DE NORA

Annual Report 2021

CONTENTS

Dear **Shareholders**,

We submit for your attention the consolidated financial statements of the De Nora Group (the "Group") at December 31, 2021 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, 2021. This report reflects the Company's position and its business performance during 2021, and also presents the outlook for the coming year.
2021 was an extremely positive year for our Group, which reached a new historical record in revenue (€616 million, +116 million compared to 2020), with consequent progress in terms of margins (EBITDA of €121 million, compared to €81 million in the previous year); net of all other income components, 2021 closed with a net profit of over €66 million, substantially doubled compared to 2020.

The Group therefore confirms itself as an international leader in the development, production and sale of innovative products, technologies and solutions for electrochemical processes (Electrode Technologies segment) and for the realization of the Energy Transition (currently included among the business lines of the segment Electrode Technologies), as well as systems and equipment for water treatment and disinfection (Water Technologies segment). In particular, the Group is the most important global supplier of metal electrodes for the chlorine soda market, for the electronics industry as well as for the refining of nickel and cobalt and holds a leading position in the 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 production capacity for the manufacture of electrodes and components for the production of green hydrogen through the alkaline electrolysis of water.

The Group's products and technologies are intended both (i) for new installations or new construction plants ("**New Installations**") and (ii) for periodic maintenance or modernization of existing plants and installations (the "**Services**"). The Services include the replacement, restoration and repair of electrodes, the supply of spare parts, the technological renewal of products and equipment aimed at improving performance, technical assistance in the field and remotely, as well as monitoring and analyses.

The 2022-2025 Business Plan was recently prepared and approved by the parent company's Board of Directors, which captures the Group's further growth potential in every area of business segment; the opportunities are in all the segments that De Nora serves, but in particular in the Energy Transition business.
The expected organic growth will require substantial investments, in the coming years, aimed at expanding production capacity both in the existing plants and in new locations with consequent growth of the Group's employees.

2021 saw the completion of some new acquisitions, most notably:

- 100% of the UV Technologies division from Calgon Carbon Corporation (now De Nora UV Technologies, LLC), in the Water Technologies segment;
- 100% of ISIA S.p.A (now De Nora ISIA S.r.l.), in the Water Technologies segment;
- a minority stake (6.37%) of Azul Energy Inc., in the Electrode Technologies segment.

For a detailed description of the acquired companies, see paragraph 1.5 Strategy and Objectives.

In 2021, the parent company Industrie De Nora S.p.A., acting as Holding Company and playing a central coordinating role for the Group, continued to promote several strategic initiatives illustrated later in this report, aimed at creating value for the company.

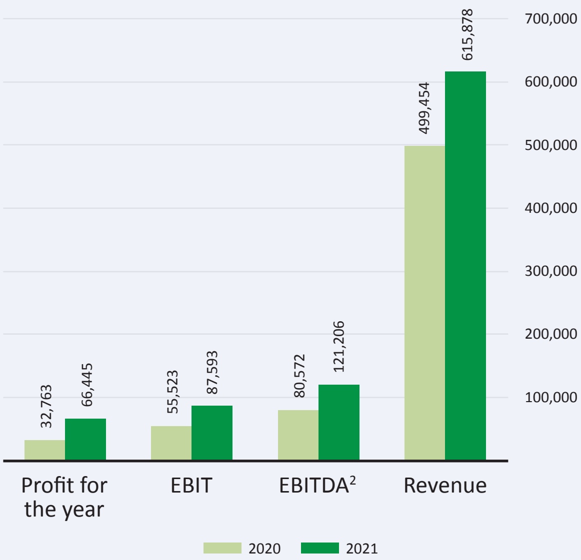
The *joint-venture*[1] with ThyssenKrupp Uhde Chlorine Engineers GmbH (hereinafter "**TK Nucera**") continues with consistently positive results and will continue to be an important driver of development for future programs.

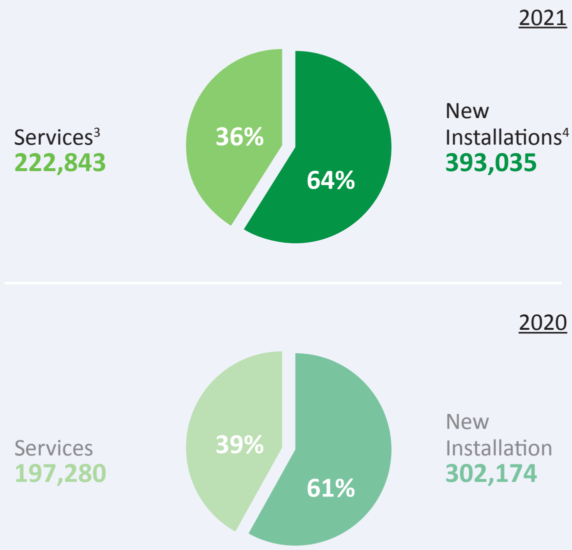
Paolo Dellachà
Chief Executive Officer

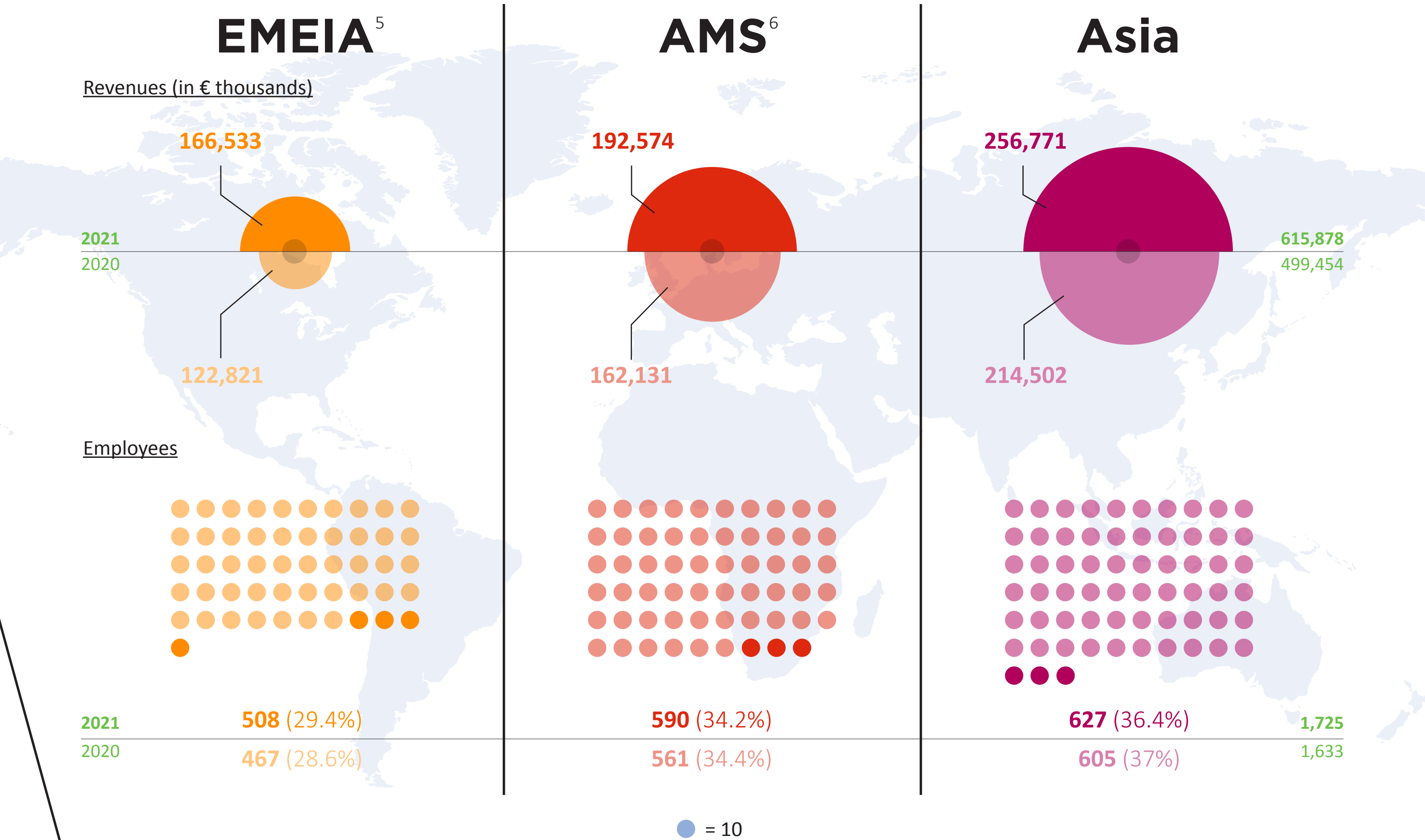
1 - Associated company pursuant to IAS 28 *"Investments in associates and joint ventures"*

De Nora in numbers

2021 VS 2020
(in € thousands)







2 - EBITDA is defined as profit for the year adjusted for the following items in the consolidated income statement: (i) income taxes for the year; (ii) finance expenses; (iii) finance income; (iv) Share of profit of equity-accounted investees; (v) amortization/depreciation; (vi) reinstatement of property, plant and equipment; (vii) write-down of goodwill and for provisions for risks and charges net of the related releases and utilizations, included in the following items of the consolidated income statement: (i) raw materials, consumables, supplies and goods, (ii) personnel costs, (iii) service costs, and (iv) other operating costs

3 - In 2020 called Aftermarket

4 - In 2020 called New Sales

5 - Indicates the following geographical areas: Europe, Middle East, India, Africa

6 - Indicates the following geographic areas: North and South America

Board of Directors

Federico De Nora
(Chairman)
Grandson of the founder, Chairman of Federico De Nora S.p.A. and of the Oronzio and Niccolò De Nora Foundation.

Paolo Dellachà
(Chief Executive Officer)
In De Nora since 2009, appointed CEO in 2010. Member of the Shareholder Board of Directors of ThyssenKrupp Uhde Chlorine Engineers GmbH.

Matteo Lodrini
(Chief Financial Officer)
In De Nora since 2004. Member of the Shareholder Board of Directors of ThyssenKrupp Uhde Chlorine Engineers GmbH.

Marco Alverà
(Non-executive Director)
CEO of Snam and Vice Chairman of the Snam Foundation;
in office since January 2021.

Cosma Panzacchi
(Non-executive Director)
Executive Vice Chairman for Hydrogen of Snam;
in office since January 2021.

Alessandra Pasini
(Non-executive Director)
Chief Financial Officer and Chief International & Business Development Officer of Snam; in office since January 2021.

Simone Arnaboldi
(Non-executive Director)
Founder, Founding Partner and Chief Executive Officer of Arcadia SGR S.p.A.;
in office since 2017.

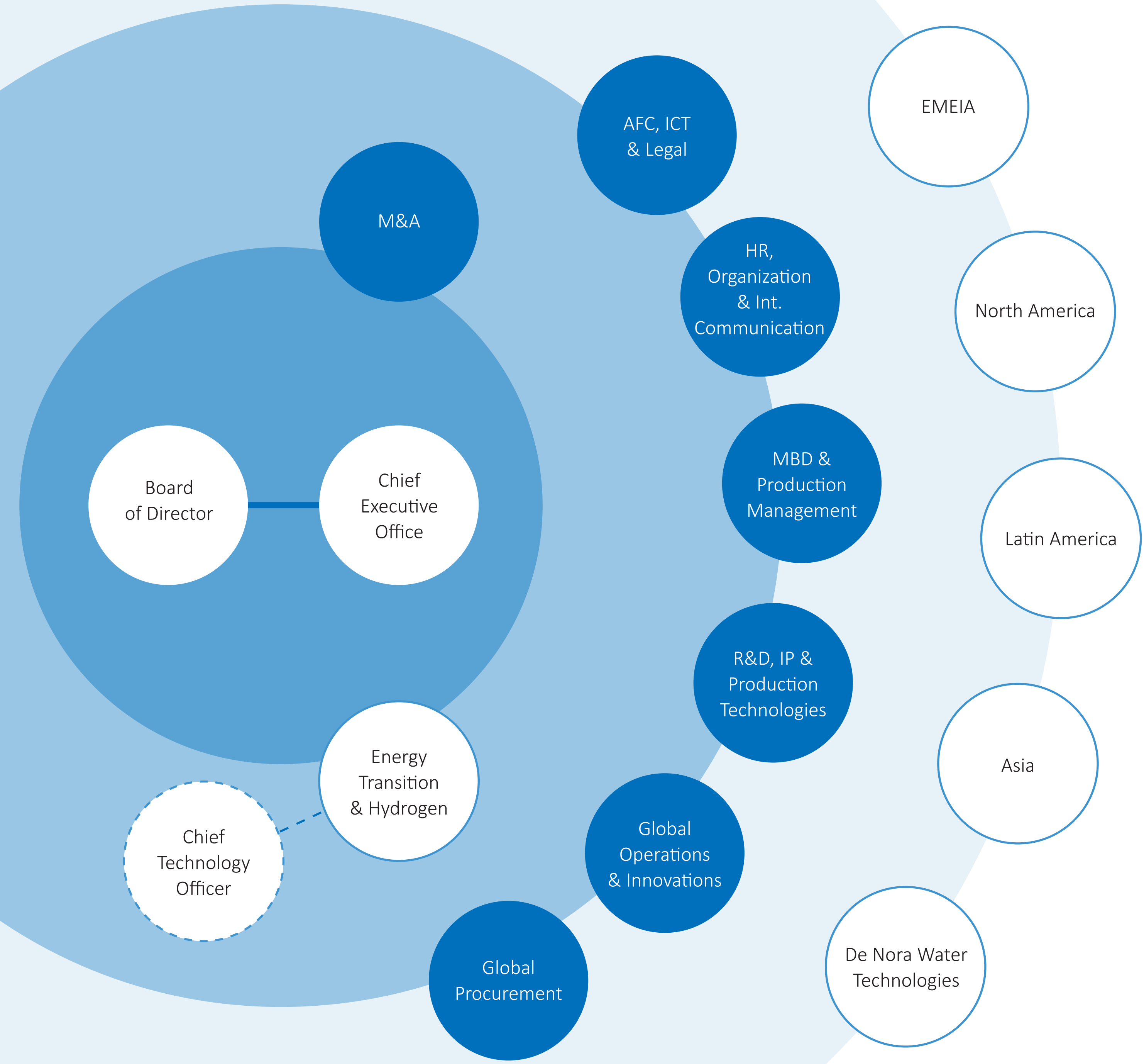
Mario Cesari
(Independent Director)
Executive Vice Chairman, Head of Strategy and MA of TBG;
in office since 2012.

Michelangelo Mantero
(Non-executive Director)
Founding Partner and Sole Director of GenCap Advisory;
in office since 2012.

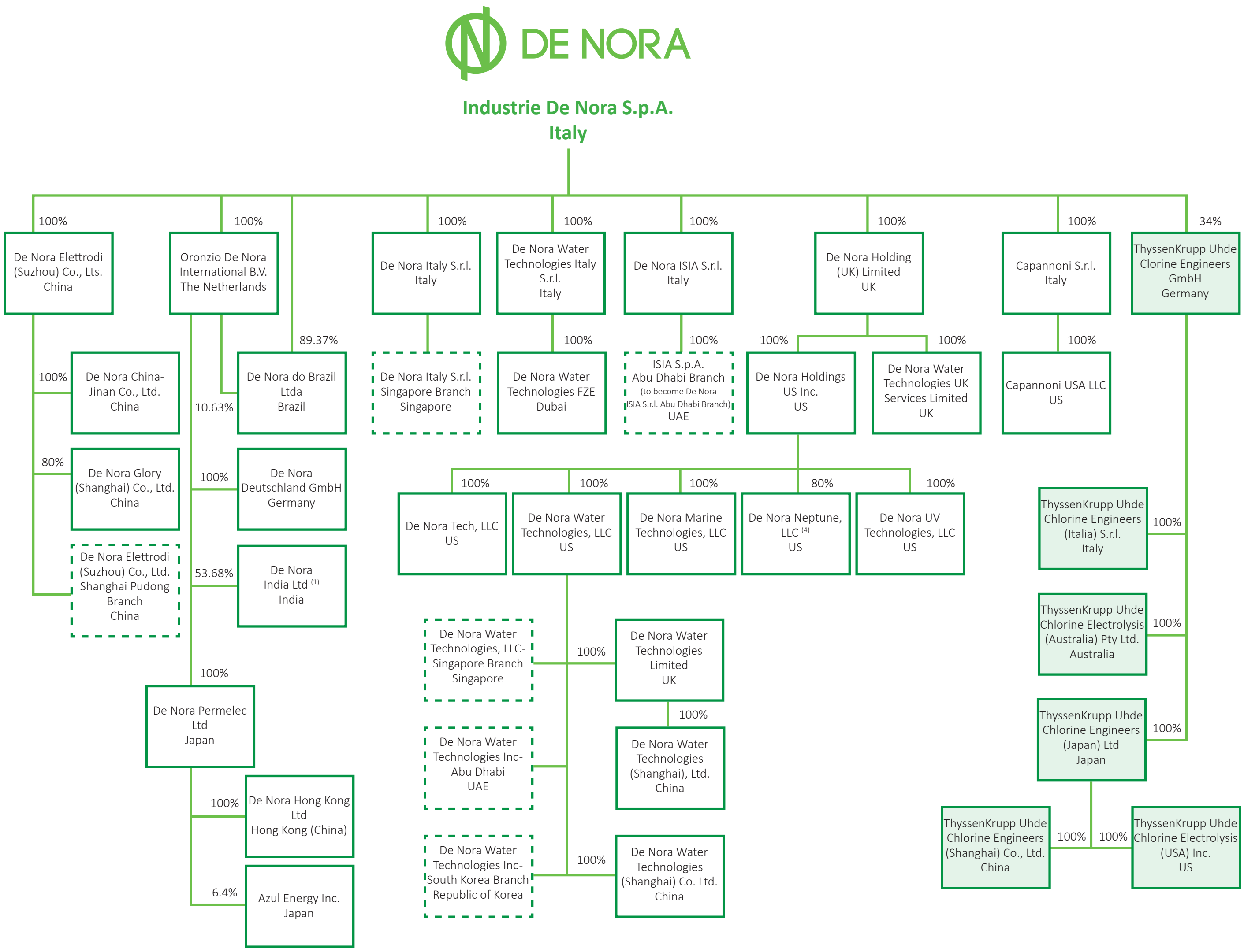
Giovanni Toffoli
(Non-executive Director)
CEO of Adriatica Spa and K-Logistica; Chairman of Agroalimentare Sud and Assofertilizzanti- Federchimica;
in office since 2020.

De Nora Group organizational structure

As of December 31, 2021, the Group is organized into two business segments (Electrode Technologies Business and Water Technologies Business), a function responsible for M&A activities (which also deals with the management of the subsequent integration phase), a recently established task-force, called "Energy Transition & Hydrogen", which is involved in the management of all activities related to the energy transition, and six Corporate functions (AFC, ICT & Legal; HR, Organization & Internal Communication; MBD & Product Management; R&D, IP & Production Technologies; Global Operations & Innovations; and Global Procurement), with the aim of 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 and perform a coordination and control role through the issuing of policies and guidelines aimed at guaranteeing the compliance of the initiatives undertaken at local level with the Group strategy.



Below the Group structure with an indication of the companies belonging to it and the investment held by the parent company, directly or indirectly, in each of them at December 31, 2021.



(1) 46.32% Indian Stock exchange + promoters
(2) 66% ThyssenKrupp Industrial Solution AG
(3) 20% Mr. Bu Bingxin
(4) 20% Biocatters Holding, LLC

Legal entity
Branch office

Directors' report on business performance for the year 2021

DE NORA

1 De Nora Business within the competitive world scenario

1.1. Trends in the Global Economy

The global economy looks weaker than expected in 2022. With the spread of the new Omicron variant of COVID-19, countries have re-imposed restrictions on mobility. Rising energy prices and supply disruptions have led to higher and wider-than-expected inflation, particularly in the United States and many emerging markets and developing economies. The continued downsizing of the Chinese real estate sector and the slower-than-expected recovery in private consumption also limited growth prospects.

Global growth is expected to decline from 5.9% in 2021 to 4.4% in 2022, half a percentage point lower for 2022 than in the October's World Economic Outlook (WEO), largely reflecting the expected declines in the two largest economies. In the US, the downside forecast of 1.2 points is based on the removal of the Build Back Better fiscal policy package, the early withdrawal of more accommodative monetary policies and the continuing shortage of supply. In China, pandemic-induced disruptions linked to zero tolerance policy for COVID-19 and prolonged financial stress among property developers led to a 0.8 percentage point downgrade. Global growth is expected to reach 3.8% in 2023. While this is 0.2 percentage points higher than the previous forecast, the update largely reflects a mechanical recovery after current obstacles to growth will dissipate in the second half of 2022. The prediction is conditional on adverse health outcomes caused by COVID-19 being reduced in most countries by the end of 2022, assuming vaccination rates improve worldwide and therapies become more effective.

The high level of inflation is expected to persist longer than projected in the October 2021 Outlook, with continued supply chain disruptions and high energy prices continuing into 2022. Assuming inflation expectations remain well anchored, inflation is expected to gradually decline as supply/demand imbalances ease in 2022 and monetary policies in major economies respond to this development.

The risks to the global economy still remain high. The emergence of new COVID-19 variants could prolong the pandemic and cause renewed economic disruption. Furthermore, disruptions in the supply chain, volatility in energy prices and localized wage pressures testify that uncertainty about inflation and economic policies is still high. As advanced economies raise official rates, risks may emerge to the financial stability and capital flows, currencies and fiscal positions of developing economies and markets, particularly with debt levels rising significantly in the past two years. Other global risks could crystallise as long as geopolitical tensions remain high and the ongoing climate emergency means that the likelihood of major natural disasters remains high.

With the pandemic continuing to maintain its hold, the emphasis on an effective global health strategy is more important than ever. Worldwide access to vaccines, tests and treatments is essential to reduce the risk of further dangerous COVID-19 variants. This requires more production as well as better delivery systems and fairer international distribution. Monetary policy in many countries will have to continue on a tightening path to curb inflationary pressures, while fiscal policy, operating with a more limited space than at the start of the pandemic, will have to prioritise health and social spending, while focusing on support for those most affected. In this context, international cooperation will be essential to preserve access to liquidity and accelerate debt restructuring where necessary. Investing in climate policies remains imperative to reduce the risk of catastrophic climate change.

1.2. 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	**2021**	**2020**	**2019**	**2021**	**2020**	**2019**
US Dollar	1.1827	1.1422	1.1195	1.1326	1.2271	1.1234
Japanese Yen	129.8767	121.8459	122.0058	130.38	126.49	121.94
Indian Rupee	87.4392	84.6392	78.8361	84.2292	89.6605	80.187
Chinese Yuan Renminbi	7.6282	7.8747	7.7355	7.1942	8.0225	7.8205
Brazilian Real	6.3779	5.8943	4.4134	6.3101	6.3735	4.5157
Pround Sterling (GBP)	0.8596	0.8897	0.8778	0.8402	0.899	0.8508

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 8% in 2021, while the Japanese Yen recorded a devaluation of approximately 3% in 2021. Also impacting, albeit to a lesser extent, was the significant appreciation of the Chinese Yuan Renminbi (+10% approx.) and Sterling (+7% approx.).

1.3. Management of the COVID-19 emergency

During 2021, all Group companies faced the second year of emergency caused by the spread of new variants of COVID-19. The health measures necessary to deal with the pandemic were maintained, from the extension of Remote Working to the readjustment of spaces, with the installation of temperature sensors at the entrance and hand and room disinfection systems, the distribution of masks, as well as the creation of special routes to avoid crowds.
The Group has not been affected in a prolonged way by the economic contraction caused by the COVID-19 pandemic thanks to the diversification of the offer that allows it not to be impacted by the cyclic nature of the sectors of operation of its customers and the end markets for which the marketed products are intended.

The pandemic situation has further strengthened the already present attention to ensuring a resilient supply chain capable of guaranteeing continuity of supply and production of the various Group companies; the goal was achieved thanks to the multiplicity of relationships with the suppliers developed over the years in a "glocal" logic, i.e. by carefully balancing local needs with coordination at central level.

During 2021, several industries, including those from which the Group sources its supplies, experienced- as a result of the continuing global pandemic ofCOVID-19 – an increase in the price of strategic materials, other basic raw materials and advanced strategic components, and a shortage or delay in the supply of electronic materials leading to a rapid increase in prices as well as issues in the supply chain. In order to cope with these difficulties, the Group proceeded with increased purchases of these materials, which then led to an increase in inventories. However, the Group's margins were not affected by the afore-mentioned increase in the cost of strategic components thanks to the ability to transfer this increase to the price charged to customers both thanks to contracts that provide for an automatic price adjustment based on changes in the costs of noble metals and thanks to the work of its sales force.

The rigour imposed by the lockdown, and the inability to travel and visit customers and partners, have forced the Group, also in 2021, to rethink its Marketing & Communication strategy, quickly adapting it to the new situation. The results were a major acceleration of digital transformation and initiatives aimed at social channels, supported by the adoption of new marketing methodologies and related software.

On the Information and Communications Technology (ICT) front, actions were taken aimed at the continuous improvement of the network infrastructures in order to guarantee the stability and reliability of the connectivity and productivity tools supporting Remote Working. Cloud adoption initiatives continued with a view to greater resilience, innovation and standardization of technologies supporting the business. At the same time, on the cyber security front, the controls and measures to mitigate the risks associated with remote work and, more generally, to protect the corporate information assets were strengthened. Finally, in 2021, remote operations were also set up for the following companies which had their headquarters relocated (De Nora China-Jinan Co., Ltd.- De Nora Water Technologies UK Services Limited) and guaranteed the continuity of services during the acquisition of the companies ISIA S.r.l. and De Nora UV Technologies, LLC.
Given the protraction of the pandemic situation, the Group continued to offer support services for the health and psycho-physical well-being of its personnel, in line with the People Strategy pillar relating to Well-being, providing anonymous and free psychological support to colleagues in Germany and Italy.

Finally, following are some initiatives implemented by the individual Group companies:

- in Brazil, Covid tests were made available for employees with symptoms;
- in China disinfections were carried out with hypochlorite of own production, at least twice a day;
- in Germany, access to the company was allowed only to personnel vaccinated, recovered from COVID-19 or with a negative test, (only the first two cases were given access to the canteen) and vaccinations for COVID-19 were offered to employees;
- in Japan, the initiatives concerned:
  - mass slot booking to facilitate employee vaccination access without using time off permits to be vaccinated;
  - purchase of Covid tests for employees considered to be at high risk of infection and mass tests in the most critical periods of the infection;
- in Italy the initiatives were as follows:
  - constant adjustment of the safety protocols adopted by the work group consisting of: Head of the Prevention and Protection Service, HR Manager, On-site Doctor, Data Protection Officer);
  - temperature control and green pass at the entrance to the sites;
  - distancing and protection of the workstations and canteen tables with plexiglass panels;
  - distribution of masks (surgical and FFP2);
  - in case of ascertained positivity of an employee present in the company, local disinfection of the office, tracking of close contacts and precautionary Remote Work for monitoring purposes;
  - extension of Remote Work up to five days a week in times of epidemic peak;
  - smart@work training class and access to the Mindwork platform | Online psychologist (5 online meetings with a therapist of your choice), for psychological support and mental well-being;
  - closures of the canteen for visitors/external staff.

- in Singapore, access to the offices was granted on a second rotation basis and only if in possession of a negative test;
- In the United States, an incentive campaign was set up to motivate vaccination and Covid Committees were created to constantly communicate with employees, including through virtual events.

In conclusion, human capital, consolidated relationships, flexibility, effective implementation of the manufacturing strategy and investment policies, have enabled the Group to limit the impact of the pandemic in 2021.

1.4. Reference markets for the Group

The characteristics of the reference markets for the Group and the developments observed in them in the year just ended are reported below.

Electrode Technologies Segment

Chlor-alkali

Chlorine is produced through the electrolysis of aqueous solutions of sodium chloride, and the manufacturing industry is one of the major fields of application of the electrodes produced by the Group. Sodium hydroxide (caustic soda) is a natural co-product of the electrolysis reaction, for this reason this industry is commonly referred to as chlor-alkali.
Chlorine and caustic soda, and their derivatives are basic products necessary for the most important chemical industries, whose products are

intended for various applications and industrial sectors.
Within the chlor-alkali industry, the reference market for the Group is that of electrodes and electrolysers, key components of production plants.
The market for electrodes for the chlor-alkali industry is relatively mature; due to the limited increase in new installed capacity, it is mainly characterized by service activities consisting of periodic maintenance or replacement of the electrodes. In 2021 there was an increase in the value of the electrode market connected with services, mainly supported by a price increase following a significant increase in the cost of raw materials. Volumes, on the other hand, remained substantially stable.

Electronics

The world electronics market is a vast and complex sector with a value that exceeded USD 2.4 trillion in 2021 and includes a significant number of industries, the main ones being the IT, communications and automotive industries, which collectively make up about 65% of the global market.
The reference markets for the Group are represented by: (i) the production of electrolytic copper sheets (copper foil), a basic raw material mainly used for the production of printed circuits and lithium batteries, (ii) electrochemical copper plating holes in printed circuit boards (PCB) and in particular those with high interconnection density (HDI). Both reference markets recorded a positive growth trend in 2021, with an increase in volumes supported by the demand of the final sectors, and an increase in value favoured by the increase in prices.

Electrolytic refining of non-ferrous metals (Electrowinning)

The electrolytic refining market is based on the electrodeposition process of non-ferrous metals to eliminate residual impurities still present in them after the extraction process with solvents, 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 2021, the demand for insoluble electrodes was driven by service activities related to existing installations whose value was positively impacted by the increase in prices.

Energy Transition

Hydrogen has some important qualities that will allow it to play a central role in reducing global carbon dioxide emissions. Currently hydrogen already has widespread use in refineries and in the chemical industry, but it is produced from fossil sources and therefore with a high impact on emissions. Thanks to the gradual transition to renewable sources, hydrogen can be produced in an ecological way (the so-called green hydrogen, without emissions). Green hydrogen is expected to play a fundamental role for the decarbonization of industries that currently use hydrogen as raw material, and for those sectors where there are currently no economically competitive energy alternatives and/or where electrification direct is not feasible.

There are four main methodologies to produce green hydrogen: atmospheric or pressurized alkaline electrolysis ("AWE"), proton polymer membrane electrolysis ("PEM"), solid oxide electrolysis ("SOEC") and anionic polymer membrane electrolysis (AEM). All four methods are based on electrolysis of water, and the main differences arise from the type of electrolyte used and the reaction conditions. The four technologies also differ in the level of development achieved and their commercial maturity.

In particular, 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).
In 2020, the global hydrogen market was around 90Mton, mainly used by the chemical industry, refineries and steel production. Currently, most of the hydrogen produced is grey hydrogen, about 89% in 2020, while blue hydrogen represents 10% and green hydrogen only 1%.
Thanks to the multiple applications of hydrogen, and the fact that green hydrogen represents a fundamental element to achieve the goals of zero net emissions, in 2050 an annual production of hydrogen of over 500 Mton is expected (CAGR 2020-50 equal to about 6% per year) and green hydrogen is expected to represent over 60% of total hydrogen, with about 320 Mton and about 2,000 GW installed.
Geographically, Europe is expected to be a key region for green hydrogen production in the short term, accounting for around 40% of demand in 2025. In the medium and long term, other regions will develop green hydrogen production on a large scale, in particular the Middle East, North Africa, Australia and China, exploiting, among other factors, the natural/

geographical competitive advantage of the low cost of energy from renewable sources.

As of November 2021, around 520 hydrogen projects have been announced globally, confirming the development and inertia of this sector. In particular, some of the most important projects are represented by NEOM in Saudi Arabia which provides for the annual generation of about 1.2 Mton/year of green ammonia, Hydrogen Holland I promoted by Shell with an expected capacity of 200 MW, BP Green Hydrogen in Holland which forecasts an installed capacity of approximately 250 MW and the Green HydroChem project in Germany with an installed capacity of 140 MW.
Regarding the development of hydrogen in the various end markets, the chemical and refinery sectors will represent the main end markets in the short term until 2025. Over the years, particularly from 2030 onwards, new markets are expected to emerge that will use hydrogen as a carrier rather than as a raw material, such as the transport sector (both air, land and sea) and the energy one.

In terms of technology, AWE is expected to remain the key technology over the medium term, accounting for more than 50% of installations up to 2050 and more than 60% up to 2040, with PEM as the key alternative if prices related to this manufacturing technology were to be significantly reduced.

De Nora's business model today provides for the supply of high-quality electrodes and cell components produced on a large scale. It is also expected that in the medium term, the company will also become a supplier of electrolysers and systems, thus expanding its scope of supply. Some of the Group's main direct competitors in this market compete through the supply of electrodes and cell components only, but on a smaller scale than the Group. Competitors operating on a large scale are mainly system suppliers and/or companies that also offer EPC (Engineering Procurement Constructor) services, but with a lower level of specialization. The Group competes with these companies mainly through the TK Nucera joint venture.

Markets pertaining to the Water Technologies segment

Water Technologies

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.

The main reference market for De Nora is represented by in-ground residential swimming pools, which in 2021 were estimated at around 10.3 million worldwide.
Although the most common method of disinfecting swimming pool water is based on the use of chemical products with biocidal action, mostly based on chlorine, electrochlorinators are increasingly appreciated for their effectiveness, ease of use and for the benefits they offer. Overall, in 2021, the electrochlorinators market was estimated at 1.1 million units.
This business, also in 2021, was favoured by a combination of demand for salt chlorinators resulting from the construction of new swimming pools, the conversion of existing swimming pools from traditional chlorination systems to electrochlorination systems, and the periodic maintenance of systems already in place.

Electrochlorination

The availability of water with certain chemical and physical characteristics is a critical factor for many industrial sectors. Disinfection processes are therefore an essential step for the treatment of the water used in the various processes, for their reuse and for their discharge into the network, in compliance with the applicable legislation. Of the disinfection processes, chlorination is the most common.
In 2021 the industrial chlorination market was estimated at €1.7 billion and investments are attributable for about 60% to the use of chlorine gas, about 30% to the use of sodium hypochlorite marketed in aqueous solutions and 10% to electrochemical technologies for the production of hypochlorite on site.
Although chlorine in gaseous form is the most common disinfection method in industrial plants, followed by the use of hypochlorite (bleach) solutions, on-site hypochlorite generation technologies are increasingly favoured mainly for logistical reasons.

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.
In 2021, the global municipal market for the Group's reference disinfection and filtration technologies was estimated at €6.1 billion. In particular, the global market for disinfection technologies in the public sector was estimated at €4.9 billion. Chlorination is the most popular disinfection method and in 2021 it is estimated to have accounted for 67% of the market, followed by UV and ozone technologies. In 2021,

the global market of reference for the Group of filtration technologies in the municipal sector was estimated at €1.2 billion, 70% represented by biological filters, the most widespread filtration method, and the remaining 30% by media or filter media.
Market demand is driven by population growth and urbanization, climate change phenomena and increasingly stringent regulations.

Marine Technologies

The Group serves the marine market by offering solutions for the treatment of ballast water and wastewater (grey and black) based on electrochemical and UV technologies.
In order to stabilise cargo ships by compensating for weight variations and reducing mechanical stresses during low-load navigation, seawater is introduced into the ballast tanks. To preserve marine biodiversity, regulations are in place that require that ballast water, before being discharged, be properly treated through systems that include disinfection processes.
In 2021, the global market for ballast water treatment technologies was estimated at €1.2 billion.
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).

1.5. 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.

Seizing 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.

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 by benefiting from a wide technological offer and know-how deriving from the consolidated electrodes business; 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 its portfolio.
Furthermore, the Group intends to continue investing in the development of new solutions (electrodes and catalysts) aimed at alternative hydrogen generation technologies to alkaline electrolysis such as PEM and AEM, which are considered extremely interesting but which, at present, are not ready to enter massively in the market. In addition, the Group intends to continue investing in the development and marketing of electrolytic systems, planning future expansions in geographic areas where sustained growth in demand is expected.

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.
In particular, the Group intends to develop (i) innovative and sustainable electrodes, which allow further reductions in energy consumption and a longer duration of performance for application in the chlor-alkali and electronics industries; and (ii) new anodic configurations for the electrochemical refining of non-ferrous metals and primary copper extracted from mines (so-called electrowinning) in order to be able to seize the opportunities of this sector. Finally, with reference to the Services business, the Group intends to continue to focus on preserving relationships with its customers, looking at new business mo-

dels aimed at the continuous generation of value (from the research and development phase to that of after-sales services).

