119,860	119,860
Unicredit loan (IDN)	-	-	-	-	40,001	40,001
Pool Financing (De Nora Holdings US Inc)		-	-	-	33,508	33,508
BNL loaans (IDN)	-	-	-	-	31,059	31,059
BPM loan (IDN)		-	-	-	15,005	15,005
BPER loan (IDN)	-	-	-	-	15,003	15,003
Short term loans (De Nora Brazil)		-	-	-	1,664	1,664
Overdrafts and financial accrued expenses	-	282	282	-	37	37
Total	262,741	12,022	274,763	-	256,137	256,137

As of December 31, 2022 and 2021, the fair value of bank loans and borrowings approximates their book value to the amortized cost.

Pool Financing (IDN) - Pool Financing (De Nora Holdings US Inc)

The original maturity date of these loans was July 19, 2022. However, in light of the Group's financial needs, it was decided to prematurely close this loan and re-propose to the same banking institutions, joined by Banco BPM, a bullet refinancing, with a maturity of 5 years, which was signed on May 5, 2022 and consists of two lines of Euro 180,000 thousand and USD 90,000 thousand, underwritten by Industrie De Nora S.p.A. and De Nora Holdings US, respectively. The financial liability is shown in the financial statements net of the Upfront Fees paid by the companies to the banks at the time of signing the contract and other charges directly related to the taking out of loans, as at December 31, 2022, totalling Euro 1,639 thousand. As a result of this medium-term loan, all additional credit lines of the parent company were subsequently repaid. The new pool loan considers interest rates parameterized to the 3- or 6-month Euribor for the Euro portion and to the SOFR for the USD portion, in addition to an initial margin that may change semi-annually, starting in January 2023, depending on the evolution of the Group's Leverage level: the initial margin currently in place is 1.15% for the Euro portion and 1.40% for the USD portion. The "leverage ratio", given by the ratio of consolidated net debt to consolidated EBITDA, is the only financial covenant included in the loan agreement, and it is stipulated that it cannot exceed a value of 3.5 throughout the term of the agreement. As of December 31, 2022, this parameter was largely met. Non-compliance with the financial covenant is considered an event of default or non-performance. Specifically, an event of default or non-performance would result in the banks' discretion to require immediate repayment of funds unless the situation is remedied, pursuant to and in accordance with the terms and conditions set forth in the loan agreement, within 20 business days of the submission of the certification of such financial covenant.

Sumitomo Mitsui Banking Co loan

The subsidiary De Nora Permelec Ltd signed a short-term loan with Sumitomo Mitsui Banking Co with a notional value, as at December 31, 2022 of 1,400 million Japanese Yen (equal to Euro 9,953 thousands) at an annual rate of 0.13%, maturing on January 31, 2023.

Sumitomo Mitsui Trust Bank loan

The subsidiary De Nora Permelec Ltd has taken out a short-term loan with Sumitomo Mitsui Trust Bank for a total of 50 million Japanese Yen (equivalent to Euro 355 thousand) at an annual rate of 0.163%, maturing on January 31, 2023.

Bank of Yokohama loan

The subsidiary De Nora Permelec Ltd has taken out a short-term loan with Bank of Yokohama for a total of 200 million Japanese Yen (Euro 1,422 thousand) at an annual rate of 0.168%, maturing on January 31, 2023.

The total financial debt of De Nora Permelec Ltd as at December 31, 2022 is therefore equal to 1,650 million Japanese Yen, equal to Euro 11,730 thousand at the exchange rate at the end of the financial year.

Lease payables

These represent the financial liabilities recognized in accordance with IFRS 16 "Leases"; in particular, the payable is the obligation to make the payments foreseen over the duration of the contract. For additional information on the contractual maturities of lease payables, please refer to Note 36 - Risks.

Net financial indebtedness

The following table details the composition of the Group's net financial indebtedness determined in accordance with the provisions of the CONSOB Communication DEM/6064293 of July 28, 2006, as amended by CONSOB

Communication No. 5/21 of April 29, 2021 and in accordance with ESMA Recommendations contained in Guidelines 32-382-1138 of March 4, 2021 on disclosure requirements under the Prospectus Regulation (the "**Net Financial Indebtedness - ESMA**"). The table below includes figures as at December 31, 2022 and as at December 31, 2021.

		As of December 31,	
		2022	2021
		(in € thousands)	
A	Cash	170,667	72,591
B	Cash equivalents	3,462	1,252
C	Other current financial assets	159,036	478
D	Liquidity (A + B + C)	333,165	74,321
E	Current financial debt	12,666	256,812
F	Current portion of non-current financial debt	1,633	1,637
G	Current financial indebtedness (E + F)	14,299	258,449
	- Of which secured	-	*1,664*
	- Of which unsecured	*14,299*	*256,785*
H	Net current financial indebtedness (G - D)	(318,866)	184,128
I	Non-current financial debt	267,544	3,784
J	Debt instruments	-	-
K	Non-current trade and other payables	-	-
L	Non-current financial indebtedness (I + J + K)	267,544	3,784
	- Of which secured	-	-
	- Of which unsecured	*267,544*	*3,784*
M	Net Financial Indebtedness (Net Liquidity) - ESMA (H + L)	(51,322)	187,912

The reconciliation between the Net Financial Indebtedness - ESMA and the net financial indebtedness of the Group as monitored by the Group (hereinafter the "**Net Financial Indebtedness - De Nora**") as of December 31, 2022 and 2021, is shown below:

	As of December 31,	
	2022	2021
	(in € thousands)	
Net Financial Indebtedness (Net Liquidity) - ESMA	(51,322)	187,912
Fair value of derivatives covering currency risks	(644)	914
Net Financial Indebtedness (Net Liquidity) – De Nora	(51,966)	188,826

In 2022, Net financial indebtedness - ESMA as of December 31, 2021 was Euro 187,912 thousand to Net cash and cash equivalents of Euro 51,322 thousand as at December 31, 2022. The improvement of a total of Euro 239,234 thousand is mainly attributable to the combined effect of the following factors:

(i) cash generated from operating activities amounting, in 2022, to Euro 112,823 thousand;

(ii) cash received as a result of the capital increase to service the institutional placement of Industrie De Nora S.p.A.'s ordinary shares on Euronext Milan (Euro 196,581 thousand net of placement fees, net of placement fees and capitalized IPO advisory costs);

(iii) the liquidity absorbed in 2022 by investment activities equal to Euro 45,777 thousand;

(iv) dividends distributed amounting to Euro 20,030 thousand.

For further details on the cash flows for the period, please refer to the consolidated cash flow statement.

33. Trade payables

The table below shows the detail of trade payables as of December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Non-current		
Third parties	83	177
Total non-current payables	83	177
Current		
Third parties	79,665	60,456
Related parties	889	969
Total current payables	80,554	61,425

Trade payables, at December 31, 2022, amounted to Euro 80,637 thousand (Euro 61,602 thousand at December 31, 2021).

This item mainly includes payables related to the purchase of goods and services, which are due within twelve months. It is deemed that the carrying amount of trade payables is close to their fair value.

34. Income tax payables

Current income tax payables at December 31, 2022 amounted to Euro 10,970 thousand (Euro 27,392 thousand at December 31, 2021).

35. Other payables

The table below shows the detail of the other payables as of December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Non-current		
Accrued expenses and deferred income	-	29
Payables to employees	1,357	865
Tax payables	263	248
Advances from customers	4	8
Other - third parties	316	545
Other - related parties	444	488
Total	2,384	2,183
Current		
Advances from customers	34,482	34,791
Advances from related parties	33,024	25,722
Accrued expenses and deferred income	6,322	5,897
Payables to employees	16,493	15,735
Social security payables	2,524	2,286
Withholding tax payables	1,810	1,063
VAT payables	2,745	2,327
Other tax payables	1,963	2,533
Other - third parties	2,254	1,888
Total	101,617	92,242
Total Other payables	104,001	94,425

Payables to employees relate to amounts accrued but not yet liquidated, such as vacations and bonuses.

E. Financial risks

36. Financial Risks

In the context of business risks, the main financial risks identified, monitored and, as specified below, actively managed by the Group, are the following:

- credit risk, deriving from the possibility of default of a counterparty;
- liquidity risk, deriving from the lack of financial resources to meet financial commitments;
- market risk.

The Group's objective is to maintain, over time, a balanced management of its financial exposure, in order to guarantee a liability structure that is balanced with the composition of the assets on the statement of financial position and able to ensure the necessary operating flexibility through the use of the liquidity generated by current operations and the use of bank loans.

The Group considers risk monitoring and control systems a top priority to guarantee an efficient risk management. In line with this objective, the Group has adopted a risk management system with formalized strategies, policies and procedures to ensure the identification, measurement and control of individual risks at centralized level for the entire Group.

The Group's financial risk management policies aim to:

- identify and analyse the risks to which the Group is exposed;
- define the organizational structure with the identification of the organizational units involved, responsibilities assigned and the system of proxies;
- identify the risk management criteria on which the operational management of risks is based;
- identify the types of transactions for which risks can be hedged.

The following note provides qualitative and quantitative reference information on the incidence of these risks on the Group.

Credit risk

Credit risk is the risk that a customer or one of the counterparties to a financial instrument causes a financial loss by not meeting an obligation. It mainly arises from the Group's trade receivables and financial investments.

The Group manages its exposure to the credit risk inherent in the possibility of default and/or deterioration of the creditworthiness of its customers by evaluating each individual counterparty through a dedicated organizational structure, equipped with the appropriate tools to constantly monitor, on a daily basis, the behaviour and creditworthiness of its customers.

Trade and other receivables

Credit risk is mainly due to the possibility that customers will not honour their payables to the companies of the Group at the agreed due date.

The Group has had long-term business relationships with most of its customers and losses on receivables have, in general, had a very limited impact on revenue. The Group monitors customer credit risk through reporting, which entails an analysis of exposure on the basis of the characteristics of the receivable, also considering geographical location, the business channel, the age of the receivable and past payment history.

The Group accrues a bad debt provision that reflects estimated potential losses on trade and other receivables, the main components of which are specific individual losses on significant past due receivables and collective losses on classes of receivables grouped by due date, based on historical experience.

Investments in financial assets

This item includes investments in the equities of listed companies, high quality corporate bonds and equity and bond funds. Given their nature and credit rating, credit risk relating to potential non-fulfilment by the issuers of financial instruments recognized as assets is negligible.

The carrying amount of the financial assets reflects the Group's maximum exposure to credit risk.

The following table provides the credit exposure details for the financial years ended December 31, 2022 and 2021.

	As of December 31,	
	2022	2021
	(in € thousands)	
Trade receivables	123,421	139,974
Investments in financial assets	10,945	3,233
Other receivables	199,054	62,971
Cash and cash equivalents	174,129	73,843
Total	507,549	280,021

Given the nature, characteristics and diversification of bonds, bond and monetary funds and shares to which the "Investments in financial assets" refer, changes in fair value during the year and cumulative changes in fair value are not believed to be dependent on changes in the credit risk of the related issuers.

An ageing analysis of the trade receivables for the years ended December 31, 2022, and 2021 is as follows:

	As of December 31,		% Overdue as of December 31,	
	2022	2021	2022	2021
	(in € thousands, except percentages)			
Not yet due	85,700	104,200	69.4%	74.4%
Overdue 1-30 days	19,009	19,851	15.4%	14.2%
Overdue 31-120 days	12,934	9,466	10.5%	6.8%
Overdue more than 120 days	5,778	6,457	4.7%	4.6%
Trade receivables	123,421	139,974	100.0%	100.0%

The Group believes there are no reasons to assume the uncollectability of the past due trade receivables where specific provisions have not been made on the basis of specific recoverability assessments.

Liquidity risk

Liquidity risk is represented by the possibility that the Group is unable to find the financial resources necessary to guarantee current operations and the fulfilment of expiring obligations, or that they are available at high costs.

The Group's approach to manage liquidity risk entails ensuring, insofar as possible, that it always has sufficient funds to meet its obligations at the due date, under both normal conditions and at times of financial tension, without having to incur exorbitant expense or to risk damaging its reputation.

Generally, the Group ensures that there is sufficient cash on hand to cover the needs generated by the operating and investment cycle, including the management of the financial cycle.

The management of financial requirements and related risks is carried out by the individual companies of the De Nora Group on the basis of guidelines defined by the corporate function of the Company.

The parent company's Finance Department centrally manages the short- and long-term loan strategies, relationships with the main financing banks and the provision of the necessary guarantees. It also centrally defines any hedging policies to be implemented for financial risks. Centralized management by the parent company's Finance Department is aimed at achieving a balanced financial structure and maintaining the Group's financial soundness.

The main aim of these guidelines is to ensure that liabilities are always balanced by assets such to maintain a very sound financial position.

The contractual due dates of financial liabilities, including derivatives, are indicated below for the financial year ended December 31, 2022 and December 31, 2021:

	As of December 31, 2022						
			Due date				
	Carrying amount	Contractual cash flows*	0-12 months	1-2 years	2-3 years	3-5 years	Over 5 years
	(in € thousands)						
Financial liabilities							
Bank loans and overdrafts	274,763	276,402	12,022			264,380	
Lease payables	6,436	6,436	1,633	1,442	1,018	1,180	1,163
Trade payables	80,637	80,637	80,554	83			
Other	104,001	104,001	101,617	2,384			
Total financial liabilities	**465,837**	**467,476**	**195,826**	**3,908**	**1,018**	**265,560**	**1,163**

* The difference between the total bank loans and borrowing and the contractual cash flows is due to the Upfront Fees which, paid on the date of stipulation of the loan agreement, are recognized in the statement of financial position as a decrease of the total amount payable according to the amortized cost criterion.

	Carrying amount	Contractual cash flows*	0-12 months	1-2 years	2-3 years	3-5 years	Over 5 years
			As of December 31, 2021				
			Due date				
			(in € thousands)				
Financial liabilities							
Bank loans and overdrafts	256,137	256,322	256,322	-	-	-	-
Lease payables	5,421	5,421	1,637	1,063	907	1,814	-
Derivatives	1,589	1,589	1,589	-	-	-	-
Trade payables	61,602	61,602	61,425	177	-	-	-
Other	94,425	94,425	92,242	2,183	-	-	-
Total financial liabilities	419,174	419,359	413,215	3,423	907	1,814	-

Management believes that currently available funds and credit facilities, in addition to the cash flows that will be generated by operating and financing activities, will enable the Group to meet its cash requirements as a result of investing activities, the management of working capital and the repayment of liabilities when they fall due.

Funds management

The management of the Group's funding is aimed at guaranteeing a solid credit rating and adequate levels of indicators to support the investment plans, in compliance with the contractual commitments undertaken with the lenders.

The Group provides itself with the necessary funding to finance its business development and operational needs. The sources of financing are a balanced mix of risk capital and debt capital, to ensure a balanced financial structure and minimise the overall cost of capital, to the benefit of all stakeholders.

The return on risk capital is monitored on the basis of market trends and business performance, once all other obligations, including debt service, have been met. Therefore, in order to ensure an adequate return on capital, safeguard business continuity and business development, the Group constantly monitors the evolution of the level of debt in relation to equity, business performance and expected cash flows in the short and medium-long term.

Market risk

Market risk is the risk that the future cash flows of a financial instrument will fluctuate due to changes in market prices, exchange rates and interest rates or other price risks. The aim of market risk management is to manage and control the Group's exposure to such risk within acceptable levels, while optimising the return on investments.

The Group trades in derivatives in the course of its normal operations and takes on financial liabilities to manage market risk. These transactions are performed to manage volatility in results and, accordingly, they have no speculative purpose.

Currency risk

The Group operates internationally both as buyer of goods and services and as seller of goods and services. Accordingly, it is exposed to currency risk arising from fluctuations in the currencies in which it carries out commercial transactions, particularly the US dollar. The Group's policy is to maintain a consistent balance between assets and invoice receivables in foreign currency and between liabilities and invoice payables.

At December 31, 2022, the Group had currency derivative contracts in place against USD-denominated loans. See Note 21 for further details.

Sensitivity analysis

With reference to these loans, the effect of a hypothetical, instantaneous and unfavourable change of five percentage points in the USD/Euro exchange rate would result in an impact on the income statement of Euro 1 million in 2022 (Euro 1.9 million in 2021).

Interest rate risk

For investments in financial assets, interest rate risk particularly relates to the effects that changes in interest rates have on their price; impairment losses and revaluation of these assets are debited/credited to the income statement or, alternatively, directly to equity. Conversely, with respect to financial liabilities, the risk of changes in interest rates impacts the income statement by generating lower or higher Finance expenses.

Sensitivity analysis

Most of the Group's financial instruments bear interest at variable rates.

The position of the Group for the financial years ended December 31, 2022 and 2021 has been summarized in the table below.

	As of December 31,	
	2022	2021
	(in € thousands)	
Financial liabilities (*)	(276,402)	(263,332)
Hedged financial liabilities	-	129,370
Fixed rate financial liabilities	11,730	108,190
Financial liabilities exposed to interest rate risk	(264,672)	(25,772)
Financial assets exposed to interest rate risk	179,052	75,166
Total	(85,620)	49,394

(*) The value of the financial liabilities shown in the table relates to the contractual cash flows and therefore differs from the carrying amount due to the Upfront Fees, which are paid at the date of the loan agreement and are recognized in the statement of financial position as a reduction of the overall debt.

The effect of a hypothetical, instantaneous and unfavorable variation of one percentage point in the level of interest rates would result in a negative impact on the income statement in the order of Euro 2.6 million in the financial year ended December 31, 2022, compared to Euro 0.3 million in the financial year ended December 31, 2021.

Other price risks

The Group is exposed to price risk in respect of purchases and sales of strategic materials and components, the purchase price of which is subject to market volatility. In particular, during the last three year period, several industries, including those from which the Group sources its supplies, have experienced an increase in the price of strategic materials, other basic raw materials and advanced strategic components, which has led to a rapid increase in prices, a consequent increase in purchasing costs as well as issues in the supply chain. In order to cope with these difficulties, the Group proceeded with increased purchases of strategic materials, which led to an increase in inventories and consequently negatively affected the Group's net financial position.

Thanks to the fact that part of the contracts signed with customers provide for an adjustment of sales prices based on changes in the cost of strategic materials, and thanks to the commercial power that allows the Group to pass on increases in costs to sales prices (pass-through), the Group was able to avoid negative effects on its economic situation.

Other price risks also relate to the possibility that the fair value of a financial instrument may change for reasons other than interest or exchange rates fluctuations. The Group is exposed to price risk as it holds equity instruments (shares) recognized under investments in financial assets. Given the negligible absolute values of the Group's financial instruments, a sensitivity analysis is deemed not necessary.

Classification and fair value

The following table indicates the carrying amount of each financial asset and liability recognized in the statement of financial position.

In addition, the following table classifies the financial assets and liabilities, designated at fair value, on the basis of the specific measurement method used. The different levels have been defined as described below:

— Level 1: listed prices (unadjusted) on active markets for identical assets or liabilities;

— Level 2: input data other than the listed prices in level 1, which can be observed for the asset or liability either directly or indirectly;

— Level 3: input data relating to the asset or liability that are not based on observable market data.

The financial instruments in these consolidated financial statements belong to levels 1 and 2.

The following tables provide a breakdown of financial assets and liabilities by category, in accordance with IFRS 9, at December 31, 2022 and 2021.

