



INTEGRATED REPORT

Terna's role in the just transition

The electricity system is made up of several segments: production, transmission, distribution and the sale of electricity. Tasked with **transmission** and **dispatching**, Terna is responsible for the key transmission segment. As Transmission System Operator (TSO), Terna must on the one hand design a grid capable of handling the progressive decarbonisation of the sources of production and the growing integration of renewables (**transmission operator**), whilst on the other guaranteeing that, at all times, energy demand from consumers is always balanced by the amount produced through so-called “dispatching” (**system operator**).

This is a complex task, requiring an independent central coordinator capable of having an overall view of a high number of actors involved in both production and consumption. This is why Terna refers to itself as **driving the energy transition** towards a new decarbonised model.

Terna is aware of the fact that the goal of decarbonisation must be addressed by taking into account not only the environmental aspects, but also the social dimension in order to deliver a **just transition** that is as fair and inclusive as possible. In this sense, a multistakeholder approach, involving all the players that have an impact on and are impacted by the transition is of fundamental importance. The process must therefore include, for example, trade bodies, civil society and stakeholders through partnerships, roundtable discussion and engagement initiatives.

The transition to a distributed production system based on renewable sources is rapidly altering the market, resulting in exponential growth in active resources connected to the grid. Managing requests for connection to the HV grid, coming from entities proposing renewable initiatives, enables Terna to have a systematic view of the current situation and future scenarios. In this way, the TSO **can monitor the system's ability to meet demand for electricity** whilst satisfying **security** and **quality of service requirements**, in a word, ensuring the system's “adequacy”.

The European Union (Regulation (EU) 2021/1119) has targeted net zero by 2050, with **an intermediate target of cutting greenhouse gas emissions by at least 55% by 2030**. The EU's new legislative package, **Fit for 55**, has set new challenges for the electricity sector: at national level, **by 2030 it will be necessary to install approximately 70 GW of additional renewable capacity** so that renewable sources account for at least 65% of final consumption. These greenhouse gas emission reduction targets have recently been joined by the need to become independent from Russian fossil fuels, as described in the **RepowerEU** plan.

As of 31 December 2022, Terna had received applications for connection to the national transmission grid (NTG) for **over 311 GW of new renewable capacity**, compared with installed capacity of approximately 63.9 GW. The majority of the applications were from southern Italy and the islands (80% of total applications), locations renowned for being windier and sunnier. To continuously monitor all these initiatives, Terna, in collaboration with the Ministry of the Environment and Energy Security, launched the new digital platform called **Econnexion**⁴ in February 2023. This an important new consultation tool enabling operators in the sector to share information on the **regional and local distribution** of requests for the connection of renewables to the HV grid, broken down by source (**onshore and offshore wind and photovoltaic**).

⁴ <https://www.terna.it/it/sistema-elettrico/rete/econnexion>

From the point of view of transmission, to achieve this fresh injection of renewable energy into the grid will require a major effort to plan, approve and carry out investment projects on a scale not seen in recent decades in Italy. Terna has responded by further accelerating work on key investment projects of most importance to the electricity system, with the Company's most ambitious Grid Development Plan ever: the 2023 Plan, presented on 15 March 2023, envisages investment of over €21 billion over the ten years from 2023 to 2032.

An extremely complex challenge. Terna plays a central role in this energy transition, both in enabling the electricity system's transition towards renewable sources and in coordinating this transformation process. **The electricity grid is the main enabling factor** in achieving the **global goal of decarbonisation**.

What does this mean? Achieving the ambitious European and international goals will obviously require the participation of all members of society, but the energy sector must take the lead, given that it is by a long way the biggest producer of emissions at global level. Just to get an idea, the energy sector accounts for approximately 82% of Europe's total greenhouse gas emissions.

Under the European Green Deal, the net zero emissions target is to be achieved in two main ways: by increasing use of renewables and through growing electrification of consumption. In this sense, an essential role in all the various scenarios designed to arrive at carbon neutrality is played by **the key tool of energy efficiency**.

Introducing the "energy efficiency first" principle, the European Commission invited member states to include this principle in all their decisions regarding policy, planning and investment. In this way, in keeping with the EU's long-term strategy, final energy consumption in Europe is expected to fall by (at least) 35% by 2050 compared with 2019 levels.

The key consideration, in this sense, is that electricity will be the main energy carrier and the electricity grid will operate as the backbone for decarbonisation for all the other energy sectors. This reflects the carrier's intrinsic efficiency and the technological maturity of renewable energy sources (RES). These topics all form the basis of the corporate advertising campaign **Noi Siamo Energia**, launched by Terna in December 2022 in consultation with the Ministry of the Environment and Energy Security, with the aim of raising awareness among the public and businesses of the need for the conscious, rational and attentive use of electricity in Italy.

Climate targets also play a key role in the **United Nations 2030 Agenda for Sustainable Development**, not only because SDG 13 focuses explicitly on the climate, but above all because dealing with the climate crisis and guaranteeing, therefore, a healthier planet for the future, is key to enabling the world to achieve all the other goals contained in the Agenda. This means delivering truly prosperous, long-lasting development as part of a just transition.

Awareness of the Company's role as a driver and enabler of the current ecological transition coincides with Terna's wish to further strengthen its environmental strategy. Adoption of a Science Based Target (SBT) with the aim of cutting its CO₂ emissions based on measurement of the existing situation and the planning of concrete actions, validated by a third-party entity, turns a good intention into a real, concrete contribution to containing the rise in the global temperature, in line with the Paris Climate Accords of 2015.

An overview of 2022

(€m)

Revenue
2,964.5
+13.8%

Profit attributable to owners of the Parent
857.0
+8.6%

Net debt
8,576.3

EBITDA
2,059.2
+11.0%

Capital expenditure
1,756.8
+15.5%



FINANCIAL
CAPITAL

Successful launch of the first ever Italian corporate issue of **non-convertible, perpetual, subordinated hybrid green bonds** for institutional investors, amounting to a nominal value of

€1 billion

and launch of a **bond issue** in the form of a **Private Placement** amounting to

€100 million.

Renewal of **€9 billion Euro Medium Term Note (EMTN) Programme**

Agreements for five **Credit Facility Agreement ESG linked** amounting to

€900 million and a

€500 million loan

from the **European Investment Bank** to fund the **“Tyrrhenian Link”** project (East section).

S&P and Moody’s reaffirmed their long-term ratings, downgrading the outlook following a downgrade of Italy’s sovereign rating.

The **first two transaction closings for the sale** of all the Terna Group’s electricity transmission assets in South America to CDPQ⁵, regarding the first **three projects in Brazil and the project in Uruguay**, for a price of over **€172 million** took place on 7 November and 22 December 2022. This was in execution of the preliminary agreement, signed on 29 April, for the **sale of all the Group’s power transmission assets in Brazil, Peru and Uruguay** for a total of over **€265 million**

⁵ Caisse de dépôt et placement du Québec (CDPQ).



INFRASTRUCTURE CAPITAL

29 new initiatives for the future development of the electricity grid were authorised: a total value of **over €2.5 billion.**

Entering service on the NTG:

192 km of new power lines and **5** new substations.

Terna, Lazio Regional Authority and Rome City Council signed a Memorandum of Understanding:

for the deployment of four “invisible” underground connections extending for a total of around 25 km, involving

investment of over €60 million.

The consents process for the **East Link section of the Tyrrhenian Link** was completed and the consents process for the **West Link section of the Tyrrhenian Link** also began. September saw the launch of the **Tyrrhenian Lab** in the three regions where the link will make landfall, offering a masters course in collaboration with the **Cagliari, Salerno** and **Palermo** universities: between 2022 and 2025, training will be provided for **over 150 professionals** with strategic expertise that will play a key role in the energy transition.

The Ministry of the Environment and Energy Security began the consents process for **Terna’s new 600 MW direct current electricity interconnector linking Italy and Tunisia**, and connecting Europe with Africa. The **EU Commission** has approved funding of

€307 million to co-finance the infrastructure (with a total value of €850 million).

New memoranda of understanding were signed with the environmental groups, Greenpeace Italia, Legambiente and WWF Italia for the development and deployment of increasingly sustainable electricity infrastructure integrated within the surrounding areas and respecting the environment and biodiversity.

Deployment of **Econnexion**, the first digital platform on requests for connection to the electricity grid from renewable energy plants in Italy.

ELECTRICITY SYSTEM

Demand
317* TWh
-1.0%

Percentage of demand met from RES
31* %
-13.1%

RENS quality
240* MWh
vs target 791

Cost of quality
€ 1.9 m
-67.8%

Performance well below the targets set by ARERA

* Provisional data.

An overview of 2022



HUMAN
CAPITAL

5,497 employees

(+361 versus 2021)

242 people under 30 hired

2.9 Terna's injury rate

(+11% versus 2021)

0.11 Terna's serious injury rate

(+31% versus 2021)



INTELLECTUAL
CAPITAL

16 patents obtained and
30 applications filed
through to 2022

67 projects in the
innovation portfolio



SOCIAL AND
RELATIONSHIP CAPITAL

73.7% of community
initiatives in line with
SDGs 4, 7, 9 and 11

483 meetings
with local authorities



NATURAL
CAPITAL

91% of waste is recycled

SF₆ leakage rate of **0.41**
as a percentage of the total installed

Terna's inclusion in international ESG indices

Member of
**Dow Jones
Sustainability Indices**
Powered by the S&P Global CSA

Dow Jones Sustainability World Index and Dow Jones Sustainability Europe Index
Included for the fourteenth year running.

STOXX
Indices by Qontigo

Member 2022/2023
**Platinum Career
Index**

STOXX® Global ESG Leaders

Included for the twelfth year running, having been assigned a “Negligible Risk” – the best possible – rating by Sustainalytics.

MIB 40 ESG

Confirmed as a member of the index, launched in 2021 and focusing on ESG best practices.

Euronext Vigeo

Included in the indices since 2012 with an “advanced” rating, the highest ranking possible.



Bloomberg Gender Equality Index (“GEI”)

Reconfirmed for the fifth consecutive year.

Standard & Poor's Gender Equality & Inclusion Index

Included in the index since April 2022.

Euronext Equileap Gender Equality Eurozone 100

Included in the index launched in November 2022.

Euronext ESG Eurozone Biodiversity Leaders PAB Index

Included among the 65 best performers with respect to this issue.



FTSE4Good

FTSE4GOOD

Included for the eighteenth year running in this index that selects the best global companies based on sustainability criteria.

In June 2022, Terna received the **Business International Finance Award 2022** in the “Non-financial indicators, ESG and Sustainability Report” category for the Company’s 2021 Integrated Report, presented for the first time alongside the announcement of approval of last year’s results.

The Terna Group was again adjudged to be leading the way for sustainability at global level, having **ranked among the companies in the “Top 1%” in the Sustainability Yearbook 2023**. Thanks to an **excellent score of 91 (out of 100) assigned by S&P Global in its “Corporate Sustainability Assessment 2022”**, Terna was the highest ranked among the 250 electric utilities rated, which obtained an average score of 50.

Terna was **ranked number one in the 2022-2023 edition of Webranking Europe 500**: this is the third year running in first place in the European rankings based on the quality and transparency of the digital communication of listed companies.

Terna has been awarded the **“Areté Prize” for Internal Communication**, in recognition of the Company’s intensive, ongoing efforts to involve employees in **social and environmental issues**. The prize was awarded for the “EcoTips: good sustainability practices” project, designed to promote ethical conduct and sound environmental practices.

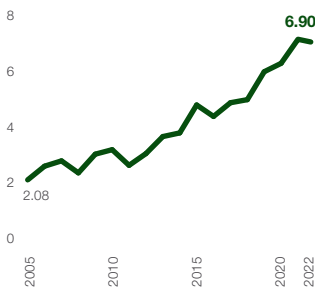
Group milestones

1962
2005

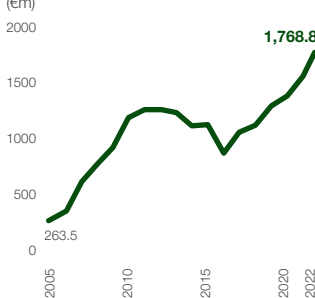
2006
2016



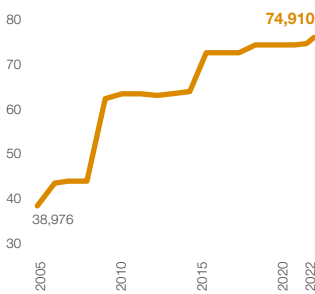
SHARE PRICE PERFORMANCE (€)



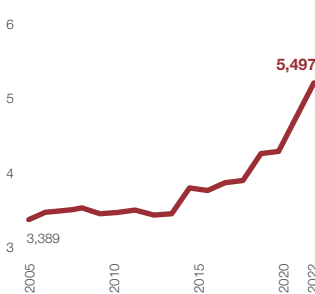
TOTAL CAPITAL EXPENDITURE (€m)



KM OF POWER LINES MANAGED (n.)



WORKFORCE (n.)



DEVELOPMENT OF THE ITALIAN ELECTRICITY SYSTEM

From nationalisation to reform of the Italian electricity system.

Terna's principal activities are rooted in Italy's history: on 6 December 1962, Law 1943 paves the way for nationalisation of the electricity industry, handing ENEL (Ente Nazionale Energia Elettrica) responsibility for all the stages of the electricity supply chain (production, transmission and distribution), previously in private hands, in order to facilitate the country's electrification.

In the second half of the 1990s, the European Union embarks on a process of deregulation aimed at making grid management independent. In Italy, this leads to the issue of Legislative Decree 79/1999 (the so-called "Bersani Decree"), marking a starting point for reform of the Italian electricity market with the separation of ownership of the National Transmission Grid (NTG) from management of the grid itself (transmission and dispatching) along the lines of the Independent System Operator (ISO) model.

Terna is established in 1999. ENEL consists of two distinct companies: Terna S.p.A., assigned ownership of over 90% of the NTG, and GRTN ("Gestore della Rete di Trasmissione Nazionale"), which at this time manages electricity transmission and dispatching and planning for the development of the NTG.

The Cabinet Office Decree of 11 May 2004, in application of Law 290/2003, establishes the electricity exchange and **brings back ownership and management of the transmission grid under the control of one entity.** This process is completed in 2005, with the transfer to Terna of the GRTN business unit relating to transmission and dispatching and the award of the **concession** to carry out these activities throughout the country by the Ministry of Productive Activities: Terna thus becomes Italy's Transmission System Operator (TSO).

On 24 June 2004, 50% of the Company's share capital is floated on the Italian Stock Exchange and, in September 2005, Cassa Depositi e Prestiti acquires a 29.99% stake, thereby becoming the relative majority shareholder.

DEVELOPMENT OF THE NATIONAL TRANSMISSION GRID AND NEW BUSINESS OPPORTUNITIES

"Utili per il Paese" ("Working for the country"), Terna's new role.

Having taken on the dual roles of TSO and SO, Terna's role evolves as it becomes a provider of strategic infrastructure for the country, as expressed in the payoff, "Working for the country".

This period sees the Company progressively expand the NTG. Following the acquisition of 18,600 km of high-voltage lines from ENEL in 2009, Terna owns 98.6% of the national grid and becomes the leading independent grid operator in Europe and the seventh largest in the world. **In 2015, Terna acquires the Ferrovie dello Stato group's high-voltage grid,** consolidating its leadership in Europe with approximately 72,600 km of grid managed.

At the same time, Terna plans and delivers major new 380kV connections to bring the transmission grid into line with the country's energy needs: the Chignolo Po-Maleo (Lombardy) and the SA.PE.I submarine connection (from Sardinia to the Italian mainland) enter service in 2011, whilst the Trino-Lacchiarella (Lombardy) and Villanova-Gissi (Abruzzo) lines and the submarine connection linking Sorgente and Rizziconi (Calabria-Sicily) enter service in 2014 and 2016, respectively.

In keeping with changes in the operating environment, the Group is restructured with the establishment of **two new operating companies in 2012: Terna Rete Italia S.p.A.** for Regulated Activities, and **Terna Plus S.r.l.** to drive the growth of services in the Non-regulated sector. Tamini, an Italian leader in the design, production, commercialisation and repair of power transformers for electricity transmission and distribution grids, of industrial transformers for the steel and metals industry and of special transformers for converters used in electrochemical production and electrolysis, joins the Terna Group in 2014.

2017
2019

2020
2023

ENABLING THE ENERGY TRANSITION

Energy is our responsibility. Responsibility is our energy.

The 2010s end with an accelerating shift towards a new energy paradigm that requires Terna to assume an ever more central role in the electricity supply chain.

With the entry into service of the Sorgente-Rizziconi submarine connection, Terna removes the last major bottleneck at zonal level and, with the 2017-2021 Strategic Plan, begins a new chapter in its history by focusing on the **role of the National Transmission Grid in enabling the energy transition.**

Further priorities for Terna are to strengthen Italy's electricity infrastructure, add further exchange capacity between the different areas that make up the Italian electricity market and increase overseas interconnections, with the Company, year after year, presenting ever more ambitious strategic plans, featuring significant growth in investment.

Work begins on major electricity infrastructure projects, such as SA.CO.I 3 (connecting Sardinia, Corsica and the Italian mainland) and the Italy-Austria interconnector, whilst the Italy-Montenegro interconnector, at 445 km the longest ever connection ever built by Terna, is completed. It is the first electricity bridge between Italy and the Balkans, a key link that will enable Italy to reinforce its role as a **European and Mediterranean electricity transmission hub.**

From 2018, Terna funds its investment in infrastructure using new financial instruments: in July, the Company becomes the first Italian utility to issue green bonds, successfully placing its first Green Bond worth a total of €750 million, followed by a further three issues with a total value of €2 billion.

AT THE HEART OF THE TRANSFORMATION

Driving energy.

Terna owned **99.9%** of the NTG in 2021 after purchasing portions of the grid from other operators.

Featuring total investment of €10 billion, the **updated Industrial Plan for the period 2021-2025, "Driving Energy"**, presented to the market in March 2022, strengthens Terna's role in driving the Italian electricity system.

The **Development Plan**, presented in March 2023, is the most ambitious ever, with **total investment due to total over €21 billion in the ten years between 2023 and 2032.**

Tangible evidence of the Company's commitment to developing the electricity grid is also provided by the **projects for which consents were obtained in 2022**, amounting to a record of **over €2.5 billion**. The most important contribution comes from the green light given to the **East section of the Tyrrhenian Link**, the section of submarine power cable that will connect Campania and Sicily at a cost of **over €1.9 billion.**

In December 2022, the Ministry of the Environment and Energy Security gives a green light to the start of the consents process for Terna's **new electricity interconnector between Italy and Tunisia**, a historic project in which the Company will invest approximately €850 million, including €307 million funded by the European Union's Connecting Europe Facility (CEF).

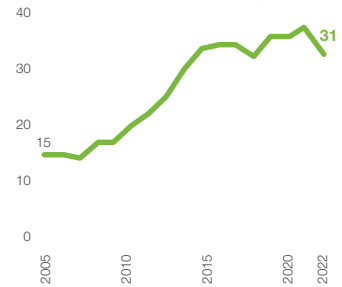
The same month sees the launch of a **corporate advertising campaign called Noi Siamo Energia**, launched by Terna in consultation with the Ministry of the Environment and Energy Security, with the aim of **promoting the conscious use of electricity in Italy.**

Confirmation of the Company's strategy of combining sustainability with growth to enable the energy transition is provided in February 2022, when Terna successfully issues its **first hybrid green bond worth €1 billion.**

On the corporate front, in February 2020, the subsidiary, Terna Energy Solutions, strengthens its industrial side by acquiring **Brugg Kabel AG**, one of Europe's leading manufacturers of terrestrial cables, whilst, in October 2021, the company completes the acquisition of a 75% stake in **LT S.r.l.** (LT Group), creating the leading Italian operator in the operation & maintenance of photovoltaic plants. In October 2022, Terna signs a partnership agreement with Meridiam and Boundless Energy to develop joint initiatives in the United States in the field of power grids. **Terna Forward** is established in November 2022 with the aim of identifying the best technology opportunities and transferring them to other Group companies.

In 2022, Terna's Chief Executive Officer, Stefano Donnarumma, becomes **President of GO15**, the association that brings together the world's largest power grid operators.

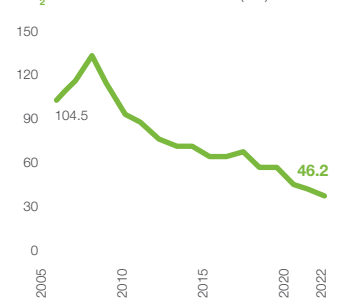
PERCENTAGE OF ELECTRICITY MET FROM RENEWABLE SOURCES (%)



SF LEAKAGE AS A PERCENTAGE OF TOTAL GAS INSTALLED (%)




CARBON INTENSITY - TONNES OF CO₂ EQUIVALENT / REVENUE (€m)



FIND OUT ABOUT KEY EVENTS IN 2022





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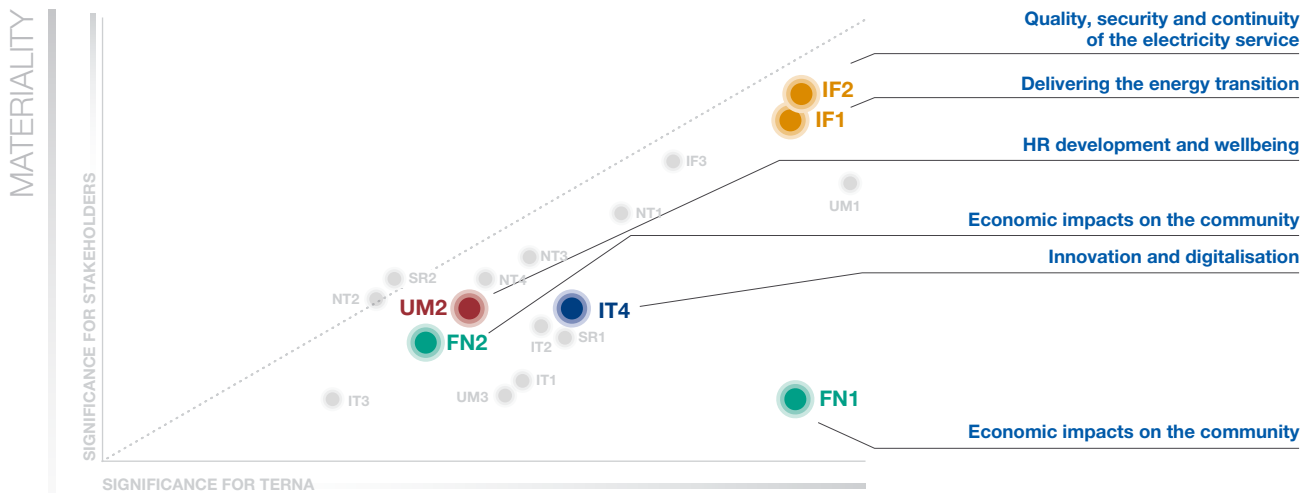
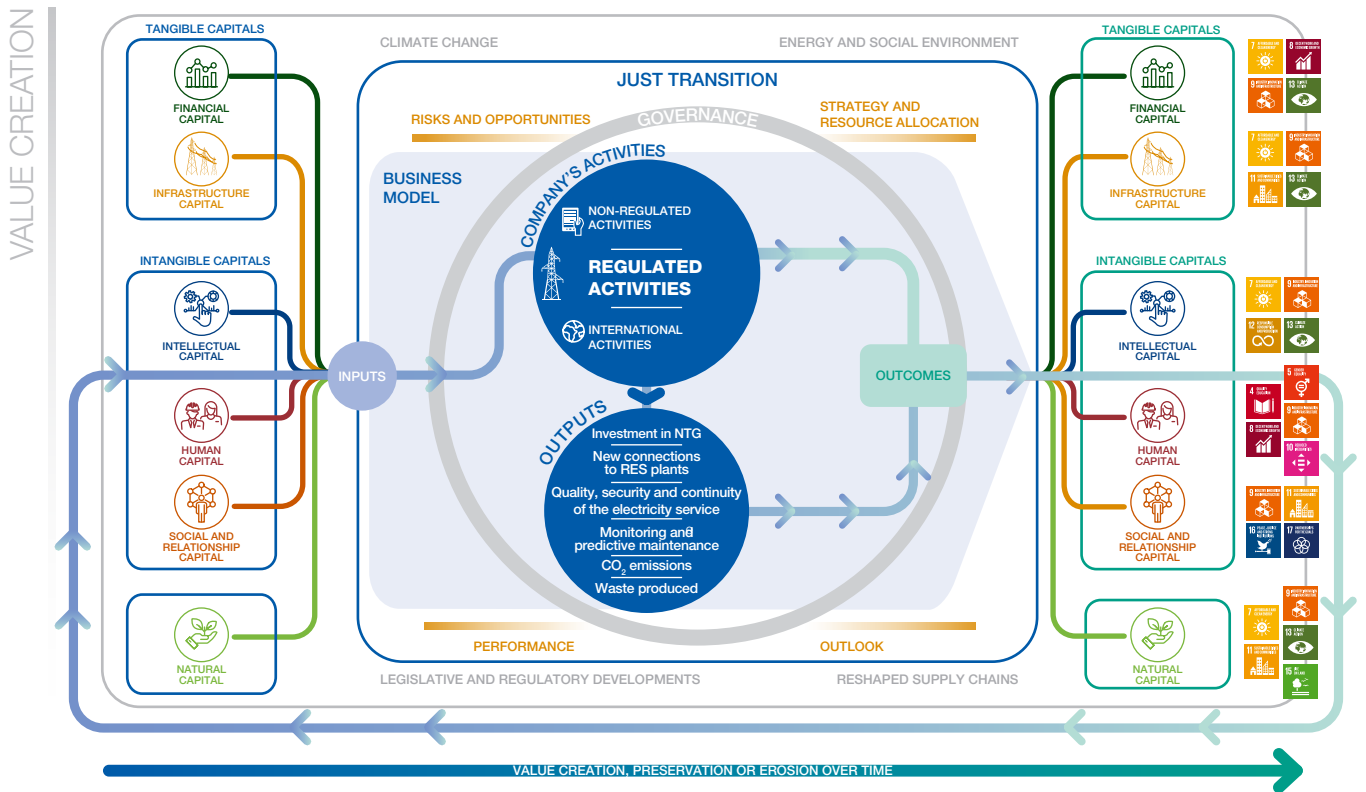
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The value creation strategy

In this section

The ability to create value over time – the common thread running throughout this Report – presupposes the definition of a strategy able to integrate the complexities inherent in the external environment with the Group's objectives. This first section describes the scenarios having the greatest impact on value creation and the capitals, the scenarios developed by Terna and the most important strategic documents, starting with an initial summary of the respective performances. The section ends with the materiality analysis and its graphic representation (the "Matrix") and an explanation of the methodology on which it was based.





These infographics highlight the topics dealt with in this section with the aim of **facilitating information connectivity**: in this way, the section offers an overall view showing the links between all the factors that influence Terna's ability to create value over time and how they are dependent on each other. Material topics are indicated with a cross-reference in blue, showing the relevant code.

Reference scenario

Macroeconomic scenario

After a 2021 marked by robust global economic recovery, driven by the restart of many activities after the lockdowns imposed due to the Covid-19 pandemic and the introduction of large-scale fiscal and monetary support packages, 2022 recorded a slowdown in economic growth in all the major advanced economies.

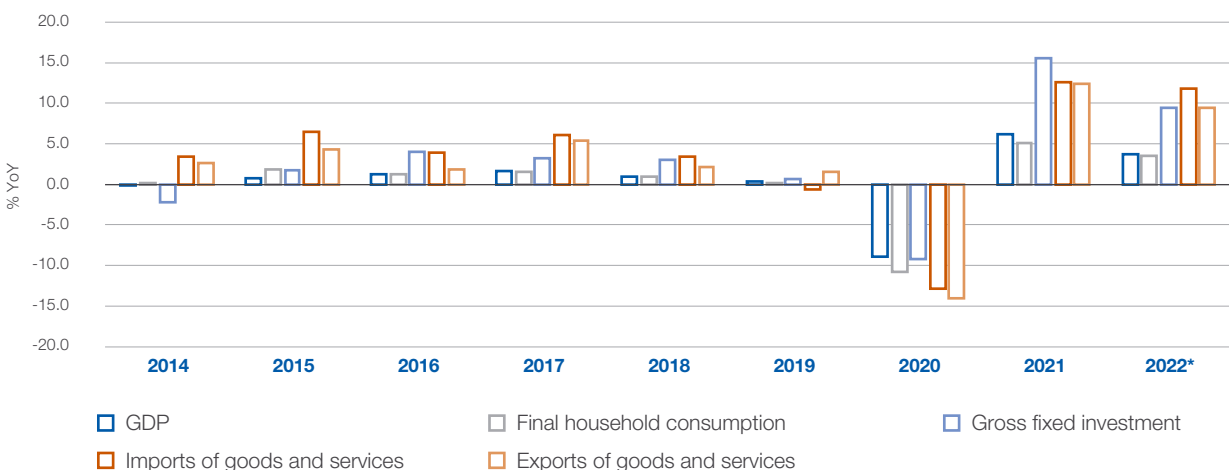
The macroeconomic environment in 2022 was heavily impacted by serious disruption to global energy and technology supply chains following Russia's invasion of Ukraine. The economic impact of the conflict, including barriers to efficient management of the value chain, cuts in energy supplies from Russia, increases gas and oil prices, high rates of inflation, heightened uncertainty, tougher credit conditions and rising interest rates, inevitably led to a slowdown in economic growth and a general deterioration in the short- and medium-term outlook for the global economy.

The International Monetary Fund has reported a sharp slowdown in global economic growth, with GDP growth of 6.2% in 2021 declining to 3.4% in 2022⁶.

US GDP fell from 5.9% in 2021 to 2% in 2022, whilst the Eurozone saw growth fall to 3.5%⁷ from the 5.3% of 2021.

Europe was particularly exposed to the shocks resulting from Russia's invasion of Ukraine. The EU is amongst the most exposed advanced economies due to its geographical proximity to the war and its significant dependence on Russian gas (in 2021, Europe imported 155 billion cubic metres of gas from Russia, equal to 40% of its gas consumption). In addition, monetary conditions are tighter, with the European Central Bank calling an end to its quantitative easing

Summary of macroeconomic indexes



* Provisional data – ISTAT projections, December 2022.

⁶ International Monetary Fund, World Economic Outlook, January 2023.

⁷ International Monetary Fund, World Economic Outlook, January 2023.

The value creation strategy

Corporate governance, risk management and opportunities

The Group's business

Intangible capitals

Natural capital

Information on the NFS

Independent Auditor's review report on the NFS for 2022

Annexes

programme and progressively raising interest rates, in December 2022 increasing the deposit facility rate to 2%, the main refinancing operations rate to 2.5% and the rate on the marginal lending facility to 2.75%.

Italy has also had to deal with major economic fallout from the conflict, but despite this **GDP rose 3.7%**⁸ in 2022, in contrast with the projections contained in the Update to the Economic and Financial Planning Document published in September. Italy's growth outpaced other European countries, with Germany recording growth of 1.9% and France 2.6%, thanks to particularly significant upturns in consumer spending (+3.5%) and gross fixed investment (+9.4%)⁹.

Energy price pressures

The outbreak of war in Ukraine exacerbated the upward trend in commodity prices that began towards the end of 2021, **resulting in unprecedented levels of inflation**.

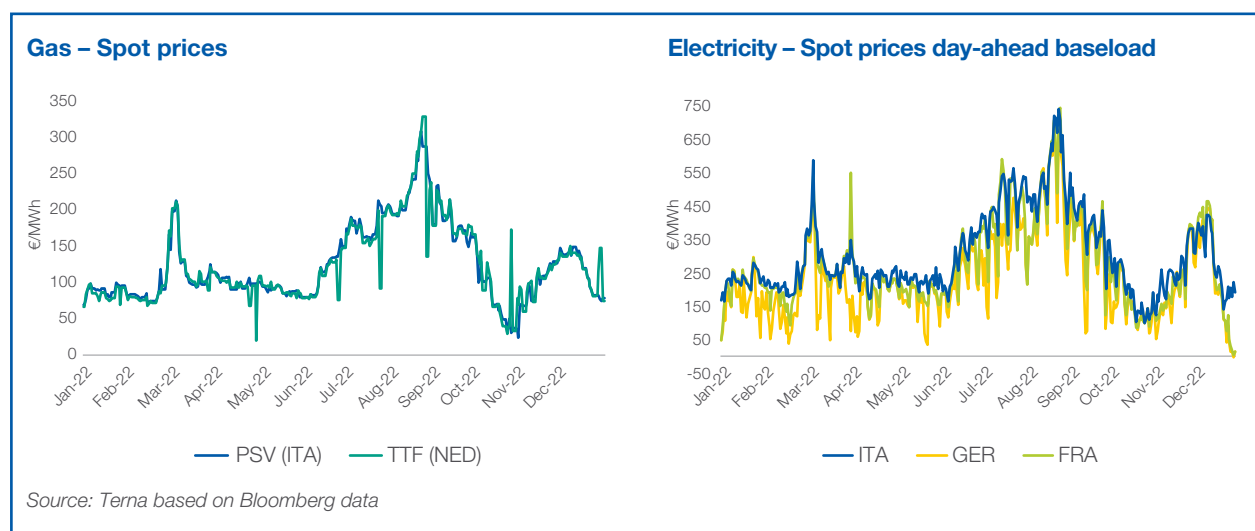
As regards Europe, in addition to the tensions with Russia, the continent saw a series of other specific events, including the limited availability of French nuclear plants and a lengthy period of drought which, together with high temperatures, had a negative impact on the availability of hydro and thermoelectric capacity.

Over the last year, these events pushed **the TTF gas price**¹⁰ to records highs, **exceeding the threshold of €330 per MWh** at the end of August, compared with an average price in the last two years of around €20 per MWh. The **price of CO₂** has also risen over the last two years, reaching a peak of **more than €100 per tonne** in August 2022.

The performance of fossil fuel prices, above all the price of gas, has a major impact on the electricity market due to the manner in which market prices are determined under the system marginal price mechanism. This system is used to determine the price based in part on electricity generated from renewable sources on the system marginal cost (normally determined by gas-powered plants).

As a result, **the SNP** also rose, reaching peaks of well **over €500 per MWh** in August 2022.

The increase in the SNP, which rose from an annual average of €52 per MWh in 2019 to €304 per MWh in 2022, impacted on the costs incurred by final electricity customers. In fact, since 2021, the price of domestic consumers served by the enhanced protection market has more than tripled, rising from approximately €200 per MWh in the first quarter of 2021 to around €660 per MWh in the fourth quarter of 2022.



⁸ ISTAT, March 2023.

⁹ ISTAT, March 2023.

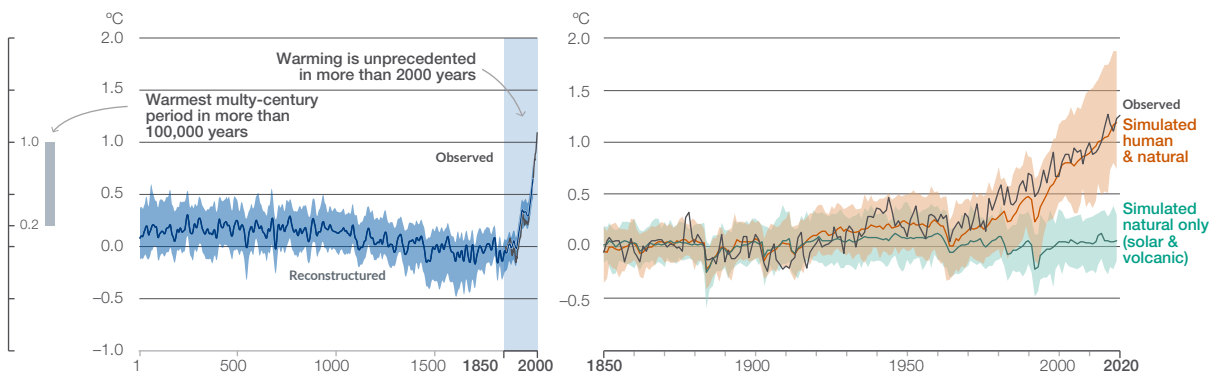
¹⁰ "Title Transfer Facility", one of the largest wholesale natural gas markets in Europe.

Energy scenario

Climate change and its impact on the electricity sector

Climate change represents an urgent challenge that society and the planet must respond to. Warming linked to human activity has reached the level of approximately 1°C compared with pre-industrial levels. **Each of the last four decades has been warmer than the previous one**: the average surface temperature on earth **has risen by 1.1 °C compared with the period 1850-1900**.

IPCC - global temperature changes (°C)



This warming has led to an increase in the frequency and intensity of extreme weather events, in terms of both temperature extremes (hot and cold) and violent and unpredictable precipitation events. The over 18,000 major natural events recorded globally by the NatCatSERVICE -Munich Re since 1980 show that such events have tripled in 40 years. The effects of climate change also have a negative impact on the energy sector.

In 2022, Europe was hit by a serious drought that, combined with a series of increasingly intense summer heatwaves, reduced hydroelectric production to well below average, alongside the unavailability of several French nuclear plants.

The fight against climate change requires an ongoing commitment to decarbonisation. Despite this, in 2021, the **global rate of decarbonisation¹¹ was a mere 0.5%¹²**, the lowest level in more than a decade (in 2020 the rate was 2.5%) and well below the required annual global rate of decarbonisation of 15.2%. This target is eleven times higher than the global average of just 1.4% recorded in the last two decades and is far above anything achieved by any country until now.

¹¹ The reduction in carbon intensity or CO₂ emissions in the energy sector per dollar of GDP.

¹² PWC - Net Zero Economy Index 2022.

The value creation strategy

Corporate governance, risk management and opportunities

The Group's business

Intangible capitals

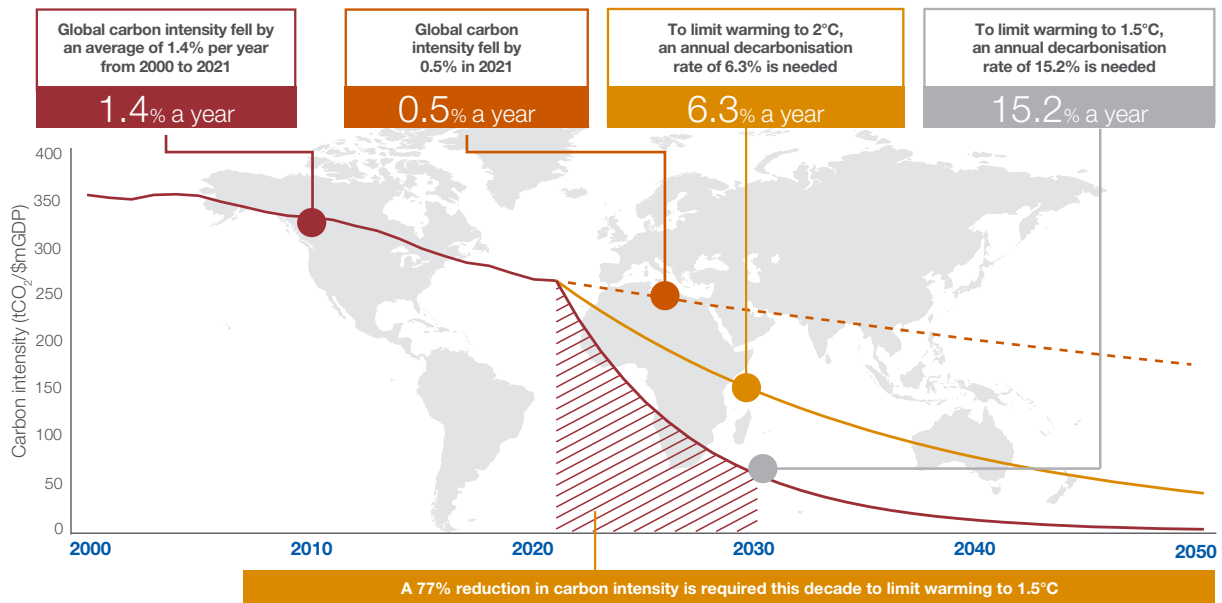
Natural capital

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Net zero economy index 2022



Source: Net Zero Economy Index 2022, PwC.

The figure for 2022 was heavily influenced by the impact of the war in Ukraine. This situation led to a **drop in demand for energy**. According to the quarterly survey carried out by Enea¹³, energy demand in the Eurozone in the third quarter of 2022 was down 0.7% compared with the same period of the previous year. Despite this, compared with the third quarter of 2021, CO₂ emissions rose (+4%) due to increased use of fossil fuels, above all coal (+11%), which at global level reached the all-time high last seen in 2013, according to the IEA. This trend is unfortunately a continuation of the upward shift witnessed in 2021, when the growth in energy demand was in part met by increased use of coal, with a resulting rise in emissions of 1.9 Gt. Italy, on the other hand, registered a 1% decline in energy consumption, due mainly to a sharp fall in natural gas consumption, which overall decreased by 1.4 Mtoe (-3%).

According to the IEA¹⁴, **the energy sector is largely responsible for the greater part of emissions** produced by human activity and its decarbonization is thus key to avoiding the potential effects of climate change. Under the net-zero pathway developed by the IEA, by 2030 the global economy will have grown by 40%, but must use 7% less energy than today. **Energy efficiency and the electrification of final consumption** (given that, as an energy carrier, electricity is intrinsically efficient) will be the key drivers of decarbonisation. The real enabler of this transformation is **electricity as an energy carrier**, given the high level of intrinsic efficiency of final uses based on this carrier (resulting from thermodynamic laws and thus independent of any effective technological development): an electric vehicle is from 3 to 5 times more efficient than any technology based on the use of liquid or gaseous fuels, whilst a heat pump is 5-6 times more efficient than any fuel-based alternative.

¹³ ENEA, Quarterly analysis of the Italian energy system II and III quarters 2022.

¹⁴ IEA: International Energy Agency. "Net Zero by 2050" report.

The European and Italian response

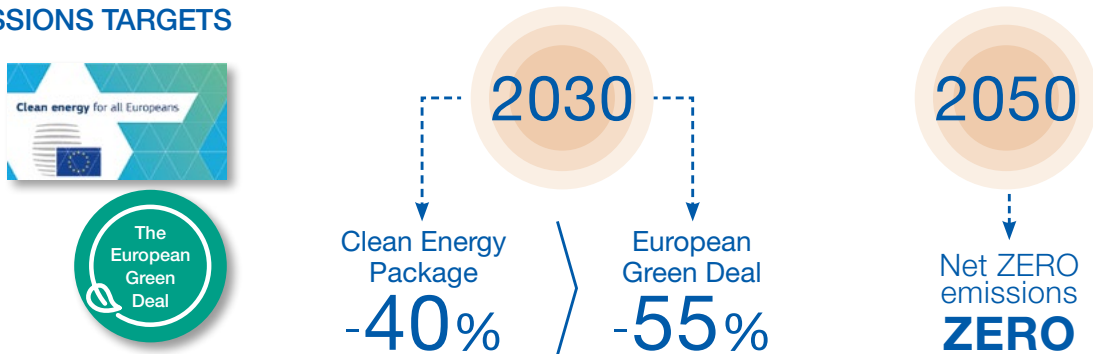
Europe’s approach to shaping the future of its energy sector is set out in the guidelines and regulations in the European Union’s **Clean Energy Package**, adopted at the end of 2018 in response to the commitments made in the Paris Agreement. The bar was further raised in terms of targets for cutting emissions, renewable energy and energy efficiency, with the publication, at the end of 2019, of the **Green Deal**, presented by the European Commission in December 2019. This aims to transform the European Union into a **net-zero economy by 2050** and achieve an intermediate goal of cutting greenhouse gas emissions (GHG) **by at least 55% by 2030** compared with 1990 levels. A key part of the Green Deal is the European Climate Law (Regulation (EU) 2021/1119), formally adopted by the Council of the European Union on 28 June 2021 and that came into effect on 29 July 2021.

In July 2021, the European Commission also presented a package of proposals aimed at achieving the targets set for 2030 and 2050. The package, called **Fit for 55**, has strengthened the guidelines with 8 revisions of existing legislation and 5 new proposals. On 15 December 2021, the Commission also presented the second part of the package of proposals.

In addition, following Russia’s invasion of Ukraine, on 18 May 2022, the European Commission launched **Repower-EU**, an emergency plan that aims to **strengthen the European Union’s strategic independence by diversifying energy sources** and boosting the Union’s energy independence and security. The key targets set in REPower-EU include increasing the resilience, security and sustainability of Europe’s energy system through an appropriate reduction in the continent’s dependence on fossil fuels and by diversifying energy sources, increasing the use of renewable energy, energy efficiency and energy storage capacity.

In effect, the Plan assumes full implementation of the energy transition legislation in the Fit-for-55 package and raises the targets for renewable energy (45% instead of 40%) and energy saving (13% instead of 9%).

European drivers: CO₂ EMISSIONS TARGETS



At national level, the Italian Government published the **National Integrated Energy and Climate Plan (“PNIEC”)** at the end of 2019. The document, drawn up by three ministries (Economic Development, Environment and Land and Sea Protection, Infrastructure and Transport), provides key policy guidelines for development of the country’s energy system. The plan is currently being updated to reflect the more ambitious goals set at European level.

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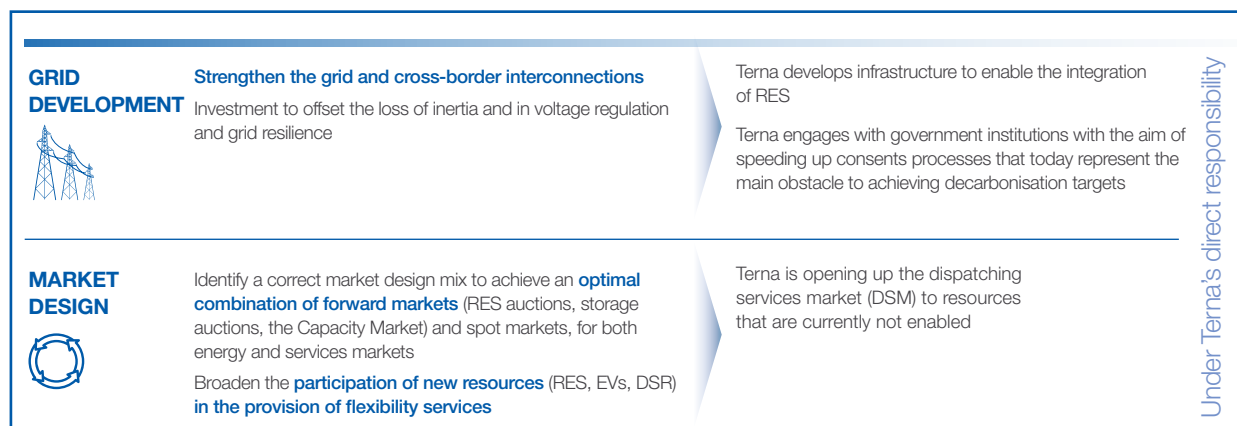
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Enabling factors for the energy transition

Delivery of the infrastructure necessary to achieve the energy policy goals within the set timetable inevitably requires a significant acceleration of investment in the energy sector and, even more so, in the electricity sector. This investment must, to a large extent, be directed towards supporting the development of new renewable energy capacity, storage systems and transmission and distribution networks, to be carried out in a coordinated manner to make the system more efficient as a whole.

The ecological transition is needed not only to combat climate change and boost environmental sustainability, but also to reduce the country's dependence on energy from overseas, limit energy price pressures due to commodity costs (gas and CO₂), and to drive the country's economic growth and technological research and innovation.

What is needed



DEVELOPMENT OF RES



Increase the pace of deployment
Ensure adequate **security of supply**, leveraging the range of technologies available
Give **priority at administrative level** to the deployment of RES and run more effective campaigns to raise awareness and improve public acceptance

Terna guides the correct choice of technology mix and location for plants, diversifying sources of supply

STORAGE SYSTEMS



Deploy new hydroelectric and electrochemical storage systems to **manage overgeneration and residual load ramping events**, and provide high-quality services to the system

Terna identifies the need for new storage capacity, taking into account expected growth in RES plants

Source: Terna data.

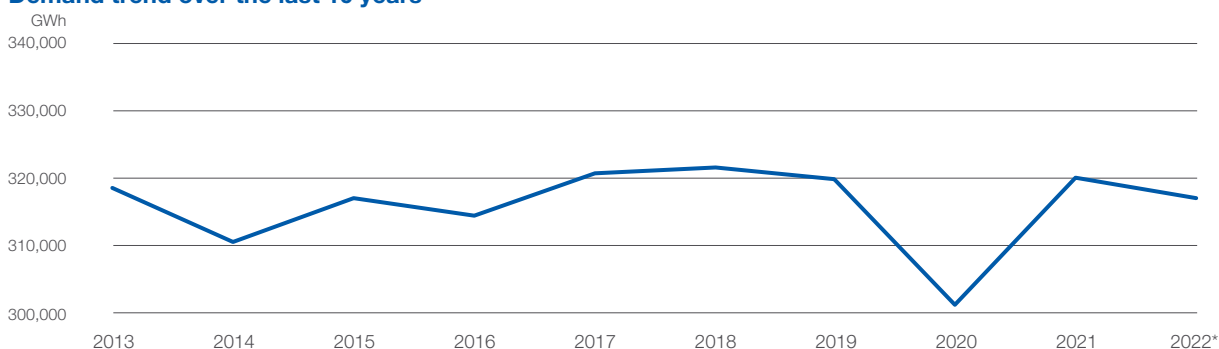
This represents an extremely challenging, long-term commitment, which will require a **coordinated approach to timing and geographical location to channel the massive investment being undertaken by operators in a way that is in keeping with the related plans**. This transformation is a major opportunity to boost Italy's competitiveness: the country's lack of energy resources has historically meant that energy costs were higher than the European average and that the country was highly dependent on imported energy. This situation has been highlighted by recent tensions regarding the import of gas from Russia. In this new scenario, Italy will see a reduction in its energy dependence.

The investment planned for the coming years will determine Italy's strategic position in the global economic system of the future. **Terna is thus driving the transformation of the energy system as part of the country's ecological transition**. This commitment also takes the shape of efforts to promote ever **closer strategic cooperation with other players in the sector**, including through the membership of various European bodies (e.g., ENTSO-E) and partnerships with other European TSOs (e.g., the Equigy initiative, whose partners, in addition to Terna, include the TSOs TenneT, TransnetBW, Swissgrid and APG).

Electricity demand and production in Italy in 2022

Terna monitors domestic demand trends and takes appropriate actions, in full implementation of EU directives.

Demand trend over the last 10 years



* Provisional data.

Demand for electricity in Italy

Demand for electricity in Italy amounted to 316,827 GWh in 2022 (provisional data), marking a **reduction of 1.0% compared with 2021**, which recorded an increase of 6.2% compared with the previous year.

ELECTRICITY BALANCE IN ITALY (GWh)*	2022**	2021	CHANGE	% CHANGE
Net production	276,373	280,045	(3,672)	(1.3%)
From overseas suppliers (imports)	47,391	46,572	819	1.8%
Sold to overseas customers (exports)	(4,404)	(3,782)	(622)	16.4%
For use in pumping***	(2,533)	(2,916)	383	(13.1%)
Total demand in Italy	316,827	319,919	(3,092)	(1.0%)

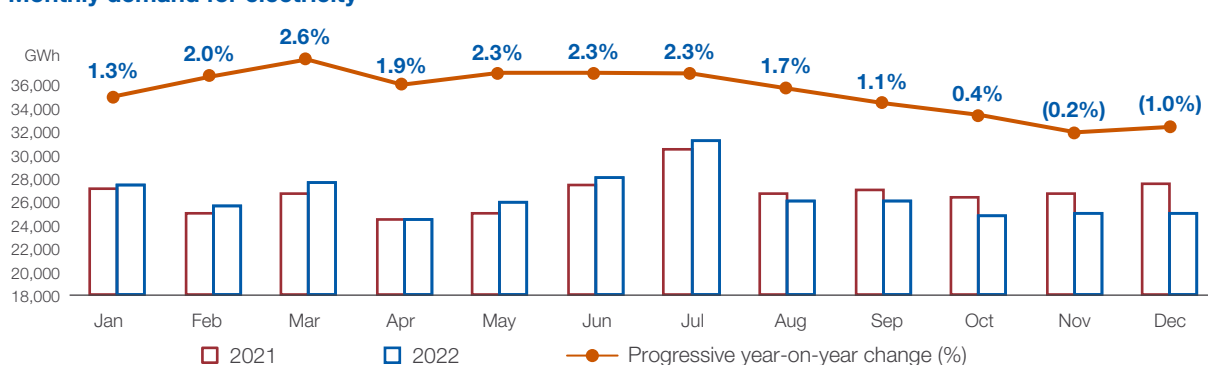
* Does not include demand for energy for ancillary services related to electricity production.

** Provisional data.

*** Electricity used for pumping water for subsequent use in the production of electricity or as a way of immediately balancing overproduction.

Monthly demand for electricity in Italy rose in the first part of 2022 compared with the same period of the previous year, before falling back from August onwards. This resulted in a slight decline in annual demand.

Monthly demand for electricity*



* Provisional data.

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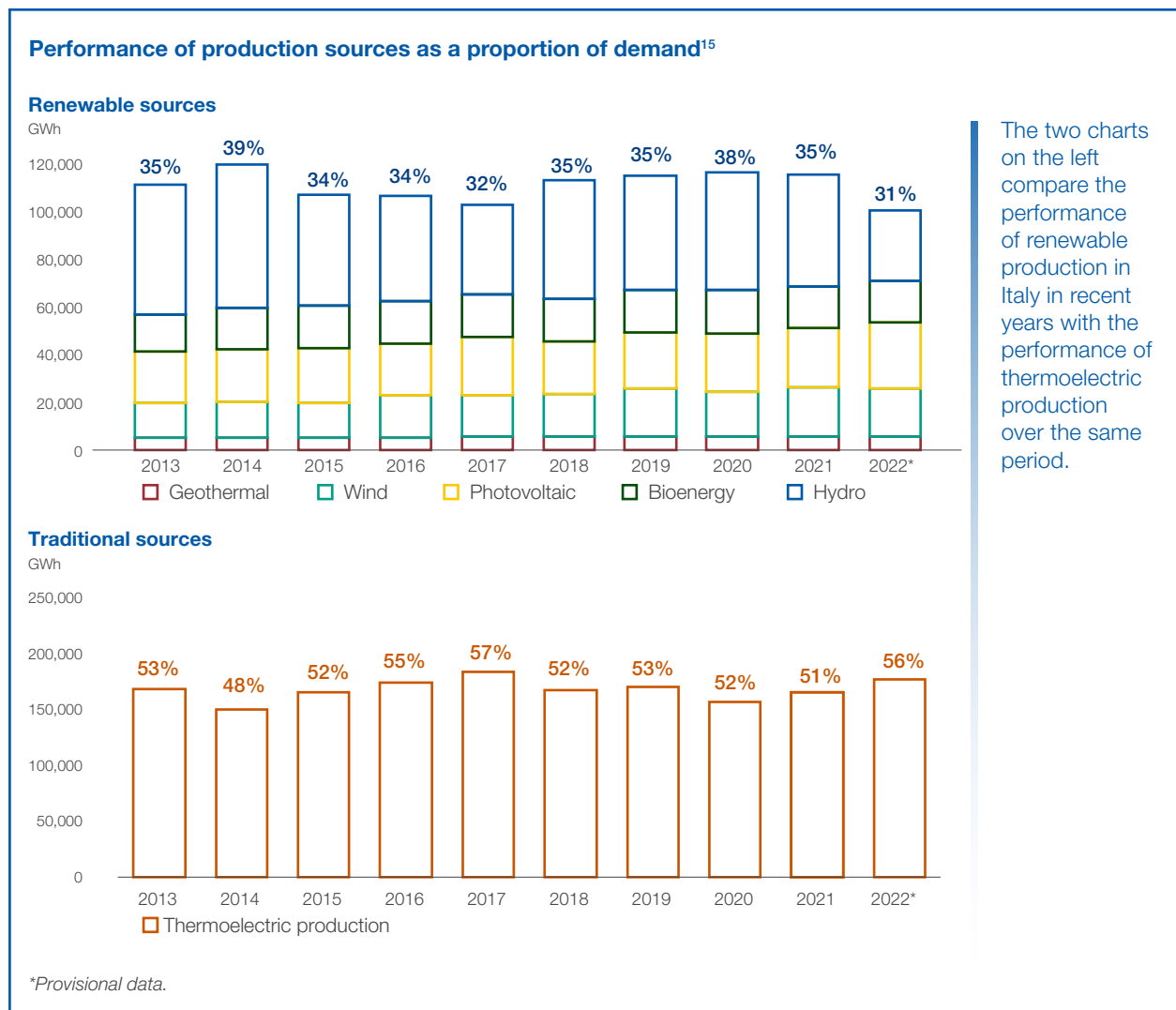
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Meeting demand and energy production

In 2022 (provisional data) approximately **31% of total energy demand was met from renewable energy sources**. The value of production from renewable sources fell 13.10% compared with the previous year.

In terms of the performance of the various renewable sources, there was an increase in photovoltaic production (up 11.8%), whilst hydro production saw a significant fall (down 37.7%).

In this context, with the European drive towards decarbonisation and the strong penetration of renewables, high-voltage grids continue to play a key role in enabling the growth in renewable generation capacity. Development of the power grid is thus crucial in responding to the increased amount of electricity fed into the system from renewable sources, above all those of an intermittent nature, such as wind and photovoltaic. Despite this, even on days when the situation was at its most critical, the robustness of grid infrastructure and Terna's actions in managing the system helped to ensure that the national grid remained fully operational.



As can be seen from the charts, Italy met the target set in European Community directives, which required that renewable sources account for over 27% of demand by 2020, from as early as 2012 and has continued to do so.

¹⁵ The percentages shown in the two charts compared refer to the share of demand met from renewable sources and thermoelectric sources (a traditional source).

Number of hours in which the volume of demand met from renewable sources exceeded the relevant thresholds

	>30%	>40%	>50%
2020*	6,467	3,621	1,509
2021	6,011	2,661	832
2022**	4,233	1,602	486

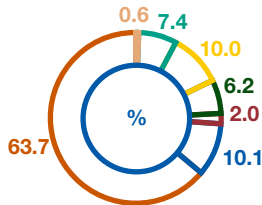
* Leap year.

** Provisional data.

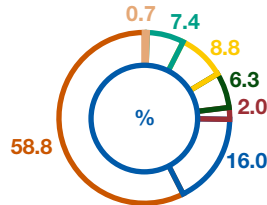
Compared with the previous two years, 2022 saw a reversal of the upward trend in the number of hours during which the volume of demand met from renewable energy sources exceeded the thresholds of 30%, 40% and 50%. This primarily reflects a reduction in the share of demand met from renewable sources due above all to water shortages in 2022.

Net electricity production by source

2022*
276.3 TWh



2021
280.0 TWh



- Net wind production
- Net photovoltaic production
- Net biomass production
- Net geothermal production
- Net renewable hydro production
- Net thermoelectric production
- Net non-renewable hydro production

* Provisional data.



Regulatory framework

Terna operates as a natural monopoly and within a market regulated by the **Regulatory Authority for Energy, Networks and the Environment (ARERA)**, or the *Autorità di Regolazione per Energia reti e Ambiente*, which determines the level of regulated revenue for transmission and dispatching activities, currently representing approximately 85.8% of the Group's total revenue.

In Resolutions 653/2015/R/eel, 654/2015/R/eel and 658/2015/R/eel, ARERA set the tariff regime for electricity transmission, distribution, metering and dispatching services and regulations regarding the quality of the transmission service for the fifth regulatory period (sub-period "NPR1", 2016-2019). The regulatory framework for the second four-year period (sub-period "NPR2", 2020-2023) was revised by Resolutions 567/2019/R/eel, 568/2019/R/eel and 574/2019/R/eel.

The framework for the period 2020-2023 (NPR2) is broadly in line with the criteria applied in the previous four-year period from 2016 to 2019 (NPR1), with the principles for recognising the cost of capital (rate of return) and operating costs (price cap and profit sharing) unchanged with respect to the previous regime. The most important change regards readmission of the return on fixed assets in progress, under a mechanism that reflects the related expenditure in tariffs based on rates of return differentiated on the basis of how long ago the expenditure was incurred and for a maximum of four years (beyond four years, the tariff will take into account interest expense incurred whilst work was in progress). At the end of NPR2, ARERA has provided for adoption of a Totex/Output-based approach. This recognises costs based on total expenditure incurred (operating and capital expenditure) and focuses more on outputs and the levels of service provided.

In Resolution 614/2021/R/com, ARERA set out the procedure for determining and revising the **Weighted Average Cost of Capital (WACC)** for the various regulated infrastructure services in the electricity and gas sectors in the 2022-2027 period, setting a WACC of 5.0% for the transmission service in 2022. In this Resolution, ARERA confirmed the adoption of a mechanism for revising key macroeconomic parameters at the end of the first three years (2022-2024) and also envisaged the possibility, in the same three-year period, of a further annual revision if the change observed in the key market parameters used in the calculation formula were to result in a change in WACC of at least 50 bps. In Resolution 654/2022/R/com, ARERA confirmed the current levels of WACC for electricity and gas infrastructure services for 2023, having taken into account the fact that the above mechanism had not been triggered.

A number of key aspects of regulation in the fifth regulatory period are described below, with regard to allowed revenue for transmission and dispatching services.

Transmission revenue makes up the most significant portion of regulated revenue and is generated from application of the related transmission charge (**TC**), billed by Terna to distributors connected to the National Transmission Grid. This charge pays for the transmission services provided by all transmission service operators, including the owners of residual portions of the grid (external to the Terna Group), and is divided into two components: a power component (equal to 90% of revenue, expressed in euro cents/kW/year) and an energy component (10% of revenue, expressed in euro cents/kWh).

Transmission revenue makes up the most significant portion of regulated revenue

The **dispatching service charge (DSC)** aims to recompense Terna for carrying out the activities relating to the dispatching service and is billed by Terna to users of the dispatching service in proportion to the quantity of energy dispatched.

Allowed costs that combine to determine the TC and DSC components are attributable to three main categories, as summarised below.

The main types of allowed cost

- 1. Return on capital (RAB)** Determined on the basis of the Regulated Asset Base (RAB) and the Weighted Average Cost of Capital (WACC). The RAB represents net invested capital for regulatory purposes. It is revalued annually on the basis of data from ISTAT (Italy's Office of National Statistics) on the change in the deflator applied to gross fixed investment and revised on the basis of the performance of investment and disposals. The WACC represents the weighted average cost of equity and debt. The methods of determining and revising the WACC are established by the Regulator.
- 2. Depreciation** Allowed depreciation (calculated on the basis of an asset's useful life for regulatory purposes) is revalued annually based on the change in the deflator applied to gross fixed investment.
- 3. Operating costs** Allowed costs are determined by the regulator at the beginning of the regulatory sub-period, based on operating costs recognised during the relevant year, increased by any remaining portions of additional efficiencies achieved in previous regulatory periods (a 50% share).
The resulting amount is revalued annually to take account of inflation (Italy's rate of consumer inflation for blue- and white-collar households, excluding tobacco products) and reduced by an efficiency factor designed to ensure that additional efficiencies are, over time, passed back to end users in full.
- 4. Output-based incentive** In addition to the above items, a portion of the remuneration of transmission and dispatching services derives from regulatory incentives linked to the achievement of specific objectives, as described below:

 - delivery, in the 2019-2021 period, of grid development projects designed to resolve congestion within market areas, grid constraints due to voltage regulation and conditions for essential service provision, using a reward mechanism based on an incentive resulting from the sum of 50% of the estimated annual benefits using ACB 2.0 and 50% of the reduction in DSM costs, the cost of essential plants and the costs relating to the shortfall in wind production, with an overall cap of €150 million (Resolution 699/2018/R/eel). In Resolution 26/2023/R/eel, the regulator awarded Terna the maximum bonus (€150 million), to be paid in quarterly instalments of the same amount, over three years from 2023, and included in the uplift payment defined in article 44 of Annex A to Resolution 111/06;
 - an incentive system for the delivery, in the five-year period 2019-2023, of projects designed to increase transmission capacity between market areas: this involves recognition of an incentive, capped at €150 million, in proportion to the ratio between capacity delivered by 2023 and the target capacity (Resolution 567/2019/R/eel), plus an additional bonus in the event of the deployment of transport capacity using efficient solutions, including those that are capital light. The mechanism also envisages that the award may be reduced by the regulator if the ratio between the average transmission capacity made available for the day-ahead market and winter peak transmission capacity is significantly below historical levels of this ratio, in one or more of the three years following the entry into service of the investment that made available the additional transmission capacity. In Resolution 23/2022/R/eel, the regulator awarded Terna a bonus of €143.6 million for work carried out in 2020, which resulted in an increase in transmission limits on the relevant sections of the grid with effect from January 2021. The bonus was payable by the Fund for Energy and Environmental Services (Cassa per i Servizi Energetici e Ambientali - CSEA) from the "Quality of electricity services" account (including €40 million relating to the above additional bonus for capital light projects, to be paid by the end of February 2022, €52.793 million in December 2022 and €52.793 million by December 2023);

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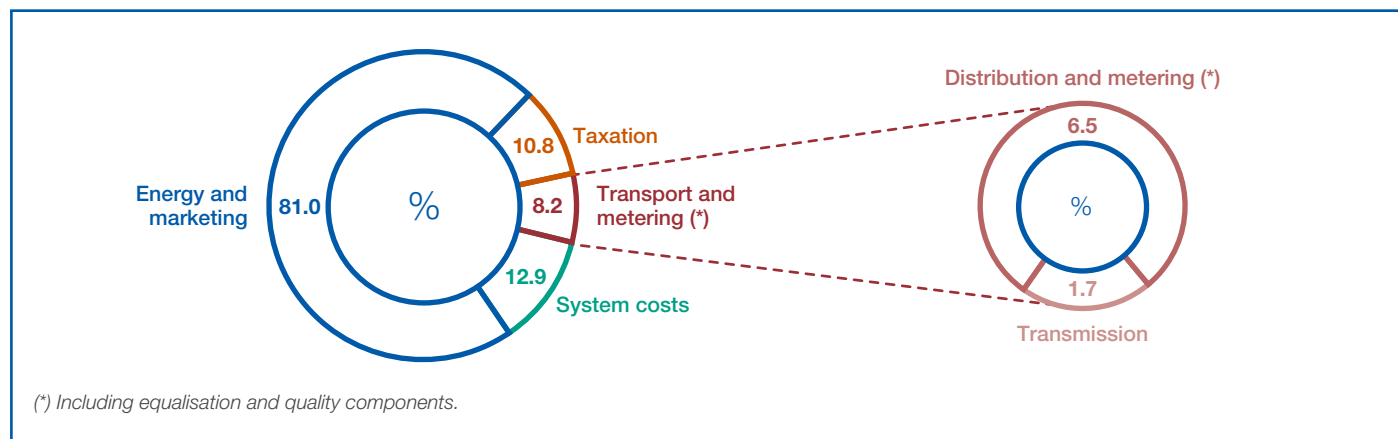
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- an incentive mechanism, with a three-year duration (2022-2024), aimed at rewarding the efficiency of dispatching activities and, as a result, reducing DSM costs and the cost relating to the shortfall in wind production and essential plants (Resolution 597/2021/R/eel and Resolution 132/2022/R/eel). The incentive is calculated annually based on Terna's performance, assessed by comparing effective dispatching costs in the incentive year with costs in the year in question, suitably adjusted to take into account commodity price movements and other corrective factors (the bonus awarded to Terna is equal to 12% of the total saving obtained over a three-year period). Rewards (penalties), calculated on an annual basis, are included in the uplift payment defined in article 44 of Annex A to Resolution 111/06 and paid from 2024 according to the procedure described in Resolution 132/2022;
- improvements in quality of service in the 2016-2023 period through an incentive mechanism based on rewards/penalties calculated on the basis of the difference between the effective annual level of energy not supplied through the NTG (the NTG RENS indicator) and the target level set by ARERA, with the annual reward capped at €30 million and the annual penalty at €12 million (Resolution 653/2015/R/eel). In Resolution 623/2022/R/eel, the regulator awarded Terna a bonus of €18.64 million, payable by the CSEA by January 2023 from the "Quality of electricity services" account.

Cost of transmission in end users' bills

Based on figures from ARERA, it is possible to estimate that **approximately 1.7%** of a typical domestic user's electricity bill relates to the cost of transmission in 2022.

Compared with an average total annual cost for a typical domestic user, estimated at approximately €1,316 in 2022, the cost incurred for the transmission service amounts to approximately €21 per household.



Terna's scenarios

Energy scenarios examine the potential ways in which the current energy system may develop, providing an essential basis for identifying and planning the infrastructure investment and development needed to enable the ecological transition. Every two years, Terna and Snam, the operator of Italy's gas network, draw up a **Scenario Description Document**¹⁶ (**SDD**) as part of the process of preparing grid development plans for both sectors.

The SDD published at the beginning of August 2022 forms the basis for definition of Terna's 2023 Development Plan and goes above and beyond the goals set in the PNIEC, reflecting the more ambitious targets contained in the EU's "Fit-for-55" package. The process allowed the two operators to pool their specific skills, in the full awareness that the interaction between scenarios in the electricity and gas sectors constitutes a markedly complex element at Italian and EU level.

For the time horizon of 2030, the document describes two scenarios:

- a policy scenario in line with the Fit-for-55 (FF55) goals;
- a Late Transition scenario broadly in line with the "old" National Integrated Energy and Climate Plan ("PNIEC") of December 2019.

Three different scenarios were developed for the time horizon of 2040:

- a Late Transition scenario in keeping with the 2030 scenario;
- a Global Ambition Italy scenario (GA-IT);
- a Distributed Energy Italy scenario (DE-IT).

The latter (GA-IT and DE-IT) are to be considered development scenarios both aligned with the storylines in the scenarios drawn up by the ENTSOs, Global Ambition and Distributed Energy, which set out alternative paths consistent with the goal of achieving a net zero system by 2050. The new DDS scenarios are, therefore, aligned with international scenarios based on a target of net zero by that date (e.g., the "IEA NZE 2050" scenario developed by the International Energy Agency, or the "Advanced Energy Revolution scenario" published by Greenpeace).

¹⁶ This document is available at the following link: https://download.terna.it/terna/Documento_Descrizione_Scenari_2022_8da74044f6ee28d.pdf

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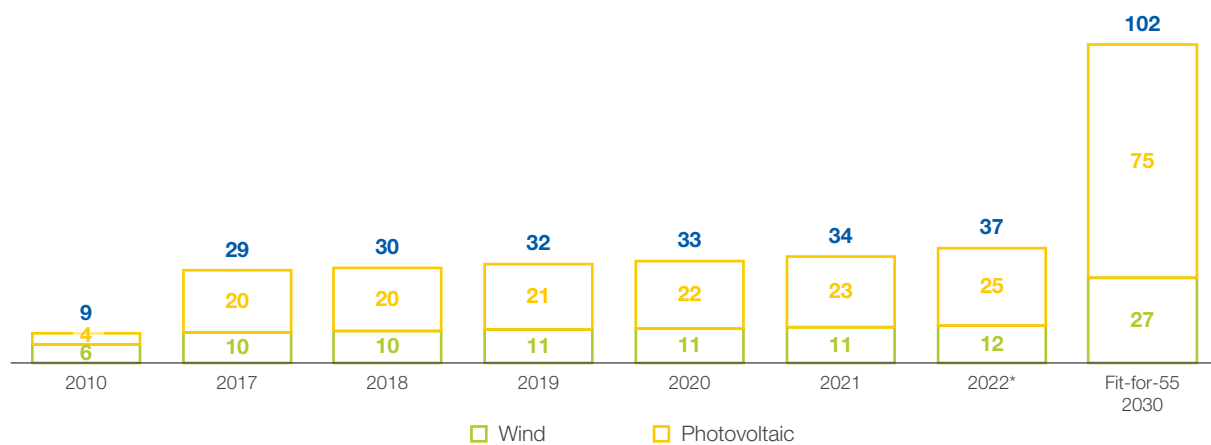
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The Fit-For-55 scenario with a time horizon of 2030 plays a key role, not only because it extends the policy objectives to 2030, but above all because it calls for an efficient mix of investments in network infrastructure, renewable sources, storage and new digital technologies compatible with the main technical, economic and administrative limits that could otherwise compromise its feasibility in such a tight time frame. The scenario indicates the need:

- to add **70 GW of new wind and solar capacity** by 2030 compared with 2019, corresponding to an increase of 120-126 TWh and ahead of the 40 GW increase provided for in the PNIEC;
- to achieve at least a **65% penetration rate for RES** as a share of electricity demand by 2030, compared with the 55% previously targeted in the PNIEC;
- to create **almost 100 GWh of additional storage**, as well as to develop adequate transport capacity, to guarantee full integration of the electricity produced from renewable sources into Italy's electricity system.

Development of wind and photovoltaic installed capacity 2010-2022 and targets to 2030 (GW)



* Provisional data.

Source: Terna data

The energy transition must be based around an appropriate market design, able to provide the long-term price signals needed for development of an adequate, secure and low carbon electricity system, and to enable and facilitate the full participation of all distributed resources in the ancillary services markets.

2023 Development Plan

The 2023 Development Plan was submitted to the Ministry of the Environment and Energy Security on 27 January 2023, following its approval by Terna's Board of Directors on 25 January, in line with the requirements of Legislative Decree 93/11, as amended by Law 120/2020¹⁷.

This new Plan, which follows on from the previous version of 2021, has been drawn up at a particular time in history when issues surrounding energy provision are even more the focus of attention. In a period of rapid geopolitical upheaval, the energy system is faced with a series of unprecedented and highly ambitious challenges.

Against this backdrop, Terna must **design a grid capable of handling progressive decarbonisation and the growing integration of renewables**, whilst at the same time the efficiency and security of supply.

The Plan must guarantee the sustainable development of the National Transmission Grid (NTG), by enabling the implementation of RES, and supporting the energy transition and the phase-out of coal. It contains the investments that Terna is committed to carrying out in order to guarantee the efficiency of the grid, the security of supply and of the service and the integration of production from renewable sources, **in line with the goals set in the Fit-for-55 package** and included in the 2022 Scenario Description Document (a 55% cut in CO₂ emissions by 2030 compared with 1990 levels and a share of final consumption met from renewable energy sources of at least 65%).

To achieve these challenging objectives, **in addition to the projects previously included in the 2021 Development Plan, the 2023 Development Plan envisages the launch of innovative initiatives** as part of the **Hypergrid** project, amounting to **approximately €11 billion**, to meet future targets. This marks an increase and acceleration in investment for the benefit of the country, with total **capital expenditure over the life of the Plan from 2023 to 2032** up at an all-time high of **over €21 billion**.

Hypergrid projects, marking the principal addition to the Plan, are innovative projects that will exploit HVDC technologies to achieve energy transition and security objectives: in brief, Terna aims to carry out a major programme of modernisation of existing power lines forming the country's eastern and western backbones, extending them to include the southern regions and the islands, accompanied by new 500kV submarine connections. This will boost the lines' performance, reducing their environmental impact to a minimum and transferring a growing amount of renewable energy generated in southern Italy to areas where demand is highest in the north.

¹⁷ Art. 36.c.12 of Legislative Decree 93/11, as amended by Law 120/2020, requires Terna to prepare a ten-year Development Plan for the national transmission grid every two years, submitting it for approval by the Ministry of the Environment and Energy Security, after consulting with the affected regional authorities and taking into account the views expressed by the regulator (ARERA).

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Development goals and strategy

Given the challenges faced by the electricity system as a result of the trends identified in the projected energy scenarios and ongoing climate change, planning the development of the transmission grid must meet the following **electricity system objectives**:



INTEGRATION OF RES

new development works to enable and prepare for the integration of new renewable capacity, starting from the Hypergrid project.



INCREASE IN TRANSPORT CAPACITY

doubling of current exchange capacity between market areas (over 30 GW), reduction and resolution of future congestions affecting the national transmission grid.



DEVELOP CROSS-BORDER INTERCONNECTORS

in line with earlier plans, the aim is to continue **guarantee greater security** through the availability of mutual assistance between the interconnected systems.



IMPROVE LEVELS OF ELECTRICITY SYSTEM SECURITY, QUALITY AND RESILIENCE AND SERVICE CONTINUITY

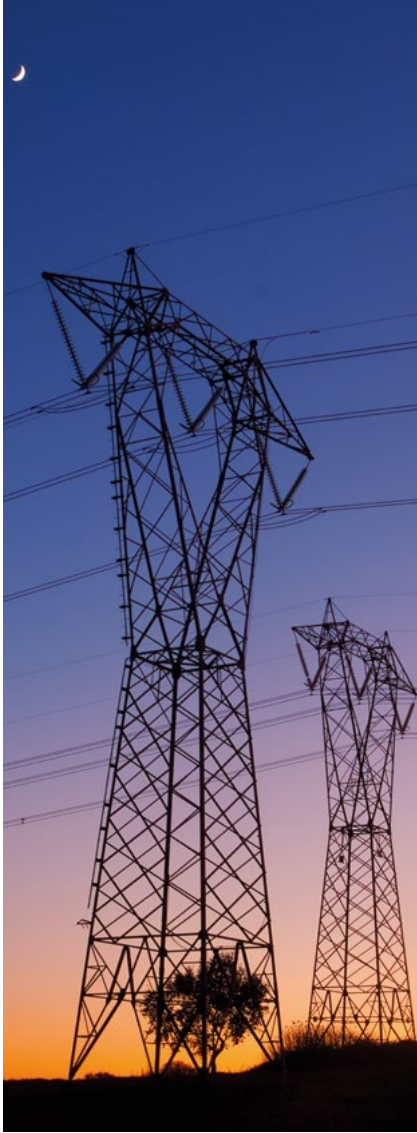
work on upgrading the grid, including the deployment of new power supply lines



ENSURE THAT THE GRID IS ROBUST AND CUSHION LOW-FREQUENCY INTERSYSTEM OSCILLATIONS

Work on making the **electricity system increasingly stable and able** to withstand or control the formation of voltage wave following a fault or disturbance

The **key benefits expected** as a result of achieving these objectives are as follows::



INVESTMENT

over €21bn	Investment over life of 2023 – 2032 Plan
~€30bn	Total investment 2023 – Beyond 2032
~€11bn	Hypergrid share 2023 – beyond 2032

ENERGY TRANSITION

+70 GW	New RES capacity by 2030
-4,100 kt/year	Reduction in CO ₂ by 2030* (equal to CO ₂ consumption of 4.5m motor vehicles)**

NEW GRID DEVELOPMENTS - HYPERGRID

+16 GW	New exchange capacity between market areas
~2,600 km	~1,000 km overhead } Length of backbones ~1,600 km in cable }
~13 GW	New AC/DC converter stations

* Reduction in CO₂ by 2040: -12,000 kt per year.

** Based on average consumption of 90 g/km for a utility vehicle covering 10,000 km per year.

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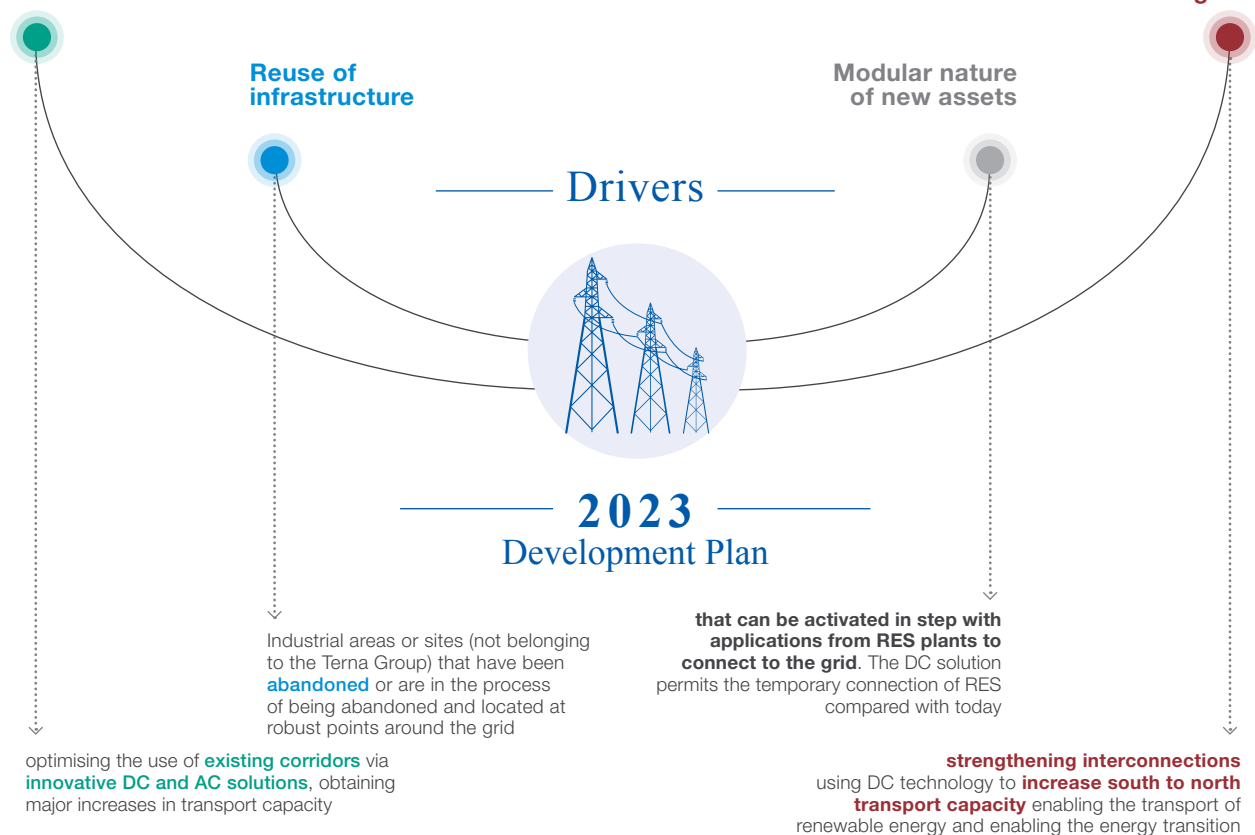
New drivers for the planning of works

The 2023 Development Plan is based on an **integrated approach to planning that considers the electricity system as a whole**: the proposed works are modular and in synergy with each other, and provide diversified solutions capable of keeping pace with developments in the energy scenario. The aim is to build a grid that minimises price differentials between market areas to achieve the maximum degree of unification possible.

The development and construction of grid infrastructure capable of **increasing exchange capacity** between the different market areas results in the definition of **new drivers** with a pivotal role in the planning of new works:

Synergies with existing and underused assets

Increasingly secure and robust grid



FN1

The 2021-2025 Industrial Plan

DRIVING ENERGY

The **updated 2021-2025 Industrial Plan, "Driving Energy"**, was approved by the Board of Directors on 24 March 2022. The Plan provides for **total capital expenditure of €10 billion**, through which Terna will accelerate its commitment to the country's ecological transition, energy independence and decarbonisation, in keeping with the challenging objectives set in the National Integrated Energy and Climate Plan (PNIEC) and the targets in the EU's Green Deal, which aim to cut greenhouse gas emissions by at least 55% by 2030, compared with 1990 levels.

The key driver in the 2021-2025 Industrial Plan is **sustainable investment**, a concept embedded in the Company's value creation process and in the benefits for the system and the environment. Terna's capital expenditure, **99%** of which is classified as sustainable based on the **EU Taxonomy**, targets the development of renewable sources. The transmission backbones that transport energy from points of production, which are increasingly located in Italy's southern regions, to where demand is highest in the north of the country, will be boosted by resolving existing issues caused by grid congestion and further development of cross-border interconnections. Thanks to its strategic geographical location, Italy will be able to reinforce its **role as a European and Mediterranean electricity transmission hub**, becoming a leading player at international level.

The Terna Group's development initiatives will focus on three strategic areas: **Regulated Activities in Italy, Non-regulated Activities and International Activities**.

In terms of **Regulated Activities in Italy**, which continue to represent the Group's core business, Terna plans to invest **€9.5 billion** in developing, modernising and strengthening the national transmission grid, confirming the Company's role in driving the energy transition and enabling an increasingly complex, sustainable and innovative electricity system. This investment, focused on increasing the country's energy security, will generate major benefits for the system as a whole, with a significant multiplier effect. **Terna's capital expenditure has a positive impact on the country's GDP**, given that every euro spent adds three euros to GDP.

The planned investment will increase the **value of the RAB to €22.7 billion in 2025**, with a CAGR of 7% over the life of the Plan. By the end of 2022, the value of the RAB will be €18.1 billion, compared with €16.9 billion at the end of 2021.

The updated 2021-2025 Industrial Plan targets increased **investment in development of the national transmission grid**, which is due to total **€5.6 billion**. This is primarily linked to the construction of high-voltage direct current lines with the aim of resolving grid congestion, boosting transmission capacity between the various market areas, fully integrating renewable sources and improving quality of service. This type of investment will also involve the construction of undersea cable connections. The most important project is the Tyrrhenian Link, the power line that will connect Sardinia, Sicily and Campania and that will contribute to the development of renewable energy production and the phase-out of the most polluting coal- and oil-fired power stations. The other projects include Sa.Co.I.3, the interconnector linking Sardinia with Corsica and Tuscany, and the Colunga-Calenzano power line between Emilia-Romagna and Tuscany.

Investment in **renewing and improving the efficiency of assets**, covering the reorganisation of existing infrastructure, with the replacement – where technically feasible – of overhead lines with underground cable, will amount to **€2.6 billion**.

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Finally, Terna plans to invest a total of **€1.3 billion** in the **Security Plan**, over the life of the Industrial Plan, with the aim of boosting the system's technical and technological capabilities to increase system functionality.

Non-regulated Activities will help to generate new business opportunities thanks to the development of innovative, digital solutions in keeping with Terna's public service role in supporting the energy transition. These activities will include:

- *industrial activities* in the field of transformers, thanks to the consolidation of Tamini, and in underground cables, leveraging the distinctive expertise in terrestrial cables acquired with Brugg Cables, to respond to the system's growing needs in both sectors and strengthen the supply chain;
- *connectivity offerings*, including within the context of partnerships, involving the provision of housing and hosting services to enable telecommunications providers to use the Company's fibre network, and the installation of telecommunications equipment at Terna's existing sites;
- *energy solutions and energy efficiency services for industrial customers and O&M activities* for photovoltaic plants, taking into account the skills acquired with the LT Group and including through the use of innovative data collection and analysis technologies.

Terna expects **Non-regulated Activities** to contribute a cumulative total of **over €450 million** to the Group's EBITDA over the life of the Plan, in return for limited investment and risk exposure.

Turning to **International Activities**, following the decision to extract value from the Group's South American assets, Terna will continue with the strategic assessment of opportunities. These may take the form of partnerships, involving the careful selection of projects with a view to ensuring a low risk profile and avoiding the need to tie up large amounts of capital. Terna will look to exploit new opportunities in stable markets from a geopolitical standpoint and with attractive growth potential, such as the United States, where the Terna Group can make available the experience and expertise it has acquired in the design and management of infrastructure, in line with the Company's business strategy.

Over the coming years, **innovation**, new technologies and digitalisation will acquire ever greater importance, playing an increasingly central part in enabling the energy transition for the benefit of the entire system. In response to the growing complexity of the system, Terna intends to **invest approximately €1.2 billion** from the total of €10 billion earmarked for capital expenditure in the 2021-2025 Industrial Plan in digitalisation and innovation, concentrating efforts on the use of advanced technology to remotely control electricity substations and transmission infrastructure. New projects and initiatives will focus on the four technology clusters identified in the Industrial Plan, taking into account global technological trends and Terna's requirements: Digital (intelligent energy and capacity management solutions); Energy Tech (innovative solutions using more efficient, greener technologies); Advanced Materials (research and development resulting in eco-compatible materials to reduce the Group's environmental impact); and Robotics (process automation).

Terna's people, with their world-leading technical expertise, are a key asset in enabling the Group to achieve the challenging goals the Group has set itself, confirming Terna's role in driving the transition. The Company has completed the design phase for an ambitious cultural transformation called **NexTerna**, involving the definition of a new leadership model and new ways of working and operating in response to the current scenario. This innovative approach is based on the digitalisation of processes and tools to increase people's efficiency and productivity, bringing logistical benefits and, above all, improving quality of life for all the Company's workers. Terna's people-centric approach is also reflected in the major acceleration in the creation of jobs: over the life of the Plan, the **number of employees is expected to rise to approximately 5,900 by 2025**.

Maintenance of a strong capital structure through robust cash generation will also help to support an attractive dividend policy.

Finally, the Terna Group's ongoing commitment to implementing the Industrial Plan and achieving the related financial targets has enabled the Group to meet and improve on the guidance communicated to the financial markets for 2021 and 2022. These are important milestones on the way to achieving the targets set for 2025, announced on 24 March 2022 at the time of presentation of the **2021-2025 Industrial Plan, "Driving Energy"** to the financial community.

Target and results 2021-2022

	2021				2022				
Revenue (€bn)	2.53	>>	2.60	↑	Revenue (€bn)	2.74	>>	2.96	↑
EBITDA (€bn)	1.81	>>	1.85	↑	EBITDA (€bn)	2.0**	>>	2.1	↑
Capex (€bn)	1.4	>>	1.5	↑	Capex (€bn)	1.7	>>	1.8	↑
EPS (€cent)	39	=	39		EPS (€cent)	42**	>>	43	↑
	Target 2021 Plan 2021-2025*		Actual 2021		Target 2021 Plan 2021-2025 Updated		Actual 2022		

* The figures for 2021 are shown on a pro forma basis to take into account deconsolidation of the South American subsidiaries included in the planned sale of assets.

** Guidance updated in November 2022.

Identification and assessment of Industrial Plan risks

To evaluate the solidity and reliability of the Industrial Plan and best respond to the needs of key stakeholders, the Terna Group has adopted a methodology that integrates risk assessment and quantification into the business planning process.

To conduct this activity, the Administration, Finance and Control department uses a tool that assesses the degree to which the Group's risk profile is compatible with its strategic goals. The identification and quantification of risks and opportunities (uncertainties) is applied to the Terna Group as a whole (Regulated, Non-regulated and International activities) and requires the direct involvement of all the relevant departments in the form of specific interviews under a bottom-up approach.

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The process requires that, once uncertainties have been identified and quantified, they are managed using a proprietary Monte Carlo simulation model that, starting from the data collected, generates a large quantity of alternative scenarios for development of the variables underlying the Industrial Plan. The methodology thus enables the Company to estimate the overall volatility of the financial targets deriving from the occurrence of key risk events and opportunities and to assess the resilience of the Industrial Plan.

ESG goals in the 2021-2025 Industrial Plan

In March 2022, together with the presentation of the "2021-2025 Industrial Plan" to the market, the ESG goals were updated and - in line with the overall presentation of the Group's operations adopted with effect from the 2021 Integrated Report - reorganised in terms of types of capital.

< 2-12

The process of embedding sustainability within the business takes the form of setting objectives aimed at increasing intangible capital and respecting natural capital, including identification of the related risks and definition of appropriate mitigation measures (see pages 84-87).

The ability to monitor, manage, prevent and minimise ESG risks is assessed annually by the main international sustainability rating agencies, which provide an important third-party benchmark that benefits the Company itself and its financial stakeholders (also see pages 170-171).

The contribution of ESG criteria to value creation



The ESG goals help to increase the availability of certain enabling factors needed for full implementation of the Industrial Plan, mitigate the ESG risks linked to the Group's activities, preserving the related capitals and, more in general, reputational capital (common to all), aim to ensure the sustainability of the business and create value over time, further embedding sustainability within the Group's value proposition and maintaining Terna's attractiveness for investors, who increasingly take these issues into account.

ESG plan: summary of pillars and goals



PRIORITY GOAL

The following table shows, for each individual goal in the ESG Plan, its relationship with the affected intangible capital, with details of the area that benefits most in terms of growth, alongside the type of risk managed.

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ESG goals: increase intangible capitals and risk control

ESG PLAN GOALS	GROWTH IN INTANGIBLE CAPITAL						RISK CONTROL		
	INTELLECTUAL CAPITAL			HUMAN CAPITAL		SOCIAL AND RELATIONSHIP CAPITAL		ENVIRONMENTAL IMPACT	SUPPLY CHAIN
	Organisational management		Expertise	Human resources		Stakeholder engagement		Compliance and reputational risk	
	Culture and values	Rules and procedures	Motivation	Talent attraction	Local communities	Corporate stakeholders			
HUMAN CAPITAL									
1 – Health and safety	X	X		X					X
2 – Skills and Development			X						
3 – Diversity and inclusion	X					X			
4 – NexTerna	X	X		X	X				
SOCIAL AND RELATIONSHIP CAPITAL									
5 – Engagement with local communities						X			
6 – Systematic dialogue with stakeholders							X		
7 – Social responsibility initiatives	X			X	X	X	X		
INTELLECTUAL CAPITAL									
8 – Measurement of impacts		X							
9 – Sustainable supply chain		X							
10 – Sustainability culture									X
11 – Codes of conduct and sustainability policies	X								
NATURAL CAPITAL									
12 – Impact of transmission		X	X					X	
13 – Reducing CO ₂ emissions								X	
14 – Circularity of operating processes		X			X			X	

The main ESG goals for the period 2021-2025, linked to the benchmark SDGs and their position in the materiality matrix, are covered in the sections on human capital (pages 210, 222 and 229), intellectual capital (pages 196 and 199) and natural capital (pages 262 and 280) The progress made in 2022 towards achieving the targets set in the previous Plan is also reported on, with a summary provided in the following table.

Targets and results in 2022

CAPITAL	KPI	2022	
		TARGET	RESULT
HUMAN	Zero fatal accidents (Terna staff)	0	0
	Safety indicator*	≤ 1	0.74
	Number of people trained in the “Energy Transition”, “Sustainability” and “New Ways of Working”	50%	50%
	Women as a percentage of the Group's total workforce, excluding blue-collar workers	22%	22.1%
SOCIAL AND RELATIONSHIP	Staff with performance evaluation (%)	95%	99.1%
	The previous KPI expired on 31 December 2019, before being reformulated in 2021 with the first target set for 2025.	=	=
INTELLECTUAL	Product categories (“PG”) falling within the type of work requiring obligatory certifications ISO:14001 and OHSAS:18001/45001	100%	100%
NATURAL	Km of overhead lines removed/year	73	68
	Km of new underground and submarine lines	158	72
	SF ₆ leakage as a percentage of total gas installed	0.45%	0.41%

(*) The safety indicator is the ratio between the weighted injury rate (weighting: 30%) and lost day weight (weighting: 70%) for the target year and the one for the previous three-year period.

IT4

Innovation strategy

SASB In an expanding and highly complex electricity system, **innovation** and **digitalisation** play an increasingly important role, forming the two pillars that underpin Terna's growth path.

In line with the role in driving and enabling the energy transition set out in the Company's strategy, for Terna, innovation has the purpose of developing new solutions to respond to the growing challenges connected with the achievement of European and national targets.

To fulfil these objectives, the Terna Group is open to new forms of development and partnership with the outside world, with a view to creating interactions with the different actors in the innovation ecosystem and investing in technology initiatives of most value to the Company and for Italy's electricity and energy system. In this broad context, Terna has embraced the **Open Innovation** model, based on the productive, continuous exchange of ideas with internal and external parties in accordance with a **concrete, open, inclusive and distributed approach** that meets the innovation needs identified with the aim of **developing, protecting and exploiting the Group's expertise and intellectual property**.

Based on their potential impact on the business, **four key innovation missions** have been identified with the aim of shaping the future of the Terna Group and of the electricity system within the context of the transition:

- **Managing uncertainty:** solutions that enable the Group to manage development of the electricity system and changes in the factors that affect it (climate change and economic, technological and regulatory factors), ensuring the growing integration of renewable sources, involving a degree of uncertainty by nature.
- **Copper plate grid:** technologies to boost and develop grid sustainability and efficiency and develop solutions capable of improving the performance and resilience of transmission assets.
- **Fully efficient and 0 risk maintenance:** technologies that reduce risks and improve operational performance, including through the automation and digitalisation of processes.
- **Humancentric Corporation:** solutions that take a people-centric approach to promoting safety, wellbeing and health and that help to ease the switch to new ways working.



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In line with Terna's role in driving the energy transition, innovation also focuses on a **fifth mission: "Sustainability and the Energy Transition"**.

To fulfil these missions, the Ideas&Solutions scouting channels enable the Group to identify technologies that meet internal innovation needs and, at the same time, strengthen development activities during the Proof-of-Concept¹⁸ and Demonstrator¹⁹ stages and speed up the development of solutions.

In addition to consolidating the innovation model, at the end of 2022 the Terna Group created a further important asset to help it fulfil its ambitions, above all with regard to the "Sustainability and the Energy Transition" mission. November saw the establishment of Terna Forward S.r.l., a vehicle set up to accelerate the most disruptive initiatives capable of having a major impact on the Terna Group, in part through corporate venture capital investments.

¹⁸ Proof of concept: evidence, typically deriving from an experiment or pilot project, which demonstrates that a design concept or business proposal is feasible;





¹⁹ Demonstrator: a real-size model designed to become the basis for mass production, built during the last phase of a trial to demonstrate how the product performs in an operating environment.



The 2030 goals

Terna's business model describes operating activities that are inherently linked to medium- and long-term goals. In terms of achieving these goals, the Development Plan, covering a period of ten years from the date of publication, is the main document for planning the electricity infrastructure needed to ensure not only the quality, continuity and security of the electricity service in Italy but, above all, the achievement of a just and inclusive energy transition.

In keeping with the **environmental and social sustainability goals promoted nationally and internationally, a number of 2030 goals have been included in the updated 2021-2025 Industrial Plan, "Driving Energy"**. Finally, Terna's Science Based Target (SBT) was revised at the beginning of 2023 to make it even more challenging (see page 260).

