

# 2020 SUSTAINABILITY REPORT



## Driving Energy

*We are engaged in driving and enabling the ecological transition in order to create a new development model based on renewable sources and respect for the environment. Sustainability, innovation and distinctive competencies are behind everything we do, with the aim of providing the generations to come with a clean, accessible and emission-free energy future.*

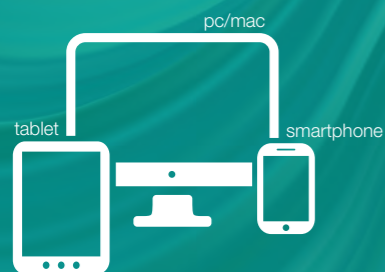
We are Europe's largest independent electricity transmission system operator.

We have the major responsibility for providing the country with energy, ensuring **security, quality and cost-effectiveness over time.**

We manage Italy's high-voltage electricity transmission grid, one of the most modern and technologically advanced in Europe, which we are working to **develop and integrate with the European grid**, guaranteeing secure and **equal access to all grid users.**

We are developing **Non-regulated Activities** and new business opportunities, making our expertise and experience available in Italy and overseas.

An interactive version of this Annual Report, including additional multimedia content, is available for various devices on our website at [www.terna.it](http://www.terna.it) and is compatible with both Apple and Android systems.



### Key



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# Table of contents

<b>Letter to stakeholders</b>	<b>4</b>	<b>Electricity service and innovation</b>	<b>161</b>
<b>Terna and the Covid-19 emergency</b>	<b>6</b>	In brief	162
<b>Summary of the 2020 Report</b>	<b>9</b>	Energy sector	164
About Terna	10	Continuity and quality of service	168
The electricity grid and the ecological transition	12	Planning and investment for the ecological transition	174
Integrating sustainability into the business	19	Development of the National Transmission Grid	176
Key events	26	Asset management	188
		Innovation	194
<b>Methodological note and the GRI content index</b>	<b>29</b>	<b>Environment</b>	<b>203</b>
Overview	30	In brief	204
Structure of the Report	31	Managing the environmental impacts of the electricity grid	206
Materiality	34	Atmospheric emissions and energy efficiency	221
GRI content index	43	Environmental costs	233
<b>Profile and activities</b>	<b>49</b>	<b>People</b>	<b>237</b>
In brief	50	In brief	238
Benchmark SDGs	52	Overview of the workforce	240
Structure of the Group	54	Health, safety and correct working practices	245
Business model and activities	64	Recruitment and selection	254
Industrial Plan 2021-2025	76	Training	257
Opportunities and risks connected with climate change	79	Development	260
Main economic impacts	84	Company welfare	261
		Diversity and equal opportunities	264
<b>Sustainable business management</b>	<b>91</b>	<b>Report</b>	<b>267</b>
In brief	92	Independent limited assurance report on the	
Sustainability model	94	Consolidated Non-financial Statement for 2020	268
Compliance, integrity and preventing corruption	107		
Respect for human rights	114	<b>Annexes</b>	<b>273</b>
Supply chain sustainability	118	Links between the GRI Standards and the Global Compact principles	274
		Links between the GRI Standards and the Sustainable Development Goals	276
<b>Stakeholder engagement</b>	<b>125</b>	Key indicator tables	284
In brief	126		
Stakeholder map	128		
Public and social stakeholders	133		
Operating and business environment	147		
Investigations, litigation and sanctions	157		

# Letter to stakeholders

Dear stakeholders,

2020 was primarily marked by the health emergency linked to Covid-19, which had a major impact on markets and on the Italian and world economies. **Terna immediately prioritised the health of all our personnel and their ability to operate safely**, introducing a series of measures designed, on the one hand, to guarantee the stability and efficiency of the electricity system and, on the other, to ensure the best possible working conditions for all our people.

In just a few days, therefore, everyone who works for the Company, except for those in departments that provide support for essential services or operational personnel working on the front line, was requested to work remotely from home. This meant that the security of the electricity system, which was severely tested by the fall in consumption, was always assured. The know-how typical of Terna's management team, who are used to managing emergencies, enabled us to meet complex challenges and **to maintain the high quality of the service we provide**.

All our colleagues also showed enormous generosity, voluntarily **donating the equivalent of almost three thousand hours' pay to fund the expansion of intensive care units within the National Health Service and the purchase of personal protection equipment for use by the Civil Protection Agency**. The Company also stepped up to the plate, donating a sum equal to the amount raised by personnel.