Classification and fair value as of December 31, 2022		Carrying amount					Fair value		
(in € thousands)	Notes	Loans and receivables	Investments in financial assets - Fair value	Derivatives at fair value	Other financial liabilities	Total	Level 1	Level 2	Level 3
Financial assets									
Cash and cash equivalents	28	174,129	-	-	-	174,129	-	-	-
Trade and other receivables	26/27	170,418	-	-	-	170,418	-	-	-
Financial assets including derivatives	21	152,057	10,945	644	-	163,646	10,945	644	-
		496,604	10,945	644	-	508,193	10,945	644	-
Financial liabilities									
Bank loans and borrowings	32	-	-	-	274,763	274,763			
Lease payables	32	-	-	-	6,436	6,436			
Trade and other payables	33/34/35	-	-	-	195,608	195,608			
		-	-	-	476,807	476,807	-	-	-

Classification and fair value as of December 31, 2021		Carrying amount					Fair value		
(in € thousands)	Notes	Loans and receivables	Investments in financial assets - Fair value	Derivatives at fair value	Other financial liabilities	Total	Level 1	Level 2	Level 3
Financial assets									
Cash and cash equivalents	28	73,843	-	-	-	73,843	-	-	-
Trade and other receivables	26/27	200,280	-	-	-	200,280	-	-	-
Financial assets including derivatives	21	2,666	3,233	-	-	5,899	3,233	-	-
		276,789	3,233	-	-	280,022			
Financial liabilities									
Bank loans and borrowings	32	-	-	-	(256,137)	(256,137)	-	-	-
Lease payables	32	-	-	-	(5,421)	(5,421)	-	-	-
Trade and other payables	33/34/35	-	-	-	(183,527)	(183,527)	-	-	-
Derivatives	32	-	-	(1,589)	-	(1,589)	-	(1,589)	-
		-	-	(1,589)	(445,085)	(446,674)	3,233	(1,589)	-

F. Segment reporting

37. Segment reporting

The information relating to business segments was prepared in accordance with the provisions of IFRS 8 "Operating segments" (hereinafter "**IFRS 8**"), which require that the provided information is consistent with the reports submitted to the highest operational decision-making level for the purpose of making decisions regarding the resources to be allocated to the sector and assessing the related results.

In particular, the Group identifies the following three operational business segments:

- *Electrode Technologies*: this includes the offering of metal electrodes (anodes and cathodes) coated with special catalysts, electrolyzer components and systems, with multiple applications, in particular (i) for the production processes of chlorine and caustic soda; (ii) for the electronics industry and in the production of components for lithium battery production; (iii) for the refining of non-ferrous metals (nickel and cobalt); (iv) for the galvanic finishing industry; (v) for the cellulose and paper industry; and (vi) for the infrastructure sector for corrosion prevention of reinforced concrete and metal structures;
- *Water Technologies*: this includes offerings related to water treatment systems, which includes electrodes, equipment, systems and facilities for disinfection and filtration of drinking, wastewater and processing water; the main applications are residential swimming pool disinfection, municipal water disinfection and filtration, and industrial and marine water treatment;
- *Energy Transition*: this includes the offering of electrodes (anodes and cathodes), electrolyzer components, and systems (i) for the generation of hydrogen and oxygen through water electrolysis processes, (ii) for use in fuel cells for electricity generation from hydrogen or another energy carrier (e.g., methanol, ammonia) without CO_2 emissions, and (iii) for use in redox flow batteries;

In support of these business segments there are the so-called Corporate activities, whose costs are entirely allocated to the segments.

The Energy Transition Business was identified to start from the 2022 financial year, while up to December 31, 2021, the related activities were included in the Electrode Technologies Business.

In the Energy Transition business the Group aims to expand its presence in the green hydrogen production field, market with a significant growth potential.

The following tables show the economic information by business segment for the financial years 2022 and 2021.

	For the year ended December 31, 2022			
	Group	Segment Electrode Technologies	Segment Water Technologies	Segment Energy Transition
	(in € thousands)			
Revenue	852,826	473,444	336,719	42,664
Royalties and commissions	(11,055)	(8,639)	(2,281)	(134)
Cost of goods sold	(533,381)	(296,398)	(209,183)	(27,800)
Selling expenses	(30,553)	(9,601)	(19,927)	(1,025)
G&A expenses	(49,992)	(19,886)	(27,925)	(2,181)
R&D expenses	(12,897)	(3,180)	(1,533)	(8,184)
Other operating income (expenses)	580	38	184	357
Corporate costs allocation to business segments	(30,993)	(17,050)	(12,423)	(1,520)
MIP allocation to business segments	(19,360)	(10,748)	(7,644)	(969)
EBITDA	165,176	107,980	55,987	1,208
Depreciation and amortization	(28,123)			
Impairment	(8,988)			
Provisions for risks and charges	(2,256)			
Operating profit - EBIT	125,809			
Share of profit of equity-accounted investees	(1,196)			
Finance income	23,505			
Finance expenses	(27,688)			
Profit before tax	120,430			
Income tax expense	(30,765)			
Profit for the period	89,665			

	For the year ended December 31, 2021		
	Group	Segment Electrode Technologies	Segment Water Technologies
	(in € thousands)		
Revenue	615,878	358,211	257,667
Royalties and commissions	(6,905)	(4,628)	(2,277)
Cost of goods sold	(384,865)	(218,351)	(166,514)
Selling expenses	(26,306)	(9,202)	(17,104)
G&A expenses	(41,880)	(19,414)	(22,466)
R&D expenses	(10,470)	(9,810)	(660)
Other operating income (expenses)	(1,047)	(917)	(130)
Corporate costs allocation to business segments	(23,199)	(13,230)	(9,969)
EBITDA	121,206	82,659	38,547
Depreciation and amortization	(26,234)	-	-
Impairment	(2,947)	-	-
Provisions for risks and charges	(4,432)	-	-
Operating profit - EBIT	87,593	-	-
Share of profit of equity-accounted investees	8,834	-	-
Finance income	13,456	-	-
Finance expenses	(16,330)	-	-
Profit before tax	93,553	-	-
Income tax expense	(27,108)	-	-
Profit for the period	66,445	-	-

The following table illustrates the investments by business segment for the financial years ended December 31, 2022 and 2021.

	Group	Segment Electrode Technologies	Segment Water Technologies	Segment Energy Transition	Not Allocated
	(in € thousands)				
2022					
Property, plant and equipment (*)	38,116	28,029	2,074	7,539	474
Intangible assets	8,026	1,940	5,940	104	41
Total Investments 2022	46,142	29,969	8,014	7,643	515
2021					
Property, plant and equipment (*)	23,906	21,270	2,535	-	101
Intangible assets	7,083	971	5,601	-	511
Total Investments 2021	30,989	22,241	8,136	-	612

(*) It does not include increases related to rights of use of Property, Plant and Equipment.

In accordance with the provisions of IFRS 8, paragraph 34, it should also be noted that for the financial years ended 31 December 2022 and 2021, there was only one customer (tk nucera) related to the Electrode Technologies and Energy Transition business segments that generated revenues exceeding 10% of the total, amounting to Euro 148,286 thousand and Euro 97,417 thousand, respectively. For more details, see Note 38.

The table below shows the non-current assets, other than financial assets and deferred tax assets, by geographical area at December 31, 2022 and 2021, allocated on the basis of the country in which the assets are located.

	As of December 31, 2022				
	Italy	EMEIA, excluding Italy	APAC	AMS	Total
	(in € thousands)				
Intangible assets	8,482	4,570	17,263	101,237	131,552
Property, plant and equipment	26,903	27,471	69,725	60,078	184,177
Other receivables	8,169	15	783	63	9,030
Total	43,554	32,056	87,771	161,378	324,759

	As of December 31, 2021				
	Italy	EMEIA, excluding Italy	APAC	AMS	Total
	(in € thousands)				
Intangible assets	13,208	4,486	19,364	95,747	132,805
Property, plant and equipment	24,147	19,225	65,884	58,371	167,627
Other receivables	9,427	2	717	167	10,313
Total	46,782	23,713	85,965	154,285	310,745

G. Related party transactions

38. Related Party Transactions

Transactions with related parties, as defined by IAS 24 - Related Party Disclosures, mainly relate to commercial, administrative and financial transactions. They are carried out as part of ordinary operations, within the scope of the core business of each party and take place on an arm's length basis. In particular, the Group has relations with the following related parties:

- the direct parent company, Federico De Nora S.p.A. (the "**Parent Company**");
- the associated company tk nucera and its subsidiaries (the "**Associates**");
- minority shareholders and related companies, also through key management personnel (the "**Other Related Parties**");
- key management personnel ("**Top Management**").

The table below details the statement of financial position values referring to the related party transactions at December 31, 2022 and 2021.

(in € thousands)	Controlling Company	Associates	Other - related parties	Total	Total statement of financial position caption	As percentage of Total statement of financial position caption
Other non-current receivables						
As of December 31, 2022	-	-	52	52	9,030	0.6%
As of December 31, 2021	-		52	52	10,313	0.5%
Current tax assets						
As of December 31, 2022	376	-	-	376	4,893	7.7%
As of December 31, 2021	376	-		376	20,965	1.8%
Current trade receivables						
As of December 31, 2022	17	7,250	-	7,267	123,421	5.9%
As of December 31, 2021	11	21,626	-	21,637	139,974	15.5%
Other non-current payables						
As of December 31, 2022	-	444		444	2,384	18.7%
As of December 31, 2022	-	488	-	488	2,183	22.4%
Current trade payables						
As of December 31, 2022	25	775	89	889	80,554	1.1%
As of December 31, 2021	-	894	75	969	61,425	1.6%
Current tax liabilities						
As of December 31, 2022	-	-	-	-	10,970	-
As of December 31, 2021	1,786	-	-	1,786	27,392	6.5%
Other current payables						
As of December 31, 2022	-	33,024	-	33,024	101,617	32.5%
As of December 31, 2021	-	25,722	-	25,722	92,242	27.9%

Statement of financial position balances with the parent company mainly related to current tax assets amounting to Euro 376 thousand, unchanged with respect to last financial year, against the national tax consolidation agreement that was in place between the parent company Federico De Nora S.p.A., the Company, De Nora Italy S.r.l., De Nora Water Technology Italy S.r.l. and Capannoni S.r.l., extinguished in 2022 following the listing of Industrie De Nora S.p.A.

Statement of financial position balances with Associated Companies mainly correspond to current trade receivables amounted to Euro 7,250 thousand as of December 31, 2022, compared to Euro 21,626 thousand as of December 31, 2021; these receivables refer mainly to the sale of electrodes under the supply "Tool Manufacturing and Services Agreement" initially stipulated on April 1, 2015 with tk nucera and subsequently amended.

Other current payables to Associated Companies amounting to Euro 33,024 thousand as of December 31, 2022, compared to Euro 25,722 thousand as of December 31, 2021, are related to advances obtained with reference primarily to the aforementioned supply contract.

The table below shows the detail of the economic values relating to transactions with related parties for the financial years ended December 31, 2022 and 2021.

(in € thousands)	Controlling Company	Associates	Other related parties	Total	Total income statement caption	As percentage of Total income statement caption
Revenue						
For the year ended December 31, 2022	-	148,286	38	**148,324**	852,826	17.4%
For the year ended December 31, 2021	-	97,417	-	**97,417**	615,878	15.8%
Other income						
For the year ended December 31, 2022	56	696	-	**752**	6,451	11.7%
For the year ended December 31, 2021	54	740	-	**794**	4,009	19.8%
Costs for raw materials, consumables, supplies and goods						
For the year ended December 31, 2022	-	1,056	-	**1,056**	399,904	0.3%
For the year ended December 31, 2021	-	480	-	**480**	289,578	0.2%
Costs for services						
For the year ended December 31, 2022	88	499	1,030	**1,617**	161,819	1.0%
For the year ended December 31, 2021	88	672	826	**1,586**	116,868	1.4%
Personnel expenses						
For the year ended December 31, 2022	-	-	2	**2**	154,561	0.0%
For the year ended December 31, 2021	-	-	-	**-**	116,067	0.0%
Other operating expenses						
For the year ended December 31, 2022	-	-	3	**3**	9,676	0.0%
For the year ended December 31, 2021	-	-	1	**1**	9,427	0.0%
Finance expenses						
For the year ended December 31, 2022	-	-	1	**1**	27,688	0.0%
For the year ended December 31, 2021	-	-	-	**-**	16,330	0.0%

The economic relations with the Associated Companies mainly relate to revenues, amounting to Euro 148,286 thousand in 2022, compared to Euro 97,417 thousand in 2021, mainly arising from the sale of electrodes under the "Tool Manufacturing and Services Agreement" mentioned above.

Services to Other related parties include emoluments to members of the Board of Directors of Euro 819 thousand in

2022, compared to Euro 675 thousand in 2021, of which Euro 77 thousand not yet paid as at December 31, 2022.

Transactions with Top Management

In addition to the balance sheet and income statement values with related parties presented in the tables above, the Group has recognized compensation to Top Management for the amount of Euro 23,281 thousand in 2022, compared to Euro 4,870 thousand in 2021, of which Euro 1,845 thousand not yet paid as of December 31, 2022.

The table below shows the breakdown of the aforementioned fees under the cost categories identified by IAS 24.

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Short-term employee benefits	5,286	4,586
Post-employment benefits	316	284
Other long-term benefits	-	-
Termination benefits	-	-
Share-based payment	17,679	-
Total	23,281	4,870

H. Non-recurring events

39. Non-recurring events

Pursuant to CONSOB Communication No. DEM/6064293 of July 28, 2006, information on the impact of non-recurring events and transactions in the period on the Group's economic and financial results is provided below:

	Income statement	Equity	Cash Flows
		(in € thousands)	
Personnel expenses – Management Incentive Plan	(19,360)	-	-

I. Directors', Statutory Auditors' and Independent Auditors' fees

40. Directors', Statutory Auditors' and Independent Auditors' fees

Pursuant to Art. 38 of Italian Legislative Decree 127/91, the fees paid to the directors and statutory auditors of the Company for the performance of their duties, and to the independent auditors' fees for the audit of the consolidated financial statements are detailed below:

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Fees to Board of Directors	819	675
Fees to Board of Statutory Auditors	134	123
Fees for the audit of the annual and consolidated financial statements (including the activities carried out on the financial statements prepared for the purposes of consolidation by foreign subsidiaries)	1,660	1,306
Fees for other audit services	84	10
Fees for non audit services	2,266	1,556

J. Commitments, guarantees and contingent liabilities

41. Commitments, guarantees and contingent liabilities

Commitments

The Company has not undertaken any commitments that have not been recorded in the statement of financial position, except for orders for the purchase of capital assets amounting to Euro 22.7 million at December 31, 2022.

Guarantees

At December 31, 2022, the following guarantees were in place within the Group:

— Industrie De Nora S.p.A. issued guarantees in favor of suppliers of subsidiaries for Euro 9,726 thousand and guarantees in favor of customers of subsidiaries for Euro 12,414 thousand;

— the parent company has also issued guarantees in favor of credit institutions for both cash and unsecured credit lines, issued in favor of subsidiaries for Euro 89,977 thousand; as at December 31, 2022, these credit lines were used only for unsecured loans;

— as security for contractual obligations undertaken by the Group, sureties have been granted by banks or insurance companies to customers amounting to Euro 56,533 thousand, of which Euro 27,690 thousand in relation to the credit lines guaranteed by the parent company as indicated above.

Contingent liabilities

The Group has not assumed any contingent liabilities that have not been recognized in the financial statements.

K. Reconciliation of the result for the year and equity of Industrie De Nora S.p.A. and the Group

42. Reconciliation of the result for the year and equity of Industrie De Nora S.p.A. and the Group

The result for the year and equity of the Company are reconciled with those of the Group taken from the consolidated financial statements in the table below:

	For the year ended December 31, 2021	As of December 31, 2021
(in € thousands)	Profit of the period	Equity
As for the financial statements of the parent company	11,814	482,828
Dividends collected by the parent company	(17,670)	-
Equity-accounted investments in JV/associates	(1,183)	20,039
Adjusted profit of subsidiaries and difference between adjusted equity of the consolidated companies and relevant carrying amount	96,673	241,759
Consolidated entries of the parent company	31	178
As of the Consolidated Financial Statements of the De Nora Group	89,665	744,804

L. Events after the reporting date

43. Events after the reporting date

- Effective January 1, 2023, De Nora ISIA S.r.l. was merged by incorporation into De Nora Water Technologies S.r.l. The two companies had already been working closely together since 2021, and the merger now allows them to operate with a single organization that simplifies processes and increases efficiency and agility.
- In February 2023, the acquisition of a dismantled industrial area south-east of Cernusco sul Naviglio (Milan) was finalized for the implementation of the "Italian Gigafactory" project.

The project is part of the expansion plan of the De Nora Group's production capacity and provides, following the demolition of the existing buildings, for the construction of a large-scale production center with a capacity of up to 2GW for the manufacture of electrolysers for generation of green hydrogen, systems and components for the electrolysis of water and fuel cells, in addition to the construction of facilities to service the other divisions of the Group.

The construction of the Gigafactory is expected to start in the second half of 2023, subject to the successful completion of the authorization process that will take place in the coming months.

On behalf of the Board of Directors
The Chief Executive Officer
Paolo Enrico Dellachà

Management's Certification of the Consolidated Financial Statements

The undersigned Paolo Enrico Dellachà and Matteo Lodrini, in their respective capacities as Chief Executive Officer and Manager responsible for preparing the Company's financial reports of Industrie De Nora S.p.A., hereby certify, also taking into account the provisions of Article 154-bis, paragraphs 3 and 4, of Legislative Decree no. 58 of 24 February 1998:

- the adequacy in relation to the characteristics of the company and
- the effective application of the administrative and accounting procedures for the preparation of the consolidated financial statements during FY 2022.

It is also certified that:

The consolidated financial statements as at 31 December 2022:

- have been prepared in accordance with International Financial Reporting Standards as endorsed by the European Community pursuant to Regulation (EC) no. 1606/2002 of the European Parliament and of the Council of 19 July 2002;
- correspond to the information contained in the accounting ledgers and records;
- provide a true and fair representation of the equity, economic and financial situation of the Issuer and the whole of the companies included in the scope of consolidation.

The Directors' Report includes a fair review of the development and performance of operations and of the position of the issuer and of the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties to which it is exposed.