CAPITAL	KPI	TARGET	
		2025	2030
 Human	Women as a percentage of the workforce (assumption: base year 2019)	20%	22%
	Women as a percentage of the workforce, excluding blue-collar workers (assumption: base year 2019)	25%	27%
	Workplace safety indicator for Terna Group personnel working in the electricity sector	≤1	≤1
 Social and Relationship	Percentage of major works accompanied by stakeholder engagement initiatives. Specifically:		
	High-priority electricity works and capex threshold >€50m	100%	-
	High-priority electricity works and capex threshold €10-50m or Medium-priority works and capex threshold >€50m	-	100%
 Intellectual	Percentage of employees trained in ESG issues	-	100%
 Natural	Reduction in Scope 1 and Scope 2 CO ₂ emissions in line with the Science Based Target ("SBT" - base year 2019)	-	-46.2%
	Annual CO ₂ avoided thanks to projects in 2021 Development Plan (in equivalent tonnes)	-	5.6 million



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NexTerna

UM2

Launched at the beginning of 2021, NexTerna is cultural transformation programme involving everyone at Terna, with the aim of capitalising on the new ways of working imposed by the pandemic and making them permanent. The new approach is more suited to achieving the objectives set in the Industrial Plan, but also to simplifying how we work, with benefits for the people's quality of life.

The key component of the whole programme, which started by rethinking the leadership model, coincided with innovation and digitalisation initiatives, crucial in responding to the complexity of the energy transition but also in key to introducing a new agile, inclusive approach to work.

Responsibility for the NexTerna programme lies with a Steering Committee chaired by the Chief Executive Officer and consisting of the executives who report directly to him, whilst coordination has been assigned to the "People Organization & Change" and "Innovation & Market Solutions" departments. In line with its goals, the programme focuses on seven topic areas, for which the targets and key outcomes are reported below (further details are provided in the section, "Human capital", from page 203).

NexTerna topic areas – targets and principal outcomes

New leadership model to inspire and guide day-to-day behaviours.



- Development of the **Leading NextT** model.

Care for Terna's people, through **continuous learning** and the development of a **new mentality**.



- New process for assessing Engagement using the new survey tool **eNPS** (Employee Net Promoter System);
- Launch of the **Terna Academy**;
- Launch of the **WellbeingInAction** programme.

Innovate and simplify activities using **advanced methods of collaboration** able to encourage **new group dynamics**.



- Launch of **16 solutions co-designed by agile teams**, already used by over 2,000 employees.

Disseminate a **sustainability culture** throughout the Company and **encourage communication** as a means of embedding and exchanging best practices.



- Definition and publication of the Terna Group's **Sustainability Policy**;
- introduction of **innovative, eco-friendly mobility solutions**;
- launch of the "**EcoTips** good sustainability practices" section of the Company's intranet.

Define the **best technological support** to enable new ways of working, facilitating collaboration, interaction and experimentation.



- Introduction of the "**GoSign**" digital signature, used regularly by more than 650 employees;
- **Office@home** best equips people to work remotely.

Rethink **workspaces** adopting a **hybrid model** based on flexibility, sharing, collaboration and multi-service access.



- Adoption of **desk sharing**, involving more than 1,200 people;
- Opening of two new **co-working spaces**.

A **rethink of how to involve and interact** with social partners to accelerate the pathway to New Ways of Working.

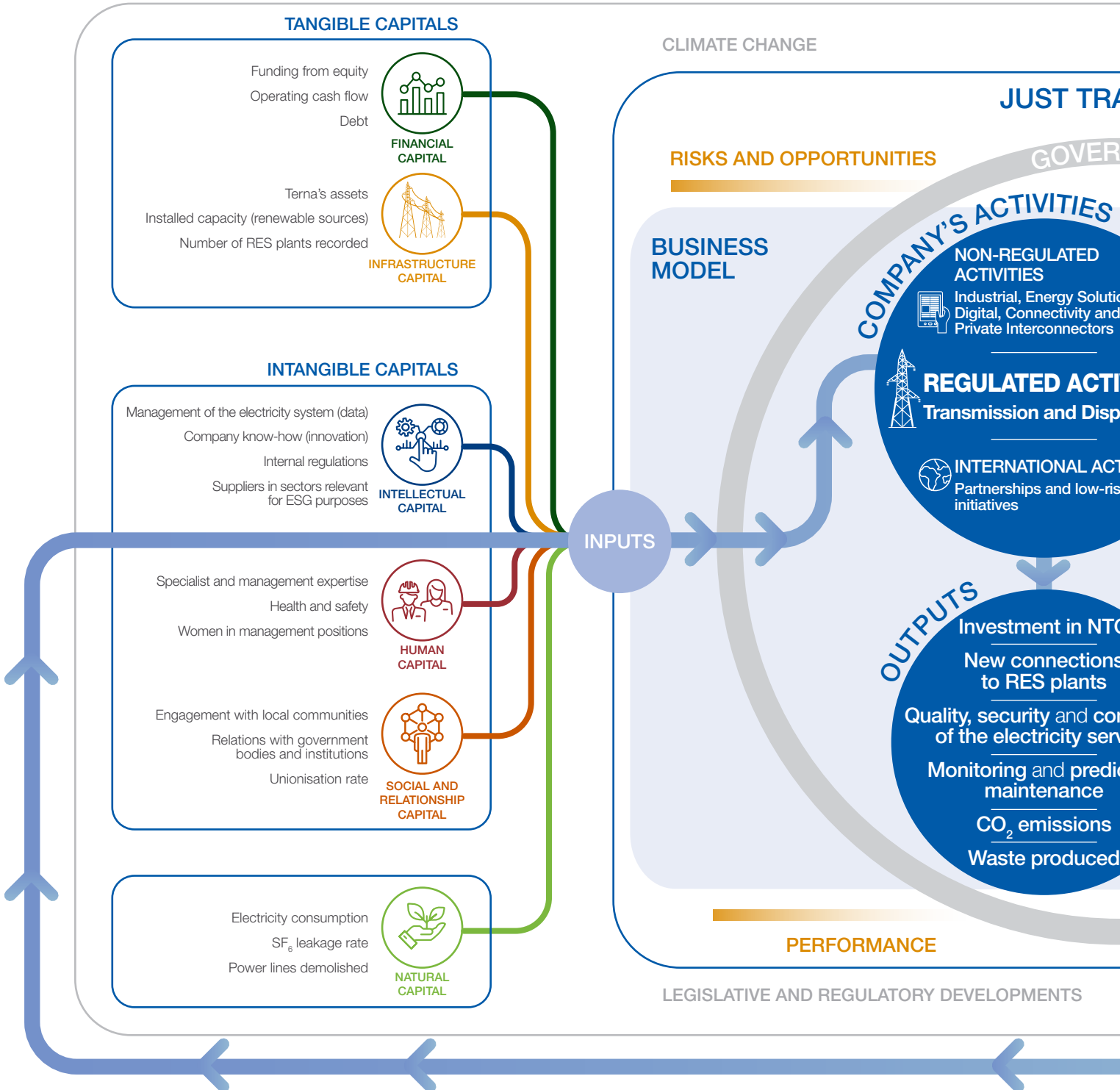


- Preparation of the **New Industrial Relations protocol** for Terna Group companies governed by the national collective labour agreement for people working in the electricity sector.

Having completed the pilot (2021) and experimental (2022) phases of NexTerna, at the end of 2022, the projects developed within each of the seven topic areas were integrated into the new business processes adopted by the Terna Group.

A new phase will begin in 2023, focusing on "Maintenance" of what has been produced and learnt in the previous two years, overseeing and monitoring the various activities. This task has been assigned to the "People Organization & Change" department with support from the "CEO's Office" and the "Innovation & Market Solutions", "Corporate Affairs" and "External Relations, Institutional Affairs and Sustainability" departments.

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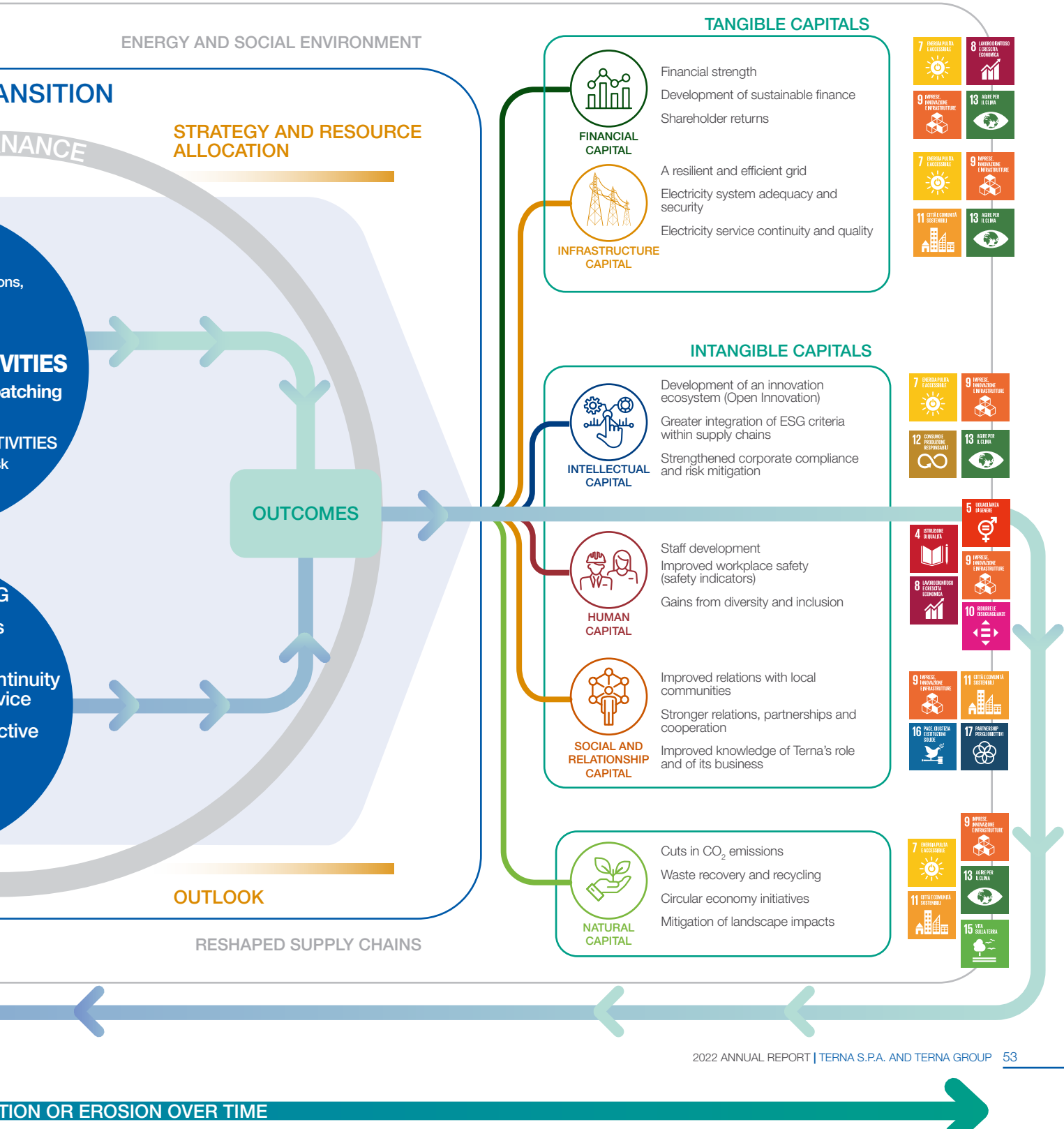
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Terna's value creation

In this Report, the Terna Group provides all its stakeholders with a presentation of its ability to create value over time through implementation of a **sustainable business model**, with the appropriate tools for monitoring and measuring, using specific indicators, its financial, operational, social and environmental performances for the year.

Terna's process for creating value over time²⁰ is shaped by a form of **governance** that targets sustainable success through the definition of a solid medium- to long-term **strategy**, based on the **2023 Development Plan** and the **2021-2025 Industrial Plan**, with the aim of delivering a **just transition**. The other key element that will contribute to achieving a just transition is the correct **allocation of the necessary resources**, which Terna manages by focusing its investment on the efficiency and resilience of the national transmission grid (NTG) and by assessing and managing the financial and ESG **risks** connected with the business and the related potential **opportunities**.

Terna's business model is divided into three separate lines of business (Regulated Activities, Non-regulated Activities and International Activities). These correspond with the core business (Electricity Transmission and Dispatching) and the two complementary deregulated areas of operation, consisting of the design, engineering, operation and maintenance of energy market solutions (Non-regulated Activities) and the development of partnerships and projects with a low risk profile (International Activities).

Terna thus pursues **sustainable growth** by focusing all its operating activities, via the responsible use of all the available **capitals**, on the priority goal of delivering a just transition, whilst also paying attention to social aspects.

The capitals represent the key resources at Terna's disposal to create (and preserve) value over time through their continual combination and interaction, both within the Company and with the outside world, including in the latter key stakeholders. They thus play a key role in the value creation process, representing, at one and the same time, **inputs** that can be measured from one year to another (on the left side of the infographic), **outputs** representing results in terms of the organisation's products, services, by-products and waste²¹ (at the centre of the infographic) and **outcomes**, representing their ability to grow or change or to contribute to the achievement of the objectives set by the Company in its strategic plans (on the right). This representation is the most effective response to growing demand for reporting that is not just aimed at financial stakeholders, who are quite legitimately focused on making a return on their investment, but that also includes the intangible value generated for the benefit of all the other stakeholders and the environment in which the Group operates.

Terna's energy transition is thus based on monitorable targets and measurable outcomes. This is why at the beginning of each section a table providing a summary of the inputs, outputs and outcomes relating to the main results and activities dealt with in each section, quantifying the content of the value creation process.

Benchmark SDGs

The United Nations' Sustainable Development Goals (SDGs), forming the heart of the 2030 Agenda, represent a benchmark closely linked to our mission and the strategic objective of delivering a just transition that coincides with SDGs 7 (Affordable and clean energy), 9 (Industry, innovation and infrastructure) and 13 (Climate action) and 17 (Partnership for the goals).

²⁰ Terna has adopted the principle-based framework proposed by the International Integrated Reporting Council (IIRC). The guiding principles are: (1) Strategic focus and future orientation, (2) Connectivity between information, (3) Stakeholder responsiveness, (4) Materiality, (5) Conciseness, (6) Reliability and completeness, (7) Consistency and comparability. These form the basis of the framework. Their almost total coincidence with the guiding principles in the GRI standard 101 – Foundation setting out the content of quality ESG reporting further strengthens the structure of this Report.

²¹ https://www.integratedreporting.org/wp-content/uploads/2021/09/IRFRAMEWORK_ITALIANO.pdf

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Terna's benchmark SDGs



Ensure access to affordable, reliable, sustainable and modern energy for all.



Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.



Take urgent action to combat climate change and its impacts.



Strengthen the means of implementation and revitalise the global partnership for sustainable development.

The changed socioeconomic environment, heavily impacted by the effects of the pandemic, inflation and the energy crisis caused by the conflict in Ukraine, has, on the one hand, made it even more urgent to fully deliver the energy transition – which has taken on renewed importance as a response to the goal of providing Italy with energy independence and security – and, on the other, redefined it in terms of social equity and inclusion. In other words, it is necessary for the path to decarbonisation to coincide with a restart of economies based around inclusive and resilient models. This must also take into account social aspects, with priority given to the need to combat the progressive erosion of social cohesion and, more generally, respect for human rights.

Taken as a whole and including general sustainability considerations able to create value in the medium- to long-term, the SDGs are also a clear benchmark from an operational standpoint to which Terna refers in carrying out its activities. These SDG's steer Terna towards achieving environmental objectives (e.g., efficient use of natural resources, respect for the environment, life under water, reduction of CO₂ emissions, the reduction and recycling of waste), social objectives (quality education, respect of human rights and gender equality) and good governance objectives (fighting corruption and transparent reporting), as shown in the materiality matrix (see page 56).

In this sense, Terna also strives to achieve SDGs 4 (Quality education), 5 (Gender equality), 8 (Decent work and economic growth), 10 (Reduced inequalities), 11 (Sustainable cities and communities), 12 (Responsible consumption and production), 14 (Life under water), 15 (Life on land) and 16 (Peace, justice and strong institutions).

Benchmark SDGs for the management of Terna's activities



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.



Reduce inequality within and among countries.



Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



Achieve gender equality and empower all women and girls.



Make cities and human settlements inclusive, safe, resilient and sustainable.



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.



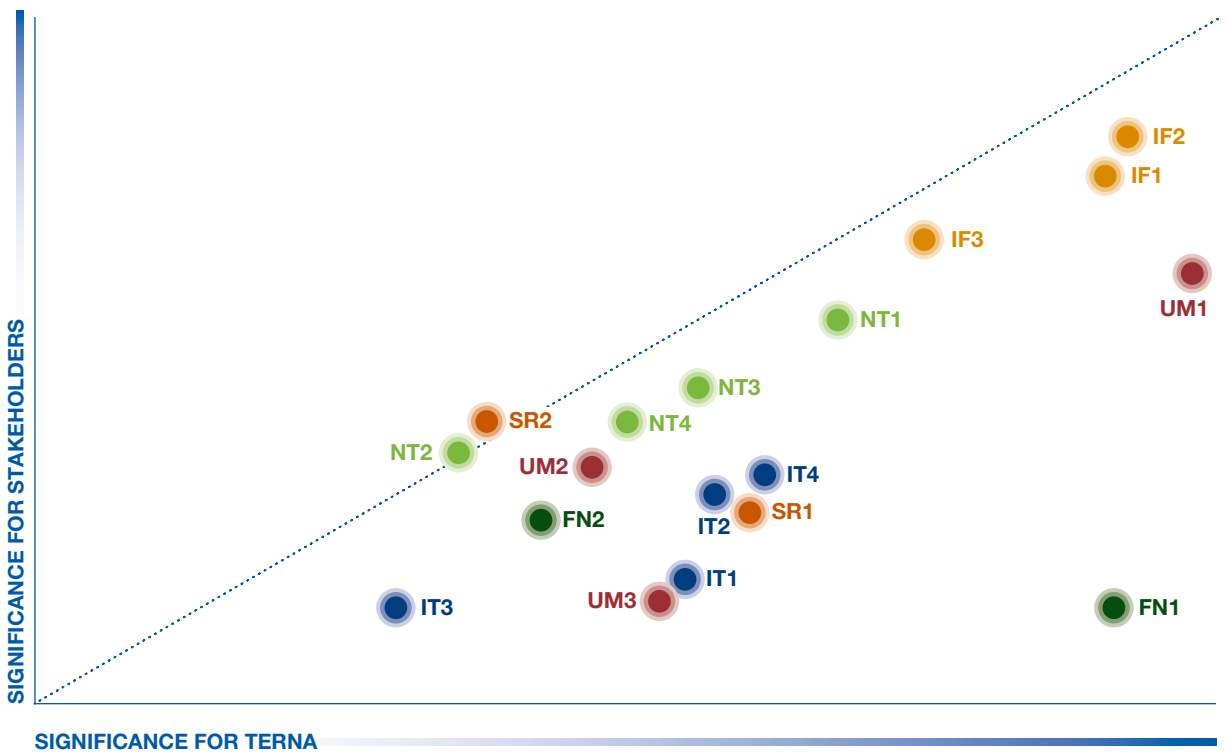
Ensure sustainable consumption and production patterns.



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Materiality analysis

Materiality matrix



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Key

CAPITAL	MATERIAL TOPIC	JUST TRANSITION	HUMAN RIGHTS	SDGs
 FINANCIAL	FN1 – Delivering on financial and performance goals			
	FN2 – Economic impacts on the community			
 INFRASTRUCTURE	IF1 – Delivering the energy transition			
	IF2 – Quality, security and continuity of the electricity service			  
	IF3 – Grid resilience			
 INTELLECTUAL	IT1 – Governance model effectiveness			
	IT2 – Cybersecurity and protecting privacy			  
	IT3 – Sustainable supply chain			 
	IT4 – Innovation and digitalisation			
 HUMAN	UM1 – Workplace health and safety and workers' rights			
	UM2 – HR development and wellbeing			  
	UM3 – Advancement of inclusion and diversity			
 SOCIAL AND RELATIONSHIP	SR1 – Business integrity			 
	SR2 – Management of stakeholder relations			 
 NATURAL	NT1 – Environmental impact of electricity infrastructure on local areas			
	NT2 – Protecting biodiversity			  
	NT3 – Reducing the Group's CO ₂ emissions			  
	NT4 – Promoting the circular economy			

The **materiality matrix** provides a graphical representation of the materiality analysis, the tool used to guide the reporting process – as one of the guiding principles adopted in the leading international reporting standards and in Legislative Decree 254/2016, which introduced the “Consolidated non-financial statement” (NFS) – and is one of the inputs into the planning of sustainability initiatives.

The materiality matrix places sustainability topics based on their significance for Terna (x axis) and for stakeholders (y axis), identifying the most significant topics for both (also referred to as “material topics”). In the matrix, the most significant topics are those furthest from the origin; the most important topics in absolute terms are the ones furthest from the origin and, at the same time, closer to the bisector.

The chart on the previous page shows the Matrix resulting from the survey conducted at the end of 2022. As shown in the matrix for 2022, the five **most significant topics** are: **Quality, security and continuity of the electricity service; Delivering the ecological transition; Workplace health and safety and workers' rights; Grid resilience and Environmental impact of electricity infrastructure on local areas**. To complete the analysis, material topics and the related impacts were also linked to key human rights, the benchmark Sustainable Development Goals (SDGs) and the relevant capitals. Topics relating to the Just Transition were also highlighted (see the key to the materiality matrix).

3-1 > Methodology and key outcomes

The choice of topics on which this Integrated Report is based reflects the latest materiality analysis, which is updated annually in accordance with the GRI Sustainability Reporting Standards, the principal international standards adopted by Terna since the annual reporting period for 2006.

The analysis conducted in 2022 to assess the significance of topics was carried out as follows:

- in updating the **“significance for Terna”** aspect, in keeping with the form of engagement used in previous years, an online questionnaire was distributed to the Group’s second line managers. The results were then weighted against the outcome of an assessment of internal documents and the results of the analysis conducted in 2021;
- with regard to the **“significance for stakeholders”** aspect, the results were obtained via an online questionnaire to be completed by stakeholders who, in addition to those engaged with in previous years (investors, distributors, the media, opinion groups, non-regulated customers, suppliers and representatives of local interest groups), also included the category defined by the GRI as “sustainability experts” (from other companies, including a number of European TSOs) and financial analysts. The results of the survey were then combined with an assessment of internal documents representing the stakeholder priorities and key sustainability trends before being weighted against the results of the analysis conducted in 2021.

2-12 > Impact assessment

In line with the new GRI 3 standard, in addition to analysing the significance of topics, the updated materiality analysis for 2022 also involved an **assessment of the impacts on stakeholders and the environment generated** by the Group.

Last year, the Terna Group conducted an initial due diligence process regarding the Terna Group’s impacts using an “Impact assessment tool”, which was further perfected for the analysis in 2022. Based on the parameters set out in the GRI 3 standard (“likelihood”; “scope”; “scale” and “irremediable character”), documents published by Terna during the previous reporting period were verified to analyse the materiality of the impacts (actual, potential, positive, negative) generated by the Group (the “inside-out” or “impact materiality” perspective). Another input for this year’s assessment resulted from a section of the online questionnaire focusing on impacts and the conduct of focus groups with the aim of identifying and assessing impacts.

The results of these three assessment tools were then combined so as to rank topics based on the materiality of the related impacts. The first five are shown below:

Material topic

Quality, security and continuity of the electricity service

Grid resilience

Workplace health and safety and workers’ rights

Reducing the Group’s CO₂ emissions

Delivering the energy transition

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These results, as shown in the matrix, do not differ significantly from the outcome of the materiality analysis.

Further details on the impact assessment are provided in the section, "Information on the NFS", on page 289.


In addition to the impacts generated by the Group, it was decided to bring forward an **initial assessment of the impacts affecting** the organisation (the "outside-in" or "financial materiality" perspective), conducted in line with the **double materiality** concept, in advance of the date provided for in the draft version of the standard, ESRS 1 General requirements²², issued by the European Financial Reporting Advisory Group (EFRAG). The assessment started from the analyses conducted by Terna in previous years in accordance with the principles in the Integrated Reporting Framework (IIRC), focusing solely on financial stakeholders. In addition to the aspects already taken into account (an assessment of the significance of sustainability topics for categories of financial stakeholder and a study of documents setting out the priorities for this category of stakeholder), the process conducted in 2022 also included a specific section of the stakeholder survey examining the impacts and a focus group on financial materiality. The outcomes were then processed and input into the impact assessment tool.

Based on this analysis, the topics deemed to be most significant in terms of their impact on the Group (according to an outside-in perspective) are: Delivering the energy transition; Quality, security and continuity of the electricity service; Delivering on financial and performance goals; Grid resilience and Reducing the Group's CO₂ emissions.



²² See the draft published by EFRAG on 15 November 2022 (https://www.efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FMeeting%20Documents%2F2211141505388508%2FDRAFT%20ESRS%201%20General%20requirements%2014%20November_.pdf)





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2

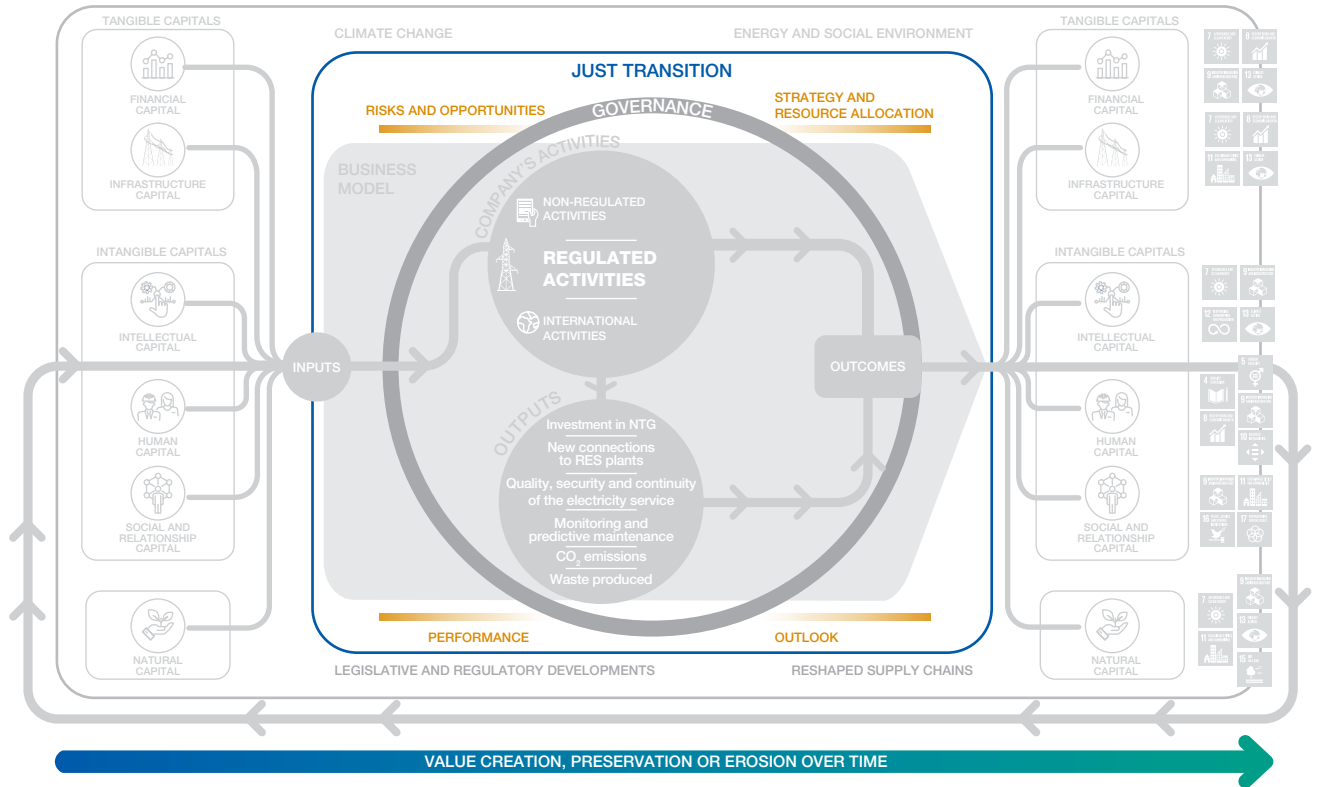
Corporate governance, risk management and opportunities

In this section

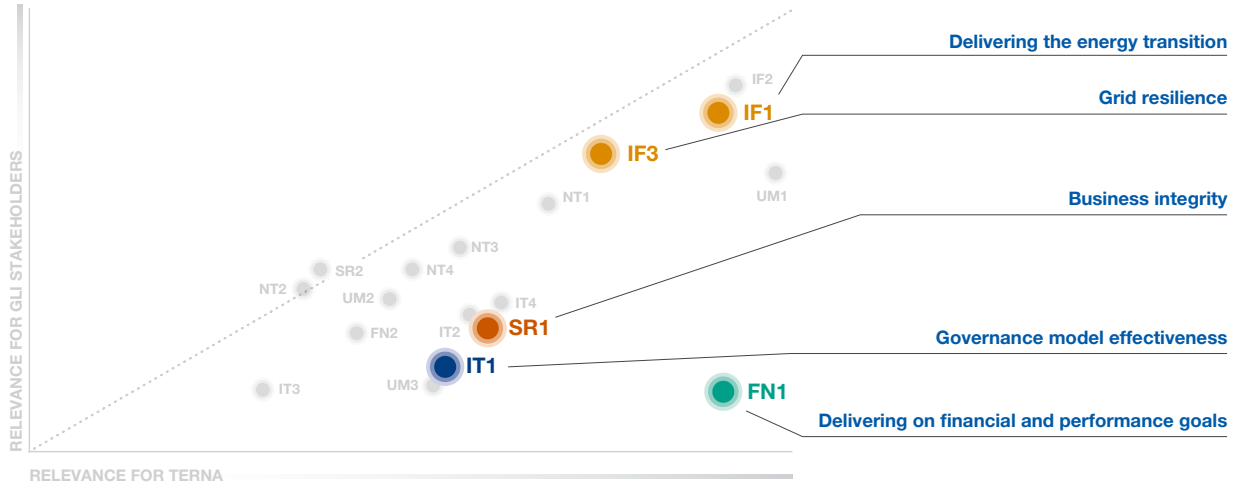
The way the Group's structure has developed, maintaining a clear focus on the objectives set in the updated 2021-2025 Industrial Plan, and the growing proportion of shareholders who have in part invested on the basis of an assessment of the Group's ESG performance clearly delineate the Terna Group's purpose: to deliver a just transition that not only benefits Italy but also the planet. Corporate governance has a decisive role to play in this sense, as it focuses on the achievement of sustainable success through an ethical approach to doing business and the prudent management of risk – including ESG risks, above all those linked to climate change – and the associated new opportunities, both in terms of business and with regard to reinforcing the Group's reputational capital.



VALUE CREATION



MATERIALITY



These infographics highlight the topics dealt with in this section with the aim of **facilitating information connectivity**: in this way, the section offers an overall view showing the links between all the factors that influence Terna's ability to create value over time and how they are dependent on each other. Material topics are indicated with a cross-reference in blue, showing the relevant code.

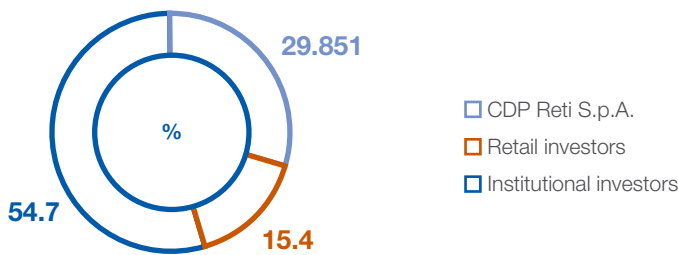
Ownership structure

At the date of preparation of this report, **Terna's share capital amounts to €442,198,240**, comprising 2,009,992,000 fully paid-up ordinary shares with a par value of €0.22 each.

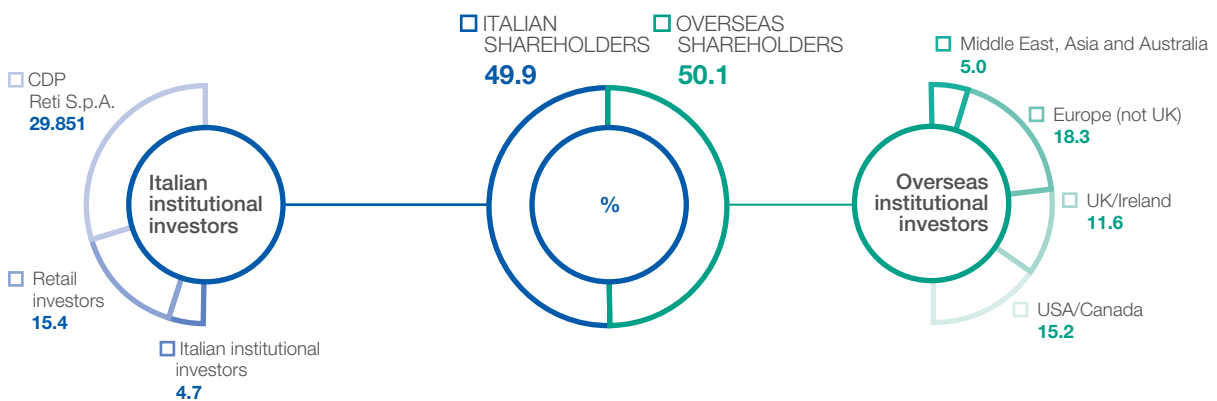
Based on periodic surveys carried out by the Company, it is estimated that 49.9% of Terna's shares are held by Italian shareholders, with the remaining 50.1% held by overseas institutional investors, primarily from Europe (not UK) and the USA.

Based on information from the shareholder register and other data collected in February 2023, Terna's shareholder structure breaks down as follows.

Shareholders by category



Shareholders by geographical area and category



The Parent Company's buyback of **1,280,717 own shares** (equal to 0.064% of the share capital) was completed in June at a cost of €9,999,993. The shares were purchased in implementation of the buyback programme to service the Performance Share Plan 2022-2026.

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Major shareholders²³

CDP RETI S.p.A.²⁴

(a company controlled by
Cassa Depositi e Prestiti S.p.A.):

29.851%

At the end of 2022, 173 socially responsible investors (SRIs) had invested in Terna's shares using an approach that takes into account ESG (Environmental, Social, Governance) aspects (161 in 2021 and 160 in 2020). Overall, at the end of 2022, SRIs represented 20.4% of Terna's free float (18.8% in 2021 and 16% in 2020) and 26.1% of the capital held by identifiable institutional investors (25.2% at the end of 2021 and 21.4% in 2020).

SRIs

Terna has adopted a policy that provides for the payment of dividends twice a year.

The interim dividend for 2022 amounted to 10.61 euro cents (payable from 23 November 2022), whilst the Board of Directors will propose payment of a final dividend of 20.83 euro cents at the Annual General Meeting to be held in single call on a date between 8 and 15 May 2023. Further information on the dividend history is available on the website at www.terna.it.

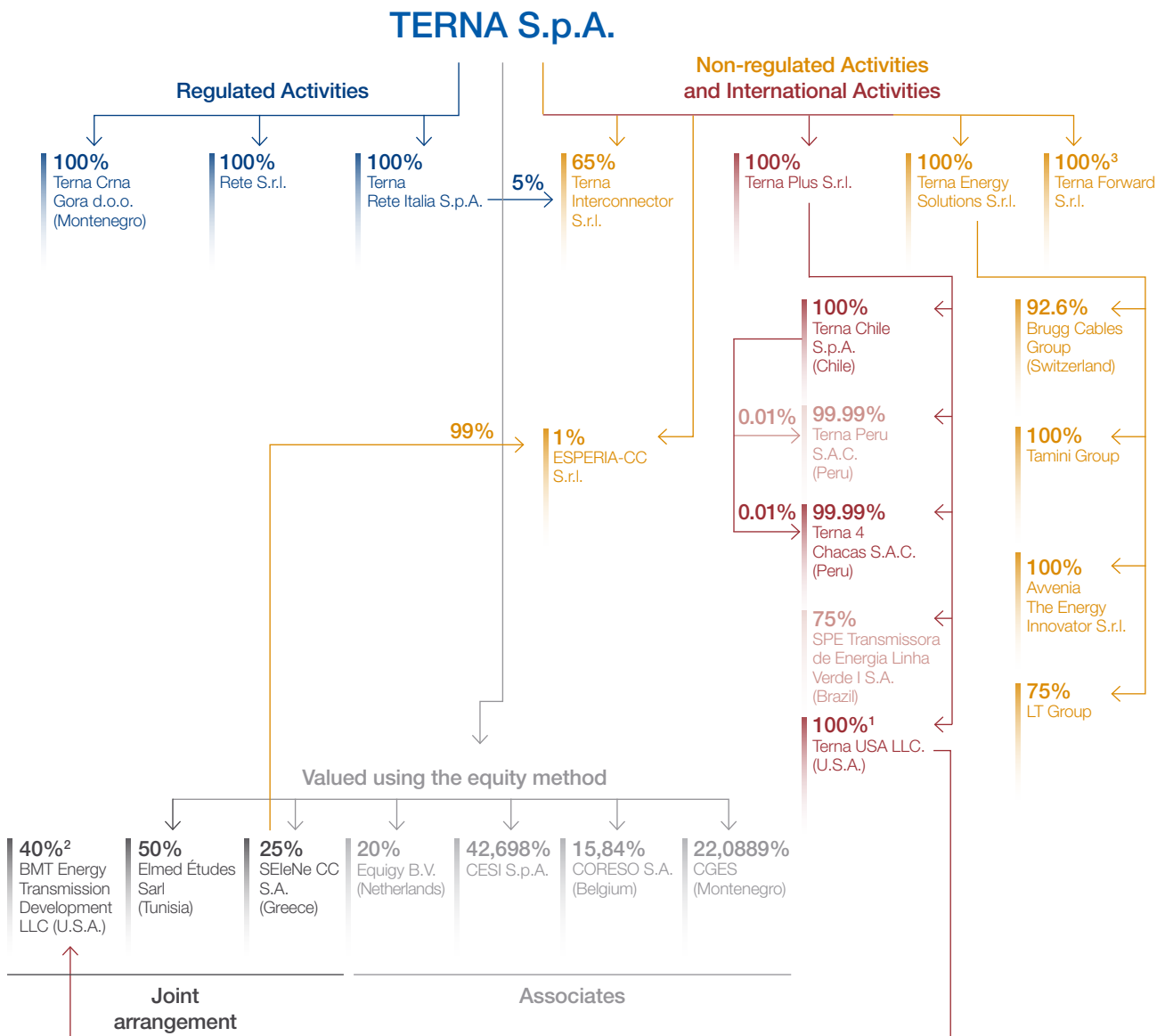
Information on the ownership structure, restrictions on the transfer of shares, securities that grant special rights, and restrictions on voting rights, as well as on shareholder agreements, is provided in the "Report on Corporate Governance and Ownership Structures" for 2022. This is published together with the Annual Financial Report of Terna and the Terna Group and is available in the "Sistema di Corporate Governance – Governance Report" section of Terna's website.

²³ Shareholders who, based on the available information and notifications received from the CONSOB, own interests in Terna S.p.A. that are above the notifiable threshold established by CONSOB Resolution 11971/99 and Legislative Decree 58/98, as amended.

²⁴ On 27 November 2014, a shareholder agreement was entered into by Cassa Depositi e Prestiti S.p.A. (CDP), on the one hand, and State Grid Europe Limited (SGEL) and State Grid International Development Limited (SGID), on the other, in relation to CDP Reti S.p.A., SNAM S.p.A. and Terna S.p.A.. This was later amended and supplemented to extend the scope of the agreement to include Italgas S.p.A..

Structure of the Group

In line with the role of enabler and driver of the current ecological transition and the related objectives, the structure of the Group reflects a series of changes at 31 December 2022. These are described in the following notes.



* Companies involved in the planned sale of subsidiaries operating in Latin America, classified as assets held for sale.

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Compared with 31 December 2021:

• Companies established:

¹ The US-registered company, Terna USA LLC., a wholly owned subsidiary of Terna Plus S.r.l., was established on **2 August 2022**. The company is responsible for overseeing development of the business in North America.

² The US-registered company, BMT Energy Transmission Development LLC, 40% owned by the subsidiary, Terna USA LLC, with the remaining shares held by non-controlling shareholders, was established on **2 November 2022**.

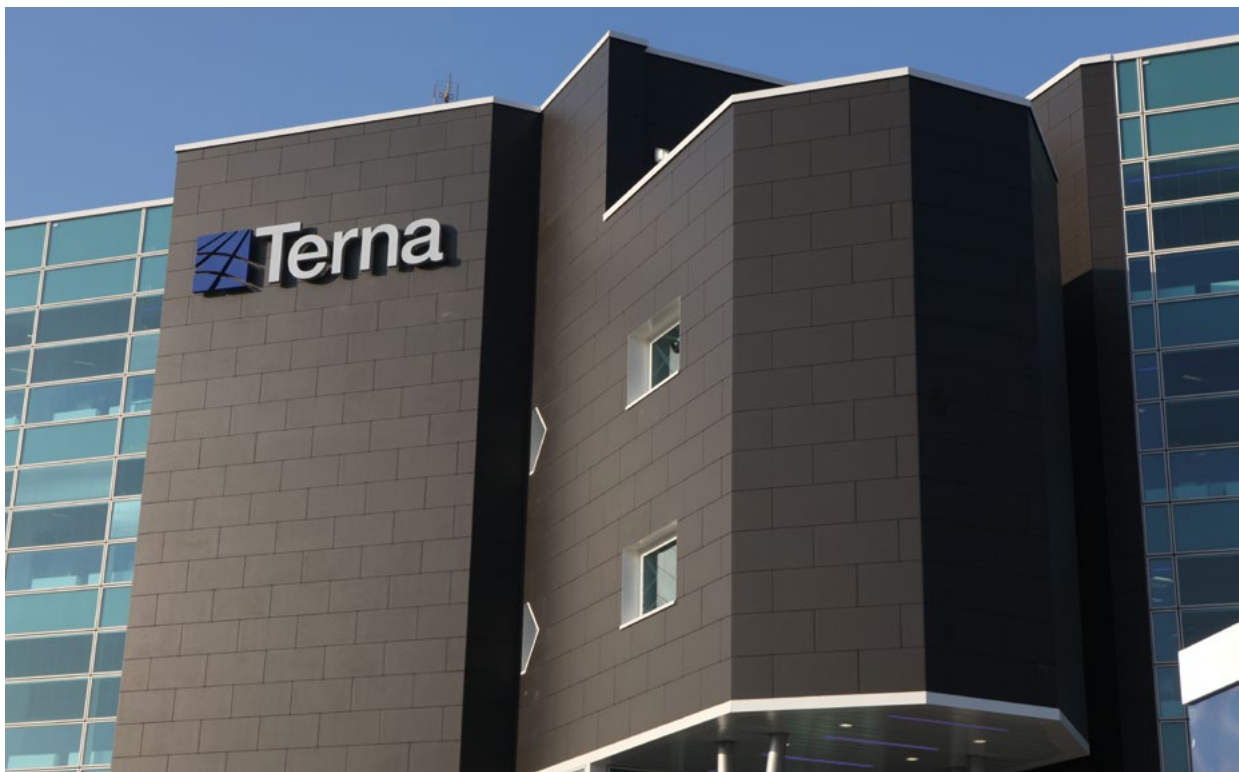
³ Terna Forward S.r.l., engaged in the development of new technological solutions for use by the Terna Group and a wholly owned subsidiary of the parent Company, Terna S.p.A., was established on **11 November 2022**.

• Liquidations and disposals:

The voluntary liquidation of PI.SA. 2 S.r.l., which began on 10 December 2021, was completed on **27 January 2022**.

The first transaction closing for the sale to CDPQ of the Brazilian companies, SPE Transmissora de Energia Linha Verde II S.A., SPE Santa Lucia Transmissora de Energia S.A. and SPE Santa Maria Transmissora de Energia S.A., was completed on **7 November 2022**. From this date, the companies are no longer a part of the Terna Group.

The first transaction closing for the sale to CDPQ of Difebal S.A. was completed on **22 December 2022**. From this date, the company is no longer a part of the Terna Group.



DNF

Parent company

COMPANY	WORKFORCE AND REVENUE
---------	-----------------------

2-1 >

2-2 >

207-4 >

Terna S.p.A.	Employees: 1,067 Revenue: €2,520.5m
---------------------	--

Subsidiaries with Regulated Activities

COMPANY	BUSINESS
---------	----------

Terna Rete Italia S.p.A. Employees: 3,369 Revenue: €503.7m	All regulated activities related to operation, routine and extraordinary maintenance, management and development of the NTG.
---	--

Rete S.r.l. Employees: - Revenue: €138.0m	Acquired in 2015 from Ferrovie dello Stato Italiane (Italian State Railways) group, the company owns 8.3% of the NTG infrastructure.
--	--

Terna Crna Gora d.o.o. <i>Incorporated under Montenegrin law</i> Employees: 11 Revenue: €15.1m	Management of construction of the Italy-Montenegro interconnector, on the Montenegrin side.
--	---

Subsidiaries with Non-Regulated Activities

COMPANY	BUSINESS
---------	----------

Terna Energy Solutions S.r.l. Employees: 72 Revenue: €36.7m	Development of new activities and business opportunities in the Italian non-regulated market.
--	---

Tamini Group Employees: 349 Revenue: €180.6m	Production and marketing of industrial and power transformers.
---	--

Avvenia The Energy Innovator S.r.l. Employees: 17 Revenue: €1.8m	Implementation of energy efficiency projects, including via EPC (Energy Performance Contract) solutions.
---	--

Terna Interconnector S.r.l. Employees: - Revenue: €24.7m	Development and construction of private infrastructure for interconnections with other countries.
---	---

LT Group Employees: 123 Revenue: €42.9m	Design, construction and maintenance of renewable power plants.
--	---

ESPERIA-CC S.r.l. Employees: - Revenue: €1.9m	Services for calculating electricity transmission capacity to allocate in the energy markets. Provision of studies, analyses, data, research and services in the role of Regional Security Coordinator or Regional Coordinator Center, including the coordination of security assessments.
--	--

Brugg Cables Group <i>Incorporated under Swiss law</i> Employees: 455 Revenue: €210.5m	Design, development, production, installation and maintenance of terrestrial electric cables and accessories for high-voltage cables.
--	---

Terna Forward S.r.l. Employees: - Revenue: -	Development of new technological solutions for the Terna Group.
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Subsidiaries with International Activities

COMPANY	BUSINESS
Terna Plus S.r.l. Employees: 16 Revenue: €0.9m	Development of new activities and business opportunities in the non-regulated international market.
Terna Chile S.p.A. <i>Incorporated under Chilean law</i> Employees: - Revenue: -	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Terna Peru S.A.C. <i>Incorporated under Peruvian law</i> Employees: 4 Revenue: €2.0m	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Terna 4 Chacas S.A.C. <i>Incorporated under Peruvian law</i> Employees: - Revenue: €0.7m	Construction of the Parish of San Martàn Papa de Chacas in Peru, of a power line in the city of San Luis and the supply of a number of components to be used in the construction of a substation.
SPE Transmissora De Energia Linha Verde I S.A. <i>Incorporated under Brazilian law</i> Employees: 14 Revenue: €16.3m	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Terna USA LLC <i>Incorporated under US law</i> Employees: - Revenue: -	Overseeing development of the business in North America and exploitation of Terna's industrial expertise, above all in the delivery of major projects.

Associates or joint arrangements²⁵

COMPANY	BUSINESS
CESI S.p.A. Employees: 844 Revenue: €153.1m	Pure and applied scientific research aimed at making advances in the electro-technical, energy, electronic and IT sectors.
CORESO S.A. <i>Incorporated under Belgian law</i> Employees: 82 Revenue: €25.7m	Management of daily forecasting and real-time analysis of energy flows in central and western Europe, identifying possible critical issues and promptly informing the TSO concerned.
CGES²⁶ <i>Incorporated under Montenegrin law</i> Employees: 333 Revenue: €76.5m	TSO for Montenegro's electricity market. Investment acquired as part of the Italy-Balkans interconnector project.
Elmed Études Sarl <i>Incorporated under Tunisian law</i> Employees: 2 Revenue: -	Jointly controlled by Terna and the Tunisian company, STEG, the company is engaged in carrying out preparatory studies for construction of the infrastructure required to connect the Tunisian and Italian electricity systems.
SEleNe CC S.A. <i>Incorporated under Greek law</i> Employees: 10 Revenue: €1,784.1m	The Company's objective is to enhance the secure supply of electricity in markets adhering to the relevant European Regional Initiative.
Equigy B.V. <i>Incorporated under Dutch law</i> Employees: 14 Revenue: €6.9m	Management of a blockchain platform to foster the inclusion of new flexible resources in the system services market
BMT Energy Transmission Development LLC <i>Incorporated under US law</i> Employees: n/a ²⁷ Revenue: n/a	To develop and manage initiatives in the United States in the field of power grids.

²⁵ The data refer to 2021 and the latest approved financial statements.²⁶ In full, "Crnogorsk Elektroprenosmi Sistem Ad".²⁷ Data not available as the company was established in 2022.

IT1

Corporate governance and sustainable success

2-9 > Terna plans, manages and monitors all of its activities, paying close attention to their possible economic, social and environmental impact by embedding sustainability in its approach to business. In line with the principles of the Corporate Governance Code, which assigns the Board of Directors, among others, the task of promoting *in the most appropriate manner, dialogue with shareholders and other stakeholders relevant to the company*, Terna adopts all the best tools to create, maintain and consolidate a relationship of mutual trust with its stakeholders, which is instrumental in creating value for the Company, society and the environment. The values underpinning Terna's approach to sustainability are set out in the Code of Ethics and are given substance in its mission, which in turn is aligned with the United Nations SDGs (Sustainable Development Goals), above all Goals 7 ("Affordable and clean energy"), 9 ("Industry, innovation and infrastructure"), 13 ("Climate action") and 17 ("Partnerships for the goals"), which define responsibilities and objectives in keeping with the Terna's role in driving and enabling the Italian energy system and the Company's energy transition.

Sustainable success in the Corporate Governance Code

Sustainable success is the objective that guides the Board of Directors' actions and takes shape in the **creation of long-term value for the benefit of shareholders, taking into account the interests of other stakeholders relevant to the Company.**

The Board **leads** the Company pursuing **sustainable success**

The Chairman also promotes induction activities also **with a view** to **achieving the Company's sustainable success**

The **remuneration policy** is **key** to the **pursuit** of the Company's **sustainable success**

The internal control and risk management system is made up of the set of rules, procedures and organisational structures designed to effectively and efficiently identify, measure, manage and monitor the main risks, **to contribute** to the **Company's sustainable success**

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Corporate governance system

IT1

The corporate governance system has been designed with the aim of creating value for shareholders, whilst recognising the social importance of what the Company does. Promoting collaboration and listening in order to tackle future challenges and apply a culture of responsibility are the underlying principles of the Company's approach.

< 2-9

< 2-12

The governance system is broadly aligned with the principles contained in the Corporate Governance Code²⁸ for listed companies, which Terna adhered to on 27 January 2021, with the related recommendations published by the CONSOB and, more generally, with the international best practices used by the Company as benchmarks.

The Annual General Meeting of shareholders held on 18 May 2020 elected Terna S.p.A.'s current Board of Directors, providing for 13 members, whose term of office will end with approval of the financial statements for the year ended 31 December 2022.

< 2-10

On 18 May 2020, the Board of Directors appointed the Chief Executive Officer, assigning him the appropriate powers and defining the content, limitations and the manner in which they may be exercised. On the same date, the Board of Directors determined the members of Board Committees.

< 2-13

On 14 October 2021, Terna's Board of Directors decided to increase the number of members of each Board Committee to four.

The composition of the Board of Directors changes during its term of office. Following the resignation of Yunpeng He as a Director on 11 January 2022, on 29 April 2022, the Annual General Meeting of shareholders, on the recommendation of the Board of Directors, pursuant to art. 2386 of the Italian Civil Code, elected Qinjing Shen as a Director of the Company, following his co-option by the Board of Directors on 26 January 2022.

In addition, following the resignation of the Director, Ernesto Carbone, on 23 January 2023, the current Board of Directors has 12 members.

The Board of Directors' activities are coordinated by the Chairwoman, with support provided by the Secretary.

²⁸ The new Corporate Governance Code, available on Borsa Italiana S.p.A.'s website, came into effect on 1 January 2021.

Corporate bodies

Board of Directors

Chairwoman

Valentina Bosetti

Chief Executive Officer

Stefano Antonio
Donnarumma

Directors

Alessandra Faella
Qinjing Shen
Valentina Canalini
Giuseppe Ferri
Antonella Baldino

Fabio Corsico
Marco Giorgino
Gabriella Porcelli
Paola Giannotti
Jean-Michel Aubertin

Board of Statutory Auditors

Chairman

Mario Matteo Busso

Standing Auditors

Vincenzo Simone
Raffaella Fantini

Alternates

Massimiliano Ghizzi
Maria Assunta Damiano
Barbara Zanardi

Independent auditors

Deloitte & Touche S.p.A.

Manager responsible for financial reporting

Agostino Scornajenchi

DNF

Composition of the Board of Directors at 22 March 2023²⁹

	UNIT	
Men	%	50%
Women	%	50%
Under 30	%	-
Between 30 and 50	%	41.67
Over 50	%	58.33

Aspects worthy of note include:

- the high level of attendance of Directors at Board meetings and Board Committee meetings;
- the presence of sustainability goals in the remuneration packages of the Chief Executive Officer and senior management;
- the close attention paid to ESG matters during both meetings of the Audit, Risk, Corporate Governance and Sustainability Committee and the Remuneration Committee and during specific induction sessions for the Board of Directors as a whole.

Further information on Terna's corporate governance may be found in the "Report on Corporate Governance and Ownership Structures", approved by the Board of Directors on 22 March 2023 and available in the "System of Corporate Governance – Governance Report" section of Terna's website, and in the "Remuneration Report", also available on Terna's website.

For more information on diversity in governance bodies scan this QR code.



²⁹ Further details of Terna S.p.A.'s corporate governance is provided in the "Report on Corporate Governance and Ownership Structures" published on the website (www.terna.it).

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Aspects of the Board of Directors' activities

Engagement policy

One of the most significant innovations in the new Corporate Governance Code is the recommendation to the Board of Directors to promote, in the most appropriate forms, dialogue with shareholders and other stakeholders relevant to the Company with a view to raising the level of transparency and fostering the creation of long-term value. In implementation of this recommendation, the Company's Board of Directors, at the proposal of the Chairwoman, Valentina Bosetti, acting in agreement with the Chief Executive Officer, adopted the "Policy for engagement with the generality of shareholders and other stakeholders of Terna S.p.A."

The Policy: (i) identifies and describes the ordinary channels of direct and continuous communication and information between the Company, shareholders and other stakeholders; (ii) promotes, among the current ordinary forms of engagement, a report to the Board of Directors on the main communication and information activities with significant shareholders and Institutional Investors; (iii) introduces and regulates so-called Shareholder-Director Engagement, i.e. the dialogue that provides for direct involvement between Directors and stakeholders in the creation of such policy.

< 2-12

Independence criteria

Since 2007, the Company has had a specific internal procedure that defines the criteria for assessing the independence of its non-executive members and for ascertaining the requirements of the Articles of Association and the Corporate Governance Code then in force. In implementation of the new Corporate Governance Code, the Company has updated the "Application criteria and procedure for assessing independence, pursuant to art. 2 of the Corporate Governance Code". The document identifies the prerequisites, objectives and conditions that may compromise independence; it devotes an article to the figure of the Chair of the Board of Directors, if qualified as independent, and an article to the Board of Statutory Auditors, due to the extension of the independence criteria also to the members of the oversight body. It also describes the methods for assessing independence and the relevant procedure. An ad hoc article is devoted to the meetings of directors who qualify as independent. The heart of the procedure is the description of the criteria adopted by the Company to assess the parameter of "significance" (pursuant to Recommendation no. 7, letters c) and d), of the Code), the recurrence of which, in the presence of commercial, financial or professional relationships, as well as additional remuneration, may compromise the independence of the directors or statutory auditors involved in such situations.

Board evaluation

In keeping with the past and in compliance with the new Corporate Governance Code, Terna's Board of Directors, with the support of the Nominations Committee, carries out an annual self-assessment of the size, composition and actual functioning of the Board and of Board committees, with reference to the activities performed since their election, also called a Board Review. To this end, Terna used, for the third year in a row, Mercer Italia S.r.l., an independent external consultant. After the first Board Review, which was designed to undertake an in-depth review of operating processes and concluded with a proposed action plan, the Board of Directors focused the second Board Review, covering 2021, on an analysis of the dynamics of the Board and the individual contribution of Directors in a Peer-to-Peer Review. More specifically, the Board Review for 2021 analysed: (i) the contribution of each Director to the work of the Board as a whole, in a constructive and proactive spirit by the other Directors; (ii) Board dynamics and the way the Board of Directors works. Finally, the Board Review for 2022, the third and final year of the current Board's term in office, aimed to assess the progress effectively made over the three years with regard to the way the Board operates, including through a Peer Review. The process also aimed to gather suggestions from Directors regarding the qualitative and quantitative composition of the incoming Board of Directors.

Gender diversity

The Corporate Governance Code highlights the issue of gender balance, recommending in particular that companies adopt measures to promote equal treatment and opportunities within the entire corporate organisation, monitoring their concrete implementation (Art. 2, Recommendation 8). In 2021, the Company adopted ad hoc guidelines called the "Diversity & Inclusion Policy" with the aim of formalising Terna's commitment to enhancing and protecting diversity, as well as to preventing and sanctioning any discrimination and harassment based on gender, age, sexual orientation, nationality, disability, political opinions, religious belief and any other personal characteristic. The document was presented as part of the sustainability induction on 16 June 2021. Partly as a result of the adoption of these guidelines, Terna was included in Standard & Poor's Gender Equality & Inclusion Index, the new international index that measures the performance of listed companies in relation to gender equality and inclusion issues.

Sustainability policy

With the Sustainability Policy, Terna is committed to adopting and incorporating sustainability objectives into its strategy, in line with the topics found to be relevant in the Materiality Analysis and selected from the Sustainability Goals, supporting the management and mitigation of ESG risks. The objectives are: (i) identification of the methods used in defining the Group's sustainability strategies; (ii) increasing awareness of key topics and the expected results; (iii) dissemination of the culture of sustainability inside and outside the company. By adopting the Policy, Terna has made a formal and public commitment to adopting sustainable conduct and actions in relation to the main reference frameworks (the SDGs and Italy's National Integrated Energy and Climate Plan) and to ESG topics considered important for the Group. Furthermore, the commitments outlined in the Policy support management and mitigation of the ESG risks to which the Terna Group is exposed.

Board committees

Audit, Risk, Corporate Governance and Sustainability Committee

This Committee has the task of performing research and analyses to advise the Board in its assessments and decisions relating to the "Internal Control System" and the regular monitoring of the adequacy of such system. The Committee is also responsible for studying specific aspects relating to the identification of the main business risks (for example, operational risk, financial risk, market risk, and compliance risk, in addition to accounting compliance risks), reporting periodically to the Board on the suitability of the system and the activities performed.

- Paola Giannotti (Chairwoman, independent)
- Giuseppe Ferri (independent)
- Marco Giorgino (independent)
- Alessandra Faella (independent)³⁰

³⁰ Nominated on 14 October 2021.

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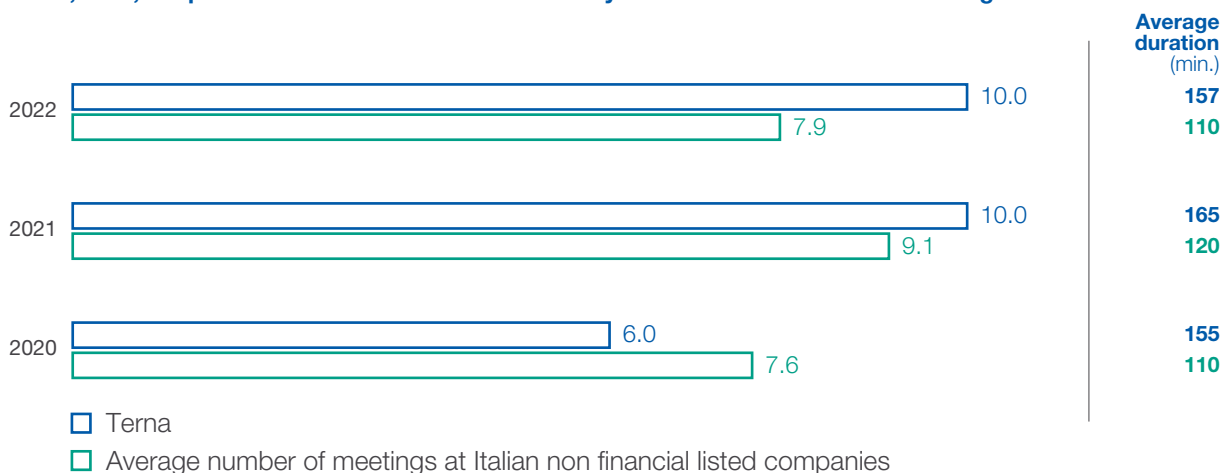
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Audit, Risk, Corporate Governance and Sustainability Committee - Number of meetings

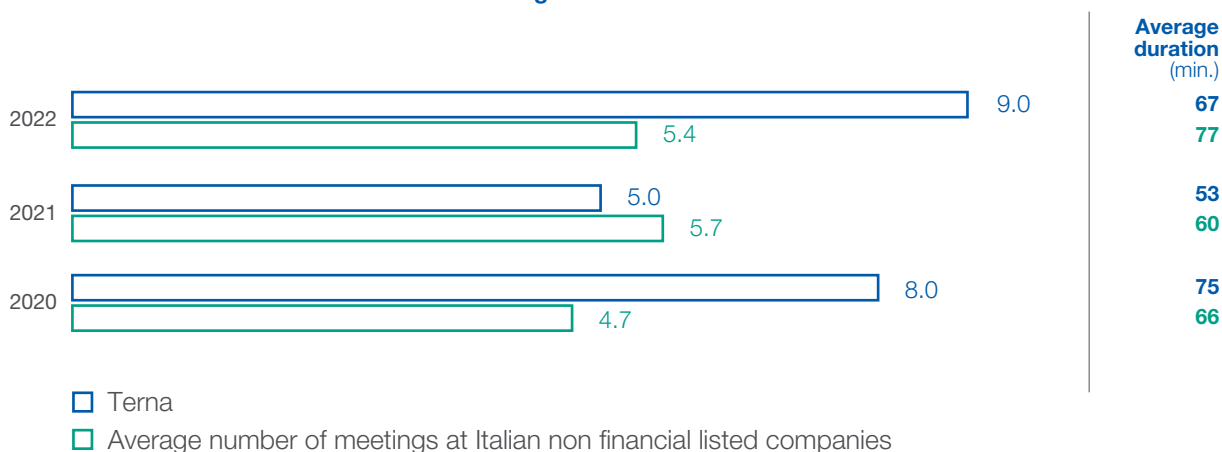


Remuneration Committee

This Committee's remit covers the remuneration policy for Directors and Key Management Personnel, recommendations and opinions on the remuneration of executive Directors and other Directors with delegated powers, setting performance objectives linked to the variable part of this remuneration, monitoring application of the decisions taken by the Board, and assessing the effective achievement of performance objectives.

- Fabio Corsico (Chairman, independent)
- Gabriella Porcelli (independent)
- Alessandra Faella (independent)
- Jean-Michel Aubertin³⁶ (independent)

Remuneration Committee - Number of meetings



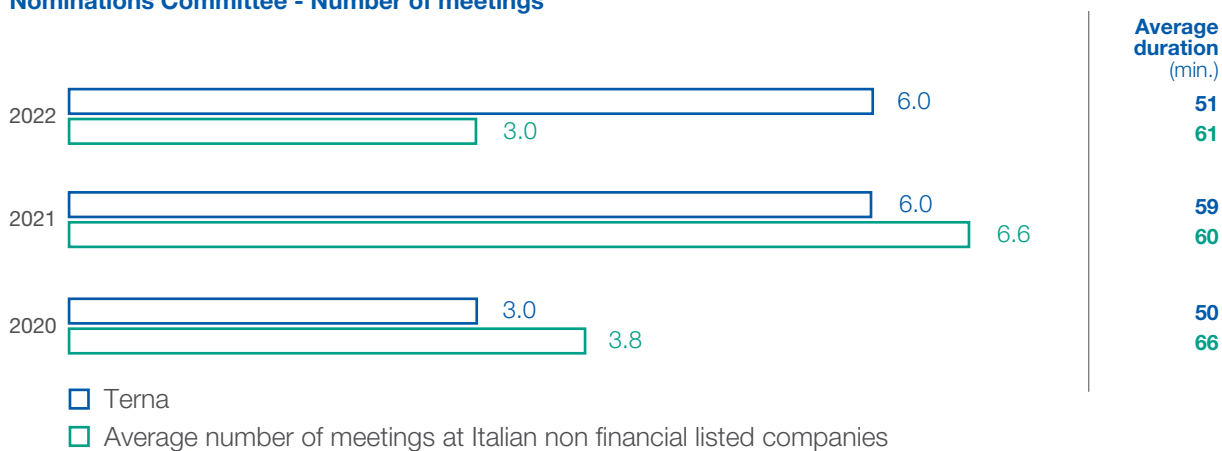
³¹ Nominated on 14 October 2021.

Nominations Committee

This Committee supports the Board of Directors by conducting reviews, making recommendations and providing advice in relation to assessments and decisions regarding the size and composition of the Board.

- Gabriella Porcelli (Chairwoman, independent)
- Fabio Corsico (independent)
- Jean-Michel Aubertin (independent)
- Ernesto Carbone³² (independent)

Nominations Committee - Number of meetings



Related Party Transactions Committee

This Committee has the role of conducting reviews, making recommendations and providing advice in relation to assessment and approval of the above related party transactions, covering the approval of both transactions of greater significance and those of lesser significance, as indicated in Terna’s procedure. The Committee’s role also extends to recommendations for amendments to the procedure adopted by Terna.

- Marco Giorgino (Chairman, independent)
- Ernesto Carbone³² (indipendente)
- Paola Giannotti (independent)
- Giuseppe Ferri³³ (indipendente)

³² The Director, Ernesto Carbone, resigned from his position on 23 January 2023, following his appointment, by Parliament in joint session as a member of the *Consiglio Superiore della Magistratura*. From that date, the Committee has had 3 members.

³³ Nominated on 14 October 2021.

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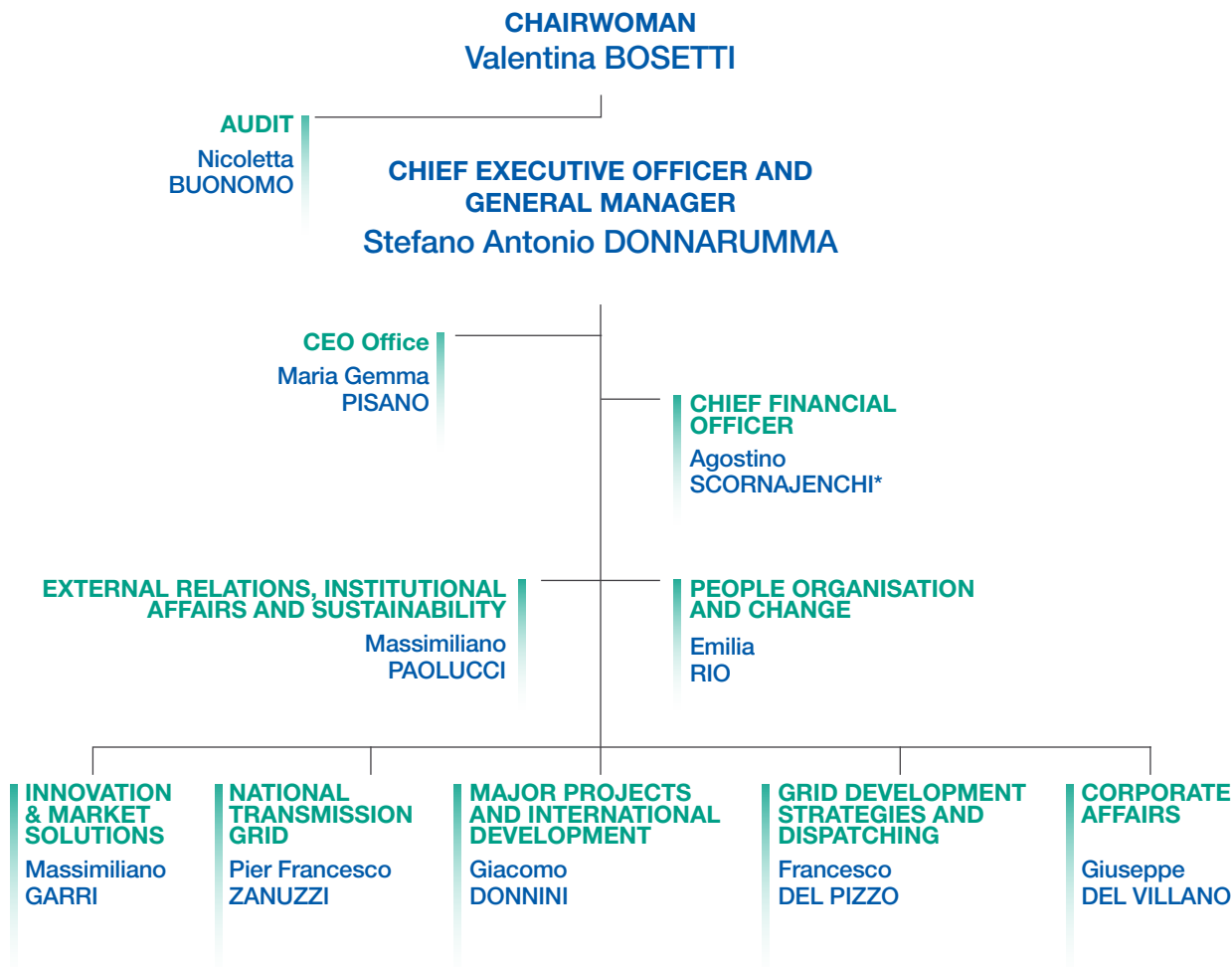
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The structure of Terna's management team at 22 March 2023 is as follows:



* Manager responsible for financial reporting.

FN1

The remuneration system

In line with Terna's governance framework, the Board of Directors is responsible for setting the objectives and approving the results of the incentive schemes to which the variable remuneration of the Chief Executive Officer and general Manager is linked, and for defining the general criteria for the remuneration of Key Management Personnel.

In keeping with the recommendations in the Corporate Governance Code, relating to matters concerning remuneration, the Board of Directors is supported by a Remuneration Committee consisting of independent, non-executive Directors tasked with providing related recommendations and advice.

Performance Share Plan 2022-2026

The Board of Directors approved the Terms and Conditions of the Performance Share Plan 2022-2026 on 15 June 2022, in implementation of the terms established by the Annual general Meeting of shareholders held on 29 April 2022.

The LTI Plan 2022-2026 envisages the grant of the right to receive free of charge a given number of Terna S.p.A.'s ordinary shares at the end of a vesting period and on the achievement of the performance objectives to which the Plan is linked.

Further details are provided in the Information Circular on the Performance Share Plan 2022-2026, published on the Company's website (www.terna.it).

The share buyback programme to service the Plan was completed on 13 June 2022 at a total cost of approximately €10 million.



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Remuneration policy for 2023

The Terna Group has designed its Remuneration Policy in line with stakeholders' expectations and market best practices and in accordance with the principles and criteria set out in the Corporate Governance Code. The Group also ensures the maximum alignment between shareholders and management, in terms of both value creation and the risk profile established.

The Board of Directors ensures that the Chief Executive Officer and General Manager is the beneficiary of a policy that is in line with the principles contained in the Corporate Governance Code. This means ensuring that a significant part of remuneration is linked to the achievement of specific performance objectives, including those of a non-financial nature (e.g., ESG indicators). In the pay mix, care is also taken to ensure that long-term incentives are given more weight than those of a short-term nature.

The same principles underpin the policy for Key Management Personnel.

To support achievement of the Company's strategic objectives and its performance, Terna has adopted variable incentives schemes diversified on the basis of the different roles within the Company:

- an MBO (Management By Objectives) scheme for the Company's management, linking the value of individual bonuses:
 - to the degree to which quantitative targets have been met, at both Company and individual level, with a portion linked to Terna's environmental and social commitments (e.g., workplace safety indicators);
 - to a qualitative assessment of performance, based on management behaviours.
- long-term incentives (LTIs) linked to multi-year business objectives, including sustainability, for managers in the most important roles with regard to achievement of strategic results.

Remuneration packages also include welfare provision and benefits designed to promote solid ongoing improvements in the work-life balance of Terna's people, resulting in pay and welfare packages that are well above average for Italian companies.

Full details of the Terna Group's remuneration policy are provided in the Report on the Remuneration Policy and on Remuneration Paid, approved by the Board of Directors – on the recommendation of the Remuneration Committee - on 22 March 2023, and to be published by Terna in compliance with the requirements of art. 123-ter of the CLF, as amended.

Risk governance

As recommended in Borsa Italiana's Corporate Governance Code³⁴ and by national and international best practices³⁵, the Group has adopted a specific **Internal Audit and Risk Management System (IARMS)**. This consists of the culture, capabilities, rules, procedures and internal practices and organisational structures with the objective of defining an accountability system for identifying, measuring, managing, mitigating and controlling the main risk exposures at Group level. The aim of the System is to contribute to the Group's sustainable success, retaining a high degree of stakeholder trust in the Group's governance and controls.

The System provides a management tool designed to ensure that the way the business is run is consistent with the Company's business objectives. It puts risk management at the heart of the value chain, starting from key considerations such as the mission, vision, values and operating environment. These are embedded in the process of defining and developing strategy and performance to support decision-making processes by making explicit reference to risks and uncertainties and through informed responses. The System involves implementation of a **Risk Management System**, which is also aligned with the recommendations in the Corporate Governance Code for Listed Companies and international best practices.

To support the Board of Directors' analysis and decision-making regarding the Internal Audit and Risk Management System, risk management relies on the contribution from a specific Board Committee, consisting of independent Directors – the **Audit, Risk, Corporate Governance and Sustainability Committee** – that engages periodically with the departments within the Company most directly involved in these processes.

The Committee also has a direct relationship with the **Chief Risk Officer (CRO)**, whose appointment is approved by the Board of Directors on the recommendation of the Chief Executive Officer, subject to a prior opinion from the Committee. The CRO is tasked with supporting senior management in the effective implementation and management of the risk management process at Group level, and ensuring effective coordination of the actors involved in control activities. The CRO reports to the Chief Executive Officer and the Committee on the outcomes of risk management activities. The CRO receives operational support from the "Enterprise Risk Management" unit, which reports directly to the CRO and has the role of coordinating all aspects of the Risk Governance framework described below.

Under the Internal Audit and Risk Management System, the Audit department has the task of verifying that the IARMS is operating smoothly. Audit activities extend to all business processes (including risk management), with particular attention paid to the most important processes due to their impact on the Company's value, the degree of risk they pose in respect of achievement of the Company's objectives, or their influence on aspects of broad interest to the Company.

In operational terms, risk management takes place throughout the Company, based on a structured, systemic approach. It involves a **Risk Governance Framework ("Framework")** setting out the roles and responsibilities of the various actors involved in the Risk Management System, embedding the three levels of control provided for in the Corporate Governance Code within the Company's organisational structures. Each level has different objectives and specific associated responsibilities:

³⁴ See Art. 1 – Role of the board of directors – Recommendations – c) defines the nature and level of risk compatible with the company's strategic objectives, including all the elements that can be relevant for the company's sustainable success; d) defines the corporate governance system of the company and the structure of the group it heads, and assesses the adequacy of the company's organisational, administrative and accounting structure and of its strategically important subsidiaries, with particular reference to the internal control and risk management system.

³⁵ The ERM framework issued by the US body C.O.S.O., "Committee of Sponsoring Organizations of the Treadway Commission".

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- **First level of control:** with primary responsibility for identifying, assessing and managing the risks appertaining to the specific areas of responsibility;
- **Second level of control:** assigned to organisational structures (e.g., Health & Safety, Compliance, 262 Oversight, Environmental Protection, Fraud Management, Privacy, Cybersecurity, etc.) acting as autonomous, independent units that are separate from operational units. This level of control oversees changes in external regulations and in the related best practices and participate in the definition of governance policies and in the process of managing the risk categories for which it is responsible, at the same time supporting the implementation of first-level controls, including with regard to their design and the provision of awareness building and training;
- **Third level of control:** conducted by the Audit department, providing an independent assessment of the design and functionality of the internal control and risk management system (assurance). The entity that has this role has a high degree of organizational, hierarchical and functional independence.

Terna implements procedures and processes created to coordinate relations between and the activities of the various internal auditors tasked with carrying out controls at the different levels. **Coordination of the activities carried out by second-level auditors** is of particular importance in minimising the duplication of activities and maximising the efficiency of the Risk Management System, in keeping with the respective roles and responsibilities, and the necessary independence requirements.

The Framework is thus based on a widespread approach to risk management within the organisation, involving a range of bodies and departments across every level of the organisation, as shown below:

Risk Governance model



= Accountability, Reporting

= Delegation, Direction, Resources, Oversight

= Alignment, Communication, Coordination, Collaboration

Business objectives and risk management

The Risk Management System has the ultimate purpose of supporting decision-making processes and developing awareness across the organisation of the level of risk assumed and its compatibility with the Company's objectives. The System also aims to spread and reinforce the risk culture at all levels of the organisation.

The Terna Group has for some time used an **Enterprise Risk Management (ERM)** framework based on the standards contained in the Corporate Governance Code promoted by Borsa Italiana S.p.A.. This involves the systematic, iterated identification, assessment, treatment and monitoring of risk, highlighting, where present, the potential effects with regard to ESG aspects.

The main role in enabling management to **identify** risk events is played by the set of **corporate objectives**, divided into **Strategic** (linked to the Industrial Plan) and **Recurring** (continuous risks linked to the activities carried out under concession, the corporate mission and the codes of conduct adopted).



Each risk event is **assessed** on the basis of the combination between Impact (divided into four types: financial, reputational, operational and HSE-Sustainability) and Probability of occurrence over the life of the Plan. The assessment also takes into account the Level of Maturity of existing risk management systems. Based on the outcomes, risk **treatment** priorities and appropriate responses are chosen through the selection of mitigation or corrective actions.

A business's risk profile is not static, but dynamic and may alter due to changes in the external environment and/or as a result of internal organisational and business decisions. Developments in the Group's risk profile are **monitored**, as is the state of progress in implementing chosen mitigation initiatives.

The above phases of the risk management process are regularly repeated (at least once a year).

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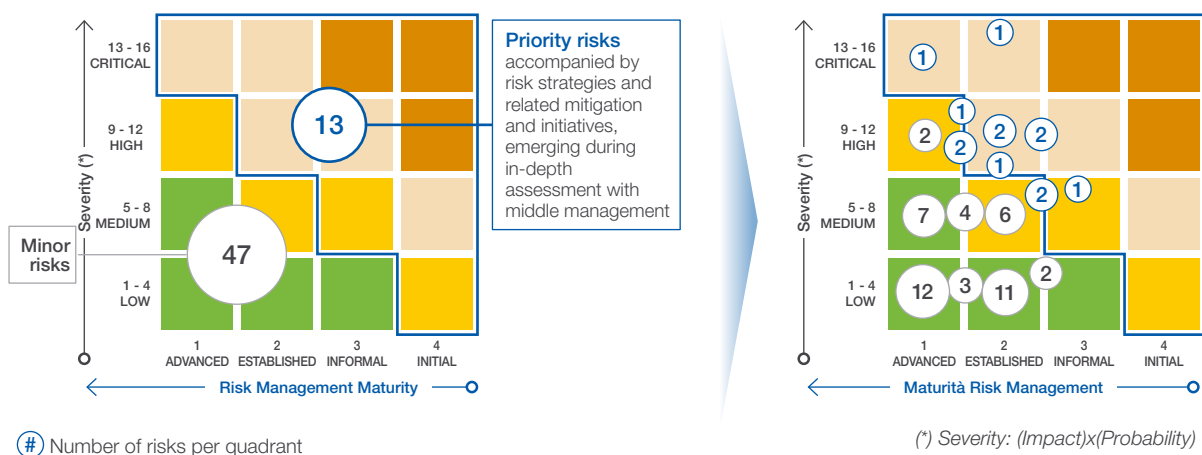
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Risk events are generally classified in the following categories:

<p>External / market risk</p> <p>Risk events connected with the competitive and regulatory environment, economic cycles, the economic and financial conditions and performance of the markets in which the Group operates, which could influence the Company's ability to achieve its strategic objectives</p>	<p>Compliance risk</p> <p>Risk events connected with breaches of the law, statutory requirements, regulations and other requirements (internal and external), with a potential impact in terms of fines, financial loss and/or reputational damage</p>
<p>Operational risk</p> <p>Risk events connected with malfunctioning processes, procedures, information systems or human resources, resulting in losses / damage to the Company</p>	<p>Counterparty risk</p> <p>Risk events generated by counterparties (financial, commercial, industrial, government) with which the Group operates or engages, including the inability to meet the obligations assumed or the possibility that the conduct of such parties may damage Terna's reputation and/or result in losses or other damages</p>
<p>Legal / contractual risk</p> <p>Risk events connected with inadequate legal documents / contracts or other situations that may expose the Company to litigation, financial loss and/or reputational damage</p>	<p>Natural / human-induced events</p> <p>Risk events resulting from natural phenomena (e.g. earthquakes, floods, bad weather, fires, epidemics / pandemics, etc.) and human-induced events (e.g., theft, sabotage, terrorist attacks, etc.)</p>

The updated Risk Assessment, carried out in 2022 in accordance with the above framework, involved Terna's middle and senior management. The Risk Assessment resulted in the identification of **60 risk events** that were assessed in terms of impact, probability of occurrence over the life of the plan and the level of maturity of existing risk management systems. This enabled the Company to closely examine the systems and take further steps to mitigate the identified risks.



Based on this assessment, the following table shows the **13 priority risks** identified, the associated objectives and their classification based on the above risk categories, as well as the main actions taken to mitigate and control such risks.

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Principal risks for the Company, how they are managed and the related opportunities

OBJECTIVE	RISK EVENT	CATEGORY	MANAGEMENT ACTION	OPPORTUNITIES
CONTINUITY AND QUALITY OF SERVICE	1. Cyberattacks			
	The risk connected with a cyberattack, using for example ransomware, that could cause: <ul style="list-style-type: none"> • Loss of visibility of infrastructure; • Temporary shutdown of systems; • Data loss and/or additional costs for recovery 	Natural / Human-induced events ESG	Internet and perimeter security systems and the segregation of IT and OT networks; Consolidated IT monitoring processes (CERT - Computer Emergency Response Team; Awareness campaigns; Crash Programmes for system and grid equipment vulnerabilities; Progressive adoption of secure communication standards.	More rapid increase in the level of grid security, partly through the progressive consolidation of awareness of the importance of cyber threats, resulting in the switch from response strategies to a proactive approach.
	The risk connected with potential insufficient availability of primary energy (e.g., gas), primarily due to the current geopolitical scenario (the war between Russia and Ukraine).	External / Market risk ESG	Participation in the "Technical Committee for the gas system emergency and monitoring" at the Ministry of the Environment and Energy Security; Process of assessing the adequacy of the national and European system.	Strengthened overseas interconnections and an incentive to boost the use of renewable energy, accelerating the country's energy transition and independence.
	3. Separation of the European transmission grid			
The risk connected with extreme weather events / incorrect setup of the structure of the grid in accordance with the n-1 security criterion ³⁶ , with the potential for cascading failures triggering overloads / line failures, critical events and major incidents on the interconnected European transmission grid with separation of portions of the grid and widespread blackouts.	Operational risk ESG	Defence plans, rules and criteria (European regulations) common to all member TSOs of ENTSO-E; Technical support for the Ministry of the Environment and Energy Security for the "Italian electricity system risk management plan".	Further consolidation of Terna's international standing by sharing best practices (the above innovative technologies). Active participation in the search for shared solutions and their subsequent adoption, boosting the resilience of the NTG.	
4. Increased severity of weather events				
The risk connected with the intensification of extreme weather events (tornados, heavy snowfall, ice, flooding) with a resulting impact on the continuity and quality of the service provided by Terna and/or damage to equipment, machinery, infrastructure and the grid.	Natural / Human-induced events ESG	New investment to increase the resilience of the electricity grid and identify mitigation initiatives.	Development of innovative technologies – including through structured partnerships with start-ups (Open Innovation) – with the aim of monitoring climate events and boosting the resilience of the NTG. Patentability of the above solutions with related non-regulated business opportunities.	
REGULATORS AND OTHER INSTITUTIONAL STAKEHOLDERS	5. Introduction of totex- and output-based regulation			
	Risk connected with the introduction, in 2024, of totex- and output-based regulation, which will lead to a change in the criteria used in recognising invested capital.	External / Market risk ESG	Monitoring of regulatory developments and the rate setting process.	The new regulatory framework is an opportunity for Terna to carry out the investment projects in the Industrial Plan, delivering the ecological transition for the benefit of the system .
CUSTOMERS, SUPPLIERS AND BUSINESS PARTNERS	6. Supply chain crises and/or changes to the strategies of key suppliers			
	The risk connected with changes in the strategy of key suppliers as they shift their focus to other, more attractive sectors (e.g., renewable energy, industrial automation), geographical markets (e.g., India) and/or changes to priorities resulting in delays /additional costs in the construction of infrastructure included in the Plan, heightened by the crisis in the global supply chain following the pandemic, the conflict between Russia and Ukraine and the energy transition launched in many countries.	Counter-party risk ESG	Initiatives designed to pre-empt any such changes (the inclusion of "notices to proceed"); Increased scouting activity based on a proactive approach and expansion of the supplier base.	Increase in the Group's reputational capital by helping to create new jobs (Full-Time Equivalents or FTEs), made possible by the inclusion of new suppliers in the relevant register.
	7. Suppliers' operational capacity reaches saturation point			
The risk connected with the ability of suppliers to follow a demanding programme and/or their inability to rapidly adjust their supply chain to meet Terna's increased demands, resulting in delays to the construction of infrastructure included in the Plan.	Counter-party risk ESG	Steps to boost capacity in key supply chains; Assessment of the risks associated with each supplier; Bringing strategic supplies in-house (e.g., underground cables).	Increase in the Group's reputational capital through dialogue and support for suppliers most exposed to the risk of reaching capacity saturation point.	

³⁶ The n-1 security criterion is a preventive assessment carried out by the grid operator, on the basis of which the electricity system is deemed to be secure, if key grid parameters (power flows, voltages and current) remain within their respective operational limits when faced with any form of individual contingency (e.g., the loss of a power line).

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OBJECTIVE	RISK EVENT	CATEGORY	MANAGEMENT ACTION	OPPORTUNITIES
8. Constraints on the development of Non-regulated Activities				
ENERGY SOLUTIONS / CONNECTIVITY	A prudent approach to Non-regulated Activities that could lead to reduced flexibility and excessive caution and result in inefficiencies and/or the withdrawal from /loss of business opportunities.	Operational risk External / Market risk ESG	Monitoring and periodic reporting process; Ex-post assessment of performance; Management Committee (CODIR) to discuss offers and the related time to market.	Development of partnerships with innovative start-ups and companies to provide further non-regulated business opportunities.
	9. Increase in obligations relating to sanctions imposed by the authorities (e.g., UN, EU, USA, UK)			
ENERGY SOLUTIONS / CONNECTIVITY	The difficult external environment, geopolitical tensions and international sanctions imposed by various authorities (UN, EU, USA, UK) on a number of countries could make relations with Italian and overseas counterparties more complicated. The further tightening of sanctions could lead to a reduction in counterparties with whom it is permitted to work and/or greater exposure to international sanctions.	Compliance risk Counterparty risk ESG	Due diligence on entities with which the Group has relationships and on the materials and/or services exchanged, with regard to contracts involving exports; Monitoring of the geopolitical scenario; Continuous monitoring of new legislation and focusing on sanctions.	Development of relations with highly reliable third parties in terms of financial performance, trade compliance and sanctions and, more generally, with a reputation for reliability.
	10. Timing of the issue of consents for projects with an impact on the investment programme			
DEVELOPMENT OF THE NATIONAL TRANSMISSION GRID	The risk connected with delays in obtaining the necessary consents for the construction of infrastructure, resulting in delays to the entry into service of infrastructure and an impact on the investment programme.	External /Market risk ESG	Monitoring of consents processes Ongoing dialogue with local authorities and associations; Proactive approach to authorities.	Increase in social and relationship capital through the external promotion of the Company's best practices (e.g., a participatory approach to planning new infrastructure projects and extracting value from "Terna incontra" initiatives).
	11. Timing of completion of projects, above all major works			
DEVELOPMENT OF THE NATIONAL TRANSMISSION GRID	The risk connected with delays or missed deadlines during construction, above all of major works. This could have an impact from various viewpoints (e.g., financial, regulatory, reputational and relating to the system).	Operational risk ESG	Centralised management of consultation, design, consents and construction processes for major works; Monitoring of the state of completion of works; Careful liquidity management; Organisational model project management, with periodic reviews and progress reports; Definition of the phases of the Project Control process and the related outputs.	Completion of the investment projects in the Industrial Plan is in line with the aim of delivering the ecological transition for the benefit of the system .
	12. Recruitment of people with technical/highly specialist expertise			
PEOPLE DEVELOPMENT & CHANGE MANAGEMENT	To achieve the challenging goals set by the Plan, the Group needs highly specialist expertise, primarily in STEM subjects. Labour market trends are, moreover, worsening shortages in the kind of candidate with the necessary specialist skills and expertise.	Operational risk ESG	Expansion of employer branding and recruitment channels; Entry into partnerships with the academic world (e.g., the Thyrranian Lab) to accelerate the development of technical and management expertise; New leadership model, Leading Next; Talent management process; Strengthened training plan.	Increase in Terna's reputational capital helping to retain talent, above all the young, creating a more attractive and engaging work environment for employees. Development of partnerships with universities to identify specific technical and management training programmes in response to the need for new skills and expertise.
	13. Workplace injuries / incidents			
PEOPLE MANAGEMENT	The risk connected with serious/fatal injuries and/or incidents that may have consequences for the health of employees and/or contractors and sub-contractors, as well as impeding the Company's efforts to achieve goals relating to safeguarding people's health and having a serious impact on the Group's reputation and credibility.	Operational risk ESG	National cultural transformation programme for H&S: Safety Excellence; Process for qualifying and monitoring contractors and sub-contractors; Worksite safety monitoring plan; Monitoring of regulations.	External promotion of the processes and solutions adopted (e.g., Smart DPI) by Terna and the outcomes achieved with a resulting increase in Terna's reputational capital as a Company that cares about workers' human rights. Terna's increased attractiveness to socially responsible investors (SRIs). Positive impact on financial capital of containing cost of premiums paid to INAIL to insure against workplace injuries and occupational diseases among workers.

Controlling and managing ESG risks

The growing attention paid by businesses and the markets, with ever greater interest in adopting sustainable finance solutions, to issues and goals relating to sustainability is leading to a closer focus on ESG aspects and the related risks. This above all applies to risks of an environmental nature (climate change) and those relating to social issues (the erosion of social cohesion), both with potential negative effects in terms of reputational capital.

The inclusion of ESG factors within the scope of the risks to oversee, manage and monitor has significantly expanded the context of companies' corporate governance. This has, moreover, been highlighted since 2020 in the "Corporate Governance Code"³⁷ drawn up by Borsa Italiana, which invites directors and management to adopt strategies focusing on sustainability to deliver sustainable success for their organisations.

The obligation to produce a non-financial statement (NFS), introduced by Legislative Decree 254/2016, was the first step towards reporting on the main risks generated and incurred with regard to environmental, social, workforce-related, human rights and anticorruption issues. Approval, in November 2022, of the Corporate Sustainability Reporting Directive (CSRD) marks a further strengthening of the oversight of such issues in terms of the integration of ESG risks in risk management processes and their accurate reporting.

Terna has for some time now embedded the consideration of ESG risks within the Group's strategy and business model, including them in the key risk management tools adopted and described on page 82.

The table summarises how the first five topics – and the related risks – resulting from the materiality analysis are linked to the ERM³⁸ framework. Finally, a description of the way in which each risk is mitigated is provided.

The full table with all the topics shown in the materiality matrix on page 56 is be consulted using this QR Code.



Materiality: risks and management tools

ESG FACTOR	AFFECTED CAPITALS	MATERIAL TOPIC	RELATED ERM FRAMEWORK OBJECTIVE	PRINCIPAL RISKS	MINOR RISKS	OVERSIGHT AND MANAGEMENT	REFERENCES
E	<ul style="list-style-type: none"> Infrastructure Financial 	IF2 Quality, security and continuity of the electricity service	Quality, security and continuity of the electricity service	#1 Cyberattacks	<ul style="list-style-type: none"> Inability of the electricity system to meet 2025 target for the phase-out of coal. Deterioration in service quality due to inadequate mix of production. Loss of visibility and control of the grid, resulting in a deterioration in the service. 	<ul style="list-style-type: none"> Investment in the NTG, in line with the Development Plan. Continuous monitoring of quality and continuity of service indicators (e.g., RENS; ASA). Quality Management System (ISO 9001). Asset Management System (ISO 55001). Compliance Management System (ISO 37301). 	109 119-120 195 194
				#2 Insufficient availability of primary energy			
				#3 Separation of the European transmission grid			
				#4 Increased severity of weather events			
E	<ul style="list-style-type: none"> Intellectual Infrastructure Social and relationship 	IF1 Delivering the energy transition	Development of the National Transmission Grid	#10 Timing of the issue of consents for projects with an impact on the investment programme	<ul style="list-style-type: none"> Unfavourable developments in the regulatory and political environment (e.g., extension of EIAs). Delayed implementation of post-consent environmental requirements, specialist consulting and environmental inspections of worksites. Delays / inefficiencies in the completion of projects due to delays in the digitalisation of the design process and in the use of innovative tools. Reduced operational capacity and delays due to potential prolongation of the Covid emergency (Covid restrictions, quarantines). 	<ul style="list-style-type: none"> Investment in the NTG, in line with the Development Plan. Development of strategic projects (e.g., Tyrrhenian Link; SA.CO.I.3; Adriatic Link; GR.ITA2; TUN.ITA). Quality Management System (ISO 9001). Environmental Management System (ISO 14001). Compliance Management System (ISO 37301). Asset Management System (ISO 55001). 	109 114-118 195 194
				#11 Timing of completion of projects, above all major works			

³⁷ Art. 6 – Internal control and risk management system – Principles - XVIII. The internal control and risk management system consists of a set of rules, procedures and organisational structures for an effective and efficient identification, measurement, management and monitoring of the main risks, aimed at contributing to the sustainable success of the company.

³⁸ The materiality analysis is conducted annually. Further details are provided on page 56.

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ESG FACTOR	AFFECTED CAPITALS	MATERIAL TOPIC	RELATED ERM FRAMEWORK OBJECTIVE	PRINCIPAL RISKS	MINOR RISKS	OVERSIGHT AND MANAGEMENT	REFERENCES
S	• Human	UM1 Workplace health and safety and workers' rights	People Management	#13 Workplace injuries / incidents	N/A	<ul style="list-style-type: none"> Prevention, management and monitoring processes applied to Workplace Systems. Structured process for qualifying and monitoring contractors and sub-contractors. Quality Management System (ISO 9001). Occupational Health and Safety Management System (ISO 45001). Infection Prevention and Control Management System (Biosafety Trust Certification). Compliance Management System (ISO 37301). 	200-202 195 194; 218 194
		IF3 Grid resilience	Development of the National Transmission Grid Management of physical assets	<p>#10 Timing of the issue of consents for projects with an impact on the investment programme</p> <p>#11 Timing of completion of projects, above all major works</p>	<ul style="list-style-type: none"> Slow identification of new secondary legislation (regulatory/technical oversight). Failures / faults affecting components of grid infrastructure (e.g., transformers, conductors). Terrorist attacks. Damage / vandalism / theft of infrastructure and equipment by third parties. 	<ul style="list-style-type: none"> Structured plans for managing and maintaining infrastructure, machinery and equipment ("Asset Management Plan", "Resilience 2.0"; "Winter Plan") Emergency Management Procedure in collaboration with external bodies (e.g., the police). Quality Management System (ISO 9001). Environmental Management System (ISO 14001). Asset Management System (ISO 55001). 	106; 108 234 195
E	• Intellectual • Natural	NT1 Environmental impact of electricity infrastructure on local areas	ESG sustainability	=	<ul style="list-style-type: none"> Failure to achieve carbon-reduction targets (SBT) due to delayed grid development. Environmental accidents (greenhouse gas leaks). Failure of overseas suppliers to uphold human rights. 	<ul style="list-style-type: none"> Structured procedures for optimal management of potential environmental impacts during construction work. Renewal of assets, replacing, where technically feasible, overhead lines with underground cables. Quality Management System (ISO 9001). Environmental Management System (ISO 14001). Asset Management System (ISO 55001). Compliance Management System (ISO 37301). 	279-281 106 195 194

Disclosure on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Based on the results of the materiality analysis and on Terna's mission, which is firmly focused on the goal of decarbonisation, the issue of combatting climate change runs through all the Group's main activities, given that it represents a priority objective.

The Company's management and the Board of Directors are, therefore, also involved in the principal plans relating to climate change, such as the National Transmission Grid Development Plan, the main document containing operational guidelines for full delivery of the energy transition in Italy; the Improvement Plan for Defence Systems for the Security of the National Electricity System (the Security Plan) with the attached Resilience Plan, key to enabling the NTG to withstand extreme climate events; and the updated 2021-2025 Industrial Plan which, in line with national and European guidelines, envisages the investment of €9.5 billion in the NTG to enable the energy transition and Italy to become carbon neutral.

A further reference point for the governance of climate-related issues is represented by the Group's Sustainability Policy, approved by the Board of Directors, which reiterates the Group's commitment to cutting greenhouse gas emissions.