As a result of our approach to managing the Covid-19 emergency, Terna was recognised as an example of best practice by grid operators who are members of the various international industry associations.

Despite the climate of great uncertainty, **2020 saw Terna achieve improvements in all our financial indicators**, reflecting our ability to significantly accelerate the delivery of investment projects as soon as the lockdown came to an end.

In the second half of the year, we continued with work on **making the electricity system more reliable, the reorganisation of electricity grids in the country's metropolitan areas, the renewal of assets to make them more efficient, and the development of innovative, digital solutions to support the ecological transition and increase exchange capacity between the various areas of the electricity market**. One of the most significant events for Terna in 2020 was the inauguration of the new power line connecting Capri with the mainland: €150 million invested in totalling invisible, technologically advanced infrastructure, which is now supplying the island with renewable energy and has cut polluting emissions thanks to the retirement of the island's existing diesel power station.

This connection has further confirmed Terna's commitment to **sustainability, a key aspect of our business and one of the cornerstones of our virtuous growth path**, enabling us to remain in line with the United Nations ten Global Compact principles that we have adopted. Electrification, accompanied by the development of renewable sources, is driving the ecological transition and is, by definition, sustainable: under the European taxonomy, Terna's regulated investments are in fact considered 95% sustainable. In addition, **we have maintained our number one ranking in the Electric Utilities sector of the Dow Jones Sustainability World Index** and we are still present in the "Gold Class" for sustainability at global level. We are also present in Bloomberg's

Gender Equality Index (GEI), the Euronext (World, Europe and Eurozone), the FTSE4GOOD (Global and Europe), STOXX® ESG (Global, Environmental, Social and Governance), STOXX® Low Carbon, ECPI, ESI (Ethibel Sustainability Index), MSCI and the United Nations Global Compact ("GC100").

In November, we thus launched a **new Industrial Plan for the period 2021-2025**, which **targets investment of approximately €9 billion over the next five years** and aims to **reinforce Terna's central role in managing Italy's energy system and enabling the ecological transition**. The Plan, based on sustainable investment in Italy's national transmission grid, will allow Italy to achieve the step change called for in Italy's Integrated National Plan for Energy and the Climate (*Piano Nazionale Integrato per l'Energia e il Clima* or "PNIEC") and help to generate value for the country, with **every billion euros invested in infrastructure generating almost three billion euros of GDP and creating around a thousand new jobs**.

One of the pillars of our future growth strategy is, finally, represented by innovation, both technological and cultural. Electricity infrastructure will increasingly be at the centre of ecosystems based on **big data, artificial intelligence and technologies**, with the aim of making grids every more efficient.

We have enormous opportunities to take advantage of and distinctive competencies and capabilities that have made us the major Group that we are today and that will enable us to achieve our objectives, for the benefit of the country as a whole. **Italy can become an energy hub serving the Mediterranean area**. Our country is interconnected with France, Austria, Switzerland, Slovenia, Montenegro, Greece and Malta and, in the coming years, will also be connected with Tunisia, with the goal of creating an energy corridor linking Africa with northern Europe.

**Underpinning each and every prestigious result achieved by the Group is the excellence of Terna's people**. 2021 will be the year in which we adopt NexTerna, once again demonstrating our ability to pioneer and drive the transition.

**Valentina Bosetti**  
Chairwoman

**Stefano Antonio Donnarumma**  
Chief Executive Officer



# Terna and the Covid-19 emergency

The Covid-19 ("Coronavirus") epidemic, which began in Italy on 21 February 2020 with identification of the first case in Codogno (LO), has resulted in a lengthy and complex health emergency that Terna responded to immediately, acting in accordance with government guidelines and in close contact with the relevant authorities.

In line with our governance arrangements, we promptly set up a **Crisis Committee**, chaired by the Chief Executive Officer and consisting of the heads of key departments, with one member permanently seconded to the Civil Protection Agency's Operational Committee. This was done both to ensure the **continuity of the electricity service** throughout the country, which also involved constant monitoring of the related supply chains and enhanced cooperation with neighbouring TSOs, and to protect the **health and safety of our operational personnel and all the people who work for us**.

**Dispatching** operations were guaranteed by targeted interventions involving the staff and operational capacity of local centres. This resulted in the adoption of tighter restrictions on access to Control Rooms and Remote Control Centres, measures ensuring that sites were thoroughly cleaned between one shift and another and social distancing rules. The operational capacities of local dispatching centres were also **stress tested** by simulating critical scenarios based on growing shortfalls in available energy.