Milan, 22 March 2023

Paolo Enrico Dellachà

Chief Executive Officer

Matteo Lodrini

Manager responsible for preparing the Company's financial reports

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Independent auditor's report

in accordance with article 14 of Legislative Decree No. 39 of 27 January 2010 and article 10 of Regulation (EU) No. 537/2014

To the shareholders of Industrie De Nora SpA

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Industrie De Nora SpA and its subsidiaries (De Nora Group), which comprise the consolidated statement of financial position as of 31 December 2022, the consolidated income statement, the consolidated statement of comprehensive income, the statement of changes in the net consolidated equity, the consolidated statement of cash flows for the year then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the De Nora Group as of 31 December 2022, and of the result of its operations and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union, as well as with the regulations issued to implement article 9 of Legislative Decree No. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of this report. We are independent of Industrie De Nora SpA (the Company) pursuant to the regulations and standards on ethics and independence applicable to audits of financial statements under Italian law. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

PricewaterhouseCoopers SpA

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Key Audit Matters	***Auditing procedures performed in response to key audit matters***
Revenues and construction contracts	
Part A.2 – Accounting standards and criteria – "Construction contracts", "Revenue from contracts with customers" and "Estimates and assumptions" *Part B – Notes to the main financial statements items – Income statement – Note 4 "Revenue"* *Part C – Notes to the main financial statements items – Statement of financial position – Assets – Note 25 "Construction contracts"* Revenue from contracts with customers of the De Nora Group comprises sales of electrodes and systems, post-sales services and revenue from construction contracts mainly referred to water treatment systems. Revenue generated in 2022 amounts to euro 852,8 million and comprises revenue from sales of goods and services for euro 782,0 million and revenue from construction contracts for euro 70,8 million. Revenue is recognised in accordance with IFRS 15 – "Revenue from contracts with customers", when control of the goods or services is transferred to the customer. The contractual obligation of revenue from sales of electrodes, systems and post-sales services is satisfied at a point in time when the customer obtains control of the promised assets, whereas the contractual obligation of revenue from construction contracts is satisfied over time. In detail, revenue from construction contracts is recognised along the duration of each project based on its percentage of completion. The percentage of completion of each project is determined on the basis of the costs incurred compared to the total costs incurred and/or to be incurred to complete the project. The correct recognition of construction contracts from projects that are not yet complete assumes, among other things, the correct estimation of the costs to complete, of the effects of any contract modifications and of any extra costs and penalties	Our audit approach involved, preliminarily, understanding and evaluating the methods and procedures defined by the De Nora Group for the recognition and measurement of revenues in accordance with the requirements of IFRS 15. Moreover, we understood and evaluated the internal control system over this area and we planned our tests paying special attention to the existence and cut-off of transactions for the sale of goods and services and to the accuracy of estimation of the percentage of completion for construction contracts. As part of the activities performed, also with the support of experts from the PwC network: - for the main revenue streams, identified on the basis of IFRS 15, we understood and evaluated the relevant controls implemented by the De Nora Group and validated some of them; - we verified the correct recognition of revenue through analyses, on a sample basis, of the documentation supporting sales transactions and of the clauses governing the various contractual obligations; - we verified, for a sample of sales transactions, the correct recognition of revenue cut-off, through analyses of the supporting documentation; - we performed external confirmation procedures to obtain evidence supporting the trade receivables recognised; - we analysed, on a sample basis, the correct recognition of returns and credit notes issued and the related year-end accruals; - we analysed the determination of the percentage of completion through recalculation and analyses, on a

Key Audit Matters	*Auditing procedures performed in response to key audit matters*
that could modify the estimated margin. Revenue from contracts with customers is a key audit matter for the consolidated financial statements both in consideration of the materiality of the financial statements line item and the number of underlying transactions, and due to the complexity that may affect the process of estimation of the percentage of completion.	sample basis, of documentation supporting the contract values of construction contracts, the costs incurred up to the reporting date, and the estimated costs to complete the project. For the purposes of this analysis we also took into account information on events subsequent to the reporting date and held critical discussions with the managers of individual projects so as to obtain additional supporting evidence; - we verified, on a sample basis on construction contracts, the deviation between the estimated costs to complete the project and the actual costs incurred, evaluating the estimates reliability; - we verified the correct recognition of construction contracts open at year end and their correct classification in the statement of financial position; - we verified the accuracy and completeness of disclosures in the notes to the consolidated financial statements.
Employee incentive plans *Part A.2 – Accounting standards and criteria – "Employees benefits" and "Estimates and assumptions"* *Part B – Notes to the main financial statements items – Income statement – Note 8 "Personnel expenses"* *Part D – Notes to the main financial statements items – Statement of financial position – Liabilities and Equity– Note 29 "Equity"* In 2021 Industrie De Nora SpA approved a Management Incentive Plan that included the issuance of shares, with potential economic benefits to employees, if certain conditions were satisfied, which qualify as equity-settled share based payments as defined by IFRS 2.	We performed specific analyses to understand the approved incentive plans and to understand and evaluate internal controls over management's evaluations. As part of the activities performed, also with the support of experts from the PwC network, we verified the following: - the incentive plans, as approved by management, and, on a sample basis, the grant letters; - the consistency of the methodological approach used by the independent experts engaged by the Company to determine the fair value with the requirements of IFRS 2 "Share based payment";

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Key Audit Matters	***Auditing procedures performed in response to key audit matters***
On 11 April 2022 the plan was modified and, accordingly, its fair value was recalculated and the Company recognised a personnel expense corresponding to the incremental fair value of the modified plan, equal to euro 19.4 million. In the second half of 2022, Industrie De Nora SpA approved a Performance Share Plan that included the rights to subscribe ordinary shares of the Company. That plan qualifies as an equity-settled share based payment transaction as defined by IFRS 2. The fair value measurement at the grant date of the rights to subscribe ordinary shares resulted in the recognition of a personnel expense of euro 0.1 million. This financial statements area is a key audit matter for the consolidated financial statements considering the relevance of the impact, the non-recurring nature of the amendment to the Management Incentive Plan approved in the 2021 and the complexity of valuation underlying the fair value measurement.	- on a sample basis, the accuracy and completeness of the inputs used in the calculation; - the reasonableness of the most significant assumptions; - the mathematical accuracy of the fair value calculation of the share plans offered to employees, or the incremental fair value in the event of a plan modification, and the consistency of the plans with the agreements made; - the accuracy, completeness and cut-off of the accounting entries posted by the Company; - the accuracy and completeness of disclosures in the notes to the consolidated financial statements.
Assessment of the recoverability of the fixed assets value *Part A.2 – Accounting standards and criteria – "Impairment of goodwill, property, plant and equipment and intangible assets and right-of-use assets" and "Estimates and assumptions"* *Part C – Notes to the main financial statements items – Statement of financial position – Assets – Note 18 "Goodwill and other intangible assets" and Note 19 "Property, plant and equipment"* De Nora Group fixed assets comprise intangible assets including goodwill for euro 131.6 million and property, plant and equipment for euro 184.2 million. Those items are measured at cost. Based on IAS 36 "Impairment of assets", property, plant and equipment and intangible assets with finite useful lives are tested for impairment when indicators exist that there may be difficulties in recovering the related net book values through use. Goodwill and indefinite-lived	We performed specific analyses to understand and evaluate internal controls over management's evaluations in this area, including the identification of impairment indicators. We also verified the preliminary analyses performed by management for the identification of impairment indicators. This was performed also through an analysis of performance recorded in the period against business plans, based on financial projections and through critical discussion with company personnel involved in the valuation process. Where impairment indicators were identified, and for the impairment testing of goodwill, we obtained an understanding of the valuation criteria adopted by management

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Key Audit Matters	***Auditing procedures performed in response to key audit matters***
intangible assets, instead, are tested for recoverability through impairment tests performed at least annually. The recoverable amount of an asset is the higher of fair value less costs of disposal and value in use, which is determined by discounting to present value the estimated future cash flows expected to be derived from the asset, including, if significant and reasonably determinable, those from the sale of the asset at the end of its useful life, less any costs of disposal. In determining value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money, referred to the period of the investment, and the risks specific to the asset. Specifically, the configuration of recoverable amount adopted by the Company is value in use, determined by discounting to present value the forecast cash flows of the cash generating units (CGUs) or groups of CGUs, for the period of three years after the reporting date and, except in specific circumstances, adding a terminal value. The key assumptions used to determine the forecast cash flows of the cash generating units (CGUs) or groups of CGUs are the estimated levels of growth of turnover, EBITDA, operating cash flows, perpetual growth rate and weighted average cost of capital (discount rate), taking into consideration past earnings and financial performance and to future expectations. In the year, as a result of the impairment test, impairment losses were recognised on development costs capitalised as intangible assets for euro 4.3 million and on property, plant and equipment for euro 2.8 million. The assessment of the recoverability of the carrying amounts of fixed assets was a key audit matter for the consolidated financial statements because of the relevance of the amounts involved and the complexity of the process of estimating the recoverable amounts of the CGUs or groups of CGUs as those amounts are based on valuation	and verified their consistent application in the process of calculation of the recoverable amount. We assessed the reasonableness of the assumptions underlying the calculation of the recoverable amount, also through the involvement of experts from the PwC network, verifying the reasonableness of the most relevant financial projections used to determine the future cash flows from the CGUs/groups of CGUs, the discount rates applied, the definition of the terminal value and the mathematical accuracy of the impairment testing model. We verified the deviation between financial projections made in previous years and actual figures, evaluating the estimates reliability. Moreover, we performed sensitivity analyses for the most significant assumptions. Finally, we verified the adequacy and completeness of disclosures in the notes to the consolidated financial statements.

Key Audit Matters	*Auditing procedures performed in response to key audit matters*
assumptions that are affected by economic and market conditions subject to uncertainties.	

Responsibilities of the Directors and the Board of Statutory Auditors for the Consolidated Financial Statements

The directors are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union, as well as with the regulations issued to implement article 9 of Legislative Decree No. 38/2005 and, in the terms prescribed by law, for such internal control as they determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

The directors are responsible for assessing the Group's ability to continue as a going concern and, in preparing the consolidated financial statements, for the appropriate application of the going concern basis of accounting, and for disclosing matters related to going concern. In preparing the consolidated financial statements, the directors use the going concern basis of accounting unless they either intend to liquidate Industrie De Nora SpA or to cease operations, or have no realistic alternative but to do so.

The board of statutory auditors is responsible for overseeing, in the terms prescribed by law, the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

As part of our audit conducted in accordance with International Standards on Auditing (ISA Italia), we exercised professional judgement and maintained professional scepticism throughout the audit. Furthermore:

- We identified and assessed the risks of material misstatement of the consolidated financial statements, whether due to fraud or error; we designed and performed audit procedures responsive to those risks; we obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- We obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
- We evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors;
- We concluded on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- We evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- We obtained sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion on the consolidated financial statements.

We communicated with those charged with governance, identified at an appropriate level as required by ISA Italia regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identified during our audit.

We also provided those charged with governance with a statement that we complied with the regulations and standards on ethics and independence applicable under Italian law and communicated with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate the related risks, or safeguards applied.

From the matters communicated with those charged with governance, we determined those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We described these matters in our auditor's report.

Additional Disclosures required by Article 10 of Regulation (EU) No. 537/2014

On 18 February 2022, the general meeting of the shareholders of Industrie De Nora SpA engaged us to perform the statutory audit of the Company's and the consolidated financial statements of the Group for the years ending 31 December 2022 to 31 December 2030.

We declare that we did not provide any prohibited non-audit services referred to in article 5, paragraph 1, of Regulation (EU) No. 537/2014 and that we remained independent of the Company in conducting the statutory audit.

We confirm that the opinion on the consolidated financial statements expressed in this report is consistent with the additional report to the board of statutory auditors, in its capacity as audit committee, prepared pursuant to article 11 of the aforementioned Regulation.

Report on Compliance with other Laws and Regulations

Opinion on compliance with the provisions of Commission Delegated Regulation (EU) 2019/815

The directors of Industrie De Nora SpA are responsible for the application of the provisions of Commission Delegated Regulation (EU) 2019/815 concerning regulatory technical standards on the specification of a single electronic reporting format ESEF - European Single Electronic Format (the "Commission Delegated Regulation") to the consolidated financial statements as of 31 December 2022, to be included in the annual report.
We have performed the procedures specified in auditing standard (SA Italia) No. 700B in order to express an opinion on the compliance of the consolidated financial statements with the provisions of the Commission Delegated Regulation.
In our opinion, the consolidated financial statements as of 31 December 2022 have been prepared in XHTML format and have been marked up, in all significant respects, in compliance with the provisions of the Commission Delegated Regulation.
Due to certain technical limitations, some information included in the explanatory notes to the consolidated financial statements when extracted from the XHTML format to an XBRL instance may not be reproduced in an identical manner with respect to the corresponding information presented in the consolidated financial statements in XHTML format.

Opinion in accordance with Article 14, paragraph 2, letter e), of Legislative Decree No. 39/2010 and Article 123-bis, paragraph 4, of Legislative Decree No. 58/1998

The directors of Industrie De Nora SpA are responsible for preparing a report on operations and a report on the corporate governance and ownership structure of the De Nora Group as of 31 December 2022, including their consistency with the relevant consolidated financial statements and their compliance with the law.

We have performed the procedures required under auditing standard (SA Italia) No. 720B in order to express an opinion on the consistency of the report on operations and of the specific information included in the report on corporate governance and ownership structure referred to in article 123-bis, paragraph 4, of Legislative Decree No. 58/1998, with the consolidated financial statements of the Industrie De Nora Group as of 31 December 2022 and on their compliance with the law, as well as to issue a statement on material misstatements, if any.

In our opinion, the report on operations and the specific information included in the report on corporate governance and ownership structure mentioned above are consistent with the consolidated financial statements of De Nora Group as of 31 December 2022 and are prepared in compliance with the law.

With reference to the statement referred to in article 14, paragraph 2, letter e), of Legislative Decree No. 39/2010, issued on the basis of our knowledge and understanding of the Company and its environment obtained in the course of the audit, we have nothing to report.

Statement in accordance with article 4 of Consob's Regulation implementing Legislative Decree No. 254 of 30 December 2016

The directors of Industrie De Nora SpA are responsible for the preparation of the non-financial statement pursuant to Legislative Decree No. 254 of 30 December 2016.
We have verified that the directors approved the non-financial statement.

Pursuant to article 3, paragraph 10, of Legislative Decree No. 254 of 30 December 2016, the non-financial statement is the subject of a separate statement of compliance issued by ourselves.

Milan, 5 April 2023

PricewaterhouseCoopers SpA

Signed by

Francesco Ronco
(Partner)

As disclosed by the Directors, the accompanying consolidated financial statements of the De Nora Group constitute a non-official version which is not compliant with the provisions of the Commission Delegated Regulation (EU) 2019/815. This independent auditor's report has been translated into the English language solely for the convenience of international readers. Accordingly, only the original text in Italian language is authoritative.

03 Separate Financial Statements

Statement of Financial Position

Assets	Notes	31/12/2022	Of which related parties	31/12/2021	Of which related parties
			(in €)		
Non current assets					
Intangible Asset	16	2,268,816		2,572,933	
Other intangible assets		2,268,816		2,572,933	
Property, plant and equipment	17	5,194,048		4,727,881	
Property, plant and equipment		1,999,194		1,487,572	
Other assets		467,431		185,526	
Assets under construction and advance payments		259,046		239,435	
Right of use of PPE		2,468,377		2,815,348	
Equity-accounted investees	18	325,725,647		333,379,550	
Financial assets, including derivatives	19	13,125,820		-	
Other receivables	20	7,038,557		8,214,020	
Deferred tax assets	21	423,310		-	
Total non current assets		353,776,198		348,894,454	
Current assets					
Financial assets, including derivatives	19	209,335,000	71,861,669	130,313,139	130,313,139
Trade receivables	22	43,225,973	42,384,847	23,471,313	22,966,701
Other receivables	20	14,412,250	1,748,139	10,489,775	44,659
Cash and cash equivalents	23	81,930,974		12,021,453	
Total current assets		348,904,197		176,295,680	
Total assets		702,680,395		525,190,134	

Liabilities	Notes	31/12/2022	Of which related parties	31/12/2021	Of which related parties
Equity	24	482,827,712		274,828,940	
Share capital		18,268,204		16,786,723	
Legal reserve		3,357,345		3,357,345	
Share premium		223,432,730		24,914,222	
Other reserves		225,955,133		200,065,998	
Profit /(Loss) for the period		11,814,300		29,704,652	
Total Equity		482,827,712		274,828,940	
Non current liabilities					
Employee benefits	25	3,627,094		3,649,908	
Deferred tax liabilities	21	-		155,878	
Financial liabilities, net of current portion	26	181,008,467		2,481,423	
Other payables		67,124		-	
Total non-current liabilities		184,702,685		6,287,209	
Current liabilities					
Provisions for risks and charges	27	-		109,000	
Financial liabilities, current portion	26	14,346,654	13,864,619	229,200,075	6,574,815
Trade payables	28	12,067,731	4,751,952	8,998,656	2,306,450
Income tax payable	29	2,319,772		516,765	
Other payables	30	6,415,841	1,656,533	5,249,489	269,069
Total current liabilities		35,149,998		244,073,985	
Total equity and liabilities		702,680,395		525,190,134	

Income Statement

	Notes	For the year ended December 31, 2022	Of which related parties	2021	Of which related parties
		(in €)			
Other income	4	78,879,401	78,243,980	54,795,344	54,184,417
Costs for raw materials, consumables, supplies and goods	5	(1,291,739)		(1,126,425)	
Personnel expenses	6	(28,262,017)	(12,298,569)	(13,062,118)	
(of which Management Incentive Plan MIP)	*6*	*(13,451,949)*	*(12,239,070)*		
Costs for services	7	(30,755,163)	(8,127,469)	(20,812,795)	(7,559,285)
Other operating expenses	8	(372,651)		(380,453)	
Amortization and depreciation	9	(1,832,708)		(1,932,423)	
Impairment (losses)/revaluations and provisions for risks and charges	10	(20,658,000)		(74,420)	
Operating profit		(4,292,877)		17,406,710	
Dividends	11	17,670,000	17,670,000	16,955,000	16,955,000
Finance income	12	12,582,980	2,262,263	8,882,061	1,495,198
Finance expenses	13	(11,414,307)	(140,018)	(10,115,896)	(163,584)
Profit before tax		14,545,796		33,127,875	
Income tax expense	14/15	(2,731,496)		(3,423,223)	
Profit/(Loss) for the period		11,814,300		29,704,652	
Profit (losses) from discontinuing operations		-		-	
Profit/(Loss) for the period		11,814,300		29,704,652	

Statement of Comprehensive Income

	2022	2021
	(in €)	
Profit/(Loss) for the period	11,814,300	29,704,652
Items that will not be reclassified to profit or loss:		
Actuarial reserve	255,998	(62,070)
Tax effect	(61,440)	14,897
Total items that will not be reclassified to profit or loss, net of the tax effect (A)	194,558	(47,173)
Items that may be reclassified subsequently to profit or loss:		
Effective portion of the change in fair value of financial instruments hedging cash flows, net of tax effect	(54,726)	427,131
Total items that may be reclassified subsequently to profit or loss, net of the tax effect (B)	(54,726)	427,131
Total other comprehensive income net of the tax effects (A) + (B)	139,832	379,958
Profit/(Loss) of comprehensive income for the period	11,954,132	30,084,610