On an operational level, in addition to the functions with specific responsibility for overseeing ESG performance (see page 86), the issue of climate change involves all the functions engaged in various aspects of the preparation of energy and climate scenarios and the above plans.

It should also be remembered that the Company's Integrated Management System includes the ISO 14001 certified Environmental Management System and the ISO 50001 certified Energy Management System, which oversee the impacts linked to the Group's energy consumption and greenhouse gas emissions.

The following table shows the references within the document that respond to the recommendations, by topic area, of the Task Force on Climate-related Financial Disclosures.

TOPIC AREA	RECOMMENDATIONS	REFERENCES
Governance	a) Describe the Board of Directors' oversight of climate-related risks and opportunities.	"Managing ESG performance"
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	"Opportunities and risks for Terna connected with climate change"
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	"Controlling and managing ESG risks" "2023 Development Plan"
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	"2021-2025 Industrial Plan" "Innovation Strategy" "Security Plan" "Resilience Methodology 2.0 and Resilience Plan" "Renewal Plan" "The market environment" "Reference scenarios"
	a) Describe the organization's processes for identifying and assessing climate-related risks.	"Risk management"
	b) Describe the organization's processes for managing climate-related risks.	
Risk management	c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	
	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	"Atmospheric emissions" "The EU Taxonomy"
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	
Metrics and targets	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	

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Opportunities and risks connected with climate change

DNF

IF1

IF3

<201-2

Climate change brings a series of opportunities and risks for the Company that must be properly evaluated to ensure that they are effectively managed. To identify them, Terna applies the framework used by the **Task Force on Climate-related Financial Disclosures (TCFD)**, which divides climate-related risks into two main categories:

- **Transition risks:** transitioning to a lower-carbon economy may entail policy and legal risks, due to different regulatory requirements across different geographies, or to new impacts and/or uncertainties resulting from the policies adopted. The transition may also result in technology risk, due to uncertainties surrounding the role of emerging technologies, and market risk, linked to new dynamics, shifts in supply and demand and an increasingly complex market environment, which could expose businesses to reputational risks;
- **Physical risks:** these risks can be event driven (acute) or longer-term shifts (chronic) in climate patterns. Physical risks may have financial implications for businesses, such as direct damage to assets and indirect impacts from supply chain disruption.



The following is a description of the climate-related opportunities and risks identified by Terna.

Opportunities

The opportunities linked to climate change constitute a cornerstone of Terna's strategy, regarding both Regulated and Non-regulated Activities in Italy and International Activities. .

Electrification of consumption and investment

In addition to the need to integrate large numbers of RES plants, another key element in the ecological transition is the electrification of financial consumption. Electricity as an energy carrier is an enabler of this transformation, as final consumption powered by this carrier is by its nature far more efficient than any fuelled by combustion.

The energy transition will thus be based on a series of indispensable actions. The additional renewable generation capacity that will have to be immediately deployed will require **new connections** to the electricity grid. At the same time, it will be necessary to invest in the **development of the grid infrastructure** needed to transport and distribute the electricity and in **storage systems**. Finally, we will also need to deploy mature technologies, such as electric mobility, heat pumps for heating and cooling and induction cooking. **Under this scenario, Terna is engaged in driving the change: increasing the integration of renewable sources and boosting the resilience of the grid are in fact two of the main actions included in the 2021 Development Plan.** This approach is also consistent with a form of regulation that is increasingly focused on output-based solutions that will make it possible to raise Terna's returns in step with the ability to create benefits for the system.

Macroeconomic impacts

Terna is driving the energy transition, having set aside €18 billion in its Development Plan (25% up on the 2020 Plan) for investment in enabling Italy's National Integrated Energy and Climate Plan ("PNIEC") over the next ten years. This investment aims to increase transmission capacity between the various market areas, streamline grids, and boost cross-border exchange capacity and the security and resilience of the system. The investment is expected to have a multiplier effect in terms of both GDP growth and the creation of new jobs.

The projects included in the 2021 Development Plan have been expanded in the 2023 Development Plan. The latter is based on the "**Scenario Description Document for 2022**"³⁹ ("SDD 2022"), where the scenario linked to the "**Fit-For-55**" ("FF55") policy is far more ambitious than the one described the PNIEC.

Energy dependency

The energy transition is also a major opportunity to boost Italy's competitiveness: the country's lack of energy resources has historically meant that energy costs were higher than the European average and that the country was highly dependent on imported energy (70% in 2021). As a result of the energy transition, Italy will see a reduction in its energy dependence and could enjoy far more competitive energy costs thanks to the availability of sun and wind. The actions taken in the coming years will determine the country's strategic position in the global economic system of the future.

The energy transition and trends that encourage the development of new opportunities in Italy are of global significance, opening up new opportunities overseas. Within the scope of the non-regulated business, this situation will therefore also bring new potential linked above all to the identification and development of new energy solutions.

³⁹ The SDD 2022 is available on Terna's website at the following link:
https://download.terna.it/terna/Documento_Descrizione_Scenari_2022_8da74044f6ee28d.pdf

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Transition risks

Terna is not currently subject to legal obligations regarding cuts in emissions and, there are therefore no specific risks with regard to the introduction of a carbon tax or rising carbon prices. An increase in reporting obligations would also not pose any problems for Terna, which has been providing full disclosure on its emissions for some time.

Political and legal

In terms of the regulation of quality of service, the Company is already subject to a series of rewards and penalties linked to continuity, which may be affected by extreme climate events. Terna's response to this risk is the **Resilience Plan**, which describes all the initiatives and measures taken to be able to respond with growing speed and effectiveness to any adverse events.

The growing use of renewable sources and the progressive electrification expected over coming years mean that **investment in the transmission grid** is of primary importance, given the role that the grid will play in helping to achieve decarbonisation targets. There are no specific risks linked to the replacement of technology.

Technological

Given the new complexities to be dealt with, the drive for constant innovation remains a priority, with continued attention to the most promising technology streams on which to focus both investment and R&D efforts. Terna identifies these technology streams in its **Innovation Plan**.

In the first nine months of 2022, with the war in Ukraine and the resulting cuts to the quantity of gas supplied by Russia, the price of gas continued the upward trend already seen in 2021, reaching record highs and exceeding the threshold of €300 per MWh (the Virtual Exchange Point) in August.

Market

Thanks to favourable weather in late 2022, resulting in above-average temperatures for the season, the price of gas declined, although it remained at levels that are anything but low (an average of €116 per MWh in December). The price of CO₂ also rose throughout 2022, remaining above €80 per tonne almost throughout the period (the average figure for 2021 was instead €53 per tonne) and reaching a peak of over €100 per tonne in August 2022.

As a result, the Single National Price (SNP) rose to an annual average of €304 per MWh in 2022, with a major impact on the costs incurred by final electricity customers. In fact, from 2021, the price of domestic consumers served by the enhanced protection market more than tripled, rising from approximately €200 per MWh in the first quarter of 2021 to around €660 per MWh in the fourth quarter of 2022, despite action taken by the Government to cut and then remove – from the fourth quarter of 2021 – general electricity system costs.

Although high energy prices do not fall within the scope of the risks to which Terna is effectively exposed, this situation, if prolonged, could result in serious damage to the Italian economy. The main solution to rising prices and energy dependence, with significant benefits for the country's economy, is to accelerate the energy transition. To achieve the policy objectives set for 2030, as described in the EU's Fit-For-55 package, it will be necessary to install approximately 70 GW of new non-programmable renewable energy capacity. These new non-programmable renewable energy plants will be able to produce around 120-126 TWh of electricity, which will replace an equivalent quantity of energy produced by gas-fuelled thermoelectric plants. To ensure that these plants are built, it is essential to speed up consents processes and devise auction mechanisms with ambitious quotas, that will effectively enable achievement of the European targets. Terna will play its part as the operator of the transmission grid in integrating such plants into the grid and encouraging their correct location and a suitable technology mix.

The growing complexity of the electricity system and the increased frequency and seriousness of adverse climatic events requires constant monitoring of the system's adequacy and resilience. The occurrence of malfunctions, potentially of a widespread nature, could increase Terna's reputational exposure to public authorities and stakeholders in general.

Reputational

201-2> | Physical risks

Climate change and rising temperatures can impact quality of service and grid infrastructure. Increasing the **resilience of the Italian electricity system** is one of the major challenges posed by the energy transition. The increasingly serious and devastating impacts on electricity infrastructure provoked by extreme weather events, above all heavy snowfall and strong winds, make it necessary to draw up a specific plan to boost the resilience of the electricity system and the high-voltage grid.

Terna has developed, with the support of RSE (Ricerca sul Sistema Energetico), a probabilistic, predictive Resilience Methodology capable of assessing the most effective and efficient projects for boosting the resilience of the national transmission grid. The new approach to evaluating the benefit of increased resilience is based on calculating the expected likelihood of faults caused by a range of weather events over a certain period of time to take into account the effects of climate change, and on an assessment of their impact on the electricity system in terms of power cuts, including the potential for cascading failures on the grid. The new methodology was applied in drawing up the plan to boost the resilience of the national transmission grid (the **2020 Resilience Plan**).

Conflict in Ukraine: risk assessment and prevention for the Terna Group

As described above with regard to the macroeconomic environment, from the outset of the crisis involving Russia and Ukraine, the Terna Group took immediate steps to monitor the potential impact/risks. This focused on the ongoing geopolitical developments and, in particular, the related legislation, above all with regard to the international sanctions introduced following the outbreak of war between the two countries.

For this purpose, the Group moved quickly to set up specific taskforces to monitor any new sanctions and to strengthen due diligence procedures and ordinary controls. The main potential areas of concern to be monitored continuously by the taskforces are: **cyber security, economic and financial, the electricity system** and the impact on **procurement**.

Since the start of the conflict between Russia and Ukraine, there has been an increase in **cyberattacks** on Italian government and corporate websites. These shows of force have not led to major upheaval or data breaches, with disruption being short-term in nature.

Thanks to the continuous sharing of information with government bodies and priority access to information from Cyber Threat Intelligence providers, a series of **rules and digital signatures** have been implemented as part of Terna's cyber protection systems **with the aim of preventing any malicious acts**. Checks confirmed that **the Group does not use any cybersecurity products or services linked to the Russian Federation**. Work has also begun on further raising the level of cybersecurity for the data flows required by Terna and Swissgrid, as members of ENTSO-E, to monitor the defence systems used by the Ukrainian national grid.

On the **economic and financial** front, the current crisis has led to significant movements in a number of macroeconomic variables. The rise in inflation, which began at the end of 2021 due to the impact of the Covid-19 pandemic on the supply of goods and services, has further accelerated since the outbreak of war in Ukraine, primarily as a result of rising energy prices. Under Terna's existing regulatory framework, which indexes allowed operating costs and the RAB (the latter revalued on the basis of the deflator applied to investment), it is not expected that there will be a negative economic impact due to price pressures, even if the above indexation of allowed costs will be reflected in the accounts with a time lag of approximately one year.

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The increase in inflation has, on the other hand, led central banks and, specifically, the European Central Bank to accelerate their plans to tighten monetary policy, with the aim of mitigating the effect of rising prices. This has resulted in a sudden increase in interest rates, which will have an impact on Terna's cost of debt in the coming years. The effect will not, however, be immediate in view of the average duration of existing debt and the current high proportion of fixed rate borrowing (around 87%).

Major movements in the macroeconomic parameters to which the Group is exposed (interest rates, inflation, the yield on Italian government bonds and European cost of debt indices) could lead to a change in the allowed cost of capital that would offset the impact of movements in the variables themselves. In this regard, in 2024, the WACC is due to be revised if, following the update of certain parameters, the WACC rises or falls by more than 50bps. In addition, there will be an overall review of the parameters used to calculate the WACC in 2025, in accordance with the resolution published by ARERA at the end of 2021. In this case, the review process does not provide for thresholds for adjustments to the cost of capital.

Finally, it should be noted that the Terna Group currently has access to funding represented by liquidity and committed lines of credit (thus immediately available). This, together with the ability to generate cash, will enable the Group to meet its funding requirements for the next 18/24 months and respond to any further capital market tensions.

There has so far been little evidence of any impact on the adequacy of the **electricity system**. However, given the shortage of natural gas, which is used to produce approximately 37% of the power needed (down as a result of the efforts made to maximise production from other sources), it is necessary to evaluate if, were there to be a shortfall in natural gas supply next winter, it can only partially be offset by maximizing production from other energy sources were. The Government and the gas emergency committee are considering what steps to take in response to a major drop in the quantity of gas supplied by Russia. This would involve seeking to import gas from other parts of the world and cuts to consumption, as well as maximising production from remaining coal and oil-fired power plants and from sustainable bioliquid plants.

Europe's strategy, which is moreover consistent with Terna Group's energy transition goals, aims to progressively achieve independence from Russian gas.

In terms of **procurement**, as a result of international sanctions, the Terna Group has suspended the qualification of its sole Russian supplier, which has now expired. The related effect has been offset by increasing the use of other available suppliers. Steps have been taken to address issues regarding the supply of power lines, substation equipment and power systems by i) the conclusion of additional contracts after new calls for tenders, including indexation mechanisms (using tools such as online tenders that can be carried out quickly, such as for the supply of pylons) and ii) the negotiation of claims on non-indexed supply contracts. Steps have been taken to manage the most significant effects of price movements on supplies of metals (steel, aluminium, nickel and semiconductors).

As regards major projects (e.g., the Tyrrhenian Link and SACOI 3), where substation supply contracts are about to be fulfilled or negotiated as part of the tender process, etc., Terna may see an impact of the uncertainty surrounding increases in commodity prices and possible delays to contract delivery due to force majeure. These eventualities are covered by legally required price adjustment provisions based on specific, unequivocal standards and criteria. Finally, as regards civil works contracts, the price adjustment provisions provided for in the measures introduced by the Government in 2021 have had a minimal impact. In the meantime, as expected, the state aid provided under the Aiuti decree has had a more significant impact (amounting to approximately €25 million, including €6 million already received as an advance in 2022, with the remaining adjustment due in early 2023).



AT 31 DECEMBER 2021

INPUTS

74,855 km of circuits
99.9% ownership of the NTG
102,469 MW of installed renewable capacity:
2,203 RES plants recorded

AT 31 DECEMBER 2022

OUTCOMES

ASA indicator **99.99989%**
NTG RENS indicator **240 MWh**
net DSM charge of approx.
€2,290 million
(vs. €2,641 million in 2021)

74,910 Km (+55 km) of circuits

Consents for **29** new projects amounting to over €2.5 billion.

40,300 substation inspections at a range of voltage levels

1,950 inspections and maintenance works

50 connection contracts for RES plants amounting to capacity of approx. 1,900 MW

OUTPUTS



AT 31 DECEMBER 2021

INPUTS

Equity attributable to owners of the Parent
€4,681.9 million
Cash flow from operating activities
€1,302.1 million
Debt
€10,002.5 million

AT 31 DECEMBER 2022

OUTCOMES

Equity attributable to owners of the Parent
€6,142.0 million
Cash flow from operating activities
€2,528.0 million
Debt **€8,576.3 million**
Dividend per share **31.44 €cents**
EPS **43 €cents**

Capex **€1,756.8 million**
(up 15.5% vs 2021)

EBITDA **€2,059.2 million**
(up 11.0% vs 2021)

Quality of service **€21.3 million**
(up €15.6 million vs 2021)

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3

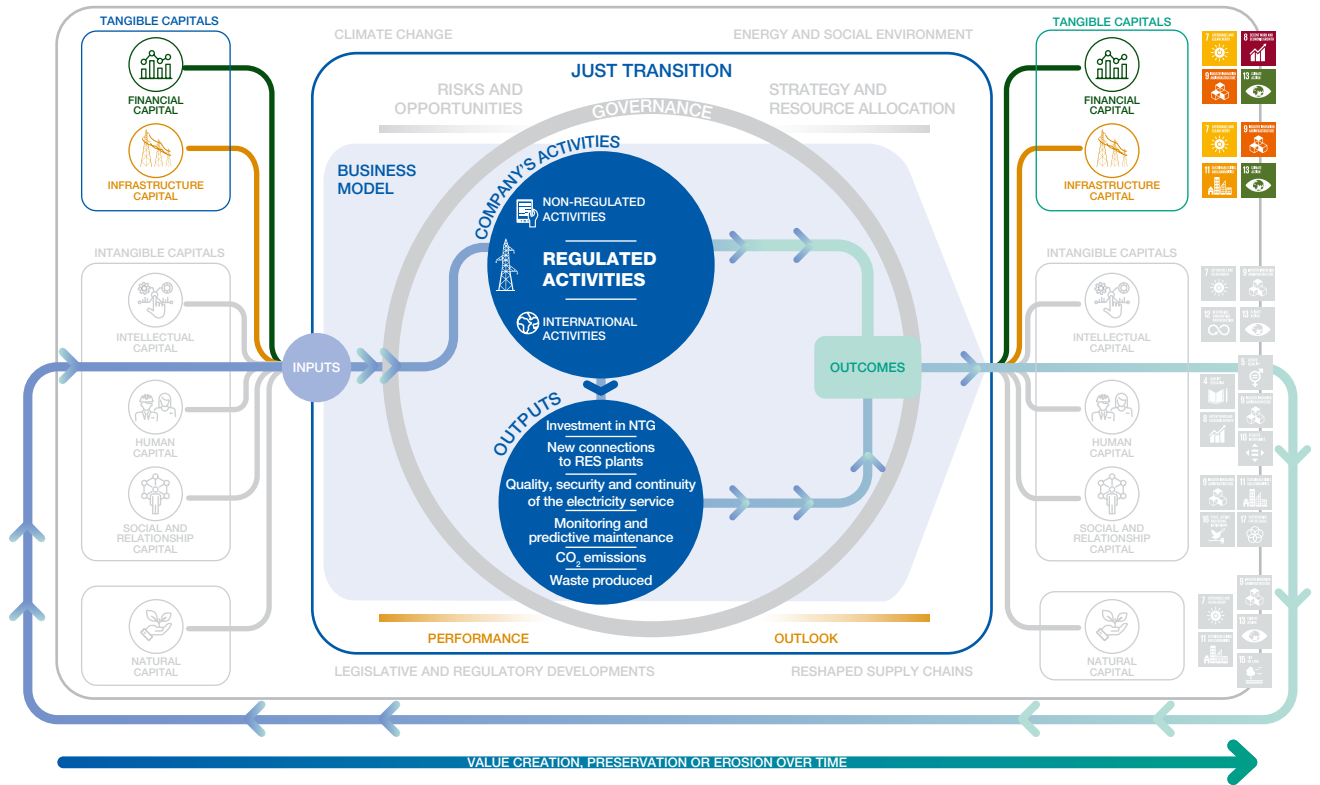
The Group's business

In this section

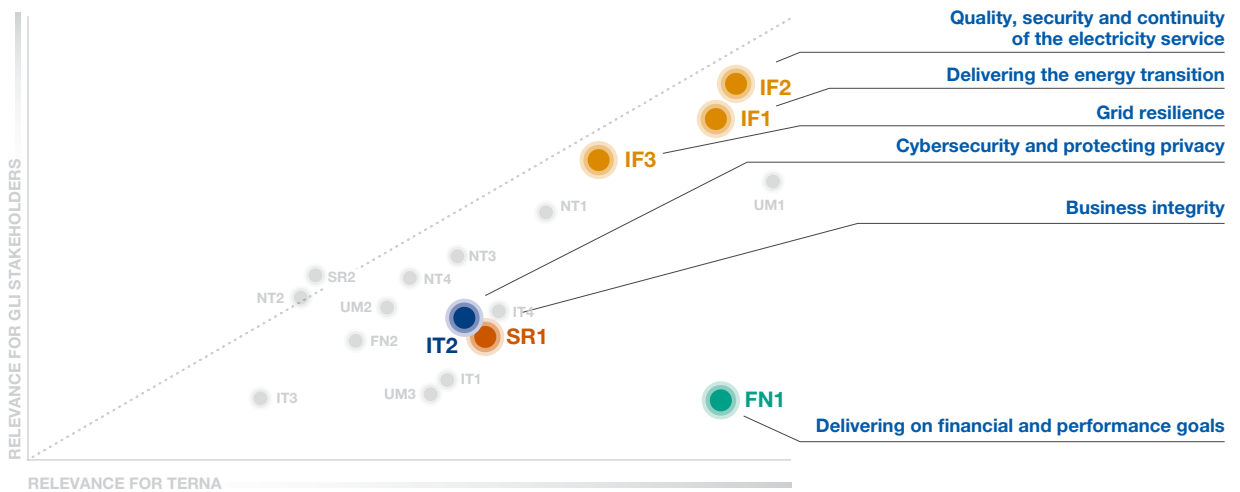
This section focuses on the tangible capitals and their contribution to the creation of value over time through the full implementation of Terna's business model. Operating activities are described in keeping with the Group's three lines of business: Regulated Activities, Non-regulated Activities and International Activities. Progress in delivering on the updated 2021-2025 Industrial Plan and the Development Plan is highlighted, as this represents the Group's ability to carry out the planned investment in Italy's electricity infrastructure needed to progressively integrate renewable sources into the electricity system and guarantee the country's energy security. Information on the operating and financial performance of each line of business is provided.



VALUE CREATION



MATERIALITY



These infographics highlight the topics dealt with in this section with the aim of **facilitating information connectivity** in this way, the section offers an overall view showing the links between all the factors that influence Terna's ability to create value over time and how they are dependent on each other. Material topics are indicated with a cross-reference in blue, showing the relevant code.

SR1
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Operating activities

The Terna Group's business model is divided into three areas of business. The main area is Regulated Activities, which coincides with the obligations deriving from the government concession, together with Non-regulated Activities and International Activities.

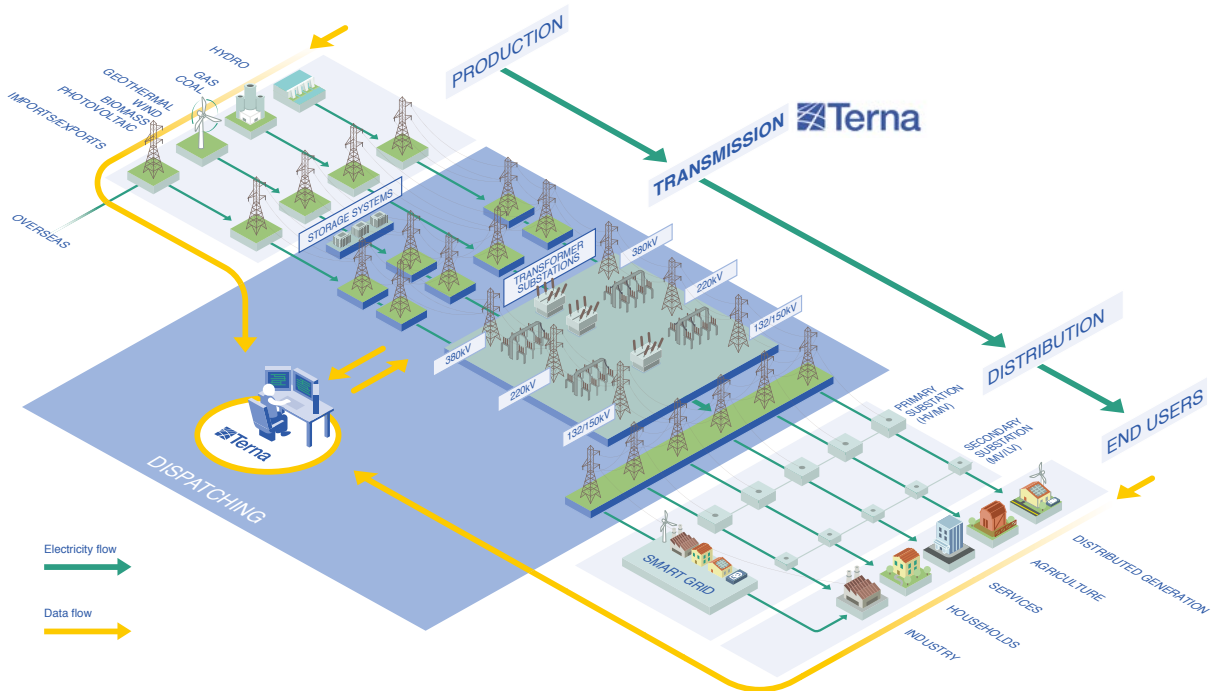
DNF Regulated Activities: The National Transmission Grid

The Italian electricity supply chain consists of four segments: production, transmission, distribution and the sale of electricity.

The Terna Group owns 99.9% of the NTG, one of the most modern and technologically advanced in Europe. The Group's main regulated activities are the transmission and dispatching of electricity in Italy.

Terna performs these activities in its role as the Italian TSO (Transmission System Operator) and ISO (Independent System Operator), under a monopoly arrangement and a government concession.

The national electricity system supply chain



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One of the peculiarities of every electricity system is the need to be able to continuously guarantee that demand for energy from end users (households and businesses) is always balanced by the energy produced by power plants.

Terna has the key and delicate role of guaranteeing this balance through a high-technology system, using a specific market (the dispatching services market or "MSD"), in which it makes daily purchases of the "services" necessary to constantly ensure the continuity and security of electricity supply.

In addition to strengthening the domestic grid, Terna is required to develop interconnection capacity with other countries' electricity systems. Indeed, Italy is electrically interconnected with France, Switzerland, Austria, Slovenia, Montenegro and Greece via 26 interconnectors.

Electricity transmission

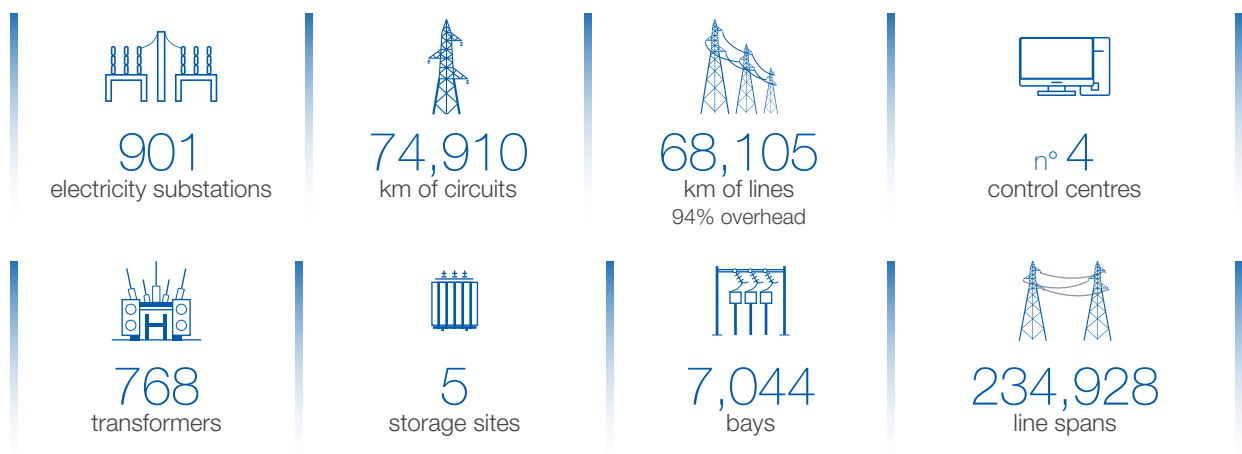
DNF

Planning for development of the National Transmission Grid ("NTG"), the performance of construction services and the maintenance of electricity infrastructure are the three areas of responsibility included in the regulated electricity transmission business.

The Group adopts a sustainable approach throughout every stage of the process. This takes the form of transparency in managing the Group's social and relationship capital through engagement with the stakeholders directly affected by the Group's development initiatives, with a view to building awareness of the importance of delivering the planned new electricity infrastructure.

Terna's infrastructure*

< EU4



* Figures updated to 31 December 2022, except for the figure for line spans, which is updated to early 2023.

Connecting new plants

Terna has an obligation to connect all potential users requesting connection to the grid, identifying connection solutions in terms of criteria that guarantee the continuity and secure operation of the grid to which an applicant's new plant will be connected. Terna is responsible for high and very high voltage connections to the NTG of plants with a capacity of 10 MW or more.

Terna is handling around 4,450 applications for connection to the grid in relation to future or existing initiatives. More than 3,100 applications for connection using the general minimum technical solution, relating to the connection of plants using renewable energy sources (RES) to the NTG and representing total capacity of 164 GW, are currently in progress.

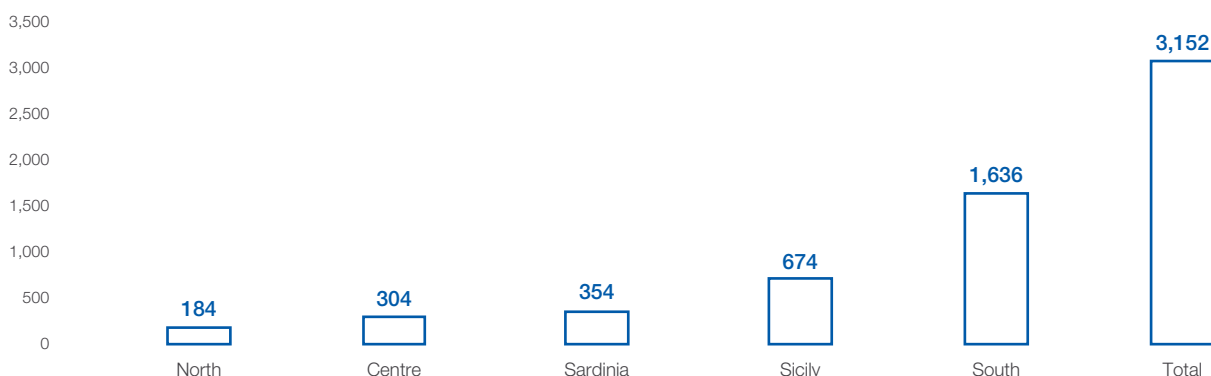
New projects at the development stage primarily regard wind and solar power plants.

All the information on applications for the connection of renewable energy plants is available on the Econnection dashboard (<https://www.terna.it/it/sistema-elettrico/rete/econnection>).

The data shows that:

- 85% of the applications received are from southern Italy and the islands (representing capacity equivalent to over 86% of the total);
- a sharp increase was registered in applications for the connection of new distribution plants and for upgrades to existing plants by local distributors, with the aim of harnessing production from renewable sources;
- **50 connection contracts** were signed in 2022 (representing **total capacity of 1,900 MW**), relating to the construction of new RES plants.

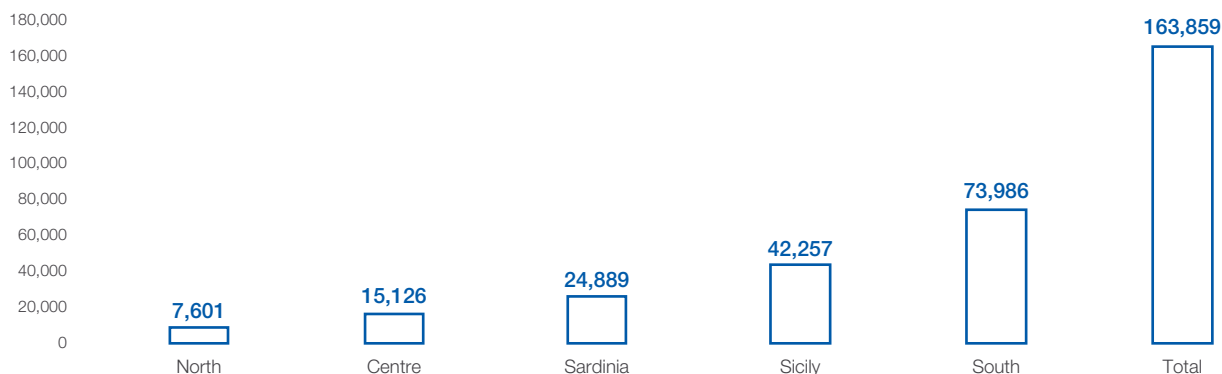
Number of applications



Data as at 31.12.2022.

Capacity

(MW)



Data as at 31.12.2022.

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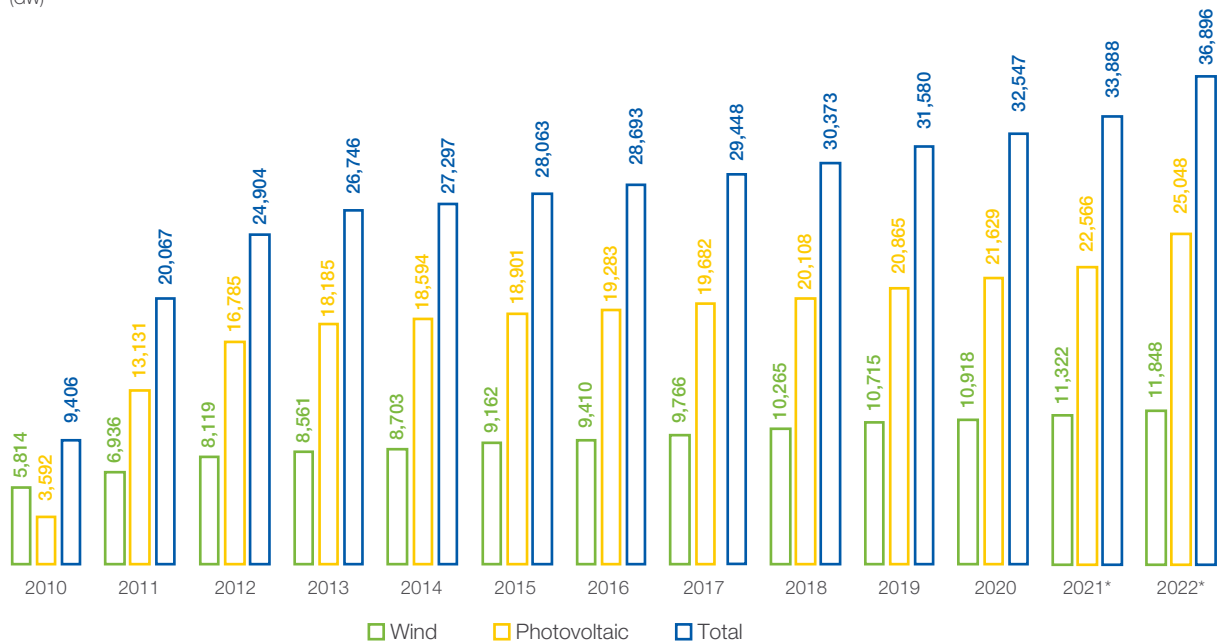
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Installed photovoltaic and wind capacity (2010-2022)

(GW)



* The data for 2021 and 2022 are provisional.



IF1
IF2

Development Plan

SASB

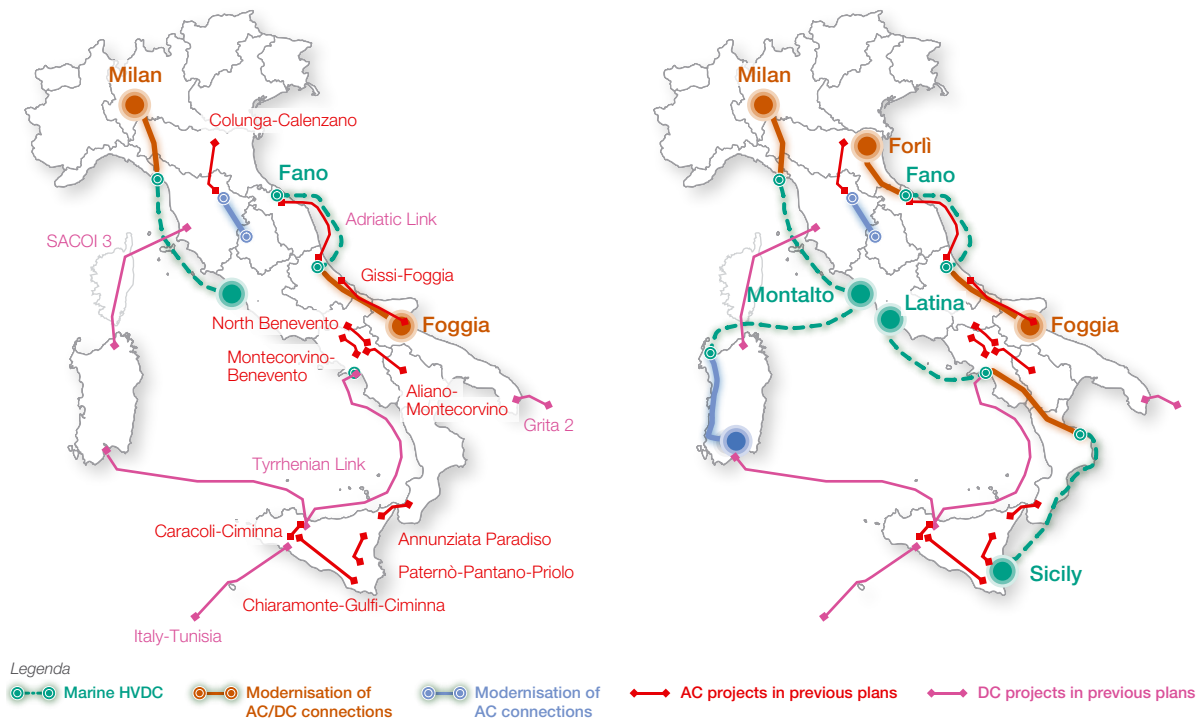
The identified needs relating to grid development are included in the 2023 Development Plan, which represents a structured and organic response to the challenges brought about by the energy transition and the current international geopolitical tensions, as described in the section, "Strategy".

Principal projects for the National Transmission Grid

The 2023 Development Plan envisages capital expenditure of over €21 billion in the next ten years.

2023-2032

Post 2032



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INTERCONNECTORS AND LINES	KM OF CIRCUIT	STATUS	DRIVER			
HVDC Milan-Montalto	450	●	☉	☁		
Central Link	150	●	☉	☁		
HVDC Fiumesanto – Montalto (Sapei 2) and Sardinian Link	640	●	☉	☁		
HVDC Priolo-Rossano-Montecorvino-Latina	450	●	☉	☁		
HVDC Ionian	400	●	☉	☁		
HVDC Foggia-Villanova-Fano-Forlì	520	●	☉	☁		
Italy-France Interconnector	180	○	☉	☁	☞	☼
Italy-Austria interconnector	24	○	☉	☁		☼
Italy-Switzerland Interconnector	100	○	☉	☁	☞	☼
Italy-Slovenia interconnector	154	○	☉	☁		☼
Sardinia-Corsica-Italy interconnector	778	○	☉		☞	☼
HVDC Centre South - Centre North	221	○	☉	☁	☞	☼
HVDC Italy-Tunisia	200	○	☉	☁		☼
HVDC Mainland Sicily-Sardinia (West Link/East Link)	950	○	☉	☁	☞	☼
Restructuring metropolitan areas	182	○			☞	☼
Chiaromonte-Gulfi-Ciminna	173	○	☉	☁	☞	☼
Upgrade in the Mid Piave Valley	90	○		☁	☞	☼
Colunga-Calenzano ✓	85	○	☉	☁	☞	☼
Gissi-Foggia	140	○	☉	☁	☞	☼
Cassano-Chiari	36	○	☉		☞	
Upgrade North - Calabria	10	○	☉	☁	☞	☼
Paternò-Pantano-Priolo	63	○	☉	☁	☞	☼
Elba-Mainland ✓	35	○	☉		☞	☼
SUBSTATIONS						
Agnosine substation						
Vizzini substation		○			☞	☼
Pantano substation						
Torremaggiore substation		●				
Cerignola substation		○			☞	☼
Ariano Irpino substation		●				

Legenda Resilience and Status

✓ Resilience Plan	● Completed/ in service	○ Under construction	○ Awaiting consents	☉ Consultation	● Under design	● Planned
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Legenda Driver

☁ De-carbonisation	☉ Market efficiency	☞ Security of supply	☼ Systemic sustainability
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The other initiatives completed in 2022 are shown in the section "Changes in the dimensions of the NTG" in the annexes.

IF3
SASB

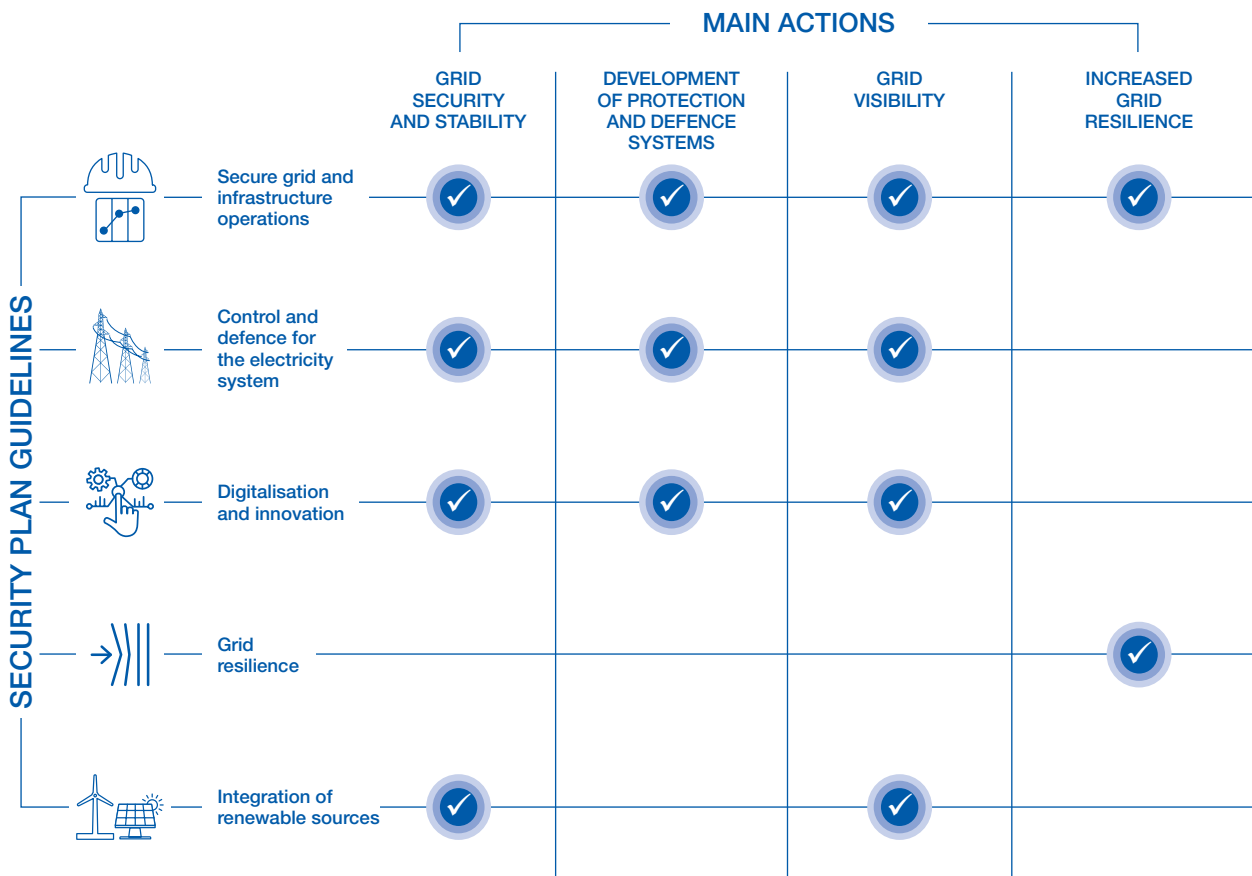
Security and Resilience Plan

The National Electricity System Security Protection Plan, also known as the Security Plan, is a four-year programme of interventions to protect the security of the electricity system. Prepared by Terna pursuant to Law 290 of 27 October 2003, the Plan is submitted to the Ministry of the Environment and Energy Security for approval by 31 May of each year.

The **2022 Security Plan** is the 19th edition and updates the initiatives to protect the security of the electricity system envisaged for the four-year period 2022-2025, with capital expenditure of over €1 billion.

The 2022 Security Plan is fully in line with developments in the energy sector, linked to the ongoing ecological transition process, the increased share of the production mix represented by renewables, the ongoing phase-out of coal by 2025 and increasingly frequent and severe events relating to climate change, affecting the electricity grid causing failures and outages.

To deal with the new energy transition challenges, Terna prepared the 2022 Security Plan based on 5 Guidelines and 4 Actions to guarantee high levels of security for the electricity system:



The 2022 Security Plan also includes initiatives designed to upgrade management, control and defence systems for the grid, innovating operating logistics, installing system control devices and implementing solutions for the physical and cyber security of the grid infrastructure.

IT2 Attached to the Security Plan is the **Resilience Plan**, a cross-cutting plan that establishes all the initiatives required to prevent and/or reduce damage to the electricity grid caused by increasingly severe and frequent weather events. The plan includes infrastructure protection, renewal and monitoring work, assessed using **Resilience Methodology**.

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PROJECTS	STATUS		DRIVER		
Fiber for the Grid					
Ice, snow and other weather events risk mitigation systems ✓					
Control devices					
Cyber Security					
Dispatching, control and protection of the NTG					

Legenda Resilience and Status

- ✓ Resilience Plan
- Completed/ in service
- Under construction
- Awaiting consents
- Consultation
- Under design
- Planned

Legenda Driver

- De-carbonisation
- Market efficiency
- Security of supply
- Systemic sustainability

FOCUS

Grid Resilience and Resilience Methodology

There is no doubt that increasingly severe and frequent weather events are closely related to climate change.

In this regard, if no action is taken to prevent and mitigate the effects of climate change, NTG infrastructure will continue to be increasingly exposed to greater risks of damage and outages. Therefore, increasing the NTG's resilience is a key element of the response to the climate crisis.

Terna's Resilience Methodology is the outcome of two years of joint work with RSE, approved by ARERA in Resolution 9/2022/R, as set out in Annex A76 of the Grid Code. It is a new approach that allows the grid's level of resilience to be measured. Based on the projected critical issues identified and the possible risk of energy not being supplied to the NTG following severe weather events, it then identifies initiatives that would increase the resilience of the transmission grid, guaranteeing efficient and effective infrastructure.

During 2022, the approach was applied in the plan to increase the NTG's resilience (the 2022 Resilience Plan), analysing the benefits of infrastructure work with regard to the threats posed by strong winds, ice and snow. The plan was presented to grid operators through a public webinar on 1 December 2022.

Again applying the Resilience Methodology, Terna has selected a list of projects to be included in calls for proposals for the award of a non-repayable grant of €150 million under the NRRP, aimed at increasing the resilience of over 1,500 km of the NTG. With the Energy Incentive Directorate's management decree 413 of 16 December 2022, the Ministry of the Environment and Energy Security approved the list of Terna's projects qualifying for subsidies and financing under the NRRP.

Additional aspects and areas of resilience that will be covered and/or developed already from 2023, as provided for in Resolution 9/2022, regard analysis and studies regarding a further extension of the Resilience Methodology and the modelling of significant events for the NTG (for example, hydrogeological risks). There will also be a presentation to grid operators, on 12 January 2023, on the effectiveness of installing anti-rotation devices⁴⁰ as a capital-light solution for increasing the NTG's resilience.

⁴⁰ Devices installed on overhead power lines to increase the conductors core strength and prevent wet snow sleeves.

DNF

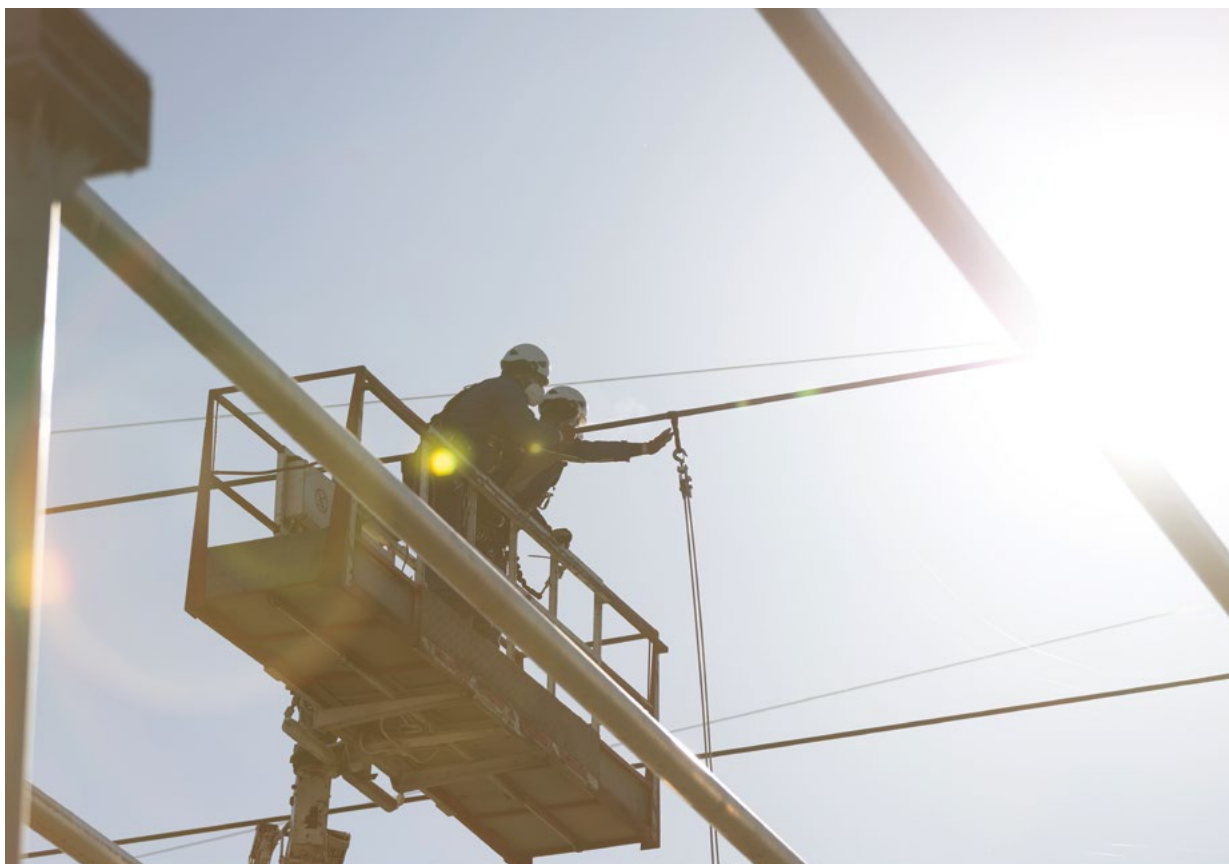
Infrastructure maintenance

Maintenance of electricity grid infrastructure is essential in order to guarantee quality of service, as well as the security of the assets managed (power lines and substations) and their performance during their lifecycle. These operations are carried out using a condition-based approach; a series of projects are in progress to drive operating activities towards a predictive, risk-based maintenance model. **The IT and digital tools used today to support maintenance activities are subject to continuous innovation**, and primarily include: the **MBI (Monitoring and Business Intelligence)** decision-support system, which suggests maintenance activities to be carried out and indicates whether or not they can be postponed, and **WFM (Work Force Management)** software, which manages the workforce by planning and scheduling MBI maintenance activities.

In addition, Terna has participated for many years in international benchmarking activities aimed at sharing O&M and renewal best practices, consistently ranking among the best TSOs in terms of asset management process efficiency and optimal service provision quality.

Routine maintenance

Repairs are carried out when signs of deterioration are identified as a result of the on-site monitoring process or through the analysis of on-line sensor data. These indications and any problems identified are processed by the asset engineering models included in MBI (Monitoring and Business Intelligence) and developed by the Asset Management department in agreement with other departments within the Company. The outcome of the engineering models are used to draw up the maintenance plan designed to ensure that assets continue to be fit for purpose over time.



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Renewal Plan

The Renewal Plan is based on an analytical method that, starting from consistent, objective technical criteria, identifies and evaluates **extraordinary maintenance works** ("renewal"), assessing the state of repair and technical status of line components and substation equipment, compared with the effective operating conditions they have to deal with and prioritising components and infrastructure of greater importance for operation of the electricity grid.

Condition-based renewal of infrastructure aims to:

- carry out condition-based and component-based work only on individual items of infrastructure that effectively require it;
- maximise infrastructure use at the lowest cost, and thus keep each individual component operating efficiently for as long as possible;
- implement a plan of long-term prioritised works, as established through technical analysis.

To constantly improve and increase the efficiency of the asset management process, the Renewal Plan is divided into the following categories of benefit, which include the renewal objectives:

- **Sustainability:**

- **Environmental quality:** introduction of more eco-friendly assets that are environmentally sustainable. These include, for example, investment in vegetable-oil transformers, fluid-oil cables and certain types of cable terminals, technical adjustments to lines/underground cables and the replacement of current and voltage transformers;
- **Service quality:** solutions to improve the reliability of assets, based on asset management analysis (designed to assess the asset's technical conditions). By improving their reliability, the works reduce the Health Index score and the risk of outages. These include, for example, investment in the renewal of lines, the RIGEL (Reduction of Power Line Failures) programme and substation renewal (equipment and machinery).

- **Innovation and digitalisation:**

- **Quality of the O&M process:** the introduction of new solutions and technologies to increase the effectiveness of the operating and maintenance process. These include, for example, investment in the new digital control system for substations, online diagnostics for substation equipment, cable monitoring and functional separations.

- **Resilience:**

Strengthening the grid's ability to withstand the effects of the snow risk, the exposure of lines to hydrogeological risk and substation exposure to seismic risk. These include, for example, investment in:

- ice/snow line resilience: strengthening power lines, increasing the cutting of vegetation, etc;
- ice/snow substation resilience: substation work, the digitalisation of substations, etc;
- hydrogeological risk resilience for power lines: the instalment of hydrogeological monitoring devices, etc;
- substation resilience to exposure to seismic risk: the instalment of seismic dampers.

Maintenance operations

INFRASTRUCTURE MONITORING AND CONTROL



~ 40,300

substation checks for various voltage levels



~2.8

average number of inspections per year per overhead line



~196,800 km

ground and helicopter inspections of overhead lines



~99,900 km

inspections of underground cable lines



~151,700 km

helicopter inspections of overhead lines



~43

average number of inspections per year per underground cable

ROUTINE MAINTENANCE



~20,000 km

of power lines on which vegetation was cut back to ensure their correct and safe operation



~1,950

monitoring checks and maintenance work carried out using live-line working

EXTRAORDINARY MAINTENANCE

Lines



~2,000 km

of conductors replaced

~2,100 km

of ground wires replaced

217

pylons replaced

Substations



32

static machines replaced

192

circuit breakers replaced

256

disconnectors replaced

439

current transformers replaced

874

voltage transformers replaced

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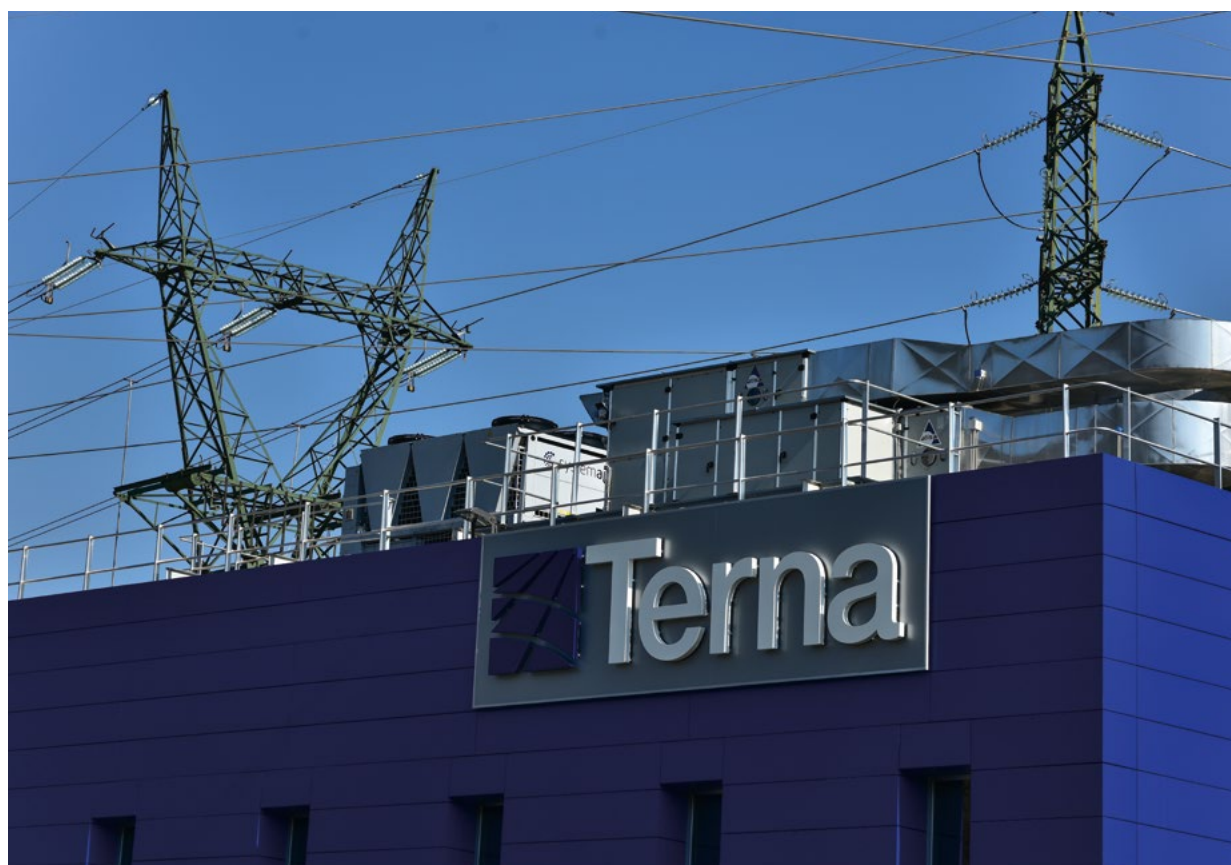
The Group's capital expenditure

The Terna Group's **total capital expenditure** in 2022 amounts to **€1,756.8 million**, a significant increase compared with €1,520.7 million in the previous year **(up 15.5%)**.

	2022	2021	CHANGE	% CHANGE
Development Plan	673.7	574.0	99.7	17.4%
Security Plan ⁽¹⁾	273.4	276.8	(3.4)	(1.2%)
Projects to renew electricity assets	475.4	484.7	(9.3)	(1.9%)
Other capital expenditure ⁽¹⁾	245.5	125.4	120.1	95.7%
Total regulated assets	1,668.0	1,460.9	207.1	14.2%
Non-regulated assets ⁽²⁾	64.0	49.0	15.0	30.6%
Capitalised financial expenses	24.8	10.8	14.0	129.9%
Total capital expenditure	1,756.8	1,520.7	236.1	15.5%

⁽¹⁾ The figures for 2021 have been restated following changes to the purposes of investments, without modifying the overall value of investment in regulated assets.

⁽²⁾ The figures for 2022 and 2021 do not include assets held for sale reclassified in accordance with IFRS 5 and primarily relate to private interconnections and the re-routing of power lines for third parties.



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Main regulated works carried out during the year

> Development Plan – €673.7 million

Tyrrhenian Link
(€109.7 million) **Cable connections:** activation of the main cable supply contracts and the start of design work. Sea trials for the laying of cable at the deepest point have been completed, as has the testing of cable protections for the East section (Campania-Sicily).

Converter stations: procurement and construction contracts have been signed.

Paternò-Pantano-Priolo
(€31.3 million) **380kV Paternò-Pantano power line:** construction has been completed pending the conclusion of work on the relevant part of the substation.

380kV Pantano-Priolo power line: work is continuing on construction of the foundations (53 out of a total 115), and assembly of the first pylons (50 out of a total 115) and the stringing of a first section of approximately 4.5 km out of a total 45 km has been completed.

380/220/150kV Pantano substation: work has been completed on construction of the foundations for the 380kV and 220kV sections, is nearing completion on construction of the foundations for the 150kV section and the ATRs, and electromechanical assembly on the 380kV section has begun.

Elba-Mainland connection
(€30.8 million) **132kV Colmata-Portoferraio power line:** the marine survey, sea trials, production of the marine and terrestrial cables and landfall excavation have been completed. The transplant of Posidonia seagrass and installation of approximately 1.3 km of underground pipes to hold the cables have also been completed.

Upgrade of Portoferraio primary substation: work began in January 2023.

132kV Portoferraio-S. Giuseppe power line: The line entered service in December and the existing overhead line will be demolished in the coming months.

Colunga-Calenzano
(€25.8 million) **380kV Colunga-Calenzano power line:** the executive design phase and the related surveys have been completed, as has the production of key components. Confirmation of compliance with requirements imposed during the consents process is awaited from the relevant agencies before work can begin.

Cerignola substation
(€15.9 million) Substation areas have been acquired, the executive design and award of the contract have been completed and work has begun.

Italy-France interconnector
(€13.9 million) The private connection entered service in November 2022.
Commissioning trials for the public connection are in progress.

Vizzini substation
(€12.1 million) **Vizzini substation:** the asset entered service in December.

Vizzini substation connections: the 380kV connection to the Paternò-Chiaramonte Gulfi line and the 150kV connection to the Vizzini – SE Mineo line have entered service; work is continuing on the 150kV Vizzini – SE Lidocida Eubea connection.

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Work on construction of the foundations and electromechanical assembly for the 380kV section has been completed; work is continuing on the 220/132kV sections, as is the assembly of transformers, control systems and auxiliary systems.

Magenta substation
(€12.0 million)

Celano substation: the asset entered service in September (11 bays).

Celano substation
(€10.2 million)

Celano substation connections: approximately 3km entered service in September and approximately 5km in December.

> Security Plan – €273.4 million

Maida and Villanova compensators: these assets entered service in November.

Synchronous compensators⁴¹
(€82.5 million)

Codrongianos and Rosara compensators: the civil works have been completed, machinery has been delivered and assembly is nearing completion.

Suvereto compensators: the civil works are nearing completion and machinery production is complete.

Latina, Galatina and Villanova: the equipment entered service in December.

STATCOM
(€38.1 million)

Aurelia and Montalto: the civil works are nearing completion and the main supplies have been produced (step-up convertors and transformers).

Maida, Deliceto, Rotello, North Rome, Santa Maria Capua Vetere and Bellolampo: the equipment entered service in the previous year.

Reactors
(€20.7 million)

Montecorvino, West Bari, Partinico, Fulgatore and Casuzze: the civil works are nearing completion and assembly of machinery is in progress. Entry into service is expected in the first quarter of 2023.

This project aims to boost the availability of data on the grid in order to make it easier to monitor and manage the security of the electricity system, by increasing and expanding the fibre optic network.

Fiber for the Grid
(€16.2 million)

By December 2022, 25 substations were connected via proprietary fibre, adding to a total of 535 substations covered.

> Projects to renew electricity assets – €475.4 million

Fulfilment of the commitment to carry out works to renew electricity assets to improve the reliability and resilience of the NTG has continued.

Renewal of electricity assets

The renewal of overhead lines and substation equipment continued during 2022: approximately 1,942 km of conductors and 32 items of equipment were replaced (29 mineral, 3 green).

⁴¹ Synchronous compensators, STATCOMs and reactors are grid components that act as reactive compensation mechanisms.

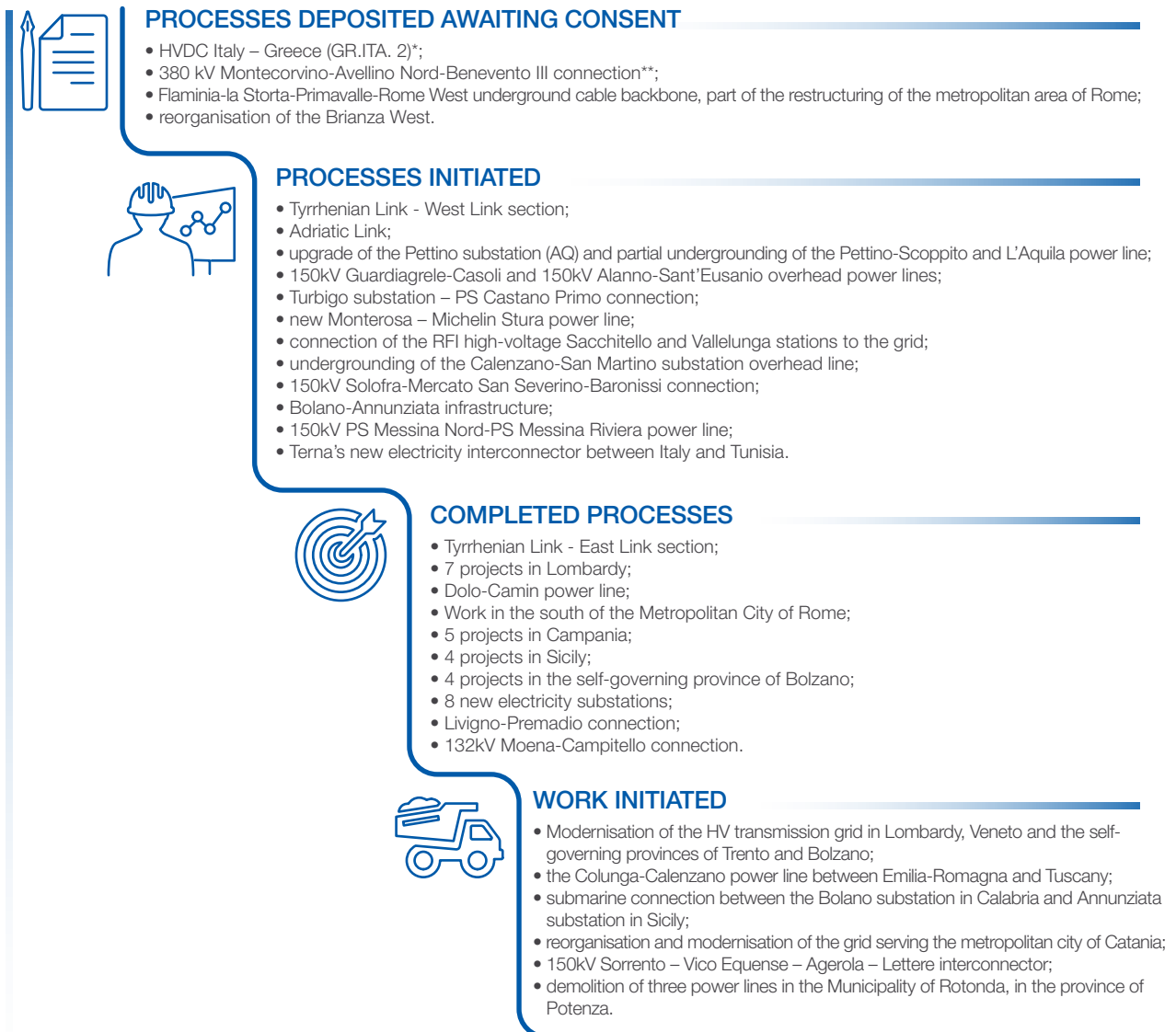
Research and development

In 2022, the Terna Group invested approximately €7.4 million in research and development and incurred costs of approximately €8.3 million.

Consent processes

During 2022, the Ministry of the Environment and Energy Security and regional authorities authorised a total of **29 new Terna projects** relating to the development of the electricity grid, representing total capital expenditure of over €2.5 billion, of which €1.9 billion related solely to the Tyrrhenian Link. This marks a **new historical record for the Terna Group**, which has more than doubled the figure from the previous year, and marks a tenfold increase compared with the figure for 2020.

Stages of the consents process



* The work, together with the current grid infrastructure, involves doubling the current HVDC interconnection between Italy and Greece and, above all, between the Galatina and Arachthos nodes, by laying a new marine cable connection, laying two new terrestrial cable sections on the Italian and Greek sides and installing two AC/DC converters in available areas at the existing Galatina and Arachthos substations.

** The new connection is of strategic importance for the NTG given that it will provide for greater integration of energy produced from renewable sources, improve dispatching and increase the security of power supply in the area.

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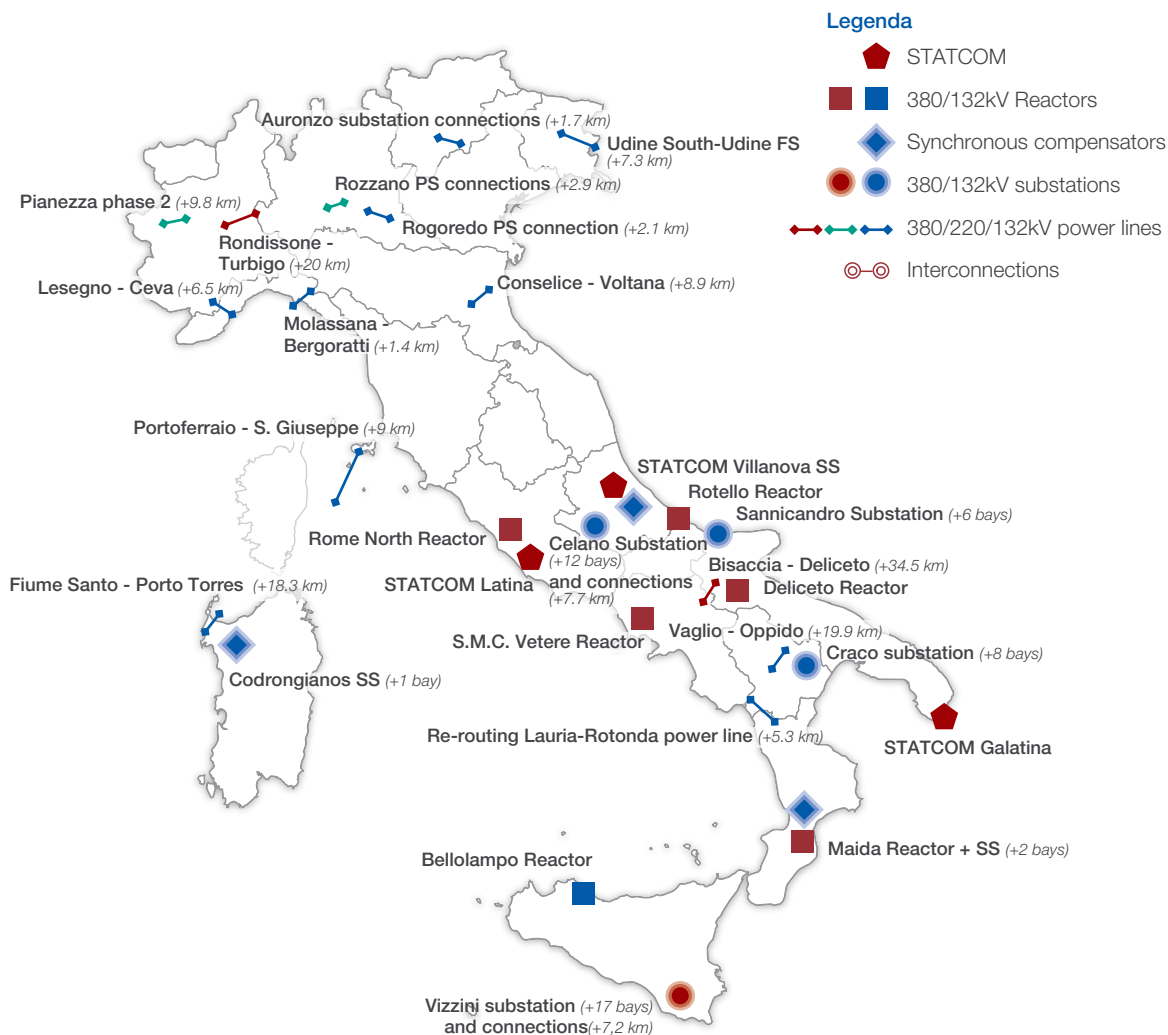
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Main projects carried out in 2022*



* The figures shown also include the equipment installed to replace any infrastructure disposed of or demolished.

FOCUS

Special projects

1 Interconnector Italy-France

The new direct current interconnection between Piossasco (IT) and Grande Ile (FR) will increase interconnection capacity between Italy and France by **1200 MW**, raising it from approximately the existing **3 GW** to over **4 GW**. The "Grande Ile - Piossasco" project is **190 km long**.

STATE OF PROGRESS



The Private Bipole entered service on 7 November 2022.

WORK IN PROGRESS



The Commissioning tests for the Public Bipole are currently in progress.

BENEFITS OF THE PROJECT

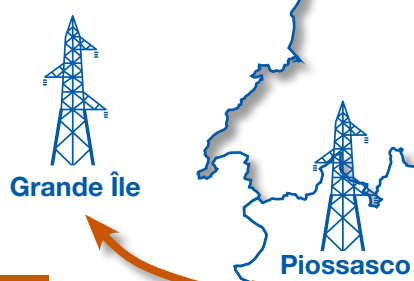


- **Increased exchange capacity** with the rest of Europe, especially with France;
- **Greater capacity for mutual assistance** between the Italian and French systems;
- **Full integration of the two markets**, resulting in increased security and adequate demand coverage;
- Increased possibility for Italy to be supplied from more affordable power plants.

ENTRY INTO SERVICE



Public Bipole – expected during 2023



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2

HVDC connection

Sardinia - Corsica - Italian mainland (SA.CO.I.3)

The new tri-terminal high-voltage direct current (HVDC) connection consists of **renovation** and **modernisation** of the existing electricity connection between Sardinia, Corsica and the Italian mainland. It will enable the use of total transport capacity of up to **400 MW**.

The connection between Tuscany, Corsica and Sardinia will have a length of approximately **388 km** per pole (including approximately 140 km of marine and terrestrial cables and approximately 248 km of overhead lines).

STATE OF PROGRESS



Following the EIA Decree, the Ministry of the Environment and Energy Security concluded the Service Conference on 15 September 2022. The Tuscany Regional Authority published the related Memorandum of Understanding in October. In Corsica, the additions to the related Public Inquiry requested by the Corsican regulator, CNPN, were filed. The regulator then reviewed its previous ruling, issuing its approval on 18 January 2023.

WORK IN PROGRESS



On 18 January 2023, the Ministry of the Environment and Energy Security began the process of publishing the Memorandum of understanding with Sardinia Region Authority through its Interinstitutional Committee. In Corsica, the Public Inquiry phase is being prepared. The procurement phase for the converter stations, renewal of the overhead line in Corsica and the work on the cable duct is in progress.

BENEFITS OF THE PROJECT



- **Reduced costs** for procurement of resources for the Dispatching Services Market (DSM);
- **Increased fitness for purpose of the electricity system** in Sardinia;
- Greater contribution to Sardinia's reserve requirements;
- Greater **benefits in terms of energy not supplied**, especially taking into account the scenarios envisaged for the evolution of the electricity system (PNIEC).

ENTRY INTO SERVICE



Module 1 Sardinia-Corsica-Tuscany 2027
Module 2 Sardinia-Corsica-Tuscany 2027



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>> continued SPECIAL PROJECTS FOCUS

3 HVDC connection Mainland - Sicily - Sardinia (Tyrrhenian Link)

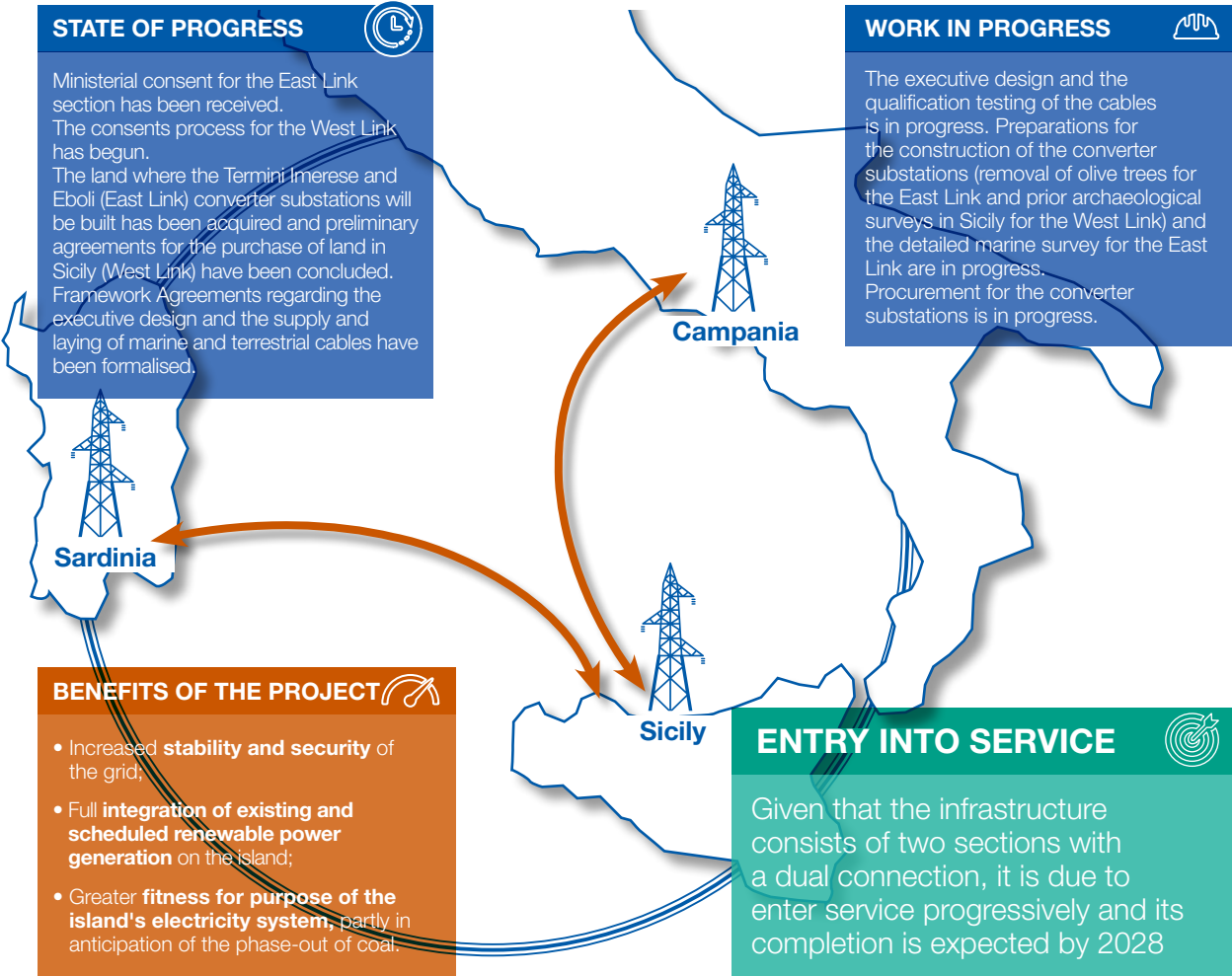
The new submarine interconnection is a state-of-the-art project that will connect **Campania - Sicily - Sardinia** via two submarine, **1,000 MW**, direct current power lines. The project has been subdivided into an East Link (Campania – Sicily) and a West Link (Sicily– Sardinia). The connection has a **submarine section** that is approximately **1,000 km long**, including in very deep waters, which means it is one of the new global benchmarks for this type of highly complex infrastructure.


STATE OF PROGRESS 

Ministerial consent for the East Link section has been received.
The consents process for the West Link has begun.
The land where the Termini Imerese and Eboli (East Link) converter substations will be built has been acquired and preliminary agreements for the purchase of land in Sicily (West Link) have been concluded. Framework Agreements regarding the executive design and the supply and laying of marine and terrestrial cables have been formalised.


WORK IN PROGRESS 

The executive design and the qualification testing of the cables is in progress. Preparations for the construction of the converter substations (removal of olive trees for the East Link and prior archaeological surveys in Sicily for the West Link) and the detailed marine survey for the East Link are in progress. Procurement for the converter substations is in progress.



BENEFITS OF THE PROJECT 

- Increased **stability and security** of the grid;
- Full **integration of existing and scheduled renewable power generation** on the island;
- Greater **fitness for purpose of the island's electricity system**, partly in anticipation of the phase-out of coal.

ENTRY INTO SERVICE 

Given that the infrastructure consists of two sections with a dual connection, it is due to enter service progressively and its completion is expected by 2028



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>> continued **SPECIAL PROJECTS FOCUS**

4

HVDC connection

South Central – North Central (Adriatic Link)

The **Adriatic Link** is the new **1,000 MW marine connection** that will connect the regions of **Marche** and **Abruzzo**. The project will strengthen energy exchange in central Italy, responding to the need for security and flexibility of the national electricity system and the goal of increasing renewable energy use. The project is part of the NTG Development Plan and is included in the works provided for in the PNIEC (National Energy and Climate Plan), which aims to decarbonise the energy system by 2030.

STATE OF PROGRESS



The public consultation has begun and the consents process is expected to conclude in 2024. Procurement for both the marine and terrestrial HVDC cables and the converter substations has begun.

WORK IN PROGRESS



The consents process is in progress, with the services conference underway. Procurement for the marine and terrestrial HVDC cables and the converter substations is in progress (expected to be completed by 2023 and 2024, respectively).

BENEFITS OF THE PROJECT



- **Market efficiency and the integration of renewable sources**, reducing south-north grid congestion and guaranteeing transport capacity of 1,000 MW;
- **Quality, Security and Resilience**, improving the performance of the system in terms of stability in the event of failures.

ENTRY INTO SERVICE



Entry into service is expected in 2028

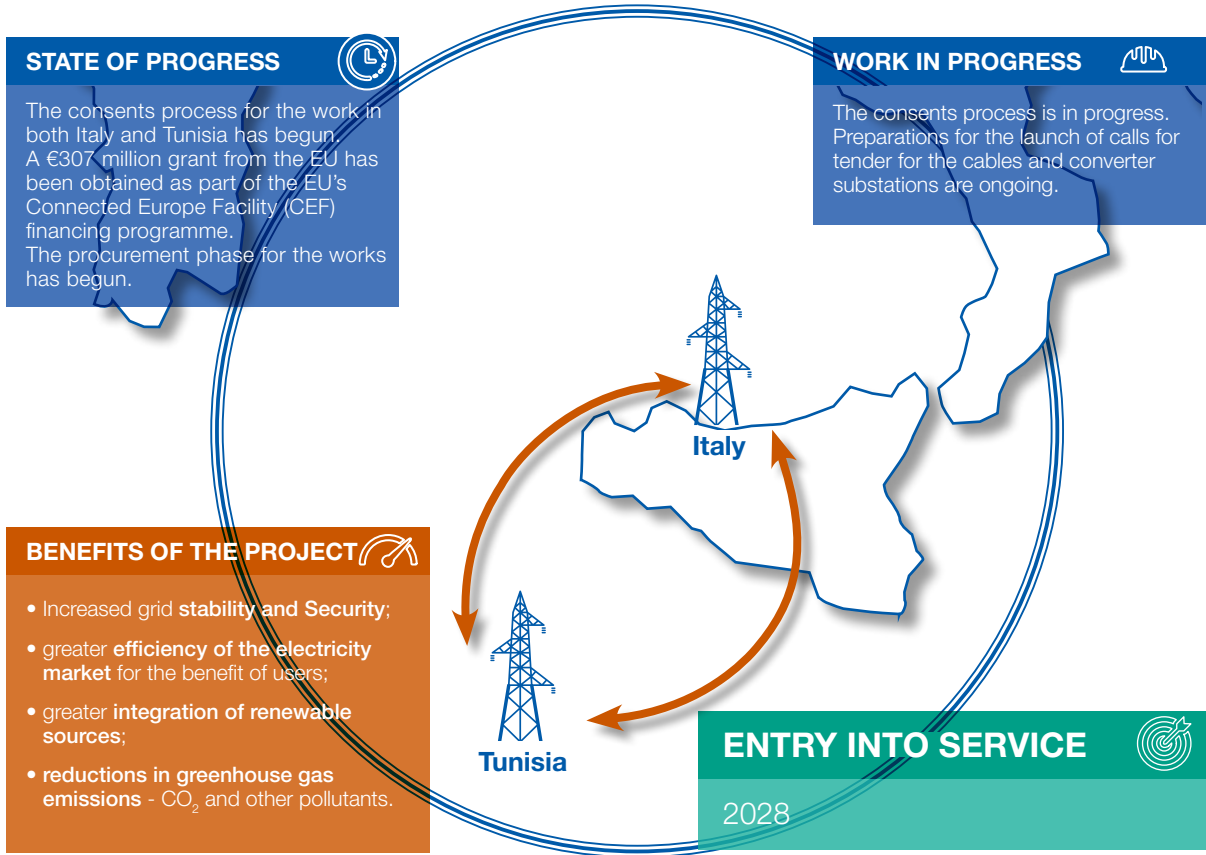


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>> continued SPECIAL PROJECTS FOCUS

3 HVDC connection Italy – Tunisia (TUN.ITA.)

The new 500kV direct current connection (HVDC) will connect Sicily with the Capo Bon peninsula in Tunisia, enabling the exchange of up to 600 MW of power. The project will be approximately 223km long (of which 200km in marine cable).



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Continuity and quality of service

Each segment of the electricity system - generation, transmission and distribution - plays a role in ensuring the availability of electricity in Italy, guaranteeing adequate quality standards and keeping the number of outages below pre-set thresholds.

Terna monitors service continuity through various indicators defined by ARERA (Resolution 567/19) and in Terna's Grid Code.

These continuity indicators are significant for the system, as they monitor the frequency and impact of events that have occurred on the electricity grid as a result of faults or due to external factors, such as weather events. In all cases, the period of observation is three years, a period in which there have been no significant changes, testifying to the high quality of service achieved.

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Continuity indicators used

RENS*

What it measures

Energy not supplied following events affecting the relevant grid**.

How it is calculated

The sum of the energy not supplied to users connected to the NTG (following events affecting the relevant grid, as defined in the ARERA regulations governing quality of service).

* Regulated Energy Not Supplied.

** The "relevant grid" refers to all of the high-voltage and very high-voltage network.

ASA***

What it measures

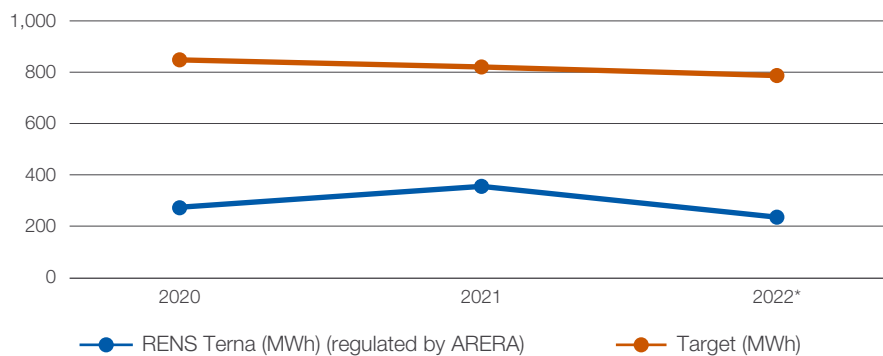
Availability of the service provided by the NTG.

How it is calculated

Based on the ratio of the sum of energy not supplied to users connected to the NTG (ENS) and energy fed into the grid.

*** Average Service Availability.

NTG RENS indicator ⁴²



* Provisional data.

The "NTG RENS" indicator for the period from January to December 2022, based on preliminary data, amounts to approximately 240 MWh (compared with an annual target of approximately 791 MWh set by ARERA).

As regards the ASA indicator, availability was 99.99989% (provisional data) in 2022, compared with 99.99992% in the previous year. The operating performance shows that ASA has remained stable at a high level over the years (the higher the indicator, the better the performance). This indicator shows that the energy not supplied following a fault on the owned grid represents a minimal part of the total quantity of energy supplied to users of the grid.

⁴² The targets for 2016–2023 have been set as an average of the 2012–2015 RENS indicator, referred to in ARERA Resolution 567/19/R/eel, with a 3.5% improvement in performance required for each year compared with the previous one. Since 2016, Terna's bonus/penalty mechanism also includes the performance of the grid operated by Terna Rete Italia S.r.l. (merged with Terna S.p.A. on 31 March 2017).

3. The Group's business • Operating activities

Existing regulations (set out in Resolution 567/2019/R/eel) envisage a series of mechanisms designed to regulate and encourage improvements in the quality of service provided by Terna. The overall economic effects of these mechanisms are accounted for at year end (including RENS).

With regard to costs, which are determined periodically on the basis of occurring events, Terna registered a balance of €1.9 million in 2022, compared to €5.9 million in 2021. The overall economic effects of the bonus/penalty mechanisms related to quality of service for 2022, compared with 2021, are shown below.

	(€m)		
QUALITY OF SERVICE	2022	2021	CHANGE
RENS bonuses/(penalties)	23.2	11.6	11.6
Revenue	23.2	11.6	11.6
Mitigation and sharing mechanisms	3.5	5.2	(1.7)
Contributions to the Fund for Exceptional Events	0.4	0.6	(0.2)
Compensation mechanisms for HV users	0.3	0.3	-
Contingent assets	(2.3)	(0.2)	(2.1)
Costs	1.9	5.9	(4.0)
TOTAL	21.3	5.7	15.6



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Dispatching of electricity

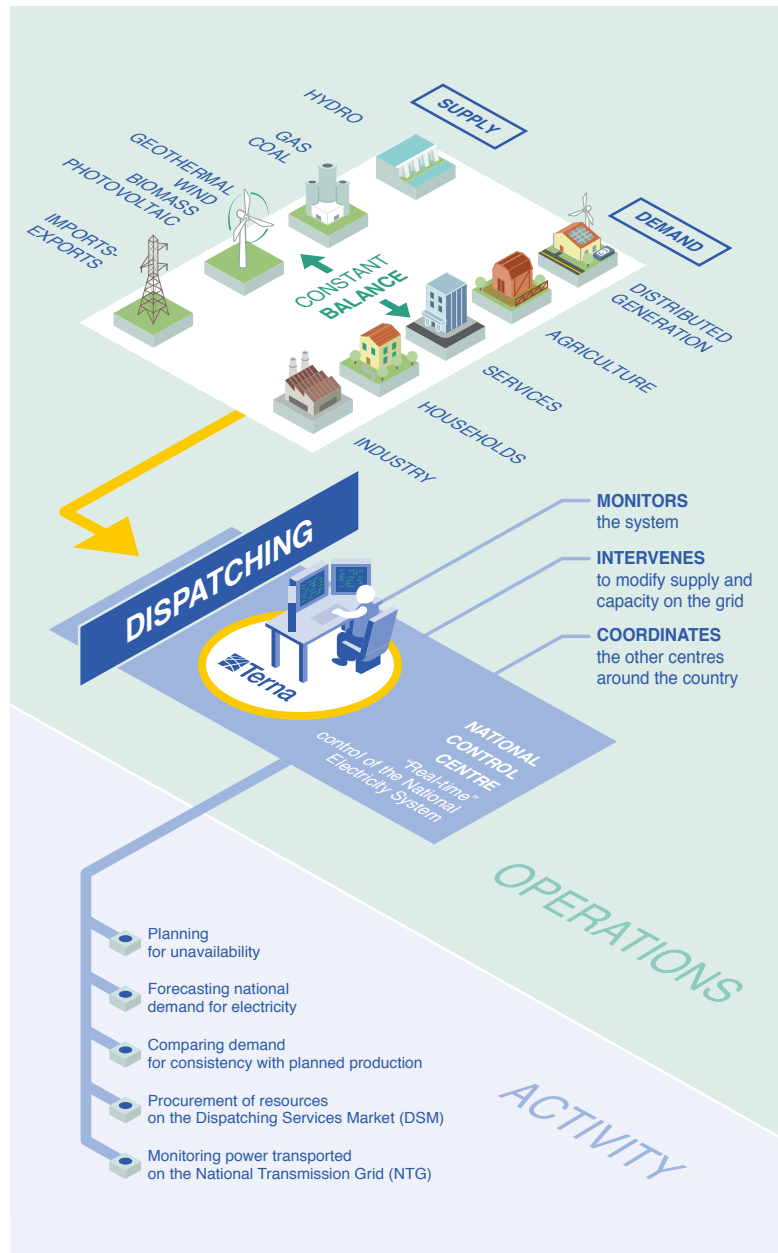
Except in specific and limited circumstances, electricity cannot be stored. Therefore, it is necessary to produce - moment by moment - the amount of energy required by all consumers (households and companies) and to manage its transmission so that supply and demand are always balanced, thus guaranteeing the continuity and security of the electricity supply. Terna manages these energy flows through the grid via dispatching activities.

Dispatching includes planning for the unavailability of the grid and of production plants over different timescales, forecasting national demand for electricity, comparing demand for consistency with planned production in the free energy market (the Power Exchange and over-the-counter contracts), the acquisition of resources for dispatching and monitoring power transfers for all the power lines that make up the grid.

This area of operation also includes management of the **Dispatching Services Market (DSM)**, through which the resources for dispatching services are procured.

"Real-time" control of the National Electricity System is ensured by the **National Control Centre**, the nerve centre for Italy's National Electricity System, which coordinates the other centres around the country, monitors the system and dispatches electricity.

The Centre intervenes, by issuing instructions to producers and Remote Centres, in order to modify supply and capacity on the grid. To avoid the risk of prolonged power outages, it may also intervene in an emergency to reduce demand.



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Key Dispatching Events in 2022

Once again in 2022, management of the system during lockdown periods was particularly tricky. Indeed, situations characterised by low consumption and high renewable production sometimes occurred, resulting in difficulties in regulating voltage, which was partly due to the smaller number of available thermoelectric plants. Despite this, Terna's Dispatching unit managed the system **to ensure the continuity and security of the country's electricity service at all times**.

Black start simulations Black start simulations are needed to check that the electricity system is working properly and to improve its efficiency by ensuring a rapid reboot of the system in the event of a blackout. In 2022, **four live tests** were successfully conducted.

The first test was conducted in March in Sardinia and involved part of the 220kV and 150kV grid, starting from the Taloro hydroelectric production and pumping plant, located in the centre of the island, up to the Sulcis thermoelectric plant (South Sardinia).

In October and November, two different tests were conducted. These involved part of the 380kV grid in Campania in the province of Caserta, starting from the Presenzano hydroelectric production and pumping plant up to the Sparanise thermoelectric plant.

In November, a test was carried out on the 380kV, 220kV and 132kV grid section in the Veneto region, running through the provinces of Belluno, Venice and Treviso, starting from the Soverzene (BL) hydroelectric production and pumping plant up to the Fusina (VE) thermoelectric plant.

New transmission limits There are a number of "bottlenecks" on Italy's transmission grid, which have made it necessary to identify "market zones" and set transmission limits. Eliminating these bottlenecks is one of Terna's missions, above all through development of the grid.

In 2021 - through a cross-cutting working group involving more than 200 experts in dispatching, systems engineering, technology, maintenance, operations and territory, planning and regulation - Terna implemented a high-tech project which, via low-capital-intensive measures, enabled transfer of significant benefits to the electricity system by pursuing "rapid" and efficient investment solutions that have less impact on consumers.

The synergy between this type of measure (which does not require authorisation) and the works envisaged in the Development Plan to increase transmission capacity will help to accelerate the achievement of decarbonisation targets thanks to greater integration of renewable sources.

Since January 2021, implementation of these measures has enabled an increase in transport capacity, allowing more power to be transmitted from areas with high renewable production to areas where energy consumption is high. The additional steps taken in 2022 and planned for the following two years will enable an improvement in the secure operation of the NTG, maximising production from plants from non-programmable renewable sources.

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Electricity market trends

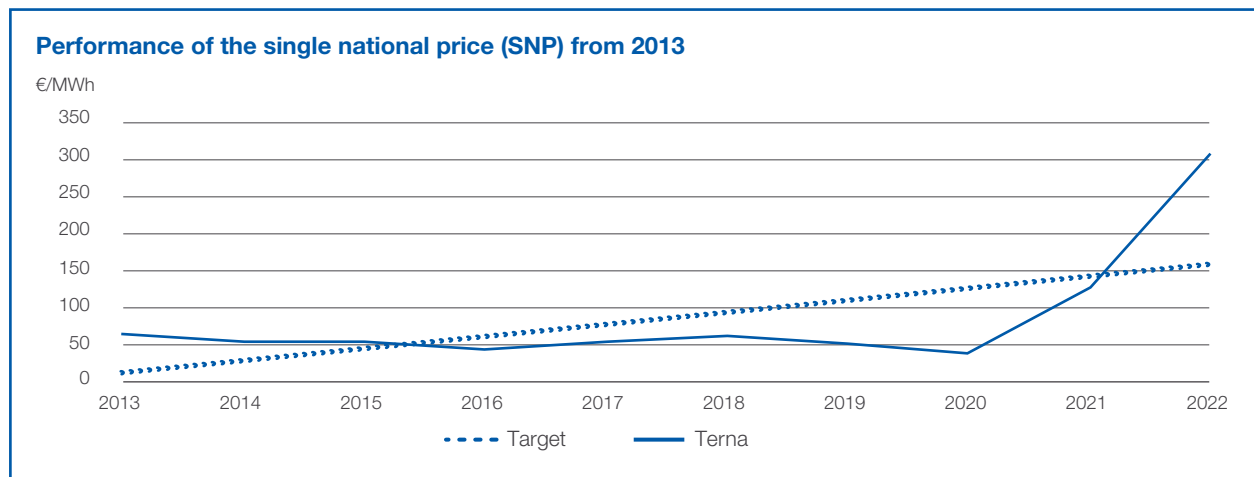
Electricity cost trends

Electricity prices

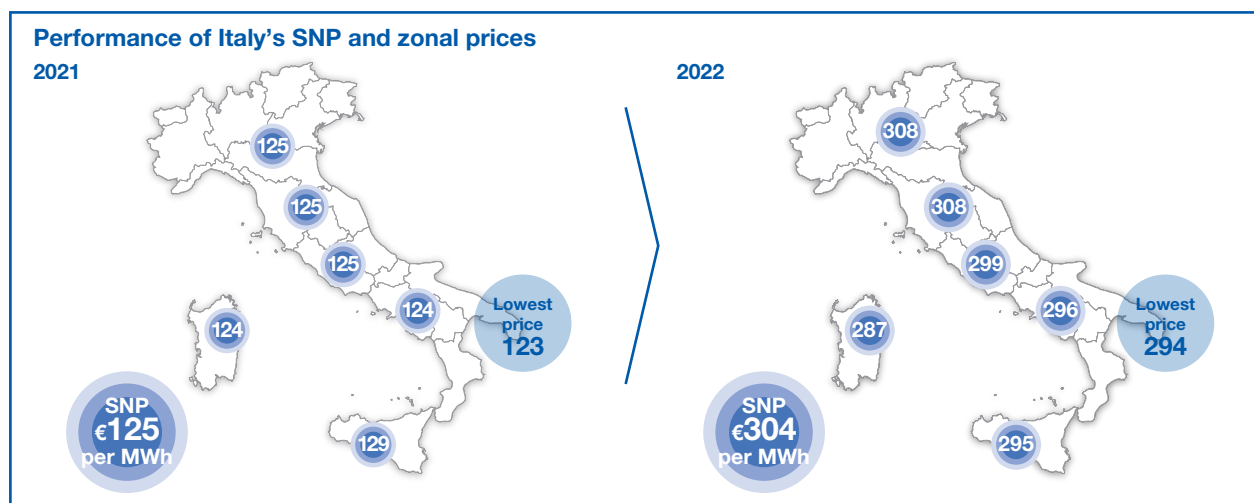
The average hourly price on the Italian Power Exchange (IPEX /SNP⁴³ – Single National Price) for 2022 is €304 per MWh, up sharply (142%) compared with 2021. This increase primarily reflects the surge in commodity prices, especially gas prices.