The sharp fall in demand for electricity during the first national lockdown (from 9 March to 3 May) unexpectedly brought forward the phase-out of coal to 2025 and enabled us to **stress test the National Transmission Grid** ("NTG"). The falls in demand registered in March (-10.2%), April (-17.2%) and May (-10.3%) led to a significant increase in the proportion of overall energy demand in Italy met from renewable sources: in March and April, 47% of total demand was met from green energy sources, with the figure rising to an all-time high of 51.2% in May. An experience that once again has highlighted the need to accelerate investment in the grid, but also in storage systems, above all in Italy's southern regions.

In terms of **consumption**, April saw the biggest decline, with a fall of 17.2% compared with the same month of the previous year. This was followed by a slow recovery from May onwards, before a return to a level in September broadly in line with the figure for September 2019 (26.6 billion kWh). From November, consumption then began register growth of 1.1% compared with the same months of 2019.

At the same time, the **health of all our personnel and their ability to operate safely** was Terna's main priority: during the initial stages of the emergency, in agreement with the labour unions, the Company proceeded with the operational and maintenance activities necessary in order to guarantee the continuity of the electricity service, **deploying protective equipment** (FFP2 and FFP3 masks, latex gloves and protective clothing) for operational personnel and taking out specific Covid-19 insurance cover for all our personnel.

This was accompanied by the introduction of a **continuous internal communication channel**, created to keep personnel up to date with changes to internal regulations following the introduction of new legislation. We also organised information events such as, for example, a live-streamed video conference on the Company's intranet with the Head of the Department

responsible for Clinical Studies and Research into Infectious Diseases at the "Lazzaro Spallanzani" National Institute for Infectious Diseases in Rome.

Rapid completion of the mass provision or replacement of portable computers and smartphones enabled the progressive extension of **smart working**, initially to staff with young children, over 65s or those with pre-existing medical conditions, and later – as the health emergency worsened – to all employees and middle managers.

A major role in this process was played by our **ICT-Information Communication Technology** unit which, thanks to upgraded internet access (e.g., the VPN-Virtual Private Network) and the large-scale extension of access to Microsoft 365 TEAMS, has enabled an average of 3,400 connections each day. This resulted in 2,600 active users at any one time and the generation of 3.5 Terabytes of data traffic per day due to smart working sessions and video and audio meetings (4,500 a day).

The extremely positive impact of smart working on productivity has led the Company to conclude an **agreement with the national labour unions** in November 2020. Once the Covid-19 emergency has come to an end, the accord will result in smart working being introduced on a more permanent basis, allowing people to work in this way for up to two days a week.

The second half of the year saw the gradual reopening of our offices, with up to 40% of personnel coming into work (with the exception of people with children under 14, who were granted the option of continuing to work from home until schools reopened). From September, this was accompanied by the **"Sicuri Insieme"** campaign, an initiative that, as part of efforts to combat Covid-19 and help to ease people's concerns, offered all employees the option of taking a **free serological test** at their place of work by booking an appointment on the Company's intranet.

A second round of serological tests, followed by the rollout of **rapid testing**, took place from October 2020 onwards. This was followed, in December, by a **seasonal influenza prevention** campaign, with vaccinations offered free of charge, and a new round of Covid testing, this time using **molecular tests**. From January 2021, all personnel can book a molecular test at any time to check for the virus.

As part of our commitment to social responsibility, Terna also supported the work of the Civil Protection Agency at the height of the health emergency, by making two **donations** of PPE (masks and gloves) and ventilators for intensive care units. Over the year, Terna also provided operational support to Rome's Agostino Gemelli University Hospital, helping to boost the capacity of intensive care and other units and in the distribution of PPE.

Terna's personnel also played their part, donating approximately 3,000 hours' pay to provide funding for intensive care units within the National Health Service. In line with the initiative promoted by the labour unions, this donation was doubled by the Company and then passed on to Italy's Civil Protection Agency.



About Terna	10
The electricity grid and the ecological transition	12
Integrating sustainability into the business	19
Key events	26

A summary of sustainability performances, in line with Terna's role in driving and enabling the current ecological transition, whilst ensuring that the electricity transmission system continues to provide high levels of quality, continuity and security throughout the country.