Water Technologies

In the Water Technologies business, the Group intends to maintain its strong 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. Furthermore, the Group intends to continue expanding its business in the municipal and industrial sector by making use of a renewed technological portfolio and by selectively penetrating new markets and geographic areas. Finally, the Group intends to seize new business opportunities determined by the emergence of new contaminants and supported by a tightening of the regulatory framework in terms of the treatment and reuse of drinking and wastewater.

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".

During the year, the acquisitions of the entire share capital of Calgon Carbon UV Technologies LLC and ISIA S.p.A. in the Water Technologies area were completed, as well as the acquisition of a minority stake (6.37%) of Azul Energy Inc. (in the Electrode Technologies segment).

A brief description of the three acquisitions is provided below:

- UV Techologies Division of **Calgon Carbon UV Technologies LLC** (now De Nora UV Technologies, LLC, hereinafter "DNUV") is an American company operating in municipal and industrial water treatment using UV technology, through the brands RAYOX, SENTINEL and C3 SERIES, as well as ballast water treatment under the Hyde Marine brand. DNUV has introduced one of the first UV systems with advanced oxidation processes (AOP) to the market. UV AOP technology is capable of treating various contaminants that cannot be easily removed using other technologies. The acquisition will allow De Nora to accelerate global efforts to combat these emerging contaminants (CECs) and so-called "forever chemicals" that are increasingly found in water supplies alongside its Capital Controls® ozone-based AOP solutions. In the marine market, DNUV's Hyde Marine technology helps prevent invasive living species from dispersing into new habitats through ballast water transported by merchant ships. In fact, the acquisition brings ballast water treatment with UV technology to the De Nora portfolio. Combined with the proprietary BALPURE® (EC electrochlorination) technology developed by De Nora, the De Nora Group becomes one of the few global players to offer UV and EC technologies in the marine market, which is key to meeting the significant demand for technologies and to comply with the requirements of the International Maritime Organization's (IMO) Ballast Water Management Convention (BWMC).

- **ISIA S.p.A.** (now De Nora ISIA S.r.l.) is an Italian company that offers solutions in the municipal and industrial water treatment market using chlorine dioxide technology. Since 2000, the Company has acquired an in-depth expertise in the design, construction, start-up and field assistance of industrial plants, process control and automation. This acquisition represents an important opportunity for De Nora to strengthen a technology portfolio that includes gas feed technologies, instrumentation, on-site chlorine and sodium hypochlorite generation, ozone and chlorine dioxide. The patented technology (submerged reactor) and the process management expertise of ISIA complete the line of products for the generation of chlorine dioxide of De Nora Capital Controls®.

- **Azul Energy Inc.** is a Japanese start-up company focused on the development of alternative catalysts to noble metals. De Nora participated in the company's funding and has executed a research and development agreement aimed at creating a sustainable and performing alternative to catalytic solutions based on noble metals.

The Group intends to continue to have a flexible approach to the growth strategy by external lines, expanding and consolidating its presence in the markets considered strategic, through a 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.
In particular, with reference to the Electrodes Technologies Business, the Group intends to establish new commercial partnerships in the metal refining sector while, with reference to the Water Technologies Business, the Group aims to expand its product portfolio with the launch of systems advanced filtration and disinfection (to be used with wastewater and/or industrial) as well as an offer of digital products and services.

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 remain among the Group's top priorities.

The main strategic initiatives that characterized 2021 are illustrated below.

In the context of **Business Development**, activities to promote growth in revenue within the electrodes sector continue to focus on developing new business opportunities in the energy transition and metal refining sectors. In 2021, the Group also 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 the 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 2021 were:

- optimization of the new website, aimed at improving its indexing and positioning on the main search engines;
- optimization of the positioning of the Group on social media, in particular on LinkedIn, which led it to increase its number of followers to 30,139 (+105% compared to 2020).
- 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 2021, 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 digitization and sustainability.

In 2021, there was an increase in ideas generated equal to +47% compared to 2020 and a growing participation by employees (+48% compared to 2020).

In terms of **digitization**, various activities were promoted aimed at improving internal processes; some examples are the use of virtual reality methods to carry out safety courses and the development of an automated sensor system to optimize the production process in the Cologno Monzese plant.

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 consolidation of the **Central Procurement** function, the Group's reference point for the purchase of strategic materials, which continues to pursue its objective of an evergreater centralization of the management of raw materials and key components, 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 2021 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", has resulted in the early involvement of procurement in the processes of innovation design and product review. 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 Electrodes and Water areas;
- in the creation of a community that favours the exchange of information beetween the companies of the Group;
- in establishing a common purchasing culture thanks to training courses extended globally.

In any case, the attention paid to:

- 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 main companies of the Group continue to take forward their action plans, 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 has produced very satisfactory results, with an improvement of more than 80% in the KPIs taken into account compared to 2020. The Group expects to achieve its objectives in the short to medium term. Many of the Lean tools such as 5S, Shop Floor Management, Standard Operating Procedures, structured problem-solving methods, are now widely used by the company staff. In the next few years, the introduction of TPM (Total Productive Maintenance) is also planned, aimed at improving Overall Equipment Efficiency. A TPM pilot project carried out in Cologno plant has shown great potential in improving the efficient use of machines by minimising downtime and traditional maintenance activities.
In the areas of Sales and Operation Planning (S&OP) and Data Driven Culture, a Supply Chain Transformation project was launched which in about three years will take the company to have an Integrated Business Plan (IBP) process in all the Group's plants. At the same time, the activities for monitoring and improving the quality of the data contained in the ERP system were strengthened. The ERP will constitute the database from which the new IBP system will draw to make projections of production capacity, plan the purchases of raw materials and plan production. During 2021, the operating models for each plant were defined and pilot projects were launched to test the model; it is expected shortly to have two production plants that will use the IBP model.

To adequately support the growth of the business and the use of **Information Systems** in a safe and secure environment, in 2021 De Nora has created the new Cybersecurity function, dedicating specialized resources to the protection of networks, data and intellectual property.
The new function, following the analysis of the main characteristics of the Company and the status of the Cybersecurity measures adopted, has defined a number of initiatives for the overall improvement of the corporate security structure. These initiatives will allow, on the one hand, to increase corporate defences and, on the other, to structure Cybersecurity governance in step with the evolution of attack technologies and tactics so as to promptly adapt the defence strategy. All this taking into account the compliance requirements defined by laws and regulations applicable locally by all the subsidiaries of the De Nora Group.

The growth of Cybersecurity will simultaneously affect several aspects, favouring the setting up of homogeneous solutions at Group level: strengthening the protection of the logical perimeter of the network with a new solution for the entire Group, overall monitoring of the security status based on an integrated vision Asset Management, extending the controls for remote access to operating technology environments, adopting shared encryption and monitoring technologies for the protection of data confidentiality, and finally training and increasing the awareness of the employees on the importance of IT security. These are some of the main interventions that will be implemented in 2022.

In 2021, the project to extend the ERP systems to subsidiaries continued. In particular, the De Nora Group has completed the go-live of the new SAP S/4HANA solution within its Water Technologies division companies in Milan and Venice, Abu Dhabi and Dubai, and Singapore.

In terms of **Organization**, the People Strategy 2021-2023 was launched, which defines the 5 pillars for the development of activities in support of our present and future resources: People Development, Communication reputation & networking, HR analytics, processes, digitalization & agile, Diversity Equality and Inclusion (DEI), Well-being and happiness pursuit.
Among other projects, as part of the HR analytics, processes, digitalization & agile pillar, 2021 saw the extension to the industrial population of the HR processes already in place for some years on the white-collar population, as well as the continuous improvement and digitalization of those existing.

- Target Assignment and Performance Assessment were carried out for the first time by all employees;
- the Competence Assessment process was defined and extended also to Industrial Technicians, taking into account the needs and peculiarities of this population;
- the onboarding process has been strengthened;
- strengthening of safeguards in favour of Diversity, Equity and Inclusion in the Recruiting process;
- implementation of two Pilot projects, aimed at applying and defining “Agile” methodologies for greater effectiveness and fluidity of processes and working methods;
- analysis and definition, together with the local management, of the strategies to support the increase in personnel expected for the following years;
- definition of a dashboard for monitoring the main demographic KPIs and identification of corrective actions.

The growing importance of Digitalization is welcomed in the day by day and in the definition of processes that can be more and more efficient. The main activities in this area were:

- start of implementation on SAP-SuccessFactors of three new modules relating to Recruiting, Onboarding and Learning processes, to complete the digital HR platform;
- launch of a project to rethink the company portal to improve user involvement and use;
- expansion of the catalogue of courses available on the De Nora Academy, also in anticipation of the passage of the platform to SuccessFactors;
- definition of a policy for the governance of the Microsoft Teams communication channel, an increasingly necessary need given the increasingly hybrid way of working;
- redefinition of the layout of the company newsletter, and creation of the latest edition also in a podcast version.

The HR team, in collaboration with the Marketing and Business Development function, also developed the following:

- Social Media Policy which includes recommendations for all employees, and an emergency management plan;
- Advocacy Campaign with tips for improving colleagues' social profiles.

2 Business Performance

2.1. Comments on the economic and financial results of the Group

Revenues for the year amounted to €616 million, of which approximately €358 million was attributable to the Electrode Technologies segment and approximately €258 million to the Water Technologies segment,

with an overall increase of 23% compared to €499 million in 2020. At constant exchange rates, the Group's revenues would even amount to €630 million.

EBITDA reached €121.2 million, compared to €80.6 million in 2020 (+50%);

Similarly, the operating result, equal to **€87.6 million**, recorded an increase of 58% compared to the previous year.
The share of profit of investments, valued at equity, referring to the 34% stake in TK Nucera, stood at €8.8 million, approximately €5 million more than in the previous year.

Financial operations showed net expenses of €2.9 million, significantly lower than the net expenses of €15.3 million in the previous year; this is mainly due to the better net balance between foreign exchange income and expenses, the absence in 2021 of financial expenses related to the liability recognized against the put-option by the parent company towards the previous minority shareholder (Blackstone Group) and lower interest expenses on loans, also as a result of the different mix between short- and long-term loans.

After current and deferred income taxes, which together totalled €27.1 million (compared with €11.5 million in 2020), the year closed with a net profit (portion pertaining to the Parent Company) of €66.7 million, basically doubled compared with the €32.6 million of the comparison year.

At the statement of financial position level, net invested capital of €643 million (+€135 million compared to the end of 2020) corresponds to shareholders' equity of €454 million (€41 million more than on December 31, 2020) and net financial indebtedness of approximately €189 million (€94 million more than at the end of 2020).

The increase in net invested capital is mainly attributable to the net working capital which, at the end of 2021, amounted to €324 million, an increase of €156 million compared to the end of 2020, essentially due to the strong increase in inventories, which was mainly affected by the sudden increase in the purchase prices of raw materials.
Equity increased due to the recognition of the net result and the capital increase carried out during the year by the parent company for €18.1 million, increases partially offset by the distribution of dividends for a total of €60 million.

Following the above, in addition to the investments made by the Group in property, plant and equipment and intangible assets, for which reference should be made to the following paragraph "Investments of the Group", the net financial indebtedness at the end of 2021 reached the €189 million, of which approximately €263 million represented by gross financial debt, net of approximately €74 million of cash, cash equivalents and other current financial assets.

2.2. 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, 2021 and 2020:

(in thousands of Euros, with the exception of percentages)	As December 31			
	2021	% of total investments	**2020**	% of total investments
Buildings	1,406	4.1%	482	1.6%
Plants and machinery	5,267	15.4%	2,933	10.0%
Other assets	864	2.5%	581	2.0%
Leased assets	1,261	3.7%	664	2.3%
Rights of use of Property, Plant and Equipment:	3,277	9.6%	1,745	6.0%
- of which Buildings	*3,017*	*8.8%*	*854*	*2.9%*
- of which other assets	*260*	*0.8%*	*891*	*3.0%*
Assets under construction and advance payments	15,108	44.1%	14,751	50.3%
Total Property, Plant and Equipment	**27,183**	**79.3%**	**21,156**	**72.2%**
Goodwill	-	0.0%	152	0.5%
Industrial patents and intellectual property rights	398	1.2%	624	2.1%
Concessions, licences and trademarks	1,228	3.6%	1,243	4.2%
Development costs	82	0.2%	189	0.6%
Other	-	0.0%	3,450	11.8%
Assets under construction and advance payments	5,375	15.7%	2,493	8.5%
Total Intangible assets	**7,083**	**20.7%**	**8,151**	**27.8%**
Total investments	**34,267**	**100.0%**	**29,307**	**100.0%**

In the period under review, the Group made investments for a total of €34,267 thousand, of which €27,183 thousand relating to property, plant and equipment and €7,083 thousand relating to intangible assets. Investments in property, plant and equipment included increases in the rights of use of property, plant and machinery equal to €3,277 thousand and €1,745 thousand, respectively in the financial years ended December 31, 2021 and 2020. 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 year ended December 31, 2021, excluding increases in the rights of use of property, plant and equipment, amounted to a total of €23,906 thousand and mainly refer to:

(i) leased assets for €1,261 thousand related to leased anodes within the Electrode Technologies business segment;
(ii) buildings for €1,406 thousand;
(iii) plant and machinery for €5,267 thousand related to the following: (i) for €3,405 thousand to the production plant located in Germany of which €1,918 thousand related to a new laser cutting machine; (ii) for €1,123 thousand to mobile units for the fracking activity and (iii) for the remaining part to new investments and extraordinary maintenance activities on various production plants and to laboratory equipment for Research and Development activities in Italy;
(iv) assets in progress for €15,108 thousand related to the following: (i) for €6,340 thousand to leased anodes within the Electrode Technologies business segment; (ii) for €6,259 thousand for plant and machinery mainly related to laboratory equipment for Research and Development in Italy and molds, and for prototypes and small plants for alkaline water electrolysis technology (AWE) within the emerging Energy Transition business, to the equipping of the new production plant located in the United States and to new investments and extraordinary maintenance on existing plants and machinery mainly in Japan, Brazil, Germany and Italy; and (iii) for €2,171 thousand to buildings used by the companies of the Group.

Investments in intangible assets

Investments in intangible assets for the year ended December 31, 2021 amounted to €7,083 thousand and mainly refer to:

(i) industrial patent rights and intellectual property rights for €398 thousand, mainly attributable to the registration and acquisition of industrial patents in Italy;
(ii) concessions, licenses and trademarks for €1,228 thousand, mainly relating to the implementation of SAP and other ICT systems;
(iii) other intangible assets €82 thousand relating to product revitalization activities in the Water Technologies business segment;
(iv) intangible assets under construction at December 31, 2021 for €5,375 thousand, related to the following: (i) for €395 thousand to industrial patent rights and intellectual property rights, (ii) for €3,774 thousand to Other intangible assets mainly concerning costs for product development in the Water Technologies business segment, of which €1,062 thousand to the marine technologies line; and (iii) for €1,206 thousand to other intangible assets for the implementation of the SAP and other ICT systems.

2.3. Consolidated Income Statement, Reclassified

	For the year ended December 31,			
(in € thousands)	2021		2020	
Revenue	615,878	94.0%	499,454	97.1%
Change in inventory of finished goods and work in progress	35,324	5.4%	8,038	1.6%
Other income	4,009	0.6%	6,840	1.3%
VALUE OF PRODUCTION	**655,211**	**100%**	**514,332**	**100%**
Material Consumption	(290,977)	(44.4%)	(216,217)	(42.0%)
Personnel costs	(116,769)	(17.8%)	(106,586)	(20.7%)
External services	(116,415)	(17.8%)	(99,370)	(19.3%)
Other operating expenses/income	(9,845)	(1.5%)	(11,586)	(2.3%)
EBITDA*	**121,206**	**18.5%**	**80,572**	**15.7%**
Amortization of intangible assets	(9,726)	(1.5%)	(10,703)	(2.1%)
Depreciation of property, plant and equipment	(16,508)	(2.5%)	(15,772)	(3.1%)
Write-downs, provisions and releases of provisions for risks	(4,432)	(0.7%)	628	0.1%
Impairment and write-backs	(2,947)	(0.4%)	798	0.2%
Operating profit (EBIT)	**87,593**	**13.4%**	**55,523**	**10.8%**
Share of profit of equity-accounted investees	8,834	1.3%	3,991	0.8%
Finance income	13,456	2.1%	8,626	1.7%
Finance expenses	(16,330)	(2.5%)	(23,886)	(4.6%)
Profit before tax	**93,553**	**14.3%**	**44,254**	**8.6%**
Income taxes	(27,108)	(4.1%)	(11,491)	(2.2%)
Result of ongoing operating activities	**66,445**	**10.1%**	**32,763**	**6.4%**
Profit (loss) from discontinued operations/assets held for sale	-	0.0%	-	0.0%
Profit for the period	**66,445**	**10.1%**	**32,763**	**6.4%**

Attributable to:	2021		2020	
Owners of the parent	66,696	10.2%	32,634	6.3%
Non-controlling interests	(251)	0.0%	129	0.0%

* EBITDA is defined as the adjusted profit for the year for the following items of the consolidated income statement: (i) income taxes for the year; (ii) financial charges; (iii) finance income; (iv) Share of profit of equity-accounted investees (v) Amortization/ Depreciation; (vi) reinstatement of property, plant and equipment; (vii) write-down of goodwill and for 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 good, (ii) personnel expense, (iii) costs for services, and (iv) other operating costs

2.4. Consolidated Statement of Financial Position

	As of December 31,					
(in € thousands)	2021		2020		2019	
Trade receivables	139,974		90,905		92,975	
Trade payables	(61,425)		(46,879)		(53,678)	
Inventory	233,033		116,182		121,460	
Construction contracts, net of progress payments and advances	12,351		7,594		18,004	
Net Operating Working Capital	**323,933**	**50.4%**	**167,802**	**33.0%**	**178,761**	**32.7%**
Other current assets/(liabilities)	(69,641)		(37,202)		(29,520)	
Net Working Capital	**254,292**	**39.6%**	**130,600**	**25.7%**	**149,241**	**27.3%**
Goodwill and intangible assets	132,805		131,081		143,647	
Property, plant and equipment	167,627		153,896		156,046	
Equity-accounted investees	121,785		111,572		125,541	
Non current assets	**422,217**	**65.7%**	**396,549**	**78.1%**	**425,234**	**77.9%**
Employee benefits	(26,036)	(4.1)	(27,180)	(5.4)	(33,990)	(6.2)
Provisions for risks and changes	(21,105)	(3.3)	(10,740)	(2.1)	(11,427)	(2.1)
Deferred tax assets/ (liabilities)	154	0.0	(197)	(0.0)	(1,169)	(0.2)
Other non current assets/(liabilities)	13,266	2.1	18,857	3.7	18,163	3.3
NET INVESTED CAPITAL	**642,788**	**100.0%**	**507,889**	**100.0%**	**546,052**	**100.0%**
Covered by:						
Medium/long term financial debt	(3,784)		(154,755)		(344,763)	
Short-term financial debt	(258,449)		(17,274)		(996)	
Financial assets and derivatives	478		482		2,996	
Cash and cash equivalents	73,843		75,658		55,589	
NET FINANCIAL INDEBTENESS - ESMA *	**(187,912)**	**(29.2%)**	**(95,889)**	**(18.9%)**	**(287,174)**	**(52.6%)**
Fair value of financial instruments	(914)		1,118		497	
NET FINANCIAL INDEBTENESS - DE NORA**	**(188,826)**	**(29.4%)**	**(94,771)**	**(18.7%)**	**(286,677)**	**(52.5%)**
Equity attributable to minority interests	(3,503)	(0.5)	(3,546)	(0.7)	(3,798)	(0.7)
Equity attributable to the Parent	(450,459)	(70.1)	(409,572)	(80.6)	(255,577)	(46.8)
TOTAL EQUITY AND MINORITY INTERESTS	**(642,788)**	**(100.0%)**	**(507,889)**	**(100.0%)**	**(546,052)**	**(100.0%)**

* The 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 the Net Financial Indebtedness- ESMA due to the inclusion of the fair value of the financial instruments subscribed for the purpose of hedging the fluctuation of exchange rates

2.5. 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.

The Company closed the year with a positive operating result of approximately €17.4 million, a pre-tax result of €33.1 million, thanks to the dividends received from its subsidiaries and associates, and a net result for the year of €29.7 million, after having recognized the tax effects in the context of the national tax consolidation in place with the other Italian subsidiaries De Nora Italy Srl, De Nora Water Technologies Italy Srl and Capannoni Srl as well as the parent company Federico De Nora S.p.A.

In the absence of industrial activity, the company's income derives essentially from the services provided by the Corporate departments - Administration, Finance and Control, ICT, Human Resources, Global Procurement, Production Technology, Marketing, Business Development, Product Management and Global Operations, and from the licenses to subsidiaries to use the patent property, trademarks and know-how (intellectual property).

De Nora Tech LLC (USA) also made a significant contribution to the Group's results this year, thanks to revenues of €140 million (€145 million at 2020 exchange rates), a significant increase compared to approximately €110 million in 2020.

De Nora Permelec Ltd. (Japan) in 2021 recorded revenues (third party share only) amounting to €120 million, an increase of approximately €15 million compared to 2020 (+€23 million at constant exchange rates).

De Nora Deutschland GmbH (Germany) also recorded an impressive progress in revenues compared to the previous year, exceeding €90 million in revenue contribution, an increase of approximately €30 million compared to 2020.

De Nora Water Technologies LLC (USA), a company resulting from the merger in 2020 of the US operating companies De Nora Water Technologies Inc., De Nora Water Technologies Texas LLC and De Nora Miox, achieved revenues from third parties of approximately €42 million in 2021, down from €57 million in 2020.

De Nora Marine Technologies LLC, a company to which the Marine business previously managed by De Nora Water Technologies Texas LLC was contributed in April 2020, generated revenues from third parties of almost €12 million in the year 2021, compared with approximately €6 million in 2020 starting from its establishment.
De Nora Neptune, acquired in April 2019, despite the persistence of difficult situations in the oil sector that impacted the Fracking product line (treatment plants of water recovered from hydraulic fracturing) in which it operates, brought in revenues of just over €5 million, up from €3.7 million in the previous year. While the newly acquired US company **De Nora UV Technologies LLC** achieved revenues of almost €6 million in the post-acquisition half year.

The Chinese subsidiaries **De Nora China Suzhou** and **De Nora Jinan**, operating in the Electrode Technologies business, jointly contributed revenues of €40 million (almost €39 million at constant exchange rates), compared to approximately €35 million in 2020. Chinese companies operating in the Water Technologies business also increased their revenues from third parties compared to the previous year, with approximately €36 million realized in the year just ended (€35 million at constant exchange rates) compared to €31 million in 2020.

In Italy, **De Nora Italy S.r.l.**, established in 2018 from the separation of the business activities of Industrie De Nora S.p.A., achieved an important improvement in revenues from third parties, amounting to approximately €36 million in 2021, roughly €12 million more than in the previous year; the Italian company in the Water Technologies segment (**De Nora Water Technologies Italy S.r.l.**), which in 2020 had suffered a contraction in revenues in the year of the pandemic amounting to approximately €13 million, showed a recovery in 2021 with revenues (only third parts) equal to almost €18 million; while the newly acquired **De Nora Isia S.r.l.** achieved revenues of almost €3 million in the post-acquisition half-year.
The Brazilian company **De Nora do Brasil Ltda** recorded a good increase in revenues from third parties, equal to almost €17 million (over €18 million at constant exchange rates), compared to approximately €13 million in 2020.

The Singapore branch operating in the Electrode Technologies business achieved further significant growth in revenue contribution in 2021, exceeding €25 million in the year just ended, compared to approximately €17 million in 2020, which had already represented a significant improvement over the previous year; while the Singapore branch operating in the Water Technologies business contributed almost €14 million in revenue in 2021, also an improvement over the approximately €12 million in 2020.

De Nora Water Technologies UK Services Limited (UK) confirms 2021 third-party revenues of almost €7 million.
De Nora India Ltd recorded revenues (from third parties) of almost €4 million in 2021, slightly better than the previous 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 achieved revenues of almost €2 million, in line with the previous year.

2.6. Revenue, EBITDA and Capex by business segment

2.6.1 Revenues by Business Line

At December 31, 2021 the Group is organized into two business segments: the Electrode Technologies business (including the Energy Transition business line) and the Water Technologies business, each with its own portfolio of specific products and services.

The following tables show the Group's revenues, EBITDA and Capex for each business segment, for the two financial years ended December 31, 2021 and 2020.

At a consolidated level, revenues stood at €615.9 million of which €358.2 million in the Electrode Technologies segment and €257.7 million in the Water Technologies segment. In particular, total revenues were up by €116.4 million during the year, with a negative exchange rate effect of €14.6 million. At constant exchange rates, the Group's revenues in 2021 increased by €131 million compared to the previous year.

Revenues by Business Line (in € thousands)	2021	% of total revenues	2021 constant exchange rates	2020	Δ 2021 vs 2020	Δ 2021 vs 2020 at constant exchange rates
Electrode Technologies	358,211	58.2%	367,396	290,398	67,813	76,998
Water Technologies	257,667	41.8%	263,085	209,056	48,611	54,029
Total Revenue	**615,878**	**100%**	**630,481**	**499,454**	**116,424**	**131,027**

Revenues by geographical area and by business segment (in € thousands)	2021	% of revenues	2020	% of revenues
Electrode Technologies	**358,211**	**58.2%**	**290,398**	**58.1%**
EMEIA[7]	111,452	18.1%	73,291	14.7%
AMS[8]	78,064	12.7%	71,018	14.2%
ASIA	168,695	27.4%	146,089	29.2%
Water Technologies	**257,667**	**41.8%**	**209,056**	**41.9%**
EMEIA	55,081	8.9%	49,530	9.9%
AMS	114,510	18.6%	91,113	18.3%
ASIA	88,076	14.3%	68,413	13.7%
Total Revenue	**615,878**	**100.0%**	**499,454**	**100.0%**

7 - Indicates the following geographical areas: Europe, Middle East, India, Africa.

8 - Indicates the following geographic areas: North and South America..

2.6.2. EBITDA by Business Segment

	2021		2020	
EBITDA Electrode Technologies	82,659	68%	61,662	77%
EBITDA Water Technologies	38,547	32%	18,910	23%

TOTAL EBITDA

2021	2020
121,206	80,572

The Group's EBITDA recorded an increase of €40,634 thousand (+50.4%), going from €80,572 thousand in the year ended December 31, 2020 to €121,206 thousand in the year ended December 31, 2021. The increase is recorded in both segments but is proportionally more significant in the Water Technologies segment which sees its contribution to the Group's EBITDA increased from 23% in 2020 to 32% in 2021. The EBITDA margin therefore increased from 16.1% in the year ended December 31, 2020 to 19.7% in the year ended December 31, 2021.

2.6.3. CAPEX by business segment

Capex by business segment (in € thousands)	2021	% of total Capex	2020	% of total Capex
Intangible	**7,083**	**23%**	**7,999**	**29%**
Electrode Technologies	971	3%	1,574	6%
Water Technologies	5,601	18%	6,292	23%
Not Allocated	511	2%	133	0%
Tangible	**23,906**	**77%**	**19,411**	**71%**
Electrode Technologies	21,270	69%	17,973	66%
Water Technologies	2,535	8%	1,192	4%
Not Allocated	101	0%	246	1%
Total Capex	**30,989**	**100%**	**27,410**	**100%**

Electrode Technologies

2.7. Electrode Technologies Business

The core business of Electrode Technologies consists of 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;
- production of electrolytic cells for the production of chlorine, caustic soda and hydrogen, as well as the respective components and other accessories, and of anodic structures complete with accessories for the production of non-ferrous metals (nickel, cobalt).

For the year ended December 31, 2021, the Electrode Technologies business represented 58.2% of the Group's revenues.

The table below shows the revenues generated by the Electrode Technologies Business for the financial years ended December 31, 2021 and December 31, 2020, broken down by business lines.

Business segment revenues (in € thousands)	2021	%	2021 constant exchange rates	2020	Δ 2021 vs 2020	Δ 2021 vs 2020 at constant exchange rates
Chlor-alkali[9]	236,872	66.1%	242,403	204,847	32,025	37,556
Electronics[10]	75,804	21.2%	78,186	58,679	17,125	19,507
Specialties and New Applications	36,142	10.1%	37,167	23,230	12,912	13,937
Energy Transition[11]	9,393	2.6%	9,640	3,642	5,751	5,998
Total Electrode Technologies	**358,211**	**100%**	**367,396**	**290,398**	**67,813**	**76,998**

9 - In 2020, the Chlor-alkali business line was called Chlorine and Caustic

10 - In 2020, the Electronics business line was called Electronics & Surface Finishing

11 - In 2020, the Energy Transition business line was included in Specialties and new Applications

Revenues related to the Electrode Technologies business segment increased by €67,813 thousand (+23.4%), from €290,398 thousand in the year ended December 31, 2020 to €358,211 thousand in the year ended December 31, 2021. The growth is significant in all lines and is mainly due to the increase in prices as a result of higher purchase costs for noble metals (pass-through).

At constant exchange rates, revenues related to the Electrode Technologies line increased by €76,998 (+26.5%), from €290,398 thousand in the year ended December 31, 2020 to €367,396 thousand in the year ended December 31, 2021. Revenues of the Electrode Technologies segment compared to the total revenues of the Group remained in line in the two financial years ended 31.12.2020 and 31.12.2021 on a percentage equal to 58%.

Chlor-alkali

Revenues relating to the Chlor-alkali line increased by €32,025 thousand (+15.6%), from €204,847 thousand in the year ended December 31, 2020 to €236,872 thousand in the year ended December 31, 2021. This increase is mainly attributable to:

(i) the €24,217 thousand increase in membrane sales, primarily due to the increase in the price of noble metals;
(ii) the increase of €15,291 thousand in sales of hydrochloric acid (HCl) due to new maintenance projects commissioned by third-party customers to TK Nucera, which in turn is sourced from the Group, partially offset by the decrease of €8.1 million in diaphragm sales due to the reduction in orders from certain customers.

At constant exchange rates, revenues relating to the Chlor-alkali line would have increased by € 37,556 thousand (+18.3%), from €204,847 thousand in the year ended December 31, 2020 to €242,403 thousand in the year ended on December 31, 2021. For the year ended December 31, 2021, the Chlor-alkali business line accounted for 66.1% of the business revenues of the Electrode Technologies Business and 38.5% of the Group's total revenues.

Electronics

Revenues relating to the electronic line recorded an increase of €17,125 thousand (+29.2%), from € 58,679 thousand in the year ended December 31, 2020 to €75,804 thousand in the year ended December 31, 2021. This increase is mainly attributable to the price effect related to the increase in the price of noble metals. At constant exchange rates, revenues relating to the electronic line increased by €19,507 thousand (+33.2%), from €58,679 thousand in the year ended December 31, 2020 to €78,186 thousand in the year ended December 31, 2021. For the year ended December 31, 2021, the business line of electrodes for the electronics and galvanic industry represented, respectively, 21.2% of the revenues of the Group's Electrode Technologies Business and 12.3% of the total revenues of the Group.

Specialties and new applications

Revenues related to the specialties and new applications line increased by €12,912 thousand (+55.6%), from €23,230 thousand in the year ended December 31, 2020 to €36,142 thousand in the year ended December 31, 2021. This increase is mainly attributable to:

(i) the €9,602 thousand increase in revenues from Electrowinning products, especially in EMEIA, following the new order from the customer Norilsk Nickel;
(ii) the increase of €2,449 thousand in revenues from electrodes for special uses for new orders;
(iii) for the remainder, equal to €861 thousand, to electrodes for cathodic protection in the American area.

At constant exchange rates, revenues relating to the specialties and new applications line increased by €13,937 thousand (+60.0%), from €23,230 thousand in the year ended December 31, 2020 to €37,167 thousand in the year ended December 31, 2021. For the year ended December 31, 2021, the Specialties and new applications line represented 10.1% of the Electrode Technologies Business revenues and 5.9% of the Group's total revenues, respectively.

Energy transition

Revenues relating to the Energy Transition business line increased by €5,751 thousand (+157.9%), from €3,642 thousand in the year ended December 31, 2020 to €9,393 thousand in the year ended December 31, 2021. For the year ended December 31, 2021 the Energy Transition business line represented 2.6% of the revenues of the Electrode Technologies Business, equal to 1.5% of the Group's total revenues.

The following table shows the revenues generated by the Electrode Technologies Business for the years ended December 31, 2021 and December 31, 2020, broken down by New Installations and Services.

(in € thousands)	2021	%	2020	%
New Installations[12]	190,139	53%	141,608	49%
Services[13]	168,072	47%	148,790	51%
Total Revenue	**358,211**	**100%**	**290,398**	**100%**

12 - In 2020, the type of revenue New Installations was called New Sales

13 - In 2020, the type of Services revenue was called Aftermarket

The New Installations accounted for 53% of the segment's revenue for the year 2021, up compared to the previous year.

Services represent a significant part of the electrodes business and in 2021 accounted for 27.3% of the Group's total revenues; 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 to preserve the metallic structure of the electrode, in titanium or nickel, and to re-apply a new coating, thus allowing to restore the initial characteristics of the electrode.

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 installed base represents a significant growth factor for the sales of the Services.

EBITDA Electrode Technologies

2021 82,659

2020 61,662

Δ 2021 vs 2020 20,997

EBITDA relating to the Electrode Technologies business segment recorded an increase of €20,997 thousand (+34.1%), from €61,662 thousand in the year ended December 31, 2020 to €82,659 in the year ended December 31, 2021. This increase is mainly attributable to the increase in revenues of €67,813 thousand (+23.4%), described above.

The impact of the EBITDA of the Electrode Technologies business segment on the revenues of the segment increased from 21.2% in the year ended December 31, 2020 to 23.1% in the year ended December 31, 2021. The EBITDA ratio of the Electrode Technologies business segment on the Group's total revenues was 12.3% in the year ended December 31, 2020 versus 13.4% in the year ended December 31, 2021.

Water Technologies

2.8. Water Technologies Business

The main activity of the Water Technologies Business consists in the production 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 for marine applications.
In addition to providing equipment, products and systems for New Installations, the Group provides after-sales maintenance services, supply of spare parts, re-engineering of existing systems, on-site or remote monitoring activities, and other services that allow maintain the performance of the products, guaranteeing the constancy of the quality of the treated water.

Business segment revenues (in € thousands)	2021	%	2021 constant exchange rates	2020	Δ 2021 vs 2020	Δ 2021 vs 2020 at constant exchange rates
Pools	98,228	38.1%	101,280	65,252	32,976	36,028
Electrochlorination	63,313	24.6%	64,982	61,584	1,729	3,398
Disinfection and Filtration[14]	83,073	32.2%	83,305	74,146	8,927	9,159
Marine technologies	13,053	5.1%	13,518	8,074	4,979	5,444
Total Water Technologies	**257,667**	**100%**	**263,085**	**209,056**	**48,611**	**54,029**

14 - In 2020 the Disinfection and Filtration Business Line was divided into two distinct Business Lines: Filtration Systems and Sanitization/Disinfection Systems

Revenues relating to the Water Technologies business segment recorded an increase of €48,611 thousand (+23.3%), from €209,056 thousand in the year ended December 31, 2020 to €257,667 thousand in the year ended December 31, 2021. This increase is mainly attributable to an increase in revenues relating to the swimming pools business line, the disinfection and filtration product line and marine technologies. The electrochlorination business line, on the other hand, substantially maintained the revenue level of 2020 (+2.81%).

At constant exchange rates, revenues relating to the Water Technologies segment increased by €54,029 thousand (+25.8%), from €209,056 thousand in the year ended December 31, 2020 to €263,085 thousand in the year ended as of December 31, 2021. The Marine and Disinfection and Filtration lines, in 2021, benefited from the contribution deriving from two acquisitions and quantifiable in terms of revenues at €8,407 thousand.
The impact of revenues related to the Water Technologies business segment on Group revenues remains virtually unchanged, going from 41.9% in the year ended December 31, 2020 to 41.8% in the year ended December 31, 2021.

Pools

Revenues related to the swimming pools line recorded an increase of €32,976 thousand (+50.5%), from €65,252 thousand in the year ended December 31, 2020 to €98,228 thousand in the year ended December 31, 2021. This increase is to be attributed both to a high level of market demand related to the so-called Staycation effect resulting from the restrictions imposed by the COVID-19 pandemic, and to a higher sales price, indexed to that of Ruthenium, the noble metal used in the production process, which is also on the rise compared to 2020.