The Day Ahead Market, which sets the SNP, is based on supply and demand, although Italy must, by necessity, also take account of its particular geography, with the physical nature of the electricity grid, the widespread nature of its infrastructure and the location of consumption, and the resulting grid congestion. This means that there are a number of "bottlenecks" on the transmission grid, which have made it necessary to identify "market zones" and set transmission limits. Eliminating these bottlenecks is one of Terna's tasks, above all through development of the grid.

The following chart shows the performance of the SNP from 2013 to 2022, highlighting a declining trend until 2020. This trend has radically reversed due to sharp increases in 2021 and 2022, driven by soaring commodity prices, especially the price of gas.



Over the years, prices in the principal zones that make up the Italian electricity market and the Single National Price (SNP) have fallen into line.



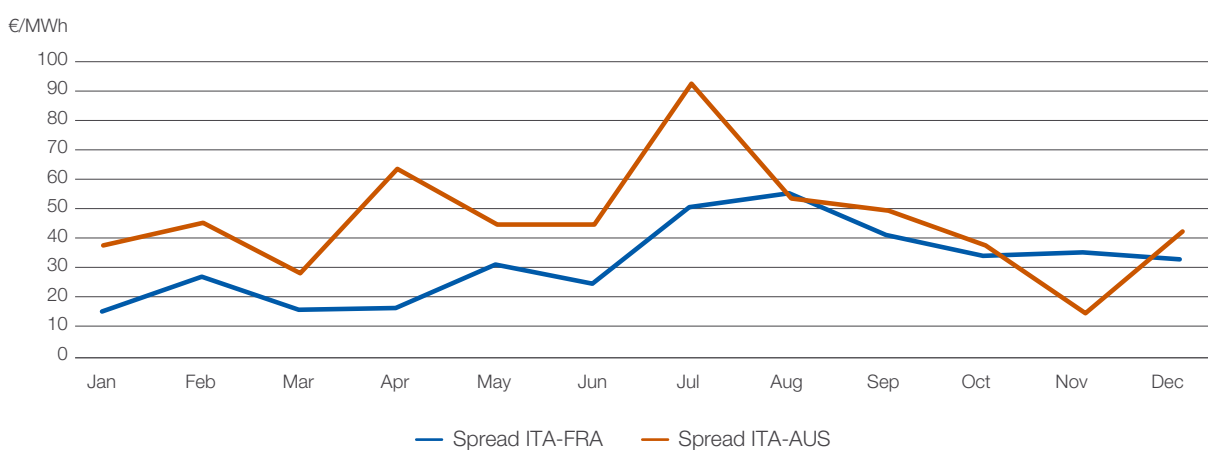
⁴³ IPEX: Italian Power Exchange; SNP: Single National Price.

Cross-border trade

Trade with other countries across the northern border in 2022, approximately 40 TWh, is broadly in line with 2021.

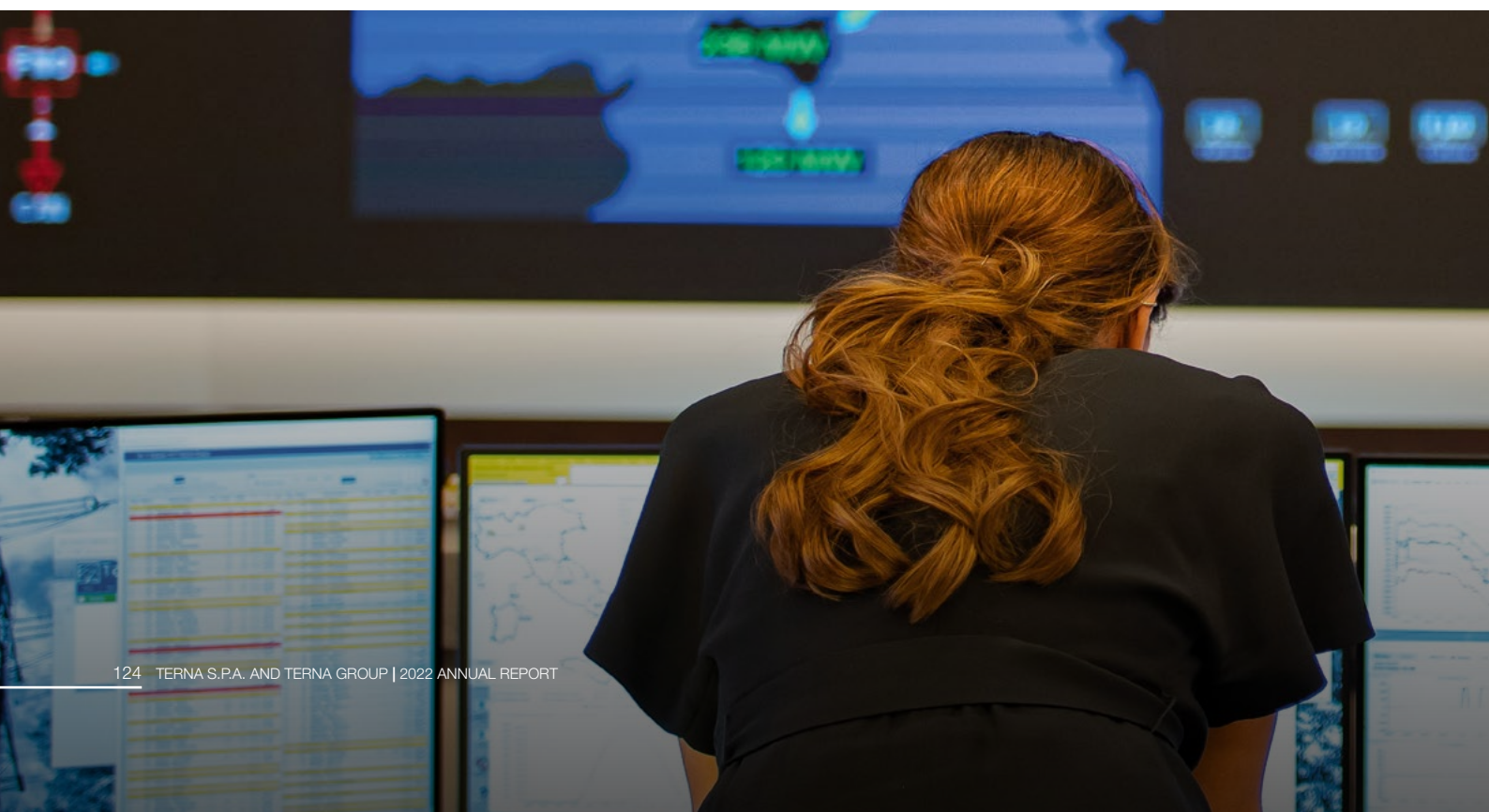
Prices on the French (PNX) and Austrian (EEX) exchanges rose year on year in line with the increase in commodity prices (especially the price of gas).

Monthly spread for energy prices compared with France (PNX) and Germany/Austria (EEX)



Prices in France and Austria also increased substantially in 2022. In particular:

- The French Powernext average annual price was €276 per MWh (up €176 per MWh or 176% compared with the previous year).
- The Austrian price (EEX) registered the same trend as the French price. The average annual price was €261 per MWh (up €162 per MWh or 164% compared with the previous year).



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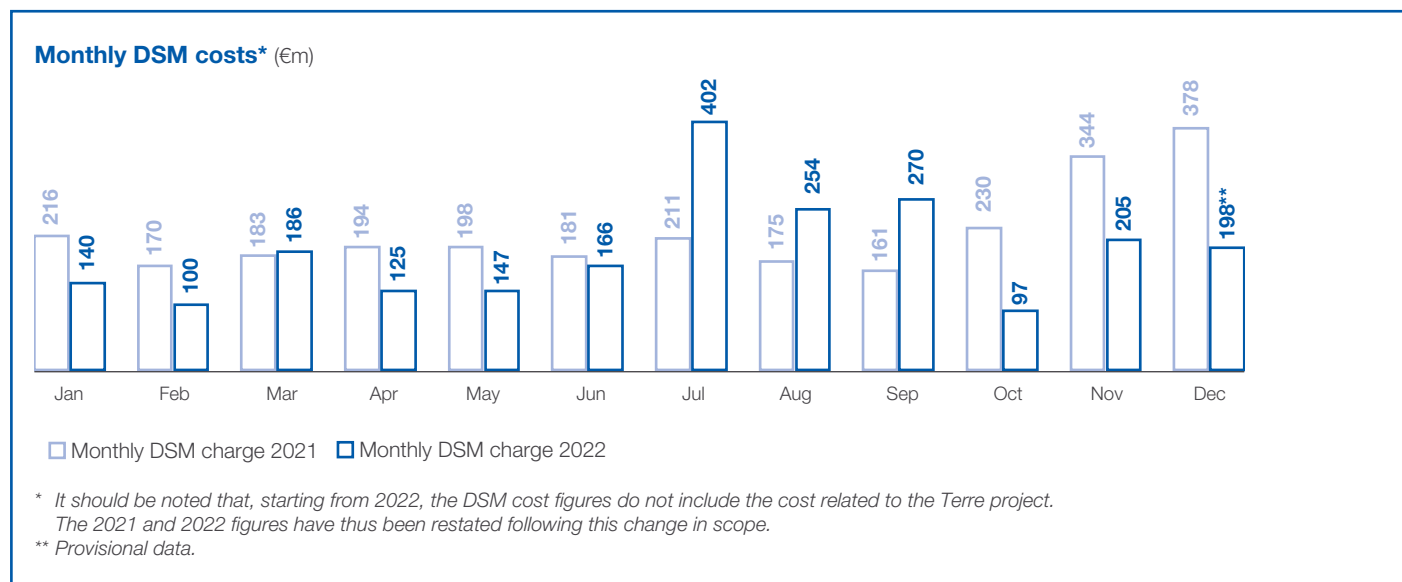
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Dispatching Services Market (DSM)

The net charge for using the DSM was €2,290 million in 2022 (provisional data), down 13% compared with the same period of the previous year (€2,641 million).

The reduction primarily reflects the fall in the costs of procuring services in all months of 2022 due to a reduction in selections on the Dispatching Service Market due to grid constraints, except in July, August and September when there was an increase in costs compared with the same period of the previous year, reflecting the sharp rise in the price differential. However, the reduction is also due to the efficiency improvements and investment carried out by Terna to cut the cost of the DSM.

Terna procures dispatching resources on the Dispatching Service Market (DSM) to manage and control the system (freeing up intra-zonal congestion, creation of power reserves, real-time balancing) in order to ensure the security and adequacy of the electricity system.



Cost of procuring resources on the Dispatching Services Market (uplift)

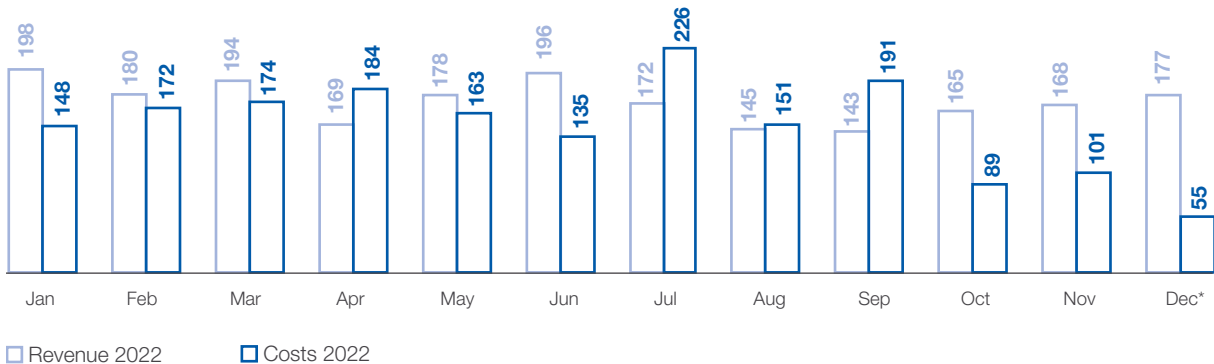
Uplift payments are the tool used by the system to recover the net costs deriving from energy-related items from the end user, including the supply of services and energy to cover system imbalances in the DSM, imbalance costs, congestion revenue and the related coverage (CCT, CCC, CCP and DCT⁴⁴) and the cost of the virtual interconnection (the Interconnector).

ARERA Resolution 111/06 (Title 4) regulates charges for dispatching services and the connected guarantees. Dispatching charges include the cost of procuring resources on the Dispatching Services Market (known as the uplift), pursuant to article 44, as amended.

The charge is invoiced pro-rata to dispatching users based on energy withdrawn, to cover the expected accrued monthly cost and any prior differences.

In 2022, the total uplift was €1,789 million (provisional data), down 24% on the previous year (€2,360 million). The reduction was due to the reduced cost of procuring services, the fall in the consideration due for Goodwill and Change of Structure Tokens⁴⁵, the reduced cost of contracts providing an alternative to essential providers⁴⁶ and a sharp rise in congestion revenue in Italian and Overseas market areas⁴⁷, only partly offset by a significant increase in the cost of virtual interconnection services⁴⁸.

Performance of revenue and uplift costs (€m)



* Provisional data.

⁴⁴ CCT - Fees for Assignment of Rights of Use of Transmission Capacity;
 CCC - Contract Covering the Risk of Volatility of the Fee for Assignment of Rights of Use of Transmission Capacity (between zones);
 CCP - Contract Covering the Risk of Volatility of the Fee for Assignment of Rights of Use of Transmission Capacity (between industrial centres);
 DCT - Contract Covering the Fee for Assignment of Rights of Use of Transmission Capacity on Foreign Interconnections.

⁴⁵ Goodwill and Change of Structure Tokens are payments made to production plants who have the right to receive them when Terna requests them to fire up the plant or change their structure.

⁴⁶ These are the costs incurred by Terna for payments to production plants defined as essential for the electricity system, pursuant to Annex A27 of the Grid Code, and who chose the alternative regime described in art 63 of Resolution 111.06.

⁴⁷ Congestion revenue is generated when there are differences in the balanced prices in the energy markets in the various market areas.

⁴⁸ Virtual interconnection is a net cost: Terna plans, builds and operates new overseas interconnection infrastructure, the cost of which is partly covered by revenue from auctions in which third party finance providers take part and who will then have access to the available transport capacity.

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Business relations with electricity service operators

In providing the public electricity transmission and dispatching services operated by the Company under concession, Terna maintains business relations with various categories of operator, including:

- dispatching users (producers, wholesalers or end customers) with regard to the provision of dispatching services;
- distribution companies and other private grid operators in relation to transmission and aggregate metering, required with regard to regulate the dispatching service.

As part of dispatching activities, as the sole counterparty, Terna procures the resources needed to meet requirements and to guarantee a reserve margin on the DSM. In 2022, transactions in the DSM amounted to approximately €2.9 billion.

Since 2017, Terna is also responsible for the settlement of amounts due to and from balancing service providers (BSPs) that provide services on the Dispatching Services Market (DSM), as part of pilot projects launched by Terna in accordance with ARERA resolution 300/2017, including the Mixed Enabled Virtual Units (UVAM) project. In particular, as part of the latter project, Terna procured forward balancing resources totalling 494 MW from 16 BSPs.

In addition, for dispatching services purposes, Terna checks the consistency between the final programmes of operators (producers and consumers) with the amounts that have actually been withdrawn from/input into the grid. Any deviations represent so-called "imbalances", the value of which entails invoicing the related energy imbalance prices to the individual parties responsible for the imbalance costs. This is done in order to cover the costs generated for the system as a result of their conduct.

Further categories of operator with whom Terna trades include applicants who have requested connection of their plants to the NTG (producers and consumers) and interruptible users, namely customers who are willing to have their electricity supply suspended. Terna signs contracts with these operators regarding the interruptibility service, which is required for the secure operation of the electricity system, and especially with the aim of mitigating the risk of widespread power outages.

Participants in the interruptibility service numbered 152 in 2022, accounting for 4,539 MW of power. The related annual cost amounts to approximately €0.25 billion.

Since 2022, Terna is responsible for the settlement of amounts due to and from capacity market operators. This mechanism allows Terna to procure capacity, through long-term contracts awarded through competitive auctions, in order to guarantee the adequacy of the system.

The operators participating to the auction have:

- the obligation to offer capacity on energy and service markets at a price not greater than a strike price set by ARERA;
- the right to receive a fixed annual bonus from Terna.

The total cost for the service provided on the capacity market amounted to €1.2 billion in 2022.

Electricity sector operators in relations with Terna - number of customers

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CUSTOMERS	2022	2021	2020
Interruptible users	152	175	212
Distributors directly connected with the NTG ⁽¹⁾	53	55	54
Supply-side dispatching service users (producers and traders)	135	135	136
Demand-side dispatching service users (traders and end users, including the Single Buyer)	188	188	193

⁽¹⁾ In addition to licensed distribution companies, the figure includes operators of closed distribution systems for internal user networks directly connected to the NTG and, from 2019, the Autonomous State Corporation for Public Utilities in the Republic of San Marino.

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Operating results of Regulated Activities

The following table shows a breakdown of the results from the Terna Group's Regulated Activities in 2022 and 2021⁴⁹.

(€m)

	2022	2021	CHANGE
Total regulated revenue	2,542.3	2,253.5	288.8
Tariff revenue and incentives	2,418.6	2,154.8	263.8
- Transmission revenue	1,968.6	2,041.0	(72.4)
- Dispatching, metering and other revenue	450.0	113.8	336.2
Other regulated revenue	56.3	51.8	4.5
Revenue from construction services performed under concession in Italy	67.4	46.9	20.5
Total cost of Regulated Activities	535.3	453.0	82.3
Personnel expenses	266.2	226.9	39.3
External resources	176.8	157.1	19.7
Other	24.9	22.1	2.8
Cost of construction services performed under concession in Italy	67.4	46.9	20.5
EBITDA from Regulated Activities	2,007.0	1,800.5	206.5

EBITDA from Regulated Activities amounts to €2,007.0 million, an increase of €206.5 million compared with the figure for the previous year. This primarily reflects the impact on tariff revenue and incentives (up €263.8 million) of the effect of output-based incentive mechanisms, the increase in the regulated asset base during the period, after the decrease reflecting the reduction in the WACC recognised for 2022 (equal to 5%, compared with the previous 5.6%) and the volume effect.

After excluding revenue from construction services performed under concession (up €20.5 million), **revenue from Regulated Activities** is up €268.3 million, primarily reflecting:

- the increase in revenue relating to output-based incentive mechanisms for dispatching, amounting to €334.7 million, reflecting the impact of Resolutions 597/2021 and 132/2022, designed to cut DSM costs, the shortfall in wind production and essential plants (€194.2 million, representing the accrued share of the present value of the incentive due for the period 2022-2024) and Resolution 699/2018, which provided incentives for grid development projects in the three-year period from 2019 to 2021 designed to relieve congestion within market areas and grid constraints due to voltage regulation and improve conditions for essential service provision (€140.5 million, representing the present value of the amount established in Resolution 26/2023, to be collected over three years from 2023);
- reduced transmission revenue (down €72.4 million) as a result of the reduction in the WACC recognised for 2022 (Resolution 614/21) and the volume effect, partly offset by an increase in the regulated base asset and output-based incentives relating to the delivery of additional transmission capacity between market areas (€34.5 million, Resolution 567/2019) net of the incentives recognised in 2021 (down €48.1 million);
- increased revenue in the form of the bonus receivable under the RENS incentive mechanism (up €11.6 million), due primarily to recognition of the portion due on the basis of the estimated overall performance in the 2022-2023 regulatory period;
- increased revenue from connections to the NTG (up €3.3 million) and an increase in compensation received for damage to infrastructure (up €1.7 million);
- recognition, in 2021, of revenue relating to the outcome of the claim for a refund of stamp duty paid on the acquisition of Rete S.r.l. (down €13.4 million).

⁴⁹ The Terna Group's operating segments are consistent with the internal control system adopted by the Parent Company, in line with the 2021-2025 Industrial Plan.

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After excluding the cost of construction services performed under concession (up €20.5 million), the **cost of Regulated Activities** is up €61.8 million, primarily reflecting:

- the impact on personnel expenses (up €39.3 million) of an increase in the average workforce and of additional provisions for staff incentive and early retirement schemes, partly offset by the higher amount of capitalised expenses;
- an increase in service costs (up €19.7 million), due to increased activity and new initiatives carried out by the Group;
- a decrease in the costs incurred for quality of service (down €4.0 million), primarily linked to the repayment made to Terna to cover the amount in excess of the threshold paid in 2021 to distribution companies for mitigation services (down €2.7 million, pursuant to Resolution 623/2022) and a reduction in faults and non-postponable unavailability;
- the adjustment to provisions linked to amounts previously set aside in relation to Land Registry Circular 6/2012, which were mainly released in 2021, and administrative charges (a total increase of €8.5 million).



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Non-regulated Activities:

Energy market solutions

Non-regulated Activities are designed to support the ecological transition, in keeping with the core business. Terna uses its know-how in the design, engineering, operation and maintenance of complex solutions, including the integration of telecommunications networks, and proprietary systems and RES expertise in the production of cables and transformers. The aim is to serve commercial and industrial customers with the Group's expertise and experience across a wide range of solutions.

The main areas of business in this segment are:

- **Industrial**
- **Connectivity**
- **Energy solutions**
- **Private Interconnectors pursuant to law 99/2009**



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Industrial

Via two leading companies in their fields, Terna is able to oversee expertise and supplies in two key areas for grid development:

- **Transformers – Tamini Group:** a world leader in the production of industrial transformers and in after-sales service;
- **Terrestrial cables - Brugg Cables Group:** a centre of excellence for research, development and testing in the field of terrestrial cables, the Brugg Group is based in Switzerland and has several overseas subsidiaries.

Transformers – Tamini Group

Tamini operates in the electromechanical sector and is a leader in the design, production, commercialisation and repair of power transformers for electricity transmission and distribution grids, of industrial transformers for the steel and metals industry and of special transformers for convertors used in electrochemical production.

With over a hundred years of experience, Tamini has a well-established name in Italy and overseas, thanks to its technological and engineering capabilities, combined with the degree of customisation and production flexibility it can offer.

Tamini received orders for transformers worth approximately €203.9 million in 2022, marking a sharp increase of 12.6% compared with the previous year. This is Tamini's best result ever. [Order book](#)

Orders in the Industrial sector amounted to approximately €64.1 million, up 44% compared with 2021. This increase is primarily linked to the award of major contracts in North America, Asia and northern Europe.

Orders in the Power sector amounted to approximately €139.8 million, up 2% compared with 2021. This result is linked to the award of major orders placed by utility companies in Italy, Belgium and Finland.

Orders for Services in 2022 amounted to approximately €15.5 million, an increase of 11% compared with 2021.

The value of factory backlogs, is significantly up compared with the end of 2021 at approximately €174 million (up 29%).

Revenue rose strongly in 2022, up 14.7% compared with 2021, due to the increased value of transformer production. [Results](#)

Several very important items of equipment were also tested, including two 670 MVA and 340 MVA step-up transformers linked to the Capacity Market in Italy, three phase-shifting transformers for TSOs in Austria and Denmark and three 400 MVA transformers for a TSO in Finland, and four rectifier transformers for the United States. In addition, several 400 MVA transformers are under construction for a major TSO in northern Europe.

Tamini continued to be committed to the production of vegetable oil transformers for the Power sector in 2022. The production of three 250 MVA and 400 MVA autotransformers using vegetable oil is in progress at the Legnano plant. A 105 MVA transformer for a major steelworks in Italy was also tested. [Vegetable oil transformers](#)

Terrestrial cables – Brugg Cables Group

The Brugg group operates in the terrestrial cable sector, producing low through to very high voltage products and specialising in the design, development, construction, installation and maintenance of electrical cables of all voltages and accessories for high and very high-voltage cables.

Order book Orders acquired in 2022 amount to approximately CHF224 million (up 14% on 2021). The High Voltage System segment made a major contribution (CHF137 million). The Low Medium Voltage segment also made a significant contribution (CHF54 million), as did the High Voltage Accessories segment (CHF33 million).

Compared with 2021, production of high voltage cables is up 10%, whilst the volume of low and medium voltage cables produced remained stable.

Results Revenue for 2022 is up 16.2% on the previous year. However, rising production costs and the postponement of certain projects, together with the strengthening of the Swiss Franc against foreign currencies (especially the Euro and the US Dollar) and the depreciation of metals in stock used for cable production, had a negative impact on margins.

Operating activities In the High Voltage Accessories segment, the new Dry Type Outdoor terminal (an outdoor gel-insulated composite terminal) passed all the final tests in accordance with the Terna Group's high standards, and the first terminals are due to be delivered in March 2023. Orders continue to perform extremely well and efforts to grow the market throughout the world are continuing.

The high and very high voltage systems segment saw strong growth in orders. The energy crisis is leading to a significant increase in demand for high voltage systems. In addition, due to the difficulties in procurement, contracts are being awarded well in advance of expectations and this is reflected in a notable increase in the order book. A major 400 kV renewable energy project in Germany was completed. The first major EPC (Engineering, Procurement and Construction) contract in Dubai was also awarded.

The low and medium voltage segment continues to record a high volume of orders. In 2022, prices were also increased to keep pace with the general rise in production costs. This has so far not led to a drop off in orders.

Connectivity

The Group's nationwide infrastructure is made available to meet the increasingly urgent need for fast and reliable digital connections. Partners are also supported in the development of smart connectivity solutions via the following services: optical fibre use rights, pylon rental and housing and facilities (installation of telecommunications equipment within Terna's already operational facilities).

Fibre

Via optical fibre use rights, Terna provides customers with access to new infrastructure, which performs better than underground cable standards, in terms of reliability (far fewer faults per year per km) and quality (low attenuation), with significant savings in terms of length compared to terrestrial connections (>20% over a long distance). Since 2017, indefeasible right of use (IRU) has been granted for a total of approximately 32,500 km of fibre, for which Terna provides maintenance and housing servicing for regeneration. The main contracts, which continued to be fulfilled in 2022, are with Open Fiber, Retelit, Fastweb and Eolo. Under these contracts, a total of 1,055 km of fibre were delivered in 2022.

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Energy solutions

Engineering, procurement and construction (EPC), operation and maintenance (O&M) and digital services. The following activities are covered by these services.

Smart grids

The provision of turnkey solutions for businesses looking to evaluate, design and integrate renewable energy systems (photovoltaic or wind power), storage systems (batteries) and cogeneration/trigeneration solutions into their production cycle. This involves the production of complex generating, storage, active demand behind the meter, utility scale and advanced plant control systems capable of optimising their operation.

Renewables - LT Group

The acquisition of LT (October 2021) has led to the creation the first Italian operator in the photovoltaic plant operation & maintenance sector, with approximately 1,000 MWp under management, thus confirming Terna's role as driver and enabler of the energy transition and its constant support for the growth of renewables.

LT S.r.l. is also involved in the design and implementation of the revamping and repowering of existing plants, thereby helping to improve production from Italy's installed power assets and to achieve national energy transition goals. The company is also involved in the construction of new photovoltaic plants for third parties.

Turnover in 2022 amounted to approximately €42.3 million. All lines of business saw significant growth: routine and extraordinary maintenance, revamping and repowering and EPC. The forecast order book for 2023 is in line with projected turnover of more than €95 million.

Other projects

Under the contract agreed in 2021 with Eni New Energy – Storage per fast reserve, work on the design and construction of an electrochemical storage unit in Assemini (approximately 14 MW) is proceeding. As regards the revamping/repowering contract entered into with EF Solare in 2021, work was completed at five plants during the year, whilst work is still in progress at two other plants.

High voltage

The following contracts were completed in 2022: the revamp of connection infrastructure for Vetrerie Riunite, the production and supply of 3 STATCOM systems for Acciaierie Venete, completion of a contract for the production of a HV/MV electricity substation to enable Energia Emissioni Zero 4 S.r.l. to connect its wind farm to the NTG. Finally, during the year, work began on the contract with RIVA ACCIAI (signed in 2022) for the turnkey supply of a STATCOM system, whilst work is in progress on the contract with RFI (signed in 2018), with six application contracts signed and 19 installations carried out.

Private interconnectors pursuant to Law 99/2009

In order to develop a single electricity market by expanding cross-border interconnection capacity, EU legislation has set out guidelines for the creation of interconnections with other countries by entities other than grid operators.

The European guidelines have been introduced into Italian legislation by [Law 99/2009](#), which assigned Terna responsibility for selecting undertakings (the "selected undertakings"), on the basis of public tenders, willing to finance specific interconnectors in exchange for the benefits resulting from a decree granting a third-party access exemption with regard to the transmission capacity provided by the new infrastructure.

The law states that these private backers, in exchange for a commitment to finance such projects, are required to commission Terna to build and operate the interconnectors.

The cross-border interconnectors with Montenegro (completed in December 2019), France (completed in November 2022), Austria (under construction), Switzerland and Slovenia (currently awaiting the necessary consents) are part of this overall project.

Italy–Montenegro interconnector project Terna is responsible for managing routine and special maintenance activities and operating the interconnector in return for an annual fee. The infrastructure was completed on 28 December 2019 and is owned by Monita Interconnector S.r.l., which was sold to the private backers on 17 December 2019.

Italy–France interconnector project The Terna Group is responsible for managing routine and special maintenance activities and operating the interconnector. The infrastructure was completed on 7 November 2022 and is owned by Piemonte Savoia S.r.l., which was sold to the private backers on 4 July 2017, pursuant to Law 99/2009.

Italy–Austria interconnector project The Italy-Austria interconnector (the Reschenpass project) involves construction of a new 220kV AC interconnection between the Glorenza (Italy) and Nauders (Austria) substations. This will consist of 28 km of underground cable, including 26 km on the Italian side, and the necessary upgrade of the domestic grid. The project will increase cross-border interconnection capacity between Italy and Austria by around 300 MW, practically doubling the currently available capacity. The cost of the project is expected to be approximately €80 million.

The sale of Terna S.p.A.'s 100% stake in Resia to Interconnector Energy Italia S.C.p.A. ("IEI"), Consorzio Toscana Energia S.p.A. and VDP Fonderia S.p.A. was completed on 15 September 2021, together with the signature of agency agreements for the construction, operation and maintenance of the Italia-Austria Interconnector in accordance with Law 99/2009.

On 6 May 2021, the European Commission gave the go-ahead for exemption to be granted and, on 17 June 2021, Resia received confirmation of the exemption from the Ministry for Ecological Transition (for capacity of 150 MW for a period of 10 years), following the receipt of clearance from ARERA and the European Commission.

It should be noted that, on 16 March 2020, the exemption process formally began with the special purpose vehicle, Resia, submitting an exemption application to the Ministry for Economic Development. The Ministry then submitted the exemption application to ARERA to enable the regulator to issue its opinion. On 17 November 2020, ARERA granted its approval for the issue of the exemption decree to Resia.

The interconnector is due to enter service in 2023.

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The project involves the development of new transmission lines between Italy and Switzerland, with the aim of increasing interconnection capacity between Italy and Switzerland.

[Italy–Switzerland
interconnector
project](#)

The creation of a direct current line is planned, partly in undersea cable, between the substations of Salgareda (IT) and Divača/Beričevo (SL), together with work on upgrading the domestic grids in Italy and in Slovenia. The project is currently awaiting the necessary consents on the Italian side. The expected increase in cross-border capacity of approximately 1 GW will raise the interconnection capacity to more than double the current level.

[Italy–Slovenia
interconnector
project](#)

Operating results of Non-regulated Activities

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The following table shows a breakdown of the results from the Terna Group's Non-regulated Activities in 2022 and 2021⁵⁰.

	(€m)		
	2022	2021	CHANGE
Revenue from Non-regulated activities	421.4	350.9	70.5
Industrial	286.7	242.4	44.3
- <i>Brugg Cables Group</i>	137.4	119.9	17.5
- <i>Tamini Group</i>	149.3	122.5	26.8
Connectivity	34.6	40.5	(5.9)
Energy Solutions	85.8	56.0	29.8
- <i>High voltage</i>	34.2	32.2	2.0
- <i>Smart Grids</i>	51.6	23.8	27.8
Private interconnectors	11.5	9.1	2.4
Other	2.8	2.9	(0.1)
Cost of Non-regulated Activities	363.9	289.1	74.8
EBITDA from Non-regulated Activities	57.5	61.8	(4.3)

EBITDA from Non-regulated Activities for 2022 amounts to €57.5 million, a reduction of €4.3 million compared with the previous year. This reflects the lower volume of IRU contracts classified under revenue from Connectivity services (down €7.6 million), partially offset by the increased contribution from the private Italy-France Interconnector (up €2.2 million), essentially following its entry into service in November 2022.

⁵⁰ The Terna Group's operating segments are consistent with the internal control system adopted by the Parent Company, in line with the 2021-2025 Industrial Plan.

International Activities

International markets offer opportunities to leverage the expertise developed in Italy in the role as a TSO in the integration of renewables and the expansion of electricity grids, via the development of transmission infrastructure, driven by growing demand for electricity and a regulatory system that offers access to external operators.

Overseas investment focuses on countries with stable political and regulatory regimes and a need to develop their electricity infrastructure, on occasion in collaboration with international energy companies.

Overseas initiatives of interest to the Terna Group are:

Development and operation of concessions: this model envisages the acquisition and operation of transmission systems abroad by taking part in international concession and/or secondary market awards;

Energy solutions: this includes all high value-added non-traditional activities in the fields of energy storage and smart solutions;

Technical assistance: this involves the provision of consulting and technical assistance services regarding a TSO's core activities, as well as the definition and implementation of regulatory and market frameworks in the local energy context;

Project management: project management activities enable the Group to leverage its expertise in managing overseas projects and in infrastructure management.

South America - sale of Latin American assets

As part of overseas initiatives, the plan to extract value from activities in South America proceeded. Launched in the last part of 2021, the plan involves the **sale of up to 100% of the Group's Latin American assets**.

On 29 April 2022, Terna S.p.A., Terna Plus S.r.l. and Terna Chile S.p.A. signed an agreement with CDPQ, a global investment group, for the sale of all their power line assets, extending for approximately 1,200 km, in Brazil, Peru and Uruguay. The value of the assets being sold (the equity value) is more than €265 million. Transaction closing is due to take place in phases, for the most part in the second half of 2022.

On 7 November 2022, the first **transaction closing of the Brazilian companies SPE Santa Maria Transmissora de Energia S.A., SPE Santa Lucia Transmissora de Energia S.A. and SPE Transmissora de Energia Linha Verde II S.A.**, owners of three power lines in Brazil extending for 670 km, was completed. The value of the assets being sold (equity value) is more than €145 million. On 22 December 2022, **transaction closing was finalised for the company Difebal S.A.**, the owner of power line assets in Uruguay extending for 214 km. The value of the assets being sold (equity value) is more than €27 million. Both transactions are in line with the terms of the agreement.

The transactions are consistent with the broader strategy of refocusing the Terna Group's international presence on markets with interesting growth potential and low risk, with particular reference to North America, as already announced in the update of the 2021-2025 Industrial Plan.

In 2022, engineering work and the acquisition of rights and easements for the **SPE Transmissora de Energia Linha Verde I S.A.** project continued. This project involves construction of a 150-km long 500kV power line dubbed the "Governador Valadares-Mutum" in the State of Minas Gerais, which is scheduled to be sold in the second half of 2024.

In **Peru**, the operation and maintenance of the 132-km 138kV power line between Aguaytia and Pucallpa also continued in 2022, following the line's entry into commercial service on 16 May 2021. The company is scheduled to be sold in the first half of 2023.

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North America

On 10 October 2022, **Terna USA LLC**, a Group company recently established to oversee development activities in North America, Meridiam (an independent investment company) and Boundless Energy (a transmission project development company in the USA) signed a **Joint Development Agreement regarding electricity transmission grid projects to be jointly developed in the United States**. The partnership, which will benefit from the three partners' distinctive skills, will enable them to take advantage of business opportunities relating to the acquisition, development and construction of large onshore and offshore electricity transmission infrastructure projects in the United States. Following signature of the Agreement, the company, **BMT Energy Transmission Development LLC**, was established on 2 November 2022.

Operating results of International Activities

The following table shows a breakdown of the results from the Terna Group's International Activities in 2022 and 2021⁵¹.

EBITDA from International Activities for 2022 and 2021 does not include the results generated by the Latin American initiatives involved in the above sale process. As required by IFRS 5, these initiatives are classified under "Profit/(Loss) for the year from discontinued operations and assets held for sale" in the reclassified income statement in the paragraph entitled "The Terna Group's financial review for 2022".

	(€m)		
	2022	2021	CHANGE
Revenue from International Activities	0.8	0.4	0.4
Cost of International Activities	6.1	7.9	(1.8)
EBITDA from International Activities	(5.3)	(7.5)	2.2

Negative EBITDA from International Activities, amounting to €5.3 million for 2022 essentially reflects the costs incurred by central departments to support overseas initiatives and marks an improvement of €2.2 million compared with the previous year (negative EBITDA of €7.5 million). This primarily reflects the impact on personnel expenses of a reduction in the average workforce following the reorganisation carried out within the Group.

Discontinued operations and assets held for sale report a net loss of €20.3 million, marking a deterioration of €7.5 million compared with the previous year. This essentially reflects increased losses and the adjustment to the value of discontinued operations and net assets held for sale, partially offset by the gain resulting from the first two transaction closings for the sale to CDPQ of the Latin American assets, which took place in November and December 2022. Further details are provided in the specific section of the notes to the consolidated financial statements.

⁵¹ The Terna Group's operating segments are consistent with the internal control system adopted by the Parent Company, in line with the 2021-2025 Industrial Plan.

Financial resources and sustainable finance

The Group's financial management is based on an approach that aims to maximise efficiency and achieve and maintain a solid financial structure, whilst adopting a highly prudent stance towards mitigation of the potential risks.

The key aspects of the resulting financial strategy are:

- **diversification** of the sources of financing, raising funds on both the capital markets and in the form of borrowings from major banks and supranational financial institutions;
- a **balance** between short and medium-term instruments, in keeping with the composition of assets;
- the **proactive management** of debt in order to take advantage of the opportunities offered by the capital markets;
- a commitment to maintaining **high credit ratings**, based on a strong financial position;
- a commitment to **develop sustainable finance** with the aim of embedding the concept of sustainability in the Company's financial strategy;
- **active management of the financial risks** to which the Company is exposed, as set out in more detail in the section, "Risk management".

Sustainable finance

Fully in line with Terna's strategy, which aims to combine investment and sustainability to drive growth and value creation, it is Terna's ambition to play a leading role in the sustainable finance market. This strategy was also followed in 2022.

The **senior green bonds issued by Terna** at 31 December 2022, under its €9,000,000,000 Euro Medium Term Notes (EMTN) programme amount to €2.6 billion, in addition to the perpetual, subordinated green bonds issued on a standalone basis in February 2022, amounting to €1 billion.

Since 2018 the market has shown a strong appetite for the green bonds issued. Terna successfully launched its first green bond amounting to €750 million in July 2018, launching a further two green issues totalling €750 million in 2019 (the first worth €250 million after reopening the issue announced in July 2018), a green bond issue with a total nominal value of €500 million in 2020 and, in June 2021, a new green bond issue worth €600 million.

These green issues are used to finance or refinance **Eligible Green Projects**. These are projects producing environmental benefits that meet certain criteria listed in the **Green Bond Framework** published by Terna in compliance with the "Green Bond Principles" drawn up by the ICMA (International Capital Market Association) and the EU Taxonomy. Specifically, the net proceeds from the issues will be used to finance:

- projects that aim to increase renewable energy production – for example, infrastructure enabling renewable energy plants to be connected to the national grid or that allow for a larger volume of renewable energy to be injected into the grid;
- projects designed to cut carbon emissions by reducing grid losses – for example, infrastructure designed to boost the efficiency of the electricity transmission grid;
- projects designed to ensure the quality, security and resilience of grid infrastructure;
- projects that aim to reduce land use and protect biodiversity.

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At 31 December 2022, Terna's four green bond issues have been admitted to listing in **Borsa Italiana's ExtraMOT PRO segment**, created to offer institutional and retail investors the opportunity of investing their capital where the proceeds will be applied to environmental and social projects.

Terna agreed **four** three-year **ESG-linked Credit Facilities**, amounting to a total of **€600 million**, on 3 August, 22 September and 11 October 2022. The transactions involved Banca Nazionale del Lavoro S.p.A., CaixaBank S.A., the Italian branch of BNP Paribas S.A., Unicredit S.p.A. and the Milan branches of Crédit Agricole Corporate and Investment Bank and SMBC Bank EU AG.

The rates applied to the ESG-linked Credit Facilities is based on Terna's performance against specific environmental, social and governance (ESG) metrics. The agreed facilities provide Terna with a level of liquidity appropriate to its current rating and confirms the Group's strong commitment to introducing a model that increasingly reinforces the role of sustainability as a strategic driver of value creation for all stakeholders.

The **ESG-linked share buyback programme** to service the Performance Share Plan 2022-2026 was completed on 13 June 2022. Under the programme, Terna has purchased 1.3 million own shares (equal to 0.064% of its share capital) at a total cost of approximately €10 million. The shares purchased are in addition to the approximately 3.1 million own shares already purchased by the Company in 2020 and 2021. In keeping with Terna's commitment to sustainability and social and environmental responsibility, the programme includes a mechanism based on penalties applicable if the Company fails to achieve specific ESG objectives.

On 28 February 2022, Terna agreed a **bilateral ESG-linked Term Loan amounting to €300 million** with Intesa Sanpaolo's IMI Corporate & Investment Banking division, acting as Original Lender and Sustainability Coordinator. The credit facility has a two-year term, with the interest rate linked to Terna's performance against specific environmental, social and governance (ESG) metrics.

On 2 February 2022, Terna successfully launched its **first hybrid green bond with a nominal value of €1 billion**. The non-convertible, perpetual, subordinated green bonds are non-callable for six years and will pay coupon interest of 2.375% until 9 February 2028, the first reset date. After this date, the bonds will pay annual interest equal to the 5-year Euro Mid-Swap rate plus a spread of 212.1 basis points. This will be increased by a further spread of 25 basis points from 9 February 2033 and by an additional 75 basis points from 9 February 2048. The issue, aimed at institutional investors, saw extremely high demand, with applications topping €4 billion and the issue being four times oversubscribed. The high quality of the hybrid bonds and the wide geographical diversification of investors mean that the issue was assigned ratings of "BBB-" by Standard and Poor's, "Ba1" by Moody's and "BBB" by Scope.

Terna also has access to **two sustainability-linked Revolving Credit Facilities** amounting to **€3.15 billion**. The two Revolving Credit Facilities include a mechanism based on bonuses and penalties linked to the achievement of specific ESG objectives.

In July 2021, Terna launched a **three-year Euro Commercial Paper (ECP) programme** worth €1 billion. The commercial papers can be designated "ESG Notes" provided that Terna achieves and maintains a ranking equal to or above Bronze Class in the S&P Sustainability Yearbook for the Electric Utilities sector.

In addition to its inclusion in the main ESG indices, from January 2021, Terna is the first Italian electric utility to join the **Nasdaq Sustainable Bond Network**, the sustainable finance platform operated by Nasdaq that brings together investors, issuers, investment banks and specialist organisations.

Terna continues to be a member of the **CFO Coalition for the SDGs**, which is building on the work of the **CFO Taskforce for the SDGs**, the initiative launched by the UN Global Compact at the end of 2019 to develop sustainable finance and of which Terna was one of the founding members. The Coalition aims to continue to promote sustainability, scale up its global community and follow the example set by the CFOs that founded the Taskforce.

Further confirmation of the commitment to playing an active role in developing sustainable finance, Terna is taking part in the **Corporate Forum for Sustainable Finance**, a network of major European businesses committed to the development of sustainable finance as a means to promote a more sustainable and responsible society.

Finally, Terna, both individually and as a member of the above Corporate Forum on Sustainable Finance, will continuously monitor developments in European legislation, with particular regard to the impact on sustainable finance.

Further important events

Further **important events** regarding finance in 2022:

- On 8 November 2022, Terna agreed a loan from the **European Investment Bank (EIB)** amounting to **€500 million** and disbursed on 15 December 2022. The loan, which has a term of approximately twenty-two years, will be used to finance the construction and commissioning of the “East” section of the “Tyrrhenian Link” project that will connect Sicily with Campania. The loan is the first tranche of a total amount of €1.9 billion made available by the EIB to finance the above project.
- Under the Company's Euro Medium Term Notes (EMTN) programme, on 15 September 2022, Terna launched **a euro-denominated fixed rate bond issue** in the form of a private placement, amounting to **€100 million**. The bonds have a term of five years, pay annual coupon interest of 3.44% and were issued at par, with a spread of 91 basis points over the midswap rate. The securities have been admitted to trading on the Luxembourg Stock Exchange.
- On 8 June 2022, Terna S.p.A. **renewed its Euro Medium Term Note (EMTN) Programme**, which has a maximum value of €9,000,000,000. The programme has been assigned ratings of “BBB+/A-2” by S&P, “(P)Baa2/(P)P-2” by Moody's and “A-/S-1” by Scope.

Debt is described in detail in the section, “The Terna Group's financial review for 2022”.

Terna adopts a dynamic approach to managing the various forms of **financial risk**, including **market risk** (interest rate, exchange rate and inflation risk), **liquidity risk** and **credit risk**. This approach includes constant monitoring of the financial markets, in order to carry out planned hedging operations under favourable market conditions, but also to take advantage of opportunities to improve existing hedges, when changes in market conditions make previous hedges unsuitable or excessively costly.

Further details are provided in the notes to the consolidated financial statements and to the Parent Company's separate financial statements.

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Ratings

	SHORT-TERM	MEDIUM/LONG-TERM	OUTLOOK
Terna S.p.A.			
Standard & Poor's	A-2	BBB+	Stable
Moody's	Prime-2	Baa2	Negative
Italian state			
Standard & Poor's	A-2	BBB	Stable
Moody's	Prime-3	Baa3	Negative

On **29 July and 9 August 2022**, S&P and Moody's reaffirmed Terna's long-term ratings of BBB+ and Baa2, one notch above Italy's sovereign rating. Moody's has also affirmed the short-term rating of P-2 and its rating of subordinated debt as Ba1. The two agencies have also revised Terna's outlook, downgrading it from positive to stable and from stable to negative, following a downgrade of the sovereign outlook for Italy.

At the end of September, Terna requested Scope Ratings to withdraw its ratings of the Group in keeping with the Group's long-term strategy of rationalising the resources dedicated to rating activity to make it more efficient.



The Terna Group's financial review for 2022

Introduction

The Annual Report for 2022 has been prepared in accordance with the requirements of art. 154-ter of Legislative Decree 58/98 introduced by Legislative Decree 195 of 6 November 2007 (the "Transparency Decree"), as amended by Legislative Decree 27 of 27 January 2010.

As required by Legislative Decree 38 of 28 February 2005 and EEC Regulation 1606/2002, the financial statements of the parent company Terna S.p.A. and the consolidated financial statements of the Terna Group for the year ended 31 December 2022 were prepared in compliance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board and endorsed by the European Commission (hereinafter IFRS).

In compliance with the provisions of art. 2364 of the Italian Civil Code and art. 9.2 of the Company's Articles of Association, the Board of Directors has decided to call an Annual General Meeting of shareholders within 180 days of the end of the annual reporting period, given that Terna S.p.A. is a company required to prepare consolidated financial statements.

Basis of presentation

The measurement and recognition criteria applied in this Annual Report are consistent with those adopted in the consolidated financial statements for the year ended 31 December 2021.

In order to present the performance of the Terna Group and Terna S.p.A. and to analyse the financial positions, separate reclassified statements have been prepared. These differ from the statements required by the EU-IFRS adopted and described in the consolidated and separate financial statements for the year ended 31 December 2022.

These reclassified statements contain alternative performance indicators, which differ from those resulting directly from the separate and consolidated financial statements. Management considers these indicators to be useful in assessing the performances of the Group and of Terna S.p.A. and representative of the business's operating results and financial position.

In line with the guidance provided by ESMA/2015/1415, the criteria used in constructing these indicators are described in specific notes, reconciling them with the amounts presented in the consolidated and separate financial statements. The notes are contained in an annex to this report on operations.

Given that the requirements of IFRS 5 have been met, the overall results for 2022 and 2021 attributable to the South American subsidiaries included in the planned sale of assets have been classified in the item "Profit/(Loss) for the year from discontinued operations and assets held for sale" in the Group's reclassified income statement. Likewise, the attributable assets and liabilities at 31 December 2022 and 31 December 2021 have been reclassified to the item "Discontinued operations and net assets held for sale" in the Group's reclassified statement of financial position.

Scope of consolidation

The following changes in the structure of the Group have taken place with respect to 31 December 2021:

- the US-registered company, Terna USA LLC., a wholly owned subsidiary of Terna Plus S.r.l., was established on 2 August 2022. The company is responsible for overseeing development of the business in North America;

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- the US-registered company, BMT Energy Transmission Development LLC, 40% owned by the subsidiary, Terna USA LLC, with the remaining shares held by non-controlling shareholders, was established on 2 November 2022;
- Terna Forward S.r.l., engaged in the development of new technological solutions for use by the Terna Group and a wholly owned subsidiary of the parent Company, Terna S.p.A., was established on 11 November 2022;
- the voluntary liquidation of PI.SA. 2 S.r.l., which began on 10 December 2021, was completed on 27 January 2022;
- the first transaction closing for the sale to CDPQ of the Brazilian companies, SPE Transmissora de Energia Linha Verde II S.A., SPE Santa Lucia Transmissora de Energia S.A. and SPE Santa Maria Transmissora de Energia S.A., was completed on 7 November 2022. From this date, the companies are no longer a part of the Terna Group;
- the second transaction closing for the sale to CDPQ of Difebal S.A. was completed on 22 December 2022. From this date, the company is no longer a part of the Terna Group.

The Group's reclassified income statement

The Terna Group's operating results for the year ended 31 December 2022, compared with those for the previous year, are summarised in the following reclassified income statement, obtained by reclassifying amounts in the statutory consolidated income statement.

	2022	2021	CHANGE	% CHANGE
TOTAL REVENUE	2,964.5	2,604.8	359.7	13.8%
- Regulated revenue	2,542.3	2,253.5	288.8	12.8%
<i>of which Revenue from construction services performed under concession</i>	67.4	46.9	20.5	43.7%
- Non-Regulated revenue	421.4	350.9	70.5	20.1%
- International revenue	0.8	0.4	0.4	100.0%
TOTAL OPERATING COSTS	905.3	750.0	155.3	20.7%
- Personnel expenses	341.5	289.0	52.5	18.2%
- Cost of services, leases and rentals	222.6	187.6	35.0	18.7%
- Materials	241.3	195.5	45.8	23.4%
- Other costs	30.6	25.1	5.5	21.9%
- Quality of service	1.9	5.9	(4.0)	(67.8%)
- Cost of construction services performed under concession	67.4	46.9	20.5	43.7%
GROSS OPERATING PROFIT (EBITDA)	2,059.2	1,854.8	204.4	11.0%
- Amortisation, depreciation and impairment losses	725.7	654.4	71.3	10.9%
OPERATING PROFIT (EBIT)	1,333.5	1,200.4	133.1	11.1%
- Net financial income/(expenses)	(100.1)	(78.9)	(21.2)	26.9%
PROFIT/(LOSS) BEFORE TAX	1,233.4	1,121.5	111.9	10.0%
- Income tax expense for the year	355.4	317.9	37.5	11.8%
PROFIT/(LOSS) FOR THE YEAR FROM CONTINUING OPERATIONS	878.0	803.6	74.4	9.3%
- Profit/(Loss) for the year from discontinued operations and assets held for sale	(20.3)	(12.8)	(7.5)	58.6%
PROFIT FOR THE YEAR	857.7	790.8	66.9	8.5%
- Profit/(Loss) attributable to non-controlling interests	0.7	1.4	(0.7)	(50.0%)
PROFIT FOR THE YEAR ATTRIBUTABLE TO OWNERS OF THE PARENT	857.0	789.4	67.6	8.6%

	2022	2021	CHANGE
EBITDA BY OPERATING SEGMENT			
Regulated Activities	2,007.0	1,800.5	206.5
Non-regulated Activities	57.5	61.8	(4.3)
International Activities	(5.3)	(7.5)	2.2
EBITDA	2,059.2	1,854.8	204.4

Gross operating profit (EBITDA) for the year amounts to **€2,059.2 million**, up €204.4 million compared with the €1,854.8 million of 2021. This reflects the improved result from Regulated Activities.

Revenue

	(€m)		
	2022	2021	CHANGE
REGULATED ACTIVITIES			
Tariff revenue and incentives	2,418.6	2,154.8	263.8
Other regulated revenue	56.3	51.8	4.5
Revenue from construction services performed under concession in Italy	67.4	46.9	20.5
TOTAL	2,542.3	2,253.5	288.8

After excluding revenue from construction services performed under concession (up €20.5 million), revenue from **Regulated Activities** is up €268.3 million, due primarily to the greater effect of output-based incentive mechanisms and the increase in the regulated asset base during the period, after the reduction in WACC recognised for 2022.

	(€m)		
	2022	2021	CHANGE
NON-REGULATED ACTIVITIES			
Industrial	286.7	242.4	44.3
Services for third parties (Connectivity, Energy Solutions, other)	123.2	99.4	23.8
Private interconnectors	11.5	9.1	2.4
TOTAL	421.4	350.9	70.5

The increase in revenue from **Non-regulated Activities**, amounting to €70.5 million, primarily reflects increased revenue from Energy Solutions (up €29.8 million), which benefitted from the contribution from the LT Group (acquired in October 2021), totalling €19.6 million, and an increase in the contributions from the Industrial segment, with revenue from the Tamini Group up €26.8 million and from the Brugg Cables Group up €17.5 million.

Revenue from **International Activities** is classified in the "Profit/(Loss) for the year from discontinued operations and assets held for sale", in application of IFRS 5.

Costs

After excluding the cost of construction services performed under concession (up €20.5 million), **operating costs** are up €134.8 million compared with the previous year. This broadly reflects the cost of procuring raw materials and semi-finished goods incurred by the Brugg Cables Group and the Tamini Group (up €20.6 million and €18.1 million, respectively), the contribution from the LT Group (up €22.3 million), increased personnel expenses (up €52.5 million), primarily due to an increase in the workforce and net provisions for incentives and early retirements, and an increase in service costs (up €20.2 million), due to increased activity and new initiatives carried out by the Group.

Amortisation, depreciation and impairment losses for the year amount to €725.7 million, an increase of €71.3 million compared with 2021, primarily due to the entry into service of new infrastructure and an increase in impairment losses on assets recognised during the year (up €6.7 million).

Operating profit (**EBIT**), after amortisation, depreciation and impairment losses, amounts to **€1,333.5 million**, compared with €1,200.4 million for 2021 (up 11.1%).

Net financial expenses for the year total €100.1 million, an increase of €21.2 million compared with the €78.9 million of 2021. This is primarily due to rising inflation, partially offset an increase in capitalised financial expenses.

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After net financial expenses, **profit before tax** amounts to **€1,233.4 million**, an increase of €111.9 million compared with the previous year (up 10.0%).

Income tax expense for the year totals €355.4 million, an increase of €37.5 million (11.8%), essentially due to the increase in pre-tax profit and the greater amount of contingent assets recognised in the previous year. The resulting tax rate of 28.8% compares with a rate of 28.3% for 2021.

The **profit from continuing operations** amounts to **€878.0 million**, an increase of €74.4 million (9.3%) compared with the €803.6 million of 2021.

The **loss from discontinued operations and assets held for sale**, totalling €20.3 million, has deteriorated €7.5 million compared with the previous year. This essentially reflects increased losses and the adjustment to the value of discontinued operations and net assets held for sale, partially offset by the gain resulting from the first two transaction closings for the sale to CDPQ of the Latin American assets, which took place in November and December 2022.

Profit for the year amounts to **€857.7 million**, compared with €790.8 million for 2021 (up 8.5%).

Profit for the year attributable to owners of the Parent (after excluding the share attributable to non-controlling interests) amounts to **€857.0 million**, up €67.6 million (8.6%) compared with the €789.4 million of 2021.

Cash flow

Operating cash flow for 2022 was used entirely to finance investing activities. The impact on working capital of movements in trading assets and liabilities compared with 2021 and repayment of a bond issue during the year (replaced by the hybrid green bond issued on 2 February 2022 and worth €1 billion, accounted for in equity), have resulted in a reduction in net debt.

	(€m)	
	CASH FLOW 2022	CASH FLOW 2021
- Profit for the year	857.7	790.8
- Amortisation, depreciation and impairment losses	725.7	654.4
- Net change in provisions	19.8	(72.9)
- Net losses/(gains) on sale of assets	(6.9)	(13.7)
Operating cash flow	1,596.3	1,358.6
- Change in net working capital	1,024.8	(227.6)
- Other changes in property, plant and equipment and intangible assets	35.7	42.6
- Change in investments	2.4	(0.4)
- Change in financial assets	(131.2)	128.9
Cash flow from operating activities	2,528.0	1,302.1
- Total capital expenditure	(1,756.8)	(1,520.7)
Free cash flow	771.2	(218.6)
Net assets held for sale	56.6	(117.7)
- Dividends paid to the Parent Company's shareholders	(601.0)	(556.4)
- Cash flow hedge reserve after taxation and other movements in equity attributable to owners of the Parent	1,204.1	79.1
- Other movements in equity attributable to non-controlling interests	(4.7)	(16.3)
Change in net debt	1,426.2	(829.9)

The Group's reclassified statement of financial position

The Terna Group's financial position at 31 December 2022 and 31 December 2021 is summarised below in the reclassified statement of financial position, obtained by reclassifying amounts in the statutory consolidated statement of financial position.

	(€m)		
	AT 31 DECEMBER 2022	AT 31 DECEMBER 2021	CHANGE
Total net non-current assets	17,485.3	16,352.9	1,132.4
- Intangible assets and goodwill	775.8	656.5	119.3
- Property, plant and equipment	16,200.9	15,316.6	884.3
- Financial assets	508.6	379.8	128.8
Total net working capital	(2,732.8)	(1,706.7)	(1,026.1)
- Net energy-related pass-through payables	(1,332.6)	(209.1)	(1,123.5)
- Net receivables resulting from Regulated Activities	778.7	448.4	330.3
- Net trade payables	(775.5)	(737.5)	(38.0)
- Net tax liabilities	(50.5)	(50.6)	0.1
- Other net liabilities	(1,352.9)	(1,157.9)	(195.0)
Gross invested capital	14,752.5	14,646.2	106.3
Sundry provisions	(68.2)	(48.4)	(19.8)
Net invested capital	14,684.3	14,597.8	86.5
Net assets held for sale	61.1	117.7	(56.6)
TOTAL NET INVESTED CAPITAL	14,745.4	14,715.5	29.9
Equity attributable to owners of the Parent	6,142.0	4,681.9	1,460.1
Equity attributable to non-controlling interests	27.1	31.1	(4.0)
Net debt	8,576.3	10,002.5	(1,426.2)
TOTAL	14,745.4	14,715.5	29.9

The €1,132.4 million increase in **net non-current assets** compared with 31 December 2021 primarily reflects a combination of the following:

- total capital expenditure of €1,756.8 million, as described in detail in the section on "Regulated Activities";
- an increase of €128.8 million in financial assets, mainly due to the purchase, in September 2022, of Italian Government bonds ("BTP") with a notional value of €100.0 million, maturing in May 2025 and paying a coupon of 1.4% (€98.7 million at 31 December 2022), an increase in guarantee deposits received from operators participating in the capacity market in accordance with Resolution 98/2011/R/eel, as amended (up €38.1 million) and an increase in the Interconnector Guarantee Fund, set up to fund investment in interconnections by art. 32 of Law 99/09 (up €19.6 million), partially offset by the adjustment to benefit plan assets for the employees of Brugg Cables (down €21.4 million);
- amortisation and depreciation for the year, totalling €717.4 million;
- other movements during the year in "Property, plant and equipment" and "Intangible assets and goodwill", resulting in a decrease of €22.2 million. This includes grants related to assets (primarily in relation to projects financed by the Ministry for Economic Development and the EU and the re-routing of power lines at the request of third parties) and disposals and impairment losses resulting in a reduction of €13.6 million.

The Terna Group's **total capital expenditure** in 2022, amounting to **€1,756.8 million**, is up **15.5%** compared with the €1,520.7 million of 2021.

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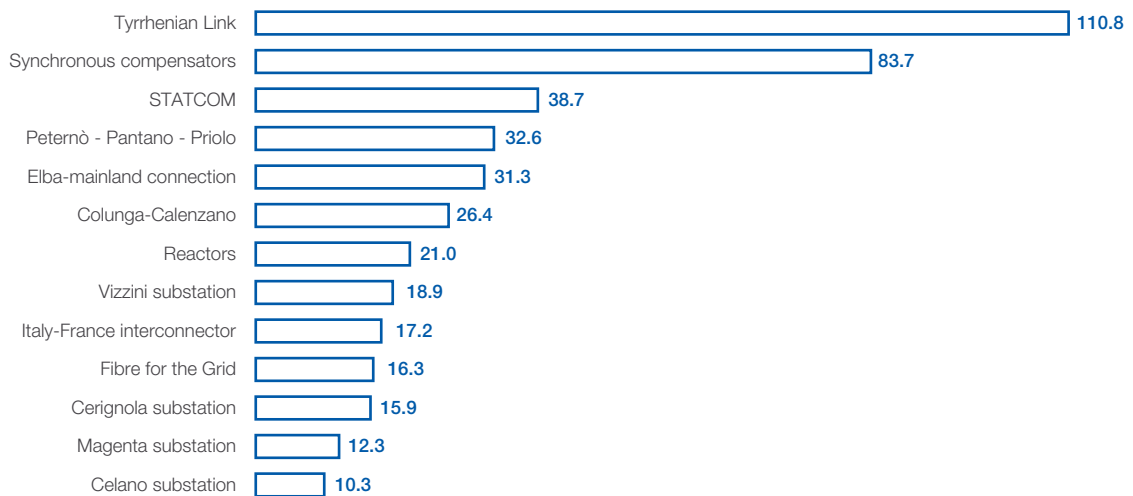
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Main investment in the NTG* (€m)



* Amounts include financial expenses.

Net working capital (net current liabilities) of €2,732.8 million resulted in a cash inflow of €1,026.1 million compared with 31 December 2021. This reflects the combined effect of:

Cash inflows

- an increase of €1,123.5 million in **net energy-related pass-through payables**, primarily linked to the combined effect of:
 - a reduction in net receivables (€800.2 million) linked to the Uplift component receivable in return for the procurement of energy on the Dispatching Services Market, reflecting a sharp decrease in the cost of energy for dispatching purposes, above in DSM costs (a total reduction in payables of €254.8 million);
 - an increase in net payables relating to essential plants for the security of the electricity system - UESS (€459.3 million) reflecting a reduction in amounts collected to cover the costs awarded to owners of the plants by ARERA in 2022;
 - a reduction in amounts payable in connection with capacity payments (€44.1 million) following the launch of the Capacity Market from 1 January 2022 (payables at the end of the year of €160.8 million);
- an increase in **other net liabilities** of €195.0 million, primarily due to an increase in guarantee deposits received from operators participating in the capacity market and from electricity market operators to guarantee the obligations undertaken regarding dispatching and virtual interconnection contracts (up €38.1 million and €53.9 million, respectively), an increase in prepayments received from the backers of the private interconnectors pursuant to Law 99/2009 (up €34.2 million, essentially in relation to the Italy-France Interconnector), and an increase in grants related to assets received from third parties (€60.5 million);
- an increase of €38.0 million in **net trade payables**, largely due to the increase in capital expenditure towards the end of the year.

Cash outflows

- an increase in **net receivables resulting from Regulated Activities** of €330.3 million. After the factoring transactions carried out at the end of 2021 (€40 million), the increase of €290.2 million primarily reflects a combination of the following:
 - the DSM incentive introduced by Resolution 597/2021: recognition of the annual bonus of €194.2 million relating to the three-year incentive scheme (2022-2024) designed to cut DSM costs, the shortfall in wind production and essential plants;
 - intrazonal incentives introduced by Resolution 699/2018: recognition of a receivable of €140.5 million;
 - interzonal incentives introduced by Resolution 567/2019 (articles 44 and 46 of annex A): collection from the CSEA, at the end of February, of the amount receivable for the efficiency bonus recognised at the end of 2021 (€40 million).

Gross invested capital thus amounts to €14,752.5 million, marking an increase of €106.3 million compared with 31 December 2021.

Sundry provisions are up €19.8 million, primarily due to:

- the net release of deferred tax assets (up €25.6 million), primarily due to the effect on taxation of movements in derivative financial instruments held by the Group, amortisation and depreciation and movements in provisions for risks and charges;
- net provisions for early retirement incentives (up €4.9 million) and staff incentives (up €2.3 million), after the change in provisions for employee benefits (down €12.4 million, broadly due to a change in the discount rate).

Net assets held for sale, totalling €61.1 million at 31 December 2022, are down €56.6 million compared with 31 December 2021, primarily due to the first two transaction closings for the sale to CDPQ of the Latin American assets, which took place in November and December 2022.

Total net invested capital, including net assets held for sale, amounts to €14,745.4 million, marking an increase of €29.9 million compared with 31 December 2021. This is financed by equity attributable to owners of the Parent, totalling €6,142.0 million (up €1,460.1 million compared with the €4,681.9 million of 31 December 2021, primarily due to recognition of the reserve for the hybrid green bonds issued, amounting to €989.0 million and accounted for in equity), equity attributable to non-controlling interests of €27.1 million (€31.1 million at 31 December 2021) and net debt of €8,567.3 million (down €1,426.2 million compared with the €10,002.5 million of 31 December 2021).

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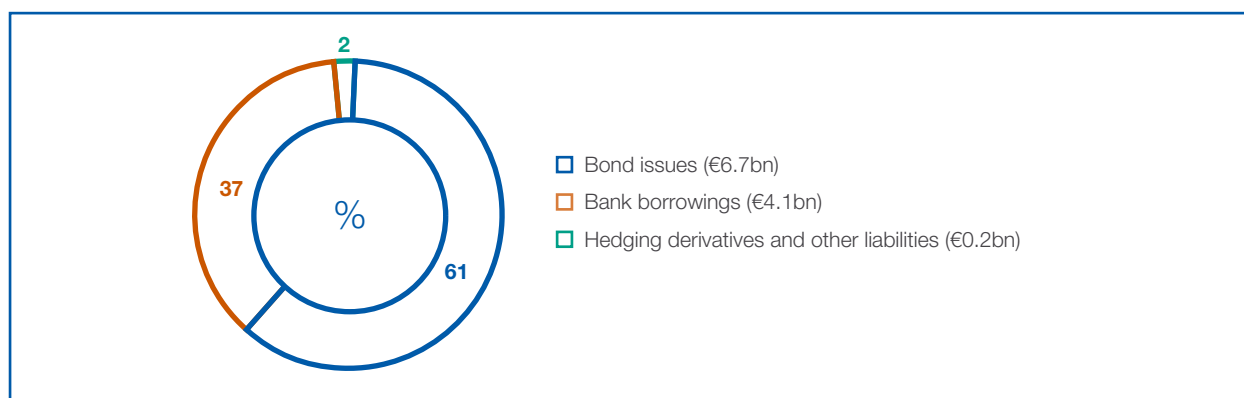
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Debt

The Group's financial policy and gross debt

The Terna Group's financial management is based on an approach that aims to maximise efficiency and achieve and maintain a solid financial structure, whilst adopting a highly prudent stance towards mitigation of the potential financial risks. The key aspects of the Group's financial policy are diversification of the sources of funding, a balance between short- and medium/long-term forms of debt and the proactive management of debt.

Gross debt at 31 December 2022 amounts to approximately **€11 billion**, consisting of approximately €7 billion in the form of bond issues and approximately €4 billion in bank borrowings. The average term to maturity of debt, 87% of which is fixed rate, is approximately 5 years.



Bonds have been issued in the form of both public and private placements under the €9 billion Euro Medium Term Notes (EMTN) Programme (in which a large number of Italian and overseas banks participate), in addition to a stand-alone issue of €800 million dating back to 2004. Focused specifically on qualified investors and listed on the Luxembourg Stock Exchange, Terna's bonds have a very diverse investor base, in terms of both sector and geographical profile.

The main provider of Terna's bank loans is the European Investment Bank (EIB). Total borrowings from the EIB at 31 December 2022 amount to approximately €2.6 billion. Thanks to its strong credit ratings, Terna is able to obtain financing from banks on extremely good terms, as shown by the €1 billion hybrid green bond issue carried out in February 2022, the issue of fixed rate bonds with a nominal value of €100 million, in the form of a private placement, in September 2022 and the amount raised in the form of bank borrowings. In this regard, a total of €800 million in loans from the EIB was disbursed in 2022 (including €300 million under a facility agreed in 2021 and €500 million under a facility agreed in 2022), whilst a further €1 billion in bank facilities was also disbursed. Finally, Terna also has access to two committed revolving credit facilities, amounting to approximately €3.2 billion.

	(€m)				
2021	NET DEBT	EBITDA	NET DEBT/EBITDA	NET DEBT/EV	RATING S&P
TERNA	10,003	1,855	5.4	41%	BBB+
RED	6,498	1,515	3.8	36%	A-
REN	2,367	472	5.1	58%	BBB
SNAM	14,021	2,243	6.3	45%	BBB+
ENAGAS	4,319	678	4.8	44%	BBB
	7,425	1,356	5.1	45%	

Above the average for the peer group

Below or equal to the average for the peer group

Net debt

The Group's net debt at 31 December 2022 amounts to €8,576.3 million, marking a reduction of €1,426.2 million compared with 31 December 2021.

	AT 31 DECEMBER 2022	AT 31 DECEMBER 2021	CHANGE
(€m)			
NET DEBT (BY TERM TO MATURITY)			
Total medium/long-term debt	8,588.4	8,917.1	(328.7)
- Bond issues	5,078.9	6,925.6	(1,846.7)
- Borrowings	3,337.8	1,909.4	1,428.4
- Derivative financial instruments	171.7	82.1	89.6
Total short-term debt/ (funds)	(12.1)	1,085.4	(1,097.5)
- Bond issues (current portions)	1,658.8	999.9	658.9
- Short-term borrowings	444.1	1,947.0	(1,502.9)
- Borrowings (current portions)	250.5	640.1	(389.6)
- Other current financial liabilities net	35.8	23.6	12.2
- Derivative financial instruments	0.6	0.1	0.5
- Financial assets	(246.8)	(958.5)	711.7
- Cash and cash equivalents	(2,155.1)	(1,566.8)	(588.3)
Total net debt	8,576.3	10,002.5	(1,426.2)
NET DEBT (BY TYPE OF INSTRUMENT)			
- Bond issues	6,737.7	7,925.5	(1,187.8)
- Borrowings	3,588.3	2,549.5	1,038.8
- Short-term borrowings	444.1	1,947.0	(1,502.9)
- Derivative financial instruments	172.3	82.2	90.1
- Other financial liabilities net	35.8	23.6	12.2
GROSS DEBT	10,978.2	12,527.8	(1,549.6)
- Financial assets	(246.8)	(958.5)	711.7
- Cash and cash equivalents	(2,155.1)	(1,566.8)	(588.3)
Total net debt	8,576.3	10,002.5	(1,426.2)
Net debt attributable to net assets held for sale	(17.9)	161.8	(179.7)

Changes in the **Group's net debt** are as follows:

- a reduction in bond issues of €1,187.8 million, primarily following the repayment of bonds worth €1,000 million in February 2022;
- an increase in borrowings of €1,038.8 million, primarily as a result of the drawdown of new bank facilities totalling €1,800.0 million, after the repayment of bank loans totalling €400.0 million and scheduled repayments on existing EIB loans;
- a reduction in short-term borrowings (down €1,502.9 million), essentially due to the Parent Company's repayment of amounts obtained under short-term credit facilities;
- an increase in the fair value of derivative financial instruments (up €90.1 million), primarily due to movements in the derivatives held and in market interest rates;

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- an increase in other net financial liabilities (up €12.2 million), essentially due to the recognition of accrued interest on financial products;
- a reduction in financial assets (down €711.7 million), primarily following the repayment of Italian government securities held, partly offset by new investments during the period;
- an increase in cash and cash equivalents of €588.3 million. Cash amounts to €2,155.1 million at 31 December 2022, including €1,527.9 million invested in short-term, readily convertible deposits and €627.2 million held in bank current accounts and in the form of cash in hand.

Net debt attributable to assets held for sale, amounting to €17.9 million at 31 December 2022, essentially relates to SPE Transmissora de Energia Linha Verde I S.A. and regards the short-term portion of investment in infrastructure operated under concession in Brazil, recognised in application of IFRIC 12, totalling approximately €6.0 million and cash and cash equivalents of approximately €11.9 million. The reduction of €179.7 million compared with 31 December 2021 is primarily due to the first two transaction closings for the sale of the South American assets.

Reconciliation of the Group's profit for the period and equity with the corresponding amounts for the Parent Company

The reconciliation of consolidated equity and consolidated profit for 2022 and the corresponding amounts for the Parent Company is shown below.

	PROFIT FOR FY 2022	EQUITY AT 31 DECEMBER 2022
Financial statements of Terna S.p.A.	834.1	5,746.1
Difference between equity in the financial statements, including profit/(loss) for the year, and the carrying amounts of investments in consolidated companies	73.0	1,859.8
Consolidation adjustments:		
- Intragroup dividends	(13.6)	(210.4)
- Elimination of unrealised intragroup profits net of the related taxation and other minor adjustments	(23.0)	(1,249.9)
- Foreign currency translation reserve	(11.8)	(6.9)
- Measurement of companies using the equity method	(1.0)	30.4
Total consolidated financial statements	857.7	6,169.1
Non-controlling interests	0.7	27.1
Terna Group's consolidated financial statements	857.0	6,142.0

Terna S.p.A.

A review of the operating performance and financial position of the Parent Company, Terna S.p.A., is provided below.

As previously noted, given that the requirements of IFRS 5 have been met, gains and losses for 2022 and 2021 on the investment in the Uruguayan subsidiary involved in the planned sale of assets have been classified in the item "Profit/(Loss) for the year from discontinued operations and assets held for sale" in the reclassified income statement.

Terna S.p.A.'s reclassified income statement

Terna S.p.A.'s operating results for the years 2022 and 2021 are summarised in the following reclassified income statement, obtained by reclassifying amounts in the statutory income statement.

	2022	2021	CHANGE	% CHANGE
TOTAL REVENUE	2,520.5	2,224.1	296.4	13.3%
- Tariff revenue and incentives	2,273.8	2,006.2	267.6	13.3%
<i>of which transmission revenue</i>	1,823.8	1,892.4	(68.6)	(3.6%)
<i>of which dispatching, metering and other revenue</i>	450.0	113.8	336.2	295.4%
- Other operating income	179.3	171.0	8.3	4.9%
- Revenue from construction services performed under concession*	67.4	46.9	20.5	43.7%
TOTAL OPERATING COSTS	613.6	517.3	96.3	18.6%
- Personnel expenses	101.6	75.8	25.8	34.0%
- Cost of services, leases and rentals	421.0	371.3	49.7	13.4%
- Materials	1.7	0.8	0.9	112.5%
- Other costs	20.0	16.6	3.4	20.5%
- Quality of service	1.9	5.9	(4.0)	(67.8%)
- Cost of construction services performed under Concession*	67.4	46.9	20.5	43.7%
GROSS OPERATING PROFIT (EBITDA)	1,906.9	1,706.8	200.1	11.7%
- Amortisation, depreciation and impairment losses	650.3	585.8	64.5	11.0%
OPERATING PROFIT/(LOSS) (EBIT)	1,256.6	1,121.0	135.6	12.1%
- Net financial income/(expenses)	(87.1)	(78.4)	(8.7)	11.1%
PROFIT/(LOSS) BEFORE TAX	1,169.5	1,042.6	126.9	12.2%
- Income tax expense	334.8	297.7	37.1	12.5%
PROFIT/(LOSS) FOR THE YEAR FROM CONTINUING OPERATIONS	834.7	744.9	89.8	12.1%
Profit/(Loss) for the year from discontinued operations and assets held for sale	(0.6)	(9.7)	9.1	93.8%
PROFIT FOR THE YEAR	834.1	735.2	98.9	13.5%

* Recognised in application of interpretation "IFRIC 12 – Service Concession Arrangements".

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Gross operating profit (EBITDA) for the year is **€1,906.9 million**, an increase of €200.1 million compared with the €1,706.8 million of 2021 due primarily to the greater effect of output-based incentive mechanisms and the increase in the regulated asset base during the period, after the reduction in WACC recognised for 2022 (equal to 5%, compared with the previous 5.6%).

After excluding revenue from construction services performed under concession (up €20.5 million), **revenue of €2,520.5 million** is up €275.9 million compared with the previous year. This primarily reflects:

- the increase in revenue relating to output-based incentive mechanisms for dispatching, amounting to €334.7 million, reflecting the impact of Resolutions 597/2021 and 132/2022, designed to cut DSM costs, the shortfall in wind production and essential plants (€194.2 million, representing the accrued share of the present value of the incentive due for the period 2022-2024) and Resolution 699/2018, which provided incentives for grid development projects in the three-year period from 2019 to 2021 designed to relieve congestion within market areas and grid constraints due to voltage regulation and improve conditions for essential service provision (€140.5 million, representing the present value of the amount established in Resolution 26/2023, to be collected over three years from 2023);
- reduced transmission revenue (down €68.6 million) as a result of the reduction in the WACC recognised for 2022 (Resolution 614/21) and the volume effect, partly offset by an increase in the regulated base asset and output-based incentives relating to the delivery of additional transmission capacity between market areas (€34.5 million, Resolution 567/2019) net of the incentives recognised in 2021 (down €48.1 million);
- increased revenue in the form of the bonus receivable under the RENS incentive mechanism (up €11.6 million), due primarily to recognition of the portion due on the basis of the estimated overall performance in the 2022-2023 regulatory period;
- increased revenue from connections to the NTG (up €3.3 million), from the Sacoi O&M contract (€2.9 million), from compensation received for damage to infrastructure (up €1.7 million), from the progress of work on the private Italy-Austria Interconnector (up €2.6 million) and from the subsidiary, Terna Rete Italia S.p.A. (up €3.5 million), primarily due to sureties and administrative services following changes to the range of activities carried out;
- recognition, in 2021, of revenue relating to the outcome of the claim for a refund of stamp duty paid on the acquisition of Rete S.r.l. (down €13.4 million) and of revenue from IRU contracts for fibre (down €7.7 million) included in revenue from Connectivity services.

After excluding the cost of construction services performed under concession (up €20.5 million), **operating costs** for the year, amounting to **€613.6 million** are up €75.8 million compared with the previous year. This essentially reflects the following:

- increased personnel expenses (up €25.8 million), primarily due to an increase in the average workforce and additional provisions for early retirement and staff incentive schemes;
- an increase in amounts payable to the subsidiary, Terna Rete Italia S.p.A. (up €34.0 million), regarding an increase in maintenance and operation services provided for the infrastructure owned by the Company following changes to the range of activities carried out, totalling €24.7 million, an increase in the performance bonus linked to the quality of the transmission service awarded to the company, amounting to €4.3 million, and an increase in amounts payable to the subsidiary, Terna Energy Solutions S.r.l. (up €2.2 million) regarding services provided in relation to Non-regulated Activities;
- increased provisions for right-of-way fees for power lines (up €4.2 million);
- an increase in advertising costs (up €2.1 million), in costs linked to Terna's investments in GRIT and CORESO (up €1.5 million) and in membership fees (€1.7 million);
- a decrease in the costs incurred for quality of service (down €4.0 million), primarily linked to the repayment made to Terna to cover the amount in excess of the threshold paid in 2021 to distribution companies for mitigation services (down €2.7 million, pursuant to Resolution 623/2022) and a reduction in faults and non-postponable unavailability.

Amortisation, depreciation and impairment losses for the year amount to **€650.3 million**, an increase of €64.5 million compared with 2021, primarily due to the entry into service of new infrastructure and an increase in impairment losses on assets recognised during the year (up €6.6 million).

EBIT (operating profit) of **€1,256.6 million** is up €135.6 million (12.1%) compared with 2021.

Net financial expenses for the year total €87.1 million, an increase of €8.7 million compared with the €78.4 million of 2021. This is primarily due to rising inflation and recognition during the year of an impairment loss on the investment in the subsidiary, Terna Plus S.r.l., amounting to €7 million, partially offset by a €14 million increase in capitalised financial expenses and dividends paid during the year by the subsidiaries, Terna Interconnector S.r.l. (€6.5 million) and Terna Crna Gora d.o.o. (€3.9 million).

Income tax expense for the year amounts to €334.8 million, an increase of €37.1 million compared with the previous year. This essentially reflects the impact of the increase in pre-tax profit. The tax rate of 28.6% is in line with the rate for 2021.

The **profit from continuing operations** amounts to **€834.7 million**, an increase of €89.8 million (12.1%) compared with the €744.9 million of 2021.

The **loss from discontinued operations and assets held for sale**, totalling €0.6 million, is down €9.1 million compared with the previous year, essentially reflecting the adjustment to the value of the net assets held for sale recognised in application of IFRS 5.

Profit for the year amounts to **€834.1 million**, an increase of €98.9 million (13.5%) compared with the €735.2 million of 2021.

Cash flow

Operating cash flow for 2022 was used entirely to finance investing activities. The impact on working capital of movements in trading assets and liabilities compared with 2021 and repayment of a bond issue during the year (replaced by the hybrid green bond issued on 2 February 2022 and worth €1 billion, accounted for in equity), have resulted in a reduction in net debt.

	(€m)	
	CASH FLOW 2022	CASH FLOW 2021
- Profit for the year	834.1	735.2
- Amortisation, depreciation and impairment losses	650.3	585.8
- Net change in provisions	30.2	(37.9)
- Net losses/(gains) on sale of assets	(5.9)	(12.6)
Operating cash flow	1,508.7	1,270.5
- Change in net working capital	1,056.1	(162.0)
- Change in investments	6.5	3.1
- Other movements in property, plant and equipment and intangible assets	12.2	41.3
- Change in financial assets	(154.3)	(20.6)
Cash flow from operating activities	2,429.2	1,132.3
- Total capital expenditure	(1,586.9)	(1,376.6)
Free cash flow	842.3	(244.3)
Net assets held for sale	23.0	(23.0)
- Dividends paid to shareholders	(601.0)	(556.4)
- Cash flow hedge reserve after taxation and other movements in equity	1,183.5	67.1
Change in net debt	1,447.8	(756.6)

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Terna S.p.A.'s reclassified statement of financial position

Terna S.p.A.'s financial position at 31 December 2022 and 2021 is summarised in the following statement, obtained by reclassifying amounts in the statutory statement of financial position.

(€m)

	AT 31 DECEMBER 2022	AT 31 DECEMBER 2021	CHANGE
Total net non-current assets	16,487.9	15,409.7	1,078.2
- Intangible assets and goodwill	668.7	543.8	124.9
- Property, plant and equipment	14,252.9	13,447.4	805.5
- Financial assets	1,566.3	1,418.5	147.8
Total net current liabilities	(2,258.0)	(1,201.8)	(1,056.2)
- Net energy-related pass-through payables	(1,356.4)	(234.3)	(1,122.1)
- Net receivables resulting from regulated activities	778.7	448.4	330.3
- Net trade payables	(758.8)	(671.7)	(87.1)
- Net tax assets	(103.3)	(110.1)	6.8
- Other liabilities net	(818.2)	(634.1)	(184.1)
Gross invested capital	14,229.9	14,207.9	22.0
Sundry provisions	(37.8)	(7.6)	(30.2)
NET INVESTED CAPITAL	14,192.1	14,200.3	(8.2)
Assets held for sale	-	23.0	(23.0)
TOTAL NET INVESTED CAPITAL	14,192.1	14,223.3	(31.2)
Equity	5,746.1	4,329.5	1,416.6
Net debt	8,446.0	9,893.8	(1,447.8)
TOTAL	14,192.1	14,223.3	(31.2)

The principal changes with respect to 31 December 2021 are described below.

Total net invested capital amounts to €14,192.1 million at 31 December 2022, a reduction of €31.2 million due to an increase in **net non-current assets** (up €1,078.2 million), a reduction in cash from changes in **net working capital** (down €1,056.2 million), an increase in sundry provisions (€30.2 million) and the reduction of **assets held for sale** to zero (down 23.0 million). This change is financed by equity of €5,746.1 million (up €1,416.6 million compared with the €4,329.5 million of 31 December 2021, primarily due to recognition of the reserve for the hybrid green bonds issued, amounting to €989.0 million and accounted for in equity) and net debt of €8,446.0 million (down €1,447.8 million compared with the €9,893.8 million of 31 December 2021).

Net non-current assets are up €1,078.2 million, primarily due to the following:

- the Company's capital expenditure (€1,586.9 million, including €1,569.5 million relating to Regulated Activities) and the purchase, on 14 July 2022, of 8 power lines and fibre cable installed on the lines from the subsidiary, Rete S.r.l., for a consideration of €16.8 million;
- an increase of €147.8 million in financial assets, mainly due to the purchase, in September 2022, of Italian Government bonds ("BTP") with a notional value of €100.0 million, maturing in May 2025 and paying a coupon of 1.4% (€98.7 million at 31 December 2022), an increase in guarantee deposits received from operators participating in the capacity market in accordance with Resolution 98/2011/R/eel, as amended (up €38.1 million) and an increase in the Interconnector Guarantee Fund, set up to fund investment in interconnections by art. 32 of Law 99/09 (up €19.6 million), partially offset by an impairment loss on the investment in the subsidiary, Terna Plus S.r.l., amounting to €7 million;
- amortisation and depreciation for the year (€643.2 million);

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- other movements during the year in "Property, plant and equipment", resulting in a reduction of €20.0 million. This includes grants related to assets (primarily in relation to projects financed by the Ministry for Economic Development and the EU and the re-routing of power lines at the request of third parties) and disposals and impairment losses resulting in a reduction of €10.1 million.

The change in **net working capital**, a reduction of €1,056.2 million, is primarily due to an increase in net trade payables, essentially relating to energy-related items, guarantee deposits received from electricity market operators, the Interconnector Guarantee Fund set up by Terna S.p.A. following the issue of the 2016 Stability Law and grants related to assets received from third parties.

Sundry provisions are up €30.2 million, primarily due to:

- the net release of deferred tax assets (up €39.5 million), primarily due to the effect on taxation of movements in derivative financial instruments, amortisation and depreciation and movements in provisions for risks and charges;
- net provisions for amounts payable to personnel (up €3 million), partially offset by net uses of provisions for litigation and disputes (down €5.5 million), to fund urban and environmental redevelopment schemes (down €4.4 million) and relating to quality of service (down €2 million).

Assets held for sale have been reduced to zero (down €23 million compared with 31 December 2021) following completion of the sale of the Uruguayan subsidiary to CDPQ on 22 December 2022.

Net debt of €8,446.0 million is down €1,447.8 million.

	31 DECEMBER 2022	31 DECEMBER 2021	CHANGE
(€m)			
Net debt (by type of instrument)			
- Bond issues	6,737.7	7,925.5	(1,187.8)
- Borrowings	3,529.9	2,523.3	1,006.6
- Short-term borrowings	419.5	1,917.6	(1,498.1)
- Other financial liabilities net	35.8	23.6	12.2
- Derivative financial instruments	172.5	82.1	90.4
Gross debt	10,895.4	12,472.1	(1,576.7)
- Financial assets	(246.8)	(958.5)	711.7
- Cash and cash equivalents (including the net balance on intercompany current accounts)	(2,202.6)	(1,619.8)	(582.8)
Total net debt	8,446.0	9,893.8	(1,447.8)
Net debt attributable to assets held for sale	-	(24.6)	24.6

Given that the change in the Company's net debt is broadly in line with the change in the Group's net debt, reference should be made to the above description of changes in the Group's debt. The sharp decline in gross debt, down €1,576.7 million compared with 31 December 2021, is due primarily to the repayment of bonds in February 2022 and of short-term borrowings. This was after the drawdown of new bank facilities totalling €1,006.6 million and adjustments to the fair value of financial instruments.

Cash and cash equivalents of €2,202.6 million is up €582.8 million and consists of €1,510.6 million invested in short-term, readily convertible deposits, €519.1 million held in bank current accounts and in the form of cash in hand and €172.9 million corresponding with the net amount receivable on intercompany current accounts held by the Company on behalf of its subsidiaries.

Financial assets have decreased €711.7 million, essentially following the repayment of Italian government securities held, partly offset by new investments during the period.

Net debt attributable to assets held for sale has been reduced to zero (down €24.6 million) following the sale of the investment in the Uruguayan subsidiary.

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Proposed distribution of profit for the year

Terna S.p.A.'s Board of Directors proposes to pay a total dividend of €631,941,484.80 for 2022, equal to €0.3144 per share, of which €0.1061 per share was declared in the form of an interim dividend on 9 November 2022.

The Board of Directors thus proposes to appropriate Terna S.p.A.'s profit for 2022, amounting to €834,138,704.35, as follows:

- €213,260,151.2 to cover payment of the interim dividend payable from 23 November 2022 to the holders of each of the ordinary shares outstanding after adjusting for the treasury shares held at the record date of 22 November 2022 (with the relevant amount of €464,283.94 taken to retained earnings);
- €418,681,333.6 maximum to pay a final dividend of €0.2083 to the holders of each of the 2,009,992,000 ordinary shares representing the share capital at the date of this Board of Directors' meeting. The final dividend will be payable on 21 June 2023, with an ex-dividend date for coupon 38 of 19 June 2023 (a record date, as defined by art. 83-terdecies of Legislative Decree 58 of 24 February 1998, the Consolidated Law on Finance, of 20 June 2023). The treasury shares held as of the above record date will not participate in the distribution. The final dividend for 2022 attributable to the treasury shares held by the Company at the record date will be taken to retained earnings;
- €202,197,219.55 to be taken to retained earnings.

DNF

EU Taxonomy

Regulation 852/2020

Introduction

The climate and energy targets that the European Union has set for 2030 and 2050, with the aim of implementing the European Green Deal, also require the involvement of the private sector, with the aim of directing investment towards sustainable projects and activities. With this in mind, European institutions have introduced a taxonomy of economic activities that can be considered as "sustainable", namely they are potentially able to help achieve pre-set environmental objectives. The classification system introduced by EU Regulation 2020/852 (also "EU Taxonomy Regulation" or "Taxonomy" or "Regulation") aims to provide investors, businesses and public organisations with reliable shared criteria and methods to identify sustainable economic activities. Moreover, the Regulation enables measurement of the extent to which individual company activities adhere to and contribute to the pre-set objectives, thereby ensuring greater transparency for all stakeholders.

According to the Regulation, an economic activity can be defined as "environmentally sustainable" if it:

- **meets the technical screening criteria defined, on a scientific basis, for each activity.** Compliance with the technical screening criteria ensures that an activity:
 - **contributes substantially to the achievement of at least one of the six environmental objectives** set out in Article 9 of the Regulation: climate change mitigation; climate change adaptation; the sustainable use and protection of water and marine resources; the transition to a circular economy; pollution prevention and control; the protection and restoration of biodiversity and ecosystems;
 - **Does No Significant Harm** (DNSH) to any of the other five environmental objectives;
- **respects minimum safeguards**, recognising the importance of human rights and international rights and standards in the management of its organisation and along the supply chain.

From January 2022, the disclosure of information pursuant to the Taxonomy in the consolidated Non-financial Statement (NFS) is mandatory for companies that are already subject to the obligations laid down by Directive 2014/95/EU on non-financial reporting. For 2021, the first year of application of the Regulations, companies were required to disclose the share - in terms of revenue, capital expenditure (CapEx) and operating expenditure (OpEx) - of "taxonomy eligible" (also defined as "eligible") and "non-eligible" activities relating to climate change objectives, namely those activities included in Annexes 1 and 2 of Delegated Regulation 2139/2021⁵² (or "Climate Delegated Act"), without having to comply with the technical screening criteria and the minimum safeguards.

For 2022, the Regulations are applied in full and therefore, in addition to the share of eligible and non-eligible assets also include the share of "taxonomy-aligned" (or "aligned") assets, namely the eligible assets that meet the technical screening criteria set forth in the Climate Delegated Act, and are in line with the minimum safeguards, pursuant to Article 18 of the Regulation.

⁵² Annex 1 lists activities related to the climate change mitigation objective, while Annex 2 lists activities related to the climate change adaptation objective.

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Assessment of compliance with the Regulation

With regard to 2022, in line with the previous year, the Group's activities have been mapped - taking into account both the Regulated and the Non-regulated segments (which are described in the section on "The Group's business") - in order to identify those activities that are taxonomy-eligible, namely potentially able to contribute to climate change mitigation and adaptation objectives.

Following these analyses, the Group's activities were associated with the following economic activities in relation to the climate change mitigation objective:

- **4.9 Electricity transmission and distribution:** including activities in the **Regulated Activities** segment, primarily regarding the development, operation and maintenance of the National Transmission Grid, which is part of the European interconnected system, as well as dispatching and metering activities. Point 4.9 also includes **Non-regulated Activities**, related to work on systems dependent on the European interconnected system and the installation of transmission and distribution transformers that comply with the requirements laid down by EU Regulation 2014/548 and the EN 50588-1 standard, and **International Activities**, related to transmission and distribution activities carried out by the Group's overseas subsidiaries in Brazil, Peru and Uruguay. International Activities have been reclassified in accordance with IFRS 5 as discontinued operations and net assets held for sale⁵³;
- **7.6 Installation, maintenance and repair of renewable energy technologies:** including maintenance, plant monitoring and other services for third parties operating in renewable energy production. In particular, Group activities relating to the construction and maintenance of photovoltaic solar energy plants and ancillary technical equipment are included;
- **9.3 Professional services related to the energy performance of buildings:** including activities related to consultancy services, feasibility studies, energy performance contracts, energy efficiency certificates (EECs or white certificates) and services performed by the Group as an energy service provider (ESCO, energy service company).

For the purpose of assessing alignment, analyses were then carried out for each identified eligible activity in order to verify compliance with the substantial contribution criteria and the established Do No Significant Harm criteria.

4.9 activities - Electricity transmission and distribution

Substantial contribution

The Group's main activities (especially those carried out by the parent Terna S.p.A. and the subsidiaries Terna Rete Italia S.p.A., Rete S.r.l. and Terna Crna Gora d.o.o.) include the design, construction, management, development, operation and maintenance of the high- and ultra-high-voltage national transmission grid which is connected to the European interconnected system and its subordinate systems. The operation and maintenance activities carried out by the Tamini Group and the Brugg Cables Group to ensure the operation of the transmission grid, and some of the activities carried out by Terna Energy Solutions S.r.l. are also included.

4.9 activities include the installation of transmission and distribution transformers (4.9 - criterion 2.c) carried out by the Tamini Group. In this case, checks were carried out to ensure that the transformers installed by the Tamini Group meet the requirements specified in the technical screening criteria⁵⁴, thereby excluding any installation activities related to the non-EU market.

⁵³ In line with FAQ no. 17 published on 19 December 2022 regarding the interpretation of Article 8 of the EU Taxonomy Regulation, for companies classified as "discontinued operations" only the CapEx KPI is reported, while for companies classified as "held for sale" both revenue and capEx are reported.

⁵⁴ Transmission and distribution transformers comply with the phase 2 (1 July 2021) requirements of Annex I of EU Commission Regulation 548/2014, and the AAA0 level requirements for no-load losses of EN 50588-1.

The revenue and CapEx KPIs related to 4.9 activities include the electricity infrastructure construction activities attributable to the South American subsidiaries included in the planned sale of assets, reclassified in accordance with IFRS 5, which began at the end of 2021. These activities were considered admissible, but not aligned, as their compliance with the technical screening criteria could not be assessed. As of next year, with regard to the (potential) change in the scope of IFRS 5, the KPIs will be revised accordingly.

DNSh⁵⁵

The Terna Group has carried out an assessment of climate risks that may have an impact on transmission assets, described in the Climate Change Disclosure, which aims to identify and assess climate risks connected with Terna's plants and activities. Climate assessments underpin the forecasts contained in the Group's Development Plan, Renewal Plan and Resilience Plan, all of which include initiatives to boost the electricity grid's resilience to the severe weather events that are occurring with increasing intensity and frequency.

In 2022, with regard to the objective of transitioning to a circular economy, the Terna Group completed preparatory activities for the drawing up of a Circular Economy Strategy and a Roadmap of Actions to 2030 relating to the procurement of materials and their proper use, sustainable use of resources including secondary raw materials, and waste management. See the relative section in "Natural capital" (page 258).

With reference to the objective of preventing and reducing pollution, the Terna Group follows the IFC's General Environmental, Health and Safety Guidelines, and the applicable rules and regulations, in order to limit the impact of electromagnetic radiation on human health. Moreover, periodic internal checks of environmental data revealed no traces of polychlorinated biphenyls (PCBs) in transformers used or installed by Group companies in 2022.