Statement of Cash Flows

	Notes	2022	2021
		(in €)	
Cash flows from operating activities			
Profit for the period		11,814,300	29,704,652
Adjustments for:			
Amortization and depreciation	9	1,832,708	1,932,423
Share based payments	6	13,516,706	-
Release of provisions		(109,000)	-
Write down of investements	10	20,751,400	-
Finance expenses	13	11,414,307	10,115,896
Finance income	12	(12,582,980)	(8,882,061)
Dividends	11	(17,670,000)	(16,955,000)
(Gains) losses on the sale of property, plant and equipment and intangible assets	8	1,413	74,290
Income tax expense	14/15	2,731,496	3,423,223
Change in trade receivables and other receivables	20/22	(25,364,325)	(2,422,128)
Change in trade payables and other payables	28/30	5,519,979	2,088,427
Change in provisions and employee benefits	25	185,313	(48,665)
Cash flows generated by operating activities		12,041,317	19,031,057
Interest and net other finance expenses paid	13	(10,497,994)	(6,009,322)
Interest and net other finance income collected	12	8,662,099	2,438,590
Income tax paid		(740,955)	(637,624)
Net cash flows generated (used in) by operating activities		9,464,468	14,822,701
Cash flows from investing activities			
Investments in property, plant and equipment	17	(1,204,074)	(897,558)
Investments in intangible assets	16	(584,552)	(1,566,053)
Investments in subsidiaries	18	(1,151,000)	(2,866,200)
Investments in financial activities	19	(150,000,000)	-
Dividends collected	11	17,670,000	16,955,000
Shareholder contribution to subsidiaries (DN WT Italy)	18	(6,000,000)	(1,000,000)
Net cash flows used in investing activities		(141,269,626)	10,625,190
Cash flows from financing activities			
Dividends paid		(20,000,000)	(60,000,000)
New loans	26	178,608,970	86,312,873
Repayments of loans	26	(221,000,000)	(9,331,334)
Increase (decrease) in other financial liabilities	26	(526,401)	(457,299)
(Increase) decrease in financial assets	19	67,792,122	(58,743,871)
Share capital increase	24	196,839,988	18,089,943
Net cash flows generated by (used in) financing activities		201,714,679	(24,129,687)
Net increase (decrease) in cash and cash equivalents		69,909,521	1,318,204
Opening cash and cash equivalents	23	12,021,453	10,703,249
Closing cash and cash equivalents	23	81,930,974	12,021,453

Statement of Changes in the Net Equity

Notes	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9		
(in €)	Share capital	Legal reserve	Share premium	Revaluation reserve ex art. 55 DPR 497	Fair value reserve – Cash flow hedges	Retained earnings	Actuarial gain/losses reserve	IFRS Reserve	Other reserves	Profit for the period	Total Equity
Distributable reserves	B	B	A B C	B	A B	A B C	B		A B C	A B C	
Balance as of December 31, 2020	16,569,462	3,314,000	7,041,539	264,760	(372,405)	233,417,843	(364,896)	7,166,735	0	19,617,349	286,654,387
Transactions with shareholders:											
Allocation of profit for 2020	-	43,345	-	-	-	19,574,004	-	-	-	(19,617,349)	-
Share capital increase	217,261	-	17,872,684	-	-	-	-	-	-	-	18,089,944
Dividend distribution	-	-	-	-	-	(60,000,000)	-	-	-	-	(60,000,000)
Comprehensive income statement:											
Profit/(Loss) for the period	-	-	-	-	-	-	-	-	-	29,704,652	29,704,652
Revaluation of net (liabilities)/assets on the defined benefit obligation	-	-	-	-	-	-	(47,174)	-	-	-	(47,174)
Effective portion of the change in fair value of financial instruments hedging cash flows	-	-	-	-	427,131	-	-	-	-	-	427,131
Balance as of December 31, 2021	16,786,723	3,357,345	24,914,223	264,760	54,726	192,991,847	(412,070)	7,166,735	-	29,704,652	274,828,940

Notes	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9		
(in €)	Share capital	Legal reserve	Share premium	Revaluation reserve ex art. 55 DPR 497	Fair value reserve – Cash flow hedges	Retained earnings	Actuarial gain/losses reserve	IFRS Reserve	Other reserves	Profit for the period	Total Equity
Distributable reserves	B	B	A B C	B	A B	A B C	B		A B C	A B C	
Transactions with shareholders:											
Allocation of profit for 2021	-	-	-	-	-	29,704,652	-	-	-	(29,704,652)	-
Share capital increase	1,481,481	-	198,518,507	-	-	-	-	-	-	-	199,999,988
Dividend distribution	-	-	-	-	-	(20,000,000)	-	-	-	-	(20,000,000)
Other movements (Share based payments)	-	-	-	-	-	-	-	-	16,044,651	-	16,044,651
Comprehensive income statement:											
Profit/(Loss) for the period	-	-	-	-	-	-	-	-	-	11,814,300	11,814,300
Revaluation of net (liabilities)/assets on the defined benefit obligation	-	-	-	-	-	-	194,558	-	-	-	194,558
Effective portion of the change in fair value of financial instruments hedging cash flows	-	-	-	-	(54,726)	-	-	-	-	-	(54,726)
Balance as of December 31, 2022	18,268,204	3,357,345	223,432,730	264,760	-	202,696,499	(217,512)	7,166,735	16,044,651	11,814,300	482,827,712

A=Share Capital increase
B=Loss coverage
C=Distribution to Shereolder

Notes to the Separate Financial Statements

A. General information

1. The Company

Industrie De Nora S.p.A. (hereinafter the "**Company**" or "**IDN S.p.A.**") is a company limited by shares. It was set up in Italy and is enrolled in the Milan register of companies. Its registered office is at Via Bistolfi 35, Milan. The Company, with registered office at Via Bistolfi 35 - Milan, Italy, has been listed on Euronext Milan since June 30, 2022.

IDN S.p.A. is not subject to management and coordination by companies or entities and defines its general and operational strategic guidelines in full autonomy. Pursuant to art. 2497 bis of the Civil Code, the Italian subsidiaries have identified IDN S.p.A. as the entity that exercises management and coordination; this activity consists in indicating the group's general and operational strategic guidelines and takes the form of defining and adapting the internal control system and the governance model and corporate structures.

IDN S.p.A. is the holding company of the De Nora Group (hereinafter also the "Group") where the corporate structures and services are centralized. The De Nora Group was founded by the engineer Oronzio De Nora and has, by now, 100 years in the electro-chemical industry. Today it is known as a world leader in the supply of technologies for the production of chlorine and caustic soda and is the largest supplier of electrodes for the electrochemical industry. The Company controls and coordinates intellectual property and makes decisions regarding the approach to the markets and which product portfolio and production strategies are to be adopted. The other corporate functions, providing services to the various Group companies, are centralized at IDN S.p.A.: Administration, Finance and Control, Legal, Information and Communications Technology, Marketing, Business Development and Product Management, Global Operations, Production Technologies, Global Procurement and Human Resources.

2. Statement of compliance

These separate Financial Statements (hereinafter also the "**Financial Statements**") have been prepared in accordance with the International Accounting Standards (IAS) and the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and endorsed by the European Union in accordance with Regulation (EC) no. 1606/2002 issued by the European Parliament and the European Council in July 2002, in effect as from January 1, 2015 and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC), and those of the Standing Interpretations Committee (SIC), in effect at the same date.

These financial statements have also been prepared in compliance with the implementation regulations issued in Article 9, paragraph 3, of Legislative Decree no. 38 of February 28, 2005.

The data in these financial statements are compared with the data in the financial statements of the previous year, which have been drawn up and if necessary restated with the same criteria.

The financial statements comprise the mandatory financial schedules (statement of financial position, income statement, statement of comprehensive income, statement of cash flows, and statement of changes in net equity) and are accompanied by these Notes.

Industrie De Nora S.p.A., in its capacity as the parent company, has also prepared the consolidated financial statements of the Group as at December 31, 2022.

The Financial Statements were prepared on a going concern basis, as the Directors verified the absence of financial, management or other indicators that could indicate significant uncertainties about the Company's ability to meet its obligations in the foreseeable future and in particular in the next 12 months. The assessments made confirm that the Company is able to operate in compliance with the going concern assumption and in compliance with financial covenants.

These Financial Statements are subject to statutory audit by PricewaterhouseCoopers S.p.A. on the basis of the mandate conferred by the Shareholders' Meeting of May 27, 2020.

These financial statements are expressed in Euro, the Company's functional currency.

Changes in accounting policies

With regard to the illustration of the accounting standards, amendments and interpretations that entered into force and applied starting from January 1, 2022, as well as of the accounting standards, amendments and interpretations not yet applicable, please refer to the corresponding paragraph in the Notes to the consolidated financial statements of IDN S.p.A.

The adoption of the standards, amendments and interpretations that entered into force and applied starting from January 1, 2022, had no impact on the separate financial statements of IDN S.p.A. closed as at December 31, 2022.

With regard to the new standards, amendments and interpretations that are not yet applicable, preliminary analyses have shown that the impact on the separate financial statements of IDN S.p.A. is not significant.

3. Accounting policies

The accounting principles and valuation criteria adopted are the same as those used in the preparation of the consolidated financial statements, to which reference should be made, with the exception of the principles set out below.

Equity investments

Equity investments in subsidiaries, jointly controlled companies and associated companies, other than those held for sale, are valued at purchase cost.

In the presence of events that lead to the presumption of a reduction in value, the recoverability of the book value of the investments is verified by comparing the carrying value with the relative recoverable value represented by the greater of fair value, net of disposal costs, and value of use.

If the aforementioned verification reveals a carrying value higher than the recoverable value, the relative investment is written down to the recoverable value.

If the reasons for write-downs cease to apply, investments valued at cost are revalued within the limits of the write-downs carried out, with the effect charged to the income statement under "Income/charges from equity investments".

The risk deriving from any losses exceeding the Shareholders' equity is recognized in a specific provision to the extent that the investor is committed to fulfilling legal or implicit obligations towards the investee company or in any case to cover its losses.

Income from dividends is recognized in the Income Statement when the right to collection arises, which normally corresponds to the shareholders' resolution for their distribution, regardless of whether such dividends derive from profits before or after the acquisition of the investee companies. The distribution of dividends to Shareholders is recorded as a liability in the Company's financial statements at the time the distribution of such dividends is approved.

Use of estimates

The preparation of the financial statements and related notes in accordance with IFRS requires that management make estimates and assumptions with an effect on the carrying amounts of recognized assets and liabilities and on disclosures relating to contingent assets and liabilities at the reporting date. The estimates and assumptions used are based on past experience and other relevant factors. Actual results could differ from such estimates. The estimates and assumptions are periodically revised and the effects of any changes made are taken to profit or loss when the estimate is revised, if the revision has effects on that period alone, or in subsequent periods if it has effects on both the current and future periods. A summary is provided below of the critical measurement processes and key assumptions used by management in the application of accounting policies relating to the future and which could significantly impact carrying amounts or which could entail significant adjustments to the carrying amount of assets and liabilities in the year after the reporting date.

Fair value measurement of Incentive Plans

The Group recognises such plans on the basis of uncertain events and valuation assumptions that include volatility, dividend yield and risk free rates. The Group ulilizes valuations prepared by external consultants to determine Fair Value of share-based payments at the grant date using estimates and assumptions on the basis of the future plans of the Group and suitable valuation techniques.

Recoverable amount of non-current assets

Non-current assets include plant and machinery, investment property, intangible assets, equity investments and other financial assets. These assets are subject to assessment in order to ascertain whether an impairment has occurred when there are indicators that suggest difficulties in recovering the related net book value through use. Assessment of the existence of the aforementioned indicators requires directors to make subjective assessments based on information available from both internal and external sources, as well as on historical experience. Furthermore, if it is determined that a potential impairment may have been generated, this is determined using valuation techniques deemed suitable. The correct identification of the indicators of potential impairment, as well as the estimates for its determination, depend on subjective assessments as well as on factors that may vary over time, affecting the assessments and estimates made by management.

Deferred tax assets and liabilities

The Company recognises current and deferred tax assets and liabilities in accordance with the applicable legislation. The recognition of taxes requires the use of estimates and assumptions relating to how to interpret the applicable regulations concerning transactions performed in the year and their effect on taxes. Furthermore, the recognition of deferred tax assets requires the use of estimates relating to the forecast taxable income and their developments, as well as the tax rates that are effectively applicable. These activities are carried out on the basis of analyses of transactions and their tax profiles, with the support, where necessary, of external advisors in relation to the various issues considered and using simulated prospective income and sensitivity analyses.

Provisions for risks and charges and potential liabilities

The Company is subject to legal and tax disputes that could create complex and difficult issues and which present varying degrees of uncertainty, including the events and circumstances relating to each dispute, the jurisdiction and the different applicable laws. Given the uncertainties of these issues, it is difficult to predict with any certainty the amount of expenditure that could arise as a result of the disputes. Accordingly, on the basis of its legal advisors and legal and tax experts, management recognizes a liability in relation to these disputes when it believes that a financial outlay is probable and when the amount of the related losses can be reasonably estimated. When the Directors believe that the occurrence of a liability is only possible, the risks are indicated in the specific information note on commitments and risks, without giving rise to any provision.

Useful life of property, plant and equipment and of intangible assets

The useful life is determined at the time of recording the asset in the financial statements and reviewed at least at the end of each financial year. Valuations on the duration of the useful life are based on historical experience, on market conditions and on the expectations of future events that could affect the useful life itself, including technological changes. As a result, it is possible that the actual useful life may differ from the estimated useful life.

B. Notes to the main financial statements items - income statement

All values are expressed in thousands, unless otherwise indicated.

4. Other income

It amounts to Euro 78,879 thousand, an increase of Euro 24,084 compared to 2021, and is made up as follows:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Research expenses recharges	180	111
R&D grants	1,109	567
Intercompany recharges	70,379	49,570
Other income	7,211	4,547
Total	78,879	54,795

The item “Research expenses recharges” includes charge-backs of research costs to thyssenkrupp nucera Italy S.r.l. for Euro 55 thousand, to the subsidiaries De Nora Deutschland GmbH for Euro 79 thousand and De Nora Water Technologies Italy S.r.l. for Euro 10 thousand; in addition to patent assistance activities for the companies De Nora Water Technologies LLC, De Nora Water Technologies UK Services Limited and De Nora Holding US Inc for a total of Euro 36.

The item “R&D grants” includes operating grants for European Community research projects for Euro 336 thousand and operating grants for tax credit Decree Law no. 145 of December 23, 2013 for Euro 773 thousand.

The item “Intercompany recharges” includes revenues from subsidiaries for services provided by the corporate functions for Euro 19,624 thousand and for licenses for the use of patents, trademarks and know-how for Euro 50,755 thousand. This item underwent an increase of Euro 20,809 thousand following the increase in the turnover of the subsidiaries.

The item “Other income” mainly includes recharges to subsidiaries of IT costs.

5. Raw materials, ancillary materials, consumables and goods

They amount to Euro 1,292 thousand, with an increase of Euro 166 thousand, and are made up as follows:

	For the year ended December 31,	
	2022	2021
	(in € thousands)	
Consumables and supplies	1,289	1,124
Packaging material	3	2
Total	1,292	1,126

Consumables mainly refer to purchases relating to Research and Development activities.

6. Personnel expenses

They amount to Euro 28,262 thousand, with an increase of Euro 15,200 thousand compared to 2021, and are made up as follows:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Wages and salaries	11,266	10,004
Management Incentive Plan MIP	13,452	-
Performance Share Plan PSP	65	-
Social security contributions	2,626	2,242
Post-employment benefits	807	746
Other personnel expenses	46	70
Directors' compensation	-	-
Total	28,262	13,062

The item "Directors' compensation" included in 2021 Personnel expense for Euro 675 was reclassified in paragraph 7 under "Costs for services".

The MIP Incentive Plan item refers to the costs related to the amendments made to the 2021 MIP Incentive Plan, as communicated by the Group to the beneficiaries on April 11, 2022, which provide, in the event of successful listing by December 31, 2022, among other things, (i) the modification of certain lock-up obligations with regard to certain categories of beneficiaries in relation to the ordinary shares resulting from the conversion of category C shares and category D shares granted to them under the 2021 MIP Plan, including the elimination of the "guaranteed minimum value" of the shares subject to lock-up, and (ii) the undertaking to grant additional ordinary shares to some beneficiaries as consideration for the waivers referred to in (i) above. At the placement price, a total of no. 10,676,594 ordinary shares have been allocated to the MIP beneficiaries.

The changes introduced resulted in an increase in the fair value of the incentive plan of Euro 19,360 thousand. Valuation of the incremental fair value as of the MIP modification date (April 11, 2022) was carried out using an option pricing model methodology (Monte Carlo), based on the following parameters and assumptions:

- the enterprise value was determined according to the discounted cash flows methodology based on the business plan;
- the risk free rate curve was determined using liquid interbank instruments;
- the probability of realization of the exit event (listing) was estimated to be 90% by December 31, 2022; 5% by December 31, 2023; 5% by December 31, 2024;
- volatility was estimated to be 19.4%, based on the historical series of the MSCI Chemicals Global Index;
- the dividend yield was estimated to be in the range of 1.03% to 0.93%.

The higher fair value, amounting to Euro 19,360 thousand, was accounted for in the second quarter as it accrued following the listing of the Company on June 30. The charge of Euro 13,452 thousand, posted in the income statement under personnel costs, was recognized with a corresponding balancing entry in Other Reserves in equity; likewise, the residual amount of Euro 5,908 thousand, relating to personnel of other Group companies, was recognized as an increase in the carrying value of the corresponding investments, with a corresponding balancing entry in Other Reserves in equity, as these costs were not recharged to the relevant Group companies.

The item PSP Incentive Plan for the year 2022 relates to the Performance Share Plan (PSP), a regulation accounted for on the basis of IFRS 2 (approved by the Company's corporate bodies) that provides for the assignment to a certain number of beneficiaries, identified in the regulation itself, of rights of subscription of ordinary shares of the Company based on the achievement of performance objectives. In particular, the total number of attributable rights is 126,556, which could increase to 239,972. The launch of the PSP formally took place on October 14, 2022 with a multi-year vesting period and pay-out expected between 2025 and 2027. The fair value measurement of the PSP for the 2022-2024 cycle, totalling Euro 1,854 thousand, was carried out according to a Monte Carlo method on the basis of the following parameters and assumptions:

- the risk-free rate used was obtained from the zero-coupon government bond yield of the European Central Bank ("ECB") as at the performance period end date and is equal to 1.85%;
- the volatility of De Nora shares was estimated at 35.1%, based on the three-year time series of the comparable companies included in the STOXX Europe 600;
- the dividend yield was estimated at 0.74%;
- the lack of marketability was estimated at 15%
- participants are not expected to leave the group;
- correlation: on the basis of the time series of daily returns with a depth of 3 years, the correlation matrix between the companies included in the STOXX Europe 600 and De Nora.

The charge of Euro 65 thousand, posted in the income statement under personnel expenses, was recognized with a corresponding balancing entry in Other reserves in Equity; likewise, the residual amount of Euro 38 thousand, relating to personnel of other Group companies, was recognized as an increase in the carrying value of the corresponding investments, with a corresponding balancing entry in Other reserves in Equity.

The following table compares the number of employees in the financial years 2022 and 2021.

	For the year ended December 31			
	Employees at		Average per year	
	31/12/2022	31/12/2021	2022	2021
Executives	20	17	19	17
Managers	27	16	24	16
White-collar workers	82	68	75	68
Blue-collar workers	1	1	1	1
Total	130	102	119	102

7. Services

They amount to Euro 30,755 thousand, with an increase of Euro 9,942 thousand, and are made up as follows:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Consultancies:		
- Production and technical assistance	2,604	1,432
- Commercial	237	75
- Legal and tax	2,389	669
Utilities	384	185
Maintenance	176	129
Travel expenses	908	179
R&D	824	579
Statutory Auditors' fees	98	90
Directors' compensation	819	675
Insurance	612	251
Rents and other lease expenses	561	540
Commissions and royalties	134	72
Freight	124	83
Waste disposal, office cleaning and security	59	58
Patents and trademarks	671	565
Canteen, training and other personnel expenses	730	510
Intercompany services	5,728	5,400
HW and SW maintenance and ICT consultancies	8,154	5,817
Telephone and communication expenses	620	732
Other	6,383	4,079
(Capitalized costs related to assets built internally)	(1,461)	(1,307)
Total	30,755	20,813

Capitalized costs related to assets built internally relate to the costs incurred for the internal development of capitalized projects and products.