At constant exchange rates, the revenues from the swimming pools line increased by €36,028 thousand (+55.2%), from €65,252 thousand in the year ended December 31, 2020 to €101,280 thousand in the year ended December 31, 2021. For the year ended December 31, 2021, the swimming pools business line represented, respectively, 38.1% of Water Technologies revenues and 15.9% of the Group's total revenues.

Electrochlorination

Revenues relating to the electrochlorination line recorded a slight increase of €1,729 thousand (+2.8%), from €61,584 thousand in the year ended December 31, 2020 to €63,313 thousand in the year ended December 31, 2021. This increase is mainly attributable to:

(i) the increase of €1,491 thousand relating to the sale of “Omnipure” electrolytic plants for water treatment, which in turn can be almost exclusively associated with a project implemented on offshore platforms in Saudi Arabia;

(ii) the €1,778 thousand increase in revenues attributable to IEM (Brine Electrochlorination Plants) technology recognized in Asia for a project acquired in December 2020 and carried out in Brazil;

(iii) these effects were partly negatively offset by the decrease of €2,224 million in revenues relating to the OSHG electrochlorination systems (on-site generation of hypochlorite) due to lower sales of Services in the Middle East compared to 2020 and a delay in acquisition of orders, resulting in a delay in the recognition of project execution revenues, in the United States.

At constant exchange rates, the electrochlorination line would have recorded an increase in revenues of €3,398 thousand (+5.5%), from €61,584 thousand in the year ended December 31, 2020 to €64,982 thousand in the year ended as of December 31, 2021. For the year ended December 31, 2021, the Electrochlorination business line represents 24.6% of the revenues of the Water Technologies Business and 10.3% of the Group's total revenues.

Disinfection and Filtration

Revenues relating to the disinfection and filtration line increased by €8,927 thousand (+12.0%), from €74,146 thousand in the year ended December 31, 2020 to €83,073 thousand in the year ended December 31, 2021. This increase is mainly attributable to the combined effect of the following factors:

(iv) increase in sales deriving from ozone generators equal to €5,030 thousand;

(v) an increase of €4,600 thousand in revenues relating to the ultraviolet ray disinfection line, which benefited from the contribution of the acquisition of the relative division from the company Calgon Carbon;

(vi) the increase of €3,015 thousand in revenues relating to the line of "bed filter systems" (so-called Deep Bed Filtration) recovering after the sharp reduction in volumes in 2020 following the COVID-19 pandemic;

(vii) the contribution of ISIA during the year 2021 which contributed to the disinfection and filtration line, overall, for €2,574 thousand;

(viii) these effects were partially offset negatively by the decrease of €1,847 thousand in revenues relating to the Gas Feed technology and by a similar decrease in revenues from the “Media Tetra” filtration technology. In both cases, market demand fell short of expectations. In the first case, a decline in demand for systems using this technology is also expected in the next few years, while, in the second case, a recovery is expected due to new regulations in effect in the United States.

At constant exchange rates, revenues relating to the disinfection and filtration line would have increased by €9,159 thousand (+12.4%), from €74,146 thousand in the year ended December 31, 2020 to €83,305 thousand in the year closed on December 31, 2021. The revenues of the two companies acquired during 2021 contributed, for disinfection and filtration, for a total of €7.3million. For the year ended December 31, 2021, the disinfection and filtration business line accounted for 32.2% of the Water Technologies Business revenues and 13.5% of the Group's total revenues.

Marine technologies

Revenues relating to the marine technologies line recorded an increase of €4,979 thousand (+61.7%), from €8,074 thousand in the year ended December 31, 2020 to €13,053 thousand in the year ended December 31, 2021. This increase is mainly attributable to the acquisition of several orders due to a greater demand for ballast water treatment systems which in turn are subject to the introduction of stricter regulations on water treatment and, in part, derive from the contribution of an acquisition in North America which generated €1.1 million in revenues.
At constant exchange rates, revenues relating to the marine technologies line would have recorded an increase of €5,444 thousand (+67.4%), from €8,074 thousand in the year ended December 31, 2020 to €13,518 thousand in the year closed on December 31, 2021. For the year ended December 31, 2021, the marine technologies business line represented 5.1% of the revenues of the Water Technologies Business and 2.1% of the Group's total revenues.
The following table shows the revenues generated by the Water Technologies Business for the year ended December 31, 2021 and 2020, broken down by New Installations and Services.

Business segment revenues (in € thousands)	**2021**	**% of business segment revenues**	**2020**	**% of business segment revenues**
New Installations[15]	202,896	79%	160,566	77%
Services[16]	54,771	21%	48,490	23%
Total Revenue	**257,667**	**100%**	**209,056**	**100%**

15 - In 2020, the type of revenue New Installations was called New Sales

16 - In 2020, the type of Services revenue was called Aftermarket

New Installations accounted for 79% of the Water Technologies segment's revenue for the 2021 financial year, up from the previous period.
The Services cover the entire product portfolio and in 2021 represented 8.9% of the Group's 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.

EBITDA Water Technologies

2021	38,547	
2020	18,910	
Δ 2021 vs 2020		19,637

EBITDA relating to the Water Technologies business segment recorded an increase of €19,637 thousand, from €18,910 thousand in the year ended December 31, 2020 to €38,547 thousand in the year ended December 31, 2021. This increase is mainly attributable to the combined effect of the following factors:

(i) increase in revenues equal to €48,611 thousand (+23.3%), from €209,056 thousand to €257,667 thousand, described above;

(ii) increase in operating costs with an impact on the EBITDA from the Water Technologies business segment less than proportional to the afore-mentioned increase in revenues.

This change is mainly attributable to the increase: (i) in the purchase costs of ancillary raw materials, consumables and goods; (ii) the costs of personnel in the sales area; and (iii) costs associated with general and administrative activities to support the business.
However, this trend was also impacted by the effects produced by some specific initiatives implemented by the Group to reduce project costs (so-called Portfolio revitalization).

The impact of the EBITDA of the Water Technologies business segment on the revenues of the segment increased from 9.0% in the year ended December 31, 2020 to 15.0% in the year ended December 31, 2021. The impact of the EBITDA of the Water Technologies business segment on the Group's total revenues increased from 3.8% in the year ended December 31, 2020 to 6.3% in the year ended December 31, 2021.

3 Organization of Human Resources

At December 31 2021, the Group's workforce amounted 1,725, almost 100 more than the previous year, confirming the growth trend that will probably also characterize the next few years. The increase, across all regions, involved both the Water Technologies segment, following two acquisitions, and 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, 2021	December 31, 2020
Manufacturing	951	897
Engineering	142	138
Sales & Tech. Assistance	230	210
G&A	305	296
R&D	97	92
Total	**1,725**	**1,633**

The main organizational changes relating to the 2021 financial year are listed below:

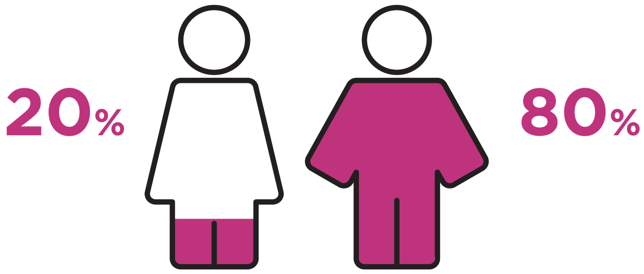
- **Corporate structure:** many functions have been strengthened or reorganized to ensure greater efficiency and level of service to support business growth:
  - a specific **Task Force Energy Transition & Hydrogen** has been created to oversee the expansion of this strategic business for the Group;
  - **ICT:** reorganized into two areas, Demand and Project Management, and Cyber Security and ICT Operations, the latter with a greater focus on IT security;
  - **HR:** with the creation of the Reputation function;
  - **AFC:** the following functions have been reorganized: Consolidation, Reporting and Planning reporting directly to the CFO; Corporate Tax; Electrode Technologies and Corporate Global Controlling; Water Technologies Controlling and Corporate Finance;
  - **R&D:** reorganized according to regional parameters in the United States, Japan and Italy;
  - **Marketing:** redesigned with a greater distinction between the Electrode Technologies and Water Technologies segments in order to increase their impact on their respective areas of competence.

- **Water Technologies segment:** the business units and regional hubs have continued their reorganization and strengthening. Following the two new acquisitions, the WT America and WT EMEA Hubs have been reorganized to better integrate the new business areas.
- **Electrode Technologies Segment:**
  - **De Nora Deutschland GmbH – Germany:** the organization has been redesigned and strengthened with Deputy figures for some strategic roles and a new Operational Excellence function.
  - **De Nora Permelec Ltd - Japan:** the Sales and Marketing functions have been unified and reporting now to the new director responsible for business development and sales.

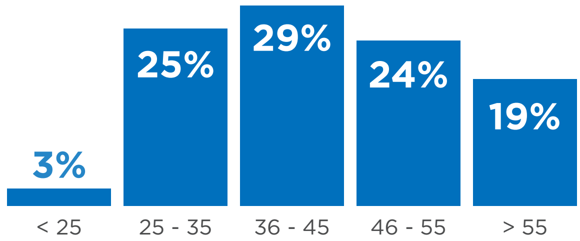
3.1. Group workforce demographics at December 31, 2021

Gender distribution

The female component is 20%, with a very slight decrease (-1%) compared to the previous year.

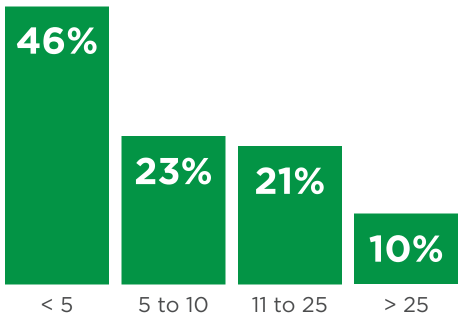


Age Distribution



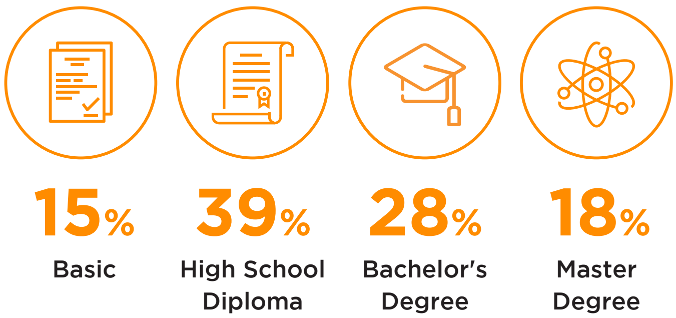
De Nora confirms itself as a “young” business, with almost 60% of its personnel under the age of 45. The numbers remain constant compared to the previous year.

Seniority



The seniority of the Group has decreased and is lower than the previous year: more than 45% of the staff have been with De Nora for less than 5 years while just over 30% have been with it for over 10 years.

Education



De Nora remains a Group with an excellent education level: only 15% of employees do not have a high school diploma while 46% have at least one university degree (undergraduate degree, Master's degree or doctorate).

3.2. Development and Management of Human Resources

The commitment to the development and self-development of the Group's people is an explicit objective of De Nora's Vision. The main new initiatives in this area were:

- design and launch in the De Nora Academy of the “Diversity, the key to win” training to promote DEI with constant monitoring of its use;
- carrying out the annual edition of the WeDN global Survey and defining the related action plans, with results that confirm the trend of constant improvement in engagement;
- organization of the "Leadership De Nora's Way" and "Strength Management" training for the Managers of all the companies of the Group, in order to encourage managers to apply the "manager's decalogue" and the Servant Leadership model to encourage them to enhance our talents;
- definition of the "Career Target Check" potential assessment, aimed at mapping the current and potential skills of internal prospects, with a view to setting in motion possible accelerated personal and professional development paths;
- monitoring the Individual Development Plans (IDPs) defined during the Competence Assessment process carried out at the end of 2020 and support in the implementation of those of 2021;
- definition of the role of Mentor through specific training.

4 Environmental, Social and Governance factors

ESG initiative

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.

The Group intends to issue its first certified sustainability report in 2023 according to the international reference standards for non-financial reporting, valid for the year ended December 31, 2022. 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.

The Group, in line with its vision of "enhancing all available talents as catalysts for a sustainable future", has already adopted various guidelines applicable to all Group companies.

Environmental factors

The Group undertakes to pursue the continuous reduction of its environmental impact as an integral part of its business and as a strategic commitment, and to constantly verify compliance with the applicable environmental protection regulations.

To this end, therefore, the Group:
- preserves and protects the environment in which it operates, using resources efficiently and promoting sustainability throughout its value chain;
- complies with all applicable environmental protection laws and other relevant party compliance obligations;
- distributes specific responsibilities among all management levels to enforce and monitor environmental protection regulations in line with applicable laws and internal regulations;
- it trains all levels of the organization, allowing people to develop, incorporating continuous improvement activities into their daily work;
- develops a proactive culture over time to obtain safe behaviours and attitudes of personnel in terms of environmental protection;
- ensures that environmental impacts are reduced over time, adopting technical standards, knowledge and advanced techniques as far as possible;
- defines specific objectives for the environmental management system;
- maintains an open dialogue with suppliers, committing them to implement or maintain behaviours consistent with this policy;
- carries out inspections and audits (internal and external with its subcontractors) aimed at identifying and preventing any situation of non-compliance with the requirements of the management system; and
- monitors and promotes behaviours aimed at reducing energy consumption.

Social factors

For years, the Group has been implementing a "People Strategy" which has various objectives regarding people and the needs of the community in which it operates. Among other objectives, the Group:
- is committed to guaranteeing health in the broadest sense of people's well-being, which also includes training and specific initiatives for a work-personal life balance, with customized programmes to implement flexibility, remote work and policies that support parents and families;
- promotes equity and the inclusion of diversity, starting with the selection process, during performance evaluation and with new initiatives, including dedicated training and internal and international mobility programs;
- collaborates and establishes partnerships with high schools, universities and research centers in the areas where the company operates to support the "STEM" footprint; provides the younger generation with opportunities for self-awareness (assessment centres, open days and team building), study, learning and work experience;
- guarantees a satisfactory experience to all candidates in the selection phase, providing feedback to all those who undertake specific tests as part of the process;
- favours the hiring of new staff, also through mentoring and buddying programs;
- favours the continuous development of people and the pursuit of their happiness and self-fulfilment through co-guided growth paths, job rotation, internal mobility, assessments, training, mentoring and coaching;

- develops off-boarding programmes
- facilitates digitalization and agility as a way to release energy and eliminate organizational barriers to continuous innovation.
- serves local communities and participates in charity events; in particular in 2021:
  - the parent company has collaborated with the institutions of the local municipality, with the Municipality of Milan and with some local associations for the rehabilitation of the public road that runs alongside one side of the company (formerly Via Casasco). A dilapidated street has become a place where all citizens and residents can walk, play, relax and get inspired by looking at the murals made on our perimeter wall by local artists to celebrate technologists and scientists, including our founder Oronzio De Nora, engineer. The street was named after him;
  - in Japan, every year, De Nora Japan supports the Japan Forest Culture Association which protects and cultivates Japanese forests and plants, as well as organising an annual event on the occasion of the cherry blossom opening some company areas to families and the local community;
  - in China, De Nora also promotes environmental protection, disinfection and hygiene in line with the function of its products and technologies, including through the WeChat social media platform and actively participating in seminars to attract citizens' attention.

The **Oronzio and Niccolò De Nora Foundation**, among the various initiatives in the electrochemical field, awarded the annual scholarship worth €48,000 to a researcher from Rice University in Texas, and a PhD award to two students from the University of Padua and Milan. In addition, he supported the organization of the "Chemistry Games" event dedicated to high school students, with the aim of stimulating young people's interest in chemical sciences and promoting networking and cultural exchange.
Also, this year there was no lack of support for cultural heritage with the usual contribution to the FAI (Italy's equivalent of the National Trust).

Governance factors

The Group is committed to maintaining and strengthening its corporate governance in terms of ethics, integrity and responsibility. To safeguard the value creation process for its customers, employees, partners, suppliers, shareholders, the Group undertakes to implement rules and procedures that govern its decision-making, control and monitoring processes of corporate activities. The governance bodies and instruments of the Issuer and of the Group aim at spread principles of ethics and integrity as key elements of a corporate culture.
In particular, the Issuer's Board of Directors has appointed the ESG Committee, which makes proposals and provides advice to the Board of Directors to promote the integration of ESG issues in the governance of the Issuer and the Group headed by the Issuer and in their respective corporate strategies.

To achieve these objectives, the main tools adopted by the Group include:

- Model 231, adopted by the Italian companies of the Gruppo Industrie De Nora S.p.A., De Nora Italy S.r.l., De Nora Water Technologies Italy S.r.l. and De Nora Isia S.r.l.
- the Group's Code of Ethics which defines the values, standards of conduct and guiding principles underlying the entire internal control and risk management system, whose violations can be reported, even anonymously, to the ethics committee established by the Code itself;
- the Code of Ethics of the Group's suppliers which defines the minimum standards and commercial practices required of suppliers and sub-suppliers;
- procedures, instructions and training aimed at compliance by the Group and all employees with the laws in force on anti-corruption, anti-money laundering, export control and privacy; and
- information flows that aim to strengthen the transparent management of the Company and to provide the information necessary for effective and efficient management of the Company.

Environment, Health and Safety or "EHS"

Proper management of quality and the environment, health and safety is at the heart of the Group's operating system. All the Group's production facilities are currently certified according to international regulations and relevant quality standards. Great attention is paid to training at all levels of the organization to enable the development of people, with the aim of incorporating continuous improvement activities into daily work, and a constant dialogue among employees, supervisors and managers is in place with the support from the management of the Issuer and the Group.
The Group complies with the standards relating to the protection of the environment and the safety and health of its personnel and the public.

The Group promotes and structures the sharing of "Best Practices" among the various production sites, to ensure that the plants have access to the best production and control methods for EHS impacts. In particular, as regards health and safety, each plant has developed KPIs with related action plans to guide continuous improvement. These KPIs are reviewed annually and monitored on a monthly basis, to ensure that pre-established targets are achieved. The Group has obtained and maintains a number of environmental certifications and, in particular: (i) the ISO 90001 Quality certification (all the Group's production plants, with the exception of DNC Japan); (ii) Environment ISO 140001 certification (production facilities in Cologno and Fujisawa); (iii) the Health & Safety ISO 45000 certification for the production facilities in Goa and Suzhou; and the DND certificate for ISO 50001 certification for energy management.

The Group aims to combine financial results, respect for the environment and corporate social responsibility, and to create an environmentally friendly technology and, in particular, is committed to the sustainable use of water and the continuous improvement of water management.

Sustainability

The Group is committed to providing new products and solutions that can contribute to the achievement of some of the global sustainable development goals (Sustainable Development Goals, or "SDGs") defined by the member states of the United Nations in 2015, such as climate change, growth of the population, the reduction of the carbon footprint and the scarcity of resources, through its research, development and continuous improvement of innovative products in the fields of energy storage, water treatment, recovery of non-ferrous metals and energy saving.

To structure its commitment to the SDGs, the Group has defined specific "Strategic Arenas" - markets, industrial sectors, applications, types of products or technologies- on which to focus its innovation efforts: fuel cells and hydrogen storage, water treatment technologies, electrolytic refining of non-ferrous metals. In order to reduce the overall environmental impact of the chemical and mining sectors, modernization processes and productions are developed and implemented through “closed loop” or “zero release” solutions.

Corporate Social Responsibility

The Group is committed to conducting its business ethically and transparently, in compliance with the law, and to using its resources to develop innovative technologies that drive economic growth and social value, all using fewer natural resources and less energy.
Furthermore, the Group supports its customers in promoting their environmental performance by developing and implementing applications that help them reduce operating costs, increase process efficiency and improve their environmental performance.

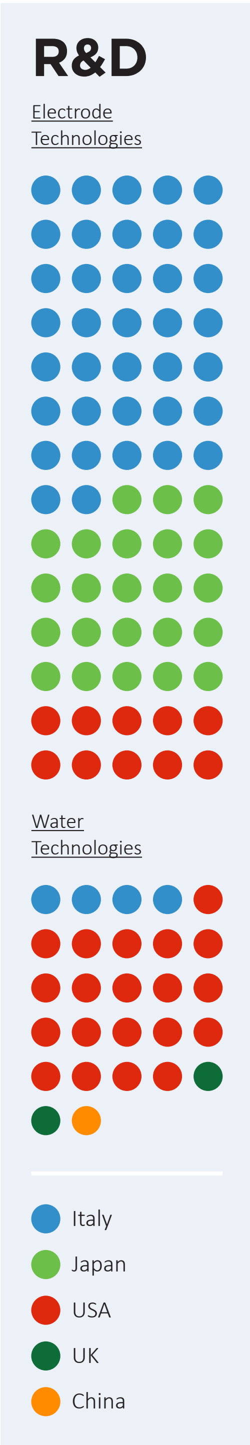
5 Research and Development and Patents

5.1. 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 five 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.

- The “**R&D USA**” (Cleveland Area)- Ohio unit is focused on the development of technologies for future markets;
- The "**R&D Albuquerque**" unit, located in Albuquerque (New Mexico- USA), 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, UV.
- The “**R&D Japan**” unit, mainly located in Fujisawa (Tokyo area) and Okayama, but with a branch at De Nora Elettrodi (Suzhou) Co, Ltd.- China, supports the development of solutions for global markets in the fields of Energy Transition, Electronics, Chlorine soda and Water treatment.
- The “**R&D Italy**” unit, located at the Milan headquarters, develops 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.



The R&D function is made up of 97 employees and includes 70 resources (37 in Italy, 23 in Japan and 10 in the United States) following the Electrode Technologies Business and 27 resources (20 in the United States, 4 in Italy, 2 in the UK,1 in China) of Product Technology Management (PTM) following the Water Technologies Business.
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.

To support its business strategy, the Group continually invests 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 “Energy Transition and Hydrogen Task Force (ET&H)” was set up in 2021, reporting directly to the CEO. This task force involves, among others, several members of R&D and Production Technologies with the main objectives of supporting the definition of new business models, identifying and developing new technological partnerships and contributing to the launch of new products.

The research programmes are effectively integrated at several sites and coordinated at a central level.
With reference to the Electrodes Technologies Business, the focus is on the development of innovative and sustainable electrodes, with reduced energy consumption for the application in the chlor-alkali and electronics industries, of electrodes for the electrochemical refining of primary copper extracted from mines and finally to optimization and savings of the noble metals used in the coatings of the various business lines and, in the longer term, the development of unconventional electrode structures to create innovative 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 (for example, advanced oxidation systems).
Furthermore, the activities carried out for the

commercial optimization of the existing product lines continue, focused on cost reduction, “value engineering”, standardization and certification aspects.

The development of new products concerned in particular:

- water disinfection systems via bromine produced in-situ (“BOSS” system), mainly dedicated to the treatment of large air conditioning systems;
- removal and destruction of micropollutants such as polyfluoroalkyls (PFAS) by a process based on exchange resins;
- water treatment systems based on Advanced Oxidation Processes (AOP), combining chemical, ultraviolet and microfiltration treatment;
- development of a new generation of chlorine dioxide production units for the disinfection of drinking water.

The commitment in the Energy Transition sector continued in 2021 with projects carried out in synergy between all the research units of the Group.
The Group has active programmes 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 electrolysers for the storage of hydrogen using organic compounds (LOHC- Liquid Organic Hydrogen Carriers) are, on the other hand, in a more advanced stage of development to be followed by a phase of field tests for the validation of these solutions.

The Group also participates, directly or as a consultant (in the role of "industrial advisor"), in various public projects including (i) the European projects "Djewels" (2020-2025/6), "NextH2" (2021-2024) and “PROMETH2EUS” (2021-2025) in the sector of alkaline water electrolysis; and (ii) the European projects “Select CO2” (2020-2022) and “ECO2FUEL (2021-2026), for the conversion and valorisation of carbon dioxide (in the sector of the electrochemical conversion of CO2).
With reference to the research and development activity carried out in the United States, the Group has received funding from the Department of Energy (DoE), while in Japan it is participating in a project for the development of relevant technologies for water electrolysis funded by NEDO (the Japanese National Agency for the development of technologies in the energy and industrial sectors) with the aim of conducting testing of cell components for PEM and AWE technology.
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 CO2 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.

In addition to the above, at the European level the Group is also participating (with TK Nucera) 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.

5.2. Patents

Intellectual property rights represent a key element for the creation of value of the Group's activities. The Group aims to protect its 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 and patent applications, and in the preparation of suitable measures to protect the confidentiality of sensitive technical and commercial information, in particular of the Group's 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 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 to protect all property rights deriving from any of the Group's activities through: (1) the identification of the appropriate legal protection applicable and, (2) 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 are implemented by the Intellectual Property Department in accordance with the indications received from the Marketing and Business Development function, the Research and Development function and the sales offices in the geographical regions concerned, in order to ensure protection in the countries in which the Group operates and/or which are considered to have strategic value. Access to the use of these assets by the various Group companies is guaranteed by appropriate inter-company agreements.

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.

Pursuing the objective of continuous improvement, in 2021 the third phase of the Group's "Protection and Management of Trade Secrets" project was completed with the achievement of the main milestones identified during the "maturity" analysis carried out in 2019. In addition, again in relation to the aforementioned project, an initial diagnosis phase began in December 2021 at the subsidiary De Nora Tech, LLC, based in the United States, while in August 2021 the implementation of the improvement measures identified in the previous diagnosis was finalized at the subsidiary De Nora China.

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, 2021, the Group owns 601 registered trademarks in 80 countries, and has over 9 trademarks under consideration or trademark applications in 7 countries or regional organizations.

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, 2021, it has 2,232 patents or utility models in 79 countries and has over 400 pending patent or utility model applications in over 50 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 2021, 19 new patent applications were filed: 11 in the field of water electrolysis, 1 in chlor-alkali, 1 in mining and 6 in the Water Technologies segment

Finally, patent portfolio review exercises were carried out on patents related to the field of electroplating and functional water.

6 Risk Management, Related Party Transactions and Other Information

Management of Risks and Uncertainties

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

Related Party Transactions

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

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 the Consolidated Financial Statements.
As at December 31, 2021, 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 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, 2021 are shown below:

*- Secondary offices

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 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

Company	Sites
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 UV Technologies, LLC	USA, Coraopolis, Pittsburgh (PA)
De Nora ISIA S.r.l.	Italy, Marghera (VE)
ISIA S.p.A. Abu Dhabi Branch	UAE, Abu Dhabi

7 Significant events after the year-end

On February 15, 2022, Banca Nazionale del Lavoro S.p.A., Banco BPM S.p.A., Intesa Sanpaolo S.p.A., Mediobanca- Banca di Credito Finanziario S.p.A., Mediobanca International (Luxembourg) S.A., UniCredit S.p.A. and Unicredit Bank AG- New York Branch, as lending banks, have signed and delivered to the Company and De Nora Holdings US, Inc. a letter of proposal relating to a document called Commitment Letter, governed by Italian law, by virtue of which the lending banks undertook to make available to the Company and De Nora Holding US, Inc. certain credit lines and/or other forms of financing provided therein for a total amount of approximately €200,000 thousand and USD 100,000 thousand, respectively, in accordance with the terms and conditions set forth in the Commitment Letter, and in the time frame and circumstances indicated therein.

The Loan, together with any cash available at the Group level, will be used for the purpose of, inter alia, refinancing all or part of the Group's existing financial debt, including the financial debt deriving from pool loans, as well as rationalising the financial structure of the Group, to find the financial resources needed to support working capital requirements and develop the Group's business.

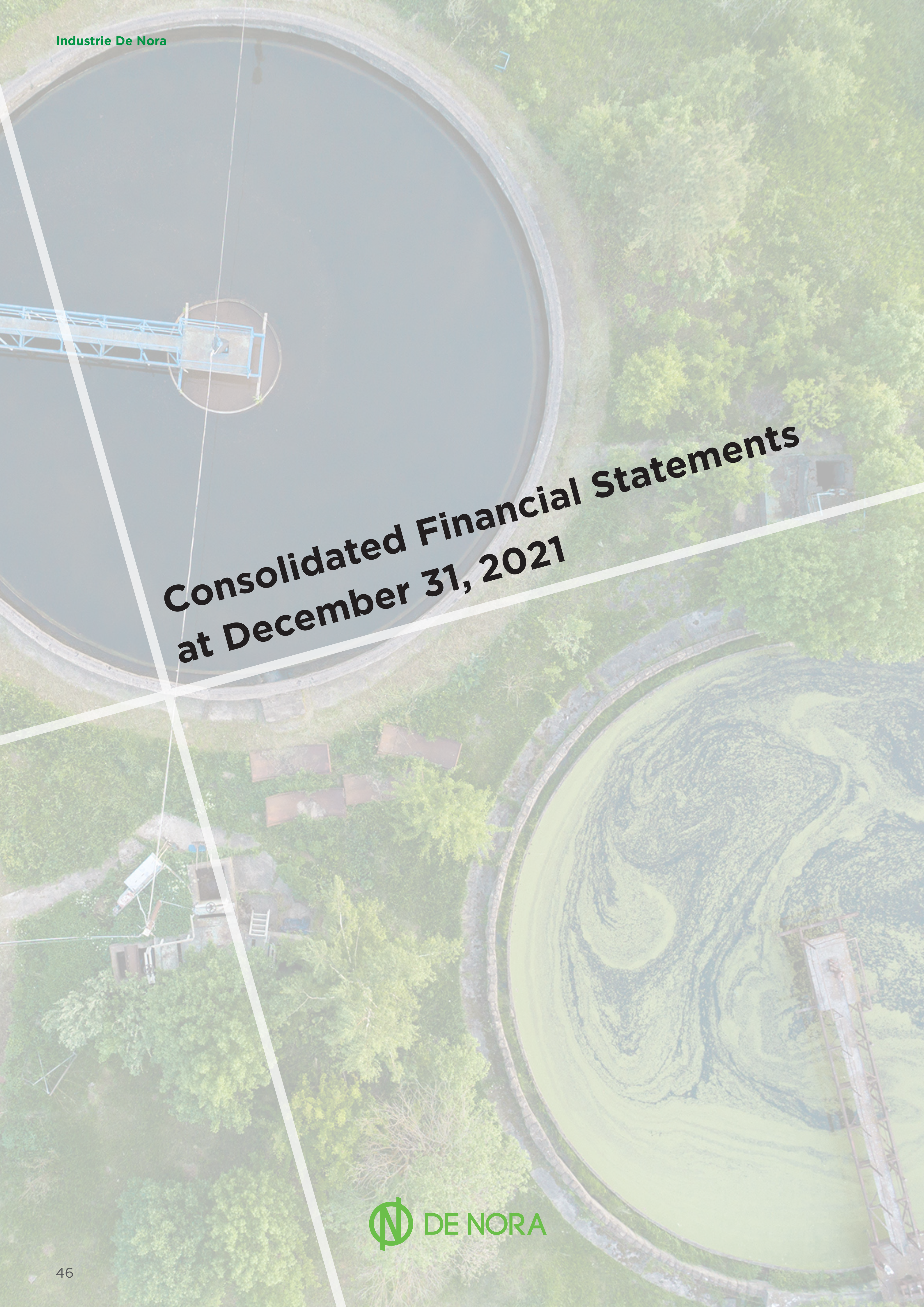
8 Outlook

The 2022-2025 Business Plan, recently prepared and approved by the Parent Company's Board of Directors, captures the Group's growth potential in every business area.

In the **Electrode Technologies** and **Water Technologies businesses**, the Group expects to preserve and consolidate its positioning in the reference markets in 2022. The hydrogen production market represents a backbone of the most immediate development prospects, thanks to the technological know-how on which the Group can leverage, to the partnerships developed over time with leading operators in the sector, including the joint venture with TK Nucera, and to the support of its shareholders, where collaboration with Snam represents an important opportunity.

The projections for 2022 confirm the further progression of company performance, with expected growth in terms of volumes, profitability and cash generation.

On behalf of the Board of Directors
The Managing Director
Paolo Enrico Dellachà



Consolidated Financial Statements at December 31, 2021

Consolidated Statement of Financial Position

		As of December 31,	
ASSETS (in € thousands)	**Notes**	**2021**	**2020**
Goodwill and other intangible assets	18	132,805	131,081
Property, plant and equipment	19	167,627	153,896
Equity-accounted investees	20	121,785	111,572
Financial assets, including derivatives	21	5,421	8,577
Deferred tax assets	22	29,431	25,166
Trade receivables	26	-	21
Other receivables	27	10,313	12,433
Total non current assets		**467,382**	**442,746**
Inventory	23	233,033	116,182
Financial assets, including derivatives	21	478	1,600
Current tax assets	24	20,965	11,600
Construction contracts	25	22,037	15,496
Trade receivables	26	139,974	90,905
Other receivables	27	29,028	15,928
Cash and cash equivalents	28	73,843	75,658
Total current assets		**519,358**	**327,369**
TOTAL ASSETS		**986,740**	**770,115**
LIABILITIES			
Equity attributable to the Parent		450,459	409,572
Equity attributable to non-controlling interests		3,503	3,546
TOTAL EQUITY	**29**	**453,962**	**413,118**
Employee benefits	30	26,036	27,180
Provisions for risks and charges	31	2,336	2,149
Deferred tax liabilities	22	29,277	25,363
Financial liabilities, net of current portion	32	3,784	154,755
Trade payables	33	177	105
Income tax payable	34	108	139
Other payables	35	2,183	1,930
Total non current liabilities		**63,901**	**211,621**
Provisions for risks and charges	31	18,769	8,591
Financial liabilities	32	259,363	17,274
Construction contracts	25	9,686	7,902
Trade payables	33	61,425	46,879
Income tax payable	34	27,392	14,221
Other payables	35	92,242	50,509
Total current liabilities		**468,877**	**145,376**
TOTAL EQUITY AND LIABILITIES		**986,740**	**770,115**

Consolidated Income Statement

		For the year ended December 31,	
(in € thousands)	Notes	2021	2020
Revenue	4	615,878	499,454
Change in inventory of finished goods and work in progress	5	35,324	8,038
Other income	6	4,009	6,840
Costs for raw materials, consumables, supplies and goods	7	(289,578)	(214,376)
Personnel expenses	8	(116,742)	(106,564)
Costs for services	9	(116,193)	(99,151)
Other operating expenses	10	(9,427)	(7,951)
Amortization and depreciation	18 – 19	(26,234)	(26,475)
Impairment (losses)/revaluations and provisions for risks and charges	11	(9,444)	(4,292)
Operating profit		**87,593**	**55,523**
Share of profit of equity-accounted investees	12	8,834	3,991
Finance income	13	13,456	8,626
Finance expenses	14	(16,330)	(23,886)
Profit before tax		**93,553**	**44,254**
Income tax expense	15 – 16	(27,108)	(11,491)
Profit for the period		**66,445**	**32,763**
Attributable to:			
Owners of the parent		*66,696*	*32,634*
Non-controlling interests		*(251)*	*129*
Basic and diluted earnings per share (A, B, C shares)	**17**	**0.38**	**0.20**
Basic and diluted earnings per share (D shares)	**17**	**0.04**	**0.02**

Consolidated Statement of Comprehensive Income

	For the year ended December 31,	
(in € thousands)	2021	2020
Profit for the period	**66,445**	**32,763**
Items that will not be reclassified to profit or loss:		
Actuarial reserve	1,399	664
Tax effect	(551)	(171)
Total items that will not be reclassified to profit or loss, net of the tax effect (A)	**848**	**493**
Items that may be reclassified subsequently to profit or loss:		
Effective portion of the change in fair value of financial instruments hedging cash flows	1,400	587
Change in fair value of financial assets	32	(26)
Translation reserve	14,408	(20,285)
Tax effect	(351)	(123)
Total items that may be reclassified subsequently to profit or loss, net of the tax effect (B)	**15,489**	**(19,847)**
Total other comprehensive income net of the tax effects (A) + (B)	**16,337**	**(19,354)**
Total comprehensive income	**82,782**	**13,409**
Attributable to:		
Owners of the parent	*82,797*	*13,689*
Non-controlling interests	*(15)*	*(280)*

Consolidated Statement of Cash Flows

		For the year ended December 31,	
(in € thousands)	Notes	2021	2020
Cash flows from operating activities			
Profit for the period	29	66,445	32,763
Adjustments for:			
Amortization and depreciation	18-19	26,234	26,475
Impairment losses/(reversal) of property, plant and equipment	11- 18-19	2,947	(798)
Net finance expenses	13-14	2,874	15,260
Share of profit of equity-accounted investees	12	(8,834)	(3,991)
(Gains) losses on the sale of property, plant and equipment and intangible assets	18-19	1,803	1,143
Income tax expense	15	27,108	11,491
Change in inventory	23	(105,237)	(1,249)
Change in trade receivables and construction contracts	25-26	(42,991)	6,490
Change in trade payables	33	11,904	(4,782)
Change in other receivables/payables	27-35	25,267	12,986
Change in provisions and employee benefits	30	976	(6,135)
Cash flows generated by operating activities		**8,496**	**89,653**
Net interest and net other finance expenses paid	13-14	(6,461)	(5,588)
Income tax paid	15	(17,554)	(15,343)
Net cash flows (used in) generated by operating activities		**(15,519)**	**68,722**
Cash flows from investing activities			
Sales of property, plant and equipment and intangible assets	18-19	770	301
Investments in property, plant and equipment	18-19	(23,906)	(19,411)
Investments in intangible assets	18-19	(7,083)	(7,999)
Acquisitions, net of cash acquired	37	(6,352)	-
Dividends collected from associates	20	-	1,842
Shareholders contribution reimbursed by associates	20	-	15,000
Net cash flows used in investing activities		**(36,571)**	**(10,267)**
Cash flows from financing activities			
Share capital increase	29	18,090	-
New loans	32	107,803	15,674
(Repayments) of loans	32	(20,859)	(50,648)
Increase (decrease) in other financial liabilities	32	(1,487)	(1,453)
(Increase) decrease in financial assets	21	3,779	1,016
Dividends paid	29	(60,028)	-
Net cash flows generated by (used in) financing activities		**47,298**	**(35,411)**
Net increase (decrease) in cash and cash equivalents		**(4,792)**	**23,044**
Opening cash and cash equivalents		75,658	55,589
Exchange rate gains/(losses)		2,977	(2,975)
Closing cash and cash equivalents	**28**	**73,843**	**75,658**

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 attributa-ble to the Parent	Equity attributable to non controlling interests	Total Equity
Balance as of December 31, 2019	**16,569**	**3,304**	**7,042**	**198,644**	**11,267**	**(10,264)**	**29,015**	**255,577**	**3,798**	**259,375**
Transactions with shareholders:										
Allocation of profit for 2019	**-**	10	-	29,005	-	-	(29,015)	-	-	**-**
Release Financial liability exit Share B	**-**	-	-	140,306	-	-	-	140,306	-	**140,306**
Other transactions	**-**	-	-	-	-	-	-	-	28	**28**
Comprehensive income statement:										**-**
Profit for the period	**-**	-	-	-	-	-	32,634	32,634	129	**32,763**
Actuarial reserve	**-**	-	-	-	-	503	**-**	503	(10)	**493**
Effective portion of the change in fair value of financial instruments hedging cash flows	**-**	-	-	-	-	456	**-**	456	**-**	**456**
Change in fair value of financial assets	**-**	-	-	-	-	(16)	**-**	(16)	(2)	**(18)**
Translation reserve	**-**	-	-	-	(19,888)	-	-	(19,888)	(397)	**(20,285)**
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**

Notes to the consolidated financial statements for the year ended December 31, 2021

DE NORA

CONTENTS

General information

1. The Group

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

The Group was founded by the engineer Oronzio De Nora and has almost 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.