Finally, when necessary, the Group conducted environmental impact assessments (EIAs) on individual projects related to transmission and dispatching activities. When an EIA was carried out, the necessary mitigation and compensation measures to protect the environment were implemented. In addition, a strategic environmental assessment (SEA) procedure was prepared to complement the decisions made in planning and drawing up the Plan.

For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and major biodiversity areas, as well as other protected areas), an appropriate environmental risk assessment was conducted, if applicable. When possible, the Group carried out an assessment to implement mitigation, compensation and rehabilitation measures in order to restore the sites affected by works to their original state.

⁵⁵ With reference to the Do No Significant Harm principle, it should be noted that the Commission's Delegated Regulation (EU) 2021/2139 of 4 June 2021 defines the "Sustainable use and protection of water and marine resources" objective as not relevant for electricity transmission and distribution activities.

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7.6 activities - Installation, maintenance and repair of renewable energy technologies

Substantial contribution

The activities of Terna S.p.A. and its subsidiaries Terna Rete Italia S.p.A., Terna Energy Solutions S.r.l. and the LT Group contribute substantially to mitigating climate change, with particular reference to point (a) "installation, maintenance and repair of photovoltaic solar systems and ancillary technical equipment", as they involve revamping and repowering of third-party photovoltaic solar systems.

DNSH

Regarding 7.6 activities, the regulations only envisage DNSH criteria for the climate change adaptation objective, which requires an assessment of the physical climatic risks arising from the activities. Terna's climate risk assessment of transmission assets, described in the Climate Change Disclosure, does not include 7.6 activities. Moreover, all installation, maintenance and repair work relates to third party assets. Therefore, in this case, as it has not identified any specific climatic risks related to 7.6 activities, and adopting a conservative approach, the Group considers that these activities, although eligible, are not aligned with the Regulation's DNSH criterion, for the time being.

9.3 activities - Professional services related to the energy performance of buildings

Substantial contribution

Through its subsidiary Avvenia S.r.l., the Group provides many of the services included in the substantial contribution criterion for 9.3 activities. In particular, Avvenia operates as an energy service company (ESCO), including consultancy services, feasibility studies and trading of energy efficiency certificates (EECs or white certificates).

DNSH

Also with regard 9.3 activities, the regulations only envisage DNSH criteria for the climate change adaptation objective, which requires an assessment of the physical climatic risks arising from the activities. Terna's climate risk assessment of transmission assets, described in the Climate Change Disclosure, does not include 9.3 activities. Furthermore, all consultancy projects, feasibility studies and trading of white certificates relate to third-party assets. Therefore, in this case, as it has not identified any specific climatic risks related to 9.3 activities, and adopting a conservative approach, the Group considers that these activities, although eligible, are not aligned with the Regulation's DNSH criterion, for the time being.

Minimum safeguards

For the purposes of verifying the alignment of Terna's activities, an analysis was conducted on the adequacy of the measures in place at Group level with respect to the principles referred to in Article 18 of the Regulation, namely the OECD Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights, including the principles and rights established by the eight fundamental conventions identified in the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work and the International Charter of Human Rights. For the purposes of the analysis, the Group also took into account the guidance provided by the Platform on Sustainable Finance (PSF) in its Final Report on Minimum Safeguards published in October 2022.

In view of the cultural, social and economic diversity of the various countries in which Terna operates, the Parent Company requires individual subsidiaries to adopt and supplement their own Code of Ethics, in addition to their own policy documents, with conduct criteria specific to their activities and operating context. This enables the criteria of conduct for all Group companies to be consistent with the highest standards of environmental protection, safety, human rights and workers' rights.

Oversight of the issues underlying the minimum safeguards is ensured by the presence of prescriptive instruments, such as Group policies, guidelines, and organisational/operational tools, including dedicated structures, procedures, and management and control systems. The Terna Group has sufficient safeguards and controls in place to ensure compliance with Article 18 of the Regulation, thanks to the presence of:

- a Code of Ethics, whose principles must be respected in all Group procedures;
- guidelines on respecting human rights in the Terna Group;
- a due diligence procedure on respecting human rights, followed by any necessary corrective actions;
- regulations on the qualification of companies, which entails compliance with the principles of the Code of Ethics;
- effective, public communication on human rights issues;
- a whistleblowing procedure;
- complaint mechanisms accessible to stakeholders via the Group's website;
- anticorruption guidelines.

For more information on minimum safeguards, reference should be made to the section on "Intangible capital", in which, among other aspects, the protection of legality, integrity and anticorruption, the Integrated Management System, and measures to ensure respect for human rights, are explained in detail.

On completion of the alignment analysis, the Group determined the shares of activities that are eligible and aligned with the Taxonomy for each indicator, as follows. In order to avoid double counting in the KPI numerator when allocating revenue, capital expenditure and operating expenditure to the three economic activities, the KPIs were determined on the basis of the data reported in the Group's consolidated financial statements and allocated to the mitigation objective only.

As required by the Regulation, the table below shows the Terna Group's three KPIs for 2022, referring to taxonomy eligible and taxonomy non-eligible activities:

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SHARE OF ELIGIBLE ACTIVITIES

of which share of aligned activities



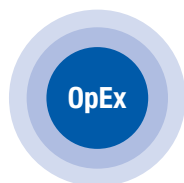
89%

87%



99%

99%



94%

94%

Share of revenue derived from products or services associated with economic activities aligned and eligible for Taxonomy - 2022 disclosure (figures in €m)⁵⁶

	NUMBER(S)	ABSOLUTE REVENUE	SHARE OF REVENUE (%)	SUBSTANTIAL CONTRIBUTION CRITERIA							DO NO SIGNIFICANT HARM CRITERIA							
				CLIMATE CHANGE MITIGATION (%)	CLIMATE CHANGE ADAPTATION (%)	WATER AND MARINE RESOURCES (%)	THE CIRCULAR ECONOMY (%)	POLLUTION (%)	BIODIVERSITY AND ECOSYSTEMS (%)	CLIMATE CHANGE MITIGATION (YES/NO)	ADAPTATION TO CLIMATE CHANGE ADAPTATION (YES/NO)	WATER AND MARINE RESOURCES (YES/NO)	THE CIRCULAR ECONOMY (YES/NO)	POLLUTION (YES/NO)	BIODIVERSITY AND ECOSYSTEMS (YES/NO)	MINIMUM SAFEGUARDS (YES/NO)	SHARE OF TAXONOMY-ALIGNED REVENUE - 2022 (%)	SHARE OF TAXONOMY-ALIGNED REVENUE - 2021 (%)
ECONOMIC ACTIVITIES																		
A. TAXONOMY-ELIGIBLE ACTIVITIES			89%															
A.1 Environmentally sustainable activities (taxonomy-aligned)																		
Electricity transmission and distribution	4.9	2,586	87%	100%	0%	0%	0%	0%	0%		Y		Y	Y	Y	Y	87%	A
Revenue from environmentally sustainable activities (taxonomy-aligned) (A.1)		2,586	87%	100%	0%	0%	0%	0%	0%								87%	
A.2 Taxonomy-eligible activities that are not environmentally sustainable (non-taxonomy-aligned activities)																		
Electricity transmission and distribution	4.9	18	1%															
Installation, maintenance and repair of renewable energy technologies	7.6	44	1%															
Professional services related to the energy performance of buildings	9.3	2	0%															
Revenue from taxonomy-eligible activities that are not environmentally sustainable (non-taxonomy-aligned activities) (A.2)		64	2%															
Total (A.1 + A.2)		2,650	89%															
B. NON-TAXONOMY-ELIGIBLE ACTIVITIES																		
Revenue from non-taxonomy-eligible activities (B)		330	11%															
Total (A+B)		2,980	100%															

⁵⁶ The way in which information is presented may be updated subsequent to regulatory clarifications.

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Share of CapEx derived from products or services associated with taxonomy-aligned economic activities - 2022 disclosure (figures in €m)⁵⁷

	NUMBER(S)	ABSOLUTE CAPEX	SHARE OF CAPEX (%)	SUBSTANTIAL CONTRIBUTION CRITERIA						DO NO SIGNIFICANT HARM CRITERIA						SHARE OF TAXONOMY-ALIGNED CAPEX - 2022 (%)	SHARE OF TAXONOMY-ALIGNED CAPEX - 2021 (%)	CATEGORY (ENABLING ACTIVITY) (A)	CATEGORY (TRANSITION ACTIVITY) (T)
				CLIMATE CHANGE MITIGATION (%)	CLIMATE CHANGE ADAPTATION (%)	WATER AND MARINE RESOURCES (%)	THE CIRCULAR ECONOMY (%)	POLLUTION (%)	BIODIVERSITY AND ECOSYSTEMS (%)	CLIMATE CHANGE MITIGATION (YES/NO)	CLIMATE CHANGE ADAPTATION (YES/NO)	WATER AND MARINE RESOURCES (YES/NO)	THE CIRCULAR ECONOMY (YES/NO)	POLLUTION (YES/NO)	BIODIVERSITY AND ECOSYSTEMS (YES/NO)				
ECONOMIC ACTIVITIES																			
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
			99%																
A.1 Environmentally sustainable activities (taxonomy-aligned)																			
Electricity transmission and distribution	4.9	1,739	99%	100%	0%	0%	0%	0%	0%		Y		Y	Y	Y	Y	99%	A	
CapEx related to environmentally sustainable activities (taxonomy-aligned) (A.1)		1,739	99%	100%	0%	0%	0%	0%	0%								99%		
A.2 Taxonomy-eligible activities that are not environmentally sustainable (non-taxonomy-aligned activities)																			
Electricity transmission and distribution	4.9	0	0%																
Installation, maintenance and repair of renewable energy technologies	7.6	2	0%																
CapEx related to taxonomy-eligible activities that are not environmentally sustainable (non-taxonomy-aligned activities) (A.2)		2	0%																
Total (A.1 + A.2)		1,742	99%																
B. NON-TAXONOMY-ELIGIBLE ACTIVITIES																			
CapEx related to non-taxonomy-eligible activities (B)		15	1%																
Total (A+B)		1,757	100%																

⁵⁷ The way in which information is presented may be updated subsequent to regulatory clarifications.

Share of OpEx derived from products or services associated with taxonomy-aligned economic activities - 2022 disclosure (figures in €m)⁵⁸

	NUMBER(S)	ABSOLUTE OPEX	SHARE OF OPEX (%)	SUBSTANTIAL CONTRIBUTION CRITERIA						DO NO SIGNIFICANT HARM CRITERIA						SHARE OF TAXONOMY-ALIGNED OPEX - 2022 (%)	SHARE OF TAXONOMY-ALIGNED OPEX - 2021 (%)	CATEGORY (ENABLING ACTIVITY) (A)	CATEGORY (TRANSITION ACTIVITY) (T)
				CLIMATE CHANGE MITIGATION (%)	CLIMATE CHANGE ADAPTATION (%)	WATER AND MARINE RESOURCES (%)	THE CIRCULAR ECONOMY (%)	POLLUTION (%)	BIODIVERSITY AND ECOSYSTEMS (%)	CLIMATE CHANGE MITIGATION (YES/NO)	CLIMATE CHANGE ADAPTATION (YES/NO)	WATER AND MARINE RESOURCES (YES/NO)	THE CIRCULAR ECONOMY (YES/NO)	POLLUTION (YES/NO)	BIODIVERSITY AND ECOSYSTEMS (YES/NO)				
ECONOMIC ACTIVITIES																			
A. TAXONOMY-ELIGIBLE ACTIVITIES			94%																
A.1 Environmentally sustainable activities (taxonomy-aligned)																			
Electricity transmission and distribution	4.9	116	94%	100%	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	94%	A		
OpEx related to environmentally sustainable activities (taxonomy-aligned) (A.1)		116	94%	100%	0%	0%	0%	0%	0%							94%			
A.2 Taxonomy-eligible activities that are not environmentally sustainable (non-taxonomy-aligned activities)																			
Professional services related to the energy performance of buildings	9.3	0	0%																
OpEx taxonomy-eligible activities that are not environmentally sustainable (non-taxonomy-aligned activities) (A.2)		0	0%																
Total (A.1 + A.2)		116	94%																
B. NON-TAXONOMY-ELIGIBLE ACTIVITIES																			
OpEx related to non-taxonomy-eligible activities (B)		7	6%																
Total (A+B)		123	100%																

⁵⁸ The way in which information is presented may be updated subsequent to regulatory clarifications.

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Accounting standards and contextual information

The accounting policy, namely the method for calculating the shares of revenue, CapEx and OpEx associated with the eligible and aligned activities identified by the Group, is based on the provisions of Annex 1 of Delegated Regulation 2178/2021.

For the purposes of allocating revenue, CapEx and OpEx to eligible and aligned activities, Terna has defined a clear and traceable methodology to meet quantitative and qualitative information needs. Specifically, the Group has reconstructed the indicators using data from the general, industrial and regulatory accounts.

Details of the methodology used to calculate the individual indicators are as follows:

To calculate the share of **revenue**, the numerator is taken to be the consolidated net revenue generated by the sale of products or services, including intangibles, associated with taxonomy eligible and aligned economic activities, and the denominator is taken to be total net revenue (based on the criteria set out in point 1.1.1 of Annex 1 to Delegated Regulation 2178/2021). Net revenue has been identified by using data from the consolidated financial statements prepared in accordance with international accounting standards and with reference to the provisions of IAS 1, paragraph 82(a). None of the figures in the reported amounts relate to economic activities included in the taxonomy carried out for the Group's internal consumption.

To calculate the share of **CapEx**, the numerator is taken to be capital expenditure recognised as assets in the consolidated balance sheet and associated with eligible and aligned activities, as defined according to the criteria set out in point 1.1.2.2 of Annex 1 of Delegated Regulation 2178/2021. The denominator is taken to be total capital expenditure, quantified in accordance with the criteria set out in point 1.1.2.1 of Annex 1 of Delegated Regulation 2178/2021. Specifically, the denominator comprises additions to tangible and intangible assets for the period before depreciation and amortisation, impairment losses and any revaluations, including those arising restatements and impairments, and excluding changes in fair value. In order to create the indicator, capital expenditure was identified using data from the consolidated financial statements, with reference to (a) IAS 16: Property, Plant and Equipment; (b) IAS 38: Intangible Assets and (c) IFRS 16: Leases.

To calculate the share of **OpEx**, the numerator is taken to be the operating expenditure associated with eligible and aligned activities and defined according to the criteria set out in point 1.1.3.2 of Annex 1 of Delegated Regulation 2178/2021, and the denominator is taken to be total operating expenditure, quantified in accordance with the criteria set out in point 1.1.3.1 of Annex 1 of Delegated Regulation 2178/2021. The latter includes the following costs: direct non-capitalised costs relating to research and development; building renovation measures; short-term rentals; and maintenance and repair, as well as any other direct expenditure relating to the day-to-day maintenance of property, plant and equipment, carried out either by the company or by third parties to whom these tasks are outsourced, as needed to ensure the continuous and efficient operation of these assets.

Finally, it should be noted that, as stated in the Green Bond Report, the Group has issued environmentally sustainable bonds over the years that finance taxonomy-aligned activities. The contribution of green bond issues in 2022 amounts to 17% of aligned CapEx.

Share price performance

Terna and the financial markets

Terna S.p.A. has been listed on Borsa Italiana's screen-based trading system (*Mercato Telematico Azionario*) since 23 June 2004. **From the date of floatation to the end of 2022, the share price has risen 306% (a capital gain)**, providing a Total Shareholder Return (TSR⁵⁹) of 982%, ahead of both the Italian market (the FTSE MIB, up 64%) and the relevant European sector index (DJ Stoxx Utilities), which is up 289%.

Europe's leading stock markets ended 2022 in negative territory, weighed down by the conflict between Russia and Ukraine and the tightening of monetary policy by central banks to combat inflation. Milan lost 13.3%, Paris and Frankfurt gave up 9.5% and 15.2% and Madrid fell 5.6%, whilst London rose 0.9%.

Terna's shares closed 2022 at a price of €6.900, down 3.01% over the year. This outperformed both the market on which the shares are listed in Milan (FTSE MIB -13.3%) and the index for European utilities (DJ Stoxx Utilities -11.1%). The daily average volume traded during the year amounted to approximately 4.1 million. The share price reached a new all-time high of €8.334 per share on 25 May. It should also be noted that the ex-dividend date for the interim dividend for 2022, amounting to 10.61 euro cents per share, was 21 November.

Key indicators per share

	2022	2021	2020	2019	2018	2017
Number of shares (in millions)*	2,010	2,010	2,010	2,010	2,010	2,010
Price at year end (€ per share)	6.90	7.11	6.25	5.95	4.95	4.84
Market capitalisation** (€m)	14,541	12,898	12,142	11,273	9,507	9,668
Average price for year (€ per share)	7.23	6.42	6.04	5.61	4.73	4.81
Earnings per share (€)	0.427	0.393	0.391	0.377	0.352	0.339
Dividend per share (€)	0.314	0.291	0.270	0.250	0.233	0.220
Payout ratio***	73.74%	74.12%	68.98%	66.22%	66.34%	64.24%
Dividend yield****	4.6%	4.1%	4.3%	4.2%	4.7%	4.5%
Total shareholder return	1.03%	18.8%	9.4%	25.1%	7.3%	15.9%

* The total number of shares representing the share capital. The number of shares in circulation amount to 2,006 million, following the buyback of own shares to service the Performance Share Plan 2020-2023 in 2020, the Performance Share Plan 2021-2025 in 2021 and the Performance Share Plan 2022-2026 in 2022.

** Based on the average price for the year.

*** The ratio of the total dividend to profit attributable to owners of the Parent.

**** Dividend per share for the year as a percentage of the share price at year end.

⁵⁹ Total Shareholder Return (TSR): total return on an equity investment, calculated as the sum of:

- I. capital gain: the change in the share price (difference between the price at the end and at the beginning of the relevant period) as a percentage of the price at the beginning of the period;
- II. reinvested dividends: the ratio between dividends per share paid out during the period and the share price at the beginning of the period. Dividends are assumed to have been reinvested in the shares.

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Weighting of Terna's shares

	2022	2021
> on the FTSE MIB index	2.58%	2.18%

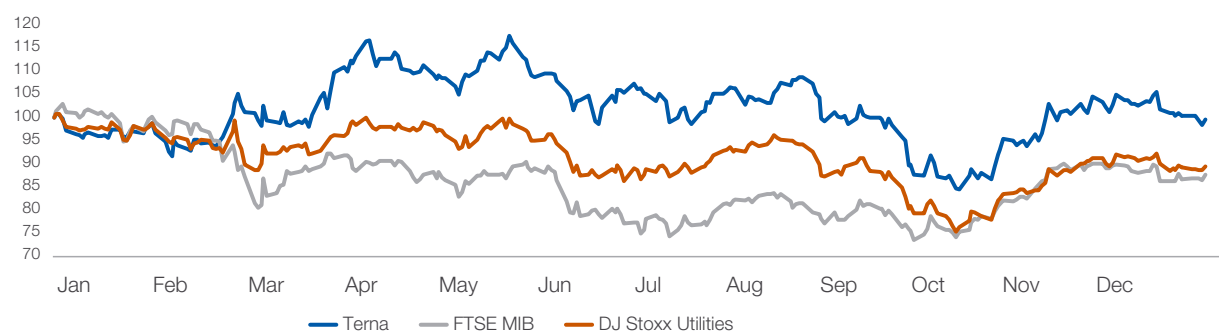
Source: Borsa italiana.

Performance of Terna's shares (Price from 1 January to 30 December 2022)⁶⁰



Source: Bloomberg.

Terna's shares, the FTSE MIB and DJ Stoxx Utilities (Price from 1 January to 30 December 2022)⁶⁰

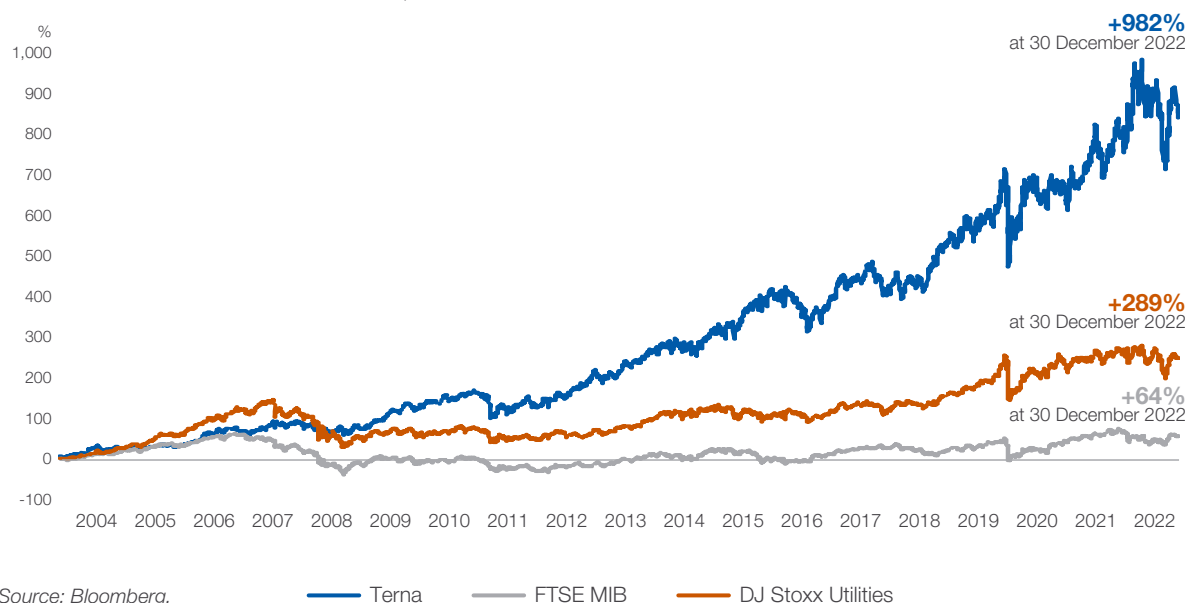


Source: Bloomberg.

⁶⁰ Friday, 30 December was the last day of trading on the markets in 2022.

Total shareholder return on Terna's shares and the FTSE MIB and DJ Stoxx Utilities

(from the flotation to the end of 30 December 2022)⁶¹



Inclusion in international stock exchange ESG indices

Terna's commitment to measuring and improving its sustainability performance is reflected positively in its ESG (Environmental, Social and Governance) ratings and, as a result, in its presence in international stock exchange ESG indices.

ESG ratings

AGENCY	DESCRIPTION
S&P GLOBAL	Its Corporate Sustainability Assessment ("CSA") is a periodic evaluation of companies' sustainability practices. The highest ranked companies are included in the Dow Jones Sustainability Index (DJSI). The CSA conducted in 2022 gave Terna a score of 91/100 (latest update: December 2022).
SUSTAINALYTICS	It periodically publishes an ESG Risk Rating Report on the Company. In 2022, Terna was rated as "Negligible Risk" (the best possible).
MOODY'S ESG	It periodically measures the ESG performances of companies. Its final opinion is based on four different levels of performance (Advanced; Robust; Weak; Limited). In October 2022, Terna was rated "Advanced" with a score of 74/100.
BLOOMBERG	Its Gender Reporting Framework is an international standardized reporting and disclosure method for workplace gender data. The highest ranked companies, such as Terna, are included in the Gender Equality Index (GEI).
MSCI	It periodically publishes an ESG Ratings Report in which it analyses and assesses companies on a scale from "AAA" (the highest rating) to "CCC". Terna has been assigned a rating of "AAA".
CDP (CARBON DISCLOSURE PROJECT)	Its periodically produced Climate Change questionnaire focuses on issues linked to climate change. The questionnaire results in a rating expressed in letters on a scale from D to A. In 2022, Terna received a score of "B".
ISS ESG	It assesses the sustainability performances of companies based on approximately a hundred criteria. The highest ranked companies, such as Terna, are awarded Prime status.
FTSE RUSSELL	Its ESG ratings reflect the company's exposure to – and management of – ESG issues and constitute the main input for inclusion in the FTSE4Good indices.
STANDARD ETHICS	Standard Ethics issues an opinion on companies' degree of compliance with regard to sustainability and corporate governance based on documents and guidelines published by international bodies. In December 2022, Terna improved its rating to "EE" on a scale from "EEE" (the best) to "F" (the worst).
GRESB	GRESB ("Global Real Estate Sustainability Benchmark") conducts assessments of the level of disclosure . In 2022, Terna received the highest possible rating of "A".

⁶¹ Friday, 30 December was the last day of trading on the markets in 2022.

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ESG indices

INDEX	TERNA
DOW JONES SUSTAINABILITY	The DJSI indices select the companies with the best sustainability performances from among those with the highest capitalisation. Has been included in the DJSI World and DJSI Europe indices since 2009.
FTSE4GOOD	The FTSE4Good indices are based on assessments carried out by FTSE Russel. Terna has been included in the index since 2005.
MSCI	Terna is a member of over a hundred of MSCI's general and sectoral ESG indices.
STOXX® GLOBAL ESG LEADERS	Launched in 2011, these indices are based on assessments made by the Sustainalytics rating agency and select the best shares based on ESG performance. Admission to the Global ESG Leaders Index, requires inclusion in at least one of the three specialist indices (Global Environmental Leaders, Global Social Leaders and Global Governance Leaders). Terna has been a member of all three indices since 2011.
BLOOMBERG GENDER EQUALITY	This index measures companies' performance regarding gender equality issues. Terna has been included since 2019.
EURONEXT VIGEO EIRIS	Developed by the Vigeo Eiris rating agency, these indices are based on a population of companies listed on international markets. Terna has been a member of the World 120, Eurozone 120 and Europe 120 indices since 2012.
ECPI	ECPI has created sustainability indices and carries out research so as to provide additional non-financial information. Terna is, among others, one of the ECPI ESG Best in Class. Terna has been included since 2007.
SOLACTIVE EUROPE CORPORATE SOCIAL RESPONSIBILITY	This index has replaced the previous Ethibel Sustainability Index. It includes a basket of European shares selected by the Ethibel Forum. Terna has been included since 2009 (taking into account earlier membership of the Ethibel Sustainability Index).
MIB ESG	Launched in 2021, this is Italy's first blue-chip index focusing on ESG best practices. The index is based on the outcome of the periodic assessment conducted by the agency, Moody's ESG.
GLIO/GRESG ESG	Launched in 2021, this is the first index to specialise in an assessment of the best ESG practices adopted by companies that manage strategic infrastructure. Terna has been a member of the index since its inception.
S&P GENDER EQUALITY & INCLUSION INDEX	Launched in 2021, this index measures the performances of listed companies with respect to gender equality and inclusion. The index includes companies that have received the highest S&P Global Gender Diversity Scores, calculated on the basis of the results obtained in the S&P Global CSA (Corporate Sustainability Assessment).
EURONEXT EQUILEAP GENDER EQUALITY EUROZONE 100 INDEX	Launched in 2022, it includes 100 Eurozone companies that have shown that they are playing a major role in promoting gender equality.
EURONEXT ESG EUROZONE BIODIVERSITY LEADERS PAB INDEX	The biodiversity index, launched in 2022, selects companies with the best Moody's ESG ratings, the best performers with respect to an assessment of their "Corporate Biodiversity Footprint" conducted by Iceberg Data Lab.

Outlook

2023 will see the Group continue to focus on delivering on the updated “Driving Energy” 2021-2025 Industrial Plan and in the recently presented 2023-2032 Development Plan, which envisages over 21 billion in investments over the next ten years. This will be done despite the highly volatile macroeconomic environment, marked by high global inflation, slowing economic growth, a tightening of monetary policies by central banks and rapidly rising interest rates, in addition to the geopolitical problems resulting from the prolonged conflict between Russia and Ukraine and continued tensions in the commodity markets, which are having a negative impact on the recovery from the Covid-19 pandemic. With specific regard to the investment programme, involving total investment of €10 billion in the five years from 2021 to 2025, the Group has set a target of approximately €2.2 billion for 2023.

The sharp acceleration in expenditure on **Regulated Activities** will continue with the goal of enabling the energy transition, facilitating the development and integration of renewable sources and making a major contribution to achieving the ambitious goals set out in the Green Deal, which aims to transform the European Union into a carbon-free economy by 2050, with an intermediate target of cutting emissions by approximately 55% by 2030 compared with 1990 levels.

In terms of the Group's most important investment projects, work is progressing on the Tyrrhenian Link, with consent for the East Link, due to connect Campania with Sicily, already received in 2022 and the consents process for West Link, connecting Sicily and Sardinia, formally initiated. This latter consent is expected to be received by the end of 2023. At the end of 2022, the consents process for the Adriatic Link, the new submarine cable that will connect the Abruzzo and Marche regions, was launched. The principal NTG assets due to enter service in 2023 include the interconnection with France and the submarine connection between Elba and the mainland.

Work on the reorganisation of electricity grids in metropolitan areas will also continue during the year, primarily involving the renewal of existing infrastructure with new technologically advanced connections meeting the highest standards in terms of environmental sustainability.

In terms of the Security Plan, work will continue on the planned installation of grid components supporting the regulation of short-circuit voltage and power in areas of the country characterised by a high level of production from renewable sources and a significant reduction in traditional production.

Finally, the Group will continue to make progress towards meeting the objectives provided for in the output-based incentive mechanisms drawn up by ARERA. These primarily regard additional transmission capacity between market areas (interzonal incentives) and reductions in dispatching costs (DSM incentives).

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With regard to **Non-regulated Activities**, the Terna Group will continue to consolidate its role as a provider of both connectivity, through the offer of housing and hosting services for fibre infrastructure, including in the form of partnerships, and energy solutions, developing high value-added services for corporate customers and exploiting market opportunities for traditional and renewable customers. This will include exploitation of the LT Group's know-how, following completion of its integration with Terna in 2022.

In the industrial segment, the aim is to build on Tamini's performance and, with regard to Brugg, take full advantage of its distinctive expertise in terrestrial cables and of synergies with the Terna Group's other businesses.

In terms of **International Activities**, the strategic assessment of further opportunities in overseas markets, focusing above all on the US market, will continue. This may take the form of partnerships and will involve the careful selection of projects with a view to ensuring a low risk profile and avoiding the need to tie up large amounts of capital. In addition, as regards the assets being sold, the process of selling the Peruvian assets will continue, with a sale expected to be completed in the first half of 2023, whilst work on the construction of the Linha Verde I power line in Brazil will continue.

In line with the approach adopted in 2022, the Group will focus on stepping up investment in innovation and digital solutions to continue the transformation that will enable it to manage the growing complexity of the electricity system. In addition, the Group's activities will focus on people development and the insourcing of strategic competencies, the strengthening of departments and optimising the working environment through the widespread adoption throughout the organisation of the best practices resulting from the **NexTerna** project.

Management of the Terna Group's business will continue to be based on a sustainable approach and respect for the ESGs, ensuring that it is able to minimise the environmental impact, involve local stakeholders and meet the need for integrity, responsibility and transparency.

Partly thanks to the above initiatives, including above all those designed to further increase the efficiency of the electricity system, Terna expects revenue for 2023 to be €3.11 billion, EBITDA to be €2.12 billion and an EPS of €0.43. With specific reference to the Investment Plan, due to total €10 billion over the five years from 2021 to 2025, the Group has targeted capital expenditure of approximately €2.2 billion in 2023. The above objectives will be pursued whilst maintaining a commitment to maximising the cash generation necessary ensure a sound, balanced financial structure.



AT 31 DECEMBER 2021

INPUTS

8 patents filed
69 projects in the innovation portfolio

AT 31 DECEMBER 2022

OUTCOMES

16 patents (8 more than in 2021)
67 projects in the innovation portfolio
113 suppliers in categories relevant for ESG purposes (4 more than in 2021)

Birth of **Terna Forward**

Marketing procurement

(market scouting, benchmarking and surveys)

OUTPUTS



AT 31 DECEMBER 2021

INPUTS

145,528 hours of training
Safety indicator:
0.49 (target ≤ 1)
14.1% Women in leadership positions as a percentage of total leadership positions

AT 31 DECEMBER 2022

OUTCOMES

174,708 hours of training (29,180 more than in 2021)
Safety indicator: **0.74** (target ≤ 1)
23.7% Women in leadership positions as a percentage of total leadership positions (68% more than in 2021)

Reorganisation of the training model:
launch of the **Terna Academy**

Birth of **Terna for Health & Safety**

Increased presence of women in the Company

OUTPUTS



AT 31 DECEMBER 2021

INPUTS

87% of investment in electricity infrastructure covered by local community engagement initiatives

AT 31 DECEMBER 2022

OUTCOMES

96% of investment in electricity infrastructure covered by local community engagement initiatives (10% more than in 2021)

Increase in local community engagement initiatives

OUTPUTS



Intellectual capital	178
Human capital	203
Social and relationship capital	232

4

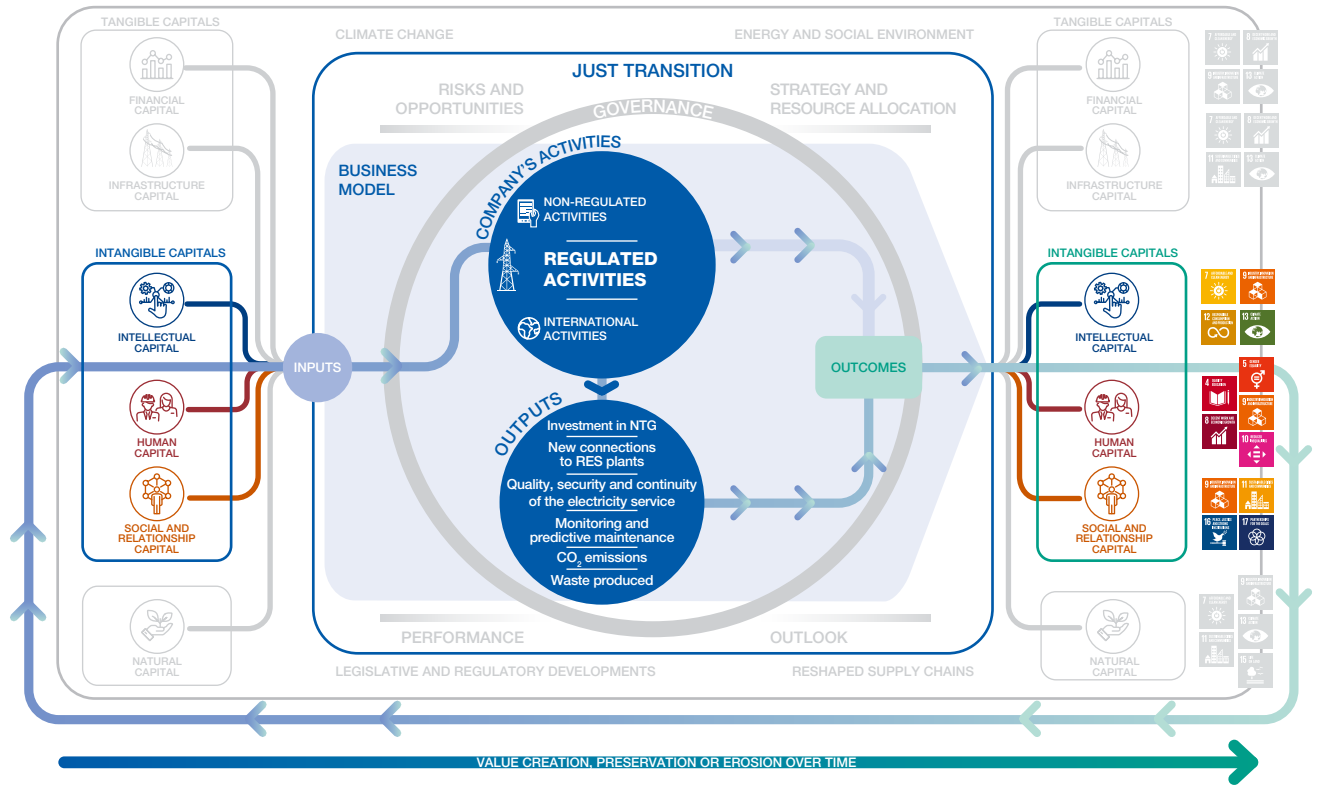
Intangible capitals

In this section

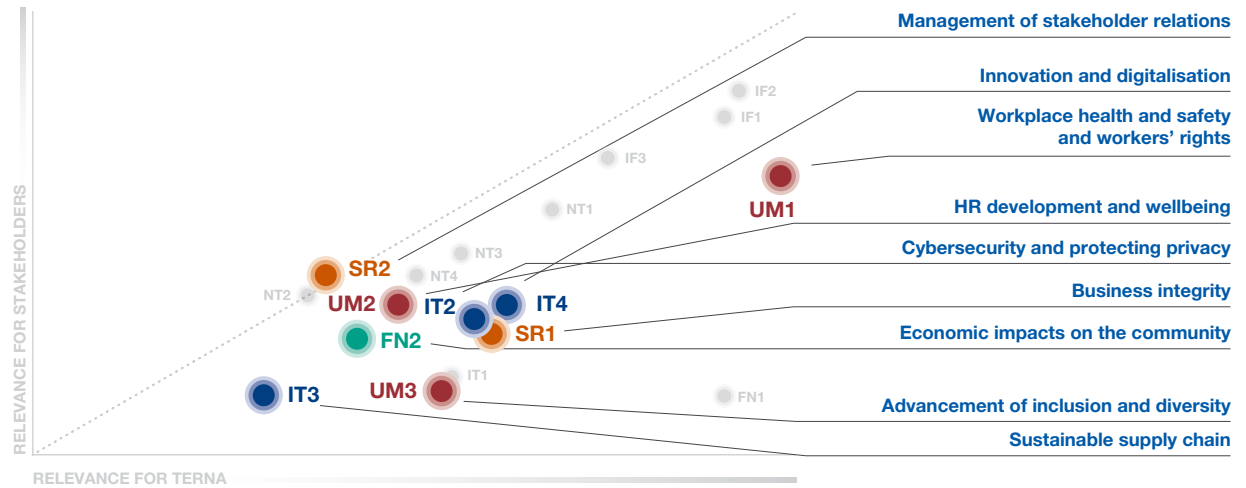
The contribution made by sustainability to the creation of value over time results in an increase in business model resilience through the management and measurability of the intangible capitals. Our role in enabling and driving the just transition means having constant access to adequate intangible capitals, such as intellectual capital capable of managing big data and carrying out innovation, human capital that is continuously updated in terms of expertise and motivated, and solid social and relationship capital to ensure that we are in the best possible position to manage stakeholder relations. The common denominator is our Code of Ethics, which establishes the values to be applied by all Terna's people as they go about their daily work and which is the basis for all our policies and guidelines.



VALUE CREATION



MATERIALITY



These infographics highlight the topics dealt with in this section with the aim of **facilitating information connectivity**: in this way, the section offers an overall view showing the links between all the factors that influence Terna's ability to create value over time and how they are dependent on each other. Material topics are indicated with a cross-reference in blue, showing the relevant code.

Intellectual capital

Of all the forms of intangible capital, **intellectual capital** has the greatest overall impact. Its quality, and as a result its ability to create value, is in fact influenced by both **human capital**, in its widest sense that includes the strength of an organisation's values and those of its individual people in terms of skills, sense of loyalty and creativity, and **relationship capital**, which is the driving force behind the consolidation of the Group's reputation among all stakeholders.

Innovation, an enabling factor that cuts across all Terna's operations and has positive impacts on all forms of capital (see page 180), plays a vital role in the growth of an intellectual capital that is suited to meet the challenges and uncertainties of an increasingly complex market.

The main contribution this form of capital makes to Terna's business relates to the rapid consolidation of our role as a System Operator (SO), namely **driving a just energy transition**. This role is carried out alongside and amplifies the traditional role of TSO, which depends on a growing ability to analyse and properly manage big data relating to the performance of renewable sources to guarantee a constant supply of new flexible resources, essential to ensuring that the electricity system is **fit for purpose**, and, more generally, for the resilience of Italy's economic and social fabric.

The impact of intellectual capital and innovation on assets and the electricity system is dealt with at the beginning of this section of the Report that shows the results for 2022, presenting developments in the values forming the basis of the **Code of Ethics**⁶² and, as such, the cornerstone of intellectual capital. In effect, this relates to compliance with the law, an essential element in ensuring ethical conduct of the business and further consolidation of sustainability governance as set out in several internal policies, as well as fiscal transparency, the growth of management systems and the oversight of aspects relating to human rights and the supply chain. The constant monitoring of all these areas is a key aspect of risk management.

⁶² The Code of Ethics, approved by Terna's Board of Directors on 21 December 2006, defines the principles and rules of conduct voluntarily adopted to ensure that the Company operates with integrity. By setting out guiding principles forming the basis for internal policies and regulations, it effectively represents the Group's constitutional charter. It is available on Terna's website (<https://download.terna.it/terna/0000/0052/97.PDF>).

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Management of the electricity system

Electricity **data is** without doubt Terna's most important content asset, one of the cornerstones of our intellectual capital.

This is the data that the TSO gathers and processes for the purposes of **managing the electricity system** (the information used by Dispatching, the nerve centre of the System Operator) and as the basis for on which it bases its **statistics, scenarios and analysis**, but also **processes, maintenance activities and the strategic development of assets**, indispensable within the context of the energy transition.

System data and the intelligent network

Data on demand – meaning demand for electricity that the system is required to meet or the primary sources with which this demand is met (thermal, hydro, etc.) – is just one example of the most significant **data linked to management** of the system: originally of a provisional nature, as they are processed in real time on the basis of measurements and estimates, this data is then finalised in the **Annual Report on Operational data** and confirmed in the document on **statistical data on electricity in Italy**, partly thanks to the contributions from producers.

This data forms the basis for strategic documents and assessments, such as those relating to **future energy scenarios**. They are processed with the aim of evaluating the benefits of transmission grid development projects, as well as for the purpose of contributing to achievement of national policy goals. Instead, in the **Adequacy Report for Italy**, based on the same sources, Terna provides an assessment of the generation and storage resources needed to ensure the adequacy of the electricity system in the scenarios considered over a ten-year period. In this way, it is possible to establish the available capacity that will be sufficient to meet the country's decarbonisation targets within the set deadlines and, as a result, size the quantities of energy to be procured via capacity market auctions.

Another key area is the data on grid infrastructure gathered and used in combination with Terna's expertise and experience to produce analyses for use in planning, development, and maintenance of the national transmission grid (NTG). The most common high-voltage lines, the electricity cables that connect them and substations have over the years become a key network for collecting data necessary for the TSO's activities and increasingly useful to other members of our ecosystem, such as research centres or government institutions. This represents nothing less than an **intelligence network**, consisting of physical and virtual assets, engineering technologies and digital software, advanced sensors, processors, and models. The quantity of data processed in this way helps to produce the reports that play a key role in management and development of the grid, such as the **Resilience Plan**, enabling assessment of the interventions needed to ensure that the electricity system can withstand the extreme weather events that have become increasingly **frequent in recent years** due to climate change.

DNF

Innovation

IT4

According to the “Innovation as a service” model, innovation focuses on initiatives that can generate impact on the Company's business. Key **highlights of the period 2021-2022** include:

SASB

- **67** projects in progress at the end of 2022
- **16** patents granted
- **30** IP applications filed
- **22** tech scouting⁶³ and landscaping
- **228** ideas presented at the two editions of Terna Ideas

Innovation model and process

Innovation serves the entire Company in the development of new solutions that can positively impact our business, with a view to constantly improving the service we provide. This fully integrated model gives a voice to Terna's people, who may then actively participate in the evolution of the Group.

The Terna Group's **innovation process**, divided into sub-processes in order to come up with concrete solutions to innovation needs in line with the Company's strategic guidelines, is illustrated below. The solutions adopted respond to ambitions to map out the future of the Terna Group and the electricity system in the context of energy transition, to be achieved through innovation.

The Terna Group has identified a series of activities that serve as tools for enabling the above phases of the innovation process. These include:

Innovation governance: an iterative, cross-cutting tool that defines the design and development of processes and tools, which is implemented through planning, monitoring and reporting activities.

Innovation ecosystem: This takes various forms: partnerships with players of excellence (major corporations, national and international research bodies and institutes, universities), internal synergies within the Innovation Community including the active engagement of Terna Group people and key local players, and finally innovation programmes and initiatives in international ecosystems (International Antenna).

Corporate venture capital: this initiative regards equity investment in companies with high innovation and growth potential, which can be made directly (fresh capital injections for innovative start-ups and SMEs) and indirectly (participation in venture capital funds).

IP process: all Company departments are supported from the design phase and during all phases of the intellectual property protection process, including assessment of the most appropriate protection measures in a preliminary stage, and preparation of all the necessary checks, until a patent has been filed at the competent office. **Terna's current patent portfolio includes 43 granted and/or filed applications, of which 9 new applications were filed in 2022.**

⁶³ **Tech scouting:** Identification of the most suitable technological solution (taking into account the degree of technological maturity, the technical requirements of the idea and its technological constraints), and seeking out the most suitable providers to meet the technological requirements of the idea.

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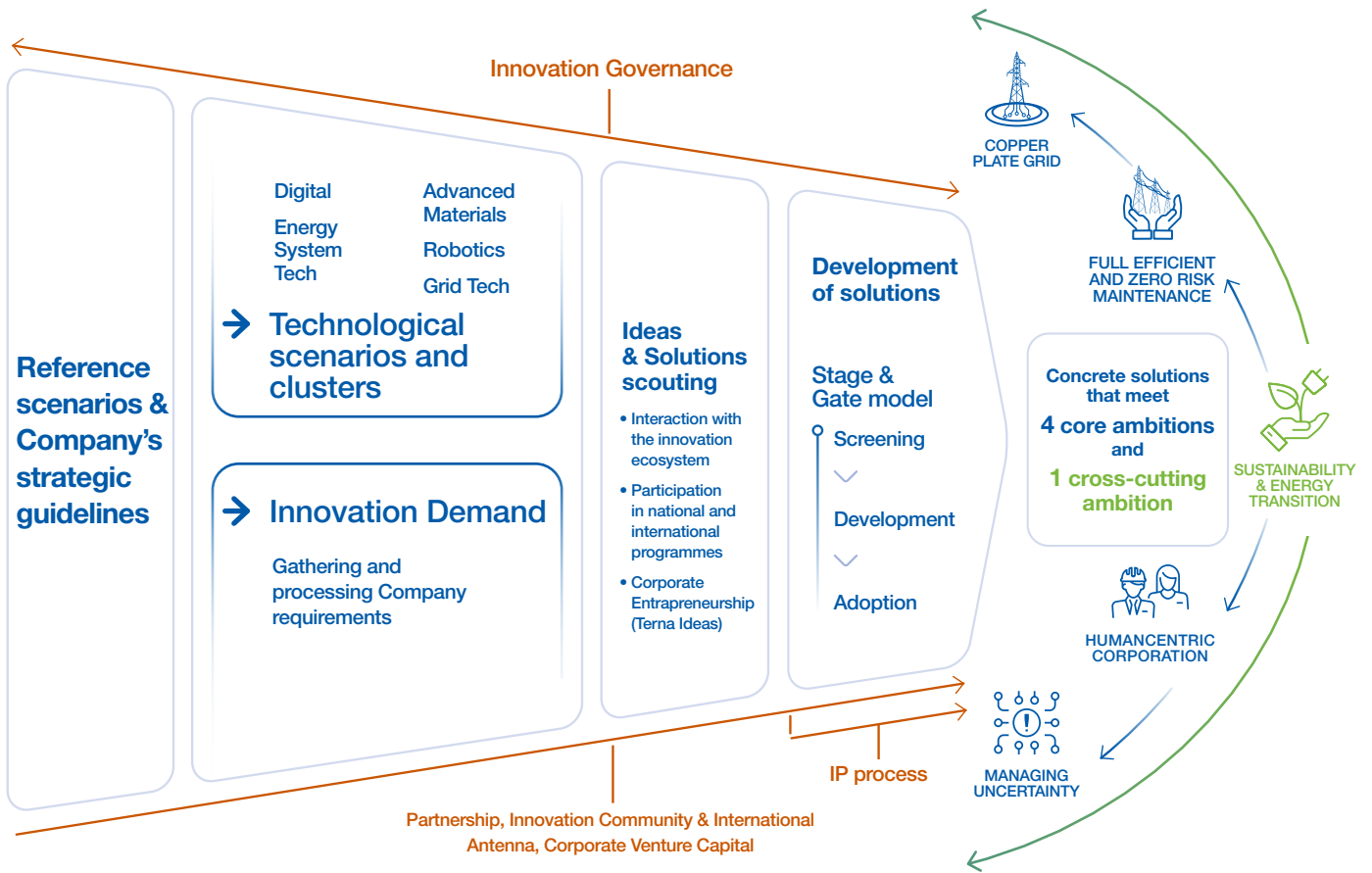
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Key projects

The innovation process follows the Stage&Gate model (checking and validation sub-processes), from the screening of the idea to the adoption of the solution.

This model facilitates construction of an overview of innovation by accelerating high value-added projects. The results produced by the model then help to define planning, economic and strategic, and reporting activities.

Projects in progress in 2022 include:

Osmose



Development and testing of innovative flexibility services provided by personnel on a section of the network between Apulia and Basilicata, in connection with three uses: congestion resolution; voltage regulation tests and secondary frequency regulation relating to demand-side response plants; and voltage regulation and synthetic inertia tests relating to wind power plants with and without electrochemical storage.

These innovative flexibility services reduce the cost of decarbonising the electricity system.

Anti-icing and VALE (video analysis of power lines) systems



These systems respond to the need to mitigate and monitor the formation of ice coatings on ground wires, involving the experimental use of passive mitigation anti-icing systems, which consist of paints or coatings with strong hydrophobic properties, to be applied to the outer layer of ground wires.

Intelligent cameras (VALE project) enable identification of incipient ice coating formation, via integration of environmental temperature and humidity measurements with photographic stills taken in the field. This solution ensures greater resilience of the NTG during adverse weather events, and improved continuity of the electricity service.

Automatic failure detection



In order to develop advanced solutions to support operational activities in the field, this project aims to identify any anomalies in the visible field present on HV power lines, by processing data collected via special instruments installed on Terna helicopters. Detection will be carried out via the development of an artificial intelligence algorithm, which will enable identification of component failures/faults via automatic image recognition. Safety will thus be enhanced via AI techniques that support decision making.

Virtual collaboration – TernaVerso



This project develops and incorporates new virtual collaboration technologies into Terna's systems, which enable everyday work and relational activities to be experienced in an immersive and emotional way within a Terna brand virtual universe. The project thus ensures improved corporate collaboration and interaction via virtual spaces and Terna sites that enable new forms of collaboration and interaction.

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FOCUS

Terna Forward S.r.l.

IT4

Established by Terna on 11 November 2022 as a special technological innovation vehicle, this company is aimed at accelerating the Terna Group's high-impact technologies, including via corporate venture capital investments, with an initial amount of €50 million. Terna Forward is responsible for identifying the best technological opportunities and transferring them to other Group companies, as well as leveraging its expertise within the electricity system to create and incubate spin-offs from innovative projects.

The three main areas of operation of the newly established company are: **Corporate Venture Capital** (minority equity investments in innovative companies and SMEs in line with Terna's strategy and participation in Corporate VC funds); **Venture Building** (business development service for the creation/incubation of spin-offs dedicated to new products and/or services, by leveraging core competencies); **and excellence partnerships, Accelerators and Laboratories** (partnerships for medium to long-term initiatives designed to implement high impact projects for the Terna Group and create accelerators and laboratories on vertical themes in line with Terna's strategy.

The areas of application identified will include, among others, the use of mechatronics (robots, drones and exoskeletons), strategic technologies with a strong growth outlook, which the Company already uses for asset monitoring and maintenance. Terna Forward will develop and test new solutions, which may also relate to safety aspects and improving the working conditions of our technical personnel. In the short term, the aim is to set up a partnership to develop the first laboratory experiments and field test the prototypes built on use cases, including: robots for work on power lines and pylons, use of exoskeletons on site and in the field, and drone inspections of power stations. In the long term, Terna will extend the application of these technologies to the entire national electricity grid, namely approximately 75,000 km of power lines and around 900 electricity substations operated by the Company across Italy.



Ethics and intellectual capital

All of the aspects dealt with below make close reference to the values contained in the Code of Ethics, which forms the basis of a part of Terna's intellectual capital, in terms of the structured organisation of policies, guidelines and operating instructions designed to create value.

Adherence to the general principles of legality, integrity, and responsibility, allied with those specific to Terna, relating to sound management, respect, fairness, and transparency, provides the ethical basis for the company's day-to-day conduct of its business.

DNF

Respect for human rights

UM1

SR1

The Terna Group operates mainly in Italy, where the regulatory framework and the level of civil development largely guarantee respect for human rights, freedom of association and collective bargaining. However, Terna pays constant attention to respect for human rights and is committed to adopting minimum protection standards where such standards are not guaranteed by local laws.

2-23 >

SASB

The Company shares the principles of protection of human rights as expressed in the **UN Universal Declaration of Human Rights** and the International Labour Organisation's **Declaration on Fundamental Principles and Rights at Work**, which was reaffirmed in 1999 in the Ten Principles of the UN Global Compact. Consequently, Terna is committed to preventing the risk of negative impacts on these rights as a result of its activities - directly or through business relationships with third parties - in line with the **UN Guiding Principles for Business and Human Rights** endorsed by the UN Human Rights Council in June 2011⁶⁴ and reaffirmed by the **Guidelines for Multinational Enterprises issued by the OECD**.

The Group's approach to the cause of human rights has been gradually updated over time, following the evolution of international reference standards. This was strengthened in 2021 by the update of the **Terna Group's Respect for Human Rights policy** and the drawing up of the **Diversity & Inclusion (D&I) policy**.

The Group's commitment to support the respect of human rights in its sphere of influence is manifested through compliance with legal regulations in all the countries where it conducts business activities, and also via the definition and application of its own rules of conduct, which are vital in countries where the legal system does not provide for compliant human rights protections. These rules also incorporate subsequent international guidelines and documentary references.

The Group's focus on the issue of human rights is also reinforced by the definition and implementation of a **due diligence process**, based on identification of the potential impacts of Terna's activities on human rights, as well as subsequent assessment of the fitness for purpose of the mitigation measures adopted. This activity is aimed at assessing possible interactions between Terna's activities and human rights relating to its stakeholders and has led to the creation of a map of the activities most exposed to the risk of negative impacts.

⁶⁴ In 2011, the UN Human Rights Council endorsed the Guiding Principles on Business and Human Rights, drawn up by Prof John Ruggie on the basis of three pillars (Protect, Respect, Remedy) that constitute its framework. The first pillar urges states to adopt specific human rights protection legislation in their national legal systems and to strengthen it where it already exists. The second pillar enshrines the responsibility of business enterprises to respect internationally guaranteed human rights regardless of the state of development of local legislation in this area and identifies the due diligence process as the most appropriate operational tool for risk mapping and prevention. The third pillar regards the need to guarantee victims access to an effective remedy. This is achieved, on the one hand, through states' responsibility to remove any regulatory and non-regulatory obstacles preventing access to the remedy, and, on the business enterprise side, through activation of complaint mechanisms that enable any alleged infringement matter to be raised. Business enterprises should also commit to cease and desist any negative impact they may have caused.

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Protecting legality and integrity

The Code of Ethics calls for compliance with the principles contained in the United Nations **Global Compact**. This approach was confirmed in 2009 with Terna's formal membership of this international initiative, thus consolidating our commitment to adhering to the ten principles covering human rights, labour, the environment, and the prevention of corruption and, subsequently, to achieving the Sustainable Development Goals (the 17 SDGs) set out in the United Nations 2030 Agenda.

Legality and honesty are thus two of the general principles on which Terna's Code of Ethics and the conduct of its business are based. They are also set out in the Human Rights Policy, as commitments the Company has undertaken in close correlation with its activities, regarding all stakeholders.

DNF

SR1

< 2-23

< 2-24

SASB

Compliance with legislation

Compliance with the law is the necessary starting point for any voluntary improvement initiative. A summary of administrative or judicial sanctions and any significant court judgements regarding Terna is provided below. Also considering the indicators contained in the GRI Standards, Terna's compliance performance is illustrated below:

- No significant procedures of an administrative or judicial nature, resulting in final judgements or in fines or court injunctions (e.g., prohibitions), were registered in 2022 or in the previous two years, nor did any of its employees receive criminal convictions (full compliance regarding both environmental and socio-economic matters). < 2-27
- In particular, the accounting records for 2022 do not show any pecuniary sanction of an administrative nature, with a fine or penalty more than €10,000 relating to environmental matters⁶⁵. < 2-27
- There were no legal proceedings pending against Terna in relation to corruption, antitrust or monopoly practices, nor were any court judgements handed down against Terna regarding these matters in 2022 or in the previous two-year period. < 205-3
< 206-1
- There were no pending criminal proceedings for injuries caused to third parties by any of Terna's assets. There were 3 accidents in 2022 (1 in 2021 and 4 in 2020). < EU25
- No accidents affecting contractors' employees whilst carrying out work commissioned by Terna were registered, where such accidents gave rise to final court judgements ordering Terna to pay damages or resulted in criminal convictions for Terna's employees.
- There is no record of charges brought, in 2022 or in the previous two-year period, in relation to harassment or occupational injuries affecting employees or former employees, in which Terna's liability was definitively established.

⁶⁵ With reference to the previous two years, the accounting records do not show any pecuniary sanction of an administrative nature, with a fine or penalty in excess of €10,000 relating to environmental matters. However, it should be noted that in 2018 Terna Rete Italia S.p.A. registered a payment of €12,091. This amount relates to the penalty issued by the Municipality of Pegognaga (MN) for violation of the municipal regulations regarding the protection of urban and suburban green spaces.

SR1 Taxation

207-1 > In line with the principles of **transparency and legality** set forth in the Code of Ethics, the Terna Group's approach to taxation is governed by **full compliance with tax legislation** in the countries where the various Group companies operate.

This approach meets our obligation to make an economic contribution to the territories in which we operate. In these countries, overall tax revenue represents an essential contribution to public expenditure and, thus, to economic development and the social welfare of citizens.

207-2 > In particular, the principles of the Code of Ethics are inspired by the Group's **Tax Strategy**, which was recently adopted by Terna S.p.A. to define the objectives, the tone at the top and the Company's propensity for risk in relation to the tax variable, and to promote behaviour based on cooperation and transparency in dealings with the tax authorities and third parties. This enables minimisation of any substantial impact in terms of risk, whether fiscal or reputational, as well as implementation of a sustainable business model aimed at creating, protecting, and distributing value to all stakeholders in the medium-long term.

In line with this approach, the Group's tax governance and conduct are inspired by principles of correct and timely determination and settlement of legally due taxes, implementation of related obligations and reduction of tax risk.

The Group's Tax Unit, with support from external consultants, is responsible for assessments and keeping up with regulatory changes. Any controversial aspects are addressed and discussed with associations to which the Group belongs (e.g., ASSONIME) and, in some instances, brought directly to the attention of tax authorities, via requests for rulings, and - with a view to the future - through the establishment of constant, prearranged discussions with the Italian tax authorities, should Terna S.p.A.'s request to join the Cooperative Compliance regime, submitted in December 2022, be granted.

In Italy, the conduct of the Group's Regulated Activities under a government concession requires compliance with the criteria of transparency and legality, also from the standpoint of tax policies.

Overseas, the Group's Non-regulated Activities are primarily focused on the construction and/or management of power lines. Our activities are not, therefore, in any way influenced by tax planning concerns, but rather by the real prospect of achieving economic development, with a view to diversifying and exploiting business opportunities in our sector of operation. This is borne out by the fact that even in countries where the corporate tax rate is higher than in Italy (Latin America). Moreover, such activities are generally carried out based on concessions, with the revenues determined by local regulatory authorities. Thus, there is an underlying assumption that Group companies are wholly committed to respecting local tax regulations.

The main processes governing taxation and the related obligations are constantly monitored based on procedure 262. In 2022, the Group further bolstered its own tax risk internal control system by adopting a **Tax Control Framework**, an organisational model aimed at managing tax risk that is included in the corporate governance and internal control system, in accordance with best practices and in line with the requirements of the relevant tax regulations. The adoption of this organisational model is an essential requirement for Terna S.p.A.'s access to the **Cooperative Compliance** regime governed by Legislative Decree 128 of 5 August 2015 and subsequent provisions. This regime is aimed at increasing the degree of certainty regarding relevant tax issues through constant, prearranged discussions with the tax authorities on specific matters, with a view to jointly evaluating situations that are likely to generate tax risks.

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In 2022, adaptation of the 231 Organisational Model to bring it into line with regulatory changes made during the year relating to the application of predicate offences, was also completed.

As in 2021, the Group's **Transfer Pricing policy** was also defined in 2022. This aimed to ensure correct determination of the arm's-length price of intercompany transactions carried out on a transnational basis, with the drafting of the specific documentation (the Master File and the Local File) called for by Italian legislation. The adoption of a Transfer Pricing policy was specifically noted in the tax returns for 2022 submitted by the Group companies that engage in overseas transactions.

In the case of especially significant tax issues or when there is a high level of uncertainty, the Company relies on options provided for by tax provisions, such as requests for rulings or advance tax agreements with the tax authorities. < 207-3

Lastly, it should be noted that on 23 December 2022 an application was submitted to the tax authorities requesting Terna S.p.A.'s admission to the collaborative compliance regime. As already mentioned, the cooperative compliance regime is aimed at increasing the degree of certainty regarding relevant tax issues through constant, prearranged discussions with the tax authorities on specific matters, with a view to jointly evaluating situations that are likely to generate tax risks.

The following table shows key data on taxation relating to Terna and its subsidiaries (in €m). < 207-4

((€m))

COMPANY	PRE-TAX PROFIT/LOSS	PROPERTY, PLANT AND EQUIPMENT	INCOME TAX EXPENSE FOR THE YEAR	INCOME TAX PAID DURING THE YEAR	REVENUE FROM INTRAGROUP TRANSACTIONS
TERNA S.P.A.	1,169.4	14,252.8	334.8	334.8	58.6
TERNA RETE ITALIA S.P.A.	23.2	54.4	8.1	4.3	473.8
RETE S.R.L.	66.7	1,093.2	17.2	28.4	129.7
TERNA CRNA GORA D.O.O.	7.5	197.2	1.9	0.0	15.1
TERNA ENERGY SOLUTIONS S.R.L.	(1.9)	6.8	0.5	1.6	12.9
GRUPPO TAMINI	2.3	35.6	0.9	2.0	31.9
AVVENIA THE ENERGY INNOVATOR S.R.L.	(0.1)	0.5	0.0	0.0	2.3
TERNA INTERCONNECTOR S.R.L.	11.2	0.0	3.1	0.0	14.2
PI.SA 2 S.R.L.	0.0	0.0	0.0	0.0	0.0
TERNA PLUS S.R.L.	(35.4)	0.6	(2.4)	0.0	0.9
TERNA CHILE S.P.A.	(0.2)	0.0	0.0	0.0	0.0
SPE SANTA MARIA TRANSMISSORA DE ENERGIA S.A.	3.4	0.10	0.40	0.0	0.0
SPE SANTA LUCIA TRANSMISSORA DE ENERGIA S.A.	10.1	0.80	3.40	0.0	0.0
TERNA PERÙ S.A.C	(0.4)	0.0	0.30	0.0	0.0
DIFEBAL S.A.	1.6	0.0	(1.2)	0.0	0.0
TERNA 4 CHACAS S.A.C.	(0.2)	0.0	(0.10)	0.0	0.0
GRUPPO BRUGG	(4.3)	40.6	(1.5)	0.0	0.4
ESPERIA-CC S.R.L.	0.1	0.0	0.0	0.02	0.0
GRUPPO LT	4.4	1.8	1.2	0.0	13.1

The difference between income tax due on companies' net profit or loss and tax payable reflects payments on account made by the Terna Group during the year. Reconciliation of the statutory and effective tax rates, presented in the notes to the consolidated financial statements, is primarily linked to the combined effect on taxation of income and expenses that do not affect determination of the tax base, as provided for in the related legislation.

IT2 Data protection

In 2022, Terna S.p.A., Terna Rete Italia S.p.A., Terna Energy Solutions S.r.l. and Terna Plus S.r.l. confirmed the **Privacy Management Framework**, published in 2021. This provides a specific framework for the division of responsibilities and the adoption of appropriate behaviour and tools to safeguard personal data.

In addition to the regular process of keeping pace with existing legislation, the main activities during the year included the revision of certain key policies and the preparation of new guidelines, operating instructions and privacy notices, with the aim of enhancing privacy compliance.

On the regulatory compliance front, internal and external audits were carried out, the latter regarding suppliers appointed as data controllers, pursuant to art. 28 of the GDPR. Specifically, the internal audits regarded (i) the process of managing and preventing data breaches; (ii) the processing of personal data relating to reputational databases; (iii) the processing of personal data carried out via the corporate car sharing system; (iv) the processing of special data, focusing mainly on processing carried out in the context of the Covid-19 epidemiological emergency. With reference to the external audits, five suppliers who carry out particularly sensitive personal data processing activities on Terna's behalf were selected for the audits.

Also during the year, pursuant to art. 35 of the GDPR, the Data Protection Officer gave advice on carrying out data protection impact assessments of specific projects, in order to mitigate potential risks to data subjects' rights and freedoms.

In 2022, support regarding compliance with personal data protection regulations continued to be provided to the subsidiaries Tamini Trasformatori S.r.l., Avvenia the Energy Innovator S.r.l. and LT S.r.l.

Regarding data protection training, a GDPR course was developed consisting of educational videos that can be accessed via the Company's intranet. Lastly, a data protection training course consisting of six modules and aimed at Privacy Focal Points was also provided, as well as specific vertical courses for members of certain Company departments involved in data processing.

418-1 > As in previous years, no complaints have been received regarding data protection violations, or improper use or unauthorised processing of personal data entrusted to Group companies, neither via the dedicated mailbox (privacy@terna.it) nor through other reporting or communication channels (e.g. dpo@terna.it).

SR1 Preventing corruption

2-24 > 205-1 > The Group's commitment to fighting corruption is inspired by the Code of Ethics and the tenth principle⁶⁶ of the Global Compact and is also aimed at guaranteeing full respect for human rights. The main instruments adopted are described below.

ISO 37001 certification

In January 2017, Terna was the first Italian company to obtain **ISO 37001 certification for its Anticorruption management system**, which covers the Parent Company as well as Terna Rete Italia, Terna Plus and Terna Energy Solutions for all the Italian operations. As part of this system, 28% of business processes were subject to Risk Assessment involving implementation of 14 Risk Assessment forms in 2022; the cumulative figure for 2018-2022 is 76%.

Finally, it should be noted that in November 2022 the Tamini Group also obtained certification of its Anticorruption management system in accordance with the ISO 37001:2016 standard, thereby strengthening the Terna Group's oversight of ethical issues.

⁶⁶ Businesses should work against corruption in all its forms, including extortion and bribery.

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Spreading awareness among personnel

In addition, **2,000 hours of training** were provided on anticorruption issues, including the lectures given as part of the course on *Business ethics and compliance with Legislative Decree 231/01*, aimed at new hires, during which the main topics relating to the ISO 37001 Anticorruption Management System (anticorruption policy, risk analysis, anticorruption due diligence), the Code of Ethics, whistleblowing and the 231 Organisational Model were presented. Activities continued during the year to raise the awareness of the relevant people with the publication of 12 Anticorruption Management System newsletters, including content on combatting corruption and whistleblowing.

Training on anticorruption

< 205-2

	UNIT OF MEASUREMENT	2022 (*)	2021	2020
Participants in the Anticorruption course	no,	1,637	337	370
%	%	37.4	8.2	9.5
Senior managers	%	19.9	12.5	6.0
Middle managers	%	39.6	7.4	12.6
Office staff	%	45.5	12.0	12.8
Blue-collar workers	%	17.2	0.0	0.1

(*) For the 2022 data, the topic of Anticorruption was included within the 231 Organisational Model. Therefore, the numbers of participants and hours provided were calculated by including the participants and the hours provided within the 231 Model.

Since February 2022, an online course entitled The Terna Group and Legislative Decree 231 has been provided to the entire workforce, aimed at raising awareness of and disseminating rules of conduct (e.g., the Code of Ethics) and procedures established in order to prevent unlawful behaviour, and to train and inform staff about areas of risk and potential crimes associated with the Company's activities. This course has also been provided, monthly, to all new hires.

Whistleblowing

< 2-26

In 2016, Terna adopted **Whistleblowing Guidelines**, which were updated in 2018, to manage reports of violations of the Terna Group's internal control and risk management system. The Guidelines set out the organisational arrangements for handling such reports and establishes the various responsibilities at each stage of the process. The policy also covers all aspects of security, above all regarding protection of the anonymity of the whistleblower, but also that of the accused. Moreover, in line with existing national and international best practices and the relevant legislation (L.179/2017), Terna has set up three reporting channels, including an online channel: the *Whistleblowing* web portal, which features secure protocols and encryption tools to protect the personal data and information it contains. Via this portal, a whistleblower may report irregularities or misconduct pursuant to Legislative Decree 231/2001. The truthfulness and reliability of the disclosure is verified through several procedural steps, in which confidentiality and security relating to personal data protection and the processing of information are guaranteed (for more information, see <https://whistleblowing.terna.it>). In addition to the online portal, disclosures may be sent by e-mail to whistleblowing@terna.it, or by ordinary mail with a registered letter to Terna's Audit Manager marked *Confidential - whistleblowing*.

Clarifications regarding the Code of Ethics and the reporting of violations

< 2-26

About compliance with the Code of Ethics, employees as well as other external stakeholders seeking clarification or who wish to file a disclosure, may use the three reporting methods described in the above paragraph.

The procedure for handling disclosures involves verification and investigation by the Audit Manager, who, at the end of the preliminary investigation, submits the outcome to the Ethics Committee.

The Ethics Committee – which was established to provide internal and external stakeholders with a specific communication channel for matters relating to the Code of Ethics and whose members are appointed by the CEO – is the body responsible for examining the whistleblowing disclosures received and making decisions regarding their management and closure. The Ethics Committee provides guidance and promotes investigative procedures and any further actions needed through the departments from time to time involved.

406-1 > **None of the disclosures received and examined in 2022 regarded episodes of discrimination or harassment**

The reports received in 2022 are shown below.

Number of disclosures received

	2022	2021	2020
Total disclosures received⁽¹⁾	9	4	5
<i>Areas of operation for which disclosures were received⁽²⁾</i>			
- Treatment of employees	2	1	1
- Supplier management	-	-	1
- Environment and Safety	3	1	-
- Corruption	-	-	-
- Corporate loyalty	1	-	-
- Terna's Compliance /Other	3	2	3
<i>Outcome of disclosures</i>			
- Unsubstantiated	4	-	4
- Action taken ⁽³⁾	5	3	-
- Under investigation	-	1	1

⁽¹⁾ In 2022, four disclosures were sent to the Audit department to the whistleblowing email address and five via the whistleblowing portal. In 2021, two reports were sent to the Audit department by email and two via the whistleblowing portal. Three of the four were substantiated and action was taken in one case. In 2020, three disclosures were sent to the Audit department by mail/ email and two via the whistleblowing portal.

⁽²⁾ Each disclosure or infringement may relate to any number of areas of operation.

⁽³⁾ Action may take the form of a sanction and/or another form – such as, for example, the revision of procedures, internal controls, etc. – with the aim of avoiding a repetition of the event giving rise to the disclosure. In this regard, four disclosures resulted in investigations and information gathering on existing procedures; in one case, information was sought and assessed with a view to revising a company protocol.

Other initiatives

In 2022, Terna took part in several multilateral activities, with the aim of ensuring oversight of the Company's compliance with international best practices. Via the Compliance department, the Company supported:

- the Business 20 (B20) **Integrity and Compliance Task Force** for combating corruption and strengthening integrity and transparency in corporate business. These values are shared by Terna, in the awareness that a strong ethical culture enhances our ability to attract investors, customers and talented professionals. Terna participated in the drafting of the task force's policy paper, in which the following four macro-recommendations were set out: 1. *Promote sustainable governance in business to support ESG*; 2. *Foster collective action to alleviate integrity risks*; 3. *Foster agility in counteract measures to combat money laundering/terrorist financing risks*; 4. *Strengthen governance to mitigate exacerbated cybercrime risks*;
- the **Anticorruption Committee** established by Business at OECD (BIAC), an international business organisation representing business, trade unions and NGOs at the OECD, which connects companies with the OECD and its governments;
- the **Business Integrity Forum (BIF)** conference held in September 2022 at the Sant'Anna School of Advanced Studies in Pisa, during which Terna contributed - including with a speech by Chairman Valentina Bosetti - to the promotion of the Company's initiatives to spread a culture of integrity, the implementation of business sustainability governance, and the enhancement of the statements of the Compliance corporate body.

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Transparent and open construction sites

Since 2015, Terna has published **Transparent and Open Construction Sites**, a web space that can be accessed from any device. The space contains information on the contracts, contractors and subcontractors involved in the construction of Italy's major electricity infrastructure projects, as well as the state of progress of the major infrastructure works, the number of companies that took part in the tender, and the company name of the contractors who won the contract. This complex IT tool, which has obtained Anticorruption certification 37001, was created thanks to the contribution of Terna technicians working nationwide.

Overall, the Terna Group has adopted four approaches to preventing corruption: the 231 Organisational Model, Fraud Management, monitoring of the trustworthiness of Terna's counterparties and spreading awareness among personnel (see page 189).

The 231 Organisational Model

The 231 Organisational Model (hereinafter the Model) defines rules of conduct and of internal organisation, within a structured and organic system of controls and monitoring activities, which are designed to prevent the commission of the various types of crimes envisaged by the Decree, and to ensure that the Company conducts its business and activities in a fair and transparent manner, with the aim of protecting the Company's position and image and meeting its stakeholders' expectations. In particular, the Model sets out rules to prevent various types of offence from being committed, some related to corruption and some to other concerns such as the environment and human rights.

In its current form, Terna's Model breaks down into two sections: a general section and a special section, subdivided by business process. On 22 December 2022, the Model was updated following a number of regulatory changes:

- **Offences relating to payment instruments other than cash**, which punishes conduct relating, for example, to the improper use, falsification and alteration of credit cards or any other instrument enabling the withdrawal of money or the purchase of goods and services (new 231 offence);
- **Offences against cultural heritage**, which punishes conduct relating, among other things, to the theft of cultural goods, including archaeological finds, as well as damage to landscape assets (new 231 offence);

and the amendment of certain offences already referred to in Legislative Decree 231/2001 and considered by the Model.

As provided for in the Model itself, responsibility for ensuring compliance with the Model's provisions and its effectiveness, reporting any deficiencies, anomalies, and breaches and, when necessary, its revision, lies with the Supervisory Board, whose members are appointed by the Board of Directors. In 2022, 8 meetings of Terna S.p.A.'s Supervisory Board were held.

Reports of any infringements of the 231 Model may be sent to the email address OdV_Terna@terna.it, or by ordinary mail. During 2022, no infringements of the 231 Model were reported.

2-23 > | The Global Compliance Program

In November 2017, the Board of Directors approved the **Global Compliance Program (GCP)** and the **Anticorruption Guidelines**, which are applicable to all the Group's Italian and overseas companies subject to prior approval from their respective Boards of Directors, in line with international best practices that promote a top-down approach. The GCP, which was updated on 2 December 2022, is a special procedure designed to harmonise overseas companies' efforts to promote compliance with the principles of ethics, integrity, and legality; to prevent corporate criminal liability and provide a shared, consistent and uniform approach to possible misconduct; and to strengthen the internal control system to bring it in line with the latest leading best practices and regulations applicable to compliance programs.

The GCP sets out senior management's commitment, to be replicated in overseas companies, regarding the promotion and definition of a culture of ethics and compliance, via a clear message urging absolute compliance with the Group's principles of ethics, integrity, and legality, which is embodied in the definition and dissemination of guidelines, procedures and policies aimed at regulating this commitment in order to prevent misconduct (top level commitment). The recent update has brought the Global Compliance Program closer into line with the Model pursuant to Legislative Decree 231/2001 recently adopted by Terna in accordance with a process-based approach. For each overseas Group company, the update envisages the adoption of a specific Country Annex, as an integral part of the GCP, to guarantee greater structural coherence and synthesis in the description of the various corporate regulatory instruments adopted by an overseas company, in accordance with the GCP Group guidelines and in implementation of local regulations relating to corporate liability. Joint governance oversight is also provided by a **Compliance Officer**, who ensures adequate monitoring, training, and information processes regarding all these documents.

2-23 > | Fraud Management

The Fraud Management unit guarantees protection of the Company's reputation and image, as well as tangible and intangible resources, through continuous monitoring of the prevention and management of fraud events that might negatively affect the Organisation, exposing it to risks of a financial and reputational nature, and at the same time jeopardising the pursuit of business objectives.

The fraud management process is inspired by industry models and best practices, as defined by the Association of Certified Fraud Examiners (ACFE), the Institute of Internal Auditors (IIA) and the American Institute of Certified Public Accountants (AICPA), which envisage the organisation of an effective fraud risk management system in the successive phases of assessment, prevention, detection, and investigation. In 2022, the fraud management unit carried out:

- **checks** on 4 sensitive support processes relating to 13 corporate units with the aim of testing existing control measures/ good practices and identifying others to strengthen the anti-fraud control system. The checks, involving a total of 21 people, focused specifically on such issues as compliance with the principles of segregation of roles, traceability of actions carried out and the plurality of the persons involved. No major shortcomings were found, and in general a high degree of commitment and sensitivity to ethical and integrity issues was noted.
- a process of **continuous monitoring of sensitive events** that may also indirectly give rise to critical issues for Terna and/or identify new fraudulent schemes that could potentially be implemented to the detriment of the Terna Group. This activity, involving constant monitoring of news and data relating to police and media actions and investigations, revealed no elements with a negative financial or reputational impact on the Terna Group.

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- **detection activities** to identify red flags and potential signs of fraudulent behaviour, through analysis and correlation of data and information. This area of activity includes the definition of an advanced predictive model for monitoring Terna's suppliers and subcontractors, aimed at preventing the risks of penetration of procurement contracts by organised crime. The model, which is based on more than 150 performance indicators and specific complex risk indicators, supplements the predictive assessment of the crisis and risk scenarios arising from the Covid-19 emergency with an analysis of the changed socio-economic environment and identification of new fraud scenarios. The monitoring regarded **6,180** legal persons who have had direct dealings with Terna over the last five years.
- **investigation activities**, which did not reveal any significant vulnerabilities or critical issues for the internal anti-fraud control system.
- a **course on anti-fraud issues**, aimed at informing and raising the awareness of Terna personnel.

Trustworthiness monitoring of Terna's counterparties

As a further guarantee of reducing reputational risk and also maintaining high ethical standards among third parties, Terna carries out thorough **due diligence** on counterparties that enter into relations with Group companies, including during extraordinary transactions, paying particular attention to Anticorruption and anti-money laundering "red flags" as well as to transactions in countries/with counterparties potentially at risk of restrictive measures issued by EU and international authorities, which entail restrictions on the free movement of goods (sanctions), or with countries with preferential tax treatment (tax havens). **1,734** counterparty checks were carried out in 2022.

In 2022, with the aggravation of geopolitical tensions, the internal procedural framework was strengthened, especially regarding aspects of the international sanctions control and monitoring system, with reference to the Group areas most involved with international contractors.

ESG performance monitoring

The growth and consolidation of intellectual capital go hand in hand with full integration of sustainability into the business model, including:

- consideration of ESG risks (see pages 86-87);
- consequent definition of objectives to mitigate such risks (see pages 45-47);
- constant monitoring of non-financial performance;
- definition of programmes (and subsequent actions) aimed at increasing the sustainability of the business model (see pages 45-47).

The identification, management and monitoring of these issues are the responsibility of the Investor Relations and Sustainability unit of the External Relations, Institutional Affairs and Sustainability department, which interacts across all corporate entities and is included, as a second level of control, in the Group's Enterprise Risk Management (ERM) framework (see pages 82-83) and periodically reports to the Audit, Risk, Corporate Governance and Sustainability Committee (see page 74-75).

An example of this mode of operation is the constant interaction with Management Systems – headed by the Quality and Risk Management department – which, via the Integrated Management System, optimises the coordination of all parties involved in monitoring quality, environmental performance, and occupational safety within the scope of a large, unified Group sustainability project.

DNF

Integrated Management System

The **Integrated Management System** is the tool that – via certified management systems – optimises coordination of all the units responsible for overseeing business processes. It is also an important risk management tool because it ensures the effectiveness and efficiency of systems and highlights potential risks in the areas under observation. The Integrated Management System also plays a key role in stakeholder engagement, by monitoring and measuring issues of interest to stakeholders, and keeping a constant eye on improvement, thereby helping to boost transparency and trust in stakeholders' relations with the Group.

The Integrated Management System covers all the Italian and international activities of Terna S.p.A., and its subsidiaries, Terna Plus S.r.l., Terna Rete Italia S.p.A., Terna Energy Solutions S.r.l. and Terna Crna Gora d.o.o. It does not include Tamini Group companies, which have their own quality, environmental and safety certifications, and the companies operating in South America.

In 2022, the Terna Group renewed its ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System), ISO 45001:2018 (Occupational Health and Safety Management System) and ISO 37001:2016 (Anticorruption Management System) certifications, and maintained its ISO 55001:2014 (Asset Management System), ISO 50001:2018 (Energy Management System), ISO/IEC 27001:2013 (Information Security Management System - TIMM area) certifications, as well as the Biosafety Trust certification (Infection Prevention Management System) for the via Galbani 68/70 and 55 sites. In addition, checks were carried out to maintain the ISO 17025:2018 accreditation for the multi-site live-line working test laboratory and the multi-site calibration centre.

FOCUS

Terna certifies the Compliance Management System in accordance with the new ISO 37301:2021 standard

In line with the Company's distinctive approach, aimed at always ensuring the utmost quality of the business model via monitoring of business processes, in March 2022 Terna implemented, and subsequently certified in early 2023, a Compliance Management System in line with the ISO 37301:2021 standard, with a view to ensuring effective monitoring of the compliance obligations identified.

ISO 37301:2021 is a new international standard published in April 2021 that sets out requirements and provides guidelines for developing, maintaining, and improving a compliance management system.

Achieving this objective means that Terna is the only company in Italy to have certified a Compliance Management System that encompasses all compliance obligations. The scope of certification includes Terna S.p.A., Terna Rete Italia S.r.l., Terna Energy Solutions S.r.l. and Terna Plus S.r.l.

The definition of the scope of application of this new Management System entailed the collection of **over 1,000 compliance obligations** (including prescriptive and voluntary obligations) that Terna Group professionals are committed to complying with in the performance of their activities. This new certification bears witness to the Group's ability to ensure that its operations comply with national and European regulations, and also provides an opportunity for the development of a compliance culture within the Company. From an integrated perspective, the Management System is the instrument of choice for further minimising the risk of mandatory and voluntary infringements of the law and the associated costs and reputational damage, while at the same time increasing stakeholders' confidence in Group entities. With reference to the Sustainable Development Goals (SDGs), the adoption of this standard is in line with Goals 8 (Decent work and economic growth), 11 (Sustainable cities and communities) and 16 (Peace, justice, and strong institutions), while in terms of listening to stakeholders, it incorporates the interests expressed by Terna people, Public decision-makers and authorities, Local Communities and the Community.

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Terna Group certifications and accreditation

TYPE	SCOPE	YEAR		
		YEAR OF 1ST ISSUE	YEAR OF RELEASE	YEAR OF EXPIRY
ISO 9001:2015	Terna Group ^(*)	2001	2022	2025
ISO 14001:2015	Terna Group ^(*)	2007	2022	2025
ISO 45001:2018	Terna Group ^(*)	2019	2022	2025
UNI CEI EN ISO 50001:2018	Terna Group ^(*)	2015	2021	2024
ISO 37001:2016 ⁽¹⁾	Terna Group ⁽¹⁾	2017	2022	2026
ISO 37301:2021	Terna Group ⁽¹⁾	2023	2026	2026
ISO 55001:2015	Terna S.p.A., Terna Rete Italia S.p.A.	2018	2021	2024
ISO 27001:2013	Terna S.p.A. only for Market Monitoring Code applications	2011	2020	2023
ISO 9001:2015	Tamini Group	1993	2021	2023
ISO 14001:2015	Tamini Group	2015	2021	2023
ISO 45001:2018	Tamini Group	2015	2021	2023
ISO 37001:2016	Tamini Group	2022	2022	2025
ISO 9001:2015	Brugg Group (premises in Switzerland) Production plant and commercial office	1995	2022	2025
ISO 14001:2015	Brugg Group (premises in Switzerland) Production plant and commercial office	1998	2022	2025
ISO 45001:2018	Brugg Switzerland	2021	2022	2025
ISO 9001:2015	Brugg Group (premises in China) Suzhou plant and commercial office in Shanghai	2015	2020	2023
ISO 14001:2015	Brugg Group (premises in China) Suzhou plant and commercial office in Shanghai	2015	2020	2023
ISO 45001:2018	Brugg Group (premises in China) Suzhou plant and commercial office in Shanghai	2020	2020	2023
ISO/IEC 17025:2018	Terna Rete Italia S.p.A. for multi-site test laboratories in Viverone (BI), Civitavecchia (RM) and Frattamaggiore (NA)	2014	2021	2026
ISO/IEC 17025:2018	Terna Rete Italia S.p.A. for calibration laboratories in Florence, Turin and Cagliari	2017	2021	2025
Biosafety Trust Certification	Terna (Rome offices, Viale E. Galbani, 55, 68 and 70)	2021	2021	2024

^(*) Applies to the companies Terna S.p.A., Terna Plus, Terna Rete Italia and Terna Energy Solutions.

^(**) Also applies to Terna Crna Gora.

⁽¹⁾ The checks relating to the renewal of the certification (expiring in January 2023) were brought forward to 2022 to ensure the continuity of the certification.

Terna Rete Italia S.p.A. has also implemented a "Management System for the Prevention of Major Accidents" in accordance with the provisions of Legislative Decree 105/15 (the Seveso Directive).

DNF

Supply chain sustainability

A sustainable supply chain makes a key contribution to the development of the Group's intellectual capital, especially after the pandemic which highlighted the need to take an innovative and resilient approach to all procurement activities, and, in terms of environmental sustainability, to take into account the growing importance of circularity in all operational processes (see page 271).

Proper management of the social, environmental, and economic impacts of the supply chain encourages the establishment of sustainable production and consumption models that also consider the human rights of the people involved. Therefore, supply chain sustainability is increasingly an integral part of the overall sustainability of the Group's business model.

In this regard, Terna requires suppliers to conduct themselves in a lawful and ethical manner, protecting human and labour rights, health and safety, information security and the environment.

- 2-23 > These behaviours have been formalised in the **Suppliers Code of Conduct**⁶⁷ in which each principle is linked to the requirements contained in the qualification process (see pages 200-202) and in Terna's tender and contract documentation.
- 2-24 > All suppliers are required to contractually commit themselves to comply with the provisions of Terna's Code of Ethics and 231 Model; any non-compliance encountered will result in penalties. Terna's tender procedures include several other requirements relating to social (human rights, working conditions) and environmental matters which, for some categories relevant for ESG purposes, must be met from the qualification phase on.

Terna has also implemented and regulated in its own Guidelines⁶⁸ the application of Legislative Decree 81/08, the *Consolidated Law on the protection of health and safety in the workplace*, as part of the activities carried out by Terna Group companies in their capacity as clients in the various phases of planning, design, awarding and execution of public and private procurement contracts. The Terna Group's compliance with this legal obligation enables **prevention and mitigation of any negative impacts on occupational health and safety** relating to the performance of activities contractually undertaken by contractors.

Supply chain sustainability target - KPIs and targets in the 2022 ESG Plan



KPI

	2022		2023	2024	2025
	TARGET	RESULT			
"Works" Product Categories (PG) requiring obligatory certifications ISO:14001 and OHSAS:18001/45001.	100%	100%	100%	100%	100%

⁶⁷ The document is available for download at: <http://download.terna.it/terna/0000/0930/50.PDF>

⁶⁸ LG020, *Safety management relating to procurement*.

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FOCUS

Tender for innovative SF₆-free electrical control panels launched

The new connection standard being studied and proposed by Terna is providing a concrete response to meet the dual objective of stepping up the share of energy from wind and photovoltaic production plants (Renewable Energy Sources - RES) in the National Electricity System (NES), and at the same time coming up with effective technical measures to avoid the application of environmentally unsustainable solutions, such as, for example, new installations of the greenhouse gas SF₆.

This involves a new voltage level of 36 kV (40.5 kV insulation) that Terna is introducing to connect renewable production plants more efficiently, up to a maximum capacity of 100 MW. As this voltage level has never been used in the National Transmission Grid (NTG), the Company department, *Infrastructure construction, substation technologies, equipment and civil works* has engineered and drawn up the necessary technical specifications to build new infrastructure at this voltage level.

The advantage with this new voltage level is that existing and mature alternative technologies to the use of SF₆ gas as an insulating and current-breaking means already exist and are mature, although they do take up more space. With a view to cutting our direct CO₂ emissions into the atmosphere (Scope 1), Terna has opted for air insulation and vacuum interruption as the indispensable technical specification for prefabricated devices with metal coatings (control panels) to be used for this level of voltage.

This choice geared towards the environmental sustainability of the NTG, will have a significant impact on the entire supply chain, which will be called on to develop ad hoc solutions that are currently not required by other European players, who continue to prefer solutions with a smaller footprint but that still use SF₆ gas. At international level, investment in research and in the experimentation of new SF₆-free solutions are resulting in pilot projects, including the installation of automated breakers using clean air insulation that National Grid USA intends to use for the first time in 2023 in one of its substations in Massachusetts (New England, USA).

The adoption of this new connection standard has necessitated the definition of procurement procedures for machinery, equipment, and systems with new specifications.

Regarding the procurement of control panels, it should be noted that the call for tenders is currently in progress (2022/S 125-356758, published in the Official Journal of the European Union on 1 July 2022).

2-6 > In 2022, total expenditure on the procurement of services, supplies and works amounted to approximately **€1,657 million**⁶⁹, spread across **2,354** suppliers contracted during the year. In this regard, it should be pointed out that, as well as ensuring quality and continuity of service in the general interest, the total annual expenditure on procurement helps to **generate downstream supply chain activity, thereby creating significant economic value and social benefits**.

204-1 > Procurement by category - %

	2022	2021(*)	2020
<i>By origin</i>			
Italy	98	79	97
Overseas	2	21	3
<i>Category</i>			
Goods	41	86	42
Works	34	9	38
Services	25	5	20

(*) In 2021, the breakdown of purchases by category and origin differs from previous years due to the supply of marine cables for the Tyrrhenian project (€2.4bn).

The prevalence of national and local suppliers is determined by the specific nature of the business, especially by the need to carry out maintenance operations very swiftly to ensure the utmost safety of the system and greater competitiveness in terms of transport costs for heavy and bulky supplies. This also helps to cut the related environmental impacts.

Procurement, which regards activities carried out in relation to Terna's core business – so-called **key supplies** – and which mainly includes supplies of materials and electrical equipment, contracts for the provision of works and services in the electricity transmission, telecommunications and IT sectors, is governed by the new Procurement Code. This has introduced aspects relating to sustainability in tenders drawn up in accordance with the most economically advantageous tender criterion.

The following table shows the suppliers active during year, broken down by type of environmental and social requirements, according to their characteristics. The table illustrates the coverage guaranteed by the various initiatives, in terms of percentage of procurement, for significant groups of suppliers active in 2022.

Suppliers active in 2022 and application of environmental and social requirements

	SUPPLIERS ACTIVE IN 2022			AMOUNT PROCURED FROM SUPPLIERS SUBJECT TO SPECIFIC REQUIREMENTS (% OF RESPECTIVE TOTAL AMOUNT PROCURED)				
	NUMBER	% OF TOTAL	AMOUNT PROCURED (€M)	% OF TOTAL	BASIC REQUIREMENTS (*)	ADDITIONAL SOCIAL AND ENVIRONMENTAL REQUIREMENTS (**)	SOCIAL (***) AND ENVIRONMENTAL QUALIFICATION REQUIREMENTS	COUNTRY RISK ASSESSMENT (****)
Total active suppliers	2,354	100.0	1,656.5	100.0	100	95.7	29.8	100
Critical suppliers	1,860	79.0	1,585.0	95.7	100	100	31.2	100
Suppliers in categories relevant for ESG purposes	113	4.8	869.9	52.5	100	99.9	56.7	100

408-1 > (*) Compliance with the principles and behaviours provided for in Terna's Code of Ethics and 231 Model

409-1 > (**) Integrity pact (text verified by Transparency Italy), anti-mafia certification, which checks: the application of collective labour agreements, payment of tax and social security contributions, the absence of environmental offences, the absence of serious breaches of labour safety regulations, regularity of employment of legally protected categories, certificate of medical fitness for specific roles issued by the relevant doctor (for works contracts), and the absence of any impediment to the award of public contracts.

(***) OHSAS 18001 certified occupational safety management system or similar (required only from the suppliers of specific product categories at the time of qualification).

(****) ISO 14001 certified environmental management system or similar (required only from the suppliers of specific product categories at the time of qualification).

(*****) Assessment of the risks of corruption and respect for human rights in connection with a supplier's premises.

⁶⁹ The figure refers to the amount ordered during the year. This means the sum of the amounts allocated for all contracts (works, supplies and services) signed during the year, net of options (amounting to approximately €486 million). An option is a provision added to supply contracts, clearly, precisely and unequivocally granting the contracting entity the right to increase the value of the contract in return for an increase in the contracted quantity or volume, subject to the same terms and conditions. Once introduced into the contract, such an option, though not constituting the assumption of an obligation on the part of the contracting entity, is included in the calculation of the overall amount.

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Coverage is 100% or just under for the majority of the social and environmental requirements. Regarding the most stringent social and environmental qualification requirements, the coverage is higher for suppliers included in categories that are relevant for ESG purposes. Such suppliers are periodically identified based on the product categories whose relevance to the business is assessed (the amount supplied, problems for the core business), as well as social aspects (health and safety and working conditions) and environmental aspects (significant environmental impacts in the production chain, relating to use by Terna, at the end of the asset's useful life).

Inclusion in this category leads to particular attention being paid during the qualification phase and in the development of technical specifications, as well as a commitment to adopt special precautions regarding categories not subject to qualification. Finally, additional health and safety measures have been introduced for works contracts (see the section, "Protecting workers' human rights at contractors' construction sites", on page 223).

Newly contracted suppliers (%)

	2022	2021	2020
% of new suppliers - checked for basic requirements ⁽¹⁾	100	100	100
% of new suppliers - checked for additional social and environmental requirements ⁽²⁾	76.3	75.6	80

< 308-1
< 414-1

⁽¹⁾ Compliance with the principles and behaviours provided for in Terna's Code of Ethics and 231 Organisational Model.

⁽²⁾ Integrity pact (text verified by Transparency Italy), anti-mafia certification, which checks application of collective labour agreement, payment of tax and social security contributions, absence of environmental offences, absence of serious breaches of labour safety regulations, regularity of employment of legally protected categories, and absence of impediment for undertaking public contracts.

If disputes arise with suppliers, Terna seeks to settle them.

Disputes with suppliers

	2022	2021	2020
Pending	37	35	30
In progress	3	6	9
Settled	1	1	2

Supply Chain sustainability target - KPIS and targets in the 2022 ESG Plan



KPI

	2022	
	TARGET	RESULT
<i>ESG criteria in tenders</i>		
Use of ESG criteria in "Vegetation management" tenders > €1 million (% of tenders)	100%	100%
Use of ESG criteria in hardware procurement tenders* (% of tenders)	75%	90%

Equal opportunities in accessing calls for tenders

Access to tender procedures is guaranteed for all eligible companies in accordance with the principle of equal opportunity and is governed by the **Procurement Regulations**. These Regulations, which have set guidelines for Terna's procurement activities, were drawn up based on the Procurement Code, which in turn implements the relevant EU legislation.

Contracted suppliers

	UNIT	2022	2021	2020
Number of contracted suppliers	no.	2,354	2,265	2,204
<i>Contract award procedures adopted (% of amounts awarded)</i>				
EU calls for tender	%	77	91	74
Non-EU calls for tender	%	10	4	12
Previously qualified suppliers ⁽¹⁾	%	10	4	12
One-off contracts ⁽²⁾	%	2	1	3

⁽¹⁾ Directly assigned professional appointments and/or consulting services.

⁽²⁾ The "One-off contracts" category includes sponsorship and donations, fees paid to public entities, trade bodies and contracts awarded to previously qualified suppliers by Terna Plus S.r.l.

Qualification of suppliers and due diligence activities

The most relevant product groups for the core business are subject to a qualification procedure, pursuant to the current Public Procurement Code. Only business operators who have met the regulatory compliance requirements, are in possession of the necessary high-quality technical and organisational expertise, are financially sound, and enjoy a solid reputation are included in Terna's approved list of suppliers. The entire process is managed via the **Supplier Qualification Portal**, thus ensuring an efficient, traceable, and transparent process.

In the sectors at greatest risk in terms of sustainability (primarily works and certain services), an adequate level of environmental management and the ability to protect workers' health and safety are also required, both represented by corporate procedures focused on key elements of the international UNI EN ISO14001 and BS OHSAS 18001 (UNI EN 45001) standards. Sectors gradually adopt these certifications within set timeframes, so that operators may grow sustainably and reach technical and organisational maturity.

In the period 2020-2021, the obligation to obtain certification was introduced for works product groups (HV power lines, laying of HV cables, civil works, vegetation management, and pylon painting); global service groups (technical plant maintenance, maintenance of green areas, and cleaning); and the group that supplies digital automation and control systems for HV substations. In 2022, this obligation was extended to four other supply areas: prefabricated metal kiosks, battery auxiliary systems, HV disconnectors, and HV metering transformers.

Among qualified suppliers, 79% already possess and 5% are obtaining UNI EN 45001 certification. With regard to UNI EN ISO 14001, 89% of qualified suppliers possess it and 2% are obtaining it.

During the three-year qualification period, Terna ensures that suppliers meet the qualification requirements, including the various ESG aspects, via document audits and on-site checks. Approximately 85 per cent of the on-site checks regarded suppliers belonging to categories that are relevant for ESG purposes. In connection with the various ESG aspects, **1,287 Terna sites were monitored in 2022**, with assessment carried out using vendor rating forms.