The "Directors' compensation", which until the financial statements for the year ended December 31, 2021 was under "Personnel expense", has been reclassified under this item; the comparative income statement has therefore been appropriately reclassified in order to ensure comparability of values.

8. Other operating expenses

They amount to Euro 372 thousand, a decrease of Euro 9 thousand compared to 2021, and are composed as follows:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Indirect taxes and duties	69	154
Loss on sale of non-current assets	1	74
Other expenses	302	153
Total	372	381

Indirect taxes mainly include the pro-rata share of non-deductible VAT.

Other expenses mainly include previous years expenses.

9. Amortization and depreciation

They amount to Euro 1,833 thousand, with a decrease of Euro 99 thousand compared to 2021, and are made up as follows:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Depreciation of buildings, plant and machinery and other assets (A)	389	293
Leasehold Improvements	1	1
Plants and machinery	346	251
Other assets	42	41
Amortization of rights of use of property, plant and equipment (B)	555	547
Industrial buildings	330	305
Other assets	225	242
Amortization of intangible assets with a finite life (C)	889	1,092
Industrial patents and intellectual property rights	889	1,092
Total (A)+(B)+(C)	1,833	1,932

10. Impairment (losses)/ revaluations of non-current assets and Provisions for risks and charges

In 2022, equity investments were written down for Euro 20,751 and Euro 93 was released to the provision for legal disputes.

The write-downs of equity investments refer specifically to the elimination of the book value of the equity investments in the subsidiaries De Nora Water Technologies Italy S.r.l. and De Nora ISIA S.r.l.. Please refer to Note 18 for more details.

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Provisions (releases) to the bad debt provision	-	(35)
Write-down of equity investments	20,751	-
Provisions (Releases) for legal disputes and complaints	(93)	109
Total	20,658	74

11. Income and expenses from equity investments

They amount to Euro 17,670 thousand, with an increase of Euro 715 thousand compared to 2021 and refer to dividends collected during the year from subsidiaries, and in particular from Oronzio De Nora International BV for Euro 14,900 thousand and by De Nora Italy S.r.l. for Euro 2,770 thousand.

12. Finance income

It amounts to Euro 12,583 thousand, an increase of Euro 3,701 thousand compared to 2021, and is broken down as follows:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Interest income on loans and cash pooling with subsidiaries	2,262	1,495
Exchange rate gains	8,392	5,659
Other Finance income	312	4
Positive fair value of derivatives	1,617	1,724
Total	12,583	8,882

13. Finance expenses

They amount to Euro 11,414 thousand, an increase of Euro 1,298 thousand compared to 2021, and are made up as follows:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Bank interest and interest on loans and borrowings	3,288	3,030
Interest on loans and borrowings and cash pooling with subsidiaries	30	50
Exchange rate losses	7,719	2,747
Finance expenses on personnel costs	48	8
Other Finance expenses	329	493
Negative fair value of derivatives	-	3,788
Total	11,414	10,116

14. Income tax expense

Income tax expense for the years ended December 31, 2022 and 2021 is detailed below:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Current taxes	1,325	1,571
Deferred taxes	(641)	1,898
Prior years taxes	2,047	(46)
Total	2,731	3,423

15. Reconciliation of the effective tax rate

	For the year ended December 31			
	2022		2021	
	(in € thousands except percentages)			
Profit for the period		11,814		29,705
Income tax expense		2,731		3,423
Profit before tax		14,546		33,128
Income tax expense at Italian nominal tax rate	24.00%	3,491	24.00%	7,951
IRAP effect	7.61%	1,107	1.82%	603
Tax effect of non-deductible expense	48.90%	7,113	4.54%	1,503
Tax effect of non-taxable revenue (excluding dividends)	-31.78%	(4,622)	-9.47%	(3,138)
Tax effect on dividends	-28.93%	(4,208)	-12.21%	(4,043)
Tax benefits	-4.35%	(633)	-0.24%	(78)
Other	15.09%	2,195	1.89%	625
Losses carried forward	-11.77%	(1,712)	-	-
Total	18.78%	2,731	10.33%	3,423

C. Notes to the main financial statements items - statement of financial position - assets

16. Intangible assets

Intangible assets as at December 31, 2022 amounted to Euro 2,269 thousand, with a decrease in net value of Euro 304 thousand compared to the previous year due to net investments of approximately Euro 584 thousand and net depreciation and amortization of Euro 888 thousand.

The composition of intangible assets and related accumulated amortization as at December 31, 2022 is as follows:

	Industrial patents and intellectual property rights	Other intangible assets	Intangible assets in progress	Total
	(in € thousands)			
Historical cost as of December 31, 2021	16,222	331	940	17,493
Increases	388	-	288	676
Decreases	-	-	(92)	(92)
Reclassifications	43	-	(43)	-
Historical cost as of December 31, 2022	16,653	331	1,093	18,077
Accumulated amortization as of December 31, 2021	14,589	331	-	14,920
Amortization	888	-	-	888
Decreases	-	-	-	-
Reclassifications	-	-	-	-
Accumulated amortization as of December 31, 2022	15,477	331	-	15,808
Net book value as of December 31, 2021	1,633	-	940	2,573
Net book value as of December 31, 2022	1,176	-	1,093	2,269

Industrial patents and intellectual property rights

This item mainly relates to costs incurred to acquire or file new industrial patents or for the geographical extensions of existing rights. Also included are costs for software licences, which are measured at historical cost and amortized over their useful life.

Intangible assets in progress

The item mainly refers to IT projects not yet completed for approximately Euro 753 thousand and ERP licenses not yet in use for Euro 293 thousand.

17. Property, Plant and Equipment

Tangible assets as at December 31, 2022 amounted to Euro 5,193 thousand, with an increase in net value of Euro 465 thousand compared to the previous year due to net investments of Euro 1,409 thousand (including the rights of use of leased assets recognized according to IFRS 16), and net of depreciation of Euro 944 thousand.

The detail of tangible assets and related depreciation accumulated as at December 31, 2022 is as follows:

	Leasehold Improvements	Plant and machinery	Others	Rights of use of Property, Plant and Equipment	Tangible assets in progress	Total
			(in € thousands)			
Historical cost as of December 31, 2021	2,415	5,767	2,720	4,160	239	15,301
Increases	9	612	323	207	259	1,410
Decreases	-	(25)	(3)	-	-	(28)
Reclassifications	-	239	-	-	(239)	-
Write downs	-	-	-	-	-	-
Historical cost as of December 31, 2022	2,424	6,593	3,040	4,367	259	16,683
Accumulated depreciation as of December 31, 2021	2,399	4,296	2,534	1,344	-	10,573
Depreciation	1	346	42	555	-	944
Decreases	-	(24)	(3)	-	-	(27)
Reclassifications	-	-	-	-	-	-
Write downs	-	-	-	-	-	-
Accumulated depreciation as of December 31, 2022	2,400	4,618	2,573	1,899	-	11,490
Net book value as of December 31, 2021	16	1,471	186	2,816	239	4,728
Net book value as of December 31, 2022	24	1,975	467	2,468	259	5,193

Below are details, per category of asset, of the Rights of use for Property, Plant and Equipment:

	Buildings	Others	Total
		(in € thousands)	
Historical cost as of December 31, 2021	3,343	817	4,160
Increases	200	7	207
Decreases	-	-	-
Reclassifications	-	-	-
Write downs	-	-	-
Historical cost as of December 31, 2022	3,543	824	4,367
Accumulated depreciation as of December 31, 2021	899	445	1,344
Depreciation	330	225	555
Decreases	-	-	-
Reclassifications	-	-	-
Write downs	-	-	-
Accumulated depreciation as of December 31, 2022	1,229	670	1,899
Net book value as of December 31, 2021	2,444	372	2,816
Net book value as of December 31, 2022	2,314	154	2,468

The rights of use of Buildings refer to the properties owned by the subsidiary Capannoni S.r.l. leased to Industrie De Nora S.p.A. (administrative headquarters and R&D laboratories).

The rights of use of other assets essentially include motor vehicles and office equipment.

During 2022, a total of Euro 642 thousand of lease instalments were paid, of which Euro 527 thousand as a reduction of the financial liability and Euro 115 thousand as interest, recorded under Finance expenses.

The total cost recognized in the income statement for rents and leases excluded from the scope of application of IFRS 16 amounts to Euro 561 thousand.

18. Investments in subsidiaries and associate

The equity investments held in subsidiaries and associates are shown in the following table:

Company name	Registered office	% Shareholding	Currency	Share capital in local currency	Result for the period in local currency	Equity in local currency	Equity in Euro	Note
Capannoni S.r.l.	Milan - Italy	100%	Euro	8,500	(164)	18,782	18,782	1)
Oronzio De Nora International BV	Amsterdam – The Netherlands	100%	Euro	4,500	14,834	42,438	42,438	2)
De Nora Elettrodi (Suzhou) Co., Ltd.	Suzhou - China	100%	CNY	183,404	87,174	354,330	44,167	2)
De Nora di Brasil Ltda*	Sorocaba - Brasil	89%	BRL	9,662	18,069	54,954	8,622	3)
De Nora Water Technologies Italy S.r.l.	Milan - Italy	100%	Euro	78	(6,713)	(3,629)	(3,629)	1)
thyssenkrupp nucera AG & Co. KGaA	Dortmund-Germany	34%	Euro	100,000	(5,625)	230,922	230,922	4)
thyssenkrupp nucera Management AG	Dortmund - Germany	34%	Euro	10,000				4)
De Nora Holding (UK) Limited	London – United Kingdom	100%	Euro	0	(8)	108,067	108,067	2)
De Nora Italy S.r.l.	Milano - Italy	100%	Euro	5,000	8,651	29,682	29,682	1)
De Nora ISIA S.r.l.	Venezia - Italy	100%	Euro	200	(1,078)	1,312	1,312	1)
De Nora Italy Hydrogen Technolgies S.r.l.	Milan - Italy	90%	Euro	110	(549)	711	711	1)

* The remaining 11% is held indirectly through the subsidiary company Oronzio De Nora International BV.
1) Data relating to the draft financial statements closed as at 12/31/2022 and approved by the related corporate bodies.
2) Data relating to the financial statements closed as at 12/31/2021 approved by the related corporate bodies.
3) Data relating to the reporting package as at 12/31/2022 prepared for the purposes of the De Nora consolidated financial statements; there are no local obligations regarding the approval of the financial statements by the related corporate bodies.
4) Data relating to the financial statements closed as at 9/30/2022 approved by the related corporate bodies.

The changes in the book value of equity investments are shown below:

Company name	31/12/2021	Increase	Decrease	Reclassification	31/12/2022
		(in € thousands)			
Capannoni S.r.l.	8,835	-	-	-	**8,835**
Oronzio De Nora International BV	55,855	2,591	-	-	**58,446**
De Nora Elettrodi (Suzhou) Co., Ltd.	22,503	-	-	-	**22,503**
De Nora do Brasil Ltda	443	1	-	-	**444**
thyssenkrupp nucera AG & Co. KGaA	102,515	-	-	-	**102,515**
thyssenkrupp nucera Management AG		17	-	-	**17**
De Nora Holding (UK) Limited	109,310	3,353	-	-	**112,663**
De Nora Water Technologies Italy S.r.l.	11,884	6,002	-	(17,885)	**-**
De Nora Italy S.r.l.	19,168	-	-	-	**19,168**
De Nora ISIA S.r.l.	2,866	-	-	(2,866)	**-**
De Nora Italy Hydrogen Technolgies S.r.l.	-	1,134	-	-	**1,134**
Total	333,379	13,098	-	(20,751)	325,726

On May 27, 2022, De Nora Italy Hydrogen Technologies S.r.l., with registered office in Milan, owned 90% by Industrie De Nora S.p.A. and the remaining 10% by Snam S.p.A., was established.

In 2022, the new associated company tk nucera Management AG, 34% owned by IDN S.p.A., was also established.

During the year, a shareholder payment was made in favor of the subsidiary De Nora Water Technologies Italy S.r.l. for Euro 6,000 thousand.

The remaining increases (totalling Euro 5,947 thousand) in the investments in Oronzio De Nora International BV, De Nora do Brasil Ltda, De Nora Holding (UK) Limited and De Nora Water Technologies Italy S.r.l., relate to the recognition of the MIP and PSP incentive plans, for which reference should be made to Note 6, Personnel expense.

The value of the equity investments was maintained at cost even in the presence of a book value of the equity investment higher than the related share of shareholders' equity in consideration of the income prospects of these investee companies as well as the presence of unexpressed capital gains in the relative assets.

In detail, as regards the sub-holdings Oronzio De Nora International BV, De Nora Holding UK Ltd and thyssenkrupp nucera AG & Co. KGaA, it should be noted that the value of the equity investments held by them is such as to broadly offset the difference between cost and share of equity.

The impairment tests carried out to verify the recoverability of the net assets relating to the companies De Nora Water Technologies Italy S.r.l. and De Nora ISIA S.r.l., considered jointly (by virtue of their merger with effect from January 1, 2023), disclosed an Equity Value (recoverable value of the related assets, net of financial indebtedness and liabilities for employee benefits) essentially at zero. It was therefore deemed appropriate to fully write down the book values of the equity investments in the two companies, respectively equal to Euro 17,885,200 for De Nora Water Technologies Italy S.r.l. and Euro 2,866,200 for De Nora ISIA S.r.l.

19. Financial assets, including derivatives

	As of December 31,	
	2022	2021
	(in € thousands)	
Non current		
Financial assets with subsidiaries	13,126	-
Total	13,126	-
Current		
Fair value of derivatives	415	-
Financial assets with subsidiaries	58,736	130,313
Time Deposits	150,000	-
Accrued income on financial receivables	184	-
Total	209,335	130,313
Total Receivables and other Financial Assets	222,461	130,313

The amount of non-current financial assets from subsidiaries refers to receivables for loans remunerated at a market rate from the subsidiary De Nora do Brasil Ltda.

The amount of current financial assets with subsidiaries refers to:

— receivables for cash pooling, remunerated at market rates from: Capannoni S.r.l. for Euro 3,956 thousand and De Nora Water Technologies Italy S.r.l. for Euro 10,963 thousand;

— receivables for short-term loans, remunerated at market rates: De Nora Holding US for Euro 11,251 thousand; De Nora Tech LLC for Euro 28,127 thousand; De Nora ISIA S.r.l. for Euro 1,200 thousand; De Nora Water Technologies UK Service Limited for Euro 600 thousand and De Nora Water Technologies FZE for Euro 1,406 thousand.

In order to temporarily invest the surplus cash, mainly derived from the capital increase related to the company's listing on June 30, 2022, Industrie De Nora S.p.A. entered into time deposits with maturities ranging from 1 to 6 months with a number of leading banks.

The main characteristics are described below:

Bank	Inception date	Expiry date	Amount	Interest rate
Banca Popolare di Sondrio	23/12/2022	31/01/2023	45,000,000	1.70%
Unicredit	22/12/2022	31/01/2023	25,000,000	1.35%
Banca Nazionale del Lavoro	22/12/2022	23/01/2023	25,000,000	1.60%
Banca Nazionale del Lavoro	09/11/2022	09/02/2023	20,000,000	1.60%
Banca Popolare di Sondrio	08/11/2022	08/05/2023	7,500,000	2.10%
Banca Nazionale del Lavoro	09/11/2022	09/05/2023	7,500,000	2.05%
Mediobanca	10/11/2022	10/05/2023	20,000,000	2.10%
			tot. 150,000,000	

The amounts shown are restricted for the time period indicated and can be closed early, with minimum notice, but with penalty on the returns recognized to the company.

Derivatives for hedging the fluctuation of the exchange rate

The fair value of derivative instruments as at December 31, 2022 (Euro 415 thousand) refers to currency derivative contracts for forward purchases/sales entered into by the Company against USD-denominated financial receivables from its US subsidiary De Nora Tech LLC. The fair value is determined using the forward exchange rate at the balance sheet date.

The details of the derivative contracts hedging the exchange rate fluctuation put in place by the Company as at December 31, 2022 are shown below:

Derivative	Description	Notional (USD thousands)	Notional (€ thousands)	Inception date	Expiry date
CCIRS	pay amount EUR/ receive amount USD	6,000	5,765	November 2022	February 2023
CCIRS	pay amount EUR/ receive amount USD	9,100	8,646	December 2022	March 2023
CCIRS	pay amount EUR/ receive amount USD	15,000	14,252	December 2022	March 2023
Total		30,100	28,663		

20. Other receivables

Other receivables as at December 31, 2022 totalled Euro 21,452 thousand, with an increase of Euro 2,748 thousand compared to December 31, 2021. The composition, divided between non-current and current part, is as follows:

	As of December 31,	
	2022	2021
	(in € thousands)	
Non current		
Tax receivables	5,720	6,965
Other - third parties	1,320	1,249
Total	7,040	8,214
Current		
Advances to suppliers	297	171
Tax receivables	8,760	5,636
Other - third parties	19	192
Prepayments and accrued income	5,336	4,491
Total	14,412	10,490
Total Other receivables	21,452	18,704

Non-current tax receivables are represented by receivables for withholding taxes on foreign receivables. Other receivables from third parties include receivables from insurance companies for post-employment benefits policies for Euro 1,275 thousand.

Current tax receivables include approximately Euro 3,791 thousand of VAT refunds for the year, Euro 1,235 thousand of tax refunds on Research and Development activities as set forth in Decree Law no. 145/2013 and Euro 1,866 thousand of credits for withholding taxes on foreign credits accrued during the year and tax consolidation receivables from subsidiaries in the amount of Euro 1,702 thousand.

Prepayments and accrued income are mainly attributable to contracts relating to licence fees and long-term maintenance of IT operating systems.

21. Deferred tax assets and liabilities

Deferred tax assets refer to the following items:

	As of December 31, 2021	(Debits) credits to the income statement	(Debits) credits to equity	As of December 31, 2022
	(in € thousands)			
Employee benefits	70	(9)	(61)	-
Intangible assets	74	(46)	-	28
Payables for variable components of personnel costs	529	13	-	542
Receivables and inventory write-downs	119	8	-	127
Property, Plant and Equipment	124	1	-	125
Unrealized exchange rate differences	13	121	-	134
Other provisions	49	(28)	-	21
Total	978	60	(61)	977

Deferred tax liabilities refer to the following items:

	As of December 31, 2021	(Debits) credits to the income statement	(Debits) credits to equity	As of December 31, 2022
	(in € thousands)			
Property, Plant and Equipment	2	(1)	-	1
Unrealized exchange rate differences	1,132	(579)	-	553
Total	1,134	(580)	-	554

	As of December 31,					
	Assets		Liabilities		Net amount	
	2022	2021	2022	2021	2022	2021
	(in € thousands)					
Intangible assets	28	74	-	-	28	74
Property, Plant and Equipment	125	124	(1)	(2)	124	122
Financial assets	-	-	-	-	-	-
Payables for variable portion of personnel costs	542	529	-	-	542	529
Receivables and inventory write-downs	127	119	-	-	127	119
Employee benefits	-	70	-	-	-	70
Unrealized exchange rate differences	134	13	(553)	(1,132)	(419)	(1,119)
Other provisions	21	49	-	-	21	49
Total	977	978	(554)	(1,134)	423	(156)

Deferred tax assets and liabilities are shown in the statement of financial position for their net value (Euro 423 thousand net assets as at December 31, 2022, compared to Euro 156 thousand net liabilities as at December 31, 2021). The comparative statement of financial position was therefore appropriately reclassified in order to ensure that the figures were comparable.