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# 1

## Summary of the 2020 Report

# About Terna

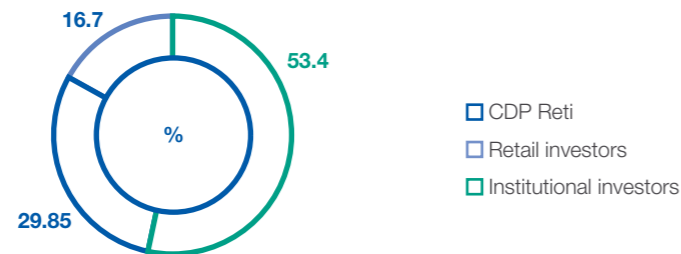
Terna performs the role of TSO (Transmission System Operator) under a government concession: our main activities are electricity **transmission** and **dispatching**<sup>1</sup> in Italy, carried out under a monopoly regime.

We are responsible for the planning, construction and maintenance of the National Transmission Grid ("NTG"), as well as management of the electricity that flows through it. Our activities are carried out in accordance with the regulations defined by the Regulatory Authority for Energy, Networks and the Environment ("ARERA") and in implementation of the guidelines established by the Ministry for Economic Development (the "MiSE").

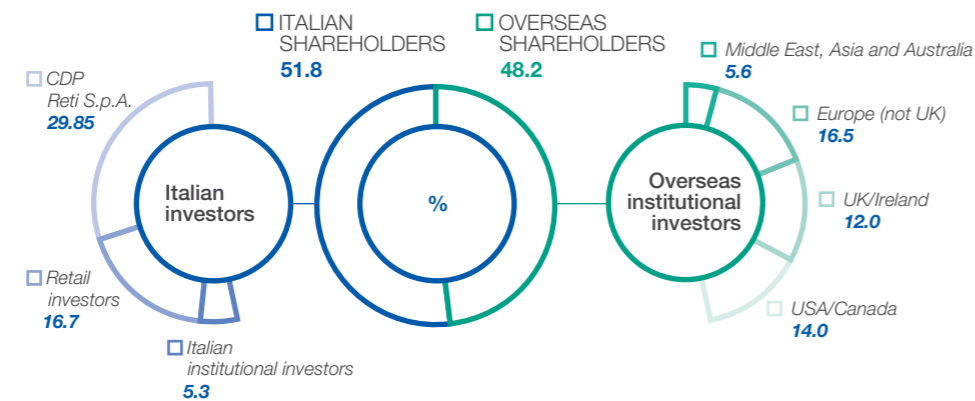
Listed on Borsa Italiana's screen-based trading system (*Mercato Telematico Azionario*) since 2004, at over €12.6 billion<sup>2</sup>, Terna ranks among Italy's leading companies by market capitalisation.

The controlling shareholder, with a 29.85% interest, is CDP Reti, in turn a subsidiary of CDP-Cassa Depositi e Prestiti.

### SHAREHOLDERS BY CATEGORY



### SHAREHOLDERS BY GEOGRAPHICAL AREA AND CATEGORY

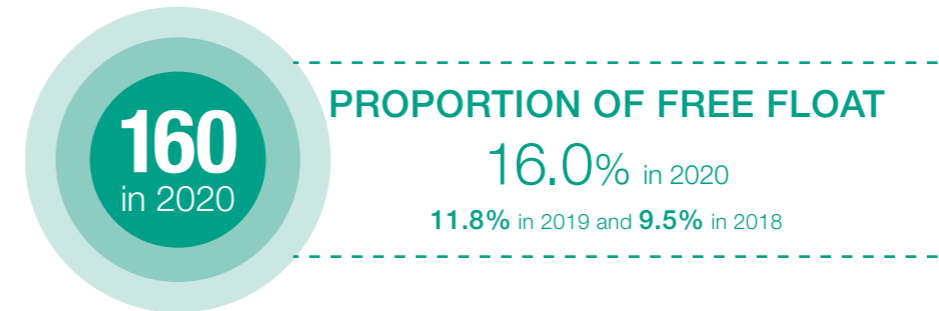


<sup>1</sup> Dispatching ensures the necessary balance between the quantity of electricity injected into and withdrawn from the system, between energy supply and demand in Italy, round the clock, 365 days a year.

<sup>2</sup> Market capitalisation at the close of trading on 30 December 2020. The market capitalisation, calculated on the basis of the average share price for the year, is €12.3 billion.

Terna shareholders include a large number of institutional investors, including a significant number of Socially Responsible Investors ("SRIs"), who invest in Terna in accordance with an approach that takes into account Environmental, Social and Governance ("ESG") aspects.