At December 31, 2021, the Company is controlled by Federico De Nora S.p.A., with registered office in Via Bistolfi 35- Milan, through a 52.29% equity investment. On January 8, 2021, Snam S.p.A. ("**Snam**") acquired, through its subsidiary Asset Company 10 S.r.l., a 37.47% stake in IDN from shareholders BTO Feather Holdings S.à r.l., BTO Feather Holdings ESC (Mauritius) Ltd and Cordusio Società Fiduciaria per Azioni. For more information, see note 29 “Equity”.

1.1. Transactions that took place in the year ended December 31, 2021

On July 1, 2021, the Group completed:

(i) the acquisition of the UV Technologies division from Calgon Carbon Corporation, which includes the brands and assets of Hyde Marine, operator in the market of UV ballast water management systems ("**BWMS**" or "ballast water management systems") and the following brands related to industrial and municipal water treatment such as RAYOX, SENTINEL and C3 SERIES UV; and

(ii) the acquisition of the company Isia S.p.A., leader in the supply of water disinfection solutions with chlorine dioxide, which operates mainly in the Middle East market.

Please refer to note 37 “Business combinations” below for further information.

2. Statement of compliance

The Consolidated financial statements of the De Nora Group for the year ended December 31, 2021 (hereinafter the "**Consolidated Financial Statements**") have been prepared in accordance with international accounting standards (International Accounting Standard – IAS e 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, 2021, 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 consolidated statement of changes in equity and the consolidated statement of cash flows, as well as the related notes. For comparative purposes, the data relating to the year ended December 31, 2020 and, where deemed appropriate, to the year ended December 31, 2019 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 February 18, 2022 and are subject to an audit by the independent auditing firm 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 policies

1. Accounting standards, amendments and interpretations that came into effect and applied as at January 1, 2021

During the year ended December 31, 2021, the following new accounting standards, amendments and interpretations became effective, the application of which did not have a significant impact on the Consolidated Financial Statements:

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 - Reform of the reference indices for determining interest rates (PHASE 2)

Starting from the 2021 financial year, the amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 "Reform of the benchmarks for determining interest rates (phase 2)", aimed at introducing practical expedients and temporary exemptions from the application of some IFRS provisions in the presence of financial instruments measured at amortized cost and/or hedging relationships that are subject to change as a result of the benchmark interest rate reform. This reform process, still in progress, provides for the replacement of some reference indices, e.g. LIBOR (London Interbank Offered Rate), with alternative risk-free reference rates. With reference to the Group, the cases affected by the IBOR reform essentially concern financial liabilities valued at amortized cost at a variable rate and derivative instruments for which mainly operational issues are identified (e.g. renegotiation of loan agreements with counterparties, implementation of fallback clauses, updating of information systems, etc.). At December 31, 2021, the Group mainly held financial instruments indexed to EURIBOR and USD LIBOR benchmark interest rates, the latter being affected by the reform process, which will be replaced by SOFR (Secured Overnight Financing Rate) by June 30, 2023. The Group does not expect significant impacts from the adoption of the new amendments.

Amendments to IFRS 16 Leases: concessions relating to Covid-19 subsequent to June 30, 2021

From April 2021 an amendment to IFRS 16 came into effect, extending the May 2020 amendment by one year, that clarified the circumstance when a lessee may assess that specific reductions in lease payments (as a result of Covid-19) may not be considered as changes to the original amortization schedule, and therefore account for them accordingly. The adoption of the new amendment did not have a significant impact on the Group.

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 principle/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 1 Presentation of the Financial Statements and to IFRS Practice Statement 2: information on accounting policies	NO	January 1, 2023
Amendments to IAS 8 Accounting standards, changes in accounting estimates and errors: definition of accounting estimates	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

No noteworthy impacts are expected on the Consolidated Financial Statements deriving from the future application of these accounting standards or amendments.

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:

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

Accounting principle/amendment	Approved by the EU	Effective date
IFRS 17 (Insurance contracts), including amendments to IFRS 17	YES	January 1, 2023
Amendments to: IFRS 3 Business Combinations; IAS 16 Property, Plant and Equipment; IAS 37 Provisions, contingent liabilities and contingent assets; Annual improvement cycle 2018-2020	YES	January 1, 2022

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, the information relating to the company name, registered office, functional currency, share capital and the share held directly as at December 31, 2021.

			in local currency	in Euro	2021	2020	
Entity	Registered office	Currency	Share of capital as of December 31, 2021		% of capital held as of December 31,		Consolidation Criteria
Oronzio De Nora International BV	The Netherland	Euro	4,500,000.00	4,500,000.00	100%	100%	Full
*De Nora Deutschland Gmbh	Germany	Euro	100,000.00	100,000.00	100%	100%	Full
*De Nora India Ltd	India	INR	53,086,340.00	630,260.53	54%	54%	Full
*De Nora Permelec Ltd	Japan	JPY	90,000,000.00	690,289.92	100%	100%	Full
*De Nora Hong Kong Limited	Honk Kong	HKD	100,000.00	11,320.80	100%	100%	Full
De Nora do Brasil Ltda	Brazil	BRL	9,662,257.00	1,531,236.75	100%	100%	Full
De Nora Electrodes (Suzhou) Ltd	China	CNY	25,259,666.00	22,302,371.53	100%	100%	Full
*De Nora China- Jinan Co Ltd	China	CNY	15,000,000.00	2,084,868.03	100%	100%	Full
*De Nora Glory (Shanghai) Co Ltd	China	CNY	1,000,000.00	138,991.20	80%	80%	Full
De Nora Italy S.r.l.	Italy	Euro	5,000,000.00	5,000,000.00	100%	100%	Full
De Nora ISIA S.r.l.	Italy	Euro	200,000.00	200,000.00	100%	-	Full
De Nora Water Technologies Italy S.r.l.	Italy	Euro	78,000.00	78,000.00	100%	100%	Full
*De Nora Water Technologies FZE	Dubai	AED	250,000.00	60,103.38	100%	100%	Full
De Nora Holding UK Ltd.	United Kingdom	Euro	19.00	19.00	100%	100%	Full
*De Nora Water Technologies UK Services Ltd.	United Kingdom	GBP	7,597,918.00	9,042,126.43	100%	100%	Full
*De Nora Holding US Inc.	United States	USD	10.00	8.83	100%	100%	Full
*De Nora Tech LLC	United States	USD	-	-	100%	100%	Full
* De Nora Water Technologies LLC (formerly De Nora Water Technologies Inc.)	United States	USD	968,500.19	855,112.30	100%	100%	Full
*De Nora Water Technologies (Shanghai) Co. Ltd.	China	CNY	16,780,955.00	2,332,405.10	100%	100%	Full
*De Nora Water Technologies Ltd.	United Kingdom	GBP	1.00	1.19	100%	100%	Full
*De Nora Water Technologies (Shanghai) Ltd	China	CNY	7,757,786.80	1,078,264.11	100%	100%	Full
*De Nora Marine Technologies LLC	United States	USD	-	-	100%	100%	Full
*De Nora Neptune LLC	United States	USD	-	-	80%	80%	Full
*De Nora UV Technologies, LLC- USA	United States	USD	-	-	100%	-	Full
Capannoni S.r.l.	Italy	Euro	8,500,000.00	8,500,000.00	100%	100%	Full
*Capannoni LLC	United States	USD	3,477,750.00	3,070,589.79	100%	100%	Full
ThyssenKrupp Uhde Chlorine Engeneers GmbH- Germany	Germany	Euro	10,000,000.00	10,000,000.00	34%	34%	Equity
*ThyssenKrupp Uhde Chlorine Engeneers S.r.l.- Italy	Italy	Euro	1,080,000.00	1,080,000.00	34%	34%	Equity
*ThyssenKrupp Uhde Chlorine Engeneers Ltd- Japan	Japan	JPY	150,000,000.00	1,150,483.20	34%	34%	Equity
*ThyssenKrupp Uhde Chlorine Engeneers Co Ltd- CHINA	China	CNY	20,691,437.50	2,875,927.77	34%	34%	Equity
*ThyssenKrupp Uhde Chlorine Electrolysis Inc.- USA	United States	USD	700,000.00	618,046.97	34%	34%	Equity
*ThyssenKrupp Uhde Chlorine Engineers Pty Ltd.- Australia	Australia	AUD	500,000.00	320,204.93	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:

- 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;
- of the ThyssenKrupp companies (the financial year of the parent company ThyssenKrupp Uhde Chlorine Engineers GmbH ended on September 30) for which annual data at December 31 of each year have been prepared.

The main changes in the consolidation area are briefly described below. For the accounting effects relating to the acquisitions made in the periods under examination, reference should be made to what is reported in detail in note 37 “Business combinations”.

In the year ended December 31, 2021, the Group completed:

- the acquisition of the UV Technologies division from Calgon Carbon Corporation, which includes the brands and assets of the world leader in UV ballast water management systems Hyde Marine and brands related to industrial and municipal water treatment such as RAYOX, SENTINEL and C3 SERIES UV; and
- the acquisition of the company Isia S.p.A., a supplier of water disinfection solutions with chlorine dioxide, which mainly targets and serves the Middle East market.

It should also be noted that on June 30, 2021 the subsidiary De Nora Permelec Ltd acquired a minority stake equal to 6.37% of the share capital of AZUL Energy Co. Ltd.

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 comprehensive income statement;
- 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 a reduction in value 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 interests 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 shareholdings involving the loss of control determines the recognition in the comprehensive income statement:
  (i) of any capital gain/loss calculated as the difference between the consideration received and the corresponding portion of conso-

lidated shareholders' equity transferred;
(ii) of the effect of remeasuring any residual 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 comprehensive income statement is provided for, or if the reversal to the comprehensive income statement is not envisaged, to the equity item "Retained earnings".

The value of any investment retained, aligned with its fair value at the date of loss of control, represents the new carrying amount of the 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 assumed contingent liabilities 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 policies. 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 comprehensive income statement, 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 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 comprehensive income statement 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 other 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 shareholding previously held in the acquired company and the amount paid for the additional share. Any difference between the fair value of the previously held 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 other comprehensive income, or in another equity item if there is no reclassification to 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, with the exception of companies operating in economies subject to hyperinflation, 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 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:

	For the year ended December 31,		As of December 31,		
Currency	**2021**	**2020**	**2021**	**2020**	**2019**
US Dollar	1.1827	1.1422	1.1326	1.2271	1.1234
Japanese Yen	129.8767	121.8458	130.38	126.49	121.94
Indian Rupee	87.4392	84.6392	84.2292	89.6605	80.187
Chinese Yuan (Renminbi)	7.6282	7.8747	7.1947	8.0225	7.8205
Brazilian Real	6.3779	5.8943	6.3101	6.3735	4.5157
Pound sterling (GBP)	0.8596	0.8897	0.8403	0.899	0.8508

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.

3. Summary of 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, are drawn up on basis of the current cost criterion.

A description of the financial reporting formats and the most significant accounting policies 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 (income statement, statement of financial position, statement of cash flows, statement of changes in equity and 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 realization in cash or cash equivalent. 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 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 policies.

The consolidated statement of comprehensive income presents, on a separate basis, the profit/(loss) for the year and any income and expense not taken to income statement, but is instead recognized directly in equity, in accordance with specific IFRS principles.

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 assets held for sale” apply.

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

Intangible Assets Categories	Useful life
Industrial patents and intellectual property rights	from 3 to 5 years
Concessions, licenses and trademarks	from 3 to 5 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

Assets and liabilities for right of use 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; and
- 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 of the 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 of the 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; and
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 value reductions; and
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 book value to take into account the payments due for the leases made; and
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	Useful life
Buildings	from 25 to 35 years
Plant and Machinery	from 8 to 25 years
Equipment	from 5 to 10 years
Leased assets	from 3 to 25 years
Other assets	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 a reduction in value, 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 each of the cash generating units ("CGU") 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 reduction in the value 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 reduction in value 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 date, 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 comprehensive income statement. 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 comprehensive income statement 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 book value 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 book value 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; and
- 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); and
- 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 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); and
- 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 the 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 balance sheet 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 loans, 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 loan, 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 realisable 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 profit or loss 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 profit or loss, net of the related tax effects; profit and loss components of discontinued operations are also disclosed for the comparative 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 interest 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 profit or loss are recognized in the year when they arise. Contract revenue 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 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, 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 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 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 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 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 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 profit or loss 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 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;
- potential 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 programme 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 cannot 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 balance sheet 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 balance sheet 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 profit or loss 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 profit or loss 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 carrying amount.

Income tax expense

The tax charge for the year includes the current and deferred tax charges. Income taxes are recognized in profit or loss, 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 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 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 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 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 year, excluding treasury shares.

Diluted earnings per share is calculated by dividing the Group's income by the weighted average number of ordinary shares outstanding during the 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; and
- for which separate financial information is available.

Please refer to Note 38 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 comprehensive income statement, the cash flow statement, as well as the reports provided. 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 detect 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. In addition, if it is determined that a potential impairment loss may have been incurred, this determination is done using appropriate valuation techniques. 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 book value 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 taxes:* 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 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 revenue characteristics is periodically subject to valuation tests and written down if their recoverable value is lower than the book value. 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.

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, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Sales of electrodes	284,316	206,567
Sales of systems	34,210	38,453
After-market and other sales	223,837	196,282
Change in construction contracts	73,515	58,152
Total	**615,878**	**499,454**

Revenues for the year ended December 31, 2021 amounted to €615,878 thousand (€499,454 thousand for the year ended December 31, 2020).
Revenue recognized during the financial year included in the opening balance of liabilities and arising from contracts at the beginning of the financial year amounted to €172,507 thousand.

Operating income from leasing are included in the item "After-market and other sales" and amounted to €27,838 thousand for the year ended December 31, 2021 (€25,367 thousand for the year ended December 31, 2020), 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 years ended December 31, 2021 and 2020.

(in € thousands)	Within one year	One to five years	Over five years
Non-cancellable lease portion			
As of December 31, 2021	20,705	51,894	56,910
As of December 31, 2020	18,656	43,939	20,599

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 years ended 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, 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,	
(in € thousands)	2021	2020
Europe, Middle East, India and Africa (EMEIA)	166,533	122,821
North and Latin Americas (AMS)	192,574	162,131
Asia and South Pacific (ASIA)	256,771	214,502
Total	**615,878**	**499,454**

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 year ended December 31, 2021, 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 and contractual obligations fulfilled over time, the Group recognises 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 year ended December 31, 2021, the Group shows a positive change in inventories of semi-finished and finished products equal to €35,324 thousand (€8,038 thousand for the year ended December 31, 2020) and includes the amount of €1,469 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 (€4,522 thousand for the year ended December 31, 2020).

6. Other income

The table below shows the detail of other income for the years ended December 31, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Sundry income	3,285	5,654
R&D grants	497	381
R&D income	104	431
Gain on sale of non current assets	30	9
Insurance refund (*)	93	365
Total	**4,009**	**6,840**

* - The item Insurance refund in the approved consolidated financial statements as of December 31, 2020 was included in Other income. For consistency of presentation, the comparative information have been aligned with the representation for the year ended December 31, 2021

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, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Purchase of raw materials	287,802	133,890
Change in inventory	(77,498)	4,651
Purchase of semi-finished and finished goods	76,158	68,903
Purchase of consumables and supplies	10,030	11,338
Purchase of packaging material	1,114	1,072
Other purchases and related charges	205	20
(Capitalized costs related to assets built internally)	(8,233)	(5,498)
Total	**289,578**	**214,376**

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, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Wages and salaries	96,033	89,831
Social security contributions	19,375	18,902
Post-employment benefits and other pension plans	2,469	2,697
Curtailment of defined benefit obligations	-	(4,302)
Other personnel net (income)/expenses	2,833	3,393
(Capitalized costs related to assets built internally)	(3,968)	(3,957)
Total	**116,742**	**106,564**

Personnel expenses amounted to €116,742 thousand for the year ended December 31, 2021 (€106,564 thousand for the year ended December 31, 2020).

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 €499 thousand, is related to retirement incentives and charges (versus €648 thousand in 2020) and, for the remaining part, to healthcare and insurance coverage, expatriate benefits and directors' remuneration.
The table below shows the average number of Group employees for the financial years ended December 31, 2021 and 2020.

	For the year ended December 31,	
	2021	2020
Average number of employees	1,685	1,636

9. Cost for services

The table below shows the detail of costs for services for the years ended December 31, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Outsourcing expenses	46,022	39,448
Consultancies:		
- Production and technical assistance	6,723	5,153
- Selling	227	641
- Legal, tax, administrative and ICT	11,172	9,990
- M&A and Business development	202	62
Utilities	7,925	8,020
Maintenance	13,878	11,804
Travel expenses	4,567	3,421
R&D	602	779
Statutory auditors' fees	123	137
Insurance	2,754	2,607
Rents and other lease expenses	2,251	1,754
Commissions and royalties	4,375	2,528
Freight	8,355	6,316
Waste disposal, office cleaning and security	2,802	2,826
Promotional, advertising and marketing expenses	1,070	744
Patents and trademarks	924	1,127
Canteen, training and other personnel expenses	2,362	1,816
Other	8,361	7,067
(Capitalized costs related to assets built internally)	(8,502)	(7,089)
Total	**116,193**	**99,151**

The costs for services amounted to €116,193 thousand in 2021 (€99,151 thousand in 2020) and mainly refer to outsourcing expenses, consultancy, utilities, maintenance and transport costs.

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

10. Other operating expenses

The table below shows the detail of other operating expenses for the financial years ended December 31, 2021 and 2020:

	For the year ended December 31,	
(in € thousands)	2021	2020
Indirect taxes and duties	5,705	5,016
Losses on sale of non current assets	1,832	1,152
Losses on receivables (not covered by utilization of bad debt provision)	9	271
Other miscellaneous expenses	1,881	1,512
Total	**9,427**	**7,951**

Other operating expenses amounted to €9,427 thousand in 2021 (€7,951 thousand in 2020).

11. Impairment (losses)/revaluations and provisions for risks and charges

The following table shows the detail of the item impairment (losses)/revaluations of non current assets and provisions for the years ended December 31, 2021 and 2020:

	For the year ended December 31,	
(in € thousands)	2021	2020
Net provisions for risks and charges	4,767	2,644
Net bad debt provision	1,730	2,446
Reversal of impairment losses	(240)	(798)
Impairment of goodwill	3,187	-
Total	**9,444**	**4,292**

The impairment of goodwill for the year ended December 31, 2021 refers entirely to the cash generating unit Fracking US.
For more information on the reversal of impairment losses property, plant and equipment and the impairment of goodwill, see notes 19 “Property, plant and equipment” and 18 “Goodwill and other intangible assets” respectively.

12. Share of profit of equity-accounted investees

For the year ended December 31, 2021, the item amounted to €8,834 thousand (€3,991 thousand for the year ended December 31, 2020) and represented 34% of the consolidated net result for the period of the company associated with ThyssenKrupp Uhde Chlorine Engineers GmbH (to be renamed thyssenkrupp nucera AG & Co. KGaA hereinafter “**TK Nucera**”), active in the design, supply, construction and commissioning of electrolysis plants for the production of chlor-alkali. This amount is expressed net of the so-called preferred dividends to be paid to the shareholder ThyssenKrupp Uhde GmbH (hereinafter “**TKU** ”) against the tax benefits deriving from the amortization of the assets conferred by the latter. Please refer to note 20 for further details.

13. Finance income

The table below shows the detail of finance income for the years ended December 31, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Exchange rate gains	11,290	5,368
Fair value (positive) on financial instruments	1,724	2,712
Profit from non current financial assets	9	30
Bank interest	282	195
Interest on trade receivables	2	17
Other finance income	149	304
Total	**13,456**	**8,626**

14. Finance expenses

The table below shows the detail of finance expenses for the financial years ended December 31, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Bank interest and interest on loans and borrowings	4,663	5,783
Exchange rate losses	6,190	10,749
Fair value (negative) on financial instruments	3,788	2,090
Finance expenses on personnel costs	240	318
Bank fees	664	661
Other finance expenses	785	4,285
Total	**16,330**	**23,886**

In the year ended December 31, 2021, other finance expenses mainly include interest relating to leasing contracts and expenses for bank guarantees, while in the year ended December 31, 2020, other financial charges include charges relating to the financial liability recognized in relation to the put option reserved for holders of category B shares of the Company equal to €3,648 thousand. Following the sale by the Blackstone Group of its stake in the Company, formally completed on January 8, 2021 but whose conditions precedent ended before the end of the financial year, at December 31, 2020, the financial liability (€140,306 thousand) was in fact zeroed against a corresponding increase in shareholders' equity.

15. Income tax expense

The table below shows the detail of income tax expense for the financial years ended December 31, 2021 and 2020.

	For the year ended December 31,	
(in € thousands)	2021	2020
Current taxes	26,185	11,427
Deferred taxes	863	(587)
Prior years taxes	60	651
Total	**27,108**	**11,491**

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, 2021 and 2020.

	For the year ended December 31,			
(in € thousands, expect percentages)	2021		2020	
Profit for the period		66,445		32,763
Income tax expense		27,108		11,491
Profit before tax		**93,553**		**44,254**
Income tax expense at Italian nominal tax rate (IRES)	24.0%	22,453	24.0%	10,621
Effect of foreign tax rates- higher rate	3.6%	3,334	6.2%	2,758
Effect of foreign tax rates- lower rate	(2.8%)	(2,579)	(2.2%)	(986)
Italian Regional Tax (IRAP)	0.9%	836	1.1%	485
Tax effect of non-deductible expense	7.6%	7,090	10.7%	4,715
Tax effect of non-taxable revenue and income	(3.7%)	(3,468)	(4.3%)	(1,894)
Tax benefits	(0.02%)	(21)	(4.3%)	(1,895)
Tax losses carried forward	(0.4%)	(383)	(5.5%)	(2,452)
Change in tax rates	(0.1%)	(45)	(0.0%)	(21)
Change in previously unrecognized temporary differences	(0.4%)	(353)	1.2%	544
Other	0.3%	244	(0.9%)	(384)
Total	**28.98%**	**27,108**	**25.97%**	**11,491**

17. Earnings per share

The share capital of the Group includes four categories of ordinary shares with different rights to participate in the profit for the year. In particular, the ordinary shares of categories A, B and C participate equally in dividends or other distributions, while the shares of category D participate in them for 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 reasons for the issue of category D shares and the procedures for their conversion into ordinary shares are described in note 29 below.
The following table shows the basic and diluted earnings per share for the years ended December 31, 2021, 2020 and 2019 for the ordinary shares of categories A, B and C. The index was calculated by dividing the portion of the profit for the year attributable to the shareholders of the parent holding category A, B and C shares for the period for the weighted average number of ordinary shares relating to these categories.

	For the year ended December 31,		
	2021	**2020 (*)**	**2019 (*)**
Profit for the period attributable to the owners of the parent (in € thousands)	66,696	32,634	29,015
Weighted average number of ordinary shares for basic earnings per share	177,065,493	165,684,990	165,399,583
Basic earnings per share (in Euro)	**0.38**	**0.20**	**0.18**
Weighted average number of ordinary shares for diluted earnings per share	177,295,823	165,742,415	165,399,583
Diluted earnings per share (in Euro)	**0.38**	**0.20**	**0.18**

* - For the sake of completeness, the table above includes the information relating to the 2019 financial year as the Group has supplemented certain disclosures with respect to the approved financial statements related to the 2020 and 2019 financial years

The following table shows the basic and diluted earnings per share for the years ended December 31, 2021, 2020 and 2019 for the ordinary shares of categories D. The index was calculated by dividing the portion of the profit for the year attributable to the shareholders of the parent holding category D shares for the period for the weighted average number of ordinary shares of that category.

	For the year ended December 31,		
	2021	**2020 (*)**	**2019 (*)**
Profit for the period attributable to shareholders D owners of the parent (in € thousands)	0.20	0.19	0.17
Weighted average number of ordinary shares (category D) for basic earnings per share	5,306	9,600	9,286
Basic earnings per share (in Euro)	**0.04**	**0.02**	**0.02**
Weighted average number of ordinary shares of D category for diluted earnings per share	5,096	9,548	9,286
Diluted earnings per share (in Euro)	**0.04**	**0.02**	**0.02**

* - For the sake of completeness, the table above includes the information relating to the 2019 financial year as the Group has supplemented certain disclosures with respect to the approved financial statements related to the 2020 and 2019 financial years

Diluted earnings per share for 2020 and 2019 reflect the potential conversion of category D shares into category B shares related to the sale of the equity investment in the Company held by Blackstone, formally completed on January 8, 2021, but whose conditions precedent were no longer valid in December 2020. The category D shares being converted had been assigned to some managers of the Company as part of the plan released in the 2017 financial year ("2017 Plan"). As part of the 2017 Plan, the eventuality in which Blackstone would reduce its stake below 10% of the Company's share capital was a condition for the conversion.

For the purpose of calculating diluted earnings per share, the potential shares deriving from the conversion of category D shares are considered with a dilutive effect starting from the date on which the conversion conditions are met.

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

18. Goodwill and other intangible assets

The table below shows the breakdown and changes in intangible assets for the years ended December 31, 2021 and 2020.

(in € thousands)	Goodwill	Industrial patents and intellectual property rights	Concessions, licenses and trademarks	Know-how and Techno-logies	Customer relationships	Develop-ment costs	Other	Assets under construction and advance payments	Total intangible assets
Historical cost at December 31, 2019	**66,924**	**11,714**	**26,613**	**49,792**	**51,161**	**11,201**	**9,875**	**15,998**	**243,278**
Increase	152	624	1,243	-	-	189	3,450	2,493	**8,151**
Decrease	-	-	(105)	-	-	-	(49)	(231)	**(385)**
Reclassif./Other movements	-	496	6,303	-	-	4,057	(4,213)	(6,872)	**(229)**
Exchange rate difference	(5,451)	(54)	(1,823)	(2,778)	(3,774)	(1,098)	(583)	(433)	**(15,994)**
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)**
Reclassif./Other movements	-	375	649	-	-	608	123	(1,580)	**175**
Exchange rate difference	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**
Accumulated amortization as of December 31, 2019	**-**	**10,210**	**20,908**	**28,838**	**31,212**	**3,509**	**4,954**	**-**	**99,631**
Increase	-	1,144	2,967	1,702	2,881	1,511	496	-	**10,701**
Decrease	-	-	(88)	-	-	-	(47)	-	**(135)**
Reclassif./Other movements	-	-	5	-	-	295	(380)	-	**(80)**
Exchange rate difference	-	(21)	(1,149)	(1,933)	(2,652)	(314)	(308)	-	**(6,377)**
Accumulated amortization as of 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)**
Reclassif./Other movements	-	-	(3)	-	-	-	-	-	**(3)**
Exchange rate difference	-	(15)	667	1,011	2,337	281	272	-	**4,553**
Accumulated amortization as of December 31, 2021	**-**	**12,460**	**25,866**	**31,229**	**35,991**	**6,744**	**4,716**	**-**	**117,006**
Net book value as of December 31, 2020	**61,625**	**1,447**	**9,588**	**18,407**	**15,946**	**9,348**	**3,765**	**10,955**	**131,081**
Net book value as of December 31, 2021	**63,226**	**1,793**	**9,055**	**16,680**	**14,371**	**9,165**	**3,660**	**14,855**	**132,805**

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

This item mainly consists of distribution and marketing rights acquired from third parties. It also includes software licence costs amortized over their useful lives. 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 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 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.

Other intangible fixed assets

The item mainly includes, for €3,051 thousand at December 31, 2021 (€3,075 thousand at December 31, 2020), the valuation of trademarks identified in the purchase price allocation, following business combinations that involved the Group companies in previous 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.

Intangible assets with an indefinite useful life

At December 31, 2021 and 2020, the value of goodwill refers to:

- the acquisition in 2005 of De Nora Tech LLC - US;
- the acquisition in 2015 of De Nora Ozone S.r.l. (subsequently merged into De Nora Water Technologies Italy S.r.l. effective for accounting and tax purposes from January 1, 2018);
- the acquisition, which took place in April 2019 of De Nora Neptune LLC- US, included in the Fracking US cash generating unit, which also includes the fracking business of the former De Nora Water Technologies Texas LLC, merged by incorporation into De Nora Water Technologies LLC since 2020.

In line with the requirements of IAS 36, at December 31, 2021 and 2020 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:

	As of December 31,	
(in € thousands)	2021	2020
De Nora Tech LLC- US	61,726	57,053
Fracking US	-	3,072
De Nora Water Technologies Italy S.r.l.	1,500	1,500
Total	**63,226**	**61,625**

In order to identify the CGU, 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 De Nora Tech LLC- US CGU has been identified within the Electrode Technologies business segment, while the Fracking US and De Nora Water Technologies Italy S.r.l. CGUs have been identified within the Water Technologies business segment.

At December 31, 2021, goodwill, equal to €63,226 thousand (€61,625 thousand at December 31, 2020), was subjected to an impairment test in accordance with the provisions of accounting standard IAS 36, or by comparing the carrying amount of the CGU which includes goodwill with the recoverable value of the CGU. Specifically, the configuration of the recoverable value is that of the value in use, determined by discounting the forecast data of the CGU ("DCF Method") relating to the four-year period following the reporting date. The key assumptions used to determine the CGU's 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 at December 31, 2021, these future expectations were derived from the 2022-2025 business plan approved on January 19, 2022 by the Board of Directors. For the data at December 31, 2020, these expectations were derived from the previous 2020-2024 business plan.

The terminal value of the CGUs 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:

	As of December 31,	
	2021	**2020**
WACC		
De Nora Tech LLC	8.42%	8.00%
Fracking US	8.42%	7.90%
De Nora Water Technologies Italy S.r.l.	6.51%	6.20%
G-rate		
De Nora Tech LLC- US	1.41%	1.03%
Fracking US	1.44%	0.93%
De Nora Water Technologies Italy S.r.l.	1.70%	1.88%

The impairment test at December 31, 2021 showed that the discounted cash flows per CGU are higher than the value of the invested capital (including goodwill) associated with each CGU with the exception of the Fracking US CGU, for which a total impairment of the goodwill allocated to it was booked, recognising a cost in the income statement under the item "impairment (losses)/revaluations of non current assets" of €3,187 thousand. This value adjustment originates from the revision of the growth prospects of the reference market of the Fracking US CGU in the 2022-2025 business plan compared to the previous one.

In particular, the excess of the recoverable value of the CGUs, determined on the basis of the criteria described above, compared to the relative book value before the impairment at December 31, 2021 is shown in the following table:

	As of December 31,
(in € thousands)	**2021**
De Nora Tech LLC- US	121,272
Fracking US	(3,187)
De Nora Water Technologies Italy S.r.l.	16,610
Total	**129,515**

From the impairment test carried out at December 31, 2020, no elements emerged that would lead to the belief that any goodwill impairments were necessary.
At December 31, 2021 and 2020, 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 year ended December 31, 2021:

- for the CGU De Nora Tech LLC- US, an increase in WACC of up to 13.6%, or a zero g-rate or a reduction in EBIT over the plan period of 33%, with a similar impact on terminal flow, would not lead to impairment;
- for the CGU De Nora Water Technologies Italy S.r.l., an increase in WACC of up to 10.1% or a reduction in g-rate to zero or a reduction in EBIT over the plan period of 46%, with a similar impact on terminal flow, would not lead to impairment losses.

In addition to the impairment tests carried out in the presence of goodwill, the other CGUs were analysed in order to check whether there were any indicators (impairment indicators) that the carrying amounts of the related assets might be impaired; the analyses carried out led to the conclusion that it was appropriate to test the assets of the US Water Technologies CGU, related in particular to De Nora Water Technologies LLC De Nora Marine Technologies LLC and De Nora UV Technologies LLC, acquired during the year ended December 31, 2021, considered together, net of the separately identified and tested Fracking CGU.

Having detected impairment indicators, the impairment test was again carried out by applying the Discounted Cash Flow method to determine the value in use, using a WACC of 8.60% and a g-rate of 1.64%. The sensitivity analyses carried out to verify the consistency of the book values confirmed the recoverability of the carrying value of the assets even in the presence of worsening changes in the main assumptions, in particular, an increase in the WACC up to approximately 10.4% or the zeroing of the g-rate or the reduction of the EBIT over the plan period by 19%, with a similar impact on the terminal flow, would not determine impairment losses.

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, 2021 and 2020:

(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, 2019	**31,992**	**83,824**	**86,957**	**18,970**	**118,813**	**4,525**	**3,142**	**1,383**	**2,692**	**347,773**
Increase	-	482	2,933	581	664	1,745	854	891	14,751	21,156
Decrease	-	(68)	(1,132)	(387)	(6,768)	-	-	-	-	(8,355)
Reversal of impairment losses	-	-	-	-	798	-	-	-	-	798
Reclassif./Other movements	-	675	3,772	531	8,177	-	-	-	(10,987)	2,168
Exchange rate difference	(1,189)	(4,224)	(4,174)	(958)	(4,587)	(191)	(137)	(54)	(485)	(15,808)
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)
Reversal of impairment losses	-	-	-	-	240	-	-	-	-	240
Reclassif./Other movements	-	4,928	4,882	199	6,340	-	-	-	(16,573)	(224)
Exchange rate difference	(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**
Accumulated depreciation as of December 31, 2019	**10**	**30,111**	**47,766**	**14,795**	**97,976**	**1,069**	**664**	**405**	**-**	**191,727**
Increase	-	2,824	5,730	1,194	4,469	1,557	935	622	-	15,774
Decrease	-	(66)	(975)	(345)	(5,776)	-	-	-	-	(7,162)
Reclassif./Other movements	-	140	-	30	1,811	(186)	(186)	-	-	1,795
Exchange rate difference	-	(1,675)	(2,331)	(711)	(3,517)	(64)	(37)	(27)	-	(8,298)
Accumulated depreciation as of 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)
Reclassif./Other movements	-	43	1	(90)	-	-	-	-	-	(46)
Exchange rate difference	-	800	1,665	346	(797)	148	116	32	-	2,162
Accumulated depreciation as of December 31, 2021	**10**	**35,143**	**57,804**	**14,801**	**97,198**	**3,127**	**1,887**	**1,240**	**-**	**208,083**
Net book value as of December 31, 2020	**30,793**	**49,355**	**38,166**	**3,774**	**22,134**	**3,703**	**2,483**	**1,220**	**5,971**	**153,896**
Net book value as of December 31, 2021	**30,304**	**55,441**	**43,357**	**3,993**	**25,107**	**4,952**	**4,163**	**789**	**4,473**	**167,627**

The increases in property, plant and equipment amounted to €27,183 thousand in the year ended December 31, 2021 (€21,156 thousand in the year ended December 31, 2020).