22. Trade receivables

As at December 31, 2022 they totalled Euro 43,226 thousand net of the related write-down provisions, with an increase of Euro 19,755 thousand compared to December 31, 2021, and are made up as follows:

	As of December 31,	
	2022	2021
	(in € thousands)	
Current		
Receivables from third parties	1,453	1,119
Receivables from subsidiaries	42,367	22,974
Receivables from associates	30	5
Bad debt provision	(624)	(627)
Total Trade receivables	43,226	23,471

Receivables are mainly from subsidiaries and refer to services provided by Corporate functions and licenses for the use of patents, trademarks and know-how.

The carrying amount of trade receivables, net of the bad debt provision, is deemed to approximate its fair value.

Following are the changes in the bad debt provision:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Opening balance	627	661
Accruals of the year	-	-
Utilization and releases of the year	(3)	(34)
Closing balance	624	627

23. Cash and cash equivalents

Cash and cash equivalents amounted to Euro 81,931 thousand as at December 31, 2022, increased by Euro 69,910 thousand compared to December 31, 2021, and are detailed as follows:

	For the year ended December 31	
	(in € thousands)	
Bank and postal accounts	81,931	12,020
Cash on hand	-	1
Cash and cash equivalents	81,931	12,021

This item is composed of the cash and bank deposits available on demand.

As regards the amounts on deposits and current accounts, the related interests have been recognized on an accrual basis, taking into account the tax credit claimed for withholding taxes incurred.

The detailed financial changes are shown in the cash flow statement presented in the financial statements.

D. Notes to the main financial statements items - statement of financial position - liabilities

24. Equity

The changes in the categories that make up the shareholders' equity for the years 2021 and 2022 are shown in the specific "Statement of changes in shareholders' equity".

In the course of the 2022 financial year, dividends were distributed for Euro 20,000 thousand.

Share capital

The share capital amounted to Euro 18,268 thousand as at December 31, 2022 (Euro 16,786 thousand as at December 31, 2021). To service the institutional placement of Industrie De Nora S.p.A.'s ordinary shares on Euronext Milan, which took place on June 30, 2022, the Company issued 14,814,814 new shares offered in the placement at a price of Euro 13.50 per share. Therefore, a total capital increase of Euro 199,999,989.00 was realized, including Euro 1,481,481.30 as share capital increase and Euro 198,518,507.70 as share premium. The certificate pursuant to Article 2444 of the Italian Civil Code regarding the amount of the share capital was filed with the Milan register of companies on June 30, 2022, with the updated text of the Company's Articles of Association. The current composition of the share capital of Industrie De Nora S.p.A. is shown below:

Share Capital as of December 31, 2022	Euro	Number of shares
Total of which:	18,268,203.90	201,685,174
Ordinary Shares (regular entitlements)	3,326,857.89	43,899,499
Multiple voting shares (*)	14,941,346.01	157,785,675

(*) Owned by the shareholders Federico De Nora, Federico De Nora S.p.A., Norfin S.p.A. and Asset Company 10 S.r.l. Multiple voting shares are not admitted to trading on Euronext Milan and are not counted in the free float and market capitalization value.

Legal Reserve

This amounts to Euro 3,357 thousand, unchanged from December 31, 2021.

Share Premium Reserve

It amounts to Euro 223,433 thousand, an increase of Euro 198,519 thousand compared to December 31, 2021 following the aforementioned paid capital increase.

Reserve pursuant to Article 55 of Presidential Decree 597

This amounts to Euro 265 thousand, unchanged from December 31, 2021.

Fair value reserve for cash flow hedging instruments

The reserve includes the effective portion of the change in the fair value of the cash flows hedging instruments. As at December 31, 2022, the reserve was zero, compared to the positive reserve of Euro 55 thousand at the end of 2021.

Retained earnings

As at December 31, 2022, they amounted to Euro 202,696 thousand. The reserve increased by Euro 9,705 thousand due to the allocation of the result for the previous year (Euro 29,705 thousand) and to the distribution of dividends for

Euro 20,000 thousand.

Reserve from actuarial profit (loss)

The "reserve from actuarial profit (loss)" includes the actuarial components relating to the valuation of defined benefit plans, charged directly to shareholders' equity. As at December 31, 2022, it amounted to Euro -217 thousand, compared to Euro -412 thousand at the end of 2021.

IAS transition reserve

The IAS reserve (Euro 7,167 thousand, unchanged during the year) includes the effect on shareholders' equity of all the adjustments made at the date of transition to the IAS / IFRS standards (01/01/2007) on the various balance sheet items, net of related tax effects.

Other Reserves

Other reserves recognized in 2022 for a total of Euro 16,045 thousand include:

- Euro 19,463 thousand relating to the MIP and PSP incentive plans;
- offset by Euro 3,160 thousand in commissions paid related to shares offered at the time of placement and Euro 258 thousand in costs related to the listing process recognized as a reduction in equity as they are directly attributable to shares offered at the time of placement.

25. Employee benefits

Post-employment benefits

Post-employment benefits accrued by the Company reflect the indemnity vested by employees in Italy over the course of their employment, which is paid when the employee leaves the company. In specific circumstances, the indemnity may be partially advanced to the employee during employment.

Under IAS 19, employee benefits that fall under the Italian regulations (so called Trattamento di fine rapporto - TFR) are considered post-employment benefits and unfunded defined benefit plans. Accordingly, they are measured using the Projected Unit Credit Method.

The obligation to employees is calculated by an independent actuary as follows:

- projection of the post-employment benefits (TFR) already vested at the measurement date and of the future amounts that will be vested until termination of employment or of the partial payment of vested amounts in the form of advances;
- discounting at the measurement date of the expected cash flows that the Company will pay to employees in the future;
- re-proportioning of discounted service costs on the basis of the seniority reached at the measurement date compared to the seniority expected at the time of settlement by the Company.

The actuarial method has a technical basis consisting of the demographic and financial assumptions related to the parameters used for the calculation.

In summary, the main actuarial assumptions used in the calculation were as follows:

As of December 31,	2022	2021
	(Economic - Financial technical basis)	
Annual discount rate*	3.77%	0.98%
Annual inflation rate	2.30%	1.75%
Annual rate of increase in post-employment benefits	3.23%	2.81%
Annual rate of wage increase	2.30%	1.75%

(*) The discount rate used to determine the present value of the Italian post-employment obligation was inferred, consistently with par. 83 of IAS 19, by the Iboxx Corporate AA index with duration 10+ recorded at the valuation date. For this purpose, the yield with a duration comparable to the duration of the collective of workers subject to valuation was chosen.

The mortality assumptions are based on published statistics concerning mortality rates.

The following table summarizes the sensitivity analysis for each actuarial, financial and demographic assumption, showing the effects (in absolute value) that would have occurred following changes in the reasonably possible actuarial assumptions as at December 31, 2022:

Sensitivity analysis of the main valuation parameters	Euro thousands
Turnover rate +1.00%	2,363
Turnover rate -1.00%	2,340
Inflation rate +0.25%	2,384
Inflation rate -0.25%	2,321
Discount rate +0.25%	2,312
Discount rate -0.25%	2,395

Changes in post-employment benefits are summarized in the table below:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Opening balance	2,445	2,491
Current service cost	256	272
Interest cost	48	8
Actuarial profit/(loss)	(256)	62
Benefits paid	(141)	(388)
Closing balance	2,352	2,445

Pension plans

The existing pension plans provide for the payment of contributions to a separate fund which independently administers the plan assets. The funds provide for a fixed contribution from the employer.

The changes in the pension funds are summarized in the following table:

	For the year ended December 31	
	2022	2021
	(in € thousands)	
Opening provision	1,205	1,269
Accruals of the year	141	134
Utilization and releases of the year	(71)	(198)
Closing balance	1,275	1,205

26. Financial liabilities

Financial payables as at December 31, 2022 totalled Euro 195,356 thousand with a decrease of Euro 36,325 thousand compared to December 31, 2021. The breakdown between non-current and current liabilities is provided below:

	As of December 31,	
	2022	2021
	(in € thousands)	
Non current		
Bank loans and borrowings	178,772	-
Lease payables	2,237	2,481
Total	181,009	2,481
Current		
Bank loans and borrowings	6	220,938
Financial payables to subsidiaries	13,865	6,564
Lease payables	476	550
Fair value of derivatives	-	1,148
Total	14,347	229,200
Total financial liabilities	195,356	231,681

Bank loans and borrowings

As at December 31, 2022, the fair value of payables to banks approximates their book value.

As at December 31, 2021, a medium-term loan agreement was in place, expiring on July 19, 2022. In light of the Group's financial needs, it was decided to prematurely close the pool loan maturing in July 2022 and propose to the same banking institutions, joined by Banco BPM, a bullet refinancing, with a maturity of 5 years, which was signed on May 5, 2022 and consists of two lines usable up to a maximum of Euro 200,000 and USD 100,000 thousand, underwritten by Industrie De Nora S.p.A. and De Nora Holdings US for a total of Euro 180,000 thousand and USD 90,000 thousand, respectively, thus permanently waiving the use of the remaining Euro 20,000 thousand and USD 10,000 thousand made available by the banking pool. Corresponding to this medium-term loan, all of the company's additional short-term loans have been repaid.

The new pool loan considers interest rates parameterized to the 3- or 6-month Euribor for the Euro portion and to the SOFR for the USD portion, in addition to an initial margin that may change semi-annually, starting in January 2023, depending on the evolution of the Group's Leverage level: the initial margin currently in place is 1.15% for the Euro portion and 1.40% for the USD portion. The "*leverage ratio*", given by the ratio of consolidated net debt to consolidated EBITDA, is the only financial covenant included in the loan agreement, and it is stipulated that it cannot exceed a value of 3,5 throughout the term of the agreement. Failure to meet the financial covenant is identified as an event of default or non-performance. Specifically, an event of default or non-performance would result in the banks' discretion to require immediate repayment of funds unless the situation is remedied, pursuant to and in accordance with the terms and conditions set forth in the loan agreement, within 20 business days of the submission of the certification of such financial covenant.

Financial payables to subsidiaries

They refer to financial payables remunerated at market rate for cash pooling to De Nora Italy S.r.l. in the amount of Euro 6,500 thousand and to De Nora Deutschland GmbH in the amount of Euro 7,358.

Lease payables

They represent financial liabilities recognized in accordance with the provisions of IFRS 16 “Leases”. The debt is in particular the obligation to make the payments foreseen over the duration of the contract and refers almost entirely to the properties owned by the subsidiary Capannoni S.r.l. leased to Industrie De Nora S.p.A. (administrative headquarters and R&D laboratories).

With regard to the contractual maturities of lease payables, please refer to note 33 - Information on risks.

The detail of the net financial position is as follows:

	As of December 31,	
	2022	2021
	(in € thousands)	
Cash on hand	-	1
Cash	81,931	12,020
Cash and cash equivalents	81,931	12,021
Current financial assets	209,335	130,313
Current financial debt	(6)	(220,938)
Short term Loans and borrowings from other financial backers	(13,865)	(6,564)
Lease payables	(476)	(550)
Derivatives	-	(1,148)
Current financial indebtedness	(14,347)	(229,200)
Net current financial position	276,919	(86,866)
Non-current financial debt	(178,772)	-
Lease payables	(2,236)	(2,481)
Derivatives	-	-
Net non-current financial position	(181,008)	(2,481)
Net financial position	95,910	(89,347)

In 2022, net financial indebtedness as at December 31, 2021 was Euro 89,347 thousand to Net cash and cash equivalents of Euro 95,910 thousand as at December 31, 2022. The improvement of a total of Euro 185,257 thousand is mainly attributable to the combined effect of the following factors:

- the liquidity generated by the listing of the Company on the Euronext market in Milan for Euro 196,840 thousand;
- the cash generated by the Company’s operating activities net of related costs partially offset by cash absorbed by Finance expenses and taxes paid;
- cash generated from investing activities in the year ended December 31, 2022 as a result of dividends received from Subsidiaries in the amount of Euro 17,670 thousand net of cash absorption in the amount of Euro 1,134 thousand related to the establishment and subsequent capital increases of De Nora Italy Hydrogen Technologies S.r.l., a joint venture with Snam S.p.A., in which the company holds 90% of the capital; and from the loss coverage of the subsidiary DNWT Italy Srl for Euro 6,000 thousand and investments in fixed assets for Euro 1,760 thousand;
- the liquidity absorbed by the dividends paid in the year ended December 31, 2022 amounted to Euro 20,000 thousand.

For further details on the cash flows for the period, please refer to the cash flow statement.

27. Provisions for risks and charges

As at December 31, 2022, they amounted to Euro zero, a decrease of Euro 109 thousand compared to December 31, 2021.

28. Trade payables

As at December 31, 2022, they amounted to Euro 12,068 thousand, an increase of Euro 3,069 thousand over December 31, 2021, and are broken down as follows:

	As of December 31,	
	2022	2021
	(in € thousands)	
Current		
Third parties	8,015	6,768
Payables to Subsidiaries	3,948	2,214
Associated companies	105	17
Total payables	12,068	8,999

This item primarily includes amounts related to payables for the purchase of goods and services, all of them with due date within 12 months. It is deemed that the carrying amount of trade payables is close to their fair value.

29. Income tax payables

As at December 31, 2022, the item amounted to Euro 2,320 thousand, an increase of Euro 1,289 thousand from December 31, 2021. This payable refers to IRES and IRAP and tax payables to subsidiaries that have entered into the national tax consolidation agreement.

30. Other payables

The item as at December 31, 2022 amounted to Euro 6,415 thousand, an increase of Euro 1,166 thousand compared to December 31, 2021. There are no other non-current payables; their breakdown is detailed as follows:

	As of December 31,	
	2022	2021
	(in € thousands)	
Non current		
Payables to employees	67	-
Total	67	-
Current		
Payables to employees	3,590	3,426
Withholding tax payables	573	503
Social security charges payables	656	520
Advances from customers	773	773
Accrued expenses and deferred income	30	-
Other - third parties	793	27
Total	6,415	5,249
Total Other payables	6,482	5,249

Payables to employees refer to accrued and unpaid portions such as: holidays, additional months, bonuses and related contributions divided between non-current and current share.

Social security charges payables refer to the amounts owed by the Company and its employees for wages and salaries for the month of December 2022.

31. Commitments and guarantees

The Company, as the parent company, has a number of commitments and guarantees in place as at 12.31.2022 in favor of its subsidiaries, divided as follows:

Commitments

The Company has not undertaken any commitments that have not been recorded in the balance sheet, except for some orders for the purchase of capital assets amounting to € 0.18 million as at December 31, 2022.

Guarantees

— Indemnity issued in the interest of the Group companies in support of letters of credit and guarantees given by credit institutions in their favor: € 22,300 thousand. This item mainly refers to letters of credit and bank guarantees (bid bonds, advance payment bonds, Performance bonds) in favor of the Group companies operating in the water purification sector, according to multi-year contracts;

— guarantees issued by IDN S.p.A. in favor of customers and third party suppliers (Parent company guarantee) to guarantee commitments undertaken by its subsidiaries: € 22,140 thousand.

In addition, IDN S.p.A. issues guarantees to banks to secure credit lines granted by them to the Group subsidiaries: at the reporting date, these guarantees amounted to € 89,977 thousand, but no Group company has any outstanding loans or bank loans backed by such guarantees. However, the aforementioned credit lines are used by the subsidiaries in the amount of € 27,690 thousand as counter-guarantees to the credit institutions that have issued bank guarantees of the type already mentioned in the previous paragraph (bid bonds, performance bonds, advance payment bonds, etc...).

Furthermore, the company is jointly and severally guarantor with De Nora Tech LLC and De Nora Permelec Ltd. of the USD 90 million share of the Senior Facilities Agreement granted to the subsidiary De Nora Holdings US on May 5, 2022 for a counter-value as at December 31, 2022 of € 84,380 thousand.

E. Risks

32. Risks

In addition to general business risks, related to its activities and financial instruments, the Company is exposed to the following risks:

- credit risk;
- liquidity risk;
- market risk;
- other risks.

The Company considers risk monitoring and control systems a top priority to guarantee an efficient risk management. In line with this objective, the Company has adopted a risk management system with formalized strategies, policies and procedures to ensure the identification, measurement and control of individual risks at centralized level for the entire Group.

The purpose of the Company's risk management policies is to:

- identify and analyze the risks to which the Company is exposed;
- define the organizational structure with the identification of the organizational units involved, responsibilities assigned and the system of proxies;
- identify the risk management criteria on which the operational management of risks is based;
- identify the types of transactions for which risks can be hedged.

The following note provides qualitative and quantitative reference information on the incidence of these risks on the Company.

Credit risk

Credit risk is the risk that a customer or one of the counterparties to a financial instrument causes a financial loss by not meeting an obligation. It mainly arises from the Group's trade receivables and financial investments.

Trade and other receivables

Credit risk is mainly due to the possibility that customers will not honor their payables to the Company at the agreed due date. Customers are mainly subsidiaries and the credit risk is therefore very limited.

The Company accrues, where appropriate, a bad debt reserve that reflects estimated possible losses on trade and other receivables, the main components of which are individual specific write-downs of past due exposures.

The carrying amount of the financial assets reflects the Company's maximum exposure to credit risk. This exposure at the reporting date is illustrated below:

	As of December 31,	
	2022	2021
	(in € thousands)	
Trade receivables	43,226	23,471
Other financial receivables and sundry receivables	243,913	149,017
Cash and cash equivalents	81,931	12,021
Total Financial assets	369,070	184,509

An ageing analysis of trade receivables at the reporting date is provided below:

	As of December 31,		% Overdue as of December	
	2022	2021	2022	2021
	(in € thousands, except percentages)			
Not yet due	**26,394**	20,929	**61%**	89%
Overdue 0-30 days	**10**	9	**-**	-
Overdue 31-60 days	**10,409**	798	**24%**	4%
Overdue more than 60 days	**6,413**	1,735	**15%**	7%
Total trade receivables	43,226	23,471	100%	100%

The Group believes there are reasons to assume full collectability of the overdue trade receivables where specific provisions have not been made on the basis of specific recoverability assessments.

Liquidity risk

Liquidity risk is represented by the possibility that the Company is unable to find the financial resources necessary to guarantee current operations and the fulfilment of obligations due to expire, or that they are available at high costs.

The Company's approach to managing liquidity risk entails ensuring, insofar as possible, that it always has sufficient funds to meet its obligations at the due date, under both normal conditions and at times of financial tension, without incurring excessive costs or risking damage to their reputation. In general, the Company ensures that it has sufficient cash and cash equivalents available on demand to meet the cash requirements of its operating cycle and investments, including the cost of financial liabilities.