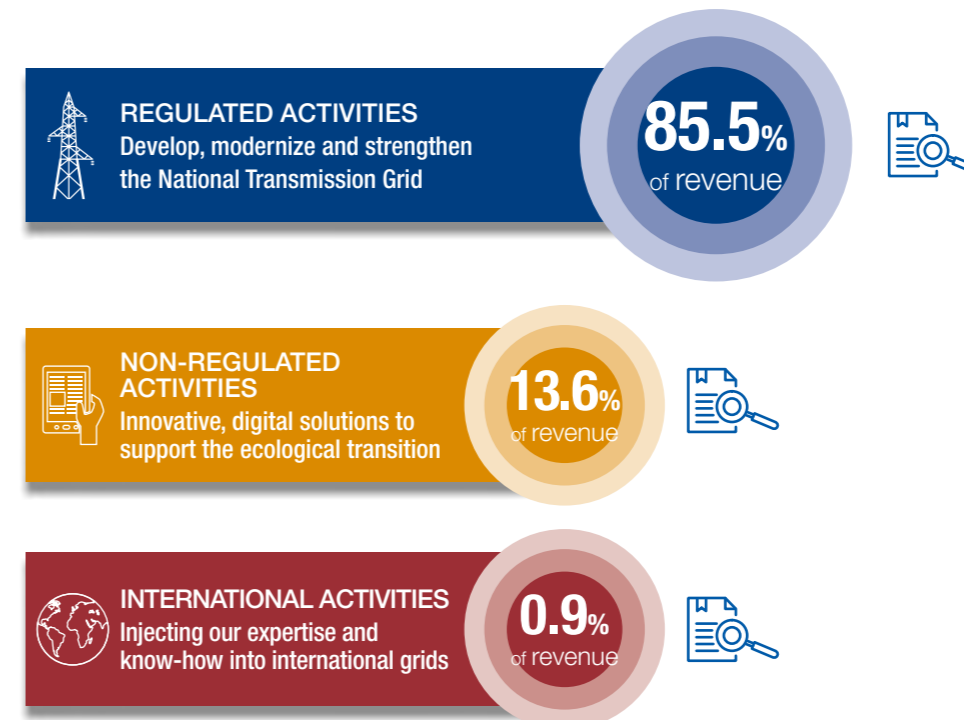
### SRIs (SOCIALLY RESPONSIBLE INVESTORS)



(147 in 2019 and 109 in 2018)

Regulated Activities, which coincide with Terna's mission, consist in ensuring the quality and cost-effectiveness of the electricity transmission service over time and represent the Group's core business, accounting for 85.5% of its revenue. Alongside these activities, the Group also operates in a number of non-regulated sectors, leveraging our people's distinctive technical expertise and innovation capabilities. Overseas, Terna is engaged in the development of transmission infrastructure in countries with stable political and regulatory frameworks, including in collaboration with energy operators that have an established international presence.

### TOTAL REVENUE: €2,513.5 MILLION

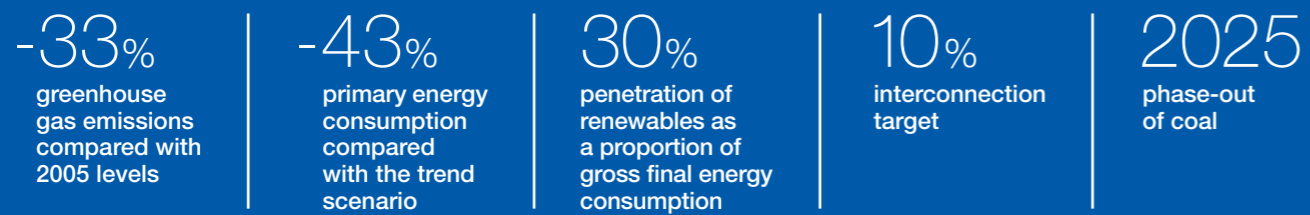


# The electricity grid and the ecological transition

The drive towards decarbonisation of the energy sector is reflected, at international level, in the United Nations Sustainable Development Goals (“SDGs”) and in European policies.

In Italy, the Integrated National Plan for Energy and Climate (*Piano Nazionale Integrato per l’Energia e il Clima* or “PNIEC”) envisages the complete phase-out of coal by 2025, followed, in 2030, by the goal of meeting 55.4% of gross electricity consumption from Renewable Energy Sources (RES).

## TARGETS SET IN THE PROPOSED PNIEC (Piano Nazionale Integrato per l’Energia e il Clima)



Achievement of these national and international targets crucially depends on Terna’s role in the ecological transition.