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As far as overseas suppliers are concerned, **Terna assesses the country risk**, namely the possibility of incurring damage if incidents or events occur that may be linked to the economic, social, and political environment of the country in which the supplier normally operates. This risk is, for the time being, very limited, given the prevalence of domestic and EU suppliers. However, it could become more significant in view of the possible expansion of procurement markets overseas. Objective elements are used in the analysis and assessment of the most relevant risk factors, which relate to economic and political governance issues in the various countries, and with respect to internationally agreed human rights protocols, including the ratification of UN and ILO conventions, together with the assessments made by the main international non-governmental organisations and the leading rating agencies actively concerned with these issues.

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As these assessments are regularly updated, they enable the Company to constantly monitor developments in the related environment. In addition to these assessments, restrictive measures are also issued by Italian and European authorities, entailing limitations on the free movement of goods (trade embargoes) or rules of conduct in the case of transactions with countries that have preferential tax treatment (tax havens).

Active qualifications

	2022
Number of active qualifications	613
- of which new qualifications during the year	88
Number of qualifications requiring an Environmental and Safety management system	304

Qualified categories

	2022
Number of qualified categories	53
- of which newly qualified during the year	3
Number of qualifications requiring an Environmental and Safety management system	23

The monitoring of qualified companies includes a series of joint initiatives with other corporate departments, aimed at sharing and verifying the performance and, more broadly, the reliability of qualified business operators. The most critical cases are brought to the attention of the **Supplier Qualification Committee** to assess the possible adoption of measures with a view to issuing sanctions and precautionary measures. The Supplier Qualification Committee, comprising most of the first line managers, provides a real opportunity for collegial assessment and decision-making on critical issues relating to qualified business operators.

Reports may come either from the departments that systematically monitor the reliability of third parties (Counterparty Due Diligence), or from the departments that manage contracts or Procurement and Contracts. For a group of more critical product categories, a reporting system using systematic performance assessment feedback forms (vendor rating forms) is implemented. Monitoring also takes place during pre-arranged visits, regarding both new qualifications and renewals during the eligibility period, which are also organised as a result of critical events (normally regarding safety, or serious performance shortcomings). Qualification visits are generally aimed at checking compliance with the technical requirements of qualification procedures, as well as compliance with environmental and safety standards and good practices.

In 2022, the Supplier Qualification Committee suspended seven business operators (21 actions taken) related to the following cases: sanctions relating to safety incidents (serious accidents), serious performance shortcomings, non-payment of subcontractors and reputational reliability. If suspension is due to serious events, readmission to the approved list of suppliers is subject to verification that the critical issue has been resolved, or the adoption of remedial measures.

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A warning letter is also issued in response to a serious performance shortcoming, which is followed by an on-site monitoring visit to the business operator's premises.

In response to reported critical events, the Supplier Qualification Committee also approved four inspections to be carried out by different first- and second-level departments of the Terna Group (usually Health & Safety and RIT Site Monitoring), and seven improvement plans.

If conduct no longer meets the requirements for qualification, the supplier may receive a warning or be temporarily suspended from the list; in the most serious cases, offenders are removed from the list.

Audits and monitoring

	2022
Qualification document checks	1,287
On-site qualification checks	13
including categories relevant for ESG purposes	13

Measures taken

	2022	2021	2020
Number of suppliers revoked off the list	0	0	1
Number of suppliers suspended	7	4	5
Number of suppliers warned	1	4	6

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Human capital

The quality of human capital is pivotal to a company's growth and thus to creating value over time. With their motivation, educational backgrounds, managerial abilities, sense of engagement and enhanced and consolidated skills, people are a crucial element in all the Company's activities and, at the same time, human beings who are to be appreciated and whose rights are to be respected.

The Group, in its daily operations, is committed to adopting adequate standards to protect human rights, in line with the **Respecting Human Rights in the Terna Group** policy (see page 184) and implementing the contents of the Declaration on Fundamental Principles and Rights at Work issued in 1998 by the International Labour Organisation (ILO). The Company regularly assesses the impact of the Group's activities on human rights, above all regarding *Health and safety, Work conditions and compensation, Discrimination, Professional training and Freedom of association and collective bargaining*, all described in this chapter.

In line with those values enshrined in the Code of Ethics, Terna's commitment to its employees centres on **attention to safety and accident prevention** (see page 218), **research and development**, whereby specific competencies needed to successfully reach the objectives set forth in the Industrial Plan are updated (see page 209), and **training**. These focused activities are coupled with management and development systems designed to **improve performance and enhance growth opportunities** (see page 210).

Dialogue between Terna and its employees takes place via a consolidated system of **industrial relations based on the engagement of trade unions** (see page 216) as well as regular **opportunities for employees to communicate directly** by means of both online opinion surveys, focus groups and internal engagement promoted as part of the NexTerna programme (see page 203).

The attention paid by the Company to its people is concretely reflected in Terna's **welfare policy**, aimed at providing staff with a better work-life balance and, more generally, greater personal wellbeing (see page 224).

Since 2021, many of these topics were encompassed in **NexTerna**, an innovative, internal cultural change programme designed to give employees greater responsibility for achieving business objectives and aimed at providing a better work-life balance, implementing a new leadership model. A Steering Committee, chaired by the Chief Executive Officer and consisting of senior executives, is responsible for NexTerna, whilst coordination of the related activities is assigned to the *People Organization & Change* and *Innovation & Market Solutions* departments. The programme is divided into seven "topic areas": (1) Inclusive Leadership, (2) People care and skills, (3) Agile solutions applied to processes, (4) Sustainability and communication, (5) Technology and digitalisation, (6) Virtual and physical spaces, (7) A new approach to industrial relations. All the information regarding the progress made in each individual topic area and the reporting of specific initiatives (e.g., webinars with external speakers) to employees are published on the NexTerna portal, which can be accessed from the Company's intranet homepage.

During 2022, all the topic areas reached the targets set in 2021. On 30 November, during the *NexTerna Day*, the progress made in implementing the programme was presented to capitalise on the results in the various areas, thereby embedding them in organisational processes and at the various levels of the organisation.

FOCUS

NexTerna: main results

1. Inclusive leadership

This first area developed the new **Leading NexT** leadership model to inspire and guide the adoption of exemplary behaviour daily, in line with the *New Ways of Working* developed in response to the pandemic and interpreted by Terna as an opportunity to encourage new work experiences based on greater independency, responsibility and sustainability. The new leadership model has been rolled out to all Terna's employees through a cascading process, which has included the creation of so called rituals among the various missions. These rituals are specific, organised aspects of work in which the new behaviours provided by the model can be put into practice. Adoption of the behaviours has been facilitated by the introduction of **Power Supporters**, employees who have acted as ambassadors of the change to drive engagement and support for the adoption of change.

2. People Care and skills

This area was focused on people's care, promoting continuous learning, and developing a new mentality. The starting point was the definition of a new process for assessing engagement through the implementation of the **eNPS (Employee Net Promoter System)**, the main communication tool that allows all employees to actively contribute to the training process. In 2022, two surveys were carried out, with an average participation of 81%. During the year the **Terna Academy** was launched, a new research and training hub described on page 212. The **WellbeingInAction** programme was also launched, with the aim of spreading and promoting a culture focused on people's wellbeing and a greater work-life balance. The **Welfare** offer that the Company provides to its employees has been updated (see page 225), whilst **skill mapping** has been introduced to boost Terna's overall know-how.

3. Agile solutions applied to processes

Innovating and simplifying the carrying out of specific activities, implementing developed collaboration tools to enable new and constructive group dynamics: this is the area's mission, which launched 16 solutions co-planned by flexible teams (12 of which have already passed the prototype phase) **that 2,000 employees already use**. These solutions allow the Company to promptly communicate the impact of operational events on infrastructure, optimise the use of remote planning software, improve the remote surveillance of supplies, enhance the exchange of information with suppliers, increase the efficiency of new hire onboarding, support construction sites and work places through augmented reality, consult and improve the use of business documentation and manage operational risk and the reporting of onsite critical issues.

4. Sustainability and Communication

This area is dedicated to spreading a sustainability culture throughout the Company and promoting communication to integrate and exchange best practices. The preparation of the **Terna Group Sustainability Policy** and the introduction of **Innovative Mobility Solutions** with low environmental impact, such as Sharing services (cars, bicycles, and scooters), are two of the most important achievements of this topic area. Lastly, communication initiatives aimed at promoting sustainability, such as the **EcoTips good sustainability practices**, were launched (see page 253).

5. Technology and Digitalisation

This fifth area had the objective of defining the best technological support to enable the new ways of working, at the same time facilitating collaboration, interaction, and experimentation. Also included is the initiative that led to the introduction of the digital signature **GoSign**, regularly used by over 650 employees for a total of approximately 450 procedures managed monthly, with a positive impact also on sustainability. The intense use of smart working has resulted in new work life needs, to which the **Office@home** initiative relates. This initiative had the objective of supplying specific equipment (PC monitors, keyboards and mice, w-fi extenders, USB earphones, etc.) as part of a trial remote working scheme for selected people. The area also launched a project to analyse the best technological solutions to support the activities carried out on infrastructure by technical personnel (office staff and blue-collar workers).

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6. Virtual and Physical Spaces

The Company adopted a new concept of workspaces by choosing a hybrid model based on flexibility, sharing, collaboration and access to multi-services. One of the main results achieved was migration to shared workstations (**Desk Sharing**), which involved **over 1,200 people** belonging to different departments. Terna inaugurated two new co-working offices in Rome, earmarked for use exclusively by Terna personnel. Moreover, an agreement was concluded with the Company, Regus, for the utilisation of co-working spaces located throughout Italy. The Company also developed an app, **T-Place**, for the booking of various services such as workstations, co-working spaces, staff catering and bike racks. As part of the new space concept, Terna also launched a redesign project for the head offices in Rome.

7. A New Approach to Industrial Relations

This area has revised the methods used to involve and interact with social partners, which took shape in the preparation of the **New Industrial Relations Protocol for Terna Group companies**, governed by the national collective labour agreement for workers in the electricity sector. This agreement, signed on 10 March 2022, aims to develop a new approach to dialogue to effectively address the impact of the energy transition and digitalisation and innovation processes. The new protocol has also introduced virtual trade union noticeboards, a digital space where reports and other work-related information can be published.

Workforce trends

DNF

At the end of 2022, Terna's workforce⁷⁰ was made up of a total **4,524 people** (5,324 for the Group⁷¹), an increase of 300. In particular, **460 people joined Terna** (538 for the Group), **including 216 under the age of 30** (242 for the Group). The generational turnover underway has also produced a steady increase in the level of education among the Group's workforce. In 2022, 97.5% of Terna's employees had a university degree or high-school diploma. The average length of service is 13.4 years.

The **turnover rate for incoming staff** is **10.9%** (11.1% for the whole Group) and continues to reflect the generational turnover policy and the growth outlook in the Industrial Plan.

The **turnover rate for outgoing staff** is **3.8%** (4.3% for the whole Group). This figure is primarily linked to a high degree of generational turnover during the year (70 retirements in Terna), and the number of voluntary resignations (76 in Terna, representing a rate 1.8%; in 2021 1.3%).

At 31 December 2022, there were 29 active agency contracts within Terna (37 in 2021 and 6 in 2020) and 52 in terms of the Group. Interns, on the other hand, numbered 9 (14 in 2021 and 15 in 2020) at Terna and the Group as a whole.

< 2-8

⁷⁰ The term Terna means the companies falling with the scope of the electricity sector, being Terna, Terna Rete Italia, Terna Plus and Terna Energy Solutions.

⁷¹ Group means the traditional electricity companies included in Terna (being Terna, Terna Rete Italia, Terna Plus and Terna Energy Solutions), the Tamini Group (excluding employees in the United States and India) and the Brugg Group. The figures in this section, when referring to the Group, cover 97% of employees (that is, all employees except for people employed by Terna Crna Gora, the South American companies, Avenia and the LT Group), unless otherwise indicated. When instead they refer to Terna, they regard 82% of employees. In terms of revenue, on the other hand, these percentages are 98% in the case of the Group and 89% when referred to Terna.

401-1 > Workforce trends

	GROUP (*)			TERNA		
	2022	2021	2020 (**)	2022	2021	2020
Total employees	5,324	4,861	4,551	4,524	4,224	3,935
Employees recruited during the year	546	492	225	460	416	175
- men	402	368	188	329	305	146
- women	144	124	37	131	111	29
- below the age of 30	244	223	153	216	204	140
- between the ages of 30 and 50	271	235	52	225	193	27
- over the age of 50	31	34	20	19	19	8
<i>Rate of recruitment in % ⁽¹⁾</i>						
Total	10.9	10.8	5.0	10.9	10.6	4.5
- men	8.0	8.1	4.2	7.8	7.8	3.8
- women	2.9	2.7	0.8	3.1	2.8	0.7
- below the age of 30	4.9	4.9	3.4	5.1	5.2	3.6
- between the ages of 30 and 50	5.4	5.2	1.2	5.3	4.9	0.7
- over the age of 50	0.6	0.7	0.4	0.5	0.5	0.2
Employees leaving during the year	219	182	134	160	127	112
- men	192	157	123	139	113	104
- women	27	25	11	21	14	8
- below the age of 30	44	43	28	31	29	22
- between the ages of 30 and 50	77	46	22	49	25	13
- over the age of 50	98	93	84	80	73	77
<i>Turnover rate in % ⁽²⁾</i>						
Total	4.4	4.0	3.0	3.8	3.2	2.9
- men	3.8	3.4	2.8	3.3	2.9	2.7
- women	0.5	0.5	0.2	0.5	0.4	0.2
- below the age of 30	0.9	0.9	0.6	0.7	0.7	0.6
- between the ages of 30 and 50	1.5	1.0	0.5	1.2	0.6	0.3
- over the age of 50	2.0	2.0	1.9	1.9	1.9	2.0

(*) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

(**) The number of Brugg Switzerland employees leaving during the year by age was estimated based on the 2021 figures.

⁽¹⁾ The rate of recruitment shows the ratio of employees joining to the number of employees at 31 December of the previous year.

⁽²⁾ The turnover rate shows the ratio of employees leaving to the number of employees at 31 December of the previous year.

Internal company climate

	UNITÀ	TERNA		
		2022	2021	2020
Total voluntary resignations	no.	76	52	37
Turnover rate for voluntary resignations ⁽¹⁾	%	1.8	1.3	0.96
Absences per capita ⁽²⁾	no.	69	31	43
Absenteeism rate ⁽³⁾		8,626.1	3,718.6	5,246.5
Vacant positions covered by internal applicants ⁽⁴⁾	no.	95	85	81

⁽¹⁾ Ratio of the number of total voluntary resignations to the workforce at 31 December 2021.

⁽²⁾ Meaning non-contractual absences (illness, injury, leave, strikes, unpaid absence) recorded during the year.

⁽³⁾ The number of days of absence due to illness, strikes, injuries and leave out of the number of days worked in the same period, multiplied by 200,000. To aid comparison with other sources, this indicator has been calculated as a percentage of the days worked. Based on this method of calculation, the absenteeism rate is as follows: 4.3 in 2022, 1.9 in 2021 and 2.6 in 2020. The reasons for absence considered do not include maternity, wedding leave, study leave, trade union leave, other cases of paid leave and suspensions.

⁽⁴⁾ The percentage represents the vacant managerial roles covered by internal applicants during the reporting period.

For more information on employee turnover ("Comparative data") scan this QR code.



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Managing generational turnover

Terna allocates a host of initiatives to generational turnover which, since 2015, have been bolstered considerably due to the combination of a voluntary early retirement scheme for staff approaching retirement age and stepped-up recruitment.

In the period between **2016 and 2022, incoming staff totalled 2,187, including 1,345 under the age of 30, compared with 836 outgoing staff.**

EU15

Below is an overview of personnel who could potentially qualify for retirement in the next 5 to 10 years (estimated on the basis of available data regarding ages and pension contributions):

A. at 31 December 2022, **5.3%** of the workforce in the next 5 years, of which:

Senior managers	0.0%
Middle managers	1.8%
Office staff	2.5%
Blue-collar workers	1.1%

B. at 31 December 2021, **17.4%** of the workforce in the next 10 years, of which:

Senior managers	0.3%
Middle managers	4.8%
Office staff	9.0%
Blue-collar workers	3.4%

Impact of generational turnover in the period 2014-2022 (*)

	UNIT	TERNA	
		2022	2014
Average age	yr	40.6	46.6
Average length of service	yr	13.4	21.2
Percentage by composition of age: >50	%	26.2	45.3

(*) The period considered starts from 2014. The first generational turnover plan, involving the recruitment of 300 young people, took place in 2015 (see the 2015 Sustainability Report, page 126).

Average years of employment of employees leaving (**)

	UNIT	GROUP (**)			TERNA		
		2022	2021	2020	2022	2021	2020
Total leaving	yr	18.7	20.5	21.5	20.6	21.9	24.0
Men	yr	20.5	22.4	22.6	22.8	24.2	25.3
Women	yr	9.3	9.6	14.2	9.6	9.7	16.0
below the age of 30	yr	2.3	2.3	1.9	2.5	2.5	2.0
between the ages of 30 and 50	yr	5.3	6.0	5.8	5.6	5.9	6.0
over the age of 50	yr	34.0	32.5	31.0	37.8	36.5	34.3

(*) With regard to the employees joining Terna following acquisition of business units, the duration of employment considers previous employments.

(**) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

DNF

Employee overview

At the end of 2022, the Group's⁷² consolidated total number of employees was 5,497 (up 361 compared with 2021⁷³). In addition to Terna's employees (4,524), this figure includes 455 Brugg Group personnel (of which 302 employed by Brugg Switzerland and 153 people working for the subsidiaries in China, India, United Arab Emirates, Germany and Italy), 349 Tamini Group staff (of which 345 in Italy, 2 in the United States and 2 in India), 29 people employed under local contracts by overseas subsidiaries (14 in Brazil, 11 in Montenegro and 4 in Peru), 17 people employed by Avenia and 123 people employed by the LT Group, of which a 75% stake was acquired in October 2021.

The Group's workforce

	2022	2021	2020	2022 VS 2021	% 2022 VS 2021
Senior managers	94	92	80	2	2.17
Middle managers	841	765	672	76	9.93
Office staff	3,090	2,815	2,587	275	9.77
Blue-collar workers	1,472	1,464	1,396	8	0.55
Total	5,497	5,136	4,735	361	7.03

The table below shows the composition of the workforce referred to the reporting scope described in the section, "Scope of reporting and indicators" on page 289.

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Composition of the workforce

405-1 >

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Total	5,324	4,861	4,551	4,524	4,224	3,935
- of whom men	4,468	4,129	3,919	3,757	3,567	3,376
- of whom women	856	732	632	767	657	559
<i>By category</i>						
Senior managers	91	86	75	78	74	63
Middle managers	827	745	658	781	706	620
Office staff	2,980	2,663	2,475	2,645	2,400	2,221
Blue-collar workers	1,426	1,367	1,343	1,020	1,044	1,031
<i>By type of contract</i>						
- permanent ⁽¹⁾	5,305	4,844	4,524	4,520	4,223	3,934
- of whom men	4,456	4,117	3,903	3,755	3,566	3,376
- of whom women	849	727	621	765	657	558
- fixed-term	19	17	27	4	1	1
- of whom men	12	12	16	2	1	0
- of whom women	7	5	11	2	0	1
<i>By type of employment</i>						
- full-time	5,271	4,812	4,504	4,512	4,210	3,920
- of whom men	4,453	4,116	3,905	3,754	3,563	3,371
- of whom women	818	696	599	758	647	549
- part-time	53	49	47	12	14	15
- of whom men	15	13	14	3	4	5
- of whom women	38	36	33	9	10	10
<i>By age</i> ⁽²⁾						
- below the age of 30	1,229	1,168	1,158	1,156	1,116	1,106
- between the ages of 30 and 50	2,618	2,255	1,980	2,182	1,925	1,660
- over the age of 50	1,477	1,438	1,413	1,186	1,183	1,169
<i>Average age (years)</i>						
Average age	41.2	41.4	41.6	40.6	40.7	40.9

(*) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

⁽¹⁾ Permanent contracts also include apprenticeships.

⁽²⁾ The percentage of the Group's employees, divided by gender, is as follows: for 2022, 83.9% men and 16.1% women. The percentage of the Group's employees, divided by age, is as follows: for 2022, 23.1% below the age of 30, 49.2% between the ages of 30 and 50 and, lastly, 27.7% over the age of 50. Regarding Terna (electricity sector), the breakdown by gender in 2022 is the following: 83.0% men and 17.0% women. The breakdown by age is instead the following: 25.6% below the age of 30, 48.2% between the ages of 30 and 50 and 26.2% over the age of 50.

⁷² It should be noted that Group's consolidated total number of employees refers to the total number of employees of the Group as a whole.

⁷³ The increase in the total workforce is primarily attributable to Terna (up 300).

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Recruitment, selection and development

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UM2

In 2022, the Group's acquisition of talent was centred on the search for university graduates and individuals with diplomas from vocational institutes, with particular focus on STEM⁷⁴ subjects. The lack of applicants with such competencies, above all engineers and technicians, complicated attempts to attract and recruit the right people in a highly competitive labour market.

To ensure the recruitment of new personnel in accordance with the Industrial Plan, **Employer Branding** actions have been stepped up by collaborating and engaging with major universities and other educational bodies, to increase awareness of the job opportunities offered by the Company and bring forward contact with target applicants. These initiatives have been promoted through various channels, digital and traditional (such as University Placement offices), in addition to the terna.it website, on which the section *Work with us* has been revised and improved by further highlighting vacant positions.

The commitment to universities and business schools continued through agreements and partnerships as part of the pre- and post-graduate training programmes and the provision of internships, work experience and thesis programmes.

As part of collaboration between the academic and business worlds, the **Tyrrhenian Lab** was inaugurated during 2022. The first of the three editions planned of the Level II Master in **Digitalisation of the Electricity System for the energy transition** was launched, aimed at 45 students, and promoted in collaboration with the universities of Palermo, Salerno, and Cagliari. (Further information is provided on pages 214, 242 and the specific box on page 245).

Lastly, regarding schools, 2022 saw the sixth consecutive edition of the **Work-School project**, involving 10 technical institutes.

Percentage composition of the workforce by degree (*)

	GROUP (**)			TERNA		
	2022	2021	2020	2022	2021	2020
University degree	39	36	33	43.2	39.8	36.4
High-school diploma	47	47	48	46.7	48.4	50.5
Professional qualification	9	10	10	7.7	8.6	9.3
Elementary/High-school	5	7	8	3.0	3.8	3.8

(*) Degrees of overseas Companies have been equated to Italian degrees.

(**) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

FOCUS

Initiatives for new hires

The sharp increase in the Company's new hires is accompanied by a series of onboarding initiatives, divided into 4 synergetic phases, designed to encourage their engagement. The phases are:

- **Day One:** induction day, coinciding with the first day at Terna, providing an initial taste of what it is like to work at the Company;
- **Welcome Day:** a day dedicated to showing various core business topics and encourage acquaintance among the community of new hires;
- **CEO meets under30s:** a series of meetings in which the CEO talks about the Industrial Plan with young people;
- **NextGenerationTerna:** an 8-month induction project, specifically devoted to university graduates under the age of 30, aiming to promote awareness, in an engaging and dynamic manner, of Terna's most recent trends and, on a prospective basis, the challenges presented by the changing future.

⁷⁴ Acronym for Science, Technology, Engineering and Mathematics; the term is used to indicate scientific and technological fields and the related courses of study.

404-2 > The **development of competencies and talent**, above all for Terna's core processes, plays a key role consistent with the People Strategy and the cultural transformation launched by NexTerna.

In line with previous years, the technical **skill mapping process** has been updated. This allowed for a complete mapping of the technical and professional know-how of Terna's entire organisation, with a particular emphasis on distinctive and core skills needed to implement the Industrial Plan. As usual, the outcomes of the process will be used to guide the training programme and the management of knowledge sharing involving technical skills.

During the year, a new Talent Management process was established, aiming to identify people with abilities and characteristics in line with the talent definition inspired by the leadership model. The process also aims to guarantee talents an opportunity to grow, fuelling the succession pipeline. Two pilot projects aimed at newly hired young graduates and senior specialists were launched. In 2023, the project will be extended to involve more people.

2022 saw continued utilisation of the performance assessment system, **People for Performance (P4P)**, a programme divided into five phases (Goal Setting, Mid-Year, Assessment, Calibration, Feedback). The programme is designed to reinforce the link between the organisation's strategic objectives and those of individuals and teams, dialogue between heads and collaborators, promoting an assessment and feedback culture and the spread of behaviour in line with the *Leading NexT* Leadership model.

404-3 > **Periodic performance evaluation (*)**

	TERNA		
	2022	2021	2020
Percentage of employees subject to performance appraisals ⁽¹⁾	99.1	94.4	95.6
- of whom women ⁽²⁾	87.3	89.2	92.7
- of whom men ⁽²⁾	94.6	95.4	96.1
<i>By category⁽²⁾</i>			
Senior managers	102.6	106.8	112.7
Middle managers	97.1	97.2	98.4
Office workers	89.4	91.7	94.6
Blue-collar workers	100.2	97.8	95.0

(*) The table shows figures related to Terna (electricity sector, being Terna, Terna Rete Italia, Terna Plus and Terna Energy Solutions).
⁽¹⁾ The figures refer to the ratio of employees whose performance is assessed to the total number at 31 December 2022, including people who left the Company during the year who were assessed and excluding seconded personnel, people hired after 1 April 2022 and long-term absentees.
⁽²⁾ The figures refer to the number of employees assessed during the reporting period compared with the total number of employees at 31 December 2022. The percentage can therefore exceed 100%, given that the evaluation also considers employees that left during the year. The figures shown in the table have been calculated considering the People for Performance – P4P, Terna's employee performance assessment system, and short-term incentive schemes (MBO and Project Bonuses).

“Application of performance evaluation”

KPI and targets in the 2022 ESG plan



KPI	TARGET				
	2022		2023	2024	2025
	TARGET	RESULT			
Employees taking part in performance appraisals (%)	95%	99.1%	95%	95%	=

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Training

UM2

Developing and updating people's skills ("employability") is also done through training which, at Terna, is considered a human right to guarantee throughout every employee's working life. The aim is to ensure the constant availability of adequate human capital, in line with the Group's mission and strategic objectives.

In 2022, in response to the new challenges brought by the energy scenario, **Terna Academy** established *New Ways of Learning* by innovating, upgrading and updating competencies for Terna's employees and all external stakeholders (suppliers, partners and schools).

In line with previous years, training was provided to new hires to facilitate their insertion, boost their professional, technical and operational skills, transmit highly specialised knowhow and ensure compliance with guidelines pertaining to health and safety, privacy and the 231 Organisational Model.



FOCUS

404-2 > Launch of the *Terna Academy*

During 2022, the Company inaugurated the Terna Academy. The training offer, designed annually and reviewed every quarter in line with new training demands and the Task Forces' indications, is divided into three areas, in accordance with the Industrial Plan's priorities: New Ways of Working (NWoW), Sustainability (ESG) and Energy Transition (ET).

For each area, a Task Force has been set up to establish the annual schedule. Terna Academy's teaching model is based on the **Five energies for learning**:

1. **Experiment:** allow the Terna Group's employees to learn, experimenting and creating new knowledge;
2. **Envision:** envisioning the future of the sector and the Terna Group together, integrating trends and strategic priorities;
3. **Empower:** empower people to become more effective in their professional and personal lives;
4. **Enrich:** acquire new skills to enrich daily work practices
5. **Enable:** joining Terna to be ready to work in accordance with the Company's ethos.

To ensure scientific precision in the approach to training, the accuracy of content and interdisciplinary cooperation, the Terna Academy has implemented a **Governance Model**, set up by a **high profile Scientific Committee** that includes, in addition to the Chairwoman Valentina Bosetti and the Chief Executive Officer Stefano Antonio Donnarumma, three figures from the academical world: Professor Francesco Profumo from the Polytechnic University of Turin, Professor Maurizio Delfanti, Chief Executive Officer of ESR (Energy System Research) and Professor Gustavo Piga from Tor Vergata University in Rome. Additional Committee members are Emilia Rio, Head of People Organization and Change, Massimiliano Garri, Head of Innovation & Market Solutions, and Massimiliano Paolucci, Head of External Relations, Institutional Affairs and Sustainability.

The Terna Academy is based on the following principles:

- promoting activities and training programmes focused on people's cognitive and emotional improvement, enabling them to efficiently use technology and develop flexibility, creativity, resourcefulness, collaboration and resilience;
- spreading a new continuous learning culture that aims to develop people's ability to "learn to learn" and, individually, to choose their own growth path;
- the planning of innovative formats that take into account the most advanced neuroscientific research on learning and acquire new habits, languages, contemporary communication principles and experience the value of new immersive technologies;
- the involvement of internal (faculty) and academical professionals and external experts, ensuring scientific precision of the approach, accuracy of content and interdisciplinary cooperation, overcoming every form of self-referential risk;
- the merger of the technological potential of e-learning with the advantages of the interactivity provided by experiential learning in classes, to enhance the overall learning experience.

In addition, the Terna Academy has its main office in the Rome North Electricity Substation (via della Marcigliana) and, for blue-collar workers on-site training, has the Training Centre in Viverone (BL). The training body (*Faculty*) includes over 200 employees, which provide their own knowledge and skills to all employees. The whole training process is operated by the POC-TAC-Learning department, will last a year, and is based on an iterative approach to promote the use of available resources and a quality training service.

In the two-year period 2022-2023, additional training and innovation spaces will be launched around the country, in order to develop Terna's professional community and guarantee new learning and networking opportunities.

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In 2022:



174,708 hours of training were provided in Terna (184,016 for the Terna Group), of which 49% led by in-house trainers;



100% of employees attended at least one training course (99% for the Terna Group);



40 hours of training were provided per capita, up 35 hours from 2021 and 34 hours from 2020, largely due to the limitations imposed by the pandemic;



In 2022, the average per capita cost of training at Terna was **€394** (€285 in 2021) and the average per capita cost of training within the Group was €348.

Average hours of training

< 404-1

	GROUP (*)			TERNA		
	2022	2021	2020 (**)	2022	2021	2020
<i>Average hours of training</i>						
- per employee ⁽¹⁾	36	31	30	40	35	34
<i>By category ⁽²⁾</i>						
- senior managers	32	12	17	36	13	19
- middle managers	35	25	25	37	26	25
- office staff	33	28	29	36	30	31
- blue-collar workers	42	43	36	52	54	47
<i>By gender ⁽³⁾</i>						
- men	37	33	31	42	37	34
- women	27	18	22	30	19	24
Hours of training in human rights	496	1,584	996	466	1,584	996
Participants in the course on human rights (%) ⁽⁴⁾	20.1	34.5	5.5	24.0	39.8	6.4
Percentage of employees ⁽⁵⁾	99	99	96	100	100	98
<i>Hours provided</i>						
Total	184,016	148,698	135,417	174,708	145,528	132,487
- hours of in-house training	86,912	83,144	79,284	84,833	89,900	79,060
231 Organisational Model course participants ⁽⁶⁾	1,916	309	457	1,637	309	353

(*) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

(**) The figures for Brugg Switzerland have been estimated based on the 2021 figures.

⁽¹⁾ Ratio of total hours of training to the average number of employees.

⁽²⁾ Ratio of total hours of training by category to the average number of employees by category.

⁽³⁾ For 2022, the average hours of training have been calculated as the ratio of total hours of training by gender to the average number of employees divided by gender. For all the other years, the amounts have been calculated as the ratio of total hours of training by gender to the total number of employees divided by gender at 31 December.

⁽⁴⁾ Percentage of employees who have followed at least one training course on human rights during the year.

⁽⁵⁾ Percentage of employees who have followed at least one training course during the year.

⁽⁶⁾ With regard to the figures for 2022, the issue of combatting corruption was dealt with as part of the course on the 231 Organisational Model. For this reason, the number of participants and hours has been calculated by adding the number of participants and hours relating to the 231 course to the number of participants and hours relating to the anticorruption course.

Main training and skills development initiatives

New projects First-time initiatives carried out in 2022 included:

- As part of the **Tyrrhenian Lab**, a Level II masters course in **Digitalization of the electricity system for the energy transition** was launched, in collaboration with the universities of Cagliari, Palermo and Salerno. The course offers the 45 participants selected an innovative training programme that leaves them highly qualified and concludes with them joining the Terna Group;
- **E-learning modules** for the *New Ways of Working* offer (hereinafter NWoW), open to all employees and designed to provide training on: efficient team work, effective communication, personal care, smart working, emotional intelligence, resourcefulness and pro-activity, communication and relationships, growing with feedback;
- **Growing with feedback** (for the infrastructure unit), in line with the digital learning initiatives provided by the NWoW offer, training classrooms were launched within local departments/districts aimed at technical and operational personnel of the Infrastructure Unit;
- **Microsoft Office 365**: a package of 16 e-learning courses, divided into basic and advanced level, open to all employees with the aim of improving expertise in the use of Office 365 tools;
- **Executive Assistant Program**: training programme devoted to Terna's pool of Assistants, divided into five topic modules, provided every month between June and November 2022;
- **Project Management**: the programme involves seven initiatives aimed at various targets and mixed provision methods, aiming to provide training, and spread the Project Management culture. In 2022, the first two initiatives were carried out, at the same time, aimed at the Executive Managers and people reporting to Heads of Department. Initiatives aimed at the Project Controller, Portfolio Manager (simultaneously) and Office and Field managers (through digital learning) will continue in 2023;
- Terna launched new online courses for all employees dedicated to **Sustainability**. During the year the Company developed modules aimed at *Climate change, Assessing and Managing Sustainability and The SDGs and Terna's commitment*;
- The **Excellence in Security** programme was also launched to accelerate Terna's cultural change. The programme is part of a portfolio of complementary initiatives, designed to spread and promote the adoption of safe behaviour, shared rituals, key routines and support tools through training classes, on field partnerships and group coaching;
- **Cybersecurity**: a further four editions of the "Cyber Security by Design" course were run. **Cyber Security Awareness** online training also continued, with a new module added monthly. The **Cyber Security in Smart Working** course continues to be provided to all new hires.
- **OT Security**: during 2021, approximately 400 digital systems at Terna's stations were secured. To begin operating, an ad hoc training programme was created, consisting of 13 dedicated courses, launched in 2022 and aiming to develop and increase the technical and process skills of the employees involved. The courses for the first cluster have been completed, whilst in 2023 training will continue with clusters 2 and 3.
- **Energy Transition**: three e-learning modules have been designed and developed: *Technologies enabling the energy transition, Digital Transformation and Smart Energy, Innovative Business Models for the Energy Transition*.

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Initiatives launched in past years that continued in 2022 included:

Consolidated projects

- The initiatives dedicated to **Live Line Working**, the **Line and Substation Multiskills** programmes and the **Conventional Work Methods** project, launched at the end of 2021 to promote and increase knowledge development and abilities related to line and substations conventional work methods.
- Regarding the GDPR (General Data Protection Regulation), four **GDPR in capsules** online courses were implemented, dedicated to all employees, including new hires, in order to provide basic training on the topic.
- In terms of Legislative Decree 231, an online course was provided for all new hires (in February the same course was provided to all employees); an initiative dedicate to 231 representatives was also launched. **HSE activities** (Health, Safety & Environment), as in previous years, included courses to ensure compliance with Consolidated Law 81/08. The courses were conducted online, in virtual classrooms (via Teams) and in classes. In 2022, **over 500 employees** took part.

As in previous years, training was provided for emergency workers (first-aid and firefighter), initiatives dedicated to III Category individual protection Devices and training on Provisions for the Prevention of Electrical Risk (recurrent training) also continued.

For more information on training ("Comparative data") scan this QR code.



Industrial relations⁷⁵

Staff engagement is also achieved via structured dialogue with labour union representatives, in keeping with freedom of association and collective bargaining, deemed one of the key human rights issues by the Group.

2-30 > The data reported in this section includes the Group Companies that apply the current National Collective Labour Agreement for electricity workers⁷⁶, which was renewed during 2022.

In 2022, the unionisation rate of Terna's workforce was 42.5%, with membership concentrated among the largest trade unions.

During 2022, Terna and the trade unions signed a new **Industrial Relations Protocol**, aiming to establish an innovative participation and dialogue model to effectively respond to the challenges brought by the energy transition, digitalisation and technological innovation.

The document, in addition to confirming the existing bilateral bodies (the **Health, safety and environment bilateral body** and the **Training and employment bilateral body**), involves the establishment of a new Committee and a further two bilateral bodies, described below.

The **Consultation Committee for Group Strategic Guidelines** is a consulting body and will meet prior to the establishment of the Group's Industrial Plan. In this session, the trade unions will be able to highlight issues of common interest and make proposals for the relevant matters. The Committee will also meet upon union request, in the event that significantly material information is to be shared.

The **Bilateral Welfare Body** aims to discuss business welfare initiatives and has the task of analysing Terna's structural smart-working performance, governed by the agreement of 9 November 2020, which provides up to 2 days a week of agile working.

Among its tasks, the **Equal opportunity, diversity, and inclusion body**, must develop recommendations and promote initiatives aiming to provide equal access to work, closing the pay gap between men and women and encouraging the inclusion of diversity.

In addition to strengthening bilaterality, the Protocol also promptly defines the forms and levels of union dialogue and establishes central/local relations through which such dialogue can take place.

Strengthening the union's abilities is another defining point of the Industrial Relations Protocol, by providing a virtual notice board on the Company's intranet for the trade unions, where reports and other union and work-related information can be published.

⁷⁵ The data reported in this section do not include the Tamini Group, Avvenia or the LT Group.

⁷⁶ All Terna's employees are covered by the national collective labour agreement for the electricity sector. Tamini Group employees are covered by the national collective labour agreement for the engineering sector; Avvenia's employees by the national collective labour agreement for trading companies.

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In the three-year period 2012-2022, negotiations with trade unions led to the signing of **32 agreements**.

The involvement of trade union organisations in the event of organisational changes, a central pillar of industrial relations, is governed by art. 47 of Law 428/90, based on which, if the Company is sold, employees and their representatives will receive **twenty-five days' notice**. In addition, Terna also refers to art. 9 of the Collective Bargaining Agreement, which includes the preventive involvement of the unions on main organisational changes to share the objectives and manage implementation.

402-1

Finally, in 2022, meetings were held by both the Bilateral Training Committee (2 meetings) and the Bilateral Health, Safety and Environment Committee (2 meetings), to boost dialogue, discussion and participation in these areas.

Regulation of industrial action in the electricity service sector

In the event of industrial action, the essential services needed to ensure continuity of service are regulated by the National Labour Union Agreement signed in February 2013. As far as Terna is concerned, some shift workers who work in dispatching (real-time monitoring of the national electricity system; the remote operation of transmission plants; checks on production plans and the procurement of production resources; the monitoring coordination and operation of IT system; ancillary services and infrastructures used in dispatching) and staff from the Security Operations Centre are prohibited from taking part in industrial action.

Whilst entitled to suspend their normal duties during a strike, staff on call are obliged to ensure that they are contactable, even during the hours scheduled for the strike.

Human rights at work

DNF

The protection of workers' health and safety is a fundamental **human right** to be guaranteed at all times. For Terna, it is a key value that guides its operations through the adoption of high standards in assessing, preventing and managing such risks.

In Terna, preventing health risks and physical integrity is applied in the work environment of both its employees and those of contractors and subcontractors involved in the Group's operations.

To confirm the high levels of attention to this issue, Terna has added the occupational safety indicator to the variable remuneration objectives for senior and middle managers, comprising the injury rate and the lost day rate for employees (see page 220). For the Chief Executive Officer, injuries involving contractors' personnel are also included.

UM1 Health, safety and correct working practices

403-4 > The involvement of employees in matters relating to health, safety and the environment is currently regulated by law and collective bargaining, which provide for the election by all employees of **Staff Representatives for Safety and the Environment**. Specifically, as required by existing legislation⁷⁷, meetings regarding safety are held by employers at least once a year and whenever there are significant changes in exposure to risks. In addition to the employer or a representative thereof, participants include the Prevention and Protection Service Manager, a competent physician and Representatives for Safety and the Environment.

The National Collective Labour Contract also provides for the establishment of a bilateral body (a **Commission**) – at electricity sector level – on **Health, safety and the environment** tasked with making proposals relating to the monitoring and coordination of training on environmental and safety issues which Terna and the secretariats of national trade unions (FILCTEM, FLAEI and UILTEC) set up in 2018. The Committee⁷⁸ usually meets every six months with its members comprising three representatives from the three national trade unions.

403-1 > Terna's commitment also involved the adoption, since 2017 of BS OHSAS 18001:2077 certification of its "Management System for Workers' Health and Safety" and the subsequent evolution into the **Occupational Health and Safety Management System**, UNI EN ISO 45001:2018, which covers 100% of the Company's activities and is incorporated within the Group's other certified management systems (see page 95). This system is based on an accurate risk assessment, with a particular focus on activities entailing electrical risk (Provisions for the Prevention of Electrical Risk) and falls from a height. Moreover, it provides the Company with assurance that it is always in compliance with applicable legislation and regulatory requirements (Legislative Decree 81/2008 and Legislative Decree 231/2001).

2-1 > Since 2021, Terna has in place a **Management System for the prevention of the spread of infections in workplaces**, which has received **Biosafety Trust Certification** from the certification body, RINA, for its Galbani Hub headquarters (Viale E. Galbani 55 and 68/70). During 2022, the Company was subject to a new assessment to guarantee retention of the certification. This concluded with a positive outcome.

Protecting employees' safety

Italian safety legislation⁷⁹ is among the most stringent of any such laws in Europe and requires companies to carry out an analytical assessment of risks to employees' health and safety. Terna extends this requirement to include analysing the risks deriving from interference caused by works being carried out by contractors and subcontractors, covering all the activities involved in work at a construction site.

Terna's approach to occupational safety hinges on a system of tools that are applied to all corporate processes. This system calls for **clear safety policy guidelines**, starting with the Code of Ethics, and an **organisational structure responsible for safety** with operating units throughout Italy for each of which a **health and safety officer and competent physician** have been designated. This organisation is assisted by a central unit that sets policies and guidelines, carries out inspections at workplaces and construction sites and constantly analyses and monitors risks arising from the Company's activities.

403-3 > One of the most important activities an employer is required to carry out by law is **health surveillance**, the objective of which is prevention as well as verification over time, carried out in collaboration with the worker and the physician, of the adequate relationship between workers' health conditions and the specific duties assigned to them.

⁷⁷ Art. 35 of Legislative Decree 81/08.

⁷⁸ Terna and the national labour union's secretariats also established that the Committee's tasks and responsibilities provided for by art. 13 of the "Shared protocol regulating measures to combat and contain the spread of the Covid-19 virus at the workplace" of 14 March 2020 were taken on by Terna's Bilateral "Health, Safety and the Environment" Committee, in that said Committee has already been entrusted with tasks and assignments relating to these topics. Moreover, in the current state of a national emergency, said Committee can ensure its full and prompt participation to all necessary components, given its visibility throughout the Group.

⁷⁹ Legislative Decree 81/2008 "Consolidated law on the protection of health and safety at the workplace" dated 9 April 2008.

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The correct and full application of procedures is subject to inspections by Employers, internal compliance checks for all Terna Group companies and the external audits required for certification. As regards activities carried out by contractors, Terna conducts inspections of its own construction sites to verify the correct application of accident prevention regulations by the responsible health and safety officers and contractors.

Assessments and tests

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Regular health checks	4,354	4,473	3,832	3,897	3,948	3,390
Examinations by competent physicians ⁽¹⁾	308	315	197	304	314	197
Inspections and tests ⁽²⁾	243	138	161	235	120	143

(*) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

⁽¹⁾ For Tamini, one visit for each plant is provided.

⁽²⁾ Tests conducted by Prevention and Protection Service Managers and heads of Districts and Departments.

Should an employee of Terna or a contractor be injured or suffer a **near miss**, the local Environmental and Safety Protection unit, in collaboration with the worker or department involved, completes an injury/near miss form detailing the causes and dynamics of the event as well as any measures to be taken to reduce the possibility of a repeat occurrence. In the case of a serious or fatal injury⁸⁰, or when a more in-depth investigation is called for, an internal commission comprised of Terna safety experts and specialists is set up and entrusted with drafting a detailed report containing the measures to be adopted throughout the Company.

< 403-2

The protection of workers' health and safety is subject to **research** conducted by a standing committee that involves various company departments. The aim is to identify and experiment with new personal protective equipment (Smart PPE) able to aid workers as they carry out their activities by encouraging good practices and responsible behaviour both individually and collectively.

All staff have access to key information regarding health and safety and innovations through various channels, including the Companies intranet (*HSE-Health, Safety and Environment Section* of the Document System), informative meetings and specific training centring on the topics of health and safety. In 2022, around 54,900 hours of training were provided, of which 45% was aimed at blue-collar workers (additional data on training may be found on page 213).

< 403-5

The **Terna for Health&Safety** programme was also launched in 2022. The programme is designed to develop and promote health, prevention and workplace safety issues, and explain the initiatives dedicated to Terna employees through the creation of a new brand. The Company also launched the **Excellence in Security** programme, aiming to spread the security culture to its employees and the **Workplace Health Promotion (WHP)** programme, based on the model promoted by the World Health Organisation to implement efficient policies and strategies to promote health in workplaces.

< 403-6

Terna organised technical workshops with the ANIE Companies and with Security Coordinators, in order to enhance the security culture and begin a new phase of cooperation, based on a shared wealth of knowledge and technical skills, good working practices, above all new cultural and behavioural models to make people accountable and responsible for themselves and others.

Finally, the **occupational safety indicator**, comprising the injury rate and the lost day rate and including injuries involving contractors' personnel, contributes to defining the variable remuneration of personnel in the departments concerned.

⁸⁰ The procedure described is also applied to fatal injuries involving contractors' employees.

Occupational injuries

As in previous years, there were no fatal workplace accidents among the Group's employees in 2022, while there were two serious injuries resulting in an initial prognosis of more than 40 days.

The total number of injuries amounts to 23 (20 in 2021), including 4 with a prognosis of less than 3 days. At Terna, the injury rate slightly rose compared with the previous year, up from 0.53 in 2021 to 0.59 in 2022.

403-9 > Occupational injuries, Terna employees GRI-ILO definitions (*)

	GROUP (**)			TERNA		
	2022	2021	2020	2022	2021	2020
Injury rate ⁽¹⁾	1.14	0.87	1.22	0.59	0.53	0.77
Fatality rate ⁽²⁾	0	0	0	0	0	0
Serious injury rate where the initial prognosis is more than 40 days ⁽³⁾	0.04	0.00	0.02	0.00	0.00	0.03
Number of injuries	53	38	50	23	20	27
- of which serious, where the initial prognosis is more than 40 days	2	0	1	0	0	1
- of which fatal	0	0	0	0	0	0
Number of hours worked	9,285,513	8,777,239	8,212,981	7,805,938	7,551,183	7,038,326
TYPE OF OCCUPATIONAL INJURY						
Falling from height	1	0	1	0	0	1
Traffic accident injury	4	5	3	4	5	2
Electrocution	2	0	2	1	0	2
Impact, crushing, cut	23	15	17	7	5	7
Falling on level ground, slipping	13	14	18	9	8	11
Manual handling of loads	5	1	5	0	1	2
Projection of solid fragments and/or other liquid substances	0	1	3	0	0	2
Other	5	2	1	2	1	0

(*) As required by GRI protocols, the definitions adopted are those provided for by the International Labour Organisation (ILO). To aid comparison with other sources, the following notes show the figures for the same indicators calculated using alternative formulae.

(**) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

⁽¹⁾ **Injury rate.** The number of injuries registered and reported to the competent social security office, divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, the **injury rate** is also calculated in accordance with the UNI 7249:2007 Standard. This indicator has been calculated using a multiplication factor of 1,000,000 rather than 200,000 (thereby obtaining a rate that is 5 times the corresponding ILO rate). Based on this method of calculation, the injury rate is 5.7 for the Group and 2.9 for Terna. In 2021, the rate for the Group was 4.3 and for Terna 2.6 (3.8 in 2020).

⁽²⁾ **Fatality rate.** The number of fatalities registered and reported to the competent social security office, divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees).

⁽³⁾ **Serious injury rate.** The number of injuries where the initial prognosis is more than 40 days registered and reported to the competent social security office, divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, the lost day rate is also calculated in accordance with the UNI 7249:2007 Standard. This indicator has been calculated using a multiplication factor of 1,000,000 rather than 200,000 (thereby obtaining a rate that is 5 times the corresponding ILO rate). Based on this method of calculation, the serious injury rate is 0.2 for the Group (0.0 in 2021 and 0.1 in 2020). **The serious injury rate for Terna based on this method of calculation was 0.0 in 2022, 0.0 in 2021 and 0.1 in 2020.**

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Occupational injuries, Terna employees – by gender

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Number of injuries	53	38	50	23	20	27
- of whom men	52	36	49	22	18	27
- of whom women	1	2	1	1	2	0
Injury Rate - men	1.31	0.95	1.37	0.66	0.55	0.88
Injury Rate - women	0.15	0.34	0.19	0.17	0.39	0
Lost Day Rate - men	46.20	28.48	46.19 (**)	25.90	18.39	44.50
Lost Day Rate – women	0.60	6.16	9.41 (**)	0.68	7.03	9.96

(*) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

(**) The figures shown refer solely to Terna and Tamini as the data for 2020 relating to Brugg Switzerland are not available.

As regards Tamini, injuries in 2022 are primarily due to uncoordinated movements and inattentive use of work equipment.

During the year, to improve the workers' level of concentration, various initiatives were also implemented. These included the addition, in each of the five facilities of specific dedicated workstations in which, every day, managers and personnel report, examine and discuss potentially dangerous situations; the planning of two-month HSE reunions with facility managers, plant managers, Prevention and Protection Service Managers and quality managers, in order to monitor the targets set in the improvement plan. For the purposes of comparison with previous reports, the table below shows the lost day rate, the occupational disease rate and the absentee rate.

Other indicators - occupational injuries suffered by Terna employees - GRI-ILO definitions (*)

	GRUPPO (**)			TERNA		
	2022	2021	2020	2022	2021	2020
Lost Day Rate ⁽¹⁾	39.65	25.90	47.90	22.11	16.85	40.07
Occupational Diseases Rate ⁽²⁾	0	0	0.02	0	0	0.03
Absentee Rate ⁽³⁾	9,077.7	4,447.1	5,950.9	8,626.1	3,718.6	5,246.5

(*) As required by GRI protocols, the definitions adopted are those provided for by the International Labour Organisation (ILO). To aid comparison with other sources, the following notes show the figures for the same indicators calculated using alternative formulae.

(**) The 2022 figures shown in the column "Group" in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

⁽¹⁾ **Lost Day Rate.** The ratio of days lost due to injury to the number of hours worked during the year, multiplied by 200,000. The days lost are calendar days and are counted from the day on which the injury occurs. To aid comparison with other sources, the lost day rate is also calculated in accordance with the UNI 7249:2007 Standard. This indicator has been calculated using a multiplication factor of 1,000 rather than 200,000. Based on this method of calculation, the lost day rate is 0.20 for the Group and 0.11 for Terna in 2022 (0.08 in 2021 and 0.20 in 2020 for Terna).

⁽²⁾ **Occupational Diseases Rate.** The total number of cases of occupational disease divided by the number of hours worked during the year, multiplied by 200,000. In 2022, there were no cases of occupational disease reported by Terna.

⁽³⁾ **Absentee Rate.** The number of days of absence due to illness, strikes, injuries and leave out of the number of days worked in the same period, multiplied by 200,000. To aid comparison with other sources, this indicator has been calculated as a percentage of the days worked. Based on this method of calculation, the absentee rate is 4.5 for the Group and 4.3 for Terna in 2022 (1.9 in 2021 and 2.6 in 2020 for Terna).

The figures for workers employed by contractors are shown below, whilst additional information contractors' health and protection safety measures is provided on pages 218-219.

Occupational injuries suffered by contractors and sub-contractors - GRI-ILO definitions (*) ()**

	TERNA		
	2022	2021	2020
Injury rate ⁽¹⁾	1.03	0.87	1.13
Fatality rate	0	0	0.06
Serious injury rate where the initial prognosis is more than 40 days	0.03	0.09	0.09
Number of injuries	35	29	38
- of which serious, where the initial prognosis is more than 40 days	1	3	3
- of which fatal	0	0	2
Number of hours worked	6,766,899	6,687,917	6,721,754
TYPE OF OCCUPATIONAL INJURIES			
Falling from height	1	0	1
Traffic accident injury	0	1	2
Electrocution	3	0	1
Impact, crushing cuts	24	15	20
Falling on level ground, slipping	6	10	7
Burns	0	0	1
Manual handling of loads	0	3	5
Projection of solid fragments and/or liquid substances	0	0	0
Other	1	0	1

(*) As required by GRI protocols, the definitions adopted are those provided for by the International Labour Organisation (ILO). To aid comparison with other sources, the following notes show the figures for the same indicators calculated using alternative formulae.

(**) In the Tamini Group, 2 injuries related to impact, crushing and cuts were recorded in 2022. Regarding the Brugg Group, during 2022 the Company Brugg Switzerland recorded 3 injuries related to impact, crushing and cuts. The number of hours worked by Tamini Group and Brugg Group contractors is not currently available.

⁽¹⁾ **Injury rate.** The number of injuries registered and reported to the competent social security office, divided by the number of hours worked during the year, multiplied by 200,000 (corresponding to 50 working weeks x 40 hours x 100 employees). To aid comparison with other sources, the injury rate is also calculated in accordance with the UNI 7249:2007 Standard. This indicator has been calculated using a multiplication factor of 1,000,000 rather than 200,000 (thereby obtaining a rate that is 5 times the corresponding ILO rate). Based on this method of calculation, **the injury rate is 5.2 in 2022** (4.3 in 2021 and 5.7 in 2020).

2022 saw continuation of the monitoring of construction sites and injuries to people employed by contractors to ensure the correct application of existing safety regulations and technical procedures. Six injuries were reported during the year involving personnel employed by a contractor carrying out work for Terna's overseas companies, none of which were serious.



“Health and safety” target - KPI and targets in the 2022 ESG plan

KPI	TARGET				
	2022		2023	2024	2025
	TARGET	RESULT			
Safety indicator	≤ 1	0.74	≤ 1	≤ 1	≤ 1

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Protecting workers' human rights at contractors' construction sites

< 2-6

The figure for the number of staff employed by contractors and subcontractors in 2022 is in line with the figure for 2021. These figures are especially significant as they reflect Terna's ability to maintain employment levels in the downstream supply chain during the period of the pandemic.

< 2-8

< EU17

Employees of contractors and subcontractors (*) (**)

	TERNA		
	2022	2021	2020
Number of days worked	890,381	879,989	884,441
Full Time Equivalent	4,047	4,000	4,020

(*) The figures take into account the duration of contracts and the variable nature of the related workforce and pertain to the different types of contracts awarded by Terna, ranging from major works to those for cutting back vegetation located under power lines. The number of working days and FTEs are estimated based on average daily attendances at the largest sites and the value of the works contracted out at smaller sites. Further information about the types of contracts used by contractors is not available.

(**) This table does not include data regarding Tamini as the hours worked by the employees of contractors and/or subcontractors are not currently available.

< EU18

Given the substantial use of external labour at Terna's construction sites, works contracts are subject to stricter rules, not only in terms of qualification, but also regarding management, with reference to occupational safety, the requirements of which are excluded from any lowest price concerns during the award process.

During the qualification process, Terna requires evidence of documented procedures to protect workers' health and safety. For companies from sectors deemed most significant from an environmental and safety point of view, an in-depth analysis of management practices is required.

Terna requires additional qualification from contractors, specifically regarding:

- their personnel's knowledge of Italian;
- adequate specific training for all construction site workers on the use of personal protective gear, on the risks set out in the Safety and Coordination Plans and in the Operational Safety Plans and on the operating procedures and the environmental protection measures set forth in the specific operating procedure Management of environmental aspects during construction appended to each individual contract;
- attendance at training courses for certain specific roles (e.g., workers involved in the assembly and maintenance of overhead power lines, PES (expert person) and PAV (warned person) in compliance with the CEI 11-27 Standard, workers assigned to cutting back vegetation, site managers, foremen and safety officers;
- appointment of a Prevention and Protection Service Manager, a construction site safety representative, a crisis manager and deputy and an appointed physician;
- a requirement that the contracts entered with contractors include the need to keep records of injuries occurring during the year.

The actual implementation of training is verified via the *Qualified Company Personnel* online platform. To minimise the risk of violation of human and labour rights to the detriment of contractors' employees, in addition to specific information on key contracts, Terna requires a copy of an insurance policy taken out to cover third-party liability and damage to persons and property, including assets owned by the contractor, for the entire duration of the works and for an amount commensurate with the nature of the works. A copy of the contractor's records of social security and pension contribution payments is also required.

From 2019, all works and supply contracts involving work onsite contain a requirement to provide the information needed to, on the one hand, closely monitor and assess injuries to contractors' personnel and, on the other, acquire the data necessary to compute contractors' injury rates.

Terna has drawn up a preventative safety and environmental protection monitoring system for construction sites, broken down into two levels:

- First level: the contracting entity is entrusted with monitoring, via checks, the work carried out by the Construction Safety Manager and the contractors. 116 checks were carried out in 2022;
- Second level: Terna (Health & Safety Environment Department) is responsible for spot checks designed to monitor the entire management and control process at construction sites.

Regarding the environmental checks provided for in the second level, 23 construction sites were monitored in 2022 in connection with the following aspects:

- Organisation of sites and traffic;
- Site documentation;
- PPE, equipment and machinery;
- Phases of the project and operational risk;
- Checks on the work of safety coordinators;
- Waste management;
- Excavated soil and rocks;
- Site equipment storage management;
- Hazardous substances and accidental spills;
- Rainwater and supplies;
- Dust and sediment emissions;
- Noise;
- Site-specific characteristics and planning consent regulations.

None of the checks produced evidence of any critical issues. Finally, together with companies that are members of ANIE (National Federation of Electro-technical and Electronic Businesses) and leading Italian operators of networks and infrastructure, Terna sets up and takes part in technical committees. The aim is to share experiences and regulatory interpretations in order to ensure ongoing improvements with regard to health and safety at the workplace.

UM3 Good business practices: respecting diversity, inclusion and wellbeing

Terna's awareness of **employees' importance** is reflected in both a constant focus on updating their skills, needed to ensure achievement of the Group's strategic objectives, and on their wellbeing, meaning their work-life balance, access to dedicated additional services and respect.

Promoting the value of diversity, Terna enhances the uniqueness of employees by creating an increasingly inclusive work environment, encouraging collaboration and creativity and allowing employees to develop their potential and humanity. In line with the underlying values of its **Code of Ethics**, based on the general ethical principles of legality, honesty and responsibility, and those specific to the Group regarding sound management, respect, equality and transparency, Terna further strengthened its commitment to promoting and protecting diversity and punishing any form of discrimination and harassment⁸¹ in 2021. This took the form of a specific **Diversity & Inclusion Policy**. During 2022, the People Organization & Change department established a unit dedicated to these issues.

⁸¹ Any behaviour not complying with the principles included in the Policy, including harassment or any form of physical and/or psychological violence, are to be reported through the Whistleblowing channel. During 2022, there were no episodes of discrimination or harassment.

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Company welfare and wellbeing

UM2

< 401-2

Company welfare comprises a host of initiatives, opportunities and services that the Company offers its employees, including part-time work and apprenticeships, in order to enhance their wellbeing and work-life balance.

During 2022, the various welfare initiatives were based on continuous active and direct listening of employees, with plans to improve their work-life balance and increase knowledge on the offers available, in line with the values and challenges included in the *Leading NexT* Leadership model. The welfare instruments previously launched were also confirmed and others were launched in the areas described below:

- **Health:** includes useful information on the supplementary pension scheme (Fopen; Fondenel for managers) healthcare plans (Fisde) and prevention campaigns promoted by the Company for its employees.

< 403-6

Pension plans

< 201-3

	TERNA		
	2022	2021	2020
Employees covered by Pension Plans (Fopen-Fondenel)	3,705	3,698	3,522
Employees covered by Pension Plans (other pension schemes)	19	19	19
Employees covered by Pension Plans (%)	82	88	90

FOCUS

Komen: prevention campaign and promoting health

In 2022, Terna renewed its partnership with the **Susan G. Komen Italy Association**, a non-profitable organisation active in the fight against breast cancer in Italy, which protects women's' health with awareness, information and training initiatives, including the **National Itinerant Women's Health Promotion Program**.

In February, in collaboration with the **HSEQ – Environmental and Safety Protection Unit**, the Komen association promoted the first annual edition of its **Caravan of Prevention**, offering 157 of Terna's employees the opportunity to benefit from free multi-screening visits through its three mobile units with specialist medical personnel. 62 breast screenings, 35 thyroid screenings and 60 dermatological screenings were carried out.

Starting in March, the Caravan of Prevention continued its journey across Italy, with the first stop in Cagliari, providing diagnostic tests and free screenings, facilitating continuous prevention and promoting health.

- **Loans and insurance:** this comprise useful information on currently available forms of financial aid and insurance;
- **Family:** collects all the information on the favourable conditions, compared with those set out in the National Collective Labour Agreement, adopted by the Company, the crèche set up at our offices in Rome and leave for the first day of elementary school;
- **Life & Work:** describes the initiatives that make it easier for employees to balance their working and private lives, such as flexible hours, structured remote working and mobility services;
- **Performance-linked bonus:** comprises useful information to manage and convert the bonus into goods and welfare services;
- **Sport & Culture:** includes information on the Recreational, Cultural and Sports Association, ARCA, and information on corporate wellness;
- **Partnership:** provides the various agreements with favourable conditions for Terna's employees.

In terms of improving the offer and increasing knowledge, the following initiatives were carried out during 2022:

- regular monitoring and update of the Intranet content;
- expanded Fisde (Integrative Health Scheme), including in the current package to cover any future care needs (Long Term Care);
- increased goods and services offered when converting the Performance Bonus (vouchers, fuel vouchers, early use in collaboration with Arca). Supporting employees through direct channels and monitoring the various phases of the Performance Bonus;
- support in organising sporting events such as amateur tournaments throughout Italy, in collaboration with ARCA;
- roadshow, cycle of eight physical meetings, to discuss the current offering and outline new projects, focusing on the 2022 Performance Bonus;
- the launch and monitoring of Gympass, a digital and physical wellness platform, available to all employees to improve their physical wellbeing, presented through an onsite tour of the eight Italian sites with local ambassadors;
- rolling – review of the portal dedicated to agreements to improve, renew and expand the offering package.

Parental leave and childcare

Italian law regulates maternity leave and parental leave and provides general coverage. In comparison, Terna offers more favourable conditions, in application of the National Labour Contract for the industry and company agreements.

The most important measures include:

- five months paid maternity leave, provided to the mother before and after birth. Terna guarantees full pay compared with the 80% provided for by law;
- an additional six months of parental leave may be taken on 30% pay. Terna has raised this amount to 45% and 40%, respectively, in the first and then in the second and third months of the period. Paternity leave may also be taken, up to a maximum of eleven months of total leave taken by both parents. If not used in the first six years of a child's life, the leave may be taken later up to when the child turns twelve, but in the form of unpaid leave;
- parental leave for both parents in the event of illness of children under the age of 3, until the end of the illness and parental leave in the event of illness of children between the ages of 3 and 12 for both parents, alternating, for a maximum of 5 days a year. In both cases, leave is unpaid;
- two hours a day of paid leave for breast feeding for the first year of the baby's life, available to the father in the event that the mother does not make use of it;
- three days per month, also in the form of hours, of paid leave to look after children or other family members with serious disabilities;
- special leave for two years in the event of a child or other close relation having a serious disability;
- more flexible working hours for parents with children attending junior high school.

Under a specific union agreement signed in 2017, Terna has also introduced additional measures to improve work-life balance and further support parenthood. This agreement grants half a day's leave to accompany one's children on their first day of primary school and an additional five days of paid leave, including that set by regulatory provisions.

The table below shows the number of employees who have taken at least 29 days' parental leave, and information on the rate of return to work and retention rate.

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Parental leave

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	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Employees who have taken parental leave (≥ 29 days)	23	30	31	22	29	30
- of whom men	4	2	5	4	2	5
- of whom women	19	28	26	18	27	25
Employees returning to work after taking parental leave (≥ 29 days)	21	29	31	21	29	30
- of whom men	4	2	5	4	2	5
- of whom women	17	27	26	17	27	25
Employees working for Terna 12 months after having taken parental leave (≥ 29days)	27	31	16	27	30	16
- of whom men	2	5	3	2	5	3
- of whom women	25	26	13	25	25	13
Rate of return to work⁽¹⁾	91.3	96.7	100	95.5	100	100
- of whom men	100	100	100	100	100	100
- of whom women	89.5	96.4	100	94.4	100	100
Retention rate⁽²⁾	90	100	-	93.1	100	88.9
- of whom men	100	100	-	100	100	100
- of whom women	89.3	100	89.3	92.6	100	86.7
Employees who have taken compulsory maternity leave	43	23	32	42	22	32

(*) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

⁽¹⁾ Rate of return to work is the ratio of employees, divided by gender, returning to work after taking parental leave to the number of employees who have taken parental leave during the year.

⁽²⁾ Retention rate, which represents the loyalty indicator, is the ratio of employees, divided by gender, working for Terna after having taken parental leave to the number of employees who took parental leave during the previous year.



DNF

Diversity and equal opportunities

UM3

405-1 >

Terna is committed to promoting and protecting diversity, preventing and punishing any form of discrimination and harassment using staff selection, development and compensation systems that recognise and reward merit. All forms of discrimination, starting with the selection and recruitment process, are explicitly prohibited by the Group's Code of Ethics and the Group's **Diversity & Inclusion and Respecting Human Rights policies**.

The protection of these matters was further strengthened in May 2022 with the establishment, within the "People Organization & Change" department, of a unit dedicated to inclusion within the Company.

Women in leadership: the EmpowHer project

Within the scope of the *Inclusive leadership* topic area of the NexTerna programme, the **EmpowHer** project is being implemented. This is an engagement project designed to educate employees on gender equality and promote female talent, to increase inclusion as a recruitment and performance lever, able to generate a positive impact on the business.

Starting from the **LeadingNexT** leadership model, which identifies inclusion as one of three Terna values, together with courage and loyalty, male technicians are considered to be predominant in the electricity sector. With the **EmpowHer** project, Terna aims to empower women to add value and promote inclusion in work groups. Thanks to this project, Terna has increasingly focused on creating an adequate and attractive working environment for women, both internally, by constantly focusing on the growth and development of women already in the Company, and externally, aiming to encourage greater attention to reducing stereotypes and the pay gap through role modelling initiatives and promoting study programmes, above all in STEM subjects.

Since 2021, EmpowHer has four distinct threads, all sharing the same goal of encouraging people to think about the impact on business made by gender diversity in helping to create a more inclusive working environment and more diverse groups. These threads are:

- **Voice Out**, an ideas competition to encourage the emergence of structured proposals for enabling women within the Company to contribute and participate more, inspired by New Ways of Working, to which ten mixed gender teams took part. The three winning ideas were included in the **Design2Be Next** programme, an innovative development and empowerment programme to support individual talent and promote Terna's culture, values and its leadership model;
- **Role Model Talks**, five online meetings, followed on average by over 1,000 people, with "Role Model" women in senior positions within Italian institutions to provide personal development inspiration for Terna's employees;
- **Scholarships**, in collaboration with Intercultura Foundation Onlus, Terna offered five scholarships overseas (Ireland, France, Wales and Denmark), to give the daughters of Terna personnel the opportunity to have a multicultural, open and inclusive educational experience, with a variable study stay, up to a year;
- **Job Shadowing**, a project in line with the LeadingNexT leadership model and focused on promoting female talent. This provides the chance to work alongside men and women in senior or middle management for 46 young female graduates under 30 years of age, accompanied by a month-long engagement programme. The employees involved have the opportunity to compare and analyse their work behaviour in response to performance, engagement and wellbeing challenges, with respect to the pivotal points – Resourcefulness, Sustainability, Innovation and Involvement.

Almost all employees are Italian citizens, with only 49 having foreign citizenship⁸². In addition, the vast majority of employees are men, due to a traditional shortage of female labour for more technical and operational roles. Nonetheless, the presence of women is increasing, partly reflecting general labour market trends, which show that female participation is on the rise.

⁸² Terna's employees' nationalities are: 4,476 Italian (of which 853 managers, 1 Ecuadorian, 7 Romanian, 3 Spanish (of which 2 managers), 2 Ukrainian, 3 Egyptian, 1 Indian, 5 Moroccan, 2 Moldavian, 3 Albanian, 1 Belgian (manager), 1 Burkinabe, 1 Mauritanian, 1 Ivorian, 1 Russian, 1 Senegalese, 1 Tunisian, 1 Montenegrin, 3 American (of which 1 manager), 1 Lebanese, 1 French, 2 German (of which 1 manager), 1 Ghanaian, 1 Greek (manager), 1 Korean (manager), 3 Swiss.

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The percentage of women in Terna's total workforce in Italy was 9.0% at the end of 2005 (the year in which Terna became an independent company). This figure has grown steadily since then, registering 17% at the end of 2022, also thanks to the targets in the updated 2021-2025 Industrial Plan, which expect the total amount of women to reach 20% of the workforce by 2025 and 22% by 2030. 30.3% of hires, not considering blue-collar workers, were women (30.2% in 2021, 24.4% in 2020); in terms of the Group, the figure was 29.4%. For 2022, the percentage of entry level positions filled by women is 17.23%.



“Increasing female presence in the company” - KPI and targets in the 2022 ESG plan

KPI	2022		TARGET			
	TARGET	RESULT	2023	2024	2025	2030
Women as a percentage of the Group's total workforce	15%	16.2%	17.5%	18.7%	20.0%	22.0%
Women as a percentage of the Group's total workforce, not considering blue-collar workers	22%	22.1%	23%	24%	25%	27.0%

The main indicators chosen by Terna to monitor the equal treatment of men and women show that the management and development systems adopted do not disadvantage women. Notably, in 2021, **the percentage of female managers out of the total of managers (23.7%) was once again higher than the percentage in relation to the total number of employees, without taking into account blue-collar workers (21.9%).**

FOCUS

Towards the Gender Equality Certificate

As part of the National Recovery and Resilience Plan (NRRP), among the work policies (Mission 5 *Inclusion and Cohesion*), the Italian Government introduced the **Gender Equality Certificate** (pursuant to Reference Practices PdR UNI 125:2022), to promote gender equality, close the pay gap and reduce gender discrimination. This involves a €10 million reward upon achievement of the objective. Companies will be able to benefit from an **Equality Bonus**, being a 1% tax relief on contributions up to €50,000 a year, in addition to obtaining benefits in terms of public tenders and improved eligibility for EU funding and state aid.

The obligation for organisations with over 50 employees to prepare a report on the situation regarding male and female personnel in all professions and the state of recruitment is still in force.

During 2022, in line with the values underlying its **Code of Ethics** and reiterated in the **Respecting Human Rights** and **“Diversity & Inclusion” policies**, Terna began its internal process aiming to obtain this certificate, recognising several benefits and the ability to accelerate the cultural change with a positive impact on the business and innovation.

During the year, after an initial sharing phase with all the Company's departments involved in the certification process, the topic areas to act on to develop projects, whose progress can be measured over time through specific indicators (KPIs), have been identified. Above all, the areas in which Terna has engaged are: (1) Culture and Strategy; (2) Governance; (3) HR processes; (4) Equal pay by gender; (5) Opportunity to grow and the inclusion of women in the Company; (6) Protecting parents and work-life balance. The certificate is expected to be obtained in 2023, will be valid for three years and is subject to interim annual assessment.

Remuneration data also show moderate pay gaps for office staff and middle managers, with wider gaps for senior managers, although the number of people considered is smaller and pay gaps are consequently more influenced by the nature of the related roles and the fact that there are few incoming and outgoing staff. Generally, Terna is committed to reducing the pay gap and fighting any form of discrimination that impacts on equal opportunities.

405-1 > **Equal opportunities for men and women**

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Women out of total employees						
- women out of total	16.1	15.1	13.9	17.0	15.6	14.2
- women out of total, without considering blue-collar workers	22.0	21.0	19.7	21.9	20.7	19.2
- female senior managers out of total senior managers ⁽¹⁾	17.6	15.1	10.7	19.2	16.2	11.1
- female senior and middle managers out of total senior and middle managers	20.4	20.1	19.0	21.3	20.9	19.8
- female middle managers out of total middle managers	20.7	20.7	19.9	21.5	21.4	20.6
Employment growth %						
- female annual change	16.9	15.8	4.3	16.7	17.5	3.9
- male annual change	8.2	5.4	1.7	5.3	5.7	1.3
Staff leaving ⁽²⁾						
- women left	3.7	4.0	1.8	3.2	2.5	1.5
- men left	4.4	4.0	3.2	3.9	3.3	3.1
Staff joining ⁽³⁾						
- women joined	19.4	19.6	6.1	19.9	19.9	5.4
- men joined	9.6	9.4	4.9	12.9	9.0	4.4
Management positions						
- female managers out of total women	1.9	1.8	1.3	2.0	1.8	1.3
- male managers out of total men (excluding blue-collar workers)	2.5	2.6	2.6	2.3	2.5	2.4
Promotions ⁽⁴⁾						
- promotion to middle manager as % of category of origin - women	3.0	3.7	1.3 ⁽⁵⁾	3.0	4.0	1.5
- promotion to middle manager as % of category of origin - men	3.4	3.1	1.9 ⁽⁵⁾	3.4	3.5	2.0
Pay gap between men and women as a % ⁽⁶⁾						
- senior managers	81.9	86.3	83.5	80.7	85.1	83.1
- middle managers	93.3	95.0	94.3	94.7	95.7	95.3
- office staff	98.2	96.7	97.8	100.5	99.5	100.0
Remuneration gap between men and women as a % ⁽⁶⁾						
- senior managers	80.6	79.8	86.8	78.0	77.9	87.7
- middle managers	93.7	95.6	94.7	95.1	96.3	95.8
- office staff	93.7	92.2	93.5	95.5	94.7	95.3
Other indicators – Equal opportunities						
Women as a percentage of total managers in revenue generating departments ⁽⁷⁾	9.3	12.1	14.0 ⁽⁸⁾	6.0	11.1	10.0
Women out of total STEM positions ⁽⁸⁾	18.0	17.4	17.7 ⁽⁸⁾	18.2	17.6	17.8

(*) The 2022 figures shown in the column Group in this table refer to Terna (electricity sector), the Tamini Group and the Brugg Group. For 2021 and 2020, the figures refer to Terna, the Tamini Group and Brugg Switzerland. Regarding the figures for Brugg's subsidiaries, given their limited significance compared with the Group amounts, they were not estimated.

⁽¹⁾ Considering only positions two levels from Terna's CEO, women cover 23.7% of the positions.

⁽²⁾ The figure is the ratio of employees leaving during the year by gender to the total number of employees by gender at 31 December 2021.

⁽³⁾ The figure is the ratio of employees recruited during the year by gender to the total number of employees by gender at 31 December 2021.

⁽⁴⁾ This figure is based on the ratio of promotions to middle manager during the year to employees classed as office staff in the previous year, calculated by category (men/women). The promotions from blue-collar worker to office staff and middle manager to senior manager are not considered, given their limited significance on an annual basis.

⁽⁵⁾ This figure is based on the annual basis pay of women in the different categories as a percentage of the annual basic pay of men in the same category. This figure has not been calculated for blue-collar workers as there are no women in this category. Terna and Tamini do not employ women among their blue-collar personnel. If the scope is extended to include Brugg, there are 4 women in the blue-collar category. At Brugg Group, the only company for which there is any sense in computing the pay gap, the figure is 98.9.

⁽⁶⁾ This figure is based on the total annual remuneration of women in the different categories as a percentage of the total annual remuneration of men in the same categories. In addition to basic pay, total pay also includes productivity bonuses, various forms of incentive and the value of benefits received during the year. Terna and Tamini do not employ women among their blue-collar personnel. If the scope is extended to include Brugg, there are 4 women in the blue-collar category. At Brugg Group, the only company for which there is any sense in computing the pay gap, the figure is 98.9.

⁽⁷⁾ The figure refers to women as a percentage of total senior or middle managers in so called "revenue generating" departments, which contribute directly to the production of output in terms of products and services; this does not typically include support departments such as Human Resources, Legal, IT, Administration, etc.

⁽⁸⁾ The figure refers to women as a percentage of total STEM positions.

⁽⁹⁾ The figures shown refer solely to Terna and Tamini as the data for 2020 relating to Brugg Switzerland are not available.

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Almost all employees are Italian citizens, but the Company has always encouraged inclusion within its business, eliminating any form of discrimination; 49 employees have foreign citizenship, including 7 managers. Terna has always monitored the diversity of its managers, specifically focusing on the appointment of women in senior positions.

Diversity in the company's management

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	TERNA		
	2022	2021	2020
Managers with Italian citizenship (%) ⁽¹⁾	99.30	99.62	99.71
Senior managers ⁽²⁾	11	8	9
- of which women	3	1	1
Middle managers ⁽³⁾	65	63	58
- of which women	15	9	12
Women as a percentage of total senior management positions (%)	23.7	14.1	19.4
Senior managers with Italian citizenship	11	8	9
Senior managers with Italian citizenship (%)	100	100	100

⁽¹⁾ Managers refers to senior and middle managers

⁽²⁾ "Senior Managers" include top executives of Terna S.p.A. reporting directly to the CEO (including the CEOs of subsidiaries Tamini and Brugg), people reporting to the Chairwoman and the CEOs of Terna Rete Italia, Terna Energy Solutions and Terna Plus

⁽³⁾ "Middle managers" include executives two levels below Terna's CEO, excluding senior managers.

In addition, all the Company's initiatives are designed to increase female employment, also following participation in **D Value**, an association established by a number of female managers at various Italian businesses.

An additional form of inclusion promoted by Terna regards employees from legally protected categories. At 31 December 2022, Terna employed 158 people (3.5% of its employees) from legally protected categories (151 in 2021 and 144 in 2020), in line with the regulations applicable to the Company.

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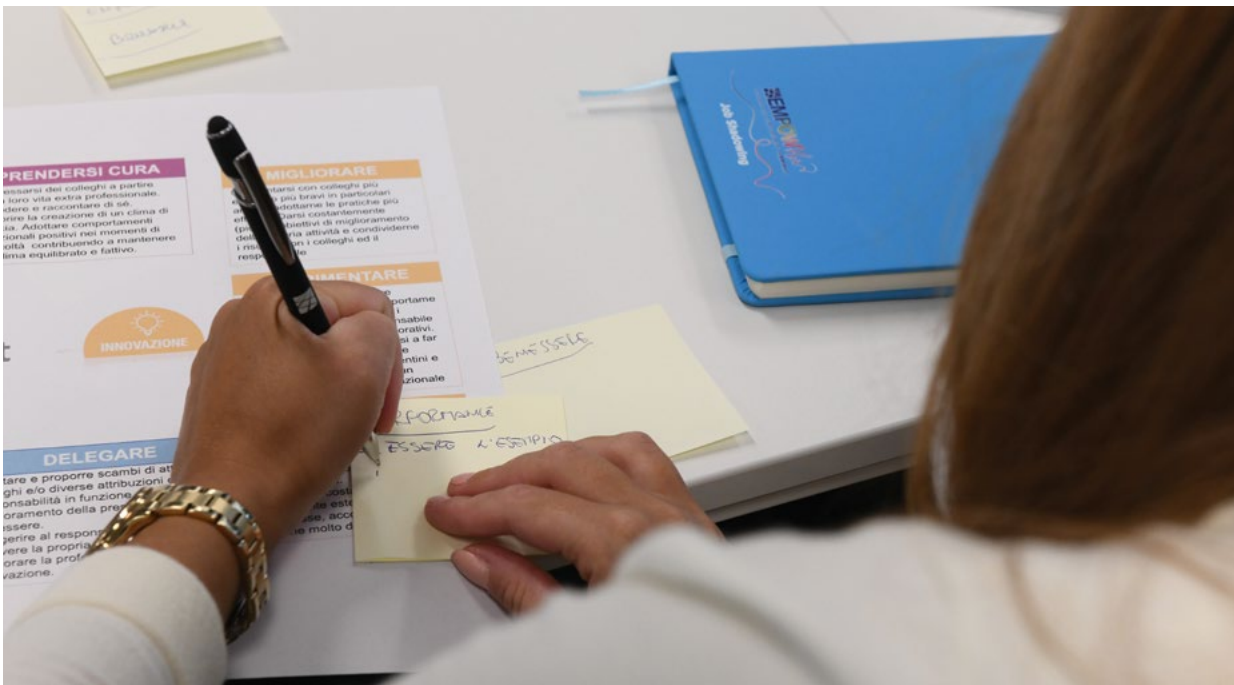
SR2

Social and relationship capital

The quality of Terna's relationship capital is determined by the ability to listen to groups who, for various reasons, have relations with the Company (stakeholders⁸³), taking their interests into account and analysing their compatibility with the specific interests of the Company and the obligations established by the concession, so as to be able to adopt a coherent and transparent course of conduct. This is in line with the principles set out in the *Corporate Governance Code*⁸⁴, which assigns the Board of Directors, among others, responsibility for fostering “*dialogue with shareholders and the Company's other key stakeholders in the forms considered most appropriate*”.

With this awareness, Terna has drawn up a stakeholder map and built **specific engagement programmes** to identify the most effective actions to be undertaken to optimise current engagement methods and listen to the most influential stakeholders on a periodic basis, thus avoiding the risk of failing to promptly identify any problems that might have reputational as well as economic and financial repercussions.

The tools developed by the Company to manage its relationship capital include two specific sets of guidelines. The first defines the **stakeholder management model**, while the second focuses on the **engagement of local stakeholders in Terna's grid planning activities**.



⁸³ Stakeholders are persons and/or organisations that can influence or be influenced by the Company's activities.

⁸⁴ The new *Corporate Governance Code* was approved by Borsa Italiana's Corporate Governance Committee on 31 January 2020. Companies adopting the Code must apply it from the first financial year beginning after 31 December 2020, announcing this to the market in the *Report on Corporate Governance and the Ownership Structure*. The Code is available at the following link: <https://www.borsaitaliana.it/comitato-corporate-governance/codice/2020.pdf>

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Stakeholder map



For each sphere of activity defined in the map, the following table shows the individual stakeholder categories including the related engagement methods and tools adopted by Terna, and a brief overview of activities in 2022.

OPERATIONAL AND BUSINESS SPHERE

PEOPLE WITHIN THE ORGANISATION *Employees, Collaborators, The training system, Governance bodies, Labour unions, Workers' representatives.*

RELATIONAL AND MONITORING PROCEDURES

Direct, sample-based surveys, Online surveys, Internal communication initiatives, Focus groups on specific topics, Consultations, discussions and negotiations with labour unions.

ACTIVITIES IN 2022

See the section on "Human capital" on page 203

ELECTRICITY SYSTEM OPERATORS *Producers, Distributors, Wholesalers, Other owners of the NTG, Applicants for connection to the NTG, Other network operators (TSOs), Associations representing industry operators, Other organisations in the electricity supply chain, Interruptible customers.*

RELATIONAL AND MONITORING PROCEDURES

Grid Code Consultation Committee. Relations envisaged and regulated by the Grid Code. *Operator consultation* box on Terna's website. My Terna portal for dispatching users, including a dedicated call centre. The *GAUDI* portal for integrated management of plants and production units. Specific meetings and participation in organised working groups. NTG owners' portal for other NTG owners. Distributors' portal, Settlement portal.

ACTIVITIES IN 2022

During the year, Terna met with the Consultation Committee - a technical body in which the various categories of electricity service users are represented, with the participation of ARERA and the Ministry for the Environment and Energy Security (formerly the Ministry for Ecological Transition) as observers - to share the context and the elements underlying the 2023 Development Plan.

Terna also organised several discussion initiatives with operators to share knowledge about the specific context and to illustrate the changes taking place in the regulatory framework and expected developments. These included:

- seminar on the state of progress of the implementation of the European balancing guidelines and the actions taken to optimise dispatching and cut costs;
- webinar on the technical connection requirements for electrochemical storage plants set out in the new Annex A.79 of the Grid Code;
- webinar for operators on changes to the Grid Code relating to the rules for participation in the Dispatching Services Market, technical requirements for frequency regulation services and coordination rules between the Dispatching Services Market and the European energy exchange balancing platform (aFRR - Automatic Frequency Restoration Reserve platform) developed as part of the PICASSO project;
- workshop on the state of progress of connection applications for RES plants, with a focus on offshore initiatives;
- webinar on the 2022 Resilience Plan

SUPPLIERS *Core, non-core and potential suppliers⁸⁵. Trade associations.*

RELATIONAL AND MONITORING PROCEDURES

Dedicated *Procurement and Supplier Qualification* portals are described on page 244. Discussion round tables with associations. Post-tender feedback.

ACTIVITIES IN 2022

See the section on "Supply chain sustainability" on page 196.

REGULATORS OF CONCESSION ACTIVITIES *ARERA, Ministry for Business and Made in Italy, European regulators*

RELATIONAL AND MONITORING PROCEDURES

Formal reports and communications within regulated processes. Transmission of information and assessments in response to specific requests or at Terna's initiative.

ACTIVITIES IN 2022

Ongoing activities with ARERA's offices and Board, and with the Ministry for Business and Made in Italy (formerly the Ministry for Economic Development). Regarding the investigations initiated by ARERA that are of potential interest to Terna, it should be noted that, based on the information in the Company's possession, no proceedings are in progress.

BUSINESS PARTNERS *Subsidiary companies. Business partners/developers. Interconnector line customers. Public safety organisations. Applied research institutes*

RELATIONAL AND MONITORING PROCEDURES

Partnership agreements. Protocols. Meetings for specific projects. Structured partnerships.

ACTIVITIES IN 2022

Over the years, Terna has signed partnership agreements with institutional bodies (for example, Guardia di Finanza - Finance Police; Fire Brigade, etc.), comprising forms of collaboration that support the Group's activities. In 2022, as part of its collaboration with the Guardia di Finanza, Terna implemented the new portal "Guardia di Finanza Terna construction sites: Contractors and Subcontractors" with exclusive access for members of the police force. Via a computerised information sharing system that guarantees the confidentiality of the data processed, the portal enables the Guardia di Finanza to consult data relating to electricity works sites across Italy at any time, in implementation of the provisions of the memorandum of understanding signed with the Finance Police regarding the security of the national electricity system.

CUSTOMERS (Non-regulated Activities) *Non-regulated business customers. Potential customers*

RELATIONAL AND MONITORING PROCEDURES

Dedicated meetings.

ACTIVITIES IN 2022

See the section on "Non-regulated Activities: Energy solutions" on page 130.

⁸⁵ Core suppliers are suppliers entrusted with contracts for works, supplies and related services, connected with and/or instrumental to the performance of activities attributable to the electricity sector in which Terna operates under the Concession. Non-core suppliers are suppliers who are entrusted with contracts for works, supplies, and services that are neither connected with nor instrumental to Terna's core activities. Potential suppliers are suppliers of interest to the Company, as well as those interested in working for Terna.

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FINANCIAL SPHERE**SHAREHOLDERS** *Controlling shareholders. Institutional equity investors. Retail shareholders. Financial analysts. Proxy advisors. SRI investors. Analysts. ESG rating agencies.***RELATIONAL AND MONITORING PROCEDURES**

Road shows. Conference calls, presentations, dedicated meetings. "Investors" section of Terna's website. Telephone numbers for institutional investors and the generality of shareholders; dedicated e-mail addresses. Sustainability ratings

ACTIVITIES IN 2022

Three e-mail enquiries were received from non-institutional shareholders (5 in 2021 and 6 in 2020), which concerned information on the Company's business and dividend payments.

At the Shareholders' Meeting held on 29 April 2022, 1,772 shareholders were duly represented, solely through the Appointed Representative⁶⁶, accounting for 1,402,895,486 ordinary shares, or 69.8% of the share capital.**LENDERS** *Banks. Rating agencies. Debt investors. International financial institutions. National and international public lenders***RELATIONAL AND MONITORING PROCEDURES**

Regular meetings. Specific reports. Ratings

ACTIVITIES IN 2022

During 2022, the Company met the main rating agencies at management meetings. The agencies that currently assess Terna's creditworthiness are S&P's, Moody's and Scope. Finally, several conference calls were organised to explain the Group's financial strategies, to carry out the reconciliation and reclassification of the financial statements in accordance with the agencies' criteria, and to provide details of the financial rationale that the rating agencies take into account when assigning a rating.

PUBLIC AND SOCIAL SPHERE**LOCAL COMMUNITIES** *Directors, Local politicians and opinion makers, Associations representing local interests, Other local authorities, Infrastructure sector operators, Territorial committees, Landowners affected by grid development, Owners of buildings and land in the vicinity of existing lines, Other citizens affected by grid development, Other citizens affected by the passage of existing lines, Media, Local suppliers and sub-suppliers***RELATIONAL AND MONITORING PROCEDURES**

Grid planning consultation process (see page 246), Formal reports and communications within regulated processes, Public engagement initiatives, such as "Terna Incontra" meetings (see page 246)

ACTIVITIES IN 2022

See the section on "Dialogue with local communities" on page 244.

PUBLIC DECISION MAKERS AND AUTHORITIES *Ministries with relevant competences regarding the electricity sector, Other government bodies, Regions and their bodies, Parliament and Commissions, EU institutions, Other regulatory and supervisory institutions, The judiciary, Strike Guarantee Commission, National institutions of other countries of interest, International institutions, Regular meetings, Formal reports and communications within regulated processes.***RELATIONAL AND MONITORING PROCEDURES**

Since 2016, Terna has been on the Transparency Register, established by the Ministry for Economic Development to guarantee transparency and the traceability of meetings with the Ministry's top officials.

ACTIVITIES IN 2022

Details of the activities in 2022 may be found in the "Annexes" on page 317.

MEDIA AND OPINION MAKERS *National and international media, National and international opinion groups, Web users, Universities, Other scientific and research organisations, National and international study and steering groups.***RELATIONAL AND MONITORING PROCEDURES**

Presentation of the revised 2021-2025 Industrial Plan, Organisation of seminars, Workshops, Targeted surveys, Collaboration and partnership initiatives; participation in organised working groups, E-mail boxes and profiles on social networks

ACTIVITIES IN 2022

See the sections on "Stakeholder dialogue and communication channels" on page 242 and "Communication activities" on page 252.

THE WIDER COMMUNITY *Current and future end users of the electricity service***RELATIONAL AND MONITORING PROCEDURES**Website at www.terna.it, Social networks, Dedicated e-mail addresses (info@terna.it), Periodic sample surveys of the population**ACTIVITIES IN 2022**

See the section on "Community initiatives" on page 249.

LITIGATION

The main commitments and risks not disclosed in the financial statements at and for the year ended 31 December 2022, relating to the Parent Company, Terna, and its subsidiary, Terna Rete Italia S.p.A. are described in paragraph "E - Commitments and risks" in the consolidated financial statements.

Terna's relationships with stakeholders, especially those with industry operators, are also nurtured and strengthened via our active participation in the work of the main national and international industry organisations we are associated with, in which we often playing a leading role. Our aim is to make concrete contributions to working groups on key electricity issues, share best practices and, more generally, grasp further opportunities to increase our relationship and intellectual capital.

⁶⁶ It should be noted that, as a result of the regulatory provisions issued in relation to this emergency and in particular Law Decree no. 18 of 17 March 2020 (the so-called the Heal Italy Decree), the Company has decided to take up the option provided for in art. 106, paragraph 4, of the aforementioned Heal Italy Decree, providing that participation in the Shareholders' Meeting by those entitled to participate may take place exclusively through the representative appointed by the Company pursuant to art. 135-undecies of Legislative Decree no. 58 of 24 February 1998 (the "Consolidated Law on Finance" or TUF).

2-28 > Active participation in international associations

ENTSO-E (European Network of Transmission System Operators for Energy) is a European association of 39 active member companies from 35 countries. In April 2022, the Ukrainian TSO, Ukrenergo, joined ENTSO-E as an observer member, while on 13 December 2022, a new observer membership agreement was entered into with the Turkish TSO, TEİAŞ. ENTSO-E is involved in the process of integrating national electricity markets, coordinating the secure operation of interconnected electricity systems and developing electricity transmission grids, in implementation of the relative EU legislation (Third Energy Package, CEP-Clean Energy Package and Fit for 55).

ENTSO-E's main objectives are to: draw up European network codes, guarantee the coordinated development of the electricity grid at European level by drawing up the European electricity grid development plan (the Ten-year Network Development Plan, or TYNDP) and the related benchmark scenarios, and draw up the Research, Development and Innovation Plan at European level.

ENTSO-E's activities focus on four courses of action (security of supply, functioning of the energy market, promotion of energy saving, and promotion of the interconnection of energy networks), which generate new tasks for ENTSO-E (implementation of the Regional Coordination Centres - RCC, enhanced cooperation with DSOs, digitalisation of networks and development of demand response). These activities will be developed in line with the new climate policies previously set out by the European Commission with the launch of the European Green Deal, a roadmap that seeks to make the EU the first climate-neutral continent by 2050. This has been further strengthened with the Fit for 55 climate package, which proposes legislative guidelines to achieve the Green Deal targets by 2030 (in particular, the reduction of greenhouse gas emissions by 55% compared to 1990 levels, in order to achieve carbon neutrality by 2050). Terna is a member of the board of the association.

RGI (Renewables Grid Initiative) An association consisting of 13 European TSOs and 13 environmental NGOs which aims to promote the integration of renewable energy sources through the development of electricity grids. RGI is committed to promoting strategic planning and participating in the construction of new power lines, via a meeting platform involving environmental NGOs and European TSOs.

CIGRE (Conseil International des Grands Réseaux Electriques) An international non-profit association that conducts research regarding high-voltage grids. It has over 90 member countries, represented by 60 national committees, and Terna is currently the Chair and Vice Chair of the Italian Committee.

GO15 (Reliable and Sustainable Power Grids) An international association bringing together the 17 leading grid operators worldwide to share best practices in the management of electricity transmission grids.

In 2022, Terna's CEO, Stefano Donnarumma, was Chairman of the association. Terna was also on the Steering Board and the Governing Board and co-chaired the Strategic Working Groups on *Pathways to a Low Emission Power Grid* (SWG1) and "Resilience, infrastructure development and interconnections" (SWG2).

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Med-TSO (Mediterranean Transmission System Operators) This association brings together the TSOs from 20 Mediterranean countries, with the aim of promoting the standardisation of development plans and the coordinated management of grids. The association also works to facilitate the creation of a legislative and regulatory framework designed to drive the development of interconnection projects and promote the exchange of electricity between electricity systems in the Mediterranean area. Terna hosts the association's registered office and operational headquarters in Rome and appoints its Secretary General.

RES4Africa Foundation (Renewable Energy Solutions for Africa) This non-profit foundation was established on 7 June 2019, following the transformation of the association with the same name. The association aims to promote the use of renewable energy and the dissemination of energy efficiency measures, as well as supporting the creation of a favourable environment for renewable energy investment in countries in the southern and eastern Mediterranean area and in sub-Saharan Africa. The association has its headquarters in Rome.

WEC Italia (World Energy Council - Italian committee) The Italian national committee of the WEC, an international organisation that brings together operators from over 90 countries, with the aim of promoting a sustainable energy system worldwide. Terna is a member of the Managing Board.



Main international initiatives during the year

The main initiatives developed by Terna in 2022 include the following:

- Continuation of the joint venture with the TSOs, TenneT (Netherlands/Germany) and Swissgrid (Switzerland), which was set up to manage **Equigy**, a new platform based on blockchain technology that aims to facilitate the participation of distributed demand in the electricity grid balancing process. The main roles in this **Energy of Things** are to be played by domestic or industrial electrical devices such as, for example, home air conditioning systems, photovoltaic plants with batteries and e-cars, which will be interconnected with each other and capable of regulating the energy exchanged with the grid through an innovative digital platform. This will provide services to support the grid operated by Terna and thus the ecological transition.
- Participation in **TERRE** (the *Trans European Replacement Reserves Exchange*). The platform facilitates the integration of the balancing markets of EU countries, guaranteeing the cost-efficient exchange of reserves for the benefit of the electricity system's security. Italy is connected to Region 1, which also includes France, Switzerland, Spain and Portugal. As well as Italy, the Czech Republic, the UK, Poland, Switzerland, France, Spain and Portugal are also taking part in the project.
- The research initiative with other European TSOs to assess the various grid planning criteria adopted in Europe to facilitate the **integration of RES** and the electrification of production sectors currently using fossil fuels has been completed.
- Joint actions were undertaken by TSOs to encourage and direct the European industry towards the challenges of the energy transition, with reference to analysis of strategic supply chain dependencies relating to TSOs' ecological transition needs and the development of a common platform for the exchange of data and best practices regarding the different CSR approaches to the standardisation of life-cycle cost assessment methodologies..

International relations

With a view to building and better managing relations with European institutions, since 1 July 2018 Terna has had a Brussels office located in the European Quarter.

The aim is to establish ongoing dialogue with the European Parliament, the Commission and the Permanent Representation in order to take advantage of Terna's experience and expertise.

The main projects that Terna followed during the year include those identified as forming part of the European Green Deal, especially the Fit for 55 package, and those relating to European programmes providing financing under the next financial framework 2021-2027.

Priority projects of most interest include the Projects of Common Interest list, amendment of the Renewable Energy and Energy Efficiency Directives, the Gas and Hydrogen Package, Sustainable Finance, sectoral integration, and revision of the Guidelines for State Aid regarding the Environment and Energy. Programmes of interest include: the Connecting Europe Facility, Next Generation EU, the Innovation Fund, Horizon Europe and Digital Europe, and the European Regional Development Fund and the Cohesion Fund.

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Anima per il sociale nei valori dell'impresa

A non-profit association that brings together managers and companies who share the desire to spread an entrepreneurial culture in their local areas, combining profit with the creation of wellbeing for the community. Terna has been a member of the association since 2010.