The Company's Corporate Finance centrally manages the short- and long-term loan strategies, relationships with the main financing banks and the provision of the necessary guarantees. It also centrally defines any hedging policies to be implemented for financial risks. Centralized management by the Company's Corporate Finance is aimed at achieving a balanced financial structure and maintaining the Group's financial soundness.

The main aim of these guidelines is to ensure that liabilities are always balanced by assets such to maintain a very sound financial position. The contractual due dates of financial liabilities, including derivatives, are shown below for the current and previous years.

	As of December 31, 2022						
	31/12/2022	Due date					
		0-12 months	2 years	3 years	4 years	5 years	Over 5 years
	(in € thousands)						
Bank loans and borrowings*	178,778	-	-	-	-	180,000	-
Financial payables to subsidiaries	13,865	13,865	-	-	-	-	-
Lease payables	2,713	476	374	348	355	370	790
Trade payables to third parties	8,015	8,015	-	-	-	-	-
Other payables	10,535	10,535	-	-	-	-	-
Total	213,906	32,891	374	348	355	180,370	790

* The difference between the total bank loans and borrowing as at December 31, 2022 and the contractual cash flows is due to the upfront Fees which, paid on the date of stipulation of the loan agreement, are recognized in the statement of financial position as a decrease of the total amount payable according to the amortized cost criterion.

		As of December 31, 2021					
	31/12/2021	Due date					
		0-12 months	2 years	3 years	4 years	5 years	Over 5 years
		(*in € thousands*)					
Bank loans and borrowings*	220,938	221,080	-	-	-	-	-
Financial payables to subsidiaries	6,564	6,564	-	-	-	-	-
Lease payables	3,031	550	390	350	323	329	1,089
Derivatives	1,148	1,148	-	-	-	-	-
Trade payables to third parties	6,768	6,768	-	-	-	-	-
Other payables	7,480	7,480	-	-	-	-	-
Total	245,929	234,590	390	350	323	329	1,089

* The difference between the total bank loans and borrowing as at December 31, 2021 and the contractual cash flows is due to the Upfront Fees which, paid on the date of stipulation of the loan agreement, are recognized in the statement of financial position as a decrease of the total amount payable.

Management believes that currently available funds and credit facilities, in addition to the cash flows that will be generated by operating and financing activities, will enable the Company to meet its cash requirements as a result of investing activities, the management of working capital and the repayment of liabilities when they fall due.

Capital management

The management of the Company's capital is aimed at guaranteeing a solid credit rating and adequate levels of capital indicators to support the investment plans, in compliance with the contractual commitments undertaken with the lenders.

The Group provides itself with the necessary capital to finance its business development and operational requirements. The sources of financing are a balanced mix of risk capital and debt capital, to ensure a balanced financial structure and minimise the overall cost of capital, to the benefit of all stakeholders.

The return on risk capital is monitored on the basis of market trends and business performance, once all other obligations, including debt service, have been met. Therefore, in order to ensure an adequate return on capital, safeguard business continuity and business development, the Company constantly monitors the evolution of the level of debt in relation to equity, business performance and expected cash flows in the short and medium-long term.

Market risk

Market risk is the risk that the future cash flows of a financial instrument will fluctuate due to changes in market prices, exchange rates and interest rates or other price risks. The aim of market risk management is to manage and control the Company's exposure to such risk within acceptable levels, while optimizing the return on investments.

Currency risk

The following table shows the Company's exposure to the currency risk on the US dollar as at December 31, 2022 based on the notional value:

Receivables / payables in thousands of US dollars	
Receivables	57,513
Payables	(440)
Net exposure	**57,073**

The exchange rate applied during the year is as follows:

	Average exchange rate	End of financial year exchange rate
US dollar	1.0530	1.0666

Sensitivity analysis

Exposure is almost exclusively with Group companies.

An appreciation of the Euro by 5 cents against the US dollar would have led to a decrease in the operating result of approximately Euro 2.4 million as at December 31, 2022, assuming that all other variables are constant. If, as at December 31, 2022, the Euro had depreciated by 5 cents against the US dollar, the impact on the result for the year would have been positive for approximately Euro 2.6 million, all other variables being equal.

Interest rate risk

This specifically relates to the effects of changes in interest rates on the price of held-for-trading financial assets. Losses and revaluation of held-for-trading financial assets are taken to profit or loss or directly to equity. Conversely, with respect to financial liabilities, the risk of changes in interest rates impacts profit or loss by generating lower or higher Finance expenses.

The Company's position is summarized in the table below.

	As of December 31,	
	2022	2021
	(in € thousands)	
Financial liabilities	(195,356)	(231,681)
Hedged financial liabilities	-	100,000
Fixed rate financial liabilities	-	101,062
Financial liabilities exposed to interest rate risk	(195,356)	(30,619)
Financial assets	303,977	142,334
Total	**108,621**	**111,715**

Sensitivity analysis

A hypothetical, instantaneous and unfavorable change of one percentage point in the level of interest rates would generate, on an annual basis, a higher pre-tax charge of approximately Euro 1.95 million.

Other price risks

These relate to the risk that the fair value of a financial instrument could vary for reasons other than fluctuations in interest or exchange rates. The Company is not exposed to price risk as it does not hold equity securities (shares) among its financial assets.

Classification and fair value

The table below indicates the carrying amount of each financial asset and liability recognized in the statement of financial position and its fair value.

Classification and fair value as of December 31, 2022	Carrying amount					
	Notes	Loans and receivables	Derivatives at fair value	Other financial liabilities	Total	Fair value
			(in € thousands)			
Cash and cash equivalents	23	81,931	-	-	81,931	81,931
Trade and other receivables	20/22	64,678	-	-	64,678	64,678
Receivables and other financial assets	19	222,046	-	-	222,046	222,046
Derivatives at FV	19	-	415	-	415	415
Financial assets		369,070	415	-	369,070	369,070
Bank loans and borrowings	26	-	-	(178,778)	(178,778)	(178,778)
Financial payables to subsidiaries	26	-	-	(13,865)	(13,865)	(13,865)
Lease payables	26	-	-	(2,713)	(2,713)	-
Derivatives at FV	26	-	-	-	-	-
Trade payables	28	-	-	(12,068)	(12,068)	(12,068)
Other payables	29/30	-	-	(8,803)	(8,803)	(8,803)
Financial liabilities		-	-	(216,227)	(216,227)	(213,514)

Classification and fair value as of December 31, 2021	Carrying amount					
	Notes	Loans and receivables	Derivatives at fair value	Other financial liabilities	Total	Fair value
			(in € thousands)			
Cash and cash equivalents	23	12,021	-	-	12,021	12,021
Trade and other receivables	20/22	42,175	-	-	42,175	42,175
Receivables and other financial assets	19	130,313	-	-	130,313	130,313
Financial assets		184,509	-	-	184,509	184,509
Bank loans and borrowings	26	-	-	(220,938)	(220,938)	(220,938)
Financial payables to subsidiaries	26	-	-	(6,564)	(6,564)	(6,564)
Lease payables	26	-	-	(3,031)	(3,031)	-
Derivatives at FV	26	-	(1,148)	-	(1,148)	(1,148)
Trade payables	28	-	-	(8,999)	(8,999)	(8,999)
Other payables	29/30	-	-	(5,766)	(5,766)	(5,766)
Financial liabilities		-	(1,148)	(245,298)	(246,446)	(243,415)

Hierarchical scale of fair value

The following table shows the financial instruments recognised at fair value based on the valuation technique used. The different levels have been defined as described below:

- Level 1: listed prices (unadjusted) on active markets for identical assets or liabilities;
- Level 2: input data other than the listed prices in level 1, which can be observed for the asset or liability either directly or indirectly;
- Level 3: input data relating to the asset or liability that are not based on observable market data (unobservable data).

The financial instruments in these financial statements can be divided as follows:

	As of December 31, 2022		
	Level 1	Level 2	Level 3
		(in € thousands)	
Fair value of derivatives	-	415	-
Total	-	415	-

	As of December 31, 2021		
	Level 1	Level 2	Level 3
		(in € thousands)	
Fair value of derivatives	-	(1,147)	-
Total	-	(1,147)	-

Other risks

Pursuant to the General Data Protection Regulation (EU 2016/679), the directors acknowledge that the Company has updated personal data protection measures within the deadline and as required by such legislation.

Pursuant to Legislative decree no. 231 of June 8, 2001, entitled "Standards governing the administrative liability of legal entities, companies and associations, including those without legal status, pursuant to article 11 of Law no. 300 of September 29, 2000", the Company has adopted an "Organizational, management and control model" to prevent offences set out in the decree. The aforesaid decree has introduced company liability for a number of offences committed in their interest or to their advantage by persons who act on their behalf or in their name, such as directors, managers, employees or consultants acting under the control or management of persons employed by these companies.

In compliance with the decree, a Supervisory Board was appointed to supervise and monitor the functioning, effectiveness, adequacy of and compliance with the "Organizational, management and control model", adopted by the Company with a Board of Directors' resolution of December 20, 2012 and subsequent updates, in order to prevent the offences which may entail the Company's administrative liability.

As at February 18, 2022, the Board of Directors confirmed as members of the Company's Supervisory Board for the three-year period between the date of the above resolution and the date of approval of the Company's draft financial statements as at December 31, 2024, Ms. Antonini, Mr. Necchi and Mr. Sardo (Chairman). By subsequent resolution of August 4, 2022, Mr. Vitacca was appointed member of the Supervisory Body to replace Ms. Antonini.

F. Related Party Transactions

33. Related Party Transactions

The table below shows the detailed statement of the balance sheet values relating to the relationships maintained by the Company with related parties as at December 31, 2022 and 2021.

(in € thousands)	Parent company	Subsidiaries	Associates	Other related parties	Total
Trade receivables					
December 31, 2022	2	42,356	30	-	42,388
December 31, 2021	2	22,960	5	-	22,967
Financial assets					
December 31, 2022	-	71,861	-	-	71,861
December 31, 2021	-	130,313	-	-	130,313
Other receivables					
December 31, 2022	-	1,702	-	47	1,749
December 31, 2021	-	-	-	45	45
Trade payables					
December 31, 2022	16	4,632	17	87	4,752
December 31, 2021	-	2,214	17	75	2,306
Income tax payables					
December 31, 2022	-	1,657	-	-	1,657
December 31, 2021	269	-	-	-	269
Financial liabilities					
December 31, 2022	-	13,.864	-	-	13,864
December 31, 2021	-	6,575	-	-	6,575

The table below shows the detailed statement of the economic values relating to the relationships maintained by the Company with related parties for the years ended December 31, 2022 and 2021.

(in € thousands)	Parent company	Subsidiaries	Associates	Other related parties	Total
Other income					-
For the year ended December 31, 2022	2	78,188	55	-	78,245
For the year ended December 31, 2021	2	54,157	25	-	54,184
Finance income					-
For the year ended December 31, 2022	-	19,933	-	-	19,933
For the year ended December 31, 2021	-	18,450	-	-	18,450
Personnel expenses					
For the year ended December 31, 2022	-	-	-	12,299	12,299
For the year ended December 31, 2021	-	-	-	-	-
Service cost					-
For the year ended December 31, 2022	-	569	-	-	569
For the year ended December 31, 2021	-	287	17	145	449
Other operating expenses					-
For the year ended December 31, 2022	58	7,314	-	186	7,558
For the year ended December 31, 2021	58	6,942	-	110	7,110
Finance expenses					-
For the year ended December 31, 2022	-	140	-	-	140
For the year ended December 31, 2021	-	164	-	-	164

Transactions with the parent company

Balance sheet values with the parent company mainly relate to income tax payables, for Euro 269 thousand, originating from the aforementioned national tax consolidation contract in effect until the 2021 Income Tax Return.

Income statement amounts with the parent company are mainly related to other expenses amounting to Euro 58 thousand and to the charge-back by the parent company of the costs of some services related to corporate obligations, under the contract in force between the parties.

Transactions with Subsidiaries

The table below shows details of the balance sheet items relating to the Company's transactions with its subsidiaries as at December 31, 2022 and 2021.

Subsidiaries	Trade receivables	Financial assets	Trade payables	Financial liabilities	Other receivables (payables)
	As of December 31, 2022				
	(in € thousands)				
Capannoni S.r.l.	20	3,970	108	-	(34)
De Nora Italy S.r.l.	2,257	-	293	6,506	1,702
De Nora Italy S.r.l. Singapore Branch	155	-	-	-	-
De Nora Elettrodi (Suzhou) Co., Ltd.	2,902	-	24	-	-
De Nora Deutschland GmbH	16,222	83	807	7,358	-
De Nora do Brasil Ltda	671	13,357	-	-	-
De Nora India Ltd	375	-	-	-	-
De Nora Tech, LLC	12,617	28,737	2,259	-	-
Oronzio De Nora International BV	-	-	-	-	-
De Nora Permelec Ltd	3,211	-	693	-	-
De Nora Holding (UK) Limited	-	-	-	-	-
De Nora Water Technologies Italy S.r.l.	497	11,006	62	-	(1,095)
De Nora Water Technologies, Inc. - Abu Dhabi Branch	30	-	-	-	-
De Nora Water Technologies FZE	138	1,410	-	-	-
De Nora Water Technologies UK Services Limited	424	603	-	-	-
De Nora China-Jinan Co., Ltd.	58	-	-	-	-
De Nora Holdings US, Inc.	25	11,495	-	-	-
De Nora Water Technologies (Shanghai) Co. Ltd.	-	-	-	-	-
De Nora Water Technologies (Shanghai), Ltd.	17	-	-	-	-
De Nora Water Technologies, LLC	1,090	-	386	-	-
De Nora Water Technologies, LLC - Singapore Branch	1,046	-	-	-	-
De Nora Neptune, LLC	-	-	-	-	-
De Nora Marine Technologies, LLC	86	-	-	-	-
De Nora UV Technologies LLC	-	-	-	-	-
De Nora Italy Hydrogen Technologies S.r.l.	472	-	-	-	(175)
De Nora ISIA S.r.l.	43	1,200	-	-	(353)
Total	**42,356**	**71,861**	**4,632**	**13,864**	**45**

	As of December 31, 2021			
Subsidiaries	Trade receivables	Financial assets	Trade payables	Financial liabilities
	(in € thousands)			
Capannoni S.r.l.	19	3,308	90	-
De Nora Italy S.r.l.	1,912	-	127	6,575
De Nora Italy S.r.l. Singapore Branch	86	-	-	-
De Nora Elettrodi (Suzhou) Co., Ltd.	1,802	-	-	-
De Nora Deutschland GmbH	5,189	15,997	80	-
De Nora do Brasil Ltda	1,607	-	-	-
De Nora India Ltd	163	-	-	-
De Nora Tech. Inc.	6,316	33,551	898	-
Oronzio De Nora International BV	-	-	-	-
De Nora Permelec Ltd	1,721	-	788	-
De Nora Holding (UK) Limited	-	-	-	-
De Nora Water Technologies Italy S.r.l.	509	17,330	-	-
De Nora Water Technologies, Inc. - Abu Dhabi Branch	99	-	-	-
De Nora Water Technologies FZE	105	-	-	-
De Nora Water Technologies UK Services Limited	61	-	-	-
De Nora China-Jinan Co., Ltd.	39	-	-	-
De Nora Holdings US, Inc.	15	60,127	-	-
De Nora Water Technologies (Shanghai) Co. Ltd.	-	-	-	-
De Nora Water Technologies (Shanghai), Ltd.	11	-	-	-
De Nora Water Technologies, LLC	2,432	-	231	-
De Nora Water Technologies, LLC - Singapore Branch	192	-	-	-
De Nora Neptune, LLC	-	-	-	-
De Nora Marine Technologies, LLC	86	-	-	-
De Nora UV Technologies LLC	446	-	-	-
De Nora ISIA S.r.l.	150	-	-	-
Total	22,960	130,313	2,214	6,575

Trade receivables

Trade receivables, amounting to Euro 42,356 thousand (Euro 22,690 as at December 31, 2021), mainly refer to the services provided by the corporate functions of the Company, and to the licenses for the use of patents, trademarks and know-how.

Financial assets

Financial assets amounted to Euro 71,861 thousand (Euro 130,313 thousand as at December 31, 2021) and refer to receivables for cash pooling from Capannoni S.r.l. and De Nora Water Technologies Italy S.r.l., and loans receivable from De Nora Holding US, De Nora Tech LLC, De Nora Water Technologies FZE, and De Nora Water Technologies UK Services Limited.

Trade payables

Trade payables, amounting to Euro 4,632 thousand (Euro 2,214 thousand as at December 31, 2021), refer mainly to services for R&D activities provided to De Nora Permelec Ltd and De Nora Tech LLC. regarding the development of intellectual property.

Financial liabilities

Financial liabilities, amounting to Euro 13,864 thousand (Euro 6,575 thousand as at December 31, 2021), refer to payables for cash pooling to De Nora Deutschland GmbH and De Nora Italy

S.r.l.

Other receivables/Other payables

Starting from fiscal year 2022 and for a three-year period, the Company has signed a special agreement for consolidated taxation, in the capacity as consolidating company, with the following subsidiaries: Capannoni S.r.l., De Nora Italy S.r.l., De Nora ISIA S.r.l., De Nora Water Technologies S.r.l., De Nora Italy Hydrogen Technologies S.r.l. Each company participating in the national tax consolidation scheme transfers the tax income or loss to the consolidating company, recognizing a credit or debit equal to the IRES offset at the group level. These receivables/payables are shown in this category.

The following table shows the detailed statement of the economic values referring to the relations maintained by the Company with the Subsidiaries as at December 31, 2022 and 2021.