In its capacity as operator of the NTG, Terna has a dual task: to increase the transmission of energy produced from renewable sources, reconverting and redesigning electricity infrastructure in order to meet decarbonisation targets; and to continue to provide high standards of service quality and continuity, despite the growing complexity of the electricity system, whilst at the same time avoiding an excessive increase in costs for the community.

**Terna is**, therefore, engaged in **driving and enabling the ecological transition**.

To successfully meet these challenges, ensuring that the integration of renewable sources provides the necessary security and meets the need for development of the grid, the Company’s “2021-2025 Industrial Plan”<sup>3</sup> envisages a significant increase in investment (up 22% compared with the previous Plan).

<sup>3</sup> See the paragraph of the same name on page 76.

## Impact of the ecological transition on the electricity system

The ecological transition is a complex process of transformation, having a direct impact on Terna’s operations. This is because it involves the five key dimensions of the NTG – Security, Adequacy, Resilience, Quality and Efficiency – forming the basis for correct management of the electricity system.

Terna’s plans for adapting these five interrelated dimensions for the carbon-free energy scenario<sup>4</sup> regard both existing assets and the infrastructure included in the Development Plan. The plans are based around the three benchmark SDGs taken from the United Nations 2030 Agenda: 7 (“Affordable and clean energy”), 9 (“Industry, innovation and infrastructure”) and 13 (“Climate action”), all accelerated thanks to partnerships with institutions, enterprises and associations in Italy and overseas, as indicated in Goal 17 (“Partnerships for the Goals”).

## BENCHMARK SDGs FOR TERNA

- 

**7 AFFORDABLE AND CLEAN ENERGY**  
Ensure access to affordable, reliable, sustainable and modern energy for all.
- 

**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**  
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- 

**13 CLIMATE ACTION**  
Take urgent action to combat climate change and its impacts.
- 

**17 PARTNERSHIPS FOR THE GOALS**  
Strengthen the means of implementation and revitalize the global partnership for sustainable development.

<sup>4</sup> Information on the performance of production sources in terms of demand is provided in the paragraph, “Energy sector” on page 164.

## NATIONAL TRANSMISSION GRID: THE FIVE KEY DIMENSIONS



### SECURITY

The security of the electricity system<sup>5</sup> coincides with the ability to ensure that the system's key properties (frequency and voltage) remain stable and, in the event of unexpected disturbances, can count on inertia to adequately respond to changes in operating conditions.

The progressive increase in renewable sources has resulted in major differences in the way power sources interface with the grid: whilst traditional thermoelectric power plants use spinning parts, renewable energy plants use static parts (e.g., the inverters in photovoltaic plants) that reduce electricity system inertia.

This reduction in system inertia means that Terna, and all TSOs in general, will increasingly need to find solutions capable of maintaining frequency and voltage stability.

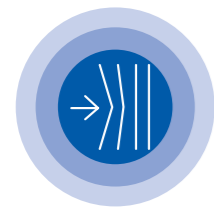
Each year, Terna prepares an "Electricity System Security Plan"<sup>6</sup> setting out the initiatives and related investments to be carried out over the subsequent four-year period in order to prevent and minimise the consequences of any disruption to the electricity grid.



### ADEQUACY

The electricity system is deemed to be adequate if equipped with sufficient resources in terms of generation, storage, control over demand and transport capacity to satisfy the country's demand for electricity at any point in time.

The particular nature of renewable energy production, which is unpredictable and frequently results in overgeneration in the middle of the day, makes Terna's job of maintaining sufficient spare capacity highly complicated.



### RESILIENCE

The increased frequency and intensity of extreme weather events is making it necessary to boost the electricity system's capacity to withstand and respond ("resilience") to the resulting disruption and restore normal operating conditions.

The new structure imposed on the electricity system by the ecological transition, combined with the effects of climate change, means that resilience is a key element in the new energy scenario.

Resilience is a driver of the Development Plan<sup>7</sup> which, since 2018, contains a section dedicated to the "Electricity System Security Plan"<sup>8</sup>.

<sup>5</sup> See the publication, "Context and development of the electricity system", available at [terna.it](https://download.terna.it/terna/Contesto%20ed%20evoluzione%20del%20Sistema%20Elettrico_8d75639fa148d01.pdf). [https://download.terna.it/terna/Contesto%20ed%20evoluzione%20del%20Sistema%20Elettrico\\_8d75639fa148d01.pdf](https://download.terna.it/terna/Contesto%20ed%20evoluzione%20del%20Sistema%20Elettrico_8d75639fa148d01.pdf)

<sup>6</sup> See the paragraph, "Security and resilience of the electricity system", on page 190.