Ecosystems Foundation

Focused on improving the environmental and social quality of the economy and local areas, this organisation specialises in strategies, programmes, actions and tools for sustainable development, and is a key player in GPP (green public procurement) and green procurement. Terna has been a member of the organisation since 2021.

Sustainable Development Foundation

An organisation whose primary activity is investigating sustainable development issues – from a cultural and technical point of view – via research, seminars and meetings. Terna has been a member of the organisation since 2011.

GEO – The Green Economy Observatory

The Observatory set up by IEFE - Bocconi University which, via research and study, aims to explore key topics for debate in relation to the green economy through dialogue, discussion and collaboration with institutions and businesses.

Global Compact

Terna's membership of the Global Compact involves a presence at both international and local level. Terna has had a place on the Italian network's Steering Committee since 2011 and is a founding member of the Global Compact Network Italy, which was established in 2013.

Kyoto Club

A non-profit organisation made up of companies, bodies, associations and local government authorities that are committed to achieving the targets for reducing greenhouse gas emissions set by the Kyoto Protocol and to promoting awareness-raising, information and training initiatives in the fields of energy efficiency, use of renewables, and sustainable mobility.

Parks – Liberi e Uguali

A non-profit association established in April 2010 with the aim of helping member companies to understand and realise the full business potential of developing diversity-friendly strategies and best practices. Terna has been a member of the organisation since 2022.

Sustainability Makers

A rebranding of the CSR Manager Network, this is a key association for professionals who deal with sustainability and corporate social responsibility issues, including company managers, consultants and researchers.

Transparency International Italy

The Italian branch of the international organisation whose aim is to combat corruption (also see page 190), which promotes the **Business Integrity Forum (BIF)**, an initiative for large Italian companies aimed at increasing the transparency, integrity and accountability of Italy's business sector via their collaboration.

Valore D

This is the first business association in Italy to commit to gender balance and an inclusive culture in organisations. Terna has been a member of the organisation since 2021.

**Participation
in associations
that deal with
sustainability
issues**

< 2-28

FN2 Economic value created and distributed to stakeholders

The Terna Group confirms its commitment to pursuing a sustainable business model aimed at **creating value for all our stakeholders**. The model's results are effectively summarised in the table below showing the **economic value created and distributed**. The following figures have been computed taking into account the requirements established by Standard GRI 201-1 for reclassification of the Group's consolidated income statement.

In 2022, the total **economic value created** by the Group amounted to **€3,021.3 million** (€2,653.0 million in 2021).

The **economic value distributed** amounted to **€2,775.18 million** and was distributed to the following stakeholder categories: suppliers, employees, lenders, shareholders, the public administration and local communities.

201-1 > Economic value directly created and distributed ⁽¹⁾

(€m)

	2022 ⁽²⁾	2021 ⁽²⁾	2020 ⁽²⁾	CHANGE 2022/ 2021	% CHANGE 2022/2021
1 - ECONOMIC VALUE CREATED (A)	3,021.29	2,653.02	2,528.92	368.27	14
B - Operating costs relating to suppliers	1,269.59	1,102.23	1,013.79	167.36	15
C - Employees	348.40	295.31	287.28	53.09	18
D - Credit providers	113.70	89.81	94.43	23.90	27
E - Shareholders ⁽³⁾	631.94	585.11	541.69	46.83	8
F - The Government	409.37	359.78	338.58	49.59	14
G - Investment in local communities ⁽⁴⁾	2.18	2.31	1.69	(0.13)	(6)
2 - ECONOMIC VALUE DISTRIBUTED TO STAKEHOLDERS (B+C+D+E+F+G)	2,775.18	2,434.55	2,277.45	340.63	14
3 - PROFIT/(LOSS) FOR THE YEAR FROM ASSETS HELD FOR SALE	(20.35)	(12.84)	2.09	(7.50)	58
4 - ECONOMIC VALUE RETAINED (1-2+3) ⁽⁵⁾	225.76	205.63	253.57	20.13	10

⁽¹⁾ Amounts relating to the creation and distribution of economic value have been taken from the consolidated income statement prepared in accordance with IFRS/IAS. The Terna Group has used IFRS/IAS since 2005.

⁽²⁾ Given that the requirements of IFRS 5 have been met, the total results for 2022, 2021 and 2020 attributable to the South American subsidiaries included in the planned sale of assets have been classified in the item "Profit/(Loss) from assets held for sale" in economic value retained.

⁽³⁾ Payments to the providers of risk capital in 2022 correspond with the interim dividend for 2022 (€213.3 million) payable from 23 November 2022 to the holders of each ordinary share outstanding (net of treasury shares held at the record date of 22 November 2022, the amount for which was taken to "retained earnings") and the final dividend to be proposed to the AGM, as decided by the meeting of Terna S.p.A.'s Board of Directors held on 22 March 2023 (€418.7 million).

⁽⁴⁾ Donations and sponsorships are considered. The figures for 2021 and 2020 have been restated to also include the value of sponsorships in item G - Investment in local communities. Details of "Investment in local communities" are provided on page 249.

⁽⁵⁾ Corresponds with consolidated net profit for the year (including the share attributable to non-controlling interests) after payments to the providers of risk capital.

There was a 14% increase in the economic value created by the Terna Group in 2022 compared with 2021. This was due primarily to the impact on revenue of the greater incentives offered by output-based incentive mechanisms and an increase in the regulated asset base, after the decrease reflecting the reduction in the WACC recognised for 2022.

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Compared with 2021, economic value distributed is up 14%. This mainly reflects increases in payments to credit providers (up 27%), in the amount paid to employees (up 18%) and in operating costs (up 15%), broadly relating to the costs incurred by the Brugg Group, the Tamini Group and the contribution from the LT Group (acquired in October 2021). The increase also reflects the greater volume of activity and new initiatives carried out by the Group.

Economic value retained also includes the net result for the year from discontinued operations and assets held for sale, which is down €7,5 million compared with the previous year. This essentially reflects increased losses and the adjustment to the value of discontinued operations and net assets held for sale, partially offset by the gain resulting from the first two transaction closings for the sale to CDPQ of the Latin American assets, which took place in November and December 2022. Further details are provided in the relevant note to the consolidated financial statements.

Distribution of value created

(%)

	2022
Operating costs relating to suppliers	42.0
Employees	11.5
Capital providers	3.8
Shareholders	20.9
The Government	13.5
Investment in local communities	0.1
Retained by the entity	7.5

It should also be noted that, in 2022, Terna received the sum of €15,574,648 from the Ministry for Economic Development as an advance on government grants for projects to be funded under the National Operational Programme (NOP) and the sum of €4,769,078 from public organisations in the form of grants to fund the re-routing of infrastructure.

Grants

(€)

< 201-4

	2022	2021	2020
Grants related to assets from public organisations (*)	4,769,078	13,261,517	4,386,484
For projects funded by the Ministry for Economic Development (*)	15,574,648	22,902,683	-

(*) These grants are recognised as a direct reduction in the carrying amount of assets.

2-29 > Stakeholder dialogue and communication channels

As a first step towards boosting dialogue with all stakeholders, but also to provide information on the electricity system and to develop an energy culture, Terna has put in place several **dialogue and communication channels**. These are diversified by type of audience, language and purpose (e.g., requests for information, suggestions, observations and complaints).

The easiest way to contact Terna is by using one of the various e-mail addresses provided on the website at www.terna.it.

2-3 > E-mails from employees are sent via the intranet⁸⁷. A list of **Contacts** is provided in the menu on the homepage of the website, which provides guidance to anyone wanting to communicate with the Company. This page also lists the certified e-mail addresses to use for communications that must meet this requirement.

The website homepage also provides access to Terna's **social channels**, which, each in its own characteristic and specific way, increasingly offer an opportunity for integrated interaction with stakeholders, ranging from authorities to local communities, from analysts to investors, from Terna professionals to the world of universities and research, and from start-ups to jobseekers. In 2022, the community that follows Terna on its main profiles (Facebook, Twitter, LinkedIn, Instagram) grew by 20%. Content views (up 82%) and user engagement (up 87%) via published posts also increased compared to 2021. Of note is the 2% growth in engagement on Instagram, together with an increasing openness towards the female audience.

2022 also saw the arrival of Terna's new profile on TikTok, the leading entertainment platform producing content aimed at Generation Z, which was set up at the inauguration of the Tyrrhenian Lab project in November. This is a broad target audience for the Company's strategy that sees TikTok as a key channel for attracting and engaging the younger generation, such as students and graduates passionate about STEM (Science, Technologies, Engineering and Mathematics) subjects, including educational and information content linked to the Tyrrhenian Lab's master's degree programme, which focuses on innovation and energy transition.

In addition to TikTok, Terna has also been present since 2022 on the main audio platforms, such as Spotify and Spreaker, with its podcasts Nora, the future of energy is our job, the nine-part podcast that tells energy enthusiasts about the Tyrrhenian Lab project, and Sala dati, about what goes on behind the scenes of electricity consumption.

For current and potential electricity operators and suppliers, Terna has **seven separate portals** that may be accessed from the homepage of the Company's website, as well as a dedicated call centre, which may be reached via a toll-free number 800-999333).

⁸⁷ For example: azionisti.retail@terna.it; investor.relations@terna.it; sostenibilita@terna.it; ufficio.stampa@terna.it; etc.

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PORTALS FOR ELECTRICITY SERVICE OPERATORS

MyTerna portal

My Terna is the portal for electricity operators, consisting of an advanced platform developed with a view to optimising commercial relations through the introduction of a **Customer Relationship Management (CRM)** system providing a single, integrated platform for interacting with Terna.

Among other things, the CRM system allows users to: manage and update their data; request connections to the NTG; manage contracts; contact Terna and view information.

GAUDI portal

The GAUDI portal, which may be accessed by producers, distributors, dispatching users, ARERA and Italy's Energy Services Company (GSE), was created by Terna⁸⁸ to manage the Consolidated Power Generation Plant Register and the relative production units at national level, and to streamline communications between the various actors in the power generation sector.

Via a unique CENSIMP code⁸⁹, the platform records all the generation plants and the individual units that comprise them, of any size (from the databases of non-significant UPN6 and significant RUP production units) or source (conventional, renewable, cogeneration and storage systems), covering a total of **over 1,238,936 units** at 31 December 2022.

Data recorded on the GAUDI platform at 31 December 2022

SOURCE	NO. OF PLANTS	INSTALLED POWER	POWER INPUT
Solar	1,221,045	25,048 MW	=
Hydroelectric (including pure pumping)	4,791	26,054 MW	=
Wind	5,985	11,848 MW	=
Thermoelectric	7,012	=	57,792 MW
Other	103	971 MW	

Via a dedicated control panel, the portal enables the status of each plant to be monitored - from authorisation to connection, and the market qualification process – as well as all the changes to the plant and to commercial aspects that occur during a plant's operation, with a view to ensuring full interoperability with distributors and the GSE.

NTG owners' portal

This portal contains all documents of interest to owners of portions of the National Transmission Grid with whom Terna, as transmission system operator, has relations.

Settlement portal

This portal has a public area, in which general information used to set fees is shown, and private sections that may be accessed with the credentials used for the MyTerna portal, which contain information on the guarantees for supply-side and demand-side dispatching contracts.

⁸⁸ In compliance with Resolution ARG/elt 124/10.

⁸⁹ Already established in a special database by Resolution ARG/elt 205/08.

Distributors' portal

On this portal, Terna publishes and updates the list of distributors, including their identification codes and records of any changes made to these companies. Since 1 January 2019, Terna has published records relating to internal user networks, and from 1 January 2022, also records relating to other closed distribution systems.

Suppliers' portals

Procurement portal

The initial encounter between Terna and suppliers (potential or otherwise) takes place on the **Procurement** portal, where suppliers may find information about business opportunities and the related calls for tenders and participate in online tenders.

In 2022, approximately **1,014** requests for online assistance with the Procurement portal were received from suppliers, all of which were dealt with within the deadlines set out in the Company's procedures. For more information on the supply chain, reference should be made to the relevant section on page 196.

Moreover, with a view to expanding the supplier portfolio, **procurement marketing** is constantly carried out through market scouting, benchmarking, and monitoring of suppliers' performance, which involves regular meetings with Italian and overseas suppliers.

Supplier qualification portal

This portal is dedicated to all business operators who wish to complete the qualification procedure to be included in the list of approved suppliers.

In 2022, approximately **1,600** requests for assistance were received via the Supplier Qualification mailbox, which were dealt with within the deadlines set out in the Company's procedures. More information on the qualification procedure may be found in the Suppliers section of the website www.terna.it, which is also explained in this report on page 200, in the section on the supply chain.

Other portals

Four other portals may be accessed from the homepage of www.terna.it: *Transparent and open construction sites* (see page 191), *Whistleblowing* (see page 189); *Certification* and *G-STAT*, the latter with access restricted to people working on electricity sector statistics.

DNF

Dialogue with local communities

SR2

In line with the guidelines in the 2021-2025 Industrial Plan, and with the resulting need to invest in the electricity infrastructure included in its Development Plan, the Company makes a major effort to engage with the local communities whose areas are directly impacted.

It is essential to ensure that these stakeholders are correctly informed about the reasons for identifying the work to be carried out and the systemic benefits that local communities will gain as a result. The criterion that guides Terna's consultation decisions is the amount of investment envisaged for the construction of each individual work in the Plan, and the complexity of the project and the local area concerned: more than 90% of investment in electricity infrastructure relates to engagement with local communities. Minor projects, although important in numerical terms, represent less than 10% of the total value of investment. Currently, **96% of investment in electricity infrastructure relates to engagement with local communities.**

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The Tyrrhenian Lab is up and running: excellence training to create jobs in southern Italy

In May 2022, Terna signed a multilateral partnership agreement with the universities of Cagliari, Palermo and Salerno, which established the **Tyrrhenian Lab advanced training centre**.

This project, which combines highly specialised training objectives with employment benefits in the areas where the **Tyrrhenian Link** submarine cable will reach land, envisages a five-year investment of approximately €100 million to provide recent STEM graduates from all over Italy with the opportunity to take a 12-month, second-level master's degree course, featuring a strong mix of classroom learning and field experience with Terna technicians, so that they may acquire the necessary skills to work at the Company and help to bring about Italy's digital transformation and energy transition (see also page 12).

Every year, 15 students will be selected for each university, who, once they have enrolled in the master's course, will receive a **letter of commitment from Terna to hire them on a permanent contract** at the relevant local office, and a **€19,000 grant**, to be fully covered - together with the cost of attending the master's course - by Terna.

The Tyrrhenian Lab further strengthens Terna's commitment to the local communities directly affected by the investments envisaged in the Company's Development Plan. This concrete initiative, aimed at young people, focuses on the skills they have acquired during their university studies and gives them the opportunity to develop them, with a view to a guaranteeing them employment in their hometowns.

In July, a call for applications was launched for the first Tyrrhenian Lab **second-level master's degree course on Digitalisation of the electricity system for the energy transition**. 170 young university graduates in technical and scientific subjects applied, and the course began in November.

Among those who passed the selections, excellent results were achieved by female students. Prior to the selection, women accounted for around one fifth (20.5%) of the applications received, and of the 45 people chosen, as many as one third were female.

The average age of the selected students is 29, and most of them have a master's degree in energy systems engineering (24%), followed by graduates in electronic engineering (13%), electrical engineering (11%) and management engineering (11%). The selected students include some PhDs.

Terna voluntarily consults on the need for grid development with local authorities and listens to public opinion in order to identify the best possible location for new projects, based on the classification of land according to so-called ERPA criteria: (Exclusion, Repulsion, Problems and Attraction), and with the support of GIS (Geographic Information System) technology, which includes all information relating to different types of land use and the related protection constraints (regional, naturalistic, cultural, landscape, etc.).

Consultation activities, namely engagement with and listening to local communities, regard all the local authorities involved in the construction of the new electricity infrastructure, and initiatives aimed directly at citizens (for more details see the section on "Consultation activities" on page 246).

In 2022, Terna held a total of 483 meetings with local authorities, involving around 286 bodies, including authorising bodies, local authorities, civil engineering entities, ministries, regional authorities and other economic operators.

413-1 > Meetings with local authorities – 2022

AREA	MEETINGS	BODIES INVOLVED
North-west	70	92
North-east	166	79
Centre-South Adriatic Link	151	53
Centre-South Tyrrhenian Link	96	62
Total	483	286

Consultation activities

The Grid Development Plan, which is prepared every two years and integrated with the *Strategic Environmental Assessment (SEA)*, provides for an initial public consultation phase via online publication on the websites of the Ministry for the Environment and Energy Security (formerly the Ministry for the Environment, Land and Sea - MATTM) and Terna of documents such as the Preliminary Environmental and Monitoring Report. During this phase, citizens can send in their comments within 60 to 90 days of publication.

In order to promote full awareness of planned investments in new electricity infrastructure, Terna organises institutional meetings at which local authorities can express their opinions. For example, the Development Plan can be shared with the region and the municipalities directly concerned. Since 2018, this listening approach has also included the participatory *Terna incontra* meetings. After approval of the Plan, dialogue activities begin, which last between one and three years.

During this phase, direct dialogue with the local community takes place via meetings - which are more numerous when the project is complex or concerns and involves more than one municipality - aimed at explaining the importance of the works envisaged in the Plan and collaborating with the authorities, citizens and, more generally, all the stakeholders directly concerned, in order to identify shared solutions, broaden consensus and encourage acceptance of the project. If possible, Terna integrates all the recommendations and requests emerging from the meetings into the project solutions to be submitted in the single consent application; Terna provides ample information on any such integration at specific public meetings prior to the start of the consent process.

At the end of the consultation phase, the shared project is developed into the final design that will be submitted to the competent authorities for the start of the consent process. At the same, any citizen who wishes to do may peruse the project filed at the municipality. If the authorities request any changes to the project during the consent phase, Terna plans further meetings with the local community to explain the changes and to assess the best way to implement them with the local authorities.

Since 2018, together with dialogue with local authorities, Terna has organised *Terna incontra* meetings. This additional form of interaction is aimed at achieving participatory planning through disintermediated engagement of citizens directly affected by projects included in the Development Plan in their local areas.

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Terna incontra meetings can be organised at any time, from the design and definition phase of the project through the consent and construction site start-up phases. In the latter case, Terna consults with the committees to agree with the local authorities on the best possible arrangements for any road diversions, dedicated routes for construction site vehicles, construction site working hours, etc. Organisation of the *Terna incontra* meetings depends on the cooperation of the local authorities and their willingness to provide an adequate public space (e.g. council meeting) to set up panels displaying key information on the project under discussion, including a multidisciplinary overview that includes safety and environmental aspects.

Unlike institutional meetings, which are often set up at short notice, *Terna incontra* meetings are planned more thoroughly as an average of around two weeks' organisation is needed, during which materials are prepared and appropriate local communication is carried out to encourage the participation of citizens, who are administered a short questionnaire to gather their opinions on the effectiveness and content of the meeting.

In 2022, Terna maintained the digital format that was created in 2020 in response to the restrictions imposed by the pandemic. This combines traditional paper communication (leaflets and pamphlets) with digital content on the website (web pages providing digital information for online meetings) and social media (the publication of social media kits among local stakeholders and sponsored campaigns). A total of 26 *Terna incontra* meetings were held in 2022, of which 10 were in-person and 16 online.



EU22 > **Landowners affected by NTG development**

The construction of new power lines involves the use of between approximately 30 and 250 square metres of land - usually agricultural - for each pylon.

Although legally authorised to use an expropriation procedure⁹⁰ to obtain the use of land, Terna prefers solutions based on mutual consent, involving payment of one-off compensation for easement on private property. Attempts to reach a consensual solution do not always succeed, making enforcement measures necessary. In the case of construction of an electricity substation, which occupies a much larger area, Terna usually buys the necessary land.

2-25 > **Power line easements**

LANDOWNERS AFFECTED BY THE CONSTRUCTION OF NEW POWER LINES (NO.)	2022	2021 (*)	2020
Total easements ⁽¹⁾	1,541	1,579	1,131
- of which consensual	1,153	1,011	648
- of which enforced ⁽²⁾	388	568	483

(*) The number of easements rose in 2021, primarily due to the renovation of lines: 120 kV Cappuccini – Pietrafitta, 120 kV Preci - Cappuccini, 132 kV Candia - Camerata Picena, 132 kV Camerata Picena - San Lazzaro. The rise in the number of enforced easement orders in 2021 is primarily due to re-routing of the "SE Villavalle - SE Pietrafitta" power line, authorised by Interministerial Decree no. 239/EL-314/293/2019 of 12 September 2019.

⁽¹⁾ This figure shows the number of landowners affected by the construction of new power lines, and therefore involved in the application of easements during the year. **Landowner means the registered owner or group of owners of a parcel of land in each municipality; the number of landowners thus coincides with the number of easements.**

⁽²⁾ This figure shows the number of cases in which it was impossible to find a consensual solution with the landowners affected by the construction of a new power line, and therefore enforcement proceedings were applied during the year.

The performance of easements is influenced by the type of work that Terna is required to carry out. Easements due to maintenance activity tend to be more equally distributed over the years, whilst major works require a far higher number of easements in the initial stages of the project, before a gradual reduction as the infrastructure is built.



⁹⁰ Law 1775 of 1933; Presidential Decree 327/2001 "Consolidated Law on Expropriations".

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FOCUS

Terna adopts the Envision Protocol on the sustainability of electricity infrastructure



Terna is the first company at international level to have drawn up guidelines in accordance with the application of the assessment criteria of the **international Envision Protocol** which measures and certifies the sustainability of its new infrastructure.

Envision is the first rating system used to design and implement sustainable infrastructure.

Conceived in 2012 by the Institute for Sustainable Infrastructure, in collaboration with Harvard University, the protocol is based on a framework of **64 sustainability and resilience** indicators **divided into five categories: quality of life, leadership, resource allocation, the natural world, climate and resilience**. The Envision guidelines developed and adopted by Terna were approved by the certification body ICMQ, which has an exclusive mandate to disseminate the protocol in Italy.

With the adoption of this protocol in line with its strategic objective of achieving a **just transition**, Terna will be able to verify the sustainability of its projects from an environmental, social and economic standpoint, and enhance the underlying processes of consultation, planning, implementation and maintenance through participatory dialogue with local communities.

The Envision Protocol will also enable improvement of the assessment and verification of the average lifespan and resilience of individual works, which will benefit the environment and the protection of local communities, and help to achieve an ever more efficient, safe and sustainable electricity grid.

Community initiatives

FN2

Terna's contribution to Italy's civic growth goes beyond its role as a provider of strategic infrastructure for the country, as expressed through the Company's support for social, cultural and environmental initiatives.

Terna's corporate giving activities primarily consist of financial support for projects with social goals and - preferably - the Company's own organisation of initiatives to benefit the community. In addition, assets no longer of use in operations are donated free of charge, and Terna's employees provide support by spending their working hours on various initiatives, especially paid hours for voluntary work or hours spent on social projects organised directly by Terna, as was the case in 2022 with the fifth edition of the Next Energy programme.

All external requests are managed in line with the **Group's corporate giving policy** and assessed by a special committee comprising the heads of Corporate Affairs, External Relations, Corporate Affairs and Sustainability, People Organisation and Change and the head of the department responsible for "Relations with stakeholders and the academic world, events and sponsorship".

In any event, in line with Terna's Code of Ethics, donations are never made to political parties or their representatives.

< 415-1

203-1 > Terna has adopted the **B4SI (Business for Societal Impact)**⁹¹ model - developing its own customised version - for defining, classifying and accounting for companies' charitable initiatives. The model is geared towards accounting for what companies do via community initiatives that generate actual external benefits. Such initiatives may include cash contributions (donations, portions of sponsorships that generate an actual benefit and membership of associations that promote sustainability), in-kind contributions (the donation of assets at the end of their useful lives) or be in the form of working hours and operating expenses. In some cases, the valuation of contributions thus requires the use of non-accounting criteria and is therefore influenced by interpretative factors. However, it has the advantage of consistently linking the costs and benefits of social initiatives, thus enabling strategic planning and effective management of the related activities. Indeed, an important part of the model regards the measurement of benefits, with the aim of assessing the effective impact on end beneficiaries. In the most important projects, Terna appoints specialist external providers to assess the impact. The community initiatives implemented by Terna in 2022, classified in accordance with the B4SI model, are broken down in the following table.

Community initiatives

€

	2022	2021	2020
Total value of contributions (excluding internal operating costs)	2,410,992	1,818,375	1,929,368
By type of contribution			
In cash	1,940,560	1,587,732	1,789,419
In kind (the donation of assets)	148,660	34,277	25,100
Working hours	321,772	196,367	114,849
Management costs	14,815	13,580	12,495
By type of initiative (*)			
Donations	421,035	274,200	525,780
Investment in the community	1,542,699	883,296	956,140
Commercial initiatives	440,259	660,879	447,448
By purpose			
Education and youth	786,100	606,758	914,013
Healthcare	108,000	56,000	398,880
Economic development	102,300	97,900	132,240
Environment	145,046	67,367	95,846
Art and culture	220,000	251,300	201,300
Social wellbeing	57,000	45,000	21,500
Emergency aid	725,573	312,461	25,000
Other	266,972	381,589	140,589

(*) **Donations:** sporadic contributions, typically in response to requests for funds from charitable organisations deemed to be of merit.

Investment in the community: expenditure on initiatives coordinated/organised by the Company in accordance with a medium- to long-term programme, often in partnership with non-profit organisations.

Commercial initiatives: marketing initiatives with beneficial effects (only the portion of expenditure that constitutes a charitable contribution is accounted for).

Terna's corporate giving policy gives preference to initiatives projects relating to **SDGs 4 (Quality education), 7 (Affordable and clean energy), 9 (Industry, innovation and infrastructure) and 11 (Sustainable cities and communities)**.

In 2022, spending on initiatives aligned with priority SDGs 3, 4, 7, 9 and 11 accounted for 73.7% of Terna's expenditure on community initiatives.

For the purposes of full disclosure, it should also be noted that, in 2022, expenditure accounted for as donations and sponsorships amounted to €631,740 and €1,546,800.

Finally, support for environmental causes has not been included in the above table, as it is usually linked to the construction of new lines and has therefore been classified under environmental expenditure (see "Environmental costs" on page 286).

⁹¹ Rebranding del *London Benchmarking Group* (LBG).

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The circular economy and solidarity: from old Company devices to supporting non-profit organisations and schools



Reusing goods is vital as it tallies with the fundamentally simple yet significant concept of the circular economy, in which the best kind of waste is the waste not produced.

All durable goods can potentially be reused, if the amount of wear and tear they have undergone has not impaired their functionality. Technically speaking, reuse is achieved via an intervention that restores full functionality. There is a substantial difference between reuse and recycling: a reused good has not yet become waste, whereas a recycled one already has. Therefore, reuse has upstream and downstream effects in a product's life cycle, by reducing the use of raw materials, energy consumption and emissions related to its production, and the amount of waste.

In line with this approach, Terna decided to extract value from 3,554 Company smartphones and 860 tablet computers, which were obsolete or malfunctioning and no longer had any economic value and were therefore about to be sent to landfill. The regeneration process was entrusted to RICompro - a startup specialised in restoring the functionality of mobile devices and subsequently selling them - which enabled Terna to make donations to two non-profit organisations, WeWorld and Lega del Filo d'Oro.

At the end of 2021, with a similar circularity initiative, Terna gave 630 PCs and more than 60 monitors to Reware, a cooperative and social enterprise specialised in services aimed at extending the life cycle of electronic and IT equipment. This led to the launch of the three-year "Terna Reuse: Community circular computers" project, regarding subsequent donations of at least 20% of renovated devices to schools and institutions.

These two concrete examples show how circular economy projects are can generate not just environmental but also economic and social benefits.

New digital communication tools

Terna seeks to progressively consolidate relations with its internal and external stakeholders including via a **revised communication strategy**, aimed at improving the Group's corporate identity and strengthening its corporate reputation. < 2-29

In particular, the "new normal", arising from management responses to the Covid-19 pandemic, has helped to raise the profile of digital communication as a tool for accessing and sharing the Company's purpose.

A prime example is the consolidation of the **Terna4Green** digital platform, which was launched in 2021. This enables monitoring of Italy's progress towards decarbonisation, as it shows the ratio between tonnes of CO₂ not emitted into the atmosphere and the production of electricity from renewable sources.

At the General Meeting of Shareholders in April 2022, the new immersive digital portal **Cielo Terra Mare** was also presented, where Terna sets out its projects for a sustainable and decarbonised future, based on renewable sources and respect for the environment. The platform offers an authentic virtual journey, featuring an innovative user experience, in which stories and projects are told through the movement of orbits and planets, enriched by 3D graphics and sound effects that enhance the immersive experience.

In 2022, with a view to encouraging the emergence of an energy-conscious culture and raising widespread awareness of electricity issues, Terna finally presented **Nora, the future of energy is our job**, a nine-episode podcast about the Tyrrhenian Lab project and energy transition issues aimed at Generation Z (for more information see the box on page 245). Available on the main audio platforms, the podcast is aimed at all fans of energy and innovation issues via the professional - and also sentimental - journey of a young consultant and profiler.

FOCUS

For the third consecutive year, Terna leads the way in Italy and Europe in terms of the quality of our digital communication

The Webranking by Comprend 2022-2023 study on the quality and transparency of the digital communication of listed companies, carried out in collaboration with Lundquist, ranked Terna number one among the 500 largest companies by capitalisation in Europe for the third consecutive year.

Confirming its record score of 95.9 out of 100, Terna was recognised as a top performer among European companies in the *About Us*, *Governance and Sustainability* categories, and in terms of best practices, also in the presentation of information to investors and jobseekers. Also outstanding was the Company's ability to present key role it plays in the energy transition. According to the study, Terna effectively illustrated the distinctive features of its business, providing a comprehensive overview of the strategic approach it has developed to support the energy transition. The Company has also distinguished itself on the sustainability front, pledging to accurately report the actions and initiatives it has introduced to achieve its goals. This clear and accurate communication - in terms of accessibility and the quality of the corporate information presented on the Company's website and on the main internet and social media platforms, enhanced by a rich mix of videos and infographics - is fully expressed in the digital magazine Lightbox, which in 2022 was revamped with a new and even more user-friendly layout.

Communication activities

In 2022, the Group's communication generated coverage via the release of a total of 29,894 items (up 9% on 2021), in detail, traditional (newspapers, periodicals, radio and TV) and online media. In detail, 5,310 press articles appeared (up 16% on 2021), including 3,041 in the local press (up 37% on 2021). The Company featured 621 times in broadcasts by leading TV and radio channels (up 19% on 2021), whilst 23,963 articles were posted on leading websites (up 8% on 2021).

In December 2022, with a view to promoting efficient consumption behaviour and in agreement with the Ministry for the Environment and Energy Security, Terna launched **Noi siamo Energia** (We are energy), an awareness-raising campaign to promote aware and virtuous use of electricity in Italy. The corporate communication campaign identified a series of behaviours through which consumption, and therefore costs, can be reduced, with a view to achieving sustainability, cost savings and greater energy efficiency, for the benefit of all. To complement the campaign, the Terna app regarding the electricity system, which is available in all online stores, has been updated with a new feature (also available at www.terna.it). The app, called **Ecologia**, enables all citizens to easily identify the daily peak period when it is preferable to consume less energy and, therefore, make an aware choice to decrease their requirements while cutting costs for the entire Italian electricity system.

In the first quarter of 2022, Terna presented an **update of the 2021-2025 Driving Energy Industrial Plan** (see the special paragraph on page 42). A key feature of the communication initiative for the presentation of the Plan was the video starring Terna's CEO, Stefano Donnarumma. In this short film, lasting around 30 minutes, the CEO set out and explained in depth the Company's industrial strategy, with images taken from meetings with colleagues at Terna's various local offices, and through the use of animations and infographics.

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Via an event organised simultaneously at the universities of Cagliari, Palermo and Salerno, Terna officially inaugurated the **Tyrrhenian Lab** on 14 November 2022 (see the box on page 245). With the aim of attracting talent and bringing expertise to these courses, Terna first appeared on TikTok in August 2022, with a campaign focused on geek pride and the brain drain that reached over 2 million people.

In 2022, Terna obtained **BIC - Best in Media Communication certification** from Fortune Italia and Eikon Strategic Consulting. The experts praised Terna's "*excellent reputational positioning, journalists' appreciation of the clarity of information provided, and highly effective communication of the image of a sound and growing company, which is a leading player in the energy transition and an innovation partner capable of generating value for local communities*". BIC-certified companies are assessed for clarity and quality of content, accessibility and comprehensiveness of information - three areas of communication that are certified by a scientific, transparent and objective method.

With its project **EcoTips: good sustainability practices**, implemented to support virtuous behaviour and good practices for the environment and aimed at all Company personnel, **Terna was awarded the Areté Prize for Internal Communication**. In particular, Areté awarded the prize to Terna "*for its intense and constant engagement of employees regarding social and environmental issues*". The editorial plan of *EcoTips: good sustainability practices* prepared by the national electricity grid operator's internal communication department, features empathetic storytelling and a clear and authentic style, including in the graphic layout, which enables measurement of the results achieved and identification of improvement actions. The format emerged from ongoing dialogue between the various corporate functions, including the People Organisation and Change and Sustainability departments, and is divided into six macro-areas: *Food and Nutrition, Energy Saving, Connecting Man and Nature, Responsible Procurement and Consumption, Social Relations and Sustainable Mobility*.

In 2022, Terna also launched the **Driving Energy 2022 Contemporary Photography Prize**, a free competition open to all photographers in Italy, aimed at promoting Italy's cultural development and new photographic talents. The theme of the first edition of the prize, which was awarded the Medal of the President of the Italian Republic, was "Cameras on Driving Energy". The initiative was very successful: the work of the photographers selected from more than 1,300 candidates of all ages, ranging from 18 to 85, and from all over Italy, generated a great deal of interest, not just in the world of photography but also within Italy's wider cultural scene. In November 2022, the five-winning works, and those of the other 35 finalists, were exhibited at the Palazzo delle Esposizioni in Rome, with entrance free of charge. This exhibition is also the first project by Terna and Palazzo delle Esposizioni to feature in the metaverse, the virtual 3D space in which users can move around, share content and interact via their own personalised avatars. An ad hoc version of the 3D exhibition has also been posted on the Prize's official website, premiodrivingenergy.terna.it, which may be visited at any time and from anywhere in the world. Finally, the selected works were also published in the third edition of the Driving Energy book of photographs, which served as the Prize's official catalogue.



AT 31 DECEMBER 2021

INPUTS

709,851.6 GJ consumed by Terna
(to power substations and offices)

0.40% SF₆ leakage rate

86% of waste recycled

30 km of lines demolished

AT 31 DECEMBER 2022

OUTCOMES

703,080.0 GJ consumed by Terna
(6,771.6 GJ less than in 2021)

0.41% SF₆ leakage rate

91% of waste recycled (+5.8%)


245 hectares of land freed up
(158 more than in 2021)

Energy efficiency programmes

Circular economy roadmap

Impact of transmission

OUTPUTS



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Atmospheric emissions	259
Circularity in operational processes	271
Landscape and biodiversity	279
Environmental costs	286

5

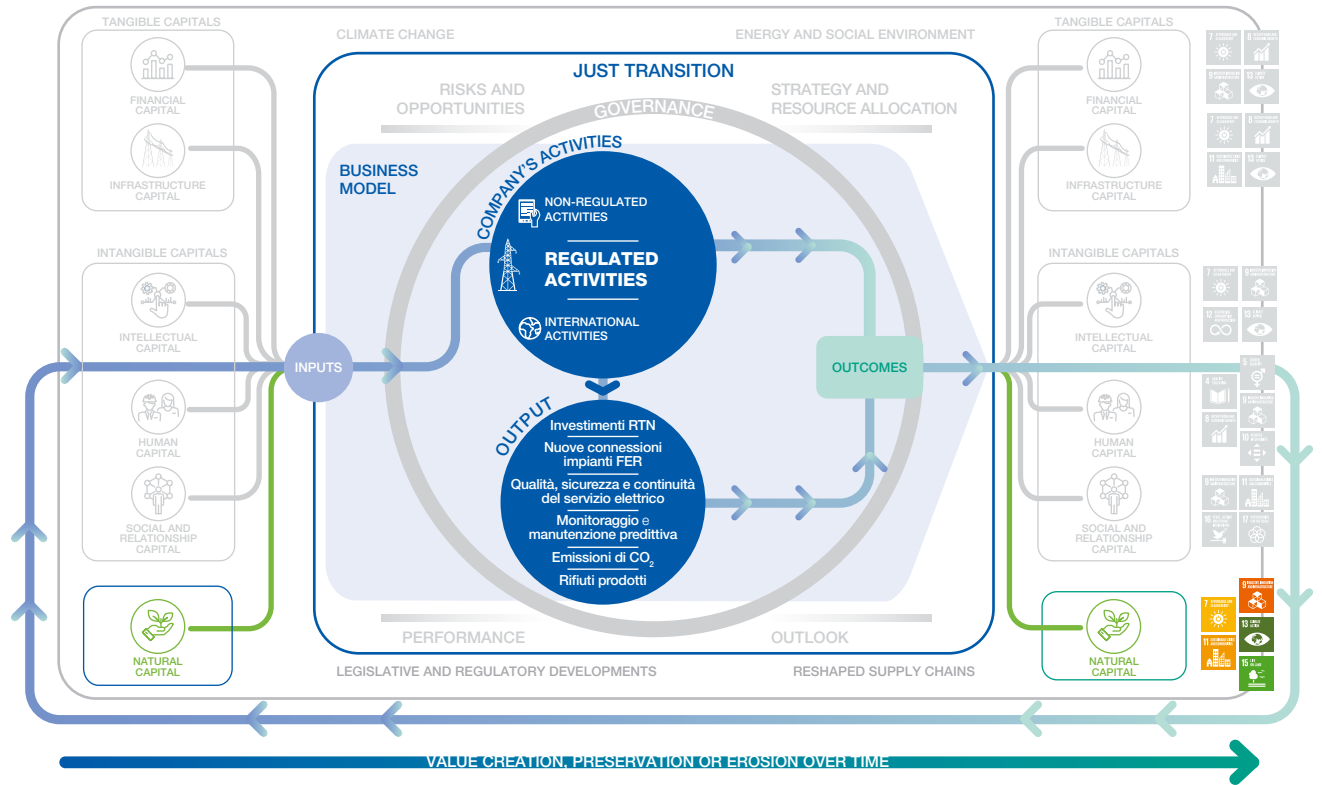
Natural capital

In this section

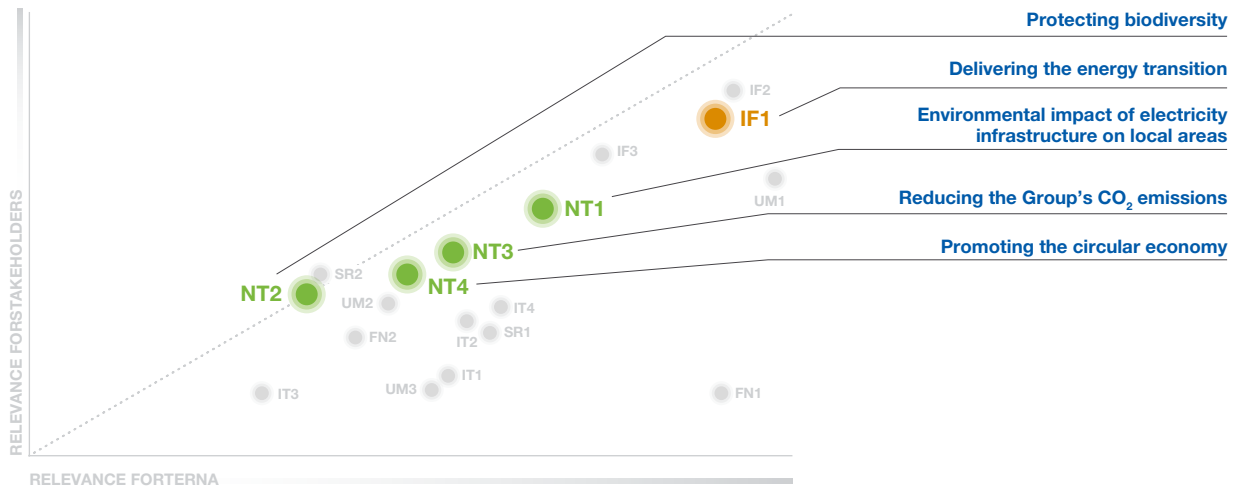
Natural capital is the only capital that Terna, in common with every other business or person, does not have at its disposal but has an obligation to preserve, and potentially enhance, for the benefit of future generations. In keeping with the outcome of the materiality analysis, implementation of the Group's business model focuses on cutting atmospheric emissions and energy efficiency, the recycling and reuse of materials in accordance with circular economy principles, protecting landscapes and biodiversity and, where possible, a circular approach to operations.



VALUE CREATION



MATERIALITY



These infographics highlight the topics dealt with in this section with the aim of **facilitating information connectivity**: in this way, the section offers an overall view showing the links between all the factors that influence Terna's ability to create value over time and how they are dependent on each other. Material topics are indicated with a cross-reference in blue, showing the relevant code.

Managing the impact on natural capital

Terna's main reference in managing natural capital⁹² is the Environmental Policy, which is part of the Group's Integrated Policy.

The Company's **Environmental Policy** sets out its commitment to containing and reducing its environmental impact, in some cases going beyond legal requirements when this does not compromise the protection of other general interests provided for under the concession.

This Policy is fully implemented through the **Integrated Management System**, which plays a key role in its implementation and control. In addition, in view of its sustainable business approach, Terna extends the issue of Natural Capital protection to both its supply chain and local stakeholders directly affected by NTG development projects.

Terna's main contribution to achievement of the most urgent environmental target – being an efficient and concrete fight against climate change – is its commitment to carrying out the investment provided for in the Development Plan, which enables the energy transition toward a carbon free system. The Company is also aware that the current international situation has made the energy transition a strategic imperative for the country, in terms of both the economic and social aspects. To achieve the energy transition objective, Terna constantly refers to the **Just Transition**, taking into account the impact of the energy transition on employees, suppliers and local communities (see page 12).

In terms of greenhouse gas emissions, Terna has for years focused on several voluntary programs, primarily regarding the achievement of reductions in SF₆ gas leakage, (scope 1), making buildings energy efficient and saving energy at substations (scope 2). In 2021, Terna's commitment to tackling climate change was furthered bolstered with the formal definition and adoption of its **Science Based Target (SBT)** initiative for 2030, updated in 2022 on more challenging terms. (see page 260).

The construction of electricity infrastructure, provided for in the Development Plan, together with the maintenance of existing infrastructure and the removal of obsolete items, is linked to the production of waste, a high proportion of which is recovered. In 2022, the Company completed preparations for the definition of a Circular Economy Strategy, setting out a roadmap for actions through to 2023, designed to implement a **Circular Economy** model (see page 271). The content relating to this topic are identified by an icon placed at the side of the text.

Terna's activities also have an environmental impact on the landscape, resulting from the physical presence of power lines and electricity substations and their interaction with the surrounding natural and manmade environment. To minimise this, we adopt solutions such as the use of pylons with a reduced visual impact and, when possible, the use of underground sections of line or the use of green engineering, which also consider the **protection of the surrounding biodiversity**. In this context, the most important contribution is the physical removal of obsolete power lines following rationalisation initiatives. In this regard, it should be noted that Terna is the first company at international level to have developed guidelines enabling application of the assessment criteria in the international **Envision** protocol to new electricity transmission infrastructure. The protocol measures, confirms and certifies how green and resilient its infrastructure is (see box on page 249).

⁹² When the data presented in this chapter refers to the Group, it refers to 98% of employees (all employees except those who work for Terna Crna Gora, the South American companies, Avvenia and the LT Group), unless otherwise stated. When instead the data refers to Terna, it refers to 83% of employees. In terms of revenue, on the other hand, these percentages are 99% when referring to the Group and 89% when the data refers to Terna.

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Atmospheric emissions

NT3

IF1

SASB

The guidelines in Terna's Industrial Plan are consistent with the targets set internationally to combat climate change, starting with the agreement signed at the United Nations Climate Conference (COP21) in Paris in December 2015, which identifies the containment of CO₂ emissions into the atmosphere as the most urgent and efficient action to keep global warming within acceptable limits.

In line with these guidelines, Terna has established further objectives for the three emission scopes (scopes 1, 2 and 3), setting out the actions necessary to achieve them and the indicators to monitor their state of progress.

Action to combat climate change

SCOPE	ACTION	MONITORING KPIS	OBJECTIVE
TERNA's ACTIVITY			
scope 1 emissions	Reduction of SF ₆ gas emissions by cutting losses	SF ₆ losses as a percentage of total installed SF ₆ amount SF ₆ emissions	- 46% (2030 vs 2019 - SBT di Terna)
	Greater energy efficiency and reduction of consumption related to offices and substations	Building and substation consumption Number of buildings and substations monitored through sensors	
	Reduction of vehicle fleet consumption thanks to green vehicles	% Hybrid vehicles Fleet consumption	
scope 2 emissions	Reduction of emissions associated with grid losses thanks to Development Plan projects	Grid losses in GWh losses as a percentage of energy transported Emissions associated with grid losses	
scope 3 emissions	Reduction of scope 3 emissions thanks to circular economy projects and green transformers	% recycled waste Number of green transformers sold	- 11% (2030 vs 2021 - SBT di Terna)
DECARBONISATION OF THE COUNTRY			
Italian emissions	Development Plan projects for the country's decarbonisation	New RES connections Energy mix	- 55% (2030 vs 1990 - Green Deal UE)

FOCUS

Terna updates its Science Based Target (SBT) to accelerate the reduction of greenhouse gas emissions

The *Science-Based Target (SBT)* is the most advanced international initiative in terms of promoting a low-carbon economic model. It takes the form of a GHG emission reduction target in line with the Paris Agreement of 2015, which, if adopted across the board, would ensure that temperature increases are kept below specific limits.

In 2021, Terna adopted its first *SBT* objective, in line with the scenario defined as *well below 2°C* in the Paris Agreement and, in 2022, revised the emission inventory of the whole Group, including those of the emissions of the subsidiary, Brugg, acquired in 2020.

Revision of the inventory resulted in an opportunity to realign the Group's *SBT* with the scenario of 1.5°C, namely the most ambitious objective set by the Paris Agreement.

This additional contribution from Terna to combating climate change, took full shape in February 2023 with the approval by the SBT Initiative of Terna's new SBT, with which Terna has committed to **cutting its carbon dioxide equivalent emissions by 46.2% compared with 2019 levels (scope 1 and 2) by 2030**.

The new *SBT* also involves intervention on scope 3 emissions, which by 2030 will be cut by 11.1% compared with 2021, also thanks to actions set out in the Group's Circular Economy Roadmap (see page 271).

Both targets adopted by Terna will be monitored and reported on annually in the Group's Integrated Report.



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Direct CO₂ emissions (scope 1)

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Direct greenhouse gas emissions connected with Terna's activities **derive mainly from SF₆ gas leaks (89% of total direct emissions in 2022)**, which are up on the previous year due to losses from some equipment.

SF₆ (sulphur hexafluoride) gas is used as insulation in certain electrical equipment (circuit breakers, current transformers and armoured equipment). Part of the gas in the equipment can leak into the atmosphere due to defective seals, when faults occur, and sometimes during the re-pressuring process. SF₆ gas has a very powerful greenhouse effect, which is 23,500 times greater than CO₂: leakage into the atmosphere of 1 kg of SF₆ is equivalent to 23.5 tonnes of CO₂.

Total direct greenhouse gas emissions – tonnes of CO₂ equivalent

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Direct emissions	76,505.6	73,203.7	63,544.1	72,477.1	68,942.0	56,202.6

(*) The figures shown in the column Group in this table regard Terna, the Tamini Group and Brugg

The table below shows details of Terna's emissions, without considering Tamini and Brugg, as their environmental impacts in terms of CO₂ are not fully comparable due to the specific nature of their businesses.

Total direct greenhouse gas emissions – tonnes of CO₂ equivalent (*)

	TERNA		
	2022	2021	2020
Direct emissions			
Leakages of SF ₆	64,732.5	61,204.6	49,013.7
Diesel for motor vehicles	6,198.7	6,453.4	5,418.9
Jet fuel for helicopters	595.9	452.0	488.0
Fuel oil for heating and generators	336.5	279.5	403.3
Leakages of refrigerant gases (R407C, R410A) ⁽¹⁾	219.2	260.3	501.4
Natural gas for heating	291.1	196.5	323.1
Petrol for motor vehicles	103.2	95.7	54.2
Total direct emissions	72,477.1	68,942.0	56,202.6

(*) The conversion of direct energy consumption and leakages of SF₆ (sulphur hexafluoride) and refrigerant gases into equivalent CO₂ emissions has been carried out using the parameters indicated in the IPCC Fifth Assessment Report (AR5) and the Greenhouse Gas Protocol (GHG) Initiative.

⁽¹⁾ It should be noted that, in addition to what is reported, losses of R32 and R134 gas in 2022 amounted to 117 tonnes of equivalent CO₂ emissions.

305-5 > The management of SF₆ gas

The amount of SF₆ present in the Group's infrastructure has consistently grown. This is a trend – common to many transmission grid operators – linked to the better insulating performance of this gas and the smaller footprint of substations built (armoured) with equipment containing SF₆ in comparison with more traditional solutions.

This is a significant aspect for Italy, which has landscapes of major value and is densely populated. The search for solutions able to contain climate-changing emissions produced by SF₆ leakages took full shape at the end of 2020, with the adoption of a closed cycle regenerated SF₆ gas management system (see the dedicated box on page 273).

SF₆ amounts and emissions

	UNIT	TERNA		
		2022	2021	2020
SF ₆ amount	kg	664,192.2	650,239.8	649,781.7
- in equipment installed	kg	616,579.6	608,766.5	600,870.5
- in cylinders	kg	47,612.6	41,473.2	48,911.2
SF ₆ leakage as % of total	%	0.41	0.40	0.32
SF ₆ greenhouse gas emissions	kg	2,754.6	2,604.5	2,085.7

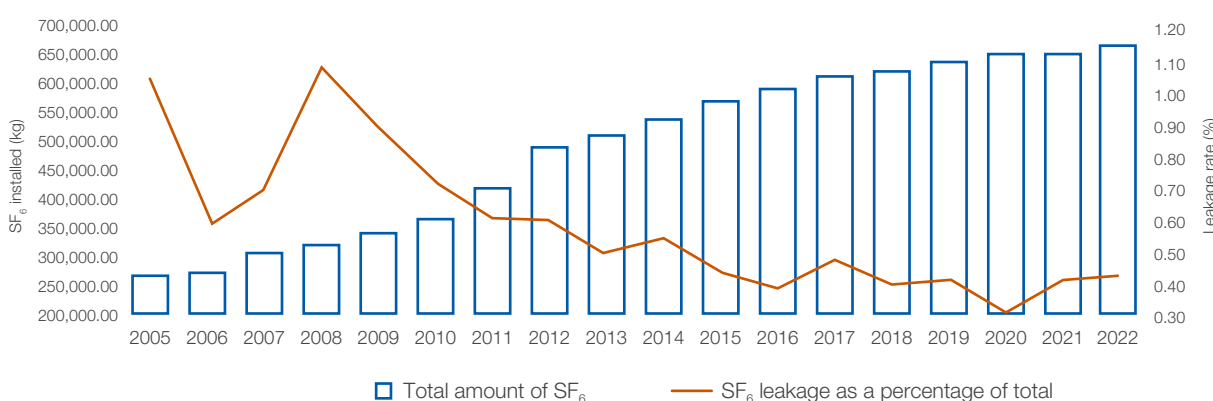
During the period from 2012 to 2017, the related target for the leakage rate was 0.60%, down 0.10% with respect to the average for previous years. In the light of the actual performance recorded until 2017, in the early months of 2018, the target was reformulated. For the period 2021-2025 the target has been lowered to 0.45%. The target amounts should be qualified, bearing in mind the already substantial decrease recorded in the previous period.

“Transmission impacts” target – KPIs and targets in the ESG plan 2022



	2022		2023	2024	2025
	TARGET	RESULT			
SF ₆ leakage rate on total installed	0.45%	0.41%	0.45%	0.45%	0.45%

SF₆ leakage rates



In 2022, the leakage rate regarding total equipment installed and cylinders was **0.41%**. Though up slightly from 2020, this figure is in line with the company target.

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Indirect CO₂ emissions (scope 2)

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In line with the GHG Protocol standard⁹³ and the main international benchmarks, starting with the Integrated Report - Consolidated Non-financial Statement (DNF) for 2021, Terna includes in the figure for its total indirect emissions (scope 2), in addition to those resulting from electricity consumption, the CO₂ emissions associated with grid losses, despite these not being completely under its control.

In terms of indirect emissions related to the consumption of electricity, it should be borne in mind that, for technical reasons, Terna's energy consumption is not attributable to a supply contract. This makes it impossible to reduce indirect emissions by selecting supplies from renewable sources and accounts for the need to use an average conversion factor for Italian electricity consumption. For this reason, in line with GHG Protocol methodology, emissions linked to electricity consumption are classified only as location-based and not as market-based.

Total indirect greenhouse gas emissions – tonnes of CO₂ equivalent

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Indirect emissions	1,739,906.5	1,662,890.5	1,450,131.4	1,735,046.6	1,658,342.6	1,445,832.7

(*) The figures shown in the column Group in this table regard Terna, the Tamini Group and Brugg.

The table below shows details of Terna's emissions, without considering Tamini and Brugg, as their environmental impacts in terms of CO₂ are not fully comparable due to the specific nature of their businesses.

Total indirect greenhouse gas emissions – tonnes of CO₂ equivalent

	TERNA		
	2022	2021	2020
Electricity ⁽¹⁾	64,380.6	61,232.6	59,490.7
Grid losses	1,670,666	1,597,110	1,386,342

(1) The conversion of indirect electricity consumption is carried out considering the share of total Italian electricity production represented by thermoelectric production in 2022. Allocation for the purposes of the production mix was based on the December 2022 issue of the "Monthly Report on the Electricity System" available on the website at www.terna.it. It should also be noted that approximately 6% of Terna's electricity consumption is based on an estimate.

⁹³ The GHG Protocol has established an internationally recognised framework for measuring and managing greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions.

EU12 > **Grid losses**

Grid losses are defined as the difference between energy injected by producers (including imported energy) and final consumption; the losses for Terna are those associated with the transmission grid. The figures shown in the following table are based on direct measurement of the energy injected and withdrawn from the transmission system.

Terna became responsible for the direct measurements in 2017, whereas in previous years the Company had been responsible only for the measurement of energy injected into the NTG and not for the energy withdrawn, for which the distribution companies were responsible. Considering the margin of uncertainty regarding the accuracy of the readings made and in order to reduce the risk of interpreting the effect of the measurement errors and the related corrections as actual trends, in previous publications it was decided to use the arithmetic moving average of losses with a three-year window as annual data.

Terna has been responsible for direct measurements for five years now. This undertaking of responsibility has significantly reduced the margin of uncertainty and, consequently, starting from the 2021 Integrated Report, it was decided to scrap the use of the moving average with a three-year window and to report the values of the GWh as of 31 December of each year.

Grid losses

	2022		2021		2020 (*)	
	% COMPARED WITH ENERGY DEMAND	GWH	% COMPARED WITH ENERGY DEMAND	GWH	% COMPARED WITH ENERGY DEMAND	GWH
VHV and HV grid	1.60	5,068	1.62	5,143	1.46	4,435

(*) The average annual loss in 2020 is lower compared with the averages in 2021 as a result of the reduction in the volumes of energy transported due to the COVID-19 emergency, in turn bringing about a reduction in electricity consumption at national level following implementation of the restrictive measures adopted by the government.

Grid losses are a physical effect of the electricity lost as it passes through conductors and during transformation. Losses are influenced by the level of voltage, the volume of electricity transported, the materials used and the distance between the points at which energy is produced and consumed. Terna can only determine the extent of the losses, which are not completely under its control. Grid development activities, given the same structure of production, would lead to greater efficiency and thus a reduction in losses. However, the actual impact of development initiatives on losses is unpredictable and not under the control of the transmission operator, as it depends on concomitant changes in production capacity and electricity supply and demand at local level.

Dispatching operations, needed to guarantee a constant balance between injections and withdrawals and to prevent the occurrence of grid security problems and disruptions, are carried out in accordance with regulatory criteria within the production set-up created by the energy market. They cannot be influenced by Terna with the aim of minimising losses.

CO₂ emissions associated with grid losses amounted to 1,670,666 tonnes in 2022, 1,597,110 tonnes in 2021 and 1,386,342 in 2020⁹⁴. The trend differs from the one regarding losses measured in GWh due to changes in the conversion factor used to convert energy into CO₂ equivalent emissions, which in turn is affected by changes in the production mix among Italian power generators.

As previously noted, Terna does not have complete control over grid losses and, for this reason, up to 2020 the related CO₂ emissions were not reported in the scope 2 indirect emissions. However, starting from the report for 2021, it was deemed opportune to align the reporting methodology with that set by the GHG Protocol, the leading international standard for reporting CO₂ emissions⁹⁵.

⁹⁴ The 2020 value was affected by the drop in volumes related to the Covid-19 health emergency.

⁹⁵ The GHG Protocol has established an internationally recognised framework for measuring and managing greenhouse gas ("GHG") emissions from private and public sector operations, value chains and mitigation actions.

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Summary of direct and indirect emissions: carbon intensity

The overview of Terna's direct and indirect CO₂ emissions shows how the first (scope 1) primarily relate to SF₆ gas leakages whilst the second (scope 2) to grid losses and electricity consumption at substations and offices (scope 2).

Total direct and indirect greenhouse gas emissions - tonnes of CO₂ equivalent

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Direct emissions	76,505.6	73,203.7	63,544.1	72,477.1	68,942.0	56,202.6
Indirect emissions	1,739,906.5	1,662,890.5	1,450,131.4	1,735,046.6	1,658,342.6	1,445,832.7
Total emissions	1,816,412.1	1,736,094.2	1,513,675.5	1,807,523.7	1,727,284.6	1,502,035.3

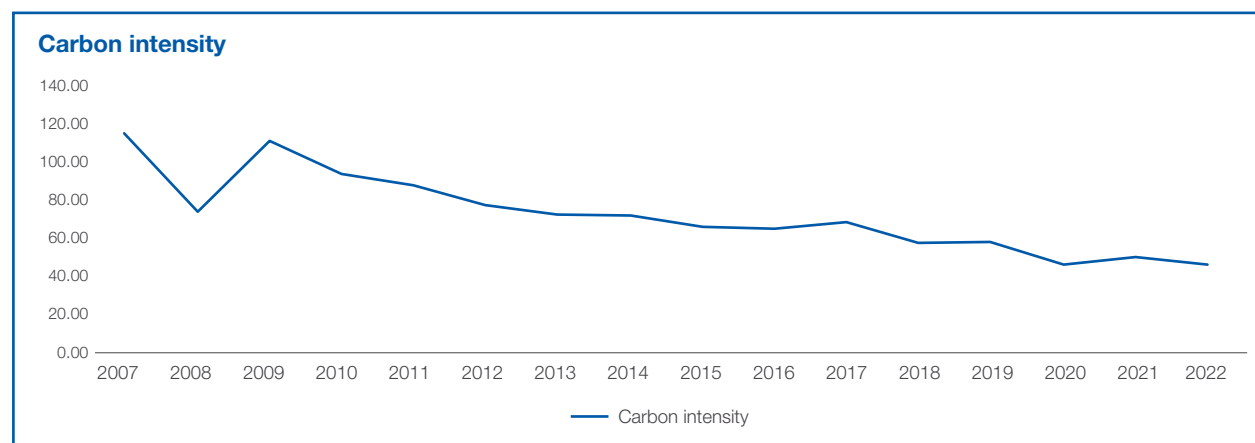
(*) The figures shown in the column Group in this table regard Terna, the Tamini Group and Brugg.

Carbon intensity, based on the ratio between Terna's direct and indirect emissions and revenue, has improved thanks to the performance of revenue, despite a slight increase in emissions (up 5%).

Carbon intensity – tonnes of CO₂ equivalent/revenue (€m)

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	TERNA		
	2022	2021	2020
Emissions (scope 1 and electricity)	136,857.7	130,174.6	115,693.3
Emissions (scope 1 and electricity) in relation to revenues	46.2	50.0	46.5



In order to factor in network losses, over which Terna does not have complete control, into an emissions comparison (see page 264) with a comparable economic scale, it was decided to compare total emissions with the inclusion of pass-through items⁹⁶ in Terna's revenue. Taking these factors into account, the resulting ratio is a 128.2 tonnes of CO₂ equivalent/revenue in 2022, 158.9 in 2021 and 187.9 in 2020.

For more information on carbon intensity ("Comparative data") scan this QR code.



⁹⁶ The definition of pass-through items is provided in the note on revenue in the notes to the consolidated financial statements.

305-3 > Other indirect CO₂ emissions (scope 3)

In addition to emissions deriving from electricity consumption and losses from Terna's grid, in line with the GHG Protocol and the classification used for the CDP questionnaire (formerly the Carbon Disclosure Project), Terna also reports the following indirect (scope 3) emissions.

Other indirect emissions (scope 3) – tonnes of CO₂ equivalent

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Purchase goods and services	122,650.7	98,638.4	4,120.1	1,308.7	9,376.2	
Capital goods	81,294.8	27,447.8	81,294.8	27,447.8	145,838.2	
Activities related to energy and fuels	468,983.8	475,907.6	466,686.0	473,450.6	258,843.6	
Transport and distribution upstream	1,142.9	395.0	1,142.9	395.0	3,214.5	
Waste generated	3,945.9	2,321.8	3,945.9	2,321.8	4,135	
Business travel	985.8	918.0	712.0	918.0	626.0	
Commuting employees	9,321.1	8,731.2	7,690.8	7,180.8	6,689.5	
Downstream transport and distribution	233.2	502.7	n,a,	n,a,	n,a,	
Use of products sold	965,738.9	973,225.1	n,a,	n,a,	n,a,	
End of life treatment of the products sold	105.4	132.2	n,a,	n,a,	n,a,	

(*) The figures shown in the column "Group" in this table regard Terna, the Tamini Group and Brugg.

As regards emissions linked to the categories, *Purchased goods and services*, *Capital goods*, *Logistics and Waste generated*, estimates were made using the PEF (Product Environmental Footprint) method, forming the basis of the LCA (Life Cycle Assessment) study carried out by Terna in collaboration with Bocconi University. The figure for these emissions is directly influenced by the quantity (in km) and type (cable or overhead line, and voltage level) of the new power lines built each year. The figure for business travel is the final amount for travel by employees in 2022.

302-1 > 305-5 > Energy consumption and cuts in emissions: energy efficiency

The Terna Group's energy consumption, which also includes the consumption of Tamini and Brugg, is shown below. Tamini's and Brugg's energy consumption is mainly due to natural gas consumption.

The organisation's direct and indirect energy consumption - gigajoules

	GROUP (*)			TERNA		
	2022	2021	2020	2022	2021	2020
Direct consumption in GJ	172,124.2	174,407.2	167,656.3	103,319.0	102,181.9	92,038.0
Indirect consumption in GJ	756,153.2	762,573.6	737,620.1	703,080.0	709,851.6	687,913.1
Total consumption in GJ	928,277.4	936,980.8	905,276.4	806,399.0	812,033.5	779,951.1

(*) The figures shown in the column Group in this table regard Terna, the Tamini Group and Brugg.

The following table, on the other hand, show details of the Terna's energy consumption without considering Tamini and Brugg, as their environmental impacts in terms of CO₂ are not fully comparable due to the specific nature of their businesses.

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Direct and indirect energy consumption by primary source – GigaJoule (*)

	TERNA		
	2022	2021	2020
<i>Direct consumption in GJ</i>			
Diesel for motor vehicles ⁽¹⁾	83,755.1	87,196.7	73,219.0
Jet fuel for helicopters	8,333.7	6,321.7	6,825.4
Fuel oil for heating and generators	4,547.2	3,776.1	5,448.8
Natural gas for heating	5,192.0	3,505.0	5,762.6
Petrol for motor vehicles ⁽¹⁾	1,491.0	1,382.5	782.2
Total direct consumption	103,319.0	102,181.9	92,038.0
<i>Indirect consumption in GJ</i>			
Electricity to power substations and offices ⁽²⁾	703,080.0	709,851.6	687,913.1

(*) Direct consumption data in tonnes and thousands of m³ is shown in detail in the Key indicator tables (published in the Sustainability section of the website at www.terna.it). To convert the volumes of the primary resources into gigajoules, the parameters set out in the Global Reporting Initiative (GRI) protocols were used.

(¹) Only consumption of operating vehicles is taken into account and not the cars used by managers.

(²) The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2022, given Terna's inability to select a specific supplier, due to technical reasons. Allocation for the purposes of the production mix was based on the December 2022 issue of the "Monthly Report on the Electricity System" available on the website at www.terna.it. In view of the above, and in line with the GHG Protocol method, the emissions associated with electricity consumption can only be classified as location-based and not market-based. In keeping with this approach, the portion of electricity deriving from renewable sources for the three-year period is as follows: 208,129 GJ in 2022, 244,776 GJ in 2021 and 241,544 GJ in 2020.

The transmission of electricity only requires direct energy consumption for certain support activities, including:

- fuel for the Company's operational vehicles, cars and helicopters used for line inspections, fault repair and other line and substation maintenance activities;
- fuel oil for emergency generators that only come into operation in the event of a power failure. It is estimated that, nationwide, generators were used for a total of 3,931 hours (consumption equal to 1.2 GJ per hour, in line with the previous year);
- fuel oil and natural gas for office heating.

Indirect energy consumption coincides with the electricity used to run substations and operating equipment (88% of the total in 2022) and for office and laboratory use. The figure relating to office consumption is 85,656 GJ (down from 100,412 GJ in 2021) which, compared to the total number of Terna employees (less blue-collar workers), corresponds to per capita consumption of 24.4 GJ. This last figure is the latest in a constant downward trend (31,6 GJ in 2021 and 33,3 GJ in 2020), bearing out the effectiveness of the energy efficiency measures in offices and buildings described on page 269.

Terna focuses its attention on several voluntary action programmes aimed at reducing its main sources of greenhouse gas emissions, which primarily regard curbing the SF₆, leakage rate, the energy efficiency of buildings and energy saving at electricity substations.

302-3

The Energy Management System

The **online project to monitor electricity consumed** by the 24 transformer substations located across the country (the principal energy carriers are monitored, with measurements covering approximately 90% of total consumption) continued in 2022. The substations are selected according to climatic location, size and type of activity. A further 21 transformer substations located across the country were included in the project in 2022, with overall consumption monitored quarter-hourly basis.

The sensors installed send data to the **EciWeb** information system for deferred and/or online monitoring of energy-intensive elements (in Terna's case, office buildings and substations) relating to the high-voltage electricity transmission service. EciWeb is used for detailed monitoring of electricity consumption at 11 **major buildings** and 112 transformer **substations**.

In line with the sustainability goals included in the 2021-2025 Industrial Plan regarding the **Energy efficiency of offices**, and as envisaged by the project implemented with support from the subsidiary, Awenia, and coordinated by the Group's Energy Manager, 17 of the 35 energy audits of the Terna Group's buildings were carried out in 2022. Once all the audits have been completed, this activity will enable Terna to set an energy consumption reduction target for the Group's offices via targeted efficiency improvement projects.

The **autotransformer replacement plan** has led to the definition of another target for reducing electricity consumption, relating to ancillary services. Analysis was carried out regarding calculation of the electricity that will be saved over a five-year period via the replacement, by 2025, of 60 autotransformers across the country (by the end of 2025, 60 transformers will have been replaced with expected total savings of approximately 80 GWh).

Regarding support for the preparation of course content for in-house training programmes, the "Management Systems" department has implemented and provided, in agreement with relevant internal departments, the following training/information activities:

- Online energy efficiency and monitoring course focusing on consumption CNI Training Programme (the course was held in the beginning of 2022);
- Energy efficiency: context and ISO 50001 Management System (the online course is available on the Terna Academy platform).



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Energy efficiency of substations and offices

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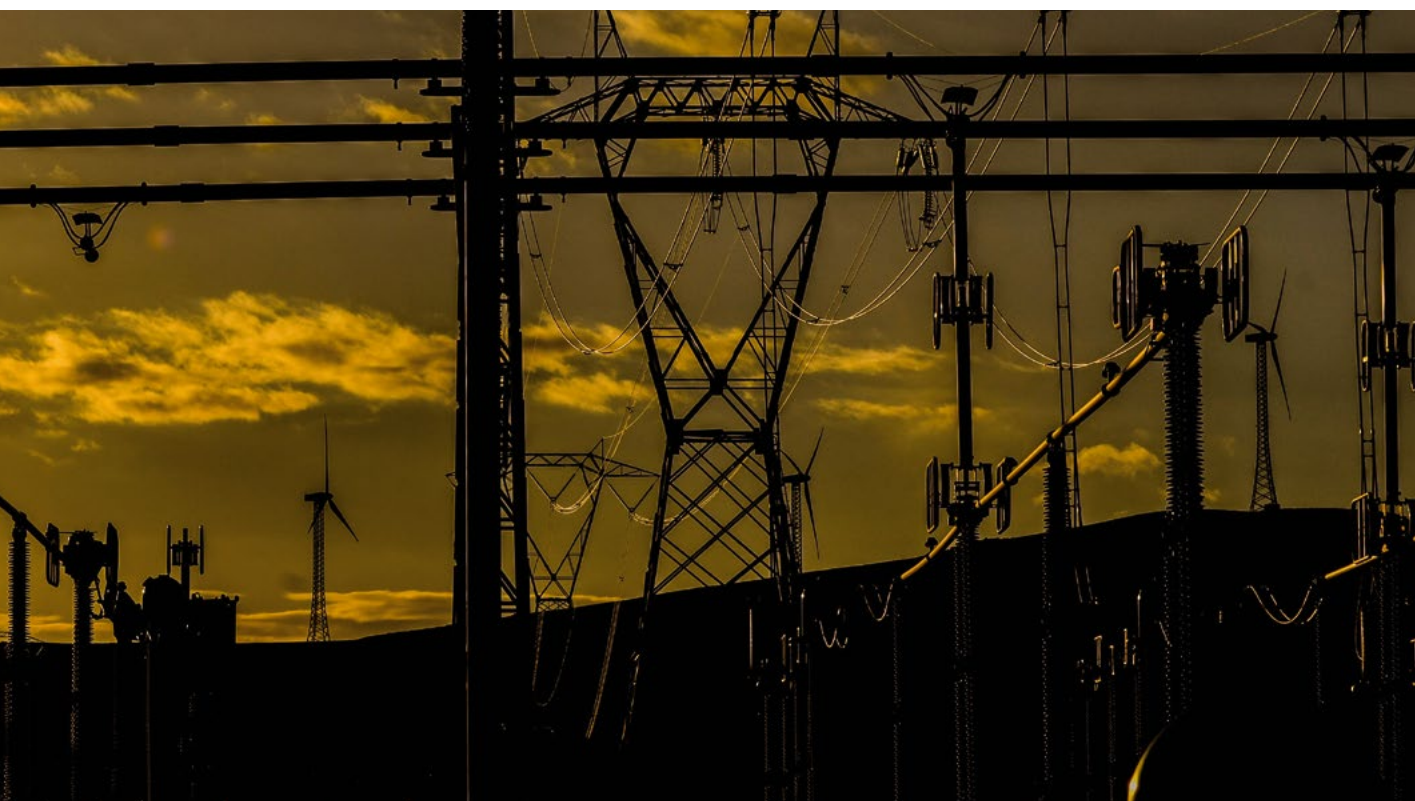
At Terna, the development of energy efficiency programmes relating to the use of electricity in substations and offices is experimental, as the Company's electricity consumption falls within the category of "own transmission uses" which, according to the industry's regulator, are not to be included in operating costs.

With a view to improving energy performance, several Terna's offices have also been refurbished or are newly built under a long-term programme, which aims to upgrade the energy efficiency class of buildings owned by the Group. Proposed work at offices primarily regards improvements to the energy efficiency of lighting, air-conditioning, and heating.

The proposed changes at substations primarily regard the replacement of lighting towers and perimeter lighting with LED technology.

Below is a description of initiatives completed in 2022 with a view to reducing energy consumption, of which the benefits are measurable:

- **Results of previous years' initiatives:** at 31 December 2022, the energy efficiency initiatives launched in 2014 had led to an overall reduction of around 1,264 tonnes of CO₂ (including 94 tonnes in 2022 alone). Due to the ongoing health emergency, the planning of certain initiatives was delayed until 2022.
- **Improving the efficiency of air conditioning systems:** in 2022, the air conditioning systems at the Parma Infrastructure Unit and the electricity substations attached to the unit were replaced with conditioning systems using latest generation motors. These initiatives led to a reduction of approximately 6 tonnes in annual CO₂ emissions.
- **Improving the efficiency of lighting systems:** in 2022, the lighting systems in the offices used for the Northern Transmission District, the substations managed by the Frattamaggiore (CE), Turin and Parma Infrastructure Units and by Terna Crna Gora (Montenegro) were replaced. This led to an annual reduction of approximately 268,582 kWh, equivalent to approximately 88 tonnes of CO₂ a year.
- **Self-production of electricity from renewable sources:** existing renewable self-production plants continued to operate in 2022.



FOCUS

LEED Platinum certification for the eco-sustainable refurbishment of Lazio Infrastructure Units



In 2022, Terna obtained the **LEED Platinum Certification** for the refurbishment of a building which dates back to the 60s, located in the Marcigliana Natural Reserve (RM) and today home to Terna's Infrastructure Unit for central and southern Lazio.

LEED (Leadership in Energy and Environmental Design) certification is an American protocol, developed by the U.S. Green Building Council (USGBC). This is designed to **promote a sustainable approach**, recognising the performance of buildings based on key elements, such as energy and water savings, reduction of CO2 emissions, improving the ecological quality of the interiors, materials and resources used, the design and the choice of site.

The LEED Platinum awarded to Terna is the highest level of certification and derives from an points-based system that assesses, for various areas, the entire life cycle of the upgrade in accordance with the **from cradle to grave** principle. The three-year project involved the **Building Management & Maintenance Unit of the Company Protection and Services department**, which envisaged, among the various eco sustainable solutions, the use of energy from renewable sources, reduced water consumption and the highest quality of air and internal temperatures within the building.

Currently, in Italy, this level of certification for a Building Design and Construction project has only been awarded to another four buildings.

Vehicle fleet

The Company's operational vehicles are used nationwide to carry out power line inspections and, in general, to visit infrastructure and construction sites.

Terna's vehicle fleet consists of three operating helicopters, purchased in 2015, used to carry out scheduled and random inspections of power lines, and a fleet of cars that is frequently renewed, of which over 90% are equipped with Euro 6 and Euro 5 engines. At 31 December 2022, the fleet includes 91 electric vehicles.

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Circularity in operating processes

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For Terna, the establishment of a circular economy strategy is an additional contribution to the ongoing transformation process, confirming a new economic model that respects natural capital.

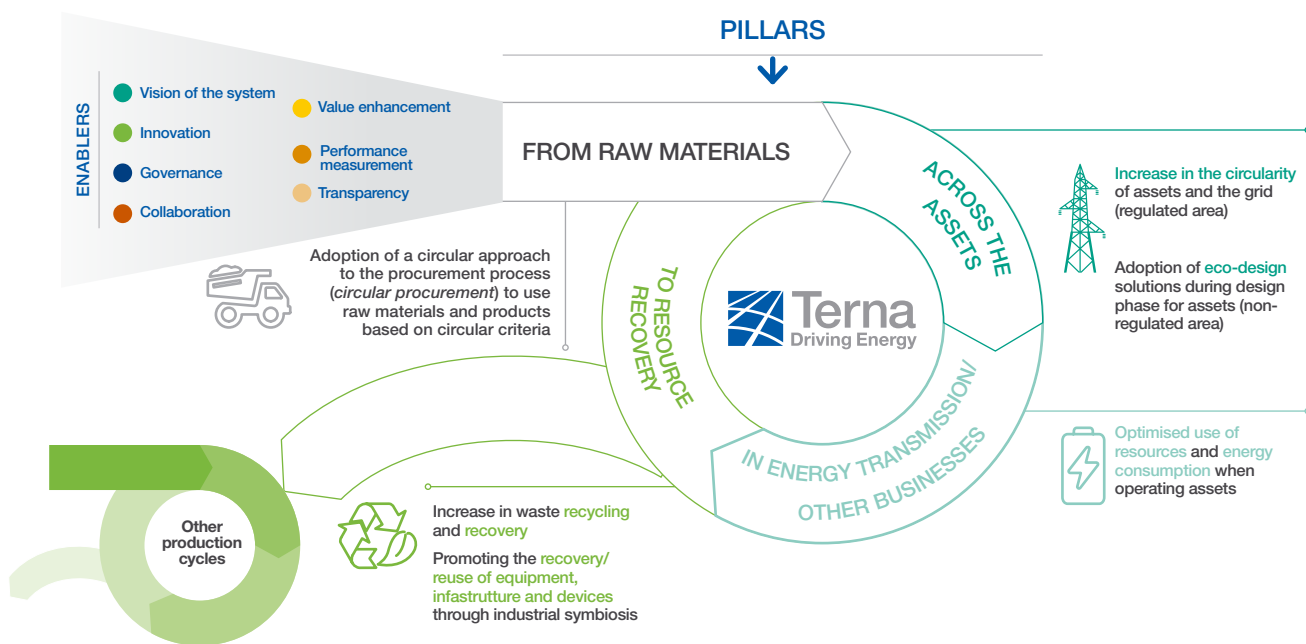
With this programme, launched at the end of 2021, Terna is pursuing the objective of integrating circularity into its business model to strengthen its sustainability, and extending it to its supply chain.

Circular economy strategy and roadmap

In 2022, the Company completed preparations for the definition of a Circular Economy Strategy and setting out a Roadmap of actions through to 2023 for the procurement of materials and their correct use, the sustainable use of resources, including secondary raw materials, and the management of waste.

The first phase of this project – the circularity analysis – has enabled, on one hand, to assess the current level of internal oversight on circularity issues and, on the other, to identify the main trends and circularity business models of the sector. The comparative study of the two contexts, internal and external, has identified Terna's distinctive characteristics and points for improvement and, subsequently, potential guidelines for inclusion in the Strategy.

The second phase of the project enabled the determination of Terna's expected positioning, based on which the Group's Circular Economy Strategy was established.



The strategy is based on four **pillars** – each of which relates to every phase of the Group's operating cycle (including Non-Regulated Activities) – which respond to the need to focus each circularity action in the Company to a specific business area, namely:

- procurement;
- asset management;
- operation of the electricity grid;
- the disposal of assets.

The Strategy's **enabling factors**, being those elements essential to effectively manage the transition to a circular economy model, are as follows:

- 1) systemic vision;
- 2) innovation;
- 3) governance;
- 4) collaboration;
- 5) optimising value;
- 6) transparency;
- 7) performance assessment.

The third phase coincided with the establishment of the Circular Economy Roadmap, which consists in the development and systematisation of the initiatives and actions designed to incorporate the circular economy model within Terna's business model.

The Roadmap covers the period through to 2030 and aims to be aligned with the 2021-2025 Industrial Plan. In addition to identifying new areas of action for an increasingly circular business model, the activities carried out during 2022 to set out the Roadmap have led to the systematisation of the various circular economy initiatives already launched by Terna over the years.

In order to constantly improve and progressively align with developing business needs, new regulations and best-practices in the sector, the Roadmap will be revised and expanded over time to become a dynamic tool, able to adapt itself to the external scenario and Terna's priorities.

During 2023, numerous activities to implement the Roadmap will be carried out, in addition to laying out the actions previously identified and approved to achieve the expected targets, which will be monitored. A feasibility analysis will also be conducted, prior to the approval of additional actions requiring further consideration by senior management.

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An example of Circularity: the regeneration of SF₆ gas



At the end of 2020, Terna launched the *Closed Cycle Management of SF₆* project, in collaboration with Synecom, a Company specialising in the **closed cycle management of regenerated SF₆ gas**.

This activity, with the goal of reducing climate-changing emissions, is an example of an initiative already in place which, during the circularity analysis, resulted perfectly in line with the targets set in the Roadmap, in which it was therefore included.

Before the launch of this collaboration, SF₆ gas disposed of during routine and extraordinary maintenance, due to it no longer functioning as an insulator, was sent for final disposal (thermal destruction) and replaced with new gas purchased to top up the infrastructure for maintenance purposes.

Both the production of new SF₆ gas and the disposal of the old gas result in leakages and, therefore, climate-changing emissions into the atmosphere. The regeneration thus enables a doubling of the reduction in CO₂ equivalent emissions. In detail, the emissions saved for each kg of SF₆ not produced from new (because regenerated gas is purchased) are between 3 and 8% (average loss rates for production plants) whilst those saved for each kg of SF₆ not sent for thermal destruction are between 2 and 4% (average loss rates for thermal destruction plants). The average between non-production of new gas and the non-destruction of used gas, for each kg of SF₆ gas, is 8.5% (5.5% + 3%).

During the two-year period 2021-2022, Terna regenerated approximately 16,000 kg of SF₆ gas, preventing the leakage into the atmosphere of approximately 1,360 kg (resulting from the sum of the leakage during production of new gas and the disposal of disused gas) which, based on the 8.5% average between non-production and non-destruction, amounts to **31,008.00 tonnes of CO₂ equivalent avoided** (1,360 kg x 22,800 GWP = 31,008.00 kg = 31,008.00 tonnes CO₂ eq.) The emissions prevented correspond with those emitted in a year by approximately 6,600 diesel fuel vehicles.

In the Circular Economy Roadmap, Terna has set a target of regenerating 42,000 kg of SF₆ gas by 2025. The target has been calculated considering the average quantity of gas regenerated annually to meet with Terna's needs, i.e., the kilograms of SF₆ gas disposed of.

SASB

Use of resources and waste management

Development and maintenance of the NTG requires a substantial amount of capital goods, such as power lines (pylons, conductors, insulators), transformer substations (transformers, circuit breakers, other equipment) and control systems.

Terna does not use raw materials, but does purchase finished products (electrical equipment, conductors, tools and other components). An estimate of the materials contained in the main products purchased is shown in the table below. Amounts have been estimated considering the average material content of the various products purchased in the years referred to. The bulk of the materials used are steel (pylons) and aluminium and copper (conductors and cables).

301-1 > Main materials provided by suppliers – tonnes

	TERNA		
	2022	2021	2020
Steel	32,527	20,793	18,264
Copper	13,205	9,475	4,967
Aluminium	8,695	8,988	11,526
Glass	3,805	4,324	4,339
Dielectric oil	1,096	1,656	591
<i>Of which vegetable oil</i>	304	491	243
Porcelain	466	518	891
Polymers	293	508	492

Specifically, the increase in steel and copper related to line supply reflects the purchase of greater quantities of steelwork and tubular supports (steel) and copper rope (copper) for substations during the year under review. Most of the materials supplied to Terna are not renewable or cannot be regenerated quickly. For this reason, Terna is committed to ensuring that its supply chain is as far as possible based on a circular approach.



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Use of secondary raw materials: the contribution
of the supply chain to Terna's circularity

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In line with its growing attention to circularity, Terna conducted a market survey focused on identifying economic operators – subject to a preliminary qualification process (see page 200) – able to provide goods with high environmental performance related to the supply of overhead power lines and terrestrial cables for installation.

In particular, the product groups represented in the surveys are:

- HV cables (“High Voltage”) insulated with XLPE elastomers;
- LV cables (“Low Voltage”) insulated with fire retardant PVC;
- ground wires with fibre optic for HV overhead lines;
- metal conductors for HV overhead lines;
- HV equipment and terminal blocks;
- tempered glass insulators for HV overhead lines;
- 132-380 kV single-shaft tubular supports;
- steel pylons for HV 380/220/150 KV and/or MV (Medium Voltage) lines and portals.

The research was focused on measuring the use of secondary raw materials by suppliers belonging to sectors selected based on the raw material used. This helps to identify the production waste or materials deriving from recycling processes that can be input again into the economic system as raw materials.

The sample analysed consists of 28 companies, in some cases belonging to various product groups, with an overall result of 34 answers.

72% state that they use secondary raw materials or those with a high proportion of recycled content. Combining the data, the most significant results are obtained in the category HV equipment and terminal blocks, which reaches 64% usage of secondary raw materials.

Results greater than 50% are obtained in the categories Steel pylons for HV 380/220/150 KV and/or MV lines and portals and LV cables insulated with fire retardant PVC. The figure stops at 40% in Metal conductors for HV overhead lines due to technical reasons related to the electrical performance of the conductors. It is a different matter for the supply of pylons: in this case, the constraint is mechanical, for which it is likely that in the medium-long term alternative solutions can be found.

In line with the ambitions set out in the Circular Economy Roadmap, the new contracts awarded to meet demand in 2023-2025 will consider, among the tender criteria, assessment of the circularity of suppliers and the certified use of recycled steel and aluminium to encourage virtuous behaviour.

303-1 > Regarding water consumption⁹⁷, environmental and materiality analyses indicate that the issue is not significant. This is because water does not usually form part of the production cycle for electricity transmission and dispatching. This is except for a few items of equipment, mostly used in the installation phase, that, in any event, require overall consumption of a marginal volume of water compared with the volumes generally recorded in the electric utilities sector. Indeed, water is used for hygiene purposes, office cleaning and cooling systems and derives from connection to water systems for civil use.

Moreover, in recent years, Terna has introduced compensation systems (Synchronous Compensation Units or SCUs) as one way of responding to evolutions in the electricity system in terms of the integration of production plants fuelled by renewables and new connections to the DC grid. These plants play a key role in regulating voltage in the portion of the grid where they are installed.

In order to ensure the correct use of water, Terna has installed intelligent systems that, by recording internal and external temperatures and the electrical readings from the SCUs, regulate the flow of water, thus minimising consumption. Partly due to these interventions, the amount of water used to cool the synchronous compensators accounts for only 4% of Terna's total water consumption.

306-1 > Waste

At the end of their normal life cycle, the materials used in electricity infrastructure are recovered for reuse in operations. Only a residual portion is sent to landfill, thereby impacting on the environment.

306-2 > **The percentage of waste recovered amounted to 91%** (86% in 2021 and 95% in 2020), **89% if Brugg and Tamini are also included** (84% in 2021).

Whilst the overall amount of waste produced reflects the timing of equipment replacements, effectual recovery depends on the materials contained in the waste: some of them are easy to separate out and thus reuse (for example, iron parts of pylons). In other cases, it is either too costly or not possible to separate the various parts, above all when dealing with the most obsolete equipment. For these reasons, annual changes in the amount of waste generated and the percentage of waste recycles should not be interpreted as indicating a trend. Monitoring of the waste generated and the means of waste management employed are audited both internally and externally as per ISO 14001 certification requirements, as are the methods of waste disposal, to ensure compliance with existing legislation.

⁹⁷ In 2022, the Group consumed 221,395 m³ of water (in 2021 210,269 m³ and in 2020 219,065 m³), whilst Terna consumed 190,950 m³ (183,807 m³ in 2021 and 192,635 m³ in 2020).

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Waste type and management- tonnes

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	UNIT	GROUP (*)			TERNA		
		2022	2021	2020	2022	2021	2020
Waste produced ⁽¹⁾	tonnes	12,356.8	11,768.8	10,808.6	9,078.7	8,524.7	6,142.2
Waste sent for recovery		10,948.3	9,927.8	9,929.9	8,281.3	7,302.4	5,854.1
Waste recovered	%	89	84	92	91	86	95
Waste sent for disposal ⁽²⁾		1,338.6	1,828.8	905.5	823.0	1,210.1	314.8
Of which hazardous		583.1	980.3	265.4	517.9	910.6	237.2
Of which non-hazardous		517.9	848.4	640.0	305.1	299.5	77.5
Non-hazardous special waste							
<i>Machinery, equipment, pylons, conductors, cables</i>							
- quantity produced	tonnes	3,826.6	3,725.2	4,737.7	2,020.8	1,901.5	1,582.4
- quantity sent for recovery	tonnes	3,776.3	3,722.8	4,791.0	1,970.5	1,899.1	1,635.7
<i>Packaging</i>							
- quantity produced	tonnes	1,319.5	1,360.7	1,133.1	537.9	521.0	418.8
- quantity sent for recovery	tonnes	950.2	1,047.7	890.3	518.5	527.1	431.0
<i>Other</i>							
- quantity produced	tonnes	1,093.3	833.7	786.0	633.7	603.7	258.9
- quantity sent for recovery	tonnes	632.7	294.2	402.1	369.0	293.3	182.5
Total non-hazardous special waste							
- quantity produced	tonnes	6,239.5	5,967.4	6,656.9	3,192.5	3,073.3	2,260.2
- quantity sent for recovery ⁽³⁾	tonnes	5,359.2	5,112.5	6,083.4	2,858.0	2,767.3	2,249.2
Hazardous special waste							
<i>Machinery, equipment, pylons, conductors, cables</i>							
- quantity produced	tonnes	4,133.0	3,404.7	2,865.4	4,104.3	3,292.8	2,745.0
- quantity sent for recovery	tonnes	3,998.6	3,505.9	2,796.9	3,970.1	3,393.9	2,676.5
<i>Oils</i>							
- quantity produced	tonnes	1,740.7	2,100.6	1,062.7	1,589.9	1,922.9	913.7
- quantity sent for recovery	tonnes	1,521.7	1,196.8	957.9	1,401.2	1,040.2	853.0
<i>Lead batteries</i>							
- quantity produced	tonnes	16.0	56.1	28.4	15.4	56.1	28.4
- quantity sent for recovery	tonnes	16.4	55.6	23.6	15.8	55.6	23.6
<i>Waste comprising material containing asbestos</i>							
- quantity produced	tonnes	0.0	0.0	0.0	0.0	0.0	0.0
<i>Other</i>							
- quantity produced	tonnes	227.6	240.0	215.4	176.6	179.6	195.0
- quantity sent for recovery	tonnes	52.5	57.0	68.2	36.2	45.3	51.9
Total hazardous special waste							
- quantity produced	tonnes	6,117.3	5,801.3	4,171.9	5,886.2	5,451.4	3,882.1
- quantity sent for recovery	tonnes	5,589.2	4,815.3	3,846.5	5,423.3	4,535.1	3,604.9

(*) The figures shown in the column Group in this table regard Terna, the Tamini Group and Brugg.

⁽¹⁾ Only special waste produced during the production processes is included, not waste produced by services (urban waste). Excavated earth and rocks, effluents and waste from septic tanks, produced by substations not connected to the sewer network, are not included; the quantity for this waste was 184 tonnes in 2022, 618 tonnes in 2021 and 495 tonnes in 2020.⁽²⁾ Waste sent for disposal may differ from the mere disparity between waste generated and recovered due to temporary waste storage.⁽³⁾ This comprises uncontaminated metal waste deriving from the decommissioning of transformers, electrical equipment and machinery (e.g., generators) with an average recovery rate of 100%.

The main special hazardous waste generated by the operation of Terna's power lines and substations consists of:

Metal waste

This derives from the decommissioning of transformers, electrical equipment and machinery no longer in use and contaminated by hazardous substances; they have an average recovery rate - after treatment by third parties - of over 95%.

Batteries (lead and nickel)

In the event of a blackout, batteries enable emergency generators to be switched on in order to keep the energy transformation and transportation service up and running during emergencies; they have an average recovery rate of 100%.

Dielectric oils

These are used for insulating transformers replaced after periodic maintenance checks. They constitute hazardous waste and have a recovery rate in the three-year period of over 90%.

The waste sent for disposal mainly consists of materials deriving from infrastructure maintenance and cleaning activities (oily emulsions and rags containing solvent oils) and insulating materials containing asbestos, for which no form of recovery is envisaged.

As in the previous two-year period, no significant spills of polluting liquids were reported in 2022.



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Landscape and biodiversity

Operating with an approach based on environmental sustainability guides all Terna's activities, especially in the construction of new electrical infrastructure which, in all phases (planning and consultation, design, site operations, mitigation and offsetting), takes into account considerations that include respect for the environment and biodiversity. This commitment, in 2022, was reflected in the development of guidelines consistent with the Envision criteria, the international protocol which, through a structured rating system, measures, confirms and certifies the sustainability of new infrastructure (see page 249).

Specifically, during the execution phase at sites, great attention is paid to identifying the areas and access roads of sites which, if compatible with technical and design requirements, are in areas of reduced natural importance. Upon completion of the construction work, Terna restores the areas concerned to their natural state.

If these areas regard natural or semi-natural habitats, in addition to the normal restoration works, specific interventions are implemented. Based on natural engineering techniques, they involve, by way of example, the creation of habitats – land and sea – suitable for animal and/or plant species communities, the replanting of live native plants, which do not require irrigation, special fertilisation or the use of materials (even if only inert), in order to recreate favourable living conditions for animal species, which are monitored overtime by applying the **Incremental Ecological Indicator (IEI)**⁹⁸ criteria.

< EU13

During 2022, the IEI methodological approach led to the establishment of a **Base Indicator** that assesses, site by site, how the ecological status changes and a **Dynamic Indicator** that measures this change over time for each individual site, whilst also providing a global indication of the changes taking place at all the sites in general. The method, as a whole, and in the various indicators, was registered as Intellectual Property (SIAE 2022/02452) during the year.

Protecting local areas and respecting the landscape

Physical removal of existing lines is one of the most radical ways Terna reduces environmental impacts, also in terms of land use. Demolitions form part of upgrade initiatives⁹⁹, often resulting from agreements signed with local authorities during the consultation phase prior to the construction of new infrastructure.

NT1

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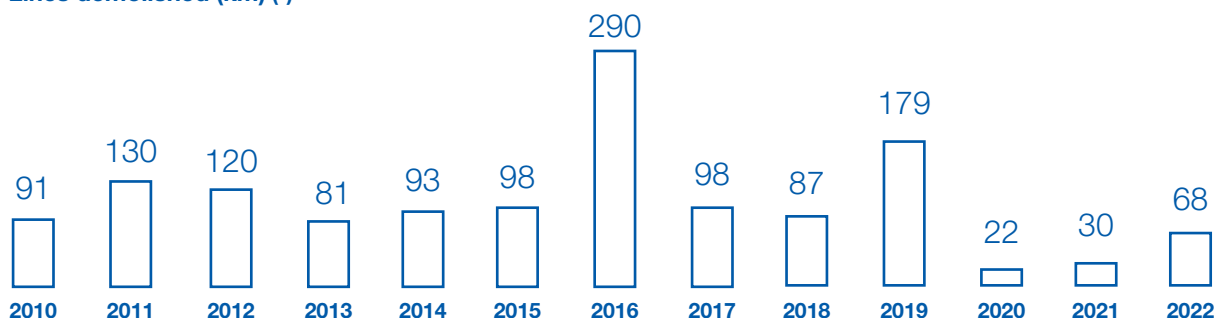
In 2022 68 km of lines were demolished, freeing up an area equal to 245 hectares. In the period 2010-2022, a total of 1,388 km of lines were demolished, freeing up approximately 5,000 hectares of land. Demolition is defined as the physical removal of overhead lines and does not include declassified or upgraded lines¹⁰⁰.

⁹⁸ See the 2020 Sustainability Report page 211 and 2021 Integrated Report page 234.

⁹⁹ This comprises complex initiatives involving several components of the grid, replacing certain components with others of a superior type, thereby eliminating parts of the grid that are of little use. This takes place following the installation of new infrastructure or the addition of new elements to the grid to avoid the need to upgrade power lines that have reached saturation point.

¹⁰⁰ A reclassification involves the conversion of existing power lines to a higher voltage through the installation of new conductors and pylons to replace existing ones, which may be larger in size and therefore take up more space. Unlike the construction of a new line, this type of intervention usually has the advantage of using existing infrastructure corridors, thus avoiding the occupation of additional land.

Lines demolished (km) (*)



(*) The figure for 2016 is exceptional due to the demolition of over 200 km of obsolete power lines in Valtellina, which had been in preparation in previous years. After adjusting for this removal, demolitions amounted to approximately 80 km, in line with previous years (around 100 km per year). The exceptional performance in 2019 was due to a speedier execution of programmes that year, with a consequent reduction in the targets for 2020 and 2021.

“Transmission impacts” target - KPIs and targets in the 2021-2025 Industrial Plan
KPI



VISUAL IMPACT	TARGET				
	2022		2023	2024	2025
	TARGET	RESULT			
Km of overhead lines demolished during the year.	73	68	102	29	191
Km of new underground lines during the year.	158	72	247	110	342

NT1
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EU13 >

Electricity power lines, biodiversity and birdlife

The impact of Terna’s electricity grid on biodiversity may take different forms.

During power line construction, the impact on biodiversity is linked to construction site activities (e.g., the opening of access routes to build pylons, soil excavation and the removal of residual materials) and is temporary and reversible.

During the operational phase, the potential impact of lines on biodiversity are twofold. On the one hand, the route of the line may be a factor in increasing biodiversity and protecting certain species as pylons, with their bases, make it impossible for land to be used for intensive agriculture and constitute islands where biodiversity can flourish. On the other, the presence of lines has potentially negative effects on biodiversity, on birds, due to the risk of collision– the risk of electrocution regards LV and MV lines and, therefore, does not concern Terna’s infrastructure – protected areas or areas of natural interest.

Over the years, Terna has promoted research and scientific studies to further investigate this issue and identify increasingly effective solutions. The first Italian study devoted to collisions, based on the results of an **agreement between Terna and LIPU¹⁰¹ (the Italian League for the Protection of Birds)**, highlights a low risk of collision¹⁰². Despite the risk of collision being low, Terna still minimizes it by installing special devices consisting of plastic spirals called deterrents which, with their visual impact and the noise they generate when blown by the wind, make it easier to see for birds in flight.

¹⁰¹ Italian League for the Protection of Birds.

¹⁰² See the 2010 Sustainability Report, page 116 *Terna-LIPU agreement: a study of the interaction between birdlife and the National Transmission Grid*.