During the financial year ended December 31, 2021, at the end of the lease, the Group recognized reversal of impairment loss of €240 thousand in the result for the year relating to leased assets, previously written down, pertaining to the Electrode Technologies business segment (€798 thousand in the year ended December 31, 2020 and €253 thousand in the year ended December 31, 2019, in both years recognized at the end of the lease contract of leased assets previously written down pertaining to the Electrode Technologies business segment).

Investments in property, plant and equipment for the year ended December 31, 2021, excluding increases in the rights of use of property, plant and equipment, amounted to a total of €23,906 thousand and mainly refer to:

(i) leased assets for €1,261 thousand related to anodes to be leased within the Electrode Technologies business segment;
(ii) buildings for €1,406 thousand;
(iii) plant and machinery for €5,267 thousand related to the following: (i) for €3,405 thousand to the production plant located in Germany of which €1,918 thousand related to a new laser cutting machine; (ii) for €1,123 thousand to mobile units for the fracking activity and (iii) for the remaining part to new investments and extraordinary maintenance activities on various production plants and to laboratory equipment at the service of Research and Development in Italy.
(iv) assets in progress for €15,108 thousand related to the following: (i) for €6,340 thousand to anodes to be leased within the Electrode Technologies business segment; (ii) for €6,259 thousand for plant and machinery mainly related to laboratory equipment for Research and Development in Italy and molds, and for prototypes and small plants for alkaline water electrolysis technology (AWE) within the emerging Energy Transition business, to the equipping of the new production plant located in the United States and to new investments and extraordinary maintenance on existing plants and machinery mainly in Japan, Brazil, Germany and Italy; and (iii) for €2,171 thousand to buildings used by the companies of the Group.

The following table provides the main information relating to lease agreements in which the Group acts as a lessee:

	As of December 31,	
(in € thousands)	**2021**	**2020**
Historical cost of right of use assets (buildings)	6,050	3,859
Historical cost of right of use assets (other assets)	2,029	2,220
Total historical of cost right of use assets	**8,079**	**6,079**
Accumulated depreciation of right of use assets (buildings)	1,887	1,376
Accumulated depreciation of right of use assets (other assets)	1,240	1,000
Total accumulated depreciation of right of use assets	**3,127**	**2,376**
Net book value of right of use assets (buildings)	4,163	2,483
Net book value of right of use assets (other assets)	789	1,220
Total net book value of right of use assets	**4,952**	**3,703**
Current lease payables	1,637	1,400
Non current lease payables	3,784	2,481
Total lease payables	**5,421**	**3,881**
Depreciation of right of use assets (buildings)	1,175	935
Depreciation of right of use assets (other assets)	589	622
Total depreciation of right of use assets	**1,764**	**1,557**
Lease payments	**1,608**	**1,623**
Of which lease interest paid	*129*	*144*
Short-term and low value leases	**2,251**	**1,754**

During the year ended December 31, 2021, a total of €1,608 thousand of lease payments were made, of which €1,479 thousand as a reduction of the finance liability and €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 €2,251 thousand.

During the financial year ending December 31, 2020, a total of €1,623 thousand of lease instalments were paid, of which €1,479 thousand as a reduction of the finance liability and €144 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 €1,754 thousand.

20. Equity-accounted investees

The item consists almost entirely of the equity investment in the associated company Thyssen Krupp Uhde Chlorine Engineers GmbH, whose registered office is located in Dortmund, via Voßkuhle, 38 (Germany). The following table provides details and changes in equity investments accounted for using the equity method for the years ended December 31, 2021 and 2020:

	As of December 31,	
	2021	**2020**
Opening balance	**111,572**	**125,541**
Share of profit	8,834	3,991
(Dividends)	-	(1,841)
Other increases (decreases)	1,379	(16,119)
Closing balance	**121,785**	**111,572**
Investment %	**34%**	**34%**

The share of profits for both years takes into account the preferred dividends contractually due to the majority shareholder.

In the financial year ended December 31, 2021, the other increases totalled €1,379 thousand and mainly refer to the components of the comprehensive income statement.

With respect to the stake in ThyssenKrupp Uhde Chlorine Engineers GmbH, 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 years ended December 31, 2021 and 2020.

	As of December 31,	
(in € thousands)	2021	2020
Intangible assets	58,842	46,330
Property, plant and equipment	8,219	7,371
Deferred tax assets	9,192	26,960
Other non current assets	786	1,291
Inventory	71,321	102,516
Trade receivables	29,565	25,872
Financial assets and other current receivables	241,028	204,492
Cash and cash equivalent	9,832	8,915
TOTAL ASSETS	**428,785**	**423,747**
Share Capital	10,000	10,000
Reserves	201,769	177,735
Deferred tax liabilities	12,870	8,598
Employees benefits	8,666	8,607
Financial liabilities	1,999	1,188
Other non current payables	2,899	3,471
Trade payables	46,218	29,555
Construction contracts and other current payables	141,042	181,060
TOTAL LIABILITIES AND EQUITY	**428,785**	**423,747**

	For the year ended December 31,	
(in € thousands)	2021	2020
Revenues	363,777	249,615
Operating costs (*)	(324,417)	(228,889)
Finance income/ (expense)	(467)	1,056
Income tax expense	(9,827)	(6,958)
Profit for the period	**29,066**	**14,824**
Other components of the comprehensive income statement	4,056	3,288
Profit of the comprehensive income statement for the year	**33,122**	**18,112**

*** -** For the year ended December 31, 2021, it includes amortization, depreciation and write-downs for €3,124 thousand

21. Financial assets, including derivatives

The table below shows the breakdown of non current financial assets at December 31, 2021 and 2020.

(in € thousands)	As of December 31,	
Non current	**2021**	**2020**
Financial receivables	2,665	6,605
Investments in financial assets	2,756	1,972
Total	**5,421**	**8,577**

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 €2,252 thousand as at December 31, 2021 (zero value at December 31, 2020).

Investments in financial assets mainly refer to some pension funds and supplementary company funds for employees.

The table below shows the composition of current financial assets as of December 31, 2021 and 2020.

(in € thousands)	As of December 31,	
Current	**2021**	**2020**
Financial receivables	1	-
Investments in financial assets	477	482
Fair value of derivatives	-	1,118
Total	**478**	**1,600**

Investments in financial assets relate primarily to investments subject to short-term time restrictions,but can be liquidated at any time.

For information on derivative financial instruments, see note 32 “Financial liabilities”.

22. Deferred tax assets and liabilities

The Group's deferred tax assets at December 31, 2021 amounted to €29,431 thousand (€25,166 thousand at December 31, 2020). The Group's deferred tax liabilities at December 31, 2021 amounted to €29,277 thousand (€25,363 thousand at December 31, 2020).

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. 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 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 year and will reverse in one or more subsequent years.
The following table shows the detailed statement of deferred tax assets and liabilities at December 31, 2021 and 2020.

	As of December 31, 2021		
(in € thousands)	Assets*	Liabilities**	Net***
Property, plant and equipment	1,264	(6,743)	(5,479)
Intangible assets	3,627	(16,122)	(12,495)
Equity-accounted investees	-	(83)	(83)
Trade receivables and inventory	7,647	(2,628)	5,019
Financial assets/liabilities	152	(20)	132
Other assets	455	-	455
Employee benefits	2,899	(2,438)	461
Provisions for risks and charges	6,281	(161)	6,120
Trade payables	2,865	-	2,865
Other liabilities	3,661	(887)	2,774
Other sundry	580	(195)	385
Total	**29,431**	**(29,277)**	**154**

	As of December 31, 2020		
(in € thousands)	Assets*	Liabilities**	Net***
Property, plant and equipment	1,888	(10,083)	(8,195)
Intangible assets	161	(13,138)	(12,977)
Equity-accounted investees	-	(98)	(98)
Trade receivables and inventory	5,065	(879)	4,186
Financial assets/liabilities	338	(12)	326
Other assets	5,360	(197)	5,163
Employee benefits	3,454	(441)	3,013
Provisions for risks and charges	3,852	(208)	3,644
Trade payables	2,118	(27)	2,091
Other liabilities	2,930	-	2,930
Other sundry	-	(280)	(280)
Total	**25,166**	**(25,363)**	**(197)**

* - Deferred tax assets are shown net of deferred tax liabilities in the cases permitted by IAS 12

** - Deferred tax liabilities are shown net of deferred tax assets in the cases permitted by IAS 12.

*** - This amount refers to the arithmetic difference between the above assets and liabilities.

The following tables set out the changes that occurred during 2021 and 2020.

(in € thousands)	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
Property, plant and equipment	(8,195)	-	2,949	-	(233)	**(5,479)**
Intangible assets	(12,977)	-	947	-	(465)	**(12,495)**
Equity-accounted investees	(98)	-	(95)	110	-	**(83)**
Trade receivables and inventory	4,186	-	665	-	168	**5,019**
Financial assets/liabilities	326	-	(12)	(461)	279	**132**
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**
Total	**(197)**	**1,606**	**(863)**	**(902)**	**510**	**154**

(in € thousands)	At December 31, 2019	(Charges) Credits to profit or loss	(Charges) Credits to OCI	Exchange rate difference	At December 31, 2020
Property, plant and equipment	(9,637)	774	-	668	**(8,195)**
Intangible assets	(13,083)	(651)	-	757	**(12,977)**
Equity-accounted investees	(87)	(23)	12	-	**(98)**
Trade receivables and inventory	3,410	1,097	-	(321)	**4,186**
Financial assets/liabilities	1,617	(1,795)	(135)	639	**326**
Other assets	2,302	3,284	-	(423)	**5,163**
Employee benefits	5,280	(2,301)	(171)	205	**3,013**
Provisions for risks and charges	3,681	241	-	(278)	**3,644**
Trade payables	2,743	(309)	-	(343)	**2,091**
Other liabilities	2,893	270	-	(233)	**2,930**
Other sundry	(288)	-	-	8	**(280)**
Total	**(1,169)**	**587**	**(294)**	**679**	**(197)**

23. Inventory

The table below shows the breakdown of inventory at December 31, 2021 and 2020:

	As of December 31,					
	2021			2020		
(in € thousands)	Gross amounts	Allowance for inventory write-down	Net amounts	Gross amounts	Allowance for inventory write-down	Net amounts
Raw materials and consumables	115,225	(3,778)	111,447	36,234	(1,431)	34,803
Work in progress and semi-finished products	90,534	(12,313)	78,221	55,041	(5,518)	49,523
Finished products and goods	44,303	(5,871)	38,432	32,643	(3,488)	29,155
Goods in transit	4,933	-	4,933	2,701	-	2,701
Total	**254,995**	**(21,962)**	**233,033**	**126,619**	**(10,437)**	**116,182**

Inventory is shown net of the bad debt provision equal to €21,962 thousand at December 31, 2021 (€10,437 thousand at December 31, 2020).

The change in the allowance for inventory write-down is as follows:

(in € thousands)	Raw materials and consumables	Work in progress and semi-finished products	Finished products and goods	Total
Balance as of December 31, 2019	**3,031**	**4,894**	**5,201**	**13,126**
Accruals of the year 2020	378	2,699	275	3,352
Utilization and releases of the year 2020	(328)	(1,282)	(3,240)	(4,850)
Reclassifications/other changes	(1,568)	(527)	1,591	(504)
Exchange rate difference	(82)	(266)	(339)	(687)
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**

24. Current tax assets

Current tax assets amounted to €20,965 thousand at December 31, 2021 (€11,600 thousand at December 31, 2020) and mainly refer to advances on income taxes paid by some Group companies.

Current tax assets include, at December 31, 2021, €376 thousand (€703 thousand at December 31, 2020) of receivables from Federico De Nora S.p.A. against the national tax consolidation agreement 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.

25. Construction contracts

Details of construction contracts classified as current assets, and progress payments related to them at December 31, 2021 and 2020 are shown in the tables below:

(in € thousands)	As of December 31,	
Current assets	**2021**	**2020**
Construction contracts	96,685	77,503
(Progress payments)	(73,402)	(61,391)
Provision for losses on construction contracts	(1,246)	(616)
Total	**22,037**	**15,496**
Current liabilities		
Construction contracts	81,846	78,777
(Progress payments)	(91,532)	(86,679)
Advances	-	-
Total	**(9,686)**	**(7,902)**
Total Construction contracts (net of advances)	**12,351**	**7,594**

Construction contracts (net of contractual advances) amounted to €12,351 thousand at December 31, 2021 (€7,594 thousand at December 31, 2020) and mainly refer to contracts relating to the Water Technologies business segment.

26. Trade receivables

The table below shows the detailed statement of trade receivables at December 31, 2021 and 2020.

(in € thousands)	As of December 31,	
Non current	**2021**	**2020**
Third parties	-	139
Bad debt reserve	-	(118)
Total	**-**	**21**
Current		
Third parties	125,724	88,037
Related parties	21,637	9,579
Bad debt reserve	(7,387)	(6,711)
Total	**139,974**	**90,905**

Trade receivables derive from sales transactions and the provision of services and amounted, at December 31, 2021, to €139,974 thousand (€90,926 thousand at December 31, 2020).

The carrying amount of trade receivables, net of the bad debt reserve, is deemed to approximate its fair value. Following are the changes in the Bad debt provision:

(in € thousands)	For the year ended December 31,	
Non current	**2021**	**2020**
Opening balance	**118**	**152**
Utilisation and releases of the year	(118)	(31)
Exchange rate difference	-	(3)
Closing balance	**-**	**118**
Current		
Opening balance	**6,711**	**8,249**
Change in scope of consolidation	1,010	-
Accruals of the year	1,280	2,839
Utilisation and releases of the year	(1,060)	(3,893)
Reclassifications/other changes	(897)	(70)
Exchange rate difference	343	(414)
Closing balance	**7,387**	**6,711**

27. Other receivables

The following table shows the detail of the other receivables at December 31, 2021 and 2020, with the distinction between the current and non current amounts:

(in € thousands)	As of December 31,	
Non current	**2021**	**2020**
Tax receivables	7,795	10,035
Other- third parties	2,461	2,327
Prepayments and accrued income	5	19
Related parties	52	52
Total	**10,313**	**12,433**
Current		
Tax receivables	10,492	5,796
Advances to suppliers	10,926	4,717
Other- third parties	1,597	1,918
Prepayments and accrued income	6,013	3,497
Total	**29,028**	**15,928**

At December 31, 2021, other receivables amounted to €39,341 thousand, (€28,361 thousand at December 31, 2020).
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. In particular, tax receivables from the tax authorities are mainly composed of VAT credits for an amount equal to €9,825 thousand for the year ended in 2021 (€5,159 thousand at December 31, 2020).

28. Cash and cash equivalents

The table below provides a breakdown of cash and cash equivalents at December 31, 2021 and 2020.

	As of December 31,	
(in € thousands)	2021	2020
Bank and postal accounts	72,555	73,824
Cash on hand	36	39
Deposit accounts	1,252	1,795
Cash and cash equivalents	**73,843**	**75,658**

Cash and cash equivalents are made up of actually available values and deposits. As regards the amounts on deposits and current accounts, the related interests have been recognized on accrual basis.

D Notes to the main financial statements items - statement of equity - financial position - liabilities

29. Equity

Equity at December 31, 2021 amounted to €453,962 thousand (€413,118 thousand at December 31, 2020).
The shares issued are fully paid up and have no nominal value.
Changes in equity for the financial years ended December 31, 2021 and 2020 are shown in the "Consolidated statement of changes in equity", while the "Consolidated statement of comprehensive income" sets out the other components of the income statement, net of the tax effects.
During the year ended December 31, 2021, dividends of €60,028 thousand were distributed (nil value in the year ended December 31, 2020).

Equity attributable to the shareholders of the parent company

Share capital

The share capital stood at €16,786 thousand as of December 31, 2021 (€16,569 thousand as of December 31, 2020) and includes 178,366,403 shares (165,694,590 as of December 31, 2020).

The following table shows the shareholder structure of the Group:

		Number of Shares as of December 31,		% of Share Capital	
Shareholder	**Category of Share**	**2021**	**2020**	**2021**	**2020**
FEDERICO DE NORA S.p.A	A	93,265,626	91,125,100	52.29%	55.00%
NORFIN S.p.A.	A	12,753,198	12,433,540	7.15%	7.50%
Mr Federico De Nora	A	6,619,560	6,619,560	3.71%	4.00%
BTO Feather Holdings S.à.rl	B	-	53,697,399	0.00%	32.40%
BTO Feather Holdings ESC (Mauritius) Ltd.	B	-	324,401	0.00%	0.20%
Cordusio Società Fiduciaria per Azioni	C	2,162,636	1,484,990	1.21%	0.90%
Cordusio Società Fiduciaria per Azioni	D	10,000	9,600	0.01%	0.00%
Asset Company 10 S.r.l.	B	63,555,383	-	35.63%	0.00%
Total		**178,366,403**	**165,694,590**	**100.00%**	**100.00%**

On January 8, 2021, the transaction whereby Snam, through its subsidiary Asset Company 10 S.r.l., became a shareholder of the Company was finalized. On this date, he shareholders BTO Feather Holdings S.à rl and BTO Feather Holdings ESC (Mauritius) Ltd. have in fact sold their respective stakes (totalling no. 54,021,800 class B shares) in the share capital of the company to the Italian company Asset Company 10 S.r.l; as shareholder Cordusio Società Fiduciaria S.p.A. also sold all its shares to Asset Company 10 S.r.l. (1,484,990 class C shares and 9,600 class D shares, for a total of 11,993,767 class B shares following the conversions envisaged by the articles of association of the Company).

Plan reserved for the managers of the Company

On May 5, 2021, the Company's Board of Directors approved a plan reserved for the Company's managers to grant the beneficiaries the Company's shares falling under categories C and D with rights other than ordinary shares in categories A and B (the "2021 Plan").

On June 21, 2021, the Extraordinary Shareholders' Meeting of Industrie De Nora S.p.A. resolved, inter alia, to increase the Company's share capital for cash, on a divisible basis, with the exclusion of pre-emption rights pursuant to Article 2441, paragraphs 5 and 6, of the Italian Civil Code, by (a) a maximum of €2,627,100.00, through the issue of a maximum of 10,000 new category D shares, with no indication of nominal value, at a unit price of a maximum of €262.71 per share, €0.10 of which to be allocated to capital and the remainder to share premium (b) a maximum of €15,462,847.40, by the issue of a maximum of 2,162,636 new C shares with no nominal value, at a maximum price of €7.15 per share, of which 0.10 per share shall be allocated to capital and the remainder to share premium. The subscription value of the shares corresponds to the fair value, as determined by an independent expert; therefore, the plan did not generate costs in the income statement.
Category C shares upon the occurrence of an exit event (e.g. the listing of the company) will be automatically converted into ordinary shares according to a conversion ratio of 1:1. Category D shares will be converted into ordinary shares according to a conversion ratio that varies depending on the value of the company at the time of the exit.
The fair value of category C shares was determined on the basis of the-equity value at the time of the entry of the minority shareholder; the fair value of category D shares was determined using a pricing model option whose main parameters are: volatility (19.42%), risk-free rates, possible exit dates and number of scenarios.

On June 28, 2021, the share capital increase was fully subscribed by Cordusio Società Fiduciaria per Azioni with consequent assignment of 2,162,636 category C shares and 10,000 category D shares.

Other changes

On September 23, 2021, the shareholder Asset Company 10 S.r.l. transferred ownership of 2,460,184 category B shares as follows:

- no. 2,140,526 category B shares, equal to approximately 1.20% of the share capital to the shareholder FEDERICO DE NORA S.p.A.;
- no. 319,658 category B shares, equal to approximately 0.18% of the share capital to the shareholder NORFIN S.p.A.,

These shares were all sold with no nominal value and automatically converted, as a result of the sale, into the same number of category A shares (pursuant to art. 6.10 of the Articles of Association).

Legal Reserve

The legal reserve at December 31, 2021 stood at €3,357 thousand (€3,314 thousand at December 31, 2020), with an increase of €43 thousand compared to December 31, 2020 following the allocation of the Company's result for the previous year. At December 31, 2020 it amounted to €3,314 thousand, with an increase of €10 thousand from December 31, 2019 following the allocation of the previous year's result of the Company.

Share Premium Reserve

The share premium reserve at December 31, 2021 amounted to €24,915 thousand (€7,042 thousand as at December 31, 2020), with an increase of €17,873 thousand compared to December 31, 2020 following the aforementioned paid capital increase.

Retained earnings, Translation reserve and other reserves

Retained earnings, Translation reserve and other reserves pertaining to the Group at December 31, 2021, amounted to €338,705 thousand (€350,013 thousand at December 31, 2020), with a net decrease of €11,308 thousand compared to December 31, 2020, of which:

- €60,000 thousand decrease due to the aforementioned distribution of dividends to shareholders;
- €32,591 thousand increase due to the allocation of the previous year's results pertaining to the parent company shareholders;
- €16,101 thousand increase due to the effect of the other components of the comprehen-

sive income statement, of which €14,184 thousand attributable to the differences deriving from the translation of the financial statements of foreign subsidiaries.

The total amount at December 31, 2020 was €350,013 thousand, a net increase of €150,366 thousand compared to the previous year, of which:

- €140,306 thousand increase due to the derecognition of the financial liability previously recognized to the Blackstone Group, with a corresponding increase in shareholders' equity reserves;
- €29,005 thousand increase due to the allocation of the previous year's result;
- €18,945 thousand reduction due to the effect of the other components of the comprehensive income statement, of which €19,888 thousand attributable to the differences deriving from the translation of the financial statements of foreign subsidiaries.

Equity attributable to non controlling interests

The table below shows the breakdown of minority interests as of December 31, 2021 and 2020:

	As of December 31,	
(in € thousands)	2021	2020
Share capital and reserves	3,518	3,826
Profit for the year (OCI)	(15)	(280)
Total	**3,503**	**3,546**

30. Employees benefits

The table below shows the detail of the employees benefits at December 31, 2021, 2020 and 2019:

	As of December 31,		
(in € thousands)	2021	2020	2019
Present value of employee benefit obligations	22,876	23,691	22,627
Present value of Pension Plans for employees	20,143	20,436	32,051
Fair value of plan assets	(16,983)	(16,947)	(20,688)
Total	**26,036**	**27,180**	**33,990**

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.

For the sake of completeness, information related to employee benefits provided in this note include information for the 2019 financial year given that the Group has supplemented certain aspects of said information with respect to the approved financial statements for the 2020 and 2019 financial years.

Post-employment benefits

The following table shows the breakdown and changes in employee benefits for the years ended December 31, 2021 and 2020 and, for the sake of completeness of information, also at December 31, 2019:

	For the year ended December 31,		
(in € thousands)	**2021**	**2020**	**2019**
Opening liability	23,691	22,627	20,294
Change in scope of consolidation	265	-	-
Current service cost	965	887	801
Interest cost	164	249	359
Actuarial (profit) loss	(1,223)	629	2,262
Benefits paid	(986)	(701)	(1,089)
Total	**22,876**	**23,691**	**22,627**

Post-employment benefits at December 31, 2021 amounted to €22,876 thousand (€23,691 thousand at December 31, 2020 and €22,627 as at December 31, 2019). The item 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,					
	2021		2020		2019	
	Italy	Germany	Italy	Germany	Italy	Germany
Annual discount rate (*)	0.98%	1.25%	0.34%	0.80%	0.77%	1.90%
Annual inflation rate	1.75%	N/A	0.80%	N/A	1.20%	N/A
Annual increase in obligation	2.81%	1.75%	2.10%	1.75%	2.40%	1.75%
Annual rate of salary increase	1.75%	2.00%	0.80%	2.00%	-	2.00%

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, 2021, 2020 and 2019:

* - 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

(in € thousands)	Annual discount rate		Annual inflation rate		Annual rate of turn over	
	0.25%	-0.25%	0.25%	-0.25%	1.00%	-1.00%
Employees Benefits as of December 31, 2021(*)	(102.1)	105.8	78.6	(76.7)	(38.0)	42.5
Employees Benefits as of December 31, 2020(*)	(91.8)	95.2	70.8	(69.1)	(32.0)	35.7
Employees Benefits as of December 31, 2019(*)	(89.9)	93.2	70.3	(68.6)	(35.0)	38.6

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.

* - The sensitivity analysis on the actuarial assumptions refers to the post-employment benefits for companies under Italian law

In short, the main actuarial assumptions applied for the group companies' calculation are the following:

	As of December 31,								
	2021			2020			2019		
	U.S.A	India	Japan	U.S.A	India	Japan	U.S.A	India	Japan
Annual discount rate	2.65%	6.62%	0.30%	2.20%	6.29%	0.40%	3.05%	6.85%	0.50%
Annual rate of salary increase	N/A	8.00%	1.00%	N/A	8.00%	1.00%	N/A	8.00%	2.71%

The movements of the pension funds are summarised in the following table:

	For the year ended December 31,		
(in € thousands)	2021	2020	2019
Opening balance	**20,436**	**32,051**	**29,634**
Current service cost	759	1,076	1,660
Interest cost	61	95	173
Benefits paid	(1,224)	(3,969)	(1,025)
Curtailment (past service cost)	-	(7,790)	611
Actuarial (profit) loss	248	(139)	161
Exchange rate differences	(156)	(888)	837
Closing balance	**20,143**	**20,436**	**32,051**

The pension plan fund, as of December 31, 2021, amounted to €20,143 thousand, (€20,436 thousand as of December 31, 2020 and €32,051 as of December 31, 2019).

Changes in plan assets are analysed below:

	For the year ended December 31,		
(in € thousands)	2021	2020	2019
Opening fair value of plan assets	**16,947**	**20,688**	**18,480**
Contributions paid	630	867	1,298
Benefits paid	(878)	(939)	(670)
Expected return on plan assets	66	88	133
Adjustment of plan assets	726	(3,127)	853
Exchange rate differences	(508)	(630)	594
Closing fair value of plan assets	**16,983**	**16,947**	**20,688**

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.

In 2020, the pension plans of the personnel of the Japanese companies were revised with the remodelling of the related obligations (from defined benefit plans to defined contribution plans), following which a net income (curtailment) €4,302 thousand was recorded in the income statement.

31. Provisions for risks and charges

The following table shows the composition and movements of the provisions for risks and charges for the years ended December 31, 2021 and 2020.

(in € thousands)	As of December 31,	
Non current	**2021**	**2020**
Provision for contractual warranties	219	170
Provision for other risks	2,117	1,979
Total	**2,336**	**2,149**
Current		
Provision for contractual warranties	9,313	7,141
Provision for other risks	9,456	1,450
Total	**18,769**	**8,591**
Total provisions for risks and charges	**21,105**	**10,740**

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.
The "provision for contractual warranties" reflects an estimate for contractual warranties on the supply of products and plants and has a value of €9,532 thousand for the year 2021 (€7,311 thousand at December 31, 2020).
The provision for other risks, at December 31, 2021, stood at €11,573 thousand (€3,429 thousand at December 31, 2020).
At December 31, 2021, the non current portion of the "provision for other risks" includes primarily provisions for environmental risks and liabilities for site restoration (almost entirely accrued for in previous years).

At December 31, 2021, the current portion of the "provision for other risks" includes, among others, €883 thousand for tax risks vis-à-vis the Brazilian tax authorities and €6,251 thousand recognized for business combinations that took place during the year closed on December 31, 2021.

The changes for the year ended December 31, 2021 were as follows:

(in € thousands)	Provision for contractual warranties	Provision for other risks
Balance as of December 31, 2020	**7,311**	**3,429**
Change in scope of consolidation	560	5,959
Accruals of the year	4,617	2,841
Utilization and releases of the year	(3,268)	(1,130)
Exchange rate differences	311	475
Balance as of December 31, 2021	**9,531**	**11,574**

32. Financial liabilities

The following table shows the detail of financial liabilities at December 31, 2021 and 2020.

(in € thousands)	As of December 31,	
Non current	**2021**	**2020**
Bank loans and borrowings	-	150,457
Lease payables	3,784	2,481
Fair value of derivatives	-	1,817
Other financial liabilities	-	-
Total	**3,784**	**154,755**
Current		
Bank overdrafts	36	-
Bank loans and borrowings	256,101	15,791
Loans and borrowings from other financial backers	-	83
Lease payables	1,637	1,400
Fair value of derivatives	1,589	-
Total	**259,363**	**17,274**
Total financial liabilities	**263,147**	**172,029**

Bank loans and borrowings

The table below shows the details of bank loans and borrowings and bank overdrafts:

(in € thousands)	As of December 31, 2021 Non Current	Current	Total	As of December 31, 2020 Non Current	Current	Total
Pool Loan (IDN)	-	119,860	119,860	119,603	-	119,603
Unicredit Loan (IDN)	-	40,001	40,001	-	-	-
Pool Loan (De Nora Holdings US Inc)	-	33,508	33,508	30,854	144	30,998
BNL Loans (IDN)	-	31,059	31,059	-	-	-
BPM Loan (IDN)	-	15,005	15,005	-	10,000	10,000
BPER Loan (IDN)	-	15,003	15,003	-	-	-
UBI Amortizing Line (DIN)	-	-	-	-	5,023	5,023
Short term loans (De Nora Brazil)	-	1,664	1,664	-	624	624
Overdrafts and financial accrued expenses	-	37	37	-	-	-
Total	**-**	**256,137**	**256,137**	**150,457**	**15,791**	**166,248**

At December 31, 2021 and 2020 , the fair value of bank loans and borrowings approximated their book value.

Pool Loan (IDN)

On October 19, 2017, the Company signed the loan agreement with a pool of banks headed by UniCredit S.p.A. (Unicredit), Mediobanca- Banca di Credito Finanziario S.p.A. (Mediobanca) and UBI Banca S.p.A. (UBI), subsequently acquired by Intesa San Paolo.

The loan, originally of €160 million, was partially repaid in December 2020 for €40 million, in advance of the maturity date of July 19, 2022; the residual debt (capital line), at December 31, 2021, is therefore €120 million, shown in the financial statements under current liabilities net of the Upfront Fees paid by the company to the banks at the time of signing of the contract. The loan accrues interest at Euribor 6 months + Spread, this latter set at 1.75%.

Pool Financing (De Nora Holdings US Inc)

In 2017, De Nora Holding US Inc. also executed a loan agreement for a total of USD 50 million with the same pool of banks. Like the Company, De Nora Holding US Inc. also partially repaid this credit line (USD 12 million) in advance of the maturity date of July 19, 2022; at December 2021 the residual indebtedness (capital line) is therefore USD 38 million, shown in the financial statements under current liabilities net of the Upfront Fees paid by the company to the banks at the time of signing of the contract. The loan accrues interest at Libor 6 months + Spread, the latter set at 1.75%.

The loans described above are subject to the following financial parameter: at each semi-annual interest payment date set in the contract at June 30 and December 31 of each year, the ratio between the Group's Net Financial Position (Consolidated Total Net Debt) of the last day of the period and the consolidated EBITDA of the period considered, must be less than or equal to 3.25 until June 30, 2022. At December 31, 2021, the above-mentioned parameter was comfortably met.

If the Group is not able to comply with the above-mentioned financial parameter, it must, within 15 days of issue of the Certificate of Compliance, receive a capital injection or subordinated loan from the shareholders such to remedy the situation (Equity Cure).

The Pool Loan signed by the Company and the Pool Loan signed by De Nora Holding US Inc. also provide for early repayment in the event of a change of control of the Company or of the subsidiary De Nora Holding US Inc., respectively.

In particular, the aforementioned loan agreements provide for full early repayment obligations of the loan in the event that:

(i) from the trading start date,

a. the De Nora family ceases to hold, directly or indirectly, including through any family trusts or any other legal scheme adopted for tax planning purposes, an equity investment at least (i) equal to 30% of the Company's share capital or (ii), if the conditions set forth in the applicable laws and regulations exist with reference to mandatory public purchase offers, equal to 25% of the Company's share capital, having the right to exercise at least 30% or 25% (depending on the case) of the votes in the shareholders' meeting of the Company, or the right to determine the composition or to remove the majority of the members of the Board of Directors or other equivalent body of the Company; or

b. one or more different subjects, acting in concert, hold a stake in the Company's share capital that is higher than the stake in the Company's share capital held by the De Nora family;

(ii) at any time, the Company ceases to hold, directly or indirectly, an equity investment equal to 100% of the share capital of De Nora Holding US Inc, or the right to determine the composition or to remove the majority of the members of the Board of Directors or otherwise equivalent body of De Nora Holding US Inc;

(iii) all or substantially all of the Group's assets are sold, either in a single transaction or in a number of related transactions.

Unicredit financing (IDN)

On July 26, 2021, the Company signed a credit line granted by Unicredit for a maximum notional value of €100 million, subsequently reduced to €90 million, renewable monthly until April 15, 2022 at a fixed interest rate equal to 0.35%. At December 31, 2021, following the granting of the Unicredit Loan on December 16, 2021, this credit line was used for €40,001 thousand.
Unicredit has the right to order the termination of the contract in the event of:

a. occurrence of any event (e.g. any change in the administrative, legal or corporate structure – form and share capital, persons of the directors, statutory auditors and shareholders, as well as mergers, including by incorporation, demergers, spin-offs, contributions – and in the equity structure – the economic and financial position, etc.) which in the opinion of the bank involves any kind of concern about the ability to meet the obligations assumed towards the bank or negatively affects the legal, financial or economic position of the Company or the integrity and effectiveness of the guarantees given;

b. failure to notify the bank in advance of any change in the legal or corporate structure (e.g. form, share capital, persons of the directors, statutory auditors and shareholders, as well as mergers, including by incorporation, demergers, spin-offs, contributions), and in the administrative and financial structure (e.g. bond issues), as well as in the economic and technical structure as it appears from the data, elements and documents provided for the conclusion of the loan agreement, and facts which may in any event modify the current structure and organization of the company.

BNL Loans (IDN)

On July 28 and 29, 2021, the Company obtained from Banca Nazionale del Lavoro S.p.A. two loans under the same conditions, whose total book value at December 31, 2021 was €31,059 thousand. The maturity is set on January 31, 2022, whose fixed nominal interest rate is equal to 0.10%.

BPM Loan (IDN)

At December 31, 2020, the Company had €10 million of a short-term loan granted by Banco BPM S.p.A., maturing in March 2021, with a nominal borrowing rate of 0.6%. This short-term loan was extended until July 31, 2021 under the same conditions. On that date, the Company repaid the loan and signed, with the same bank, a loan for a notional value of €10,000 thousand with maturity on September 30, 2021, at a fixed interest rate of 0.10%. In the course of October 2021, the amount financed was increased up to €15,000 thousand with maturity on January 31, 2021, and the rate was renegotiated to 0.15%. This loan provides that the failure of the Company to fully and punctually fulfil its obligations of a credit or financial nature in relation to other transactions in progress with Banco BPM S.p.A. constitutes cause for forfeiture of the benefit of the term.

UBI amortising line (IDN)

On May 25, 2020, the Company executed a contract with UBI Banca S.p.A. relating to an amortising line for a notional value of €10,000 thousand with maturity in May 2021, at a fixed interest rate of 0.8%. This credit line was repaid in the 2020 and 2021 financial years. The carrying amount including accrued interest was €5,023 thousand at December 31, 2020 (nil value as of December 31, 2021).

BPER Loan (IDN)

On October 27, 2021 the Company signed the BPER Loan, whose book value at December 31, 2021 is equal to €15,003 thousand, maturing on January 27, 2022, with a nominal interest rate is equal to 0.10%.

Short term loans (De Nora Brazil)

At December 31, 2021 and 2020, this item refers to the debts of De Nora do Brasil recognized against an advance obtained on a trade credit.