<sup>7</sup> See the paragraph, "Development of the National Transmission Grid", on page 176.

<sup>8</sup> See the paragraph, "Security and Resilience Plan 2.0", on page 191.



### QUALITY OF SERVICE

Quality of service coincides with the ability to guarantee continuity of service, meaning the absence of interruptions to the supply of electricity and the maintenance of adequate levels of voltage. This is measured by the Regulated Energy Not Supplied ("RENS"<sup>9</sup>) indicator, in part defined by ARERA.

This aspect is of ever greater importance, reflecting the growing electrification of consumption (e.g. increased use of electric heat pumps for home heating systems and of electric vehicles) and increased use of electrical automation components in industrial equipment.

The progressive increase in the use of renewable sources is reducing the ability to curb harmonic distortions of voltage.



### EFFICIENCY

Efficiency goes to the heart of Terna's mission, as it refers to our ability to manage the electricity system to meet security, adequacy and quality requirements at the lowest overall cost to end users.

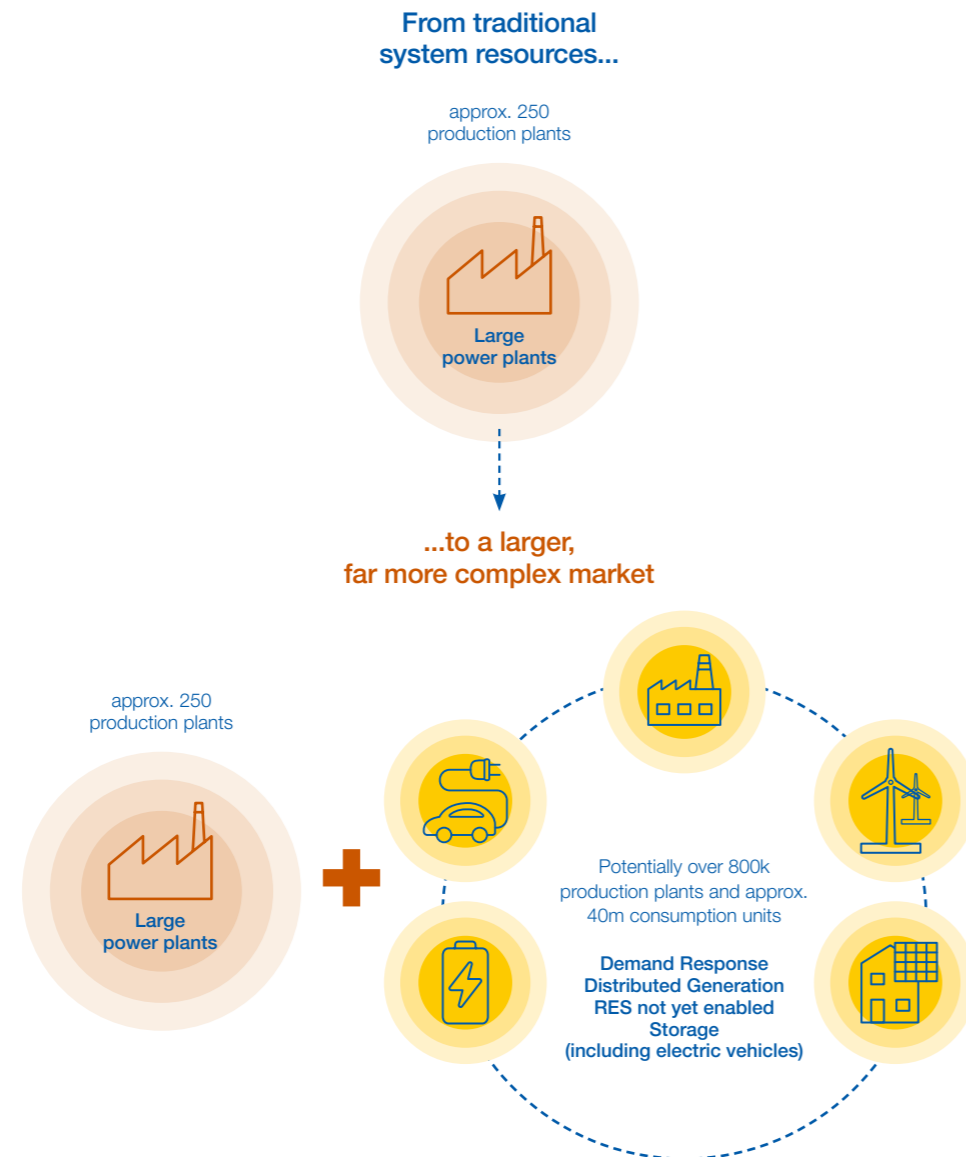
The main factors that will have a growing impact on efficiency reflect:

- the uneven distribution of renewable energy plants, creating difficulties for dispatching;
- the increased volume of resources to be procured on the services market, with a resulting increase in the market prices of services.