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Bird deterrents on the NTG

	UNIT	TERNA		
		2022	2021	2020
Lines involved	n.°	88	81	77
Total deterrents installed	n.°	17,445	16,977	16,299

The main tool for identifying critical line sections is a fully comprehensive land use database, containing data provided by regional authorities and ministries. This GIS (Geographic Information System) enables integrated analysis of all the layers of information on the various types of land use and protections (local, natural, cultural, landscape, etc.). Using this tool, Terna has compiled an inventory of the lines that may interfere with protected or highly biodiverse areas, as shown in the table below.

Power lines in protected areas (*) ()**

	UNIT	TERNA		
		2022	2021	2020
Lines impacting on protected areas	km	6,830	7,110	6,951
Lines with an impact as a percentage of total lines operated by Terna	%	9.3	10.5	10.6

(*) To calculate the percentage of lines and number of substations with an impact, the Company used the SisNet database (2023 data). Until the 2021 reporting period, the ATLARETE database was used, which could have differed from data on the number of lines provided in the "Key indicator tables" (published in the Sustainability section of the website at www.terna.it).

(**) For the sake of completeness, it should be noted that out of the 901 substations managed by the Terna Group, only 37 are located in protected areas.

Based on GIS data, potential threats from the risk of collision for bird species included in the IUNC Red List have been assessed. The IUCN Red List is the largest existing international database on the conservation status of thousands of plant and animal species, all catalogued according to their risk of extinction. In its analysis, Terna has specifically considered the presence of bird species on the IUCN Red List and at Natura 2000¹⁰³ namely in protected areas with a high level of biodiversity (approximately 3,000 Special Conservation Areas (SCAs¹⁰⁴) and Sites of Community Importance (SCIs¹⁰⁵).

In collaboration with the CESI research centre¹⁰⁶ and Rome's *La Sapienza* University (the Charles Darwin Department of Biology and Biotechnologies), Terna has developed a **risk assessment model** that evaluates the feasibility of installing a power line in a selected location. This tool (AVIVAL) uses information about the area and data on the distribution of birdlife to assign a risk level in terms of potential collision to every single span of the line to be built and adopt adequate mitigation measures. In 2021, the eight-month experiment – coinciding with two migrations – tested the reliability of the deterrents and subsequent monitoring has confirmed the absence of collisions.

In line with specific EU Directives, Terna has enshrined the objectives to protect and conserve birdlife in its own **Commitment to Diversity** document. Accordingly, since 2020 Terna has carried out a training campaign to protect birdlife designed specifically for operating personnel involved in managing the national electricity system, in order to raise awareness on the part of staff and to collect additional scientific data concerning the system's impact on birdlife.

¹⁰³ Natura 2000 is the main instrument of the European Union's biodiversity conservation policy. This ecological network, which covers the entire territory of the European Union, was set up under the Habitats Directive (Council Directive 92/\$\text{E}/\text{EEC})\$ to ensure the long-term maintenance of natural habitats and of endangered or rare species of flora and fauna at EU level. The Natura 2000 network consists of Sites of Community Importance (SCIs), identified by Member States in accordance with the Habitats Directive, which are subsequently designated as Special Areas of Conservation (SACs), including Special Protection Areas (SPAs) established under Directive 2009/14/EC regarding the conservation of wild birds.

¹⁰⁴ Special Conservation Areas.

¹⁰⁵ Sites of Community Importance.

¹⁰⁶ Italian Electrotechnical Research Centre.

304-4 > **Identification and monitoring of bird species on the IUCN Red List**

Terna has carried out a study aimed at identifying the protected species included in the IUCN Red List¹⁰⁷ that are potentially impacted by its infrastructure.

The study selected the Natura 2000 areas affected by Terna power lines, then verified which protected species – among those included on the Red List and classified based on 2020 data available, as Vulnerable, Endangered, Critically Endangered and Regionally Extinct – had chosen them as their habitat. These species are conservation priorities as without specific measures to neutralise the threats they face, and in some cases to increase their populations, their extinction is a real prospect. The analysis showed that Terna's electricity infrastructure could interfere with the habitats of eight endangered species. After checking scientific publications and via targeted consultations, no specific critical issue emerged regarding bird species except for a potential risk of collision for the corncrake (*Crex crex*), a species categorised as *Vulnerable* present in the Alpine area between Friuli-Venezia Giulia and Lombardy. For this reason, a specific study on the ecology of this species was conducted. The study highlighted that the corncrake is only occasionally reported among the victims of collision. In a previous review of the conflict between birds and power lines in Italy, this species never appeared among those listed and there is no other information on corncrake collisions in western Europe.

Alternative uses for power lines

In partnership with environmental associations, for some years Terna has been working on projects that aim to develop alternative uses for power lines. The most important, carried out in collaboration with the ornithological association, *Ornis italica*, is the **Nests among pylons** project. This involves the installation of nest boxes, followed by annual surveys of the species that occupy the nests and the results of the breeding season. The project regards many species, including the kestrel, peregrine falcon, scops owl, cuckoo, common roller, bat and stork. The contract awarded by Terna for installation of new nest boxes now includes responsibility for monitoring occupation of the new nests. This activity is completed with the **Birdcam Project**, involving the installation of cameras trained upon the artificial nests: the idea is to monitor the birds' reproductive period (online at www.birdcam.it and on Terna's website at www.terna.it).

In 2021, Terna launched a nationwide monitoring campaign to monitor the conditions of the nest boxes installed in past years so as to extend its maintenance programme and include the insertion of artificial nests.

Georeferenced nests at 31 December 2022

LOCATION	NESTS		SPECIES CONCERNED ¹⁰⁸
	NUMBER OF NESTS (*)	OF WHICH IN PROTECTED AREAS	
Abruzzo	25	1	Kestrel
Calabria	25	18	Kestrel
Campania	31	0	
Emilia-Romagna	40	10	Kestrel; scops owl, cuckoo, common roller
Tuscany	1	0	
Friuli-Venezia Giulia	20	0	
Lazio	35	7	Kestrel, scops owl, common roller
Lombardy	0	0	
Piedmont	24	12	Common roller
Puglia	19	0	
Sicily	24	9	
Trentino-Alto Adige	0	0	
Veneto	1	1	
Total	254	58	

(*) It should be noted that the number of nest boxes installed has fallen following the outcome of the national monitoring conducted in 2021 which, for many of them, resulted in a state of decay from weather events. The missing boxes will be replaced during 2023.

¹⁰⁷ International Union for Conservation of Nature's Red List (<https://www.iucnredlist.org>).

¹⁰⁸ The species concerned are identified by the type of nest installed and by subsequent monitoring. At any rate, there is always the possibility that the nests may be used by other species not on the list.

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New environmentally responsible initiatives

During 2022, Terna launched a new environmentally responsible project, called **Biodotti**, which consists of a series of renaturing measures for areas underlying pylons to increase the ecological value of landscapes. Terna completed the pilot project in Lombardy, Tuscany and Sicily involving a total of 17 pylons in agricultural areas and 5 overhead power lines that can thus act as an ecological connection between renatured areas.

In this way, Terna's power lines serve as real stepping stones that facilitate bird movement between natural areas, further enhancing biodiversity. The project involves the monitoring of the installations made during 2022, measuring the effectiveness of the initiatives in raising the ecological quality of the areas and the stepping stone function through the **Incremental Ecological Indicator** (see page 279).

Terna also took part, as a partner, in the candidature of the **PolliNetwork** project for the *Life Nature and Biodiversity 2022*, with the aim of protecting pollinators. The project aims to establish and trial new sustainable methods to improve the management of the environment, with the goal of helping to halt the decline of pollinators. The leader of Life is WWF Italy. The other participants in the initiative are ISPRA, ANAS, RFI, Copagri, Parco del Gran Paradiso, University of Bologna and University of Turin.

Terna supported WWF Italy in preparing materials required to present the project. Terna's main actions include experimentation of methods and tools to manage and maintain the environment in the areas around electricity substations and below power lines, in areas specifically identified. The project is currently being assessed by the European Commission.

FOCUS

Laying submarine cables and protecting marine biodiversity

Laying submarine cables, for Terna, always requires the accompanying search for solutions to protect marine biodiversity, in particular the Posidonia oceanic meadows – a prioritised habitat of the Mediterranean infralittoral plane, which serves as a habitat for numerous animal and vegetal organisms – at risk of erosion due to the oscillating movements of the cable laid on the seabed (see the 2009 Sustainability Report, page 107).

During 2022, in combination with the beginning of preparations for instalment of the submarine section (34 km out of a total of approximately 37 km) of the connector between the island of Elba and the mainland, Terna initiated the transplant and repositioning of approximately 53,000 cuttings in the Posidonia oceanic meadows in the Gulf of Follonica, covering a surface area of over 1,540m².

This first phase involves the removal of the cuttings from the sea meadow adjacent to Piombino and their subsequent repositioning to appropriate locations in the Gulf of Follonica, with a planting system that uses specific netted frames. When the removal is completed, which will take three months, the next environmental conservation and monitoring plan will begin. The plan will last ten years, with work taking place every quarter for the first two years and then less frequently.

Monitoring and supervision of electromagnetic fields

Protection of the population from exposure to electromagnetic fields is precisely defined by law (Cabinet Office Decree of 8 July 2003). This legislation provides for:

- **exposure limits:** In the event of exposure to electric and magnetic fields generated by power lines at a frequency of 50 Hz, the limit is 100 microteslas for magnetic induction and 5 kV/m for the electric field, considered as effective values;
- **safety thresholds:** As a precautionary measure to protect against long-term effects, which may be linked to exposure to magnetic fields generated by the network frequency (50 Hz), in children's play areas, schools and places where people spend not less than four hours a day, a threshold of 10 microteslas has been set for magnetic induction, based on the average of measurements taken over 24 hours under normal operating conditions;
- **quality targets:** In the design of new power lines at the above-mentioned sensitive locations and in the design of new settlements and new areas close to lines and electricity installations already present in the vicinity, in order to gradually minimise exposure to electrical and magnetic fields generated by power lines operating at a frequency of 50 Hz, a quality target of 3 microteslas has been set for magnetic induction, based on the average of measurements taken over 24 hours under normal operating conditions.

The values of the three parameters, especially the threshold value (10 microteslas) and the quality target (3 microteslas), demonstrate that Italian legislation has adopted the prudential approach described in art. 15 of the Rio Principles. These parameters are amongst the strictest at European level. Terna's compliance with the law in its activities implicitly shows that it has adopted the same principle.

Terna carries out inspections and checks on its own lines to ensure compliance with the existing regulatory limits and seeks innovative technical solutions to mitigate the impact of magnetic fields. If any complaints or requests are received from competent administrative bodies and authorities, the Company provides the data needed to assess the actual exposure to electric and magnetic fields generated by its infrastructure.

Finally, with a view to providing accurate, easily understandable information on the subject, Terna has prepared an in-depth study on electromagnetic fields (EMF), which may be found in the "Sustainability" section of the Company's website www.terna.it.

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Reports and complaints regarding environmental concerns

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In line with the ISO 14001 Environmental Management System and the ISO 37301 Compliance Management System, Terna monitors and classifies complaints received regarding significant environmental matters.

Any written communication from stakeholders reporting that an activity carried out by Terna causes or has caused damage may be submitted to one of the Group's offices or organisational units, where it will be filed and handled by the competent operating unit.

Complaints received are classified in terms of environmental aspects as defined by environmental analysis: waste, noise, biodiversity, landscape, electrical and magnetic fields, lighting, the management of vegetation and others.

This year, the number of complaints received has dropped slightly with respect to 2021 (down 5, making a total of 30) and primarily regarded power lines (90%) relating to **the noise emitted by the infrastructure (36.7%) and the need to cut back vegetation along power line corridors (16.7%)**.

Terna replies as soon as possible, and, in any event, within 30 days from receipt of the request or within 60 days if the scope and complexity of a request are such that it cannot be handled within the first 30 days.

In this case, Terna promptly notifies the person making the request of the extension and explains why it is necessary. Details of the concerns reported and dealt with over the past three years are published in the "Indicator Tables", available on the website www.terna.it in the section "General Archive".



Environmental costs

Terna's commitment to the environment is reflected in the costs incurred for environmental reasons, in terms of both capital expenditure and operating costs. Separate representation of environmental costs is based on the definitions set out below, through aggregating information derived from the Company's general and management accounting. These definitions and the methodology described below are taken from the Terna Group's operating guidelines.

Accounting methodology

The identification of environmental costs is based primarily on available definitions, primarily those of ISTAT (Italy's Office for National Statistics), Eurostat and GRI, as well as the European Commission Recommendation on the recognition, measurement and disclosure of environmental data in annual accounts and annual reports (Recommendation 2001/453/CE). According to this Recommendation, **the term *environmental expenditure* includes the costs of initiatives undertaken by a company, directly or via third parties, to prevent, reduce or repair damage to the environment caused by its operating activities.**

Secondly, the relevant definitions have been cross-referenced with the environmental aspects evaluated as being significant (e.g., substation noise, electromagnetic fields, etc.) within the Company's ISO 14001 certified Environmental Management System, to identify Terna's environmentally relevant operating and capital expenditure activities within the main business processes.

Many of Terna's activities described in this Report entail environmental expenditure. However, certain limitations have been introduced in determining the scope of the reporting:

- the exclusion of integrated costs, namely those related to activities that have no exclusively environmental purpose (e.g., the use of pylons with innovative characteristics, also in terms of how well they blend into their surroundings) due to the subjective nature of accounting for environmental components only;
- the exclusion of additional costs linked to the consideration of environmental constraints and demands when planning and designing new lines (re-routings and sections of cable laid underground).

Additional conditions were also imposed if costs were significant, consistent with annual accounting requirements (a clear distinction between operating costs and capital expenditure) and directly measurable based on the Company's existing accounting system. The latter condition meets the need to minimise the use of estimates based on non-accounting procedures.

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Capital expenditure and operating costs

The table below provides the best possible view of Terna's capital expenditure and operating costs in relation to the environment.

It should be noted that these costs exclude expenses relating to internal sources and only consider the cost of external supplies. An exception is the item "Environmental activities – Existing plant", which does include the cost of internal personnel.

Based on the methodology adopted and the footnotes to the table, it should be noted that the environmental costs shown represent a subset of the total environmental costs actually incurred, as defined above.

Environmental costs - Capital expenditure and operating costs (€m)

	TERNA		
	2022	2021	2020
Capital expenditure			
Environmental activities – existing plant ⁽¹⁾	6.3	7.2	6.0
Environmental activities – new plant ⁽²⁾	7.1	6.7	5.5
Environmental impact studies ⁽³⁾	5.2	5.3	3.9
Environmental offsets ⁽⁴⁾	4.3	2.6	1.6
Demolitions ⁽⁵⁾	3.4	1.6	1.3
Total capital expenditure	26.3	23.4	18.3
Costs			
Cost of environmental activities ⁽⁶⁾	26.0	25.2	26.8
Total operating costs	26.0	25.2	26.8

¹⁾ **Environmental activities – existing plant:** These are the costs of upgrading plants to comply with new legal requirements and regulations in the environmental field (e.g., noise and visual and landscape aspects).

²⁾ **Environmental activities – new plant:** The amount shown is an estimated figure. Based on an analysis of certain large investment projects, it has been found that at least 1% of total project costs correspond to environmental items, usually deriving from regulatory requirements (for example, tree screens, noise barriers, the installation of bird deterrents, environmental monitoring, testing of excavated soil and rocks). Therefore, a value of 1% of the capital expenditure costs for projects with similar characteristics has been taken into account.

³⁾ **Environmental impact studies:** These relate to plants provided for in the Grid Development Plan that are under construction or awaiting the necessary consents from the competent authorities.

⁴⁾ **Environmental offsets:** These are amounts allocated to offset the works provided for in the Grid Development Plan, as identified by specific agreements signed with local authorities. Compared with the information published in the 2020 Sustainability Report, the figure for 2020 has fallen from €5.5m to €1.6m following a final assessment of the scope of compensatory works.

⁵⁾ **Demolitions:** This is the cost of the final decommissioning of power lines as part of rationalisation programmes.

⁶⁾ **Cost of environmental activities:** this regards vegetation management, grass cutting, waste management and demolition/decommissioning activities, which represent small amounts and are not included under investment. These cost items, which are directly identifiable within the management accounts, do not cover all operating costs, but do comprise the majority of such costs.





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Methodological note

The Terna Group's consolidated non-financial statement has been prepared in compliance with the provisions of Legislative Decree 254/2016, as amended. It contains disclosures on the matters deemed material and provided for in art. 3 of the above Decree, to the extent necessary to enable readers to gain an understanding of the Group's activities, its performance, results and impacts. In the paragraph on the "The EU taxonomy", the NFS also includes the disclosures required by the taxonomy, as provided for in Regulation (EU) 852/20.

2-3 > The NFS, prepared using the new GRI reporting standards *in accordance with* version, provides a complete picture of the most significant impact generated by Terna on the economy, the environment and people, including its impact on human rights. The NFS also highlights how the impacts are managed by the Company to deliver its contribution to sustainable development.

2-5 > The document was subject to a limited assurance by Deloitte & Touche S.p.A., resulting in a specific *Assurance report*, as required by the provisions of articles 3 and 4 of Legislative Decree 254/16. The opinion of the auditing firm and the related assurance activities did not concern the disclosure relating to the *material performance indicators envisaged in the supplement for the Electric Utility sector (GRI - EUSS), the other published GRI performance indicators* reported on page 301, the Key indicator tables, published in the *Sustainability* section in the general archive of the website at www.terna.it or the "The EU taxonomy" disclosures.

The following table shows the content of the disclosures required by the Decree and their position in the Integrated Report. This content, together with the EU taxonomy disclosures, constitute the Group's 2022 NFS and are appropriately indicated using the abbreviation **NFS**.

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Compliance with Legislative Decree 254/2016

LEGISLATIVE DECREE 254/2016 SCOPE	MATERIAL TOPIC FOR TERNA	PARAGRAPHS OF THE REPORT RELATING TO THE NFS	GRI TOPIC STANDARDS / EUSS
ENVIRONMENT	Environmental impact of electricity infrastructure on local areas	<ul style="list-style-type: none"> Protecting local areas and respecting the landscape Electricity power lines, biodiversity and birdlife 	304-1; 413-2 EU13; EU22
	Reducing the Group's CO ₂ emissions	<ul style="list-style-type: none"> Opportunities and risks connected with climate change Energy consumption and cuts in emissions: energy efficiency Atmospheric emissions Direct CO₂ emissions (scope 1) Indirect CO₂ emissions (scope 2) Other indirect CO₂ emissions (scope 3) Summary of indirect and direct emissions: carbon intensity SF₆ gas management Grid losses 	201-2; 302-1; 302-3 305-1; 305-2; 305-3 305-4; 305-5; EU12
	Delivering the energy transition	<ul style="list-style-type: none"> Opportunities and risks connected with climate change The Group's capital expenditure Atmospheric emissions Direct CO₂ emissions (scope 1) Indirect CO₂ emissions (scope 2) Summary of indirect and direct emissions: carbon intensity 	201-2; 203-1; 302-1 302-3; 305-1; 305-2 305-3; 305-4; 305-5
SOCIAL	Quality, security and continuity of the electricity service	<ul style="list-style-type: none"> Electricity transmission Changes in the dimensions of the NTG Continuity and quality of service 	EU3; EU4 EU28; EU29
	Management of stakeholder relations	<ul style="list-style-type: none"> Dialogue with local communities Protecting local areas and respecting the landscape Landowners affected by grid development 	413-1; 413-2; EU22
WORKFORCE RELATED	Workplace health and safety and workers' rights	<ul style="list-style-type: none"> Health, safety and correct working practices Protecting employees' safety Company welfare and wellbeing Supply chain sustainability Occupational injuries Protecting workers' human rights at contractors' construction sites 	403-1; 403-2; 403-3 403-4 403-5; 403-6 403-7 403-9; EU17 EU18
	HR development and wellbeing	<ul style="list-style-type: none"> Company welfare and wellbeing Workforce trends Industrial relations Training Recruitment, selection and development Generational turnover 	201-3; 401-1; 401-2 401-3; 402-1; 404-1 404-2; 404-3; EU15
	Advancement of inclusion and diversity	<ul style="list-style-type: none"> Diversity and equal opportunities Employee overview Good business practices: respecting diversity, inclusion and wellbeing 	202-2; 405-1; 405-2 406-1
RESPECT FOR HUMAN RIGHTS	Sustainable supply chain	<ul style="list-style-type: none"> Supply chain sustainability Qualification of suppliers and inspections Protecting workers' human rights at contractors' construction sites 	204-1; 308-1; 308-2 403-7; 407-1; 414-1 414-2; EU17; EU18
TACKLING CORRUPTION	Business integrity	<ul style="list-style-type: none"> Tackling corruption Compliance Taxation Privacy 	205-1; 205-2; 205-3 206-1; 207-1; 207-2 207-3; 207-4; 418-1 EU25

Scope of reporting and indicators

The 2022 NFS scope of reporting, which starting from 2021 is included in the Integrated Report (previously the Report on Operations), refers to the Terna Group, meaning the Parent Company, Terna S.p.A., and the subsidiaries consolidated on a line-by-line basis in the consolidated financial statements for the year ended and as at 31 December 2022.

Unless otherwise indicated, the following are excluded from the scope:

- the subsidiary, Avvenia;
- the LT Group, in which a 75% stake was acquired in October 2021,
- data referring to companies operating overseas.

Data regarding Avvenia, a subsidiary acquired in 2018 and controlled by Terna Energy Solutions, in turn a subsidiary of Terna, have not been consolidated given their limited significance in both the social aspect (17 staff at 31 December 2021) and the environmental aspect, in line with the environmental impact analyses for Avvenia completed in 2019.

Regarding the LT Group, which carries out different activities from Terna's core business, the most significant social data are reported in a dedicated section "Key indicator tables", published on the website at www.terna.it.

Environmental data regarding subsidiaries operating overseas have been consolidated in a comparable manner based on the type of impact and management model. In contrast, it was deemed preferable to report data on social aspects (e.g., accidents, easements) separately, given the significant differences in the respective related regulatory framework.

In terms of the Terna Group, as of this NFS – in order to progressively shift towards a "One Company" approach to presentation – the social and environmental data of the whole Brugg Group have been consolidated, together with the "Terna" electricity sector data (meaning Terna, Terna Rete Italia, Terna Plus and Terna Energy Solutions) and Tamini Group data (without taking into account employees in the United States and India). On the other hand, for the previous two years, 2021 and 2020, Group data refers to Terna, the Tamini Group and Brugg Switzerland, as it was not necessary to estimate them given their limited significance compared with the Group's figures.

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Regarding Terna (electricity sector), to guarantee the comparability of the 2022 data with that of the previous two years, the data related to the same sector published in the 2021 Integrated Report and the 2020 Sustainability Report have also been reported.

When the data reported in the section, "Human capital", refers to "Terna", it relates to 82% of the workforce, whilst when it refers to the Group it relates to 97% of the Group's workforce (meaning 100% of employees except those of Terna Crna Gora, the South American companies, Avenia and the LT Group). In terms of the Group's revenue, these percentages for "Terna" alone are 89% and when referring to the Group 98%.

As regards the data reported in the section, "Natural capital", on the other hand, when this refers to "Terna" it relates to 83% of the workforce, whilst when it refers to the Group it relates to 98% of the Group's workforce. In terms of the Group's revenue, these percentages for "Terna" alone are 89% and when referring to the Group 99%.

Finally, any changes to the data published in previous editions are appropriately highlighted in the document.

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In accordance with the materiality principle, data presented in the Report cover all companies having a significant impact on sustainability (e.g., in terms of size or personnel, potential impact on the environment and the community or the number of transactions/activities occurring during the year) and over which Terna directly or indirectly exercises control or has power to govern their financial and operating policies. There are no joint ventures, other subsidiaries or leased assets that might significantly influence the scope of compatibility of the environmental or social data.

2-12 > Materiality analysis: impact assessment

The updated 2022 materiality analysis conducted by Terna included, in addition to the regular analysis on the importance of topics, an assessment of the impact generated by the Group, in line with the new standard, GRI 3: Material Topics 2021.

3-1 > In application of the new requirements introduced by the standard, Terna has developed an Impact Assessment Tool, a model to identify and assess impact (already used in the previous year and further refined for the 2022 analysis).

The analysis entails the identification of impacts linked to material topics as a first step, identifying approximately 90 (including positive, negative, current and potential impacts) and using the GRI indicators reported in the previous four years as its primary source. This phase consisted of desk activities, which regarded a due diligence of a series of documentary sources by assessing multiple elements (documents published by Terna in the previous annual reporting period; assessment of the main categories mapped in the business model of Terna's stakeholders, associating the corresponding stakeholder categories affected to each impact identified; a survey of the SDGs and Human Rights attributable to the impact). The impacts identified in the previous phase were then assessed based on the parameters provided by the new GRI 3 (*likelihood; scope; scale and irremediable character*). The assessment of overall materiality also considered the relation of each impact with any human rights (in the case of negative impacts) and SDGs (in the case of positive impacts).

The analysis also involved a phase dedicated to stakeholder engagement, which regarded two new activities, conducted for the first time this year:

- a new section of the online questionnaire, entirely dedicated to impact, in which participants were requested to rank the first five materiality topics, based on the significance of the related impact. In 2022, in addition to the stakeholder categories used in previous years (clients, local communities, distributors, suppliers, investors, media, representatives of opinion groups, employees), two new categories were involved: sustainability experts (from other businesses/organisations and European TSOs) selected to meet the new requirements of the GRI standard in question, and financial analysts.
- the establishment of six focus groups, during which an assessment was conducted on the list of impacts previously selected during desk activities (also identifying new impacts during the meeting) based on the parameters provided by the GRI 3 standard (*likelihood; scope; scale and irremediable character*). The in-depth assessments focused on various topic areas: territory, the environment, the supply chain, the community, employees, business performance and involved colleagues expert in the topics being assessed and constantly in contact with the affected stakeholder categories. These meetings played a significant part in validation of the preliminary assessment, prepared through the desk activities.

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The outcome of each activity has been processed and combined as input for the Impact Assessment Tool.

MATERIAL TOPIC	EXAMPLE OF IMPACT	REFERENCES
Quality, security and continuity of the electricity service	- Its positive impact regards the reliability and quality of the service, the subsequent reduction of outages thanks to adequacy of the grid and the implementation of prevention and management models. On the other hand, its negative impact takes into account the possibility of an increase in outages (e.g., congestion issues) linked to the grid's inadequacy.	119
Grid resilience	- Terna's actions can guarantee a reduction in outages for stakeholders through an investment plan able to ensure the adequacy of the grid, in the absence of which the increase in outages would have a significant impact on the community.	104
Workplace health and safety and workers' rights	- Oversight and promotion of an HSE culture among employees and throughout the supply chain could reduce work-related injuries and benefit the psychophysical wellbeing of personnel in terms of improved safety and confidence in the work environment. On the other hand, poor familiarity with the issue could instead result in an increase in the injury rate and an increase in unease caused by work-related stress.	218
Reducing the Group's CO₂ emissions	- Terna's commitment in terms of consumption efficiency and cutting emissions could reduce the Group's carbon footprint. Without this commitment, greenhouse gas emissions from Terna's operating activities could significantly increase.	259
Delivering the energy transition	- On one hand, the impact could result in a reduction in greenhouse gas emissions thanks to the growth in the connection of RES plants. On the other hand, below target growth in RES production could result in a delay in the phase-out of fossil fuels.	38

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The connection of material topics with the categories of the Sustainability Accounting Standards Board (SASB) is available at this QR code.



GRI indicator index

This section provides an index of the GRI Standards indicators reported in this DNF. Each Topic Specific Standard, where provided for, is linked with the relevant **Sustainable Development Goals** ("SDGs") and, in line with the value creation process over time (see page 52-53), also with **capital**. References to the pages of the Report have been included to facilitate retrieval of the information reported in response to the requirements of the Standards as well as any limitations and notes identified for specific indicators. Finally, it should be noted that the reference standards are those published in 2016 (any references to subsequent standards are clearly indicated in the table) and those related to the new edition of GRI 2021.

STATEMENT OF USE		TERNA REPORTED IN ACCORDANCE WITH GRI STANDARDS FOR THE PERIOD 1ST JANUARY – 31 DECEMBER 2022	
GRI STANDARD		PAGE	LIMITATIONS AND NOTES
GRI 1 – FOUNDATION (2021)		56-57, 294-295	
GRI 2 – GENERAL DISCLOSURES (2021)			
THE ORGANIZATION AND ITS REPORTING PRACTICES			
2-1	Organizational details.	64-69.	218
2-2	Entities included in the organization's sustainability reporting.	66-69.	292
2-3	Reporting period, frequency and contact point.	6.	242. 290
2-4	Restatements of information.		293
2-5	External assurance.	6.	290
ACTIVITIES AND WORKERS			
2-6	Activities, value chain and other business relationships.	54. 98-99. 121. 130. 136-137	196-202. 223
2-7	Employees.		208
2-8	Workers who are not employees.		205. 223
GOVERNANCE			
2-9	Governance structure and composition.		70-77 Report on Corporate Governance and Ownership Structures
2-10	Nomination and selection of the highest governance body.		71 Report on Corporate Governance and Ownership Structures
2-11	Chair of the highest governance body.		Report on Corporate Governance and Ownership Structures
2-12	Role of the highest governance body in overseeing the management of impacts.	45. 58-59. 70-73.	294 Report on Corporate Governance and Ownership Structures
2-13	Delegation of responsibility for managing impacts.		71 Report on Corporate Governance and Ownership Structures
2-14	Role of the highest governance body in sustainability reporting.		7
2-15	Conflicts of interest.		Report on Corporate Governance and Ownership Structures
2-16	Communication of critical concerns.		Report on Corporate Governance and Ownership Structures
2-17	Collective knowledge of the highest governance body.		Report on Corporate Governance and Ownership Structures

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GRI STANDARD		PAGE	LIMITATIONS AND NOTES
2-18	Evaluation of the performance of the highest governance body.	Report on Corporate Governance and Ownership Structures	
2-19	Remuneration policies.	Report on Corporate Governance and Ownership Structures	
2-20	Process to determine remuneration.	Report on the remuneration policy and remuneration paid	
2-21	Annual total compensation ratio.	Report on the remuneration policy and remuneration paid	The data has been calculated considering the salary fixed average of the whole company population and not the median total annual remuneration.
STRATEGY, POLICIES AND PRACTICES			
2-22	Statement on sustainable development strategy.		4-5
2-23	Policy commitments.	184-185. 192-193. 196-202.	258 Report on Corporate Governance and Ownership Structures
2-24	Embedding policy commitments.	185-186. 188-192.	196
2-25	Processes to remediate negative impacts.		248. 285
2-26	Mechanism for seeking advice and raising concerns.		189-190 Code of Ethics, 44-45
2-27	Compliance with laws and regulations.		185
2-28	Membership associations.		236-237. 239
STAKEHOLDER ENGAGEMENT			
2-29	Approach to stakeholder engagement.	234-235. 242-244.	251
2-30	Collective bargaining agreements.		216
GRI 3 MATERIAL TOPICS (2021)			
3-1	Process to determine material topics.		58. 294
3-2	List of material topics.		56
3-3	Management of material topics.		295 In the following section - dedicated to GRI Topic Specific Standards - are indicated the pages of reporting standard 3-3.

Topic specific standards – GRI 200: economic topics

GRI STANDARD	PAGE	LIMITATIONS AND NOTES	CAPITALS	SDGs
ECONOMIC PERFORMANCE (2016)	89-92, 225 240-241			
201-1 Direct economic value generated and distributed.	240-241			
201-2 Financial implications and other risks and opportunities due to climate change.	89-92			
201-3 Defined benefit plan obligations and other retirement plans.	225			
201-4 Financial assistance received from government.	241			
MARKET PRESENCE (2016)	231			
202-2 Proportion of senior entry level wage by gender compared to local minimum wage.	231			
INDIRECT ECONOMIC IMPACTS (2016)	109,250			
203-1 Infrastructure investments and services supported.	109, 250			
PROCUREMENT PRACTICES (2016)	196-202			
204-1 Proportion of spending on local suppliers.	198			
ANTI-CORRUPTION (2016)	185, 188-193			
205-1 Operations assessed for risks related to corruption.	188			
205-2 Communication and training about anti-corruption policies and procedures.	189	Information on suppliers is provided on page 196.		
205-3 Confirmed incidents of corruption and actions taken.	185			
ANTI-COMPETITIVE BEHAVIOR (2016)	80-81, 185			
206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices.	185			
TAX (2019)	186-187			
207-1 Approach to tax.	186			
207-2 Tax governance, control, and risk management.	186-187	For the reports, see page 190. For the assurance process, see the independent auditor's report on the financial statements.		
207-3 Stakeholder engagement and management of concerns related to tax.	187			
207-4 Country by country reporting.	68-69, 187			

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Topic specific standards – GRI 300: environmental topics

GRI STANDARD	PAGE	LIMITATIONS AND NOTES	CAPITALS	SDGs
MATERIALS (2016)	258, 274			
301-1 Materials used by weight or volume.	274			
ENERGY (2016)	258, 266-267			
302-1 Energy consumption within the organization.	266			
302-3 Energy intensity.	267			
BIODIVERSITY (2016)	258, 281-282			
304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	281			
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations.	281-282			
EMISSIONS (2016)	258, 261-264 266, 269			
305-1 Direct (Scope 1) GHG emissions.	261			
305-2 Energy indirect (Scope 2) GHG emissions.	263			
305-3 Other indirect (Scope 3) GHG emissions.	266			
305-4 GHG emissions intensity.	265			
305-5 Reduction of GHG emissions.	262, 266, 269			
WASTE (2020)	258, 276-277			
306-1 Waste generation and significant waste related impacts.	276			
306-2 Management of significant waste related impacts.	276			
306-3 Waste generated.	277			
SUPPLIER ENVIRONMENTAL ASSESSMENT (2016)	158, 199, 201			
308-1 New suppliers that were screened using environmental criteria	199			
308-2 Negative environmental impacts in the supply chain and actions taken.	201			

Topic specific standards – GRI 400: social topics

GRI STANDARD	PAGE	LIMITATIONS AND NOTES	CAPITALS	SDGs
EMPLOYMENT (2016)	203, 205-206 225-227			
401-1 New employee hires and employee turnover.	206			
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees.	225			
401-3 Parental leave.	227			
LABOR / MANAGEMENT RELATIONS (2016)	203, 217			
402-1 Minimum notice periods regarding operational changes.	217			
OCCUPATIONAL HEALTH AND SAFETY (2018)	203, 218-219 220-221, 225			
403-1 Occupational health and safety management system.	218			
403-2 Hazard identification, risk assessment, and incident investigation.	219			
403-3 Occupational health services.	218			
403-4 Worker participation, consultation, and communication on occupational health and safety.	218			
403-5 Worker training on occupational health and safety.	219			
403-6 Promotion of worker health.	219, 225			
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships.	196			
403-9 Work-related ill health.	220-221			
TRAINING AND EDUCATION (2016)	163, 210, 212-213			
404-1 Average hours of training per year per employee.	213			
404-2 Programs for upgrading employee skills and transition assistance programs.	210, 212	For transition assistance programmes see the Consolidated Financial Statements.		
404-3 Percentage of employees receiving regular performance and career development reviews.	210			
DIVERSITY AND EQUAL OPPORTUNITY (2016)	72, 203, 208, 228-231			
405-1 Diversity of governance bodies and employees.	72, 208, 228-231			
405-2 Ratio of basic salary and remuneration of women to men.	230			
NON- DISCRIMINATION (2016)	190, 203, 224			
406-1 Incidents of discrimination and corrective actions taken.	190, 224			
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING (2016)	201			
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.	201			
LOCAL COMMUNITIES (2016)	232, 244, 246- 248, 279		a	
413-1 Operations with local community engagement, impact assessments, and development programs.	244, 246			
413-2 Operations with significant actual and potential negative impacts on local communities.	248, 279			
SUPPLIER SOCIAL ASSESSMENT (2016)	196-202			
414-1 New suppliers that were screened using social criteria.	199			
414-2 Negative social impacts in the supply chain and actions taken.	201-202			
PUBLIC POLICY (2016)	249			
415-1 Political contributions.	249			
CUSTOMER PRIVACY (2016)	188			
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data.	188			

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List of material performance indicators required to meet sector disclosure requirements for the electric utilities sector (EUSS 2013)

EUSS INDICATORS	PAGE	LIMITATIONS AND NOTES	CAPITALS	SDGs
ORGANIZATIONAL PROFILE				
EU3 Number of residential, industrial, institutional, and commercial customer accounts.	127			
EU4 Length of above and underground transmission and distribution lines by regulatory regime.	99, 320-321			
SYSTEM EFFICIENCY				
EU12 Transmission and distribution losses as a percentage of total energy.	264			
BIODIVERSITY				
EU13 Biodiversity of offset habitats compared to the biodiversity of the affected areas.	279, 280			
EMPLOYMENT				
EU15 Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region.	207			
EU17 Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities.	223			
EU18 Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.	223			
LOCAL COMMUNITIES				
EU22 Number of people physically or economically displaced and compensation, broken down by type of project.	248			
CUSTOMER HEALTH AND SAFETY				
EU25 Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.	185			
ACCESS				
EU28 Power outage frequency (SAIFI).	119			
EU29 Average power outage duration (AIT).	119			

List of other GRI performance indicators published

In line with an approach based on voluntary disclosure, the Group has opted to publish certain indicators even if they are judged to fall below the materiality threshold and thus do not fall within the scope of the NFS (see the specific section on materiality on page 292). Finally, it should be noted that these indicators only partially refer to the requirements provided for in the GRI.

GRI STANDARD	PAGE	LIMITATIONS AND NOTES	CAPITALS	SDGs
WATER AND EFFLUENTS (2018)				
303-1 Interactions with water as a shared resource.	276			
CHILD LABOR (2016)				
408-1 Operations and suppliers at significant risk for incidents of labour.	196,198			
FORCED OR COMPULSORY LABOR (2016)				
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour.	196,198			

For Key indicator tables scan this QR code.



Links between the GRI Standards and the Global Compact principles

This table shows the links between the GRI Standards applicable to Terna and the related Global Compact principles in order to make it easier to find information of significance to stakeholders interested in assessing Terna's implementation of the principles.

	GLOBAL COMPACT PRINCIPLE	GRI DISCLOSURE	INDICATORS	PAGE
HUMAN RIGHTS	Principle 1 Businesses should support and respect the protection of internationally proclaimed human rights .	Human Rights "Investment" aspect "Assessment" aspect	2-24	185, 188, 196
		Company "Local Communities" aspect	413-1 413-2	244-247 279
	Principle 2 Ensure that, even if indirectly, they are not complicit in the abuse of human rights .	Human Rights "Investment" aspect	2-24	185, 188, 196
		"Assessing respect for human rights in the supply chain" aspect	414-1 414-2	199 201
LABOUR	Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining .	Organisational profile "Collective bargaining agreements" aspect	2-30	216
		Human Rights "Freedom of association and collective bargaining" aspect	407-1	201
		Labour "Management relations"	402-1	217
	Principle 4 Businesses should eliminate all forms of forced and compulsory labour .	Human Rights "Forced or compulsory labour" aspect	409-1	196,198
		Principle 5 Businesses should eliminate child labour .	Human Rights "Child labour"	408-1
	Organisational Profile "Employees" aspect		2-7	208
	Principle 6 Businesses should eliminate all forms of discrimination in respect of employment and occupation.	Economy "Presence on the market" aspect	202-2	231
		Correct work practices "Employment" aspect	401-1 401-3	206 227
			"Training and education" aspect	404-1 404-3
		"Diversity and equal opportunities" aspect	405-1	72, 208 228-231
"Equal pay for men and women" aspect		405-2	230	
Human Rights "Non-discrimination" aspect		406-1	190, 224	

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	GLOBAL COMPACT PRINCIPLE	GRI DISCLOSURE	INDICATORS	PAGE	
ENVIRONMENT	Principle 7 Businesses should support a precautionary approach to environmental challenges.	Financial "Financial Performance" aspect	201-2	89-92	
		Environment "Materials" aspect	301-1	274	
		"Energy" aspect	302-1	266	
		"Water" aspect	303-1	276	
		"Emissions" aspect	305-1	261	
		Environment Materials" aspect	301-1	274	
		"Energy" aspect	302-1 302-3	266 261	
		"Biodiversity" aspect	304-4	281-282	
		"Emissions" aspect	305-1 305-2 305-3 305-4 305-5 304-1	261 263 266 265 262, 266, 269 281-282	
		"Waste" aspect	306-1 306-2	276 276	
	"Compliance" aspect	2-27	185		
	"Assessment of suppliers on environmental criteria" aspect	308-1 308-2	199 201		
	Principle 8 Businesses should undertake initiatives to promote greater environmental sustainability.	Environment "Emissions" aspect	305-5	262, 266, 269	
	Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	Company	2-23	184-185 192-193 196-202, 258	
	TACKLING CORRUPTION	Principle 10 Businesses should work against corruption in all its forms , including extortion and bribery.	"Ethics and integrity" aspect	2-26	189-190
			"Anticorruption" aspect	205-1	188
"Public policy" aspect			205-1	188	





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INDEPENDENT AUDITOR'S REPORT ON THE CONSOLIDATED NON-FINANCIAL STATEMENT PURSUANT TO ARTICLE 3, PARAGRAPH 10 OF LEGISLATIVE DECREE No. 254 OF DECEMBER 30, 2016 AND ART. 5 OF CONSOB REGULATION N. 20267/2018

To the Board of Directors of
Terna S.p.A.

Pursuant to article 3, paragraph 10, of the Legislative Decree no. 254 of December 30, 2016 (hereinafter also "Decree") and to article 5 of the CONSOB Regulation n. 20267/2018, we have carried out a limited assurance engagement on the Consolidated Non-Financial Statement of Terna S.p.A. and its subsidiaries (hereinafter "Terna Group" or "Group") as of December 31, 2022 prepared on the basis of art. 4 of the Decree, presented in the specific section of the Report on operations and integrated, through references, with information presented in other sections of the Report on operations, approved by the Board of Directors on March 22, 2023 (the "NFS").

Our limited assurance engagement does not extend to the information required by art. 8 of the European Regulation 2020/852 included in the paragraph "The EU Taxonomy".

Responsibility of the Directors and the Board of Statutory Auditors for the NFS

The Directors are responsible for the preparation of the NFS in accordance with articles 3 and 4 of the Decree and "*Global Reporting Initiative Sustainability Reporting Standards*" established by GRI – *Global Reporting Initiative* (hereinafter also "GRI Standards"), which they have identified as reporting framework.

The Directors are also responsible, within the terms established by Law, for such internal control as they determine is necessary to enable the preparation of NFS that is free from material misstatement, whether due to fraud or error.

The Directors are moreover responsible for defining the contents of the NFS, within the topics specified in article 3, paragraph 1, of the Decree, taking into account the activities and characteristics of the Group, and to the extent necessary in order to ensure the understanding of the Group's activities, its trends, performance and the related impacts.

Finally, the Directors are responsible for defining the business management model and the organisation of the Group's activities as well as, with reference to the topics detected and reported in the NFS, for the policies pursued by the Group and for identifying and managing the risks generated or undertaken by the Group.

The Board of Statutory Auditors is responsible for overseeing, within the terms established by law, the compliance with the provisions set out in the Decree.

Auditor's Independence and quality control

We have complied with the independence and other ethical requirements of the *Code of Ethics for Professional Accountants* issued by the *International Ethics Standards Board for Accountants*, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Our auditing firm applies International Standard on Quality Control 1 (ISQC Italia 1) and, accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Auditor's responsibility

Our responsibility is to express our conclusion based on the procedures performed about the compliance of the NFS with the Decree and the GRI Standards. We conducted our work in accordance with the criteria established in the *"International Standard on Assurance Engagements ISAE 3000 (Revised) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information"* (hereinafter also *"ISAE 3000 Revised"*), issued by the *International Auditing and Assurance Standards Board* (IAASB) for limited assurance engagements. The standard requires that we plan and perform the engagement to obtain limited assurance whether the NFS is free from material misstatement. Therefore, the procedures performed in a limited assurance engagement are less than those performed in a reasonable assurance engagement in accordance with ISAE 3000 Revised, and, therefore, do not enable us to obtain assurance that we would become aware of all significant matters and events that might be identified in a reasonable assurance engagement.

The procedures performed on NFS are based on our professional judgement and included inquiries, primarily with company personnel responsible for the preparation of information included in the NFS, analysis of documents, recalculations and other procedures aimed to obtain evidence as appropriate.

Specifically we carried out the following procedures:

1. analysis of relevant topics with reference to the Group's activities and characteristics disclosed in the NFS, in order to assess the reasonableness of the selection process in place in light of the provisions of art. 3 of the Decree and taking into account the adopted reporting standard;
2. analysis and assessment of the identification criteria of the consolidation area, in order to assess its compliance with the Decree;
3. comparison between the financial data and information included in the NFS with those included in the consolidated financial statements of the Terna Group;

4. understanding of the following matters:

- business management model of the Group's activities, with reference to the management of the topics specified by article 3 of the Decree;
- policies adopted by the entity in connection with the topics specified by article 3 of the Decree, achieved results and related fundamental performance indicators;
- main risks, generated or undertaken, in connection with the topics specified by article 3 of the Decree.

Moreover, with reference to these matters, we carried out a comparison with the information contained in the NFS and the verifications described in the subsequent point 5, letter a) of this report;

5. understanding of the processes underlying the origination, recording and management of qualitative and quantitative material information included in the NFS.

In particular, we carried out interviews and discussions with the management of Terna S.p.A., Terna Rete Italia S.p.A. and Tamini Trasformatori S.r.l., and we carried out limited documentary verifications, in order to gather information about the processes and procedures which support the collection, aggregation, elaboration and transmittal of non-financial data and information to the department responsible for the preparation of the NFS.

In addition, for material information, taking into consideration the Group's activities and characteristics:

- at the parent company's and subsidiaries' level:
 - a) with regards to qualitative information included in the NFS, and specifically with reference to the business management model, policies applied and main risks, we carried out interviews and gathered supporting documentation in order to verify its consistency with the available evidence;
 - b) with regards to quantitative information, we carried out both analytical procedures and limited verifications in order to ensure, on a sample basis, the correct aggregation of data.
- for the North and Centre Transmission Departments and Plant Units of Marche and Brescia of Terna Rete Italia s.p.A., and for Tamini Trasformatori S.r.l., which we selected based on their activities, their contribution to the performance indicators at the consolidated level and their location, we carried out remote meetings, during which we have met their management and have gathered supporting documentation with reference to the correct application of procedures and calculation methods used for the indicators.

Conclusion

Based on the work performed, nothing has come to our attention that causes us to believe that the NFS of the Terna Group as of December 31, 2022 is not prepared, in all material aspects, in accordance with articles 3 and 4 of the Decree and GRI Standards.

Our conclusion on the NFS does not extend to the information required by art. 8 of the European Regulation 2020/852 included in the paragraph "The EU Taxonomy".

DELOITTE & TOUCHE S.p.A.

Signed by
Franco Amelio
Partner

Milan, Italy
April 17, 2023

This report has been translated into the English language solely for the convenience of international readers.



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Regulatory framework and other information

Summary of the principal legislative measures

A brief description is provided below of the principal legislation of interest to the Group issued during 2022 and, subsequently, up to the date of preparation of this Annual Report.

- **Law Decree 4 of 27 January 2022, containing “Urgent measures concerning support for businesses and economic operators, employment, health and local services connected with the Covid-19 emergency, and containment of the impact of rising electricity prices”, converted into Law 25 of 28 March 2022, published in Official Gazette no. 3 of 28 March 2022 (the *Sostegni-ter* Law Decree)**

The Law Decree contains urgent measures designed to contain the impact of rising electricity prices, including a two-way compensation mechanism for electricity prices, reductions in bills for energy-intensive sectors, cuts to environmentally damaging subsidiaries and legislation governing the NRRP-PNIEC technical committee.

- **Law Decree 14 of 22 February 2022, containing “Urgent provisions concerning the crisis in Ukraine”, converted into Law 28 of 5 April 2022, published in Official Gazette no. 87 of 13 April 2022 (the *Ucraina* Law Decree)**

The Law Decree contains measures concerning national energy security, including a requirement that Terna prepare a plan for maximising the use of power coal- and oil-fuelled generation plants with a nominal thermal capacity of over 300 MW for the estimated duration of the emergence, without affecting the contribution from renewable energy plants. The legislation also requires Terna to submit the plan on a weekly basis to the Ministry for the Ecological Transition and ARERA and to carry out dispatching for the above plants, in accordance with grid security constraints, so as to maximise their use, and treating them as if they were essential for the security of the electricity system.

- **Law Decree 17 of 1 March 2022, containing “Urgent measures concerning the containment of electricity and natural gas prices, the development of renewable energy and the renewal of industrial policies”, converted into Law 34 of 27 April 2022, published in Official Gazette no. 98 of 28 April 2022 (the *Energia* Law Decree)**

The Law Decree applies a series of proposals from Terna, such as simplification of the process for alterations to renewable energy plants and simplification of the measures applicable to electricity infrastructure. It also contains measures removing system costs, cutting VAT on gas and general gas system costs, reporting to ARERA on efforts to cut energy prices, energy vouchers, a strategy to combat economic poverty, a simplified approach to the installation of photovoltaic plants in suitable areas and to electrochemical storage systems and floating plants, self-consumption, and further simplifications for renewable plants in suitable areas and consents processes for offshore and pumping plants.

- **Law Decree 21 of 21 March 2022, containing “Urgent measures to combat the economic and humanitarian effects of the crisis in Ukraine”, converted into Law 21 of 20 May 2022, published in Official Gazette no. 117 of 20 May 2021 (the *Tagliaprezzi* Law Decree)**

Among the relevant provisions, the Law Decree contains measures simplifying the approach to renewables, the extraordinary grant to help with energy bills, tax credits for energy purchases, the voucher for electricity purchases and the payment of bills in instalments, price transparency for imported gas, special powers in the energy, transport and communications sectors, qualifications for contracting authorities and the revision of prices in public contracts.

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- **Law Decree 24 of 24 March 2022, containing “Urgent provisions removing the measures designed to combat the spread of Covid-19, following the end of the state of emergency”, converted into Law 52 of 19 May 2022, published in Official Gazette no. 119 of 23 May 2022 (the *Fine Emergenza Covid Law Decree*)**

The Law Decree contains measures to facilitate the return to normality following the end of the Covid-19 state of emergency (simplified smart working).

- **Law Decree 50 of 17 May 2022, containing “Urgent measures concerning national energy policy, the productivity of businesses and attracting investment, and social policies and the crisis in Ukraine”, published in Official Gazette no. 114 of 17 May 2022, in the process of being converted (the *Aiuti Law Decree*)**

The Law Decree applies a series of proposals from Terna concerning suitable areas for the NTG, the deferral of environmental impact assessments without restrictions, the exemption of cable power lines from environmental impact assessments, simplification of the consents process with commencement notices. It also contains legislation on excess profits, social vouchers, tax credits for energy purchases, regassification, simplifications for renewable energy plants, energy communities and public tenders.

The Law Decree was also merged with Law Decree 80 of 30 June 2022, containing urgent measures to contain electricity and natural gas costs for the third quarter of 2022 and guaranteeing the liquidity of companies operating gas storage facilities (the *Bollette III Law Decree*). The Decree removed general system costs in the electricity sector for the third quarter of 2022, cut VAT and general costs in the gas sector for the third quarter of 2022, introduced measure to speed up natural gas storage and guaranteed to meet liquidity needs connected with natural gas storage.

- **Law 78 of 21 June 2022, containing “Delegation to the Government regarding public contracts”, published in Official Gazette no.146 of 24 June 2022 (the delegated law on public contracts).**

The law sets out the principles and criteria that the Government must follow in adopting one or more legislative decrees governing public contracts.

- **Law Decree 36 of 30 April 2022, containing “Additional urgent measures implementing the National Recovery and Resilience Plan”, converted into Law 79 of 29 June 2022, published in Official Gazette no. 150 of 29 June 2022 (the *PNRR-bis Law Decree*)**

The Law Decree contains measures on gender equality, changes to the Tenders Code, the production and consumption of hydrogen, water used for irrigation, the approval of water area plans, biomass, environmental offences, cold ironing, special economic zones and simplified logistics zones.

- **Law Decree 68 of 16 June 2022, containing “Urgent provisions for the security and development of infrastructure, transport and sustainable mobility, and concerning major events and the operations of the Ministry of Sustainable Infrastructure and Mobility”, published in Official Gazette no. 139 of 16 June 2022, in the process of being converted (the *MIMS2 Law Decree*)**

The Law Decree contains measures to accelerate the construction of road infrastructure for Rome and the Jubilee of 2025, concerning dams, road traffic, local public transport, particularly complex public works or those with a significant impact and the operations of the Committee for environment and strategic impact assessments and the NRRP-PNIEC Committee.

- **Law Decree 73 of 21 June 2022, containing “Urgent measures concerning the simplification of taxation and the issue of work permits, the Treasury and other financial and social measures”, published in Official Gazette no. 143 of 21 June 2022, in the process of being converted (the *Semplificazioni fiscali Law Decree*)**

The Law Decree extends application of the Reverse Charge mechanism until 31 December 2026, and contains measures on the obligation to endorse company records every four months, the donation of a proportion of taxable income to charity, changes to the tax calendar, tax returns and lease contracts.

- **Law 118 of 5 August 2022, containing the annual markets and competition law for 2021, published in Official Gazette no. 188 of 12 August 2022 (the *Concorrenza* draft legislation).**

The Law delegates the Government to simplify the legislation governing RES, authorising the Government to adopt, within 12 months of the Law coming into force, one or more legislative decrees governing renewable energy sources with a view to reforming the legal framework. The Law further delegates the Government to legislate on the mapping and transparency of public assets operated under concession, measures regarding concessions for large hydroelectric sources and charging points, procedures for the construction of next generation infrastructure.

- **Law 127 of 4 August 2022, containing the “Delegation to the Government for the transposition of EU directives and implementation of European legislation”, published in Official Gazette no. 199 of 26 August 2022 (the *European Delegation Law 2021*).**

The Law establishes that the Government must follow a series of specific principles and criteria for cross-border transformations, mergers and demergers, markets for financial instruments and crowdfunding services for businesses.

- **Law Decree 115 of 9 August 2022, containing “Urgent measures concerning energy, the water emergency, social and industrial policies”, converted into Law 142 of 21 September 2022, published in Official Gazette no. 221 of 21 September 2022 (the *Aiuti-bis* Law Decree).**

The Law Decree introduces a simplified consents process for certain types of photovoltaic plant; price adjustments in tenders for work on the construction, efficiency improvement or repowering of electricity plants; cybersecurity legislation, a register of permanent occupation of underground space, the suspension of unilateral amendments of electricity and gas supply contracts, tax relief of the purchase of such supplies, the removal of general electricity system costs, a compensation mechanism, windfall taxes, governance of the integrated water service and the state of emergency resulting from water shortages, areas of national strategic interest and an accelerated regional consents process, a review of complementary fund pricing – the Milan-Cortina Olympics.

- **Law Decree 144 of 23 September 2022, containing “Additional urgent measures concerning national energy policy, the productivity of businesses, social policies and implementation of the national recovery and resilience plan (NRRP)”, converted into Law 175 of 17 November 2022, published in Official Gazette no. 269 of 17 November 2022 (the *Aiuti-ter* Law Decree).**

The Law Decree includes measures relating to the development of new regassification capacity and the related infrastructure and works; national energy resilience; access to funding for urgent projects; energy vouchers for businesses and tax relief.

- **Law 197 of 29 December 2022, containing the Government’s Budget for the 2023 financial year and the multi-year budget for the three years 2023-2025, published in Official Gazette no. 303 of 29 December 2022 (the *Budget Law*).**

The Law Decree set up a scheme designed to cut energy consumption to be run by Terna through an open procedure for selecting end users willing to commit to reducing their consumption through to 31 March 2023. It also removes general electricity system costs for the first quarter of 2023 and the temporary solidarity payment for 2023, as well as containing legislation on tenders and labour.

As regards taxation, it contains measures regarding: the non-deductibility of costs deriving from transactions with businesses located in countries or territories with whom there is no tax cooperation; substitute tax on revenue reserves; the taxation of gains realised by overseas entities; remeasurement of the purchase prices of land and investments; penalties regarding VAT; settlement concessions for amounts payable following automated checks of tax returns; the settlement of formal irregularities; special adjustments for tax violations; a series of measures concerning tax disputes.

- **Law Decree 176 of 18 November 2022, containing “Additional urgent measures concerning support in the energy sector and the public finances”, converted into Law 6 of 13 January 2023, published in Official Gazette no. 13 of 17 January 2023 (the *Aiuti-quater* Law Decree).**

The Law Decree contains measures concerning the NRRP-PNIEC Technical Committee, the Ministry of Defence’s contribution to Italy’s energy independence, the procedures for awarding contracts.

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Resolutions of the Italian Regulatory Authority for Energy, Networks and the Environment

A list is provided below of the principal resolutions adopted by Italy's Regulatory Authority for Energy, Networks and the Environment (ARERA) during 2022 and, subsequently, up to the date of preparation of this Annual Report.

ARERA determinations on the remuneration of transmission and dispatching services

- **Resolution 23/2022/R/eel** - Determination of the reward for the delivery of additional transmission capacity between market areas in 2020.
- **Resolution 25/2022/R/eel** - Determination of the reward for unification of the national transmission grid following the purchase of a portion of the grid owned by Megareti.
- **Resolution 132/2022/R/eel** - Changes to incentive schemes to reduce dispatching costs.
- **Opinion 265/2022/I/eel** - Issue of an opinion by the Ministry for the Ecological Transition on the update regarding the national transmission grid.
- **Resolution 281/2022/R/eel** - Extension of existing provisions concerning the regulation of reactive energy tariffs on HV and VHV electricity grids.
- **Resolution 527/2022/R/com** – Launch of process of adopting measures concerning the criteria for totex- and output-based regulation of the service.
- **Resolution 621/2022/R/eel** – Determination of the reward for unification of the national transmission grid following the purchase of a portion of the grid owned by Nord Energia S.p.A..
- **Resolution 623/2022/R/eel** - Determination of the reward for of the quality-of-service bonus for electricity transmission and partial return of payments from Terna S.p.A. regarding mitigation services for 2021.
- **Resolution 654/2022/R/eel** – Review of activation of the trigger mechanism introduced by article 8 of the TIWACC 2022-2027 for 2023 and correction of a material error in the TIWACC 2022-2027.
- **Resolution 719/2022/R/eel** - Revision of tariffs for provision of the electricity transmission service for 2023.
- **Resolution 728/2022/R/eel** - Recognition of the final costs for 2021 and the estimated costs for 2023 incurred by Terna S.p.A. in carrying out its market monitoring activities.
- **Resolution 738/2022/R/eel** - Revision of dispatching fees from 1 January 2023.

ARERA determinations on the provision of transmission and dispatching services

- **Resolution 9/2022/R/eel** - Compliance review of the Code for Transmission, Dispatching, Grid Development and Security regarding an evaluation of the increase in resilience resulting from grid development projects.
- **Resolution 47/2022/R/eel** - Extension of the deadline for the entry into service of the new Piosasco (IT) – Grand'Île (FR) interconnector in accordance with the European Commission decision C(2022) 389 Final.
- **Resolutions 49/2022/R/eel, 93/2022/R/eel and 140/2022/R/eel** - Provisions concerning prolongation of the virtual import service referred to in ARERA determination ARG/elt 179/09, pursuant to the provisions of the Law Decree of 30 December 2021. Approval of the related standard contract and the regulations governing the auctions held to assign the service.

- **Resolution 65/2022/R/com** - Deadline for 2022 for preparation of the documents describing the scenarios for electricity transmission and gas transport development plans.
- **Resolution 83/2022/R/eel** - Urgent amendments and additions to the method for setting the strike price on the capacity market, as referred to in the regulator's Resolution 363/ 363/2019/R/eel.
- **Resolution 123/2022/R/eel** - Approval of the proposed changes to the Code for Transmission, Dispatching, Development and Security of the grid, in implementation of the reform of the rules governing imbalances, and further changes to dispatching rules.
- **Resolution 134/2022/R/eel** - Approval of the proposed changes to chapters 4 and 7 and annexes A.23 and A.25 in the Code for Transmission, Dispatching, Development and Security for Terna's grid.
- **Resolution 279/2022/R/com** - Start of the procedure implementing the Cabinet Office decree of 29 March 2022 concerning the works and infrastructure necessary for the phase-out of the use of coal in Sardinia.
- **Resolution 285/2022/R/eel** - Approval of annex A.78 to the Code for Transmission, Dispatching, Development and Security of the grid concerning the measurement algorithms used to calculate negative electricity injected and amendments to the regulator's Resolution 109/2021/R/eel.
- **Resolution 287/2022/R/eel** - Approval of the proposed changes to annexes A.6 and A.13 in the Code for Transmission, Dispatching, Development and Security for Terna's grid, concerning the exchange of data between Terna, distribution companies and significant grid users in relation to the secure operation of the national electricity system.
- **Resolution 326/2022/R/eel** – Approval of the revised contract between Terna S.p.A. and Piemonte Savoia S.r.l. for commercial management of the Piedmont Savoia Interconnector.
- **Resolution 329/2022/R/eel** – Provision of the dispatching service to end users connected to closed distribution systems in compliance with the Council of State rulings 4346/2021, 4347/2021 and 4348/2021. Conclusion of the process launched with Resolution 323/2021/R/eel.
- **Opinion 335/2022/I/eel** – Assessment of the draft ten-year national transmission grid development plan for 2021.
- **Resolution 344/2022/R/eel** – Further measures concerning the creation of Regional Coordination Centres (RCCs) for the (SOR) Central Europe and South East Europe region, in accordance with article 35 of Regulation (EU) 2019/943.
- **Resolutions 430/2022/R/eel** and **725/2022/R/eel** – Urgent criteria for the formulation of offers on the electricity market and remuneration, with regard to electricity production plants powered by fuels other than natural gas, pursuant to article 5bis of Law Decree 14 of 25 February 2022 and the ministerial guidelines dated 1 September 2022.
- **Resolution 450/2022/R/eel** – Definition of the automatic mechanism for recovering amounts due from and not paid by the operators of closed distribution systems following delayed application of the relevant regulations.
- **Resolution 472/2022/R/eel** – Additional regulation concerning the transmission, distribution and dispatching of service for electricity withdrawn in order to enable it to be fed back into the grid, as described in Resolution 109/2021/R/eel.
- **Resolution 473/2022/R/eel** – Urgent measures concerning adjustments for load profiling.
- **Resolutions 532/2022/R/eel** and **626/2022/R/eel** – Measures concerning essential plants. Amendments and additions to the related regulations.
- **Resolution 587/2022/R/eel** – Implementation of single intraday coupling on the Greece-Italy border, review of the draft contractual framework.
- **Resolution 603/2022/R/eel** - Approval of Terna S.p.A.'s proposal for the implementation of auctions for the assignment of hedging instruments protecting against the risk of volatility of the fee for using transmission capacity for 2023.
- **Resolution 641/2022/R/eel** – Approval of the rules for explicit allocation of transport capacity on a long-term, daily and intraday basis for the Swiss border.

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- **Resolution 689/2022/R/eel** – Measures for 2023 concerning regulation of the virtual import service introduced by article 32, paragraph 6 of Law 99 of 23 July 2009.
- **Resolution 702/2022/R/eel** – Extension of forward provision of balancing resources through mixed enabled virtual units, pursuant to Resolution 300/2017/R/eel.

Further details of the above resolutions, and information on further resolutions adopted by the regulator (ARERA), can be found on the regulator's website at www.arera.it.

Relations with public decision-makers – Main activities in 2022

- On 8 March 2022, Terna gave evidence to the Chamber of Deputies' Environment, Transport and Productive Activities Committee as part of its examination of EU laws forming part of the Fit for 55 package.
- On 10 March 2022, Terna gave evidence to the Chamber of Deputies' Environment, Transport and Productive Activities Committee as part of its examination of Law Decree 17/2022: "Urgent measures concerning the containment of electricity and natural gas prices, the development of renewable energy and the renewal of industrial policies".
- On 7 April 2022, Terna gave evidence to the IVth Committee of the Regional Council of the Self-governing Region of Sardinia in relation to draft law 258: "The protection of Sardinian birdlife from electrocution and collisions caused by power lines and wind farms".
- On 3 June 2022, Terna sent a written memorandum to the Chamber of Deputies' joint Budget and Finance Committees as part of its examination of Law Decree 50 of 2022, containing urgent measures concerning national energy policy, the productivity of businesses and attracting investment, and social policies and the crisis in Ukraine.
- On 5 July 2022, Terna gave evidence to the Senate's Industry Committee as part of its examination of European Union COM (2022) 138 final (Security of supply and affordable energy prices: Options for immediate measures and preparing for next winter).
- On 25 November 2022, Terna responded to a public consultation organised by the Ministry of Infrastructure and Transport on the proposed new public tenders code.

Other information

Additional information is presented below in accordance with specific statutory or industry requirements.

Treasury shares

The Parent Company holds a total of 4,375,909 treasury shares (equal to 0.218% of the share capital). These shares were purchased in implementation of three separate buyback programmes to service (i) the Performance Share Plan 2020-2023, in the period between 29 June 2020 and 6 August 2020, (ii) the Performance Share Plan 2021-2025, in the period between 31 May 2021 and 23 June 2021, and (iii) the Performance Share Plan 2022-2026, in the period between 27 May 2022 and 13 June 2022. The Company does not hold any additional treasury shares other than those purchased under the above programmes, including through subsidiaries¹⁰⁹.

The Parent Company does not directly or indirectly hold any shares in CDP Reti S.p.A. or Cassa Depositi e Prestiti S.p.A., nor has it purchased or sold any such shares during 2022.

Related party transactions

Given that Terna S.p.A. is subject to the *de facto* control of Cassa Depositi e Prestiti S.p.A., a situation ascertained in 2007, related party transactions entered into by Terna during 2022 include transactions with associates and employee pension funds (Fondenel and Fopen), as well as transactions with Cassa Depositi e Prestiti itself, with CDP Reti S.p.A. and with the companies directly or indirectly controlled by the Ministry of the Economy and Finance ("MEF").

Related party transactions in 2022 primarily regard services forming part of its ordinary activities and provided under normal market conditions, as described in greater detail in the consolidated financial statements for the year ended 31 December 2022¹¹⁰.

The Parent Company's corporate governance rules ensure that such transactions are conducted in accordance with the rules governing procedural and substantial correctness and on an arm's length basis, and in keeping with the regulations for transparent reporting to the market and in implementation of the regulations issued by the CONSOB¹¹¹.

No material transactions¹¹² were carried out in 2022, nor were any transactions subject to the reporting requirements applicable in the event of exemptions applied in accordance with the relevant regulations¹¹³.

¹⁰⁹ In this regard, see the press releases published on 10 August 2020, 28 June 2021 and 13 June 2022 available at the following links: https://download.terna.it/terna/2020.08.10_CS%20TERNA%20operazioni%20su%20azioni%20proprie%20CHIUSURA%20ITA__8d83d42cfd43cb6.pdf, <https://www.terna.it/it/media/comunicati-stampa/dettaglio/operazioni-su-azioni-proprie-conclusione-programma>, <https://www.terna.it/it/media/comunicati-stampa/dettaglio/concluso-programma-acquisto-azioni-proprie>

¹¹⁰ Relations with members of the Parent Company's Board of Statutory Auditors, with particular regard to their remuneration, are described in the notes to the item, "Services" in the notes to the consolidated and separate financial statements for the year ended 31 December 2022. In addition, in implementation of CONSOB Resolutions 18049 of 23 December 2011 and 21623 of 10 December 2020, disclosures regarding the remuneration of "members of management and supervisory bodies and general managers", and their shareholdings in the Company and those of the other persons referred to in the above article, are included in the annual Report on the Remuneration Policy and Remuneration Paid published in accordance with the law.

¹¹¹ The Regulation containing provisions regarding related party transactions adopted in CONSOB Resolution 17221 of 12 March 2010, as amended

¹¹² These are related party transactions classified in compliance with Annex 3 to the "Regulations on related party transactions".

¹¹³ As "transactions falling within the scope of the ordinary activities of the Company or its subsidiaries or associates or of financing activities related thereto, provided that the transactions are conducted on equivalent to market or standard terms and conditions".

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Information on ownership structures

The disclosures required by art. 123-*bis* "Report on Corporate Governance and ownership structures" of the Consolidated Law on Financial Intermediation (Legislative Decree 58 of 24 February 1998) are provided in a separate document approved by Terna's Board of Directors ("Report on Corporate Governance and Ownership Structures" for 2022, available on Terna S.p.A.'s website (www.terna.it – in the section, "Corporate governance system/Governance Report").

Attestations pursuant to article 2.6.2, paragraphs 7 and 8 of the Regulations for the markets organised and managed by Borsa Italiana S.p.A., relating to the conditions described in articles 15 and 16 of the CONSOB's Markets Regulation (no. 20249 of 28 December 2017 in Official Gazette no.1 of 2 January 2018)

With reference to the provisions of article 15, paragraph one, letters a), b) and c) point i) of the CONSOB Markets Regulation, under the title *conditions for listing the shares of companies controlling companies incorporated and regulated under the laws of countries not belonging to the European Union*, TERNA S.p.A. declares that it does not hold any significant controlling interests, as defined in Title VI, Chapter II of CONSOB Regulation 11971 of 1999, in companies incorporated and regulated under the laws of countries not belonging to the European Union.

With reference to the provisions of article 16 of the CONSOB Markets Regulation, under the title *conditions prohibiting the listing of the shares of subsidiaries subject to management and coordination by another company*, TERNA S.p.A. declares that it is subject to the *de facto* control of Cassa Depositi e Prestiti S.p.A., exercised through CDP Reti S.p.A. (a joint-stock company controlled by Cassa Depositi e Prestiti S.p.A.), which holds a 29.851% interest in the Parent Company. The checks, providing confirmation of the above situation of control, were conducted by Cassa Depositi e Prestiti and notified to the Company and the CONSOB with effect from 19 April 2007 and, subsequently, by letter dated 30 October 2014 and 2 December 2014. At this time, there are no formal arrangements for the management and coordination of the Company, nor have any such rights been exercised. Terna S.p.A. conducts its business either directly or through its subsidiaries in conditions of operational and contractual independence.

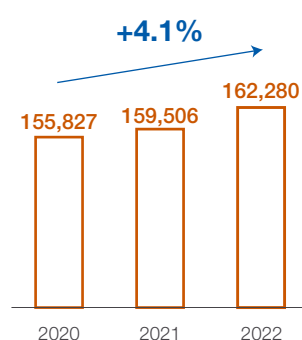
Participation in the regulatory simplification process introduced by CONSOB Resolution 18079 of 20 January 2012

Pursuant to art. 3 of CONSOB Resolution 18079 of 20 January 2012, Terna has elected to adopt the simplified regime provided for in articles 70, paragraph 8, and 71, paragraph 1-bis of CONSOB Regulation 11971 of 14 May 1999, as amended (the CONSOB Regulations for Issuers). As a result, Terna exercises the exemption from disclosure requirements provided for in the above Regulations in respect of transactions of a significant nature involving mergers, spin-offs, capital increases involving contributions in kind, acquisitions and disposals.

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Details of electricity substations owned by the Terna Group*

Power transformed (MVA)



	UNIT OF MEASUREMENT	AT 31 DECEMBER 2022	AT 31 DECEMBER 2021	CHANGE	% CHANGE
380kV					
Substations	no.	168	167	1	0.60%
Power transformed	MVA	123,288	121,408	1,880	1.55%
220kV					
Substations	no.	150	150	-	-
Power transformed	MVA	34,503	33,710	793	2.35%
Lower voltages (≤ 150kV)					
Substations	no.	583	579	4	0.69%
Power transformed	MVA	4,489	4,388	101	2.30%
Total					
Substations	no.	901	896	5	0.56%
Power transformed	MVA	162,280	159,506	2,774	1.74%

* MVA calculated to the third decimal place and rounded to a whole number. Percentages calculated to the fifth decimal place and rounded to the second decimal place.

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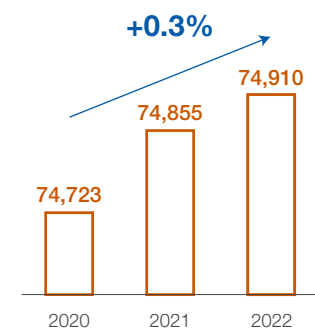
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Details of power lines owned by the Terna Group*

	UNIT OF MEASUREMENT	AT 31 DECEMBER 2022	AT 31 DECEMBER 2021	CHANGE	% CHANGE
380kV					
Length of circuits	km	12,911	12,873	38	0.29%
Length of lines	km	11,730	11,692	38	0.32%
220kV					
Length of circuits	km	11,871	11,852	19	0.16%
Length of lines	km	9,496	9,487	9	0.09%
Lower voltages (≤ 150kV)					
Length of circuits	km	50,128	50,130	(2)	-
Length of lines	km	46,880	46,876	4	0.01%
Total					
Length of circuits	km	74,910	74,855	55	0.07%
overhead	km	70,831	70,849	(18)	(0.03%)
underground cables	km	2,317	2,244	73	3.27%
submarine cables	km	1,762	1,762	(1)	(0.04%)
Length of lines	km	68,105	68,054	51	0.07%
overhead	km	64,026	64,048	(22)	(0.03%)
underground cables	km	2,317	2,244	73	3.27%
submarine cables	km	1,762	1,762	(1)	(0.04%)
Incidence of direct current connections (200 - 380 - 500kV)					
Circuits	km	2,440	2,440		
% of total		3.26%	3.26%		
Lines	km	2,120	2,120		
% of total		3.11%	3.12%		

Length of circuits (km)



* Km calculated to the third decimal place and rounded to a whole number. Percentages calculated to the fifth decimal place.

Principal changes in the size of the Terna Group's infrastructure

Substations

New infrastructure:

The following substations have been **commissioned**:

- transformer substation at Nuova Vizzini [CT] (7 380kV bays, 10 150kV bays);
- new switching substation at Celano [AQ] (12 150kV bays);
- new switching substation at Torre Triolo [BR] (4 150kV bays);

and the following have been **purchased**:

- purchase of the switching substation at Craco [MT] (8 150kV bays);
- purchase of the switching substation at Purgatorio [BA] (6 150kV bays).

Existing infrastructure:

- **commissioning** of 13 line bays for the substations at Galatina and Codrongianos (1 380kV bay each), Tavazzano (1 220kV bay), Montalto, Terranova, Ginestra degli Schiavoni, Partanna, Fulgatore, Buseto and Fiumesanto (1 150kV bay each), San Ruffillo, Livorno RT and Grosseto (1 132kV bay each); a further 8 bays, already available, were commissioned as line bays for the substations at Pianezza and Partanna 2 (1 220kV bay each), Casuzze (3 150kV bays), Stornarella (2 150kV bays) and Paternò (1 150kV bay) whilst 6 line bays were decommissioned and made available at the Tavazzano Est (4 220kV bays), Casuzze (1 150kV bay) and San Ruffillo (1 132kV bay) substations;
- **commissioning** of 8 new machine bays for the substations at Maida (2 380kV bays), Aprilia 380 (1 380kV bay and 1 150kV bay), Garigliano, Brindisi Pignicelle, Galatina and Fiumesanto (1 150kV bay each); a further 4 bays, already available, were commissioned as machine bays for the substations at Genzano (1 380kV bay and 1 150kV bay), Brindisi Cerrito (1 150kV bay) and Porto Tolle (1 132kV bay) whilst 2 machine bays were decommissioned and made available at the Lasa (1 220kV bay and 1 132kV bay) substation;
- **commissioning** of 7 new power factor corrector bays for the substations at Rotello 380, Deliceto, Maida, Montecorvino and Santa Maria Capua Vetere (1 380kV bay each) and Larino and Bellolampo (1 150kV bay each);
- **commissioning** of 1 132kV parallel bay for the substation at Grosseto;
- **demolition** of 5 150kV line bays at the Casuzze substation;
- **demolition** of 2 150kV power factor corrector bays for the substations at Bellolampo and Partanna (1 bay each).

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Transformers

The following transformers have been **commissioned**:

- 2 new 380/150kV 400 MVA autotransformers coinciding with the commissioning of the Nuova Vizzini substation;
- 2 new 380/150kV 250 MVA autotransformers for the Aprilia 380 and Genzano substations;
- 2 new 380/20kV 290 MVA autotransformers coinciding with the commissioning of the synchronous compensator at Maida;
- 1 new 150/20kV 40 MVA transformer for the Brindisi Cerrito substation;
- 1 new 150/20kV 16 MVA transformer for the Garigliano substation;
- 1 new 150/15kV 25 MVA transformer for the Fiumesanto substation;

and the following **further changes** occurred:

- replacement of 2 220/150kV 160 MVA autotransformers with other 250 MVA autotransformers at the Caracoli substation;
- replacement of 2 220/150kV 100 MVA autotransformers with other 250 MVA autotransformers at the Selargius substation;
- replacement of 3 220/132kV 160 MVA autotransformers with other 250 MVA autotransformers at the Sangone, Stura and Pallanzeno substations;
- replacement of 1 220/20kV 40 MVA transformer with another 63 MVA transformer at the Colorno substation;
- decommissioning of 1 220/132kV 70 MVA transformer at the Lasa substation.

Power lines

- **construction** of the new 380kV Bisaccia – Deliceto line (34.5 km overhead);
 - **construction** of the new 380kV connection from Codrongianos to ICS3 (0.3 km in cable);
 - **construction** of the new 150kV Oppido Lucano - Vaglio 2 line (19.9 km overhead);
 - **construction** of the new 150kV Fiumesanto - Portotorres 1 line (18.3 km overhead);
 - **construction** of the new 150kV Ariano – Ginestra line (4.6 km overhead and 2.0 km in cable);
 - **construction** of the new 150kV Pisticci PS - Pisticci 2 substation (0.1 km in cable);
 - **construction** of the new 132kV Conselice PS – Voltana PS line (8.9 km in cable);
 - **construction** of the new 132kV Udine RT - Udine South line (7.3 km in cable);
 - **construction** of the new 132kV Ceva - Lesegno line (6.5 km overhead);
 - **construction** of the new 132kV Cascine PS – Rifredi PS line (2.4 km in cable);
 - **construction** of the new 132kV Livorno RT - Livorno Marzocco SCRI line (1.6 km in cable);
 - **construction** of the new 132kV connection from Montebello to Montebello SCRI (0.1 km in cable);
 - **construction** of 22 in-out derivations with an overall increase of the same number of circuits and 5.8 km of circuit, including: addition of 1 line and 2.9 km at 380kV, addition of 3 lines and 4.0 km at 220kV, addition of 10 lines and removal of 2.4 km at 150kV, addition of 8 lines and 1.3 km at 132kV; a further increase of 25 circuits, without changes in length, derives from the identification of the same number of in-out derivations previously recorded as rigid;
 - **construction of variants, rigid derivations, re-routings and/or changes to grid distribution** adding a total of 23.5 km of circuit, including: addition of 2 lines and 14.8 km at 220kV, removal of 2.5 km at 150kV, removal of 2 lines and addition of 11.2 km at 132kV, addition of 0.1 km at 66kV, addition of 0.1 km at 50kV;
 - **sale** of a portion of 70kV line equal to 1.4km of overhead line to Italcementi;
 - **demolition and/or retirement** of 9 lines amounting to 43.8 km of circuit: Castelluccia - San Sebastiano 220kV (overhead, equal to 1.7 km), Sez. Samatzai - Isili 150kV (overhead, equal to 6.4 km), Civitella - Marino 150kV (overhead, equal to 3.0 km), Casuzze 2° liv. - Casuzze 1° liv. 150kV (overhead, equal to 0.2 km), Edison Teglia - Pontremoli 132kV (overhead, equal to 7.2 km), Avenza - Arquata 132kV (overhead, equal to 5.8 km), formerly Massa Enel - p.113 132kV (overhead, equal to 4.0 km), Ponte Malon - Somprade 132kV (overhead, equal to 0.8 km), Ollastra - Tirso stazione 70kV (overhead, equal to 14.7 km).
-

Taxes paid overseas

With regard to taxes paid overseas by the Group's subsidiaries in 2022, the following should be noted:

Terna

For activities relating to the Italy–Greece interconnector¹¹⁴, income taxes totalling €1,859,423 were paid on income earned in Greece.

Terna Crna Gora

In 2022, the Company invested a total of €1,498,031 in Montenegro, linked primarily to consents for cables and substations and certain minor assets relating to pending substation work. As regards consents, a user licence was obtained for a fibre system.

Revenue of €15,057,335 and net profit of €5,633,748 were recognised in 2022. Income tax totalling €1,891,342 was recognised, of which €1,462,392 regarded deferred taxes due to tax depreciation rates exceeding statutory rates and deferred tax assets totalling €428,949 based on tax losses posted in previous years and estimated taxable income in future periods. Consequently, the company does not report any current income taxes paid to the Montenegrin government in Montenegro.

As regards other forms of taxation, in 2022 the company paid property taxes totalling €122,810 (including €119,783 on land and buildings it owns in the municipality of Kotor and the remainder on the property used as its registered office, located in the municipality of Podgorica).

Provisions of €49,314 were also made in 2022 to cover future tax liabilities (potential taxation of the converter substation).

Tamini Group

Approximately €148,249 was paid, primarily regarding taxes on services and withholding tax.

Terna Chile

The Group's Chilean subsidiary paid taxes totalling 22,142,085 Chilean pesos.

Brazil

Transmissora de Energia Linha Verde I S.A. paid total income tax of 5,599,162 Brazilian reals.

Brugg Cables Group

The Brugg Cables, Group, through its subsidiaries operating in China, India and Germany, paid income taxes totalling 100,355 Swiss francs.

Terna 4 Chacas S.A.C.

The Peruvian subsidiary, Terna 4 Chacas S.A.C., paid value added tax totalling US\$33,066.

¹¹⁴ Terna's presence in Greece consists of a series of plants and infrastructure assets that provide the DC interconnection between the Italian and Greek electricity systems (the section of submarine cable in Greek territorial waters as well as the terrestrial connection from the terminal for the Greek cable to the Arachthos substation, owned by Terna). As there is a production facility in Greece, a permanent company (or branch) has been established in that country.

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Alternative performance measures (APMs)

In accordance with the guidelines in ESMA/2015/1415, the alternative performance measures used in this Annual Report are described below

MEASURE	DESCRIPTION
OPERATING RESULTS	
Operating profit/(loss) - EBIT	is an indicator of operating performance obtained by adding Net financial income/(expenses) to Profit/(Loss) before tax .
Gross Operating profit/(loss) - EBITDA	is an indicator of operating performance obtained by adding "Amortisation, depreciation and impairment losses" to Operating profit/(loss) (EBIT) .
TAX RATE	is the amount of tax paid as a proportion of pre-tax profit and is based on the ratio of "Income tax expense" to "Profit/(Loss) before tax" .
FINANCIAL POSITION	
Net working capital	is an indicator of financial position, showing the Group's liquidity position; it is based on the difference between Current assets and Current liabilities of a non-financial nature, as presented in the statement of financial position.
Gross invested capital	is an indicator of financial position, showing the Group's total assets and is obtained by adding Net non-current assets and Net working capital .
Net invested capital	is calculated by deducting Sundry provisions from Gross invested capital .
CASH FLOW	
Net debt	is an indicator of the Group's financial structure and is obtained by deducting Cash and cash equivalents and Financial assets from Short - and long-term financial liabilities and the related derivative instruments .
Free cash flow	is the cash generated by operating activities less capital expenditure and is the difference between Cash flow from operating activities and Cash flow for investing activities .

Reconciliations

In accordance with the guidelines in ESMA/2015/1415, reconciliations of the reclassified income statement and statement of financial position and of net debt and cash flow of the Terna Group and Terna S.p.A. with the related statutory income statement and statement of financial position are shown below.

Reconciliation of the Terna Group's reclassified Income Statement and Statement of Financial Position and Net Debt

THE GROUP'S RECLASSIFIED INCOME STATEMENT	(€M)	CONSOLIDATED INCOME STATEMENT
Regulated revenue	2,542.3	
Non-regulated revenue	421.4	"Revenue from sales and services", totalling €2,898.1 million, "Other revenue and income", totalling €66.4 million
Revenue from International Activities	0.8	
Personnel expenses	341.5	"Personnel expenses" after the cost of construction services performed under concessions in Italy in accordance with IFRIC 12 (€6.6 million)
Cost of services, leases and rentals	222.6	"Services" after the cost of construction services performed under concessions in Italy in accordance with IFRIC 12 (€54.3 million)
Materials	241.3	"Raw and consumable materials used" after the cost of construction services performed under concessions in Italy in accordance with IFRIC 12 (€6.5 million)
Other costs	30.6	"Other operating costs"
Quality of service	1.9	
Cost of construction services performed under concession	6.6	"Personnel expenses"
	54.3	"Services"
	6.5	"Raw and consumable materials used"
Net financial income/(expenses)	(100.1)	Points 1, 2 and 3 of letter C- "Financial income and expenses"

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THE GROUP'S RECLASSIFIED STATEMENT OF FINANCIAL POSITION	(€M)	CONSOLIDATED STATEMENT OF FINANCIAL POSITION
Financial assets	508.6	"Investment accounted for using the equity method", "Other non-current assets" and "Non-current financial assets", after the value of cash flow hedges (€75.5 million)
Net energy-related pass-through payables	(1,332.6)	"Trade receivables" relating to the value of energy-related pass-through receivables (€1,260.5 million) and "Trade payables" relating to the value of energy-related pass-through payables (2,593.1 million)
Net receivables resulting from Regulated Activities	778.7	"Trade receivables" relating to the value of receivables resulting from Regulated Activities (€835.0 million) and "Trade payables" relating to the value of payables resulting from Regulated Activities (€56.3 million)
Net trade payables	(775.5)	"Trade payables" after the value of energy-related pass-through payables (€2,593.1 million) and payables resulting from Regulated Activities (€56.3 million) and "Trade receivables" after the value of energy-related pass-through receivables (€1,260.5 million) and the value of receivables resulting from Regulated Activities (€835.0 million)
Net tax liabilities	(50.5)	"Tax assets", "Other current assets" relating to the value of other tax assets (€86.4 million), "Other current liabilities" relating to the value of other tax liabilities (€99.9 million) and "Tax liabilities"
Other liabilities net	(1,352.9)	"Other non-current liabilities", "Other current liabilities" after other tax liabilities (€99.9 million), "Inventories", "Other current assets" after other tax assets (€86.4 million)
Sundry provisions	(68.2)	"Employee benefits", "Provisions for risks and charges" and "Deferred tax assets"
Net assets held for sale	61.1	"Discontinued operations and assets held for sale" and "Liabilities related to discontinued operations and assets held for sale"
Net debt	8,576.3	"Long-term borrowings", "Current portion of long-term borrowings", "Non-current financial liabilities", "Short-term borrowings", "Cash and cash equivalents", "Current financial assets" and "Current financial liabilities" and "Non-current financial assets" relating to the value of cash flow hedges (€75.5 million)

THE GROUP'S ANALYSIS OF NET DEBT	(€M)	CONSOLIDATED STATEMENT OF FINANCIAL POSITION
"Bond issues" and "Borrowings"	10,326.0	Corresponds with "Long-term borrowings" and "Current portions of long-term borrowings"
"Derivative financial instruments" – short- and medium/long-term	172.3	Corresponds with "Non-current financial liabilities", "Current financial liabilities" relating to the value of derivatives (€0.8 million) and "Non-current financial assets" relating to the value of cash flow hedges (€75.5 million) and "Current financial assets" relating to the value of cash flow hedges (€0.2 million)
Other financial liabilities, net	35.8	Corresponds with "Current financial assets" relating to the value of accrued financial income (€8.3 million) and "Current financial liabilities" relating to the value of accrued financial expenses (€44.1 million)
Financial assets	(246.8)	Corresponds with "Current financial assets" relating to the value of other securities (€246.8 million)
Net debt attributable to assets held for sale	(17.9)	Corresponds with "Discontinued operations and assets held for sale" (€17.9 million)

Reconciliation of the Terna Group's cash flow

(€m)

	CASH FLOW 2022	RECONCILIATION WITH FINANCIAL STATEMENTS	CASH FLOW 2021	RECONCILIATION WITH FINANCIAL STATEMENTS
- Profit for the year	857.7		790.8	
- Amortisation, depreciation and impairment losses	725.7		654.4	
- Net change in provisions	19.8		(72.9)	
Employee benefits		(12.4)		(0.9)
Provisions for risks and charges		6.6		(37.2)
Deferred tax assets		25.6		(34.8)
- Net losses/(gains) on sale of assets ⁽¹⁾	(6.9)		(13.7)	
Operating Cash Flow	1,596.3		1,358.6	
- Change in net working capital:	1,024.8		(227.6)	
Inventories		(13.1)		(3.5)
Trade receivables		417.8		(1,530.3)
Income tax assets		(2.0)		4.9
Other current assets		(108.8)		45.2
Discontinued operations and assets held for sale		412.1		1,058.3
Trade payables		15.7		28.1
Tax liabilities		303.1		168.4
- Other changes in non-current assets	(93.1)		171.1	
Goodwill		5.0		(26.4)
Intangible assets ⁽²⁾		(5.5)		9.8
Property, plant and equipment ⁽³⁾		36.2		59.2
Non-current financial assets		(132.8)		127.5
Other non-current assets		1.6		1.4
Investments accounted for using the equity method		2.4		(0.4)
Cash Flow from Operating Activities	2,528.0		1,302.1	
Capital expenditure				
- Total Capital expenditure	(1,756.8)		(1,520.7)	
Property, plant and equipment ⁽³⁾		(1,544.8)		(1,391.9)
Intangible assets ⁽²⁾		(212.0)		(128.8)
Total cash flow from (for) investing activities	(1,756.8)		(1,520.7)	
Free Cash Flow	771.2		(218.6)	
Net assets held for sale	56.6		(117.7)	
- Reserve for equity instruments, cash flow hedge reserve after taxation and other movements in equity attributable to owners of the Parent ⁽⁴⁾	1,204.1		79.1	
- Other movements in equity attributable to non-controlling interests	(4.7)		(16.3)	
- Dividends paid to Parent Company's shareholders ⁽⁴⁾	(601.0)		(556.4)	
Change in net debt	1,426.2		(829.9)	
- Change in borrowings	(837.9)		(292.3)	
Non-current financial assets		(73.9)		92.6
Current financial assets		725.3		(342.1)
Non-current financial liabilities		163.5		(170.1)
Long-term borrowings		(418.3)		(1,025.2)
Short-term borrowings		(1,502.9)		944.8
Current portion of long-term borrowings		269.3		252.0
Current financial liabilities		(0.9)		(44.3)
- Change in cash and cash equivalents	588.3		(1,122.2)	

⁽¹⁾ included in "Other revenue and income" and "Other operating costs" in the consolidated financial statements.

⁽²⁾ see note 15 to the financial statements.

⁽³⁾ see note 13 to the financial statements.

⁽⁴⁾ see the consolidated statement of changes in equity.

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Reconciliation of Terna S.p.A.'s reclassified income statement and statement of financial position and net debt

TERNA'S RECLASSIFIED INCOME STATEMENT	(€M)	INCOME STATEMENT
Tariff revenue	2,273.8	"Revenue from sales and services"
Revenue from construction services performed under concession	67.4	"Revenue from sales and services"
Other operating income	179.3	"Revenue from sales and services", totalling €118.5 million, and "Other revenue and income"
Personnel expenses	101.6	"Personnel expenses" after the cost of construction services performed under concession in accordance with IFRIC 12 (€0.7 million)
Cost of services, leases and rentals	421.0	"Services" after the cost of construction services performed under concession in accordance with IFRIC 12 (€62.0 million)
Materials	1.7	"Raw and consumable materials used" after the cost of construction services performed under concession in accordance with IFRIC 12 (€4.7 million)
Other costs	20.0	"Other operating costs"
Quality of service	1.9	
Cost of construction services performed under concession	0.7	"Personnel expenses"
	62.0	"Services"
	4.7	"Raw and consumable materials used"
Net financial income/(expenses)	(87.1)	Points 1 and 2 of letter C - "Financial income and expenses"

TERNA'S RECLASSIFIED STATEMENT OF FINANCIAL POSITION	(€M)	STATEMENT OF FINANCIAL POSITION
Financial assets	1,566.3	"Non-current financial assets" after the value of cash flow hedges (€75.5 million) and "Other non-current assets" after amounts due from subsidiaries in relation to staff incentive plans (€2.8 million)
Net energy-related pass-through payables	(1,356.4)	"Trade receivables" relating to the value of energy-related pass-through receivables (€1,260.5 million) and "Trade payables" relating to the value of energy-related pass-through payables (€2,616.9 million)
Net receivables resulting from Regulated Activities	778.7	"Trade receivables" relating to the value of receivables resulting from Regulated Activities (€835.0 million) and "Trade payables" relating to the value of payables resulting from Regulated Activities (€56.3 million)
Net trade payables	(758.8)	"Trade payables" after the value of energy-related pass-through payables (€2,616.9 million) and payables resulting from Regulated Activities (€56.3 million) and "Trade receivables" after the value of energy-related pass-through receivables (€1,260.5 million) and the value of receivables resulting from Regulated Activities (€835.0 million)
Net tax liabilities	(103.3)	"Tax assets", "Other current assets" relating to the value of other tax assets (€28.8 million), "Other current liabilities" relating to the value of other tax liabilities (€84.5 million) and "Tax liabilities"
Other liabilities, net	(818.2)	"Other non-current liabilities", "Other current liabilities" after other tax liabilities (€84.5 million), "Inventories", "Other current assets" after other tax assets (€28.8 million) and "Other non-current assets" relating to amounts due from subsidiaries in relation to staff incentive plans (€2.8 million)
Sundry provisions	(37.8)	"Employee benefits", "Provisions for risks and charges" and "Deferred tax assets"
Assets held for sale	-	"Assets held for sale"
Net debt	8,446.0	"Long-term borrowings", "Current portion of long-term borrowings", "Non-current financial liabilities", "Short-term borrowings", "Cash and cash equivalents", "Non-current financial assets" relating to the value of cash flow hedges (€75.5 million), "Current financial assets" and "Current financial liabilities"

TERNAS ANALYSIS OF NET DEBT	(€M)	STATEMENT OF FINANCIAL POSITION
"Bond issues" and "Borrowings"	10,267.6	Corresponds with "Long-term borrowings" and "Current portions of long-term borrowings"
"Derivative financial instruments"	172.5	Corresponds with "Non-current financial liabilities" and "Current financial liabilities" relating to the value of derivatives (€0.8 million) and "Non-current financial assets" relating to the value of cash flow hedges (€75.5 million)
"Short-term borrowings" and "Other financial liabilities, net"	455.3	Corresponds, respectively, with "Short-term borrowings" and "Current financial liabilities" relating to the value of deferred liabilities (€44.1 million) and "Current financial assets" relating to the value of accrued income (€8.3 million)
Cash and cash equivalents (including the net balance on intercompany current accounts)	(2,202.6)	Corresponds with "Cash and cash equivalents"
Financial assets	(246.8)	Corresponds with "Current financial assets" relating to the value of government securities
Net debt attributable to assets held for sale	-	Included in "Assets held for sale"



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Reconciliation of Terna S.p.A.'s cash flow

(€m)

	CASH FLOW 2022	RECONCILIATION WITH FINANCIAL STATEMENTS	CASH FLOW 2021	RECONCILIATION WITH FINANCIAL STATEMENTS
- Profit for the year	834.1		735.2	
- Amortisation, depreciation and impairment losses	650.3		585.8	
- Net change in provisions	30.2		(37.9)	
<i>Employee benefits</i>		(2.0)		(1.3)
<i>Provisions for risks and charges</i>		(7.3)		(37.0)
<i>Deferred tax assets</i>		39.5		0.4
- Net losses/(gains) on sale of assets ⁽¹⁾	(5.9)		(12.6)	
Operating Cash Flow	1,508.7		1,270.5	
- Change in net working capital:	1,056.1		(162.0)	
<i>Trade receivables</i>		453.8		(1,540.2)
<i>Income tax assets</i>		0.3		(0.3)
<i>Other current assets</i>		(32.6)		13.9
<i>Other non-current assets</i>		(1.4)		(1.1)
<i>Trade payables</i>		425.0		1,206.4
<i>Tax liabilities</i>		16.9		33.9
<i>Other liabilities</i>		194.1		125.4
- Other changes in non-current assets	(145.7)		23.8	
<i>Property, plant and equipment</i> ⁽²⁾		2.1		41.2
<i>Intangible assets</i> ⁽³⁾		-		0.1
<i>Non-current financial assets</i>		(147.7)		(17.1)
<i>Other non-current assets</i>		(0.1)		(0.4)
Cash Flow from Operating Activities	2,419.1		1,132.3	
Capital expenditure				
- Total Capital expenditure	(1,586.9)		(1,376.6)	
<i>Property, plant and equipment</i> ⁽²⁾		(1,376.2)		(1,248.3)
<i>Intangible assets</i> ⁽³⁾		(210.7)		(128.3)
Total cash flow from (for) investing activities	(1,586.9)		(1,376.6)	
Free Cash Flow	832.2		(244.3)	
Net assets held for sale	23.0		(23.0)	
- Dividends ⁽⁴⁾	(601.0)		(556.4)	
- Cash flow hedge reserve after taxation and other movements in equity ⁽⁴⁾	1,183.5		67.1	
Change in net debt	1,437.7		(756.6)	
- Change in borrowings	(865.0)		(75.5)	
<i>Current financial assets</i>		725.5		(359.6)
<i>Non-current financial assets</i>		(73.9)		115.1
<i>Non-current financial liabilities</i>		163.5		(167.7)
<i>Long-term borrowings</i>		(441.6)		(816.9)
<i>Short-term borrowings</i>		(1,498.1)		940.5
<i>Current portion of long-term borrowings</i>		260.4		257.1
<i>Current financial liabilities</i>		(0.8)		(44.0)
- Change in cash and cash equivalents	572.7		(832.1)	

⁽¹⁾ included in "Other revenue" and "Other operating costs" in the financial statements.

⁽²⁾ see note 11 to the financial statements.

⁽³⁾ see note 13 to the financial statements.

⁽⁴⁾ see the statement of changes in equity.