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.

Fair value of hedging derivatives

Derivatives for hedging the fluctuation of the interest rate

This item amounted to €675 thousand at December 31, 2021 (€1,817 thousand at December 31, 2020 and €1,841 thousand at December 31, 2019) and included:

- the **fair value** of the IRS derivatives to partially hedge the bank loan of €120 million maturing in 2022 for an amount of €243 thousand in 2021 (€629 thousand at December 31, 2020 and €1,031 in 2019);
- the **fair value** of the IRS derivatives to partially hedge the existing bank loan of USD 38 million maturing in 2022 for an amount of €433 thousand in 2021 (€1,188 thousand at December 31, 2020 and €784 in 2019).

Below are the characteristics of the IRS contracts relating to the loan of €120 million described above:

Instrument	Description	Financial Item hedged	Notional (in € thousands)	Starting date	Due date
IRS	receive floating/pay fix	Term loan in Euro	50,000	May 2018	July 2022
IRS	receive floating/pay fix	Term loan in Euro	50,000	April 2018	July 2022

Below are the characteristics of the IRS contracts relating to the loan of USD 38 million described above:

Instrument	Description	Financial Item hedged	Notional (in € thousands)	Starting date	Due date
IRS	receive floating/pay fix	Term loan in USD	22,000	May 2018	July 2022
IRS	receive floating/pay fix	Term loan in USD	8,000	April 2018	July 2022
IRS	receive floating/pay fix	Term loan in USD	3,000	June 2018	July 2022

Cash flow hedge accounting was adopted for these derivatives. Variable rate bank loans are hedged.

Derivatives for hedging the fluctuation of the exchange rate

Derivatives hedging exchange rate fluctuations at December 31, 2021 and 2020 relate to currency derivative contracts for forward purchases and sales entered into by the Company against financial receivables expressed in USD from its US subsidiary De Nora Holding US Inc. The group has adopted the hedge accounting option. The fair value is determined using the forward exchange rate at the balance sheet date.

At December 31, 2021, this item amounted to €914 thousand, while at December 31, 2020 and 2019, the fair value of these derivatives was positive and equal to €1,118 thousand and €497 thousand, respectively.

The details of the derivative contracts hedging the exchange rate fluctuation executed by the Group and in effect at December 31, 2021 are shown below:

Instrument	Description	Notional (in $ thousands)	Notional (in € thousands)	Starting date	Due date
CCIRS	pay amount EUR / receive amount USD	5,000	4,289	October 2021	January 2022
CCIRS	pay amount EUR / receive amount USD	9,100	7,845	October 2021	February 2022
CCIRS	pay amount EUR / receive amount USD	31,500	27,195	November 2021	February 2022
CCIRS	pay amount EUR / receive amount USD	16,000	14,169	December 2021	March 2022
Total		**61,600**	**53,498**		

The details of the derivative contracts hedging the exchange rate fluctuation executed by the Group and in effect at December 31, 2020 are shown below:

Instrument	Description	Notional (in $ thousands)	Notional (in € thousands)	Underwriting date	Due date
CCIRS	pay amount EUR / receive amount USD	30,600	26,040	October 2020	January 2021
CCIRS	pay amount EUR / receive amount USD	11,000	9,047	December 2020	March 2021
Total		**41,600**	**35,088**		

For completeness of information, the details of the derivative contracts hedging the exchange rate fluctuation executed by the Group and in effect at December 31, 2019 are shown below:

Instrument	Description	Notional (in $ thousands)	Notional (in € thousands)	Starting date	Due date
CCIRS	pay amount EUR / receive amount USD	15,000	13,596	October 2019	January 2020
CCIRS	pay amount EUR / receive amount USD	9,100	8,239	October 2019	April 2020
CCIRS	pay amount EUR / receive amount USD	6,500	5,877	November 2019	February 2020
CCIRS	pay amount EUR / receive amount USD	5,000	4,544	November 2019	March 2020
CCIRS	pay amount EUR / receive amount USD	6,000	5,349	December 2019	June 2020
Total		**41,600**	**37,605**		

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 following table includes the data at December 31, 2021, the data relating to December 31, 2020 and 2019 restated according to the most recent ESMA provisions for comparative purposes:

		As of December 31,		
	(in € thousands)	2021	2020	2019
A	Cash	72,591	73,863	53,348
B	Cash equivalents	1,252	1,795	2,241
C	Other current financial assets	478	482	2,996
D	**Liquidity (A + B + C)**	**74,321**	**76,140**	**58,585**
E	Current financial debt	256,812	15,647	-
F	Current portion of non current financial debt	1,637	1,627	970
G	**Current financial indebtedness (E + F)**	**258,449**	**17,274**	**970**
	- of which secured	*1,664*	*624*	-
	- of which unsecured	*256,785*	*16,650*	*970*
H	**Net current financial indebtedness (G - D)**	**184,128**	**(58,866)**	**(57,615)**
I	Non current financial debt	3,784	154,755	344,789
J	Debt instruments	-	-	-
K	Non current trade and other payables	-	-	-
L	**Non current financial indebtedness (I + J + K)**	**3,784**	**154,755**	**344,789**
	- of which secured	-	-	-
	- of which unsecured	*3,784*	*154,755*	*344,789*
M	**Net Financial Indebtedness - ESMA (H + L)**	**187,912**	**95,889**	**287,174**

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**") at December 31, 2021, 2020 and 2019 is shown below:

	As of December 31,		
(in € thousands)	2021	2020	2019
Net Financial Indebtedness - ESMA	**187,912**	**95,889**	**287,174**
Fair value of derivatives covering currency risks	914	(1,118)	(497)
Net Financial Indebtedness - De Nora	**188,826**	**94,771**	**286,677**

The increase in Net Financial Indebtedness - ESMA at December 31, 2021 compared to December 31, 2020, stood at €92,023 thousand, mainly attributable to the combined effect of the following factors:

- the liquidity absorbed by the need to finance the huge increase in working capital, mainly related to the significant increase in inventories recorded in the year ended December 31, 2021, only partially offset by the liquidity generated by operations, before changes in net working capital;
- the liquidity absorbed by the investment activity equal to €36,571 thousand in the year ended December 31, 2021;
- the liquidity absorbed by the dividends paid in the year ended December 31, 2021 for €60,028 thousand, partially offset by the liquidity generated by the capital increase subscribed and paid by the shareholders in the year ended December 31, 2021 in the amount of €18,090 thousand.

The decrease in Net Financial Indebtedness - ESMA at December 31, 2020 compared to December 31, 2019, for €191,285 thousand, is mainly attributable to the effect of the derecognition of the debt towards the Blackstone Group for €140,306 thousand, as already described in the Note 29- Equity.
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, 2021 and 2020.

(in € thousands)	As of December 31,	
Non current	**2021**	**2020**
Third parties	177	105
Total non current payables	**177**	**105**
Current		
Third parties	60,456	46,261
Related parties	969	618
Total current payables	**61,425**	**46,879**

Trade payables, at December 31, 2021, amounted to €61,602 thousand (€46,984 thousand at December 31, 2020).
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, 2021 amounted to €27,392 thousand (€14,221 thousand at December 31, 2020).

At December 31, 2021, payables to Federico De Nora S.p.A. under the national tax consolidation agreement amounted to €1,786 thousand (€2,805 thousand at December 31, 2020).

At December 31, 2021, non current income tax payables amounted to €108 thousand (€139 thousand at December 31, 2020).

35. Other payables

The table below shows the detail of the other payables as of December 31, 2021 and 2020.

(in € thousands)	As of December 31,	
Non current	**2021**	**2020**
Accrued expenses and deferred income	29	351
Payables to employees	865	782
Tax payables	248	-
Advances from customers	8	14
Other- third parties	545	386
Other- related parties	488	397
Total	**2,183**	**1,930**
Current		
Advances from customers	34,319	17,164
Advances from related parties	25,722	7,272
Accrued expenses and deferred income	6,369	8,002
Payables to employees	15,735	10,777
Social security payables	2,286	1,853
Withholding tax payables	1,063	1,250
VAT payables	2,327	2,001
Other tax payables	2,533	1,215
Other- third parties	1,888	975
Total	**92,242**	**50,509**
Total Other payables	**94,425**	**52,439**

The increase in advances from customers and related companies is connected to the increase in the volume of business and orders acquired by the Group in the last quarter of the financial year ended December 31, 2021 and to the increase in the price of raw materials recorded during the year ended December 31, 2021, which resulted in an increase in the prices applied to customers and in the advances requested from them.

Payables to employees relate to amounts accrued but not yet liquidated, such as vacations and bonuses. In the 2021 financial year, payables to employees include the provision relating to the long-term incentive plan, which will be paid in the 2022 financial year.

Risks

36. Risks

In the context of business risks, the main 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 purpose of the Group’s risk management policies is 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 years ended December 31, 2021 and 2020:

	As of December 31,	
(in € thousands)	2021	2020
Trade receivables	139,974	90,926
Investments in financial assets	3,233	3,572
Other receivables	62,971	46,566
Cash and cash equivalents	73,843	75,658
Total	**280,021**	**216,722**

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, 2021, 2020 and 2019 is as follows:

	As of December 31,					
(in € thousands)	2021	2020 (*)	2019 (*)	2021	2020 (*)	2019 (*)
Not yet due	104,200	67,581	64,407	74.4%	74.3%	69.3%
Overdue 1-30 days	19,851	8,719	15,364	14.2%	9.6%	16.5%
Overdue 31-120 days	9,466	7,290	7,138	6.8%	8.0%	7.7%
Overdue more than 120 days	6,457	7,336	6,075	4.6%	8.1%	6.5%
Trade receivables	**139,974**	**90,926**	**92,984**	**100.00%**	**100.00%**	**100.00%**

* - It should be noted that the Group has changed the presentation of the data relating to the years 2020 and 2019, which therefore differ from the respective data published in the approved financial statements of the years 2020 and 2019

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 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 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 years ended December 31, 2021 and 2020:

*- 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

(in € thousands)	As of December 31, 2021				
Financial liabilities	**Carrying amount**	**Contractual cash flows***	**Due date**		
			0-12 months	**2 years**	**3 years**
Bank loans and overdrafts	256,137	256,322	256,322	-	-
Loans and borrowings from other financial backers	-	-	-	-	-
Lease payables	5,421	5,421	1,637	1,063	2,721
Derivatives	1,589	1,589	1,589	-	-
Trade payables	61,602	61,602	61,425	177	-
Other	121,925	121,925	119,634	2,291	-
Total	**446,674**	**446,859**	**440,607**	**3,531**	**2,721**

(in € thousands)	As of December 31, 2020			
Financial liabilities	**Carrying amount**	**Contractual cash flows***	**Due date**	
			0-12 months	**More over months**
Bank loans and overdrafts	166,248	166,758	15,791	150,967
Loans and borrowings from other financial backers	83	83	83	-
Lease payables	3,881	3,881	1,400	2,481
Derivatives	1,817	1,817	-	1,817
Trade payables	46,984	46,984	46,879	105
Other	66,799	66,799	64,730	2,069
Total	**285,812**	**286,322**	**128,883**	**157,439**

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, 2021 and 2020, the Group had currency derivative contracts in place against USD-denominated loans. See Note 32 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/EUR exchange rate would result in an impact on the income statement of €1.9 million, €0.6 million and €0.6 million at December 31, 2021, 2020 and 2019, respectively.

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 profit or loss by generating lower or higher financial expense.
The Group uses derivatives to manage fluctuations in interest rates, which are mainly "Forward Rate Agreements" and "Interest Rate Swaps".

As of December 31, 2021 and 2020, there are derivative contracts on interest rates stipulated by the Company to partially hedge bank loans. See Note 32 for further details.

Sensitivity analysis

Most of the Group's financial instruments bear interest at variable rates.
In assessing the potential impacts arising from changes in the interest rates applied, the Group has excluded the portion of loans that are hedged through derivative agreements as well as the fixed-rate financial liabilities.

The situation of the Group for the years ended December 31, 2021, 2020 and 2019 has been summarized in the table below.

*- 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.

**- It should be noted that the Group has changed the presentation of the data for the years 2020 and 2019, which therefore differ from the respective data posted in the approved financial statements relating to the years 2020 and 2019

	As of December 31,		
(in € thousands)	2021	2020 (**)	2019 (**)
Financial liabilities (*)	(263,332)	(172,539)	(346,662)
Hedged financial liabilities	129,370	126,893	129,375
Fixed rate financial liabilities	108,190	19,611	140,313
Financial liabilities exposed to interest rate risk	**(25,772)**	**(26,035)**	**(76,974)**
Financial assets exposed to interest rate risk	75,166	77,706	60,141
Total	**49,394**	**51,671**	**(16,833)**

The effect of a hypothetical, instantaneous and unfavourable variation of one percentage point in the level of interest rates would have an impact on the income statement in the order of €0.3 million, €0.3 million and €0.8 million as of December 31, 2021, 2020 and 2019 respectively.

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 2020-2021 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 table below 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, 2021 and 2020.

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	-	-
Total	**-**	**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	32	-	-	-	(183,527)	(183,527)	-	-	-
Derivatives	33/34/35	-	-	(1,589)	-	(1,589)	-	(1,589)	-
Total	**-**	**-**	**-**	**(1,589)**	**(445,085)**	**(446,674)**	**3,233**	**(1,589)**	**-**

Classification and fair value as of December 31, 2020

	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	75,658	-	-	-	75,658	-	-	-
Trade and other receivables	26/27	130,887	-	-	-	130,887	-	-	-
Financial assets, including derivatives	21	6,605	2,454	1,118	-	10,177	2,454	1,118	-
Total	**-**	**213,150**	**2,454**	**1,118**	**-**	**216,722**			
Financial liabilities									**-**
Bank loans and borrowings	32	-	-	-	(166,248)	(166,248)	-	-	-
Loans and borrowings from other financial backers	32	-	-	-	(83)	(83)	-	-	-
Lease payables	32	-	-	-	(3,881)	(3,881)	-	-	-
Trade and other payables	33/34/35	-	-	-	(113,783)	(113,783)	-	-	-
Derivatives	32	-	-	(1,817)	-	(1,817)	-	(1,817)	-
Total	**-**	**-**	**-**	**(1,817)**	**(283,995)**	**(285,812)**	**2,454**	**(699)**	**-**

F Business combinations

37. Business combinations

In July 2021, the Group completed two business combinations. The fair value of the assets acquired and liabilities assumed resulting from both acquisitions have been determined on a provisional basis as permitted by IFRS 3 (Business Combinations). The finalization of the assessments that will lead to the final estimates of these values will be completed in the course of the 2022 financial year.

Acquisition of CCUV

On July 1, 2021, the Group completed the acquisition of the UV Technologies division (hereinafter "CCUV") from Calgon Carbon Corporation. CCUV includes the trademarks and assets of Hyde Marine, a player in the market for UV ballast water management systems ("BWMS") and brands related to industrial and municipal water treatment such as RAYOX, SENTINEL and C3 SERIES UV. With the acquisition of CCUV, the Group intends to expand its offering and scale of production by promoting greater business flexibility at a critical time in the industry, characterized by compliance with the international maritime organization's ballast water management agreement ("**BWMC**") and the United States Coast Guard's ("**USCG**") ballast water Regulations.
The acquisition agreement provides for a base consideration of USD 3,000 thousand and a price adjustment linked to the value of the net working capital and the net financial position of CCUV measured at the acquisition date. The consideration for the acquisition amounted to USD 4,501 thousand (equal to €3,787 thousand, converted at the exchange rate in effect at the acquisition date).
As of December 31, 2021, the consideration for the acquisition is fully paid.

The identifiable assets acquired and the identifiable liabilities assumed by CCUV were measured at fair value at the date of acquisition of control and are summarized below:

	Fair value of assets acquired
Property, plant and equipment	929
Deferred tax assets	1,274
Trade receivables	3,226
Construction contracts	2,042
Trade payables	(701)
Inventory	4,432
Provisions for risks and charges	(6,483)
Others payable and receivables	(757)
Financial liabilities, current portion	(175)
Net assets acquired	**3,787**
Acquisition price	**3,787**
Goodwill	**-**

The business combination in question did not generate goodwill.
The net cash flow deriving from the operation is shown in the following table:

	Acquisition date
Acquisition price	3,787
Cash acquired	-
Price of acquisition, net of cash acquired	**3,787**

Ancillary charges related to the acquisition, amounting to €172 thousand, were charged to the income statement.

In the financial year ended December 31, 2021, CCUV contributed to the Group's revenues and profit for the year respectively for €5,833 thousand and with a loss of €837 thousand.

Acquisition of ISIA

On July 1, 2021, the Group acquired a business unit from the Grundfos Group containing: (i) 100% of the capital of Isia S.p.A., a company providing solutions for the disinfection of water with chlorine operating mainly in the Middle East; and (ii) some industrial patent rights and intellectual property rights (hereinafter, jointly, "**ISIA**").

With the acquisition of ISIA, which will be gradually integrated into the Water Technologies business segment, the Group intends to expand its opportunities in the chlorine dioxide market for drinking water, desalination, energy and industrial water-cooling applications.

The acquisition contract provides for a consideration equal to €3,600 thousand, which as of December 31, 2021 is fully paid.

The identifiable assets acquired and the identifiable liabilities assumed in the context of the ISIA acquisition were measured at fair value at the acquisition date and are summarized below:

	Fair value of assets acquired
Property, plant and equipment	5
Deferred tax assets	734
Other non current receivables	42
Construction contracts	18
Trade receivables	868
Construction contracts	1,348
Other current receivables	366
Deferred tax assets	332
Cash and cash equivalents	1,035
Provisions for risks and charges	(36)
Employees benefits	(265)
Trade Payables	(635)
Income tax payables	(34)
Other current payables	(178)
Net assets acquired (A)	**3,600**
Acquisition price (B)	**3,600**
Goodwill (B) – (A)	**-**

The business combination in question did not generate goodwill.

The net cash flow deriving from the transaction is shown in the table attached below:

	Acquisition date
Acquisition price	3,600
Cash acquired	(1,035)
Price of acquisition, net of cash acquired	**2,565**

Ancillary charges related to the acquisition, amounting to €105 thousand, were charged to the income statement.

In the financial year ended December 31, 2021, ISIA contributed to the Group's revenues and profit for the year respectively for €2,574 thousand and with a loss of €185 thousand.

Segment reporting

38. 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 two operational business segments:

- **Electrode Technologies:** includes the offer of metal electrodes coated by special catalysts, suitable to many applications, in particular in the production of basic chemicals and chlorine derivatives; (ii) in the electronics sector and in the production of components for the production of lithium batteries (iii) in the refining of non-ferrous metals (nickel and cobalt; (iv) in the galvanic finishing industry; (v) in the pulp and paper industry; and (vi) in the construction industry for corrosion prevention of reinforced concrete and metal structures. In addition, the segment includes the offering of electrodes (i) for the generation of hydrogen through water electrolysis processes and (ii) for the use of hydrogen to generate electricity in fuel cells (so-called Energy Transition business line).
- **Water Technologies:** includes the offer related to water treatment systems, including electrodes, equipment, systems and plants for the sanitization and filtration of drinking and wastewater; ;the main applications are residential swimming pool disinfection, municipal water disinfection and filtration, the treatment of industrial water and marine sector.

In support of these business segments there are the so-called Corporate activities.

During the year ended December 31, 2021, the Group introduced some changes to the management and monitoring methods of its business with particular reference to the allocation of the economic values relating to the Corporate activities on the two business segments identified. In accordance with the provisions of paragraph 29 of IFRS 8, the data relating to the financial year ended December 31, 2020 are restated below to reflect the aforementioned amendments. For the sake of completeness of information, the re-exposed data relating to the year ended December 31, 2019 is also reported.

The following tables show the economic information by business segment for the years 2021, 2020 and 2019:

	For the year ended December 31, 2021		
(in € thousands)	Group Total	Electrode Technologies segment	Water Technologies segment
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 expenses allocation	(23,199)	(13,230)	(9,969)
Gross operating profit	**121,206**	**82,659**	**38,547**
Depreciation and amortization	(26,234)	-	-
Impairment	(2,947)	-	-
Provisions for risks and charges	(4,432)	-	-
Operating profit	**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**	**-**	**-**

	For the year ended December 31, 2020 (reexposed)		
(in € thousands)	Group Total	Electrode Technologies segment	Water Technologies segment
Revenue	**499,454**	**290,398**	**209,056**
Royalties and commissions	(4,447)	(2,269)	(2,178)
Cost of goods sold	(320,674)	(180,571)	(140,103)
Selling expenses	(23,936)	(7,803)	(16,133)
G&A expenses	(39,328)	(20,114)	(19,214)
R&D expenses	(9,519)	(7,711)	(1,808)
Other operating income (expenses)	(1,271)	206	(1,477)
Corporate expenses allocation	(19,707)	(10,474)	(9,233)
Gross operating profit	**80,572**	**61,662**	**18,910**
Depreciation and amortization	(26,475)	-	-
Impairment	798	-	-
Provisions for risks and charges	628	-	-
Operating profit	**55,523**	**-**	**-**
Share of profit of equity-accounted investees	3,991	-	-
Finance income	8,626	-	-
Finance expenses	(23,886)	-	-
Profit before tax	**44,254**	**-**	**-**
Income tax expense	(11,491)	-	-
Profit for the period	**32,763**	**-**	**-**

	For the year ended December 31, 2019 (reexposed)		
(in € thousands)	Group Total	Electrode Technologies segment	Water Technologies segment
Revenue	**505,364**	**299,140**	**206,224**
Royalties and commissions	(5,001)	(2,532)	(2,469)
Cost of goods sold	(336,541)	(194,233)	(142,308)
Selling expenses	(28,699)	(9,253)	(19,446)
G&A expenses	(42,854)	(24,645)	(18,209)
R&D expenses	(10,593)	(8,215)	(2,378)
Other operating income (expenses)	12,410	12,070	340
Corporate expenses allocation	(18,401)	(9,930)	(8,471)
Gross operating profit	**75,685**	**62,402**	**13,283**
Depreciation and amortization	(27,050)	-	-
Impairment	144	-	-
Provisions for risks and charges	(988)	-	-
Operating profit	**47,791**	**-**	**-**
Share of profit of equity-accounted investees	5,067	-	-
Finance income	7,163	-	-
Finance expenses	(19,215)	-	-
Profit before tax	**40,806**	**-**	**-**
Income tax expense	(11,853)	-	-
Profit for the period	**28,953**	**-**	**-**

The following table illustrates the investments by business segment for the financial years ended December 31, 2021, 2020 and 2019:

	As of December 31,			
(in € thousands)	Group Total	Electrode Technologies segment	Water Technologies segment	Corporate Segment
2021				
Property, plant and equipment(*)	23,906	21,270	2,535	101
Intangible assets	7,083	971	5,601	511
Total Investment as of 2021	**30,989**	**22,241**	**8,136**	**612**
2020				
Property, plant and equipment(*)	19,411	17,973	1,192	246
Intangible assets(**)	7,999	1,574	6,292	133
Total Investment as of 2020	**27,410**	**19,547**	**7,484**	**379**
2019				
Property, plant and equipment(*)	26,700	24,057	2,465	178
Intangible assets	9,757	3,655	5,811	291
Total Investment as of 2019	**36,457**	**27,712**	**8,276**	**469**

* - It does not include increases related to rights of use of Property, Plant and Equipment

** - It does not include increases relating to goodwill

The provisions of IFRS 8, paragraph 34, also specified that for the financial years ended December 31, 2021, 2020 and 2019 there is a single customer (TK Nucera) belonging to the Electrode Technologies business segment which generated higher revenues 10% of the total, equal to €97.417 thousand, €65,838 thousand and €77,891 thousand respectively. For more details, see Note 39.

The table below shows the non current assets, other than financial assets and deferred tax assets, by geographical area at December 31, 2021, 2020 and 2019, allocated on the basis of the country in which the assets are located.

	As of December, 2021				
(in € thousands)	Italy	EMEIA, excluding Italy	APAC	AMS	Total
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**

	As of December, 2020				
(in € thousands)	Italy	EMEIA, excluding Italy	APAC	AMS	Total
Intangible assets	10,979	4,872	21,577	93,653	131,081
Property, plant and equipment	24,313	14,610	62,760	52,213	153,896
Other receivables	11,617	2	775	39	12,433
Total	**46,909**	**19,484**	**85,112**	**145,905**	**297,410**

	As of December, 2019				
(in € thousands)	Italy	EMEIA, excluding Italy	APAC	AMS	Total
Intangible assets	10,235	5,452	24,909	103,051	143,647
Property, plant and equipment	25,262	13,414	63,536	53,834	156,046
Other receivables	10,397	6	1,101	50	11,554
Total	**45,894**	**18,872**	**89,546**	**156,935**	**311,247**

Related Party Transactions

39. 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 executives (the "**Other Related Parties**");
- executives with strategic responsibilities ("**Top Management**").

With reference to the Other Related Parties, it should be noted that on January 8, 2021, the acquisition of 37.47% of the Company's capital by Snam (through the company Asset Company 10 S.r.l.) from Blackstone, through the companies BTO Feather Holdings S.a.r.l., was completed.
- Luxembourg and BTO Feather Holdings ESC (Mauritius) Ltd and Cordusio Società Fiduciaria per Azioni. Following this change in the Group's ownership structure, the Other Related Parties are represented not only by Snam and its subsidiaries, but also by the parent company of Snam CDP S.p.A. and its subsidiaries, as well as companies controlled (directly or indirectly) by the Ministry of the Economy and Finance (MEF).

The table below details the statement of financial position values referring to the related party transactions at December 31, 2021, 2020 and 2019:

(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, 2021	-	-	52	**52**	10,313	0.5%
As of December 31, 2020	-	-	52	**52**	12,433	0.4%
As of December 31, 2019	-	-	52	**52**	11,554	0.5%
Current deferred tax assets						
As of December 31, 2021	376	-	-	**376**	20,965	1.8%
As of December 31, 2020	703	-	-	**703**	11,600	6.1%
As of December 31, 2019	737	-	-	**737**	5,248	14.0%
Current trade receivables						
As of December 31, 2021	11	21,626	-	**21,637**	139,974	15.5%
As of December 31, 2020	19	9,560	-	**9,579**	90,905	10.5%
As of December 31, 2019	15	12,174	-	**12,189**	92,975	13.1%
Financial liabilities						
As of December 31, 2021	-	-	-	**-**	3,784	0.0%
As of December 31, 2020	-	-	-	**-**	154,755	0.0%
As of December 31, 2019	-	-	136,659	**136,659**	344,763	39.6%
Other non current payables						
As of December 31, 2021	-	488	-	**488**	2,183	22.4%
As of December 31, 2020	-	397	-	**397**	1,930	20.6%
As of December 31, 2019	-	327	-	**327**	921	35.5%
Current trade payables						
As of December 31, 2021	-	894	75	**969**	61,425	1.6%
As of December 31, 2020	53	565	-	**618**	46,879	1.3%
As of December 31, 2019	66	459	-	**525**	53,678	1.0%
Current deferred tax liabilities						
As of December 31, 2021	1,786	-	-	**1,786**	27,392	6.5%
As of December 31, 2020	2,805	-	-	**2,805**	14,221	19.7%
As of December 31, 2019	1,851	-	-	**1,851**	11,112	16.7%
Other current payables						
As of December 31, 2021	-	25,722	-	**25,722**	92,242	27.9%
As of December 31, 2020	-	7,272	-	**7,272**	50,509	14.4%
As of December 31, 2019	-	6,096	-	**6,096**	44,773	13.6%

For the sake of consistency and completeness of presentation, the Group has the figures compared to those included in the approved financial statements for the years 2020 and 2019.

Equity relations with the Parent Company mainly relate to current tax assets of €376 thousand, €703 thousand and €737 thousand respectively at December 31, 2021, 2020 and 2019 and current income tax payables of €1,786 thousand, €2,805 thousand and €1,851 thousand respectively on the same dates relating to the national tax consolidation agreement in effect between the Company, De Nora Italy S.r.l., De Nora Water Technology Italy S.r.l., Capannoni S.r.l. and the Parent Company, signed on September 22, 2016, whose validity is subject to renewal in the absence of revocation of the option by the companies participating in the said contract.

Equity relations with Associated Companies are mainly related to current trade receivables equal to €21,626 thousand, €9,560 thousand and € 12,174 thousand, respectively at December 31, 2021, 2020 and 2019, mainly concerning 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 €25,722 thousand, €7,272 thousand and €6,096 thousand, respectively at December 31, 2021, 2020 and 2019, mainly related to advances obtained with reference to the aforementioned supply contract.
Financial liabilities net of the current amount due to Other Related Parties amounting to €136,659 thousand at December 31, 2019 mainly relate to the Company's obligation to repay, pursuant to Article 2437-quater, paragraph 5 of the Italian Civil Code, the Category B Shares in respect of which, if at August 9, 2022 some exit conditions agreed upon by the shareholders and provided for in the Company's bylaws had occurred, and the shareholders had opted to exercise the right of withdrawal granted to them. As of December 31, 2020, given that the conditions precedent for the completion of the sale by the Blackstone Group of the equity investment in the Company, which was then completed on January 8, 2021, had been met before the end of the 2020 financial year, the financial liability representing the obligation was derecognized against an increase in the shareholders' equity reserves.

The table below shows the detailed statement of the economic values relating to transactions with related parties for the years ended December 31, 2021, 2020 and 2019:

(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, 2021	-	97,417	-	**97,417**	615,878	15.8%
For the year ended December 31, 2020	-	65,838	-	**65,838**	499,454	13.2%
For the year ended December 31, 2019	-	77,891	-	**77,891**	505,364	15.4%
Other income						
For the year ended December 31, 2021	54	740	-	**794**	4,009	19.8%
For the year ended December 31, 2020	50	842	-	**892**	6,840	13.0%
For the year ended December 31, 2019	48	830	2	**880**	19,777	4.4%
Costs for raw materials, consumables, supplies and goods						
For the year ended December 31, 2021	-	480	-	**480**	289,578	0.2%
For the year ended December 31, 2020	-	476	-	**476**	214,376	0.2%
For the year ended December 31, 2019	-	303	-	**303**	206,228	0.1%
Costs for services						
For the year ended December 31, 2021	88	672	196	**956**	116,193	0.8%
For the year ended December 31, 2020	85	568	342	**995**	99,151	1.0%
For the year ended December 31, 2019	92	379	58	**529**	121,816	0.4%
Personnel expenses						
For the year ended December 31, 2021	-	-	60	**60**	116,742	0.1%
For the year ended December 31, 2020	-	-	-	**-**	106,564	0.0%
For the year ended December 31, 2019	-	-	-	**-**	108,440	0.0%
Finance expenses						
For the year ended December 31, 2021	-	-	-	**-**	16,330	0.0%
For the year ended December 31, 2020	-	-	3,648	**3,648**	23,886	15.3%
For the year ended December 31, 2019	-	-	2,760	**2,760**	19,215	14.4%

For consistency of presentation, the Group has restated the figures from those included in the approved financial statements for 2020 and 2019.

The economic relations with the Associated Companies are mainly related to revenues, amounting to €97,417 thousand, €65,838 thousand and €77,891 thousand, for the years ended December 31, 2021, 2020 and 2019, respectively, concerning primarily the sale of electrodes under the "Tool Manufacturing and Services Agreement" mentioned above.

Finance expenses towards Other Related Parties amounting to €3,648 thousand and €2,760 thousand, for the years ended December 31, 2020 and 2019, respectively (nil value for the year ended December 31, 2021), related to the financial liability concerning the holders of category B shares of the Company extinguished during the 2020 financial year.

Transactions with Top Management

In addition to the statement of financial position and income statement amounts with related parties shown in the tables above, the Group recognized compensation to Top Management in the amount of €4,870 thousand, €4,658 thousand and €4,182 thousand in the years ended December 31, 2021, 2020 and 2019, respectively, and of €1,518 thousand, €1,347 thousand and €1,045 thousand not yet paid at the respective dates.

The table below shows the breakdown of the aforementioned fees under the cost categories identified by IAS 24.

	For the year ended December 31,		
(in € thousands)	2021	2020 (*)	2019 (*)
Short-term employee benefits	4,586	4,433	3,967
Post-employment benefits	284	225	215
Other long-term benefits	-	-	-
Termination benefits; and	-	-	-
Share-based payment	-	-	-
Total	**4,870**	**4,658**	**4,182**

* - It should be noted that the Group has amended the disclosures in order to show the figures relating to remuneration paid to senior management on an accruals basis rather than on a cash basis. Therefore, the aforementioned data relating to the years 2020 and 2019 differ from the respective data published in the approved financial statements of the years 2020 and 2019.

In the financial year ended December 31, 2021, the Group paid emoluments to the members of the Board of Directors for €675 thousand (€672 thousand and €748 thousand respectively for the years ended December 31, 2020 and 2019) of which €73 thousand not yet paid at December 31, 2021 (€28 thousand at December 31, 2020 and 2019).

Directors’, Statutory Auditors’ and Independent Auditors’ fees

40. 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 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,	
(in € thousands)	2021	2020
Fees to Board of Directors	675	672
Fees to Board of Statutory Auditors	123	137
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)	1,306	970

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 some orders for the purchase of capital assets amounting to €2.3 million at December 31, 2021.

Guarantees

At December 31, 2021, the following guarantees were in place within the Group:

- The Company has issued guarantees in favor of suppliers of subsidiaries for €9,225 thousand;
- The Company has issued guarantees in favor of customers of subsidiaries for €15,087 thousand;
- The Company has issued guarantees in favor of credit institutions for credit lines issued in favor of subsidiaries for €56,743 thousand;
- As security for contractual obligations undertaken by the Group, sureties have been granted by banks or insurance companies to customers amounting to €28,349 thousand, of which €11,455 thousand in relation to the credit lines guaranteed by the Group 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 profit for the year and equity of Industrie De Nora S.p.A. and the Group

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

The profit 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	29,705	274,829
Dividends collected by the Parent Company	(16,955)	-
Equity-accounted investments in JV/associates	8,739	19,187
Adjusted profit of subsidiaries and difference between adjusted equity of the consolidated companies and relevant carrying amount	44,917	159,799
Consolidated entries of the Parent Company	39	147
As of the Consolidated Financial Statements of the De Nora Group	**66,445**	**453,962**

Events after the reporting date

43. Events after the reporting date

On February 15, 2022, Banca Nazionale del Lavoro S.p.A., Banco BPM S.p.A., Intesa Sanpaolo S.p.A., Mediobanca- Banca di Credito Finanziario S.p.A., Mediobanca International (Luxembourg) S.A, UniCredit S.p.A. and Unicredit Bank AG - New York Branch, in their capacity as lending banks, signed and delivered to the Company and De Nora Holdings US, Inc. a commitment letter, governed by Italian law, by virtue of which the lending banks undertook to make available to the Company and De Nora Holding US, Inc. some lines of credit and/or other forms of financing provided for therein for a total amount of approximately €200,000 thousand and USD 100,000 thousand, respectively, in accordance with the terms and conditions provided for in the Commitment Letter, and with the time frames and circumstances specified therein.

This financing, together with any cash available at Group level, will be used to, inter alia, refinance all or part of the Group's existing financial debt, including the financial debt deriving from syndicated loans, as well as to rationalize the Group's financial structure, raise the funds needed to support working capital requirements and develop the Group's business.

On behalf of the Board of Directors
The Managing Director
Paolo Enrico Dellachà

Independent auditor's report

in accordance with article 14 of Legislative Decree No. 39 of 27 January 2010

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 the De Nora Group (the Group), which comprise the consolidated statement of financial position as of 31 December 2021, 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 Group as of 31 December 2021, 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.

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 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.

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 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 the parent company 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.

Report on Compliance with other Laws and Regulations

Opinion in accordance with Article 14, paragraph 2, letter e), of Legislative Decree No. 39/10

The directors of Industrie De Nora SpA are responsible for preparing a report on operations of the De Nora Group as of 31 December 2021, including its consistency with the relevant consolidated financial statements and its 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 with the consolidated financial statements of the De Nora Group as of 31 December 2021 and on its compliance with the law, as well as to issue a statement on material misstatements, if any.

In our opinion, the report on operations is consistent with the consolidated financial statements of the De Nora Group as of 31 December 2021 and is prepared in compliance with the law.

With reference to the statement referred to in article 14, paragraph 2, letter e), of Legislative Decree No. 39/10, 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.

Milan, 2 March 2022

PricewaterhouseCoopers SpA

Signed by

Francesco Ronco
(Partner)

This report has been translated into English from the Italian original solely for the convenience of international readers.