	For the year ended December 31, 2022				
Subsidiaries	Other income	Finance income	Operating expenses	Other expenses	Finance expenses
			(in € thousands)		
Capannoni S.r.l.	14	59	-	771	110
De Nora Italy S.r.l.	8,111	2,770	4	525	30
De Nora Italy S.r.l. Singapore Branch	416	-	-	-	-
De Nora Elettrodi (Suzhou) Co., Ltd.	7,464	-	136	-	-
De Nora Deutschland GmbH	18,262	195	396	87	-
De Nora do Brasil Ltda	1,370	231	-	2	-
De Nora India Ltd	685	-	-	-	-
De Nora Tech, LLC	27,023	838	15	3,406	-
Oronzio De Nora International BV	-	14,900	-	-	-
De Nora Permelec Ltd	7,976	-	18	2,187	-
De Nora Holding (UK) Limited	-	-	-	-	-
De Nora Water Technologies Italy S.r.l.	996	188	-	115	-
De Nora Water Technologies, Inc. - Abu Dhabi Branch	65	-	-	-	-
De Nora Water Technologies UK Services Limited	602	3	-	-	-
De Nora China-Jinan Co., Ltd.	161	-	-	-	-
De Nora Holdings US, Inc.	6	745	-	-	-
De Nora Water Technologies (Shanghai) Co. Ltd.	-	-	-	-	-
De Nora Water Technologies (Shanghai), Ltd.	8	-	-	-	-
De Nora Water Technologies, LLC	3,032	-	-	221	-
De Nora Water Technologies, LLC - Singapore Branch	854	-	-	-	-
De Nora Neptune, LLC	-	-	-	-	-
De Nora Marine Technologies, LLC	327	-	-	-	-
De Nora Water Technologies FZE	269	4	-	-	-
De Nora UV Technologies LLC	-	-	-	-	-
De Nora Italy Hydrogen Technologies S.r.l.	411	-	-	-	-
De Nora ISIA S.r.l.	136	-	-	-	-
Total	78,188	19,933	569	7,314	140

Subsidiaries	For the year ended December 31, 2021				
	Other income	Finance income	Operating expenses	Other expenses	Finance expenses
	(in € thousands)				
Capannoni S.r.l.	16	52	-	627	114
De Nora Italy S.r.l.	4,764	2,155	6	572	36
De Nora Italy S.r.l. Singapore Branch	404	-	-	-	-
De Nora Elettrodi (Suzhou) Co., Ltd.	6,104	-	7	60	-
De Nora Deutschland GmbH	11,610	102	93	46	14
De Nora do Brasil Ltda	1,056	-	1	-	-
De Nora India Ltd	493	-	-	-	-
De Nora Tech, LLC	17,806	213	9	2,767	-
Oronzio De Nora International BV	-	14,800	-	-	-
De Nora Permelec Ltd	6,094	-	171	2,536	-
De Nora Holding (UK) Limited	-	-	-	-	-
De Nora Water Technologies Italy S.r.l.	1,553	243	-	50	-
De Nora Water Technologies, Inc. - Abu Dhabi Branch	126	-	-	-	-
De Nora Water Technologies UK Services Limited	220	-	-	85	-
De Nora China-Jinan Co., Ltd.	142	-	-	-	-
De Nora Holdings US, Inc.	14	885	-	-	-
De Nora Water Technologies (Shanghai) Co. Ltd.	-	-	-	-	-
De Nora Water Technologies (Shanghai), Ltd.	17	-	-	-	-
De Nora Water Technologies, LLC	2,432	-	-	199	-
De Nora Water Technologies, LLC - Singapore Branch	410	-	-	-	-
De Nora Neptune, LLC	-	-	-	-	-
De Nora Marine Technologies, LLC	161	-	-	-	-
De Nora Water Technologies FZE	110	-	-	-	-
De Nora UV Technologies LLC	446	-	-	-	-
De Nora ISIA S.r.l.	179	-	-	-	-
Total	54,157	18,450	287	6,942	164

Other income

Other income amounted to Euro 78,188 thousand (Euro 54,157 in 2021). Other income is mainly attributable to: (i) intercompany charge-backs which include income for services provided by corporate functions in the amount of Euro 19,624 thousand (Euro 16,412 thousand in 2021), and for licenses to use intellectual property, trademarks and know-how in the amount of Euro 50,755 thousand (Euro 33,158 thousand in 2021); and (ii) other income, which mainly includes charge-backs of expenses.

Finance income

Finance income, amounting to Euro 19,933 thousand (Euro 18,450 thousand in 2021), mainly refers to:

(i) dividends received by the company Oronzio De Nora International BV for Euro 14,900 thousand, and by the company De Nora Italy S.r.l. in the amount of Euro 2,770 thousand;

(ii) interest income on loans; this interest income relates to transactions with De Nora Holdings US, Inc, De Nora Tech

LLC, De Nora Water Technologies FZE, De Nora Water Technologies UK Services Limited;

(iii) interest income on cash pooling transactions; this interest income relates to transactions with De Nora Water Technologies Italy S.r.l.

Operating expenses

Operating expenses, amounting to Euro 569 thousand (Euro 287 thousand in 2021), mainly refer to the supply of materials used by the Company in R&D.

Other expenses

Other expenses, amounting to Euro 7,314 thousand (Euro 6,942 thousand in 2021), mainly refer to: services for R&D activities related to the development of intellectual property provided by De Nora Permelec Ltd and De Nora Tech LLC, costs for administrative services provided by De Nora Italy S.r.l. (such as general accounting, support in tax compliance, procurement, personnel administration, etc.), and costs for utilities, building expenses and ordinary maintenance related to the leased properties by Capannoni S.r.l.

Finance expenses

Finance expenses, amounting to Euro 140 thousand (Euro 164 thousand in 2021), refer to: (i) lease payables related to the lease of the administrative headquarters and R&D laboratories to the company Capannoni S.r.l. amounting to Euro 110 thousand and (ii) from the cash pooling referring to the above-mentioned loans to De Nora Italy S.r.l. amounting to Euro 30 thousand.

Transactions with Associates

Transactions with Associated Companies are mainly related to income for the provision of research and development services for Euro 55 thousand (Euro 25 thousand in 2021).

Transactions with Other Related Parties

Relations with Other Related Parties mainly refer to:

- other receivables, amounting to Euro 45 thousand (unchanged from the financial statements as at December 31, 2021) attributable to the transactions with Norfin S.p.A. described above;
- trade payables, equal to Euro 87 thousand (Euro 75 as at December 31, 2021) attributable to relations with Snam S.p.A. and Gencap Advisory S.r.l., for Directors' fees;
- other costs of Euro 186 thousand (Euro 110 thousand as at December 31, 2021) attributable to transactions with the companies Gencap Advisory S.r.l., Snam S.p.A. and Ischyra Europa GmbH for Directors' fees;
- personnel cost for Euro 12,299 thousand related to share-based payments.

Below is the list of directly or indirectly investee companies:

Company name	Registered office
Directly investee companies:	
Capannoni S.r.l.	Italy
De Nora Italy S.r.l.	Italy
Oronzio De Nora International BV	The Netherlands
De Nora Elettrodi (Suzhou) Co., Ltd	China
De Nora do Brasil Ltda	Brazil
De Nora Holding UK Ltd.	United Kingdom
De Nora Water Technologies Italy S.r.l.	Italy
De Nora ISIA S.r.l.	Italy
De Nora Italy Hydrogen Technologies S.r.l.	Italy
thyssenkrupp nucera AG & Co. KGaA	Germany
Indirectly investee companies:	
De Nora Deutschland GmbH	Germany
De Nora India Ltd - INDIA	India
De Nora Tech LLC	Usa
De Nora Permelec Ltd	Japan
De Nora Hong Kong Limited	Hong Kong
De Nora China-Jinan Co Ltd	China
De Nora Glory (Shanghai) Co., Ltd	China
De Nora Water Technologies UK Services Ltd.	United Kingdom
De Nora Holding US Inc.	Usa
De Nora Water Technologies (Shanghai) Co. Ltd.	China
De Nora Water Technologies LLC	Usa
De Nora Marine Technologies LLC	Usa
De Nora Water Technologies Ltd.	United Kingdom
De Nora Water Technologies (Shanghai) Ltd.	China
De Nora Neptune LLC	Usa
De Nora Water Technologies FZE	Dubai
Capannoni USA LLC	Usa
thyssenkrupp nucera Italy S.r.l.	Italy
thyssenkrupp nucera Japan Ltd.	Japan
thyssenkrupp Uhde Chlorine Engineers (Shanghai) Co., Ltd.	China
thyssenkrupp nucera USA Inc.	Usa
thyssenKrupp nucera Australia Pty.	Australia
tk nucera Management AG	Germany

G. Directors', Statutory Auditors' and Independent Auditors' fees

34. Directors', Statutory Auditors' and Independent Auditors' fees

Pursuant to article 38 of Legislative Decree 127/91, the fees paid to the Directors and Statutory Auditors of the company Industrie De Nora S.p.A., for the performance of their duties are detailed below:

- Fees for the members of the Board of Directors and Supervisory Committees: € 819 thousand in 2022 (compared to € 675 thousand in 2021);
- Statutory Auditors' fees: 98 thousand in 2022 (compared to € 90 thousand in 2021);
- Independent Auditors' fees (statutory financial statements): 54 thousand (compared to € 35.5 thousand in 2021).

H. Events after the reporting date

35. Events after the reporting date

No significant events occurred after the end of the year.

I. Annual law for the market and competition (L. 124/2017)

36. Annual law for the market and competition (L. 124/2017)

The law no. 124 of August 4, 2017, "Annual law for the market and competition", which entered into force on August 29, 2017, aims to ensure greater transparency in the system of financial relations between public entities and other subjects.

During the year, the Company did not receive subsidies, contributions, paid assignments and in any case economic advantages referred to in law 124/2017, article 1, paragraph 25.

L. Allocation of the year's results

37. Allocation of the year's results

It is proposed to the Shareholders' Meeting that the profit for the year amounting to Euro 11,814,300 is allocated to Legal Reserve for Euro 296,296 being the remaining part available for dividend distribution. It is proposed a dividend distribution amounting to Euro 24,000,000 using Retained earnings for the part exceeding the net profit for the year.

On behalf of the Board of Directors
The Managing Director
Paolo Enrico Dellachà

Management's Certification of the Separate Financial Statements

The undersigned Paolo Enrico Dellachà and Matteo Lodrini, in their respective capacities as Chief Executive Officer and Manager responsible for preparing the Company's financial reports of Industrie De Nora S.p.A., hereby certify, also taking into account the provisions of Article 154-bis, paragraphs 3 and 4, of Legislative Decree no. 58 of 24 February 1998:

- the adequacy in relation to the characteristics of the company and
- the effective application of the administrative and accounting procedures for the preparation of the separate financial statements during FY 2022.

It is also certified that:

The separate financial statements as at 31 December 2022:

- have been prepared in accordance with International Financial Reporting Standards as endorsed by the European Community pursuant to Regulation (EC) no. 1606/2002 of the European Parliament and of the Council of 19 July 2002;
- correspond to the information contained in the accounting ledgers and records;
- provide a true and fair representation of the equity, economic and financial situation of the Issuzer.

Milan, 22 March 2023

Paolo Enrico Dellachà

Chief Executive Officer

Matteo Lodrini

Manager responsible for preparing the Company's financial reports

Independent auditor's report

in accordance with article 14 of Legislative Decree No. 39 of 27 January 2010 and article 10 of Regulation (EU) No. 537/2014

To the shareholders of Industrie De Nora SpA

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Industrie De Nora SpA (the Company), which comprise the statement of financial position as of 31 December 2022, the income statement, the statement of comprehensive income, the statement of changes in the net equity, the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements give a true and fair view of the financial position of the Company as of 31 December 2022, and of the result of its operations and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union, as well as with the regulations issued to implement article 9 of Legislative Decree No. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of this report. We are independent of the Company pursuant to the regulations and standards on ethics and independence applicable to audits of financial statements under Italian law. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

PricewaterhouseCoopers SpA

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Key Audit Matters	*Auditing procedures performed in response to key audit matters*
Employee incentive plans	
Part A.2 – Accounting standards and criteria – "Employee benefits" and "Estimates and assumptions" paragraphs of the Notes to the consolidated financial statements *Part B – Notes to the main financial statements items – Income statement – Note 6 "Personnel expenses"* *Part D – Notes to the main financial statements items – Statement of financial position – Liabilities – Note 24 "Equity"* In 2021 Industrie De Nora SpA approved a Management Incentive Plan that included the issuance of shares, with potential economic benefits to employees, if certain conditions were satisfied, which qualify as equity-settled share based payments as defined by IFRS 2. On 11 April 2022 the plan was modified and, accordingly, its fair value was recalculated and the Company recognised a personnel expense corresponding to the incremental fair value of the modified plan, equal to euro 13.5 million, and an increase in the carrying amounts of equity investments of euro 5.9 million in relation to personnel of other subsidiaries. In the second half of 2022, Industrie De Nora SpA approved a Performance Share Plan that included the rights to subscribe ordinary shares of the Company. That plan qualifies as an equity-settled share based payment transaction as defined by IFRS 2. The fair value measurement at the grant date of the rights to subscribe ordinary shares resulted in the recognition of a personnel expense of euro 65 thousand and an increase in the carrying amounts of equity investments in the subsidiaries where the other beneficiaries of the plan are employed of euro 38 thousand. This financial statements area is a key audit matter for the financial statements in consideration of the relevance of the impact, the non-recurring nature of the amendment of the Management Incentive Plan approved in the 2021	We performed specific analyses to understand the approved incentive plans and to understand and evaluate internal controls over management's evaluations. As part of the activities performed, also with the support of experts from the PwC network, we verified the following: - the incentive plans, as approved by management, and, on a sample basis, the grant letters; - the consistency of the methodological approach used by the independent experts engaged by the Company to determine the fair value with the requirements of IFRS 2 Share based payment; - on a sample basis, the accuracy and completeness of the inputs used in the calculation; - the reasonableness of the most significant assumptions; - the mathematical accuracy of the fair value calculation of the share plans offered to employees, or the incremental fair value in the event of a plan modification, and the consistency of the plans with the agreements made; - the accuracy, completeness and cut-off of the accounting entries posted by the Company; - the accuracy and completeness of disclosures in the notes to the financial statements.

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Key Audit Matters	***Auditing procedures performed in response to key audit matters***
and the complexity of valuation underlying the fair value measurement.	
Assessment of the recoverability of the carrying amounts of investments *Paragraph A.3 – Accounting standards and criteria –"Equity investments" and "Use of estimates" paragraphs* *Part C – Notes to the main financial statements items – Statement of financial position, Assets – Note 18 "Investments in subsidiaries and associates"* Investments in subsidiaries and associates amount to euro 325.7 million and are recognised in the Company statement of financial position as non-current assets. Investments are measured at cost; when impairment indicators exist, the recoverability of the carrying amounts is tested by comparing the carrying amount of each investment with its recoverable amount that is the higher of fair value less costs of disposal and value in use, as defined by IAS 36 *"Impairment of assets"*. In the preparation of the financial statements as of 31 December 2022 the Company recognised impairment losses on investments for a total of euro 20.8 million referred to the subsidiaries De Nora Water Technologies Italy Srl and De Nora Isia Srl. The assessment of the recoverability of the carrying amounts of investments is a key audit matter for the financial statements both in consideration of the relevance of the amount and because of the presence of significant elements of estimation. The correct identification of impairment indicators, as well as estimations to determine the recoverable amount, depend on da subjective evaluations a well as factors that may change over time affecting management's evaluations and estimates.	We performed specific analyses to understand and evaluate internal controls over management's evaluations in this area. We also verified management's analyses for the identification of impairment indicators. Where impairment indicators were identified we obtained an understanding of the valuation criteria adopted by management and verified their consistent application in the process of calculation of the recoverable amount of each investment. We assesses the reasonableness of the assumptions underlying the calculation of the recoverable amount, also through the involvement of experts from the PwC network, verifying the reasonableness of the most relevant financial projections used to determine the future cash flows of the individual investments, the discount rates applied, the definition of the terminal value and the mathematical accuracy of the impairment testing model. Moreover, we performed sensitivity analyses for the most significant assumptions. Finally, we verified the adequacy and completeness of disclosures in the notes to the financial statements.

Responsibilities of the Directors and the Board of Statutory Auditors for the Financial Statements

The directors are responsible for the preparation of financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union, as well as with the regulations issued to implement article 9 of Legislative Decree No. 38/2005 and, in the terms prescribed by law, for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The directors are responsible for assessing the Company's ability to continue as a going concern and, in preparing the financial statements, for the appropriate application of the going concern basis of accounting, and for disclosing matters related to going concern. In preparing the financial statements, the directors use the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

The board of statutory auditors is responsible for overseeing, in the terms prescribed by law, the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of our audit conducted in accordance with International Standards on Auditing (ISA Italia), we exercised our professional judgement and maintained professional scepticism throughout the audit. Furthermore:

- We identified and assessed the risks of material misstatement of the financial statements, whether due to fraud or error; we designed and performed audit procedures responsive to those risks; we obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- We obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control;
- We evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors;
- We concluded on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial

statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- We evaluated the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identified during our audit.

We also provided those charged with governance with a statement that we complied with the regulations and standards on ethics and independence applicable under Italian law and communicated with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate the related risks, or safeguards applied.

From the matters communicated with those charged with governance, we determined those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We described these matters in our auditor's report.

Additional Disclosures required by Article 10 of Regulation (EU) No 537/2014

On 18 February 2022, the general meeting of the shareholders of Industrie De Nora SpA engaged us to perform the statutory audit of the Company's and consolidated financial statements for the years ending 31 December 2022 to 31 December 2030.

We declare that we did not provide any prohibited non-audit services referred to in article 5, paragraph 1, of Regulation (EU) No. 537/2014 and that we remained independent of the Company in conducting the statutory audit.

We confirm that the opinion on the financial statements expressed in this report is consistent with the additional report to the board of statutory auditors, in its capacity as audit committee, prepared pursuant to article 11 of the aforementioned Regulation.

Report on Compliance with other Laws and Regulations

Opinion on compliance with the provisions of Commission Delegated Regulation (EU) 2019/815

The directors of Industrie De Nora SpA are responsible for the application of the provisions of Commission Delegated Regulation (EU) 2019/815 concerning regulatory technical standards on the specification of a single electronic reporting format ESEF - European Single Electronic Format (the "Commission Delegated Regulation") to the financial statements as of 31 December 2022, to be included in the annual report.

We have performed the procedures specified in auditing standard (SA Italia) No. 700B in order to express an opinion on the compliance of the financial statements with the provisions of the Commission Delegated Regulation.
In our opinion, the financial statements as of 31 December 2022 have been prepared in XHTML format in compliance with the provisions of the Commission Delegated Regulation.

Opinion in accordance with Article 14, paragraph 2, letter e), of Legislative Decree No. 39/2010 and Article 123-bis, paragraph 4, of Legislative Decree No. 58/1998

The directors of Industrie De Nora SpA are responsible for preparing a report on operations and a report on the corporate governance and ownership structure of Industrie De Nora SpA as of 31 December 2022, including their consistency with the relevant financial statements and their compliance with the law.
We have performed the procedures required under auditing standard (SA Italia) No. 720B in order to express an opinion on the consistency of the report on operations and of the specific information included in the report on corporate governance and ownership structure referred to in article 123-bis, paragraph 4, of Legislative Decree No. 58/1998, with the financial statements of Industrie De Nora SpA as of 31 December 2022 and on their compliance with the law, as well as to issue a statement on material misstatements, if any.

In our opinion, the report on operations and the specific information included in the report on corporate governance and ownership structure mentioned above are consistent with the financial statements of Industrie De Nora SpA as of 31 December 2022 and are prepared in compliance with the law.

With reference to the statement referred to in article 14, paragraph 2, letter e), of Legislative Decree No. 39/2010, issued on the basis of our knowledge and understanding of the Company and its environment obtained in the course of the audit, we have nothing to report.

Statement in accordance with article 4 of Consob's Regulation implementing Legislative Decree No. 254 of 30 December 2016

The directors of Industrie De Nora SpA are responsible for the preparation of the non-financial statement pursuant to Legislative Decree No. 254 of 30 December 2016.
We have verified that the directors approved the non-financial statement.

Pursuant to article 3, paragraph 10, of Legislative Decree No. 254 of 30 December 2016, the non-financial statement is the subject of a separate statement of compliance issued by ourselves.

Milan, 5 April 2023

PricewaterhouseCoopers SpA

Signed by

Francesco Ronco
(Partner)

As disclosed by the Directors, the accompanying financial statements of Industrie De Nora SpA constitute a non-official version which is not compliant with the provisions of the Commission Delegated Regulation (EU) 2019/815. This independent auditor's report has been translated into the English language solely for the convenience of international readers. Accordingly, only the original text in Italian language is authoritative.

The financial statements of Industrie De Nora S.p.A. and the consolidated financial statements of De Nora group constitute non-official versions which are not compliant with the provisions of the Commission Delegated Regulation (EU) 2019/815.


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