Ensuring that these five dimensions are secured will require major investment, above all in terms of grid infrastructure, updating human capital as regards digital skills and the adoption of innovative solutions identified thanks to an approach increasingly dependent on open innovation. Further details are provided in the section, "Electricity service and innovation", on page 161.

<sup>9</sup> See the paragraph, "Continuity and quality of service", on pages 168.

## EVOLUTION OF THE ELECTRICITY SYSTEM AND THE OPENING OF THE SERVICES MARKET TO NEW RESOURCES



## Impact of the pandemic on the electricity system

The 56-day lockdown in Italy (from 9 March to 3 May) resulted in a collapse in demand for electricity.

The sharp decline in demand for electricity (down 10.2% in March 2020, 17.2% in April and 10.3% in May) was matched by a significant increase in the share of energy consumption met by renewable sources, resulting in an unexpected stress test of the electricity grid and providing a foretaste of the situation in 2025 and 2030.

This meant that, for example, 47% of Italian demand for electricity in March and April was met by green sources, rising to an all-time high of 51.2% in May.

## 2021 Development Plan objectives

The instruments that Terna uses to respond to the challenges posed by the ecological transition are the infrastructure projects included in the Grid Development Plan<sup>10</sup> and innovation.

The Development Plan marks Terna's response to the community's needs in terms of a secure and efficient electricity service, even when demand is being met to a growing extent by production from non-programmable renewable sources. All investment in development of the grid is subject to a prior **cost-benefit analysis** (CBA), comparing the related expenditure with the resulting benefits, expressed in monetary terms. A positive cost-benefit ratio is a necessary condition of the investment's inclusion in the Development Plan. This edition of the Plan is the first to include a set of systemic sustainability indicators.

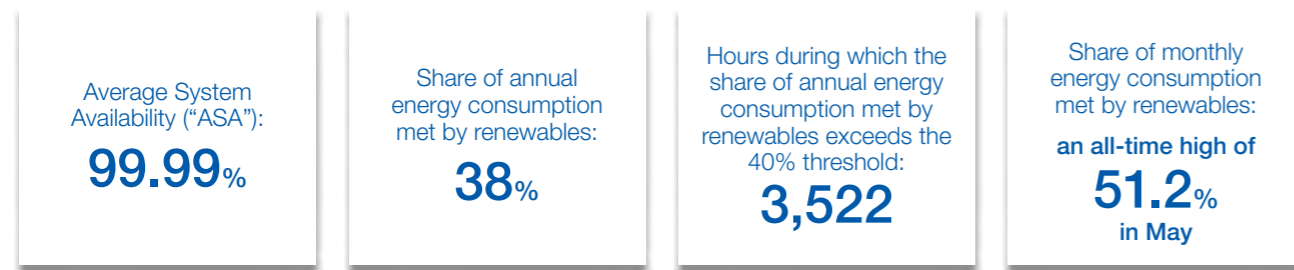
A major part in delivering the Plan will be played by the laying of high-voltage, direct current ("HVDC") submarine cables, such as the Tyrrhenian Link that will connect Campania, Sicily and Sardinia.

Another key enabler of the ecological transition is **innovation**, needed to manage new complexities in the electricity system.

Terna's "Innovation Plan" aims, on the one hand, to adopt new digital technologies that allow data to be gathered at low cost (such as IoT, smart meters, etc.), big data flows to be transferred using reliable connectivity solutions (such as fibre or 5G) and data to be effectively organised and analysed (advanced analytics and data driven decision-making); and, on the other, to invest in innovation projects that use new digital solutions to enable a response to the new complexities facing the energy sector, including cybersecurity.



## HIGHLIGHTS IN 2020



<sup>10</sup> Further details are provided in the section, "Electricity service and innovation" on pages 161-201.

The growing need to integrate renewable sources calls for an increasingly sophisticated approach to forecasting and planning in order to manage the grid in real time, including the use of artificial intelligence. Finally, robotics will play an extremely important role in maintenance, particularly with regard to the