Separate Financial Statements of Industrie De Nora S.p.A. at December 31, 2021

DE NORA

Statement of Financial Position

(In €)		For the year ended December 31	
ASSETS	**Notes**	**2021**	**2020**
Intangible Asset	16	2,572,933	2,173,418
Goodwill		-	-
other intangible assets		2,572,933	2,173,418
Property, plant and equipment	17	4,727,881	4,637,183
Property, plant and equipment		1,487,572	978,462
Leased assets		-	-
Other assets		185,526	203,753
Assets under construction and advance payments		239,435	126,006
Right of use of PPE:		2,815,348	3,328,962
Equity-accounted investees	18	333,379,550	329,513,350
Financial assets, including derivatives	19	-	7,415,859
Other receivables	20	8,214,090	8,515,029
Deferred tax assets	21	978,057	1,731,952
Total non current assets		**349,872,511**	**353,986,791**
Inventory		-	-
Financial assets, including derivatives	19	130,313,139	60,604,507
Trade receivables	22	23,471,313	26,777,389
Other receivables	20	10,489,775	6,179,207
Cash and cash equivalents	23	12,021,453	10,703,249
Total current assets		**176,295,680**	**104,264,352**
TOTAL ASSETS		**526,168,191**	**458,251,143**
LIABILITIES			
Equity	24	274,828,940	286,654,387
Share capital		16,786,723	16,569,462
Legal reserve		3,357,345	3,314,000
Share premium		24,914,222	7,041,539
Other reserves		200,065,998	240,112,037
Profit /(Loss) for the period		29,704,652	19,617,349
TOTAL EQUITY		**274,828,940**	**286,654,387**
Employee benefits	25	3,649,908	3,760,400
Deferred tax liabilities	21	1,133,935	4,366
Financial liabilities, net of current portion	26	2,481,423	123,121,016
Trade payables		-	-
Other payables		-	-
Total non current liabilities		**7,265,266**	**126,885,782**
Provisions for risks and charges	27	109,000	-
Financial liabilities, current portion	26	229,200,075	30,805,354
Trade payables	28	8,998,656	7,639,678
Income tax payable	29	516,765	2,083,238
Other payables	30	5,249,489	4,182,704
Total current liabilities		**244,073,985**	**44,710,974**
TOTAL EQUITY AND LIABILITIES		**526,168,191**	**458,251,143**

Income Statement

		For the year ended December 31	
(In €)	Notes	2021	2020
Other income	4	54,795,344	43,773,165
Costs for raw materials, consumables, supplies and goods	5	(1,126,425)	(500,746)
Personnel expenses	6	(13,736,940)	(12,842,813)
Costs for services	7	(20,137,973)	(17,702,171)
Other operating expenses	8	(380,453)	(200,294)
Amortization and depreciation	9	(1,932,423)	(2,073,588)
Impairment (losses)/revaluations and provisions for risks and charges	10	(74,420)	(17,981)
Operating profit		**17,406,710**	**10,435,572**
Share of profit of equity-accounted investees	11	16,955,000	20,420,802
Finance income	12	8,882,061	7,703,705
Finance expenses	13	(10,115,896)	(15,431,546)
Profit before tax		**33,127,875**	**23,128,533**
Income tax expense	14/15	(3,423,223)	(3,511,184)
Profit/(Loss) for the period		**29,704,652**	**19,617,349**
Profit (losses) from discontinuing operations		-	-
Profit/(Loss) for the period		**29,704,652**	**19,617,349**

Statement of Comprehensive Income

	For the year ended December 31	
(In €)	2021	2020
Profit/(Loss) for the period	**29,704,652**	**19,617,349**
Items that will not be reclassified to profit or loss:		
Actuarial reserve	(62,070)	101,061
Tax effect	14,897	(24,255)
Total items that will not be reclassified to profit or loss, net of the tax effect (A)	**(47,173)**	**76,806**
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	427,131	401,846
Total items that may be reclassified subsequently to profit or loss, net of the tax effect (B)	**427,131**	**401,846**
Total other comprehensive income net of the tax effects (A) + (B)	**379,958**	**478,652**
Profit/(Loss) of comprehensive income for the period	**30,084,610**	**20,096,001**

Statement of Cash Flows

		For the year ended December 31	
(In €)	Notes	2021	2020
Cash flows from operating activities			
Profit for the period		29,704,652	19,617,349
Adjustments for:			
Amortization and depreciation	9	1,932,423	2,073,588
Net finance expenses	12/13	1,233,835	7,727,841
Share of profit of equity-accounted investees	11	(16,955,000)	(20,420,802)
(Gains) losses on the sale of property, plant and equipment and intangible assets	8	74,290	16,463
Income tax expense	14/15	3,423,223	3,511,184
Change in trade receivables and other receivables	20/22	(2,422,128)	(6,181,137)
Change in trade payables and other payables	28/30	2,088,427	15,100
Change in provisions and employee benefits	25	(48,665)	30,250
Cash flows generated by operating activities		**19,031,057**	**6,389,836**
Net interest and net other finance expenses paid		(3,570,732)	(111,898)
Income tax paid		(637,624)	(1,292,576)
Net cash flows (used in) generated by operating activities		**14,822,701**	**4,985,362**
Cash flows from investing activities			
Investments in property, plant and equipment	17	(897,558)	(242,021)
Investments in intangible assets	16	(1,566,053)	(493,162)
Investments in subsidiaries	18	(2,866,200)	-
Dividends received	11	16,955,000	20,420,802
Shareholders contribution reimbursed by associates (DN WT Italy)	18	(1,000,000)	(4,500,000)
Repayment by Thyssenkrupp of shareholder payments	18	-	15,000,000
Net cash flows used in investing activities		**10,625,190**	**30,185,619**
Cash flows from financing activities			
Dividends paid		(60,000,000)	-
New / Repayments of loans	26	76,981,539	(29,847,767)
Increase (decrease) in other financial liabilities	26	(457,299)	(513,747)
(Increase) decrease in financial assets	19	(58,743,871)	2,588,062
Increase in share capital and reserves	24	18,089,943	-
Net cash flows generated by (used in) financing activities		**(24,129,687)**	**(27,773,452)**
Net increase (decrease) in cash and cash equivalents		**1,318,204**	**7,397,529**
Opening cash and cash equivalents	23	10,703,249	3,305,721
Closing cash and cash equivalents	**23**	**12,021,453**	**10,703,250**

Statement of Changes in the Net Equity

(In €)	Share capital	Legal reserve	Share premium	Reva-luation reserve ex art. 55 DPR 497	Other reserves	Retained earnings	Actuarial gain/ losses reserve	IFRS Reserve	Profit for the period	Total Equity
Distributable reserves	**B**	**B**	**A B C**	**B**	**A B**	**A B C**	**B**			
Balance as of December 31, 2019	**16,569,462**	**3,304,000**	**7,041,539**	**264,760**	**(774,251)**	**55,772,137**	**(441,703)**	**7,166,735**	**37,349,219**	**126,251,898**
Transactions with shareholders:										
Allocation of profit for 2019	-	10,000	-	-	-	37,339,219	-	-	(37,349,219)	-
Release Financial liability exit Share B	-	-	-	-	-	140,306,487	-	-	-	140,306,487
Comprehensive income statement:										
Profit/(Loss) for the period	-	-	-	-	-	-	-	-	19,617,349	19,617,349
Revaluation of net (liabilities)/ assets on the defined benefit obligation	-	-	-	-	-	-	76,807	-	-	76,807
Effective portion of the change in fair value of financial instruments hedging cash flows	-	-	-	-	401,846	-	-	-	-	401,846
Balance as of December 31, 2020	**19,617,349**	**19,617,349**	**7,041,539**	**264,760**	**(372,405)**	**233,417,843**	**(364,896)**	**7,166,735**	**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
Distribution of Dividends	-	-	-	-	-	(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**

A- Share Capital increase
B- Loss coverage
C- Distribution of Shareholder

Notes to the separate financial statements for the year ended December 31, 2021

DE NORA

CONTENTS

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 is controlled by Federico De Nora S.p.A., with registered office at Via Bistolfi 35, Milan.

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, almost 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 European Parliament and the European Council with Regulation no. 1606/2002 of 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, 2021.

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, 2021, as well as of the accounting standards, amendments and interpretations not yet applicable, please refer to the correspon-ding 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, 2021, had no impact on the separate financial statements of IDN S.p.A. closed at December 31, 2021.

With regard to the new standards, amendments and interpretations that are not yet applicable, preliminary analyses have shown that the im-pact 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 pre-paration of the consolidated financial statemen-ts, to which reference should be made, with the exception of the principles set out below.

Equity investments

Equity investments in subsidiaries, jointly control-led companies and associated companies, other than those held for sale, are valued at purchase cost. In the presence of events that lead to the pre-sumption of a reduction in value, the recoverability of the book value of the investments is verified by comparing the carrying value with the relative re-coverable value represented by the greater of fair value, net of disposal costs, and value of use.

If the aforementioned verification reveals a car-rying value higher than the recoverable value, the relative investment is written down to the recove-rable 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 pro-vision 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 assump-tions with an effect on the carrying amounts of recognized assets and liabilities and on disclo-sures relating to contingent assets and liabilities at the reporting date. The estimates and assu-mptions used are based on past experience and other relevant factors. Actual results could differ from such estimates. The estimates and assu-mptions 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 me-asurement 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 car-rying amount of assets and liabilities in the year after the reporting date.

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 difficul-ties in recovering the related net book value through use. Assessment of the existence of the afore-mentioned indicators requires directors to make subjective assessments based on informa-tion 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 dee-med 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 recognises 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

They amount to € 54,795 thousand, with an increase of € 11,022 compared to 2020, and are made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Research expenses recharges	111	114
R&D grants	567	681
Intercompany recharges	49,570	37,440
Other income	4,547	5,538
Total	**54,795**	**43,773**

The item "Research expenses recharges" includes chargebacks of research costs to Thyssen-Krupp Uhde Chlorine Engineers (ITALY) S.r.l. for € 26 thousand, to the subsidiaries De Nora Deutschland GmbH for € 54 thousand and De Nora Water Technologies Italy S.r.l. for € 4 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 € 27.

The item “R&D grants” includes operating grants for European Community research projects for € 265 thousand and operating grants for tax credit Decree Law no. 145 of December 23, 2013 for € 302 thousand.

The item “Intercompany recharges” includes revenues from subsidiaries for services provided by the corporate functions for € 16,412 thousand and for licenses for the use of use patents, trademarks and know-how for € 33,158 thousand. This item underwent an increase of € 11,604 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 € 1,126 thousand, with an increase of € 625 thousand, and are made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Consumables and supplies	1,124	498
Packaging material	2	3
Total	**1,126**	**501**

Consumables mainly refer to purchases relating to Research and Development activities.

6. Personnel expenses

They amount to € 13,737 thousand, with an increase of € 894 compared to 2020, and are made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Wages and salaries	10,004	9,153
Social security contributions	2,242	2,243
Post-employment benefits	746	707
Other personnel expenses	70	68
Directors' compensation	675	672
Total	**13,737**	**12,843**

The following table compares the number of employees in the financial years 2021 and 2020.

	Employees at		Average of years	
	December 31, 2021	December 31, 2020	2021	2020
Executives	17	17	17	18
Managers	16	19	16	18
White-collar workers	68	64	68	66
Blue-collar workers	1	1	1	1
Total	**102**	**101**	**102**	**103**

7. Services

They amount to € 20,138 thousand, with an increase of € 2,436 thousand, and are made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Consultancies:		
- Production and technical assistance	1,432	741
- Commercial	75	88
- Legal and fiscal	669	453
Utilities	185	120
Maintenance	129	168
Travel expenses	179	198
R&D	579	569
Statutory Auditors' fees	90	110
Insurance	251	227
Rents and other lease expenses	540	555
Commissions and royalties	72	56
Freight	83	123
Waste disposal, office cleaning and security	58	50
Patents and trademarks	565	677
Canteen, training and other personnel expenses	510	491
Intercompany services	5,400	4,326
HW and SW maintenance and ICT consultancies	5,817	5,065
Telephone and communication expenses	732	780
Other	4,079	3,029
(Capitalized costs related to assets built internally)	(1,307)	(124)
Total	**20,138**	**17,702**

Capitalized costs related to assets built internally relate to the costs incurred for the internal development of capitalized projects and products.

8. Other operating expenses

They amount to € 381 thousand, with an increase of € 181 thousand compared to 2020, and are made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Indirect taxes and duties	154	51
Loss on sale of non current assets	74	16
Other expenses	153	133
Total	**381**	**200**

Indirect taxes mainly include the pro-rata share of non-deductible VAT for the year 2020.

Other expenses mainly include previous years expenses and losses on receivables that have become uncollectible.

9. Amortization and depreciation

They amount to € 1,932 thousand, with a decrease of € 141 thousand compared to 2020, and are made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Depreciation of buildings, plant and machinery and other assets (A)	**293**	**295**
Leasehold Improvements	1	5
Plants and machinery	251	239
Other assets	41	51
Amortization of rights of use of property, plant and equipment (B)	**547**	**568**
Industrial buildings	305	302
Other assets	242	266
Amortization of intangible assets with a finite life (C)	**1,092**	**1,210**
Industrial patents and intellectual property rights	1,092	1,210
Total (A)+(B)+(C)	**1,932**	**2,073**

10. Impairment (losses)/Revaluations of non current assets and Provisions for risks and charges

In 2021, provisions for legal disputes for € 109 thousand have been accrued and bad debt provision for € 35 thousand has been released

	For the year ended December 31	
(in € thousands)	2021	2020
Provisions (releases) to the bad debt provision	(35)	18
Provisions for legal disputes and complaints	109	-
Total	**74**	**18**

11. Income and expenses from equity investments

They amount to € 16,955 thousand, with a decrease of € 3,466 thousand compared to 2020 and refer to dividends collected during the year from subsidiaries, and in particular from Oronzio De Nora International BV for € 14,800 thousand and by De Nora Italy Srl for € 2,155 thousand.

12. Finance income

Amounts to € 8,882 thousand, with an increase of € 1,178 thousand compared to 2020, and is made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Interest income on loans and cash pooling from subsidiaries	1,495	1,733
Exchange rate gains/(losses)	5,659	3,253
Other finance income	4	6
Positive fair value of derivatives	1,724	2,712
Total	**8,882**	**7,704**

13. Finance expenses

They amount to € 10,116 thousand, with a decrease of € 5,316 thousand compared to 2020, and are made up as follows:

	For the year ended December 31	
(in € thousands)	2021	2020
Bank interest and interest on loans and borrowings	3,030	3,731
Interest on loans and borrowings and cash pooling of subsidiaries	50	83
Exchange rate losses	2,747	5,601
Finance expenses on personnel costs	8	18
Other finance expenses	493	3,908
Negative fair value of derivatives	3,788	2,091
Total	**10,116**	**15,432**

It should be noted that in the financial year ended December 31, 2020, the other finance expenses included the charges relating to the financial liability recognized in relation to the put option granted to the holders of category B shares of the Company for € 3,648 thousand. These expenses are no longer included in the financial year ended December 31, 2021 following the sale by Blackstone of its stake in the Company, completed on January 8, 2021 but whose conditions precedent ended before the financial year ended December 31, 2020.

14. Income tax expense

Income tax expense for the years ended December 31, 2021 and 2020 is detailed below:

	For the year ended December 31	
(in € thousands)	2021	2020
Current taxes	1,571	2,686
Deferred taxes	1,898	539
Prior years taxes	(46)	286
Total	**3,423**	**3,511**

15. Reconciliation of the effective tax rate

	For the year ended December 31			
(in € thousands, with the exception of percentages)	2021		2020	
Profit for the period		29,705		19,617
Income tax expense		3,423		3,511
Profit before tax		**33,128**		**23,128**
Income tax expense at Italian nominal tax rate	24.00%	7,951	24.00%	5,551
IRAP effect	1.82%	603	1.60%	369
Tax effect of non-deductible expense	4.54%	1,503	14.44%	3,339
Tax effect of non-taxable revenue (excluding dividends)	-9.47%	(3,138)	-6.44%	(1,490)
Tax effect on dividends	-12.21%	(4,043)	-20.95%	(4,844)
Tax benefits	-0.24%	(78)	-0.31%	(72)
Other	1.89%	625	2.85%	658
Total	**10.33%**	**3,423**	**15.18%**	**3,511**

Notes to the main financial statements items - balance sheet assets

16. Intangible assets

Intangible assets at December 31, 2021 amounted to € 2,573 thousand, with an increase in net value of € 400 thousand compared to the previous year due to net investments of approximately € 1,492 thousand and net of amortization for € 1,092 thousand.

The composition of intangible assets and related accumulated amortization at December 31, 2021 is as follows:

(in € thousands)	Industrial patents and intellectual property rights	Other intangible assets	Intangible assets in progress	Total
Historical cost as of December 31, 2020	**15,174**	**331**	**496**	**16,001**
Increases	1,121	-	444	1,565
Decreases	(73)	-	-	(73)
Reclassifications	-	-	-	-
Historical cost as of December 31, 2021	**16,222**	**331**	**940**	**17,493**
Depreciation fund as of December 31, 2020	**13,497**	**331**	**-**	**13,828**
Increases	1,092	-	-	1,092
Decreases	-	-	-	-
Reclassifications	-	-	-	-
Depreciation fund as of December 31, 2021	**14,589**	**331**	**-**	**14,920**
Net carrying value as of December 31, 2020	**1,677**	**-**	**496**	**2,173**
Net carrying value as of December 31, 2021	**1,633**	**-**	**940**	**2,573**

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 € 416 thousand and ERP licenses not yet in use for € 293 thousand.

17. Property, Plant and Equipment

Tangible assets at December 31, 2021 amounted to € 4,728 thousand, with an increase in net value of € 91 thousand compared to the previous year due to net investments of € 661 thousand (including the rights of use of leased assets recognized according to IFRS 16), and net of depreciation of € 570 thousand.

The detail of tangible assets and related depreciation accumulated as at December 31, 2021 is as follows:

(in € thousands)	Improvements on Third Party Assets	Plant and machinery	Others	Rights of use of Property, Plant and Equipment	Tangible assets in progress	Total
Historical cost as of December 31, 2020	**2,415**	**5,078**	**2,699**	**4,322**	**126**	**14,640**
Increases		637	23	116	239	1,015
Decreases	-	(74)	(2)	(278)	-	(354)
Reclassifications	-	126	-	-	(126)	-
Reversal of impairment losses	-	-	-	-	-	-
Historical cost as of December 31, 2021	**2,415**	**5,767**	**2,720**	**4,160**	**239**	**15,301**
Depreciation fund as of December 31, 2020	**2,398**	**4,117**	**2,495**	**993**	**-**	**10,003**
Depreciation for the year	1	251	41	547	-	840
Decreases	-	(72)	(2)	(196)	-	(270)
Reclassifications	-	-	-	-	-	-
Reversal of impairment losses	-	-	-	-	-	-
Depreciation fund as of December 31, 2021	**2,399**	**4,296**	**2,534**	**1,344**	**-**	**10,573**
Net carrying value as of December 31, 2020	**17**	**961**	**204**	**3,329**	**126**	**4,637**
Net carrying value as of December 31, 2021	**16**	**1,471**	**186**	**2,816**	**239**	**4,728**

Below are details, per category of asset, of the Right of use for Property, Plant and Equipment:

(in € thousands)	Buildings	Others	Total
Historical cost as of December 31, 2020	**3,343**	**979**	**4,322**
Increases	-	116	116
Decreases	-	(278)	(278)
Reclassifications	-	-	-
Reversal of impairment losses	-	-	-
Historical cost as of December 31, 2021	**3,343**	**817**	**4,160**
Depreciation fund as of December 31, 2020	**594**	**399**	**993**
Depreciation for the year	305	242	547
Decreases	-	(196)	(196)
Reclassifications	-	-	-
Reversal of impairment losses	-	-	-
Depreciation fund as of December 31, 2021	**899**	**445**	**1,344**
Net carrying value as of December 31, 2020	**2,749**	**580**	**3,329**
Net carrying value as of December 31, 2021	**2,444**	**372**	**2,816**

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 2021, a total of € 583 thousand of lease instalments were paid, of which € 457 thousand as a reduction of the financial liability and € 126 thousand as interest, recorded under financial expenses.

The total cost recognized in the income statement for rents and leases excluded from the scope of application of IFRS 16 amounts to € 540 thousand.

18. Investments in subsidiaries and associates

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 Euros	Note
CAPANNONI S.r.l.	Milan- Italy	100%	Euro	8,500	(75)	18,946	18,946	1)
ORONZIO DE NORA INTERNATIONAL BV	Amsterdam-Holland	100%	Euro	4,500	15,697	42,404	42,404	2)
DE NORA ELETTRODI SUZHOU CO.	Suzhou-China	100%	CNY	183,404	49,752	267,156	37,132	2)
DE NORA DO BRASIL LTDA*	Sorocaba-Brazil	89%	BRL	9,662	13,791	36,893	5,847	3)
DE NORA WATER TECHNOLOGIES ITALY SRL	Milan- Italy	100%	Euro	78	(3,374)	(2,886)	(2,886)	1)
THYSSENKRUPP UHDE CHLORINE ENGINEERS GMBH	Dortmund-Germany	34%	Euro	10,000	(6,577)	245,668	245,668	4)
DE NORA HOLDING(UK) LIMITED	London - United Kingdom	100%	Euro	0	5	108,076	108,076	2)
DE NORA ITALY SRL	Milan- Italy	100%	Euro	5,000	3,214	23,666	23,666	1)
DE NORA ISIA SRL	Venice- Italy	100%	Euro	2,500	117	2,390	2,390	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 at 12/31/2021 for approval by the related corporate bodies

2) - data relating to the financial statements closed on 12/31/2020 approved by the appropriate corporate bodies

3) - data relating to the reporting package at 12/31/2021 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 on 9/30/2021 approved by the relative corporate bodies

The changes in the book value of equity investments are shown below:

Company name (in € thousands)	December 31, 2020	Increases	Decreases	Reclassification	December 31, 2021
CAPANNONI S.r.l.	8,835	-		-	8,835
ORONZIO DE NORA INTERNATIONAL BV	55,855	-		-	55,855
DE NORA ELETTRODI SUZHOU CO.	22,503	-		-	22,503
DE NORA DO BRASIL LTDA	443	-		-	443
THYSSENKRUPP UHDE CHLORINE ENGINEERS GMBH	102,515	-		-	102,515
DE NORA HOLDING(UK) LIMITED	109,310	-		-	109,310
DE NORA WATER TECHNOLOGIES ITALY SRL	10,884	1,000		-	11,884
DE NORA ITALY SRL	19,168	-		-	19,168
DE NORA ISIA SRL	-	2,866		-	2,866
Total	**329,513**	**3,866**		**-**	**333,379**

On July 1, 2021, the Company acquired a business unit from the Grundfos group consisting of: (i) 100% of the capital of Isia S.p.A. (now De Nora Isia S.r.l.), a company that provides solutions for water disinfection with chlorine dioxide and operates mainly in the Middle East; (ii) some industrial patent rights and intellectual property rights (recorded under Intangible assets for a total of € 734 thousand).

During the year, a shareholder payment was made in favour of the subsidiary De Nora Water Technologies Italy S.r.l. for € 1,000 thousand.

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 Uhde Chlorine Engineers Gmbh, 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 subsidiary De Nora Water Technologies Italy S.r.l. reported a loss for the year of approximately € 3.4 million in 2021, with negative shareholders' equity at December 31, 2021. An impairment test was therefore prepared which, on the basis of future economic and financial performance expectations, in any case showed a recoverable value of the investment higher than its book value; therefore no elements have emerged leading to the belief that there is a need to recognise any impairment losses.

For the purposes of the impairment test, the business plan of the subsidiary was used, applying the Discounted Cash Flow method to determine the value in use. The projections have been calculated in detail for the first 4 years using the annual inertial growth rate (the "g" rate, equal to 1.70%) to calculate Terminal Value. The discount rate applied to calculate the current value of operating cash flows, equal to 6.5%, is represented by the weighted average cost of capital (WACC).

The sensitivity analyses performed to verify the consistency of the carrying amounts confirmed the recoverability of the carrying amount of the investment in De Nora Water Technologies Italy S.r.l. even in the presence of worsening changes in the main assumptions. In particular, an increase in WACC of up to 7.1% or a reduction in g-rate of up to 0.82%, or a reduction in EBIT over the plan period of 12% with a similar impact on terminal value would not lead to impairment.

19. Financial assets, including derivatives

(in € thousands)	As of December 31	
Non current	**2021**	**2020**
Financial assets related to Subsidiaries	-	7,416
Total	**-**	**7,416**
Current		
Fair value of derivatives	-	1,119
Financial assets related to Subsidiaries	130,313	59,486
Total	**130,313**	**60,605**
Total Receivables and other Financial Assets	**130,313**	**68,021**

The amount of current financial assets with subsidiaries refers to:

- receivables for cash pooling, remunerated at market rates from: Capannoni S.r.l. for € 3,297 thousand, De Nora Water Technologies Italy s.r.l. for € 17,268 thousand and De Nora Deutschland Gmbh for € 15,941 thousand.
- receivables for short-term loans, remunerated at market rate: De Nora Holding US for € 60,127 thousand (of which 7,416 changed from non current financial receivables in 2020 to current financial receivables in 2021) and De Nora Tech LLC for € 33,551 thousand.

For information on the change in the fair value of derivative instruments, see Note 26 Financial Liabilities.

20. Other receivables

Other receivables as of December 31, 2021 totalled € 18,704 thousand, with an increase of € 4,009 thousand compared to December 31, 2020. The composition, divided between non current and current part, is as follows:

(in € thousands)	As of December 31	
Non current	**2021**	**2020**
Tax receivables	6,965	7,202
Other- third parties	1,249	1,314
Total	**8,214**	**8,516**
Current		
Advances to suppliers	171	60
Tax receivables	5,636	4,314
Other- third parties	192	42
Prepayments and accrued income	4,491	1,763
Total	**10,490**	**6,179**
Total Other receivables	**18,704**	**14,695**

Non current tax receivables include receivables for withholding taxes on foreign receivables for € 5,939 thousand and € 1,026 thousand for VAT refunds.

Other receivables from third parties include receivables from insurance companies for post-employment benefits policies for € 1,204 thousand.

Current tax receivables include approximately € 3,455 thousand of VAT refunds for the year, € 514 thousand of tax refunds on Research and Development activities as set forth in Decree Law no. 145/2013 and € 1,655 of credits for withholding taxes on foreign credits accrued during the year.

Some withholding tax credits have been reclassified taking into account their electability; the comparative statement of financial position has therefore been appropriately reclassified in order to ensure comparability of values.

Prepayments and accrued income are mainly attributable to contracts relating to licence fees and long-term maintenance of IT operating system.

21. Deferred tax assets and liabilities

Deferred tax assets refer to the following items:

(in € thousands)	As of December 31, 2020	(Debits) credits to the income statement	(Debits) credits to equity	As of December 31, 2021
Employee benefits	66	(11)	15	70
Intangible assets	58	16	-	74
Payables for variable components of personnel costs	350	179	-	529
Receivables and inventory write-downs	127	(8)	-	119
Property, Plant and Equipment	116	8	-	124
Unrealized exchange rate differences	1,015	(1,002)	-	13
Other provisions	-	49	-	49
Total	**1,732**	**(769)**	**15**	**978**

Deferred tax liabilities refer to the following items:

(in € thousands)	As of December 31, 2020	(Debits) credits to the income statement	(Debits) credits to equity	As of December 31, 2021
Property, Plant and Equipment	2	-	-	2
Unrealized exchange rate differences	2	1,130	-	1,132
Total	**4**	**1,130**	**-**	**1,134**

	As of December 31					
	Assets		Liabilities		Net amount	
(in € thousands)	2021	2020	2021	2020	2021	2020
Intangible assets	74	58	-	-	74	58
Property, Plant and Equipment	124	116	(2)	(2)	122	114
Financial assets	-	-	-	-	-	-
Payables for variable components of personnel costs	529	350	-	-	529	350
Receivables and inventory write-downs	119	127	-	-	119	127
Employee benefits	70	66	-	-	70	66
Unrealized exchange rate differences	13	1,015	(1,132)	(2)	(1,119)	1,013
Financial liabilities exit share B	49	-	-	-	49	-
Total	**978**	**1,732**	**(1,134)**	**(4)**	**(156)**	**1,728**

22. Trade receivables

As of December 31, 2021 they totalled € 23,471 thousand net of the related write-down provisions, with a decrease of € 3,306 thousand compared to December 31, 2020, and are made up as follows:

(in € thousands)	As of December 31	
Current	2021	2020
Receivables from third parties	1,119	1,672
Receivables from subsidiaries	22,974	25,729
Receivables from associates	5	37
Bad debt provision	(627)	(661)
Total Trade receivables	**23,471**	**26,777**

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	
(in € thousands)	2021	2020
Opening balance	**661**	**651**
Accruals of the year	-	23
Utilization and releases of the year	(34)	(13)
Closing balance	**627**	**661**

23. Cash and cash equivalents

Cash and cash equivalents amounted to € 12,021 thousand at December 31, 2021, increased by € 1,318 thousand compared to December 31, 2020, and are detailed as follows:

	As of December 31	
(in € thousands)	2021	2020
Bank and postal accounts	12,020	10,702
Cash on hand	1	1
Cash and cash equivalents	**12,021**	**10,703**

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 accrual basis, taking into account the tax credit claimed for withholding taxes incurred.

The detailed financial changes is shown in the cash flow statement presented in the financial statements.

D Notes to the main financial statements items - balance sheet liabilities

24. Equity

The changes in the categories that make up the shareholders 'equity for the years 2020 and 2021 are shown in the specific “Statement of changes in shareholders' equity”.

In the course of the 2021 financial year, dividends were distributed for € 60,000 thousand.

Share Capital

Share capital stood at Euro16,786 thousand as of December 31, 2021 (€ 16,569 thousand as of December 31, 2020) and includes 178,366,403 shares (165,694,590 as of December 31, 2020).

The following table shows the shareholder structure of the Group:

Shareholder	Category of shares	Number of shares as of December 31		Share capital %	
		2021	2020	2021	2020
FEDERICO DE NORA S.p.A	A	93,265,626	91,125,100	52.29%	55.00%
NORFIN S.p.A.	A	12,753,198	12,433,540	7.15%	7.50%
Mr. Federico De Nora	A	6,619,560	6,619,560	3.71%	4.00%
BTO Feather Holdings S.à.r.l.	B	-	53,697,399	0.00%	32.40%
BTO Feather Holdings ESC (Mauritius) Ltd.	B	-	324,401	0.00%	0.20%
Cordusio Società Fiduciaria per Azioni	C	2,162,636	1,484,990	1.21%	0.90%
Cordusio Società Fiduciaria per Azioni	D	10,000	9,600	0.01%	0.00%
Asset Company 10 S.r.l.	B	63,555,383	-	35.63%	0.00%
Total		**178,366,403**	**165,694,590**	**100.00%**	**100.00%**

On January 8, 2021, the transaction whereby Snam, through its subsidiary Asset Company 10 S.r.l., became a shareholder of the Company was finalized. At that date, shareholders BTO Feather Holdings S.a r.l. and BTO Feather Holdings ESC (Mauritius) Ltd. have in fact sold their respective stakes (totalling 54,021,800 class B shares) in the share capital of the Company to the Italian company called Asset Company 10 S.r.l; as shareholder Cordusio Società Fiduciaria per Azioni also sold all its shares (1,484,990 class C shares and 9,600 class D shares, for a total of 11,993,767 class B shares following the conversions envisaged by the articles of association of the Company) to Asset Company 10 S.r.l.

Plan reserved for managers of the Company

On May 5, 2021, the Company's Board of Directors approved a plan reserved for the Company's managers to grant the beneficiaries the Company's shares falling under categories C and D with rights other than ordinary shares in categories A and B.

On June 21, 2021, the Extraordinary Shareholders' Meeting of Industrie De Nora S.p.A. resolved, inter alia, to increase the Company's share capital for cash, on a divisible basis, with the exclusion of pre-emption rights pursuant to Article 2441, paragraphs 5 and 6, of the Italian Civil Code, by (a) a maximum of € 2,627,100.00, through the issue of a maximum of 10,000 new category D shares, with no indication of nominal

value, at a unit price of a maximum of € 262.71 per share, € 0.10 of which to be allocated to capital and the remainder to share premium (b) a maximum of € 15,462,847.40, by the issue of a maximum of 2,162,636 new C shares with no nominal value, at a maximum price of € 7.15 per share, of which 0.10 per share shall be allocated to capital and the remainder to share premium. The subscription value of the shares corresponds to the fair value, as determined by an independent expert; therefore, the plan did not generate costs in the income statement. Category C shares upon the occurrence of an exit event (e.g. the listing of the company) will be automatically converted into ordinary shares according to a conversion ratio of 1:1. Category D shares will be converted into ordinary shares according to a conversion ratio that varies depending on the value of the company at the time of exit.
The fair value of category C shares was determined on the basis of the-equity value at the time of the entry of the minority shareholder; the fair value of category D shares was determined using a pricing model option whose main parameters are: volatility (19.42%), risk-free rates, possible exit dates and number of scenarios.

On June 28, 2021, the share capital increase was fully subscribed by Cordusio Società Fiduciaria per Azioni with consequent assignment of 2,162,636 category C shares and 10,000 category D shares.

Other changes

On September 23, 2021, the shareholder Asset Company 10 S.r.l. transferred ownership of 2,460,184 category B shares as follows:

- no. 2,140,526 category B shares, equal to approximately 1.20% of the share capital of the shareholder FEDERICO DE NORA S.p.A.;
- no. 319,658 category B shares, equal to approximately 0.18% of the share capital of the shareholder NORFIN S.p.A.

These shares were all sold with no nominal value and automatically converted, as a result of the sale, into the same number of category A shares (pursuant to art. 6.10 of the Articles of Association).

Legal Reserve

It amounts to € 3,357 thousand, and has increased by € 43 thousand following the allocation of the profit of the previous year.

Share Premium Reserve

It amounted to € 24,914 thousand, with an increase of € 17,872 thousand compared to December 31, 2020 following the afore-mentioned paid capital increase.

Reserve pursuant to Article 55 of Presidential Decree 597

This amounted to € 265 thousand, unchanged from December 31, 2020.

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 of December 31, 2021 the reserve is positive for € 55 thousand, compared to the negative reserve for € 372 thousand at the end of 2020.

Retained earnings

As of December 31, 2021 they amounted to € 192,992 thousand. The reserve decreased by € 40,426 thousand due to the allocation of the result for the previous year (€ 19,574 thousand) and to the distribution of dividends for € 60,000 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 of December 31, 2021, it amounted to €-412 thousand, compared to €-365 thousand at the end of 2020.

IAS transition reserve

The IAS reserve (€ 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.

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.

La determinazione dell'obbligazione nei confronti dei dipendenti è stata svolta da un attuario indipendente secondo le seguenti fasi:

- 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	
(Economic- Financial technical basis)	2021	2020
Annual discount rate*	0.98%	0.34%
Annual inflation rate	1.75%	0.80%
Annual rate of increase in post-employment benefits	2.81%	2.10%
Annual rate of wage increase	1.75%	0.80%

* - 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 summarises 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 at December 31, 2021:

Sensitivity analysis of the main valuation parameters	Values in thousand of Euros
Turnover rate +1.00%	2,428
Turnover rate-1.00%	2,465
Inflation rate + 0.25%	2,484
Inflation rate-0.25%	2,408
Discount rate +0.25%	2,395
Discount rate-0.25%	2,497

Changes in post-employment benefits are summarized in the table below:

	For the year ended December 31	
(in € thousands)	2021	2020
Opening balance	**2,491**	**2,494**
Current service cost	272	282
Interest cost	8	18
Actuarial profit/(loss)	62	(101)
Benefits paid	(388)	(202)
Closing balance	**2,445**	**2,491**

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	
(in € thousands)	2021	2020
Opening provision	**1,269**	**1,135**
Accruals of the year	134	142
Utilization and releases of the year	(198)	(8)
Closing balance	**1,205**	**1,269**

26. Financial liabilities

Financial payables as of December 31, 2021 totalled € 231,681 thousand with an increase of € 77,755 thousand compared to December 31, 2020. The breakdown between non current and current liabilities is provided below:

(in € thousands)	As of December 31	
Non current	**2021**	**2020**
Bank loans and borrowings	-	119,603
Fair Value of derivatives	-	629
Lease payables	2,481	2,889
Total	**2,481**	**123,121**
Current		
Bank loans and borrowings	220,938	15,023
Financial payables to subsidiaries	6,564	15,225
Lease payables	550	557
Fair Value of derivatives	1,148	-
Total	**229,200**	**30,805**
Total financial liabilities	**231,681**	**153,926**

Bank loans and borrowings

As of December 31, 2021, the fair value of payables to banks approximates their book value.

A loan agreement was signed on October 19, 2017 with a pool of banks led by UniCredit S.p.A. (Unicredit), Mediobanca – Banca di Credito Finanziario S.p.A. (Mediobanca) and UBI Banca S.p.A. (UBI).

The loan, originally of € 160 million, was partially repaid in December 2020 for € 40 million, in advance of the maturity date of July 19, 2022; the residual debt (capital line) is therefore € 120 million, shown in the financial statements under non current liabilities net of the Upfront Fees paid by the company to the banks at the time of signing of the contract. The loan accrues interest at Euribor 6 months + Spread, this latter set at 1.75%. The loan described above requires compliance with the following financial parameter: at each six-monthly interest payment date set in the contract at June 30 and December 31 of each year, the ratio between the Group's Net Financial Position (Consolidated Total Net Debt) of the last day of the period and the consolidated EBITDA of the period considered, must be less than or equal to 3.25 until June 30, 2022. As of December 31, 2021, the above-mentioned parameter was comfortably met.

If, in one of the above periods, the Group is not able to comply with the above-mentioned financial parameter, it must, within 15 days of issue of the Certificate of Compliance, receive a capital injection or subordinated loan from the shareholders such to remedy its position (Equity Cure).

The Loan signed by the Company also provides for early repayment in the event of a change of control by the Company.

In particular, the aforementioned loan agreement provides for full early repayment obligations of the loan in the event that:

(i) from the trading start date,

a. the De Nora family ceases to hold, directly or indirectly, including through any family trusts or any other legal scheme adopted for tax planning purposes, an equity investment at least (i) equal to 30% of the Company's share capital or (ii), if the conditions set forth in the applicable laws and regulations exist with reference to mandatory public purchase offers, equal to 25% of the Company's share capital, having the right to exercise at least 30% or 25% (depending on the case) of the votes in the shareholders' meeting of the Company, or the right to determine the composition or to remove the majority of the members of the Board of Directors or other equivalent body of the Company; or

b. one or more different subjects, acting in concert, hold a stake in the Company's share capital that is higher than the stake in the Company's share capital held by the De Nora family;

(ii) all or substantially all of the Group's assets are sold, either in a single transaction or in a number of related transactions.

In addition to this loan, the Company has in place at the end of the year:

Unicredit loan

On July 26, 2021, the Company signed a credit line granted by Unicredit for a maximum notional value of € 100 million, subsequently reduced to € 90 million, renewable monthly until April 15, 2022, at a fixed interest rate equal to 0.35%. At December 31, 2021, following the granting of the Unicredit Loan on December 16, 2021, this credit line was used for € 40,001 thousand.

Unicredit has the right to order the termination of the contract in the event of:

- occurrence of any event (e.g. any change in the administrative, legal or corporate structure – form and share capital, persons of the Directors, statutory auditors and shareholders, as well as mergers, including by incorporation, demergers, spin-offs, contributions – and in the equity structure – the economic and financial position, etc.) which in the opinion of the bank involves any kind of concern about the ability to meet the obligations assumed towards the bank or negatively affects the legal, financial or economic position of the Company or the integrity and effectiveness of the guarantees given;
- failure to notify the bank in advance of any change in the legal or corporate structure (e.g. form, share capital, persons of the Directors, statutory auditors and shareholders, as well as mergers, including by incorporation, demergers, spin-offs, contributions), and in the administrative, equity and financial structure (e.g. bond issues), as well as in the economic and technical structure

as it appears from the data, elements and documents provided for the conclusion of the loan agreement, and facts which may in any event modify the current structure and organization of the company.

BNL loan

On July 28 and 29, 2021, the Company obtained from Banca Nazionale del Lavoro S.p.A. two loans under the same conditions, whose total book value at December 31, 2021 was € 31,059 thousand. The maturity is set on January 31, 2022, with a fixed nominal interest rate is 0.10%.

BPM loan

At December 31, 2020, the Company had € 10 million of a short-term loan granted by Banco BPM S.p.A., maturing in March 2021, with a nominal borrowing rate of 0.6%. This short-term loan was extended until July 31, 2021 under the same conditions. On that date, the Company repaid the loan and signed, with the same bank, a loan for a notional value of € 10,000 thousand with maturity on September 30, 2021, at a fixed interest rate of 0.10%. In the course of October 2021, the amount financed was increased up to € 15,000 thousand with maturity on January 31, 2021, and the rate was renegotiated to 0.15%. This loan provides that the failure of the Company to fully and punctually fulfil its obligations of a credit or financial nature in relation to other transactions in progress with Banco BPM S.p.A. constitutes cause for forfeiture of the benefit of the term.

BPER loan

On October 27, 2021 the Company signed the BPER Loan, whose book value at December 31, 2021 is equal to € 15,003 thousand, maturing on January 27, 2022, with a nominal interest rate is equal to 0.10%.

Financial payables to subsidiaries

They refer to financial payables remunerated at market rate for cash pooling to De Nora Italy S.r.l. for € 6,564 thousand.

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.

Fair value of derivatives

Derivatives for hedging the fluctuation of the interest rate

This item, as of December 31, 2021, stood at € 1,148 thousand (compared with € 629 thousand as of December 31, 2020) and includes:

- the fair value of the IRS derivatives to partially hedge the bank loan of € 120 million maturing in 2022 for an amount of € 243 thousand in 2021 (€ 629 thousand as of December 31, 2020);
- the fair value of foreign exchange hedging derivatives for an amount equal to € 905 thousand.

Below are details of the IRS contracts relating to the loan of € 120 million described above:

Instrument	Description	Hedged item	Notional (thousands of €)	Start date	Due date
IRS	receive floating/pay fix	Term loan in Euro	50,000	May 2018	July 2022
IRS	receive floating/pay fix	Term loan in Euro	50,000	April 2018	July 2022

Cash flow hedge accounting was adopted for these derivatives. Variable rate bank loans are hedged.

Derivatives for hedging the fluctuation of the exchange rate

Derivatives hedging exchange rate fluctuations at December 31, 2021 refer to currency derivative contracts for forward purchases and sales entered into by the Company against financial receivables expressed in USD from its US subsidiary De Nora Holding US Inc. The group has adopted the hedge accounting option. The fair value is determined using the forward exchange rate at the reporting date.

As of December 31, 2021, this item amounted to € 905 thousand, while as of December 31, 2020, the fair value of these derivatives was positive and equal to € 1,119 thousand.

The details of the derivative contracts hedging the exchange rate fluctuation put in place by the Company as of December 31, 2021 are shown below:

Instrument	Description	Notional (thousands USD)	Notional (thousands of €)	Start date	Due date
CCIRS	pay amount EUR / receive amount USD	5,000	4,289	October 2021	January 2022
CCIRS	pay amount EUR / receive amount USD	9,100	7,845	October 2021	February 2022
CCIRS	pay amount EUR / receive amount USD	31,500	27,195	November 2021	February 2022
CCIRS	pay amount EUR / receive amount USD	16,000	14,169	December 2021	March 2022
Total		**61,600**	**53,498**		

The detail of the net financial position is as follows:

	As of December 31	
(in € thousands)	2021	2020
Cash on	1	1
Cash	12,020	10,702
Cash and cash equivalents	**12,021**	**10,703**
Current financial assets	**130,313**	**60,605**
Current financial debt	(220,938)	(15,023)
Short term Loans and borrowings from other financial backers	(6,564)	(15,225)
Lease payables	(550)	(557)
Derivatives	(1,148)	-
Current financial indebtedness	**(229,200)**	**(30,805)**
Net current financial position	**(86,866)**	**40,503**
Non current financial debt	-	(119,603)
Lease payables	(2,481)	(2,889)
Derivatives	-	(629)
Net non current financial position	**(2,481)**	**(123,121)**
Net financial position	**(89,347)**	**(82,618)**

The increase in Net Financial Indebtedness as of December 31, 2021 compared to December 31, 2020, equal to a total of € 6,729 thousand, is mainly attributable to the combined effect of the following factors:

- cash generated by the Company's operating activities net of related costs partially offset by cash absorbed by finance expenses and taxes paid;
- the cash absorbed by the investment activity equal to € 6,329 thousand in the year ended December 31, 2021, of which € 2,866 thousand relating to the acquisition of the equity investment in Isia S.p.A. (now De Nora Isia S.r.l.);
- the cash absorbed by the dividends paid in the year ended December 31, 2021 equal to € 60,000 thousand, partially offset by the liquidity generated by the capital increase subscribed and paid by the shareholders in the year ended December 31, 2021 for an amount equal to € 18,090 thousands and dividends collected from subsidiaries for an amount equal to € 16,955 thousand.

For further details on the cash flows for the period, please refer to the cash flow statement.

27. Provisions for risks and charges

At December 31, 2021, they amounted to € 109 thousand, not present as of December 31, 2020, and related to potential disputes with former employees.

28. Trade payables

As of December 31, 2021 they totalled € 8,999 thousand, with an increase of € 1,360 thousand compared to December 31, 2020.

(in € thousands)	As of December 31	
Current	**2021**	**2020**
Third parties	6,768	4,779
Payables to Subsidiaries	2,214	2,843
Associated companies	17	17
Total payables	**8,999**	**7,639**

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

The item as of December 31, 2021 amounts to a total of € 517 thousand, with a decrease of € 1,566 thousand compared to December 31, 2020. This payable refers to IRES and IRAP. The payables for IRES are due to the parent company Federico De Nora S.p.A. as a result of the national tax consolidation contract in force.

Receivables for advances paid which up to the financial statements closed on December 31, 2020 were classified under the item "Other receivables" have been reclassified under this item; the comparative statement of financial position has therefore been appropriately reclassified in order to ensure the comparability of values.

30. Other payables

The item as of December 31, 2021 amounts to a total of € 5,249 thousand, an increase of € 1,066 thousand compared to December 31, 2020. There are no other non current payables; their breakdown is detailed as follows:

(in € thousands)	As of December 31	
Current	**2021**	**2020**
Payables to employees	3,426	2,526
Withholding tax payables	503	362
Social security charges payables	520	465
Advances from customers	773	825
Accrued expenses and deferred income	-	1
Other- third parties	27	4
Total Other payables	**5,249**	**4,183**

Payables to employees refer to accrued and unpaid portions such as: holidays, additional months, bonuses and related contributions.

Social security charges payables refer to the amounts owed by the Company and its employees for wages and salaries for the month of December 2021.

31. Commitments and guarantees

The Company, as the parent company, has a number of commitments and guarantees in place at 12.31.2021 in favour 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 € 0.45 million at December 31, 2021.

Guarantees

- Indemnity issued in the interest of the Group companies in support of letters of credit and guarantees given by credit institutions in their favour: € 28,349 thousand. This item mainly refers to letters of credit and bank guarantees (Bid bonds, Advance payment bonds, Performance bonds) in favour of the Group companies operating in the water purification sector, according to multi-year contracts;
- guarantees issued by IDN S.p.A. in favour of customers and third party suppliers (Parent company guarantee) to guarantee commitments undertaken by its subsidiaries: € 24,312 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 € 56,743 thousand, but no Group company has any outstanding loans or bank loans backed by such guarantees. Furthermore, the company is jointly and severally guarantor with De Nora Tech LLC and De Nora Permelec Ltd. of the USD 38 million share of the Senior Facilities Agreement granted to the subsidiary De Nora Holdings US for a value of € 33,551 thousand as of December 31, 2021.

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 honour 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	
(in € thousands)	2021	2020
Trade receivables	23,471	26,777
Other financial receivables and sundry receivables	149,017	83,093
Cash and cash equivalents	12,021	10,703
Total Financial assets	**184,509**	**120,573**

An ageing analysis of trade receivables at the reporting date is provided below:

	As of December 31		% Expired on December 31	
(in € thousands, with the exception of percentages)	2021	2020	2021	2020
Not yet due	20,929	21,496	89%	80%
Overdue 0-30 days	9	967	-	4%
Overdue 31-60 days	798	569	4%	2%
Overdue more than 60 days	1,735	3,745	7%	14%
Total trade receivables	**23,471**	**26,777**	**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.

(in € thousands)	December 31, 2021	Due date 0-12 months	2 years	3 years	4 years	5 years	Over 5 years
	As of December 31, 2021						
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 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

(in € thousands)	December 31, 2020	Due date 0-12 months	2 years	3 years	4 years	5 years	Over 5 years
	As of December 31, 2020						
Bank loans and borrowings*	134,626	15,023	120,000	-	-	-	-
Financial payables to subsidiaries	15,225	15,225					
Lease payables	3,446	558	473	367	327	316	1.405
Derivatives	629	-	629	-	-	-	-
Trade payables to third parties	4,779	4,779	-	-	-	-	-
Other payables	7,043	7,043	-	-	-	-	-
Total	**165,748**	**42,628**	**121,102**	**367**	**327**	**316**	**1.405**

*- The difference between the total bank loans and borrowing as December 31, 2020 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 of December 31, 2021 based on the notional value:

Receivables / payables in thousands of US dollars	
Receivables	106,113
Payables	(136)
Net exposure	**105,977**

The exchange rate applied during the year is as follows:

	Average exchange rate	End of financial year exchange rate
US Dollar	1.1827	1.1326

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 € 4 million at December 31, 2021, assuming that all other variables are constant.

If, on December 31, 2021, 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 € 4 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 financial expenses.

The Company uses derivatives to manage fluctuations in interest rates, which are mainly *"Forward Rate Agreements" and "Interest Rate Swaps"*.

The Company's position is summarized in the table below:

	As of December 31,	
(in € thousands)	2021	2020
Financial liabilities	(231,681)	(153,926)
Hedged financial liabilities	100,000	100,000
Fixed rate financial liabilities	101,062	19,611
Financial liabilities exposed to interest rate risk	**(30,619)**	**(34,315)**
Financial assets	142,334	78,723
Total	**111,715**	**44,408**

Sensitivity analysis

A hypothetical, instantaneous and unfavourable change of one percentage point in the level of interest rates would generate, on an annual basis, a higher pre-tax charge of approximately € 0.3 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, 2021	Notes	Carrying amount				Fair Value
(in € thousands)		Loans and receivables	Derivatives at Fair value	Other financial liabilities	Total	
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)**

Classification and fair value as of December 31, 2020	Notes	Carrying amount				Fair Value
(in € thousands)		Loans and receivables	Derivatives at Fair value	Other financial liabilities	Total	
Cash and cash equivalents	23	10,703	-	-	10,703	10,703
Trade and other receivables	20/22	41,849	-	-	41,849	41,849
Receivables and other financial assets	19	66,901	1,119	-	68,020	68,020
Financial assets		**119,453**	**1,119**	**-**	**120,572**	**120,572**
Bank loans and borrowings	26	-	-	(134,626)	(134,626)	(134,626)
Financial payables to subsidiaries	26		-	(15,225)	(15,225)	(15,225)
Lease payables	26	-	-	(3,446)	(3,446)	
Derivatives at FV	26	-	(629)	-	(629)	(629)
Trade payables	28		-	(8,464)	(8,464)	(8,464)
Other payables	29/30	-	-	(5,819)	(5,819)	(5,819)
Financial liabilities		**-**	**(629)**	**(245,298)**	**(168,209)**	**(164,763)**

Hierarchical scale of fair value

The following table shows the financial instruments recognized 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:

(in € thousands)	December 31, 2021		
	Level 1	Level 2	Level 3
Fair value of derivatives	-	(1,147)	-
Total	**-**	**(1,147)**	**-**

(in € thousands)	December 31, 2020		
	Level 1	Level 2	Level 3
Fair value of derivatives	-	490	-
Total	**-**	**490**	**-**

Other risks

Pursuant to appendix B.26 of Legislative decree no. 196/2003 containing the Personal data protection code, the directors note 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 personality, 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.

On March 27, 2019, with the mandate of the Supervisory Board expiring, the Board of Directors resolved to appoint a new Supervisory Board which will remain in office until the date of the Board of Directors approving the draft financial statements of the Company as of December 31, 2021, although the Supervisory Board thus appointed shall continue to perform its functions on an extended basis until the new members of the Supervisory Board are appointed.

FRalated 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 of December 31, 2021, 2020 and 2019:

(in € thousands)	Parent company	Subsidiaries	Associates	Other related parties	Total
Trade receivables					
December 31, 2021	2	22,960	5	-	**22,967**
December 31, 2020	3	25,734	38	-	**25,775**
December 31, 2019	2	20,785	20	-	**20,807**
Financial assets					
December 31, 2021	-	130,313	-	-	**130,313**
December 31, 2020	-	66,902	-	-	**66,902**
December 31, 2019	-	73,711	-	-	**73,711**
Other receivables					
December 31, 2021	-	-	-	45	**45**
December 31, 2020	-	-	-	45	**45**
December 31, 2019	-	-	-	45	**45**
Trade payables					
December 31, 2021	-	2,214	17	75	**2,306**
December 31, 2020	35	2,819	17	-	**2,871**
December 31, 2019	39	3,799	49	-	**3,887**
Income tax payables					
December 31, 2021	269	-	-	-	**269**
December 31, 2020	1.914	-	-	-	**1,914**
December 31, 2019	353	-	-	-	**353**
Financial liabilities					
December 31, 2021	-	6,575	-	-	**6,575**
December 31, 2020	-	18,091	-	-	**18,091**
December 31, 2019	-	23,058	-	136,659	**159,717**

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, 2021, 2020 and 2019:

(in € thousands)	Parent company	Subsidiaries	Associates	Other related parties	Total
Other income					
For the year ended December 31, 2021	2	54,157	25	-	**54,184**
For the year ended December 31, 2020	3	43,097	65	-	**43,253**
For the year ended December 31, 2019	2	43,693	58	2	**43,755**
Finance income					**-**
For the year ended December 31, 2021	-	18,450	-	-	**18,450**
For the year ended December 31, 2020	-	20,312	1,842	-	**22,154**
For the year ended December 31, 2019	-	19,695	14,425	-	**34,120**
Operating expenses					**-**
For the year ended December 31, 2021	-	287	17	145	**449**
For the year ended December 31, 2020	-	133	4	291	**428**
For the year ended December 31, 2019	-	494	4	-	**498**
Other expenses					**-**
For the year ended December 31, 2021	58	6,942	-	110	**7,110**
For the year ended December 31, 2020	55	5,783	-	50	**5,888**
For the year ended December 31, 2019	62	5,881	32	-	**5,975**
Finance expenses					**-**
For the year ended December 31, 2021	-	164	-	-	**164**
For the year ended December 31, 2020	-	207	-	3,648	**3,855**
For the year ended December 31, 2019	-	235	-	2,760	**2,995**

Transactions with the Parent Company

Balance sheet values with the Parent Company mainly relate to income tax payables, for € 269 thousand, € 1,914 thousand and € 353 thousand, respectively as of December 31, 2021, 2020 and 2019, originating from the aforementioned national tax consolidation contract outstanding.

Income statement amounts with the Parent Company are mainly related to other expenses amounting to € 58 thousand, € 55 thousand and € 62 thousand, for the years ended December 31, 2021, 2020 and 2019, respectively, and related to the recharging 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 of December 31, 2021, 2020 and 2019:

(in € thousands)	December 31, 2021			
Subsidiaries	**Trade receivables**	**Financial assets**	**Trade payables**	**Financial liabilities**
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) 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 B.V.	-	-	-	-
De Nora Parmelec 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 Subsidiaries	**22,960**	**130,313**	**2,214**	**6,575**

(in € thousands)	December 31, 2020			
Subsidiaries	**Trade receivables**	**Financial assets**	**Trade payables**	**Financial liabilities**
Capannoni S.r.l.	27	3,805	107	2,857
De Nora Italy S.r.l.	910	-	181	5,337
De Nora Italy S.r.l. Singapore Branch	90	-	-	-
De Nora Elettrodi (Suzhou) Ltd.	1,027	-	35	-
De Nora Deutschland GmbH	3,543	-	41	9,897
De Nora Do Brasil Ltda	739	-	-	-
De Nora India Ltd	133	-	-	-
De Nora Tech.Inc.	10,379	4,075	1,095	-
Oronzio De Nora B.V.	-	-	-	-
De Nora Parmelec Ltd	1,319	-	1,134	-
De Nora Holding (UK) Limited	1	-	-	-
De Nora Water Technologies Italy, S.r.l.	372	17,379	-	-
De Nora Water Technologies, Inc.- Abu Dhabi Branch	132	-	-	-
De Nora Water Technologies FZE	3	-	-	-
De Nora Water Technologies UK Services Limited	70	-	31	-
De Nora China-Jinan Co.,Ltd.	50	-	-	-
De Nora Holdings US, Inc.	13	41,643	-	-
De Nora Water Technologies (Shanghai), Ltd.	3	-	-	-
De Nora Water Technologies, LLC	6,610	-	195	-
De Nora Water Technologies, LLC- Singapore Branch	219	-	-	-
De Nora Neptune, LLC	6	-	-	-
De Nora Marine Technologies, LLC	88	-	-	-
Total Subsidiaries	**25,734**	**66,902**	**2,819**	**18,091**

(in € thousands)	December 31, 2019			
Subsidiaries	**Trade receivables**	**Financial assets**	**Trade payables**	**Financial liabilities**
Capannoni S.r.l.	16	5,175	124	2,980
De Nora Italy S.r.l.	1,283	-	360	5,068
De Nora Italy S.r.l. Singapore Branch	158	-	-	-
De Nora Elettrodi (Suzhou) Ltd.	1,328	-	50	-
De Nora Deutschland GmbH	2,316	-	22	15,010
De Nora Do Brasil Ltd.	1,439	987	295	-
De Nora India Ltd	204	-	-	-
De Nora Tech.Inc.	8,321	4,451	1,245	-
Oronzio De Nora B.V.	-	-	-	-
De Nora Permelec Ltd	2,562	-	1,539	-
De Nora Holding (UK) Limited	1	-	-	-
De Nora Water Technologies Italy, S.r.l.	733	17,611	-	-
De Nora Water Technologies, Inc.	1,061	-	-	-
De Nora Water Technologies, Inc.- Abu Dhabi Branch	135	-	-	-
De Nora Water Technologies UK Services Limited	95	-	98	-
De Nora China-Jinan Co.,Ltd.	37	-	-	-
De Nora Holdings US, Inc.	-	45,487	-	-
De Nora Water Technologies (Shanghai) Co. Ltd.	9	-	-	-
De Nora Water Technologies (Shanghai), Ltd.	3	-	-	-
De Nora Water Technologies, LLC	12	-	-	-
De Nora Water Technologies, LLC- Singapore Branch	127	-	-	-
De Nora Water TechnologiesTexas, LLC	923	-	66	-
De Nora Miox, Inc.	22	-	-	-
Total Subsidiaries	**20,785**	**73,711**	**3,799**	**23,058**

Trade receivables

Trade receivables, for € 22,960 thousand, € 25,734 thousand and € 20,785 thousand, respectively as of December 31, 2021, 2020 and 2019, 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 € 130,313 thousand, € 66,902 thousand and € 73,711 thousand respectively as of December 31, 2021, 2020 and 2019 and refer to (i) receivables for cash pooling from Capannoni S.r.l. and De Nora Water Technologies Italy s.r.l.; and (ii) loans receivable from De Nora Holding US and De Nora Tech LLC.

Trade payables

Trade payables, for € 2,214 thousand, € 2,819 thousand and € 3,799 thousand, respectively as of December 31, 2021, 2020 and 2019, mainly refer to R&D activities provided to De Nora Permelec Ltd and De Nora Tech. LLC. regarding the development of intellectual property.

Financial liabilities

Financial liabilities, for € 6,575 thousand, € 18,091 thousand and € 23,058 thousand, respectively as of December 31, 2021, 2020 and 2019, mainly refer to financial payables for cash pooling to De Nora Deutschland Gmbh and De Nora Italy S.r.l.

The following table shows the detailed statement of the economic values referring to the relations maintained by the Company with the Subsidiaries as of December 31, 2021, 2020 and 2019:

(in € thousands)	For the year ended December 31, 2021				
Subsidiaries	**Other income**	**Finance income**	**Operating expenses**	**Other expenses**	**Finance expenses**
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) 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.Inc.	17,806	213	9	2,767	-
Oronzio De Nora B.V.	-	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, lnc.	-	-	-	-	-
De Nora Water Technologies, lnc.-Abu Dhabi Branch	126	-	-	-	-
De Nora Water TechnologiesUK 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 Subsidiaries	**54,157**	**18,450**	**287**	**6,942**	**164**

(in € thousands)	For the year ended December 31, 2020				
Subsidiaries	**Other income**	**Finance income**	**Operating expenses**	**Other expenses**	**Finance expenses**
Capannoni S.r.l.	11	69	-	588	124
De Nora Italy S.r.l.	3,692	2,879	57	616	33
De Nora Italy S.r.l. Singapore Branch	351	-	-	-	-
De Nora Elettrodi (Suzhou) Ltd.	2,418	-	-	91	-
De Nora Deutschland GmbH	8,265	-	35	14	50
De Nora Do Brasil Ltda	900	7	-	-	-
De Nora India Ltd	423	-	-	-	-
De Nora Tech.Inc.	14,616	126	-	1,925	-
Oronzio De Nora B.V.	-	15,700	-	-	-
De Nora Permelec Ltd	5,398	-	41	2,264	-
De Nora Holding (UK) Limited	-	-	-	-	-
De Nora Water Technologies Italy, S.r.l.	1,082	241	-	-	-
De Nora Water Technologies, Inc.-Abu Dhabi Branch	205	-	-	-	-
De Nora Water Technologies FZE	3	-	-	-	-
De Nora Water TechnologiesUK Services Limited	297	-	-	147	-
De Nora China-Jinan Co.,Ltd.	155	-	-	-	-
De Nora Holdings US, Inc.	13	1,290	-	-	-
De Nora Water Technologies (Shanghai) Co. Ltd.	1	-	-	-	-
De Nora Water Technologies (Shanghai), Ltd.	9	-	-	-	-
De Nora Water Technologies, LLC	4,712	-	-	138	-
De Nora Water Technologies, LLC- Singapore Branch	452	-	-	-	-
De Nora Neptune, LLC	6	-	-	-	-
De Nora Marine Technologies, LLC	88	-	-	-	-
Total Subsidiaries	**43,097**	**20,312**	**133**	**5,783**	**207**

(in € thousands)	For the year ended December 31, 2019				
Subsidiaries	**Other income**	**Finance income**	**Operating expenses**	**Other expenses**	**Finance expenses**
Capannoni S.r.l.	5	53	-	329	130
De Nora Italy S.r.l.	3,599	3,800	7	580	27
De Nora Italy S.r.l. Singapore Branch	319	-	-	-	-
De Nora Elettrodi (Suzhou) Ltd.	2,195	-	-	95	-
De Nora Deutschland GmbH	7,216	-	83	14	70
De Nora Do Brasil Ltda	1,004	26	395	48	-
De Nora India Ltd	550	-	-	-	-
De Nora Tech.Inc.	15,392	207	-	2,143	-
Oronzio De Nora B.V.	-	13,650	-	-	8
De Nora Permelec Ltd	7,354	-	9	2,365	-
De Nora Holding (UK) Limited	1	-	-	-	-
De Nora Water Technologies Italy, S.r.l.	1,220	231	-	-	-
De Nora Water Technologies, Inc.	2,039	-	-	-	-
De Nora Water Technologies, Inc.- Abu Dhabi Branch	135	-	-	-	-
De Nora Water TechnologiesUK Services Limited	350	-	-	241	-
De Nora China-Jinan Co.,Ltd.	150	-	-	-	-
De Nora Holdings US, Inc.	6	1,728	-	-	-
De Nora Water Technologies (Shanghai) Co. Ltd.	19	-	-	-	-
De Nora Water Technologies (Shanghai), Ltd.	3	-	-	-	-
De Nora Water Technologies, LLC	16	-	-	-	-
De Nora Water Technologies, LLC- Singapore Branch	428	-	-	-	-
De Nora Water TechnologiesTexas, LLC	1,670	-	-	66	-
De Nora Miox, Inc.	22	-	-	-	-
Total Subsidiaries	**43,693**	**19,695**	**494**	**5,881**	**235**

Other income

Other income amounted to € 54,157 thousand, € 43,097 thousand and € 43,693 thousand respectively for the financial years ended December 31, 2021, 2020 and 2019. Other income is mainly attributable to: (I)intercompany recharges which include income for services provided by corporate functions for € 16,412 thousand, € 15,885 thousand and € 15,694 thousand respectively for the financial years ended December 31, 2021, 2020 and 2019, and for licenses for the use of intellectual property, trademarks and know-how for € 33,158 thousand, € 21,555 thousand and € 22,485 thousand; and (ii) other income which mainly includes charge-backs of expenses.

Finance income

Finance income, equal to € 18,450 thousand, € 20,312 thousand and € 19,695 thousand, respectively for the financial years ended December 31, 2021, 2020 and 2019, mainly refer to:

(i) dividends collected by the company Oronzio De Nora BV for € 14,800 thousand, € 15,700 thousand and € 13,650 thousand respectively for the years ended December 31, 2021, 2020 and 2019, and by the company De Nora Italy Srl for € 2,155 thousand, € 2,879 thousand and € 3,800 thousand respectively for the years ended December 31, 2021, 2020 and 2019; and

(ii) interest income on loans and cash pooling relationships described above for € 1,495 thousand, € 1,733 thousand and € 2,245 thousand for the financial years ended December 31, 2021, 2020 and 2019. These interest income relate to relationships with: (i) De Nora Holdings US, Inc. (€ 885 thousand, € 1,290 thousand and € 1,728 thousand respectively for the years ended December 31, 2021, 2020 and 2019); (ii) De Nora Water Technologies Italy, S.r.l. (€ 243 thousand, € 241 thousand and € 231 thousand respectively for the years ended December 31, 2021, 2020 and 2019); and (iii) De Nora Tech. Inc. (€ 213 thousand, € 126 thousand and € 207 thousand respectively for the years ended December 31, 2021, 2020 and 2019).

Operating expenses

Operating expenses, equal to € 287 thousand, € 133 thousand and € 494 thousand respectively for the financial years ended December 31, 2021, 2020 and 2019, mainly refer to the supply of materials used by the Company in R&D.

Other expenses

Other expenses, equal to € 6,942 thousand, € 5,783 thousand and € 5,881 thousand, respectively for the financial years ended December 31, 2021, 2020 and 2019 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, equal to € 164 thousand, € 207 thousand and € 235 thousand, respectively for the financial years ended December 31, 2021, 2020 and 2019, mainly refer to: (i) lease payables relating to the rental of the administrative office and R&D laboratories, due to Capannoni S.r.l. and equal to € 114 thousand, € 124 thousand and € 130 thousand respectively for the financial years ended December 31, 2021, 2020 and 2019; and (ii) the cash pooling referring to the aforementioned loans to De Nora Deutschland Gmbh for € 14 thousand, € 50 thousand and € 70 thousand respectively for the financial years ended December 31, 2021, 2020 and 2019 and to De Nora Italy S.r.l. for € 36 thousand, € 33 thousand and € 27 thousand respectively for the financial years ended December 31, 2021, 2020 and 2019.

Transactions with Associates

Relations with associates mainly relate to financial income, equal to € zero, € 1,842 thousand and € 14,425 thousand respectively as of December 31, 2021, 2020 and 2019, relating to dividends distributed.

Transactions with Other Related Parties

Relations with Other Related Parties mainly refer to:

- financial liabilities, equal to € 136,659 thousand as of December 31, 2019 (€ zero as of December 31, 2020 and 2021), mainly relating to the Company's obligation to redeem the category B Shares described above;
- other receivables, equal to € 45 thousand respectively as of December 31, 2021, 2020 and 2019 attributable to the relations with the Company MDN Holding S.p.A. described above;
- trade payables, equal to € 75 thousand as of December 31, 2021, attributable to relations with Snam and Gencap Advisory S.r.l., for payables of directors' and administrative consultancy fees described above;
- operating costs, equal to € 145 thousand, € 291 thousand and € zero for the years ended December 31, 2021, 2020 and 2019 attributable to costs for Cybersecurity services and administrative consultancy with the companies HWG S.r.l. and Gencap Advisory S.r.l. described above;
- other expenses of € 110 thousand, € 50 thousand and € zero for the years ended December 31, 2021, 2020 and 2019 attributable to the relations with the companies Gencap Advisory S.r.l. and Snam described above; and
- finance expenses, equal to € zero, € 3,648 thousand and € 2,760 thousand respectively for the years ended December 31, 2021, 2020 and 2019, mainly relating to expenses arising from the obligation to redeem the category B Shares described above.

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	NETHERLANDS
De Nora Elettrodi (Suzhou) Ltd	CHINA
De Nora do Brasil Ltda	BRAZIL
De Nora Holding UK Ltd.	ENGLAND
De Nora Water Technologies Italy S.r.l.	ITALY
De Nora Isia S.r.l.	ITALY
ThyssenKrupp Uhde Chlorine Engeneers GmbH	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.	ENGLAND
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.	ENGLAND
De Nora Water Technologies (Shanghai) Ltd	CHINA
De Nora Neptune LLC	USA
De Nora Water Technologies FZE	DUBAI
Capannoni USA LLC	USA
De Nora UV Technologies LLC	USA
ThyssenKrupp Uhde Chlorine Engeneers S.r.l.	ITALY
ThyssenKrupp Uhde Chlorine Engeneers Ltd	JAPAN
ThyssenKrupp Uhde Chlorine Engeneers Co Ltd	CHINA
ThyssenKrupp Uhde Chlorine Electrolysis Inc.	USA

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 performance of their duties are detailed below:

- Directors' fees: € 675 thousand in 2021 (compared to € 672 thousand in 2020);

- Statutory Auditors' fees: € 90 thousand in 2021 (compared to € 110 thousand in 2020);

- Independent Auditors' fees (statutory financial statements): € 35.5 thousand (compared to € 35 thousand in 2020).

H Events after the reporting date

35. Events after the reporting date

On February 15, 2022, Banca Nazionale del Lavoro S.p.A., Banco BPM S.p.A., Intesa Sanpaolo S.p.A., Mediobanca- Banca di Credito Finanziario S.p.A., Mediobanca International (Luxembourg) S.A., UniCredit S.p.A. and Unicredit Bank AG- New York Branch, as lending banks, have signed and delivered to the Company and De Nora Holdings US, Inc. a letter of proposal relating to a document called Commitment Letter, governed by Italian law, by virtue of which the lending banks undertook to make available to the Company and De Nora Holding US, Inc. certain credit lines and/or other forms of financing provided therein for a total amount of approximately € 200,000 thousand and USD 100,000 thousand, respectively, in accordance with the terms and conditions set forth in the Commitment Letter, and in the time frame and circumstances indicated therein.

This Loan, together with any cash available at the Group and Company level, will be used for the purpose of, inter alia, refinancing all or part of the Group's and the Company's existing financial debt, including the financial debt deriving from pool loans, as well as rationalizing the financial structure of the Group, to raise the financial resources needed to support working capital requirements and develop the Group's business.

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.

Allocation of the year's results

37. Allocation of the year's results

It is proposed to the Shareholders' Meeting the allocation of the profit for the year resulting from the financial statements of € 29,705 thousand entirely to the retained earnings reserve.

On behalf of the Board of Directors
The Managing Director
Paolo Enrico Dellachà

Independent auditor's report

in accordance with article 14 of Legislative Decree No. 39 of 27 January 2010

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 2021, 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 the 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 2021, 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.

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.

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 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.

Report on Compliance with other Laws and Regulations

Opinion in accordance with Article 14, paragraph 2, letter e), of Legislative Decree No. 39/10

The directors of Industrie De Nora SpA are responsible for preparing a report on operations of Industrie De Nora SpA as of 31 December 2021, including its consistency with the relevant financial statements and its 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 with the financial statements of Industrie De Nora SpA as of 31 December 2021 and on its compliance with the law, as well as to issue a statement on material misstatements, if any.

In our opinion, the report on operations is consistent with the financial statements of Industrie De Nora SpA as of 31 December 2021 and is prepared in compliance with the law.

With reference to the statement referred to in article 14, paragraph 2, letter e), of Legislative Decree No. 39/10, 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.

Milan, 2 March 2022

PricewaterhouseCoopers SpA

Signed by

Francesco Ronco
(Partner)

This report has been translated into English from the Italian original solely for the convenience of international readers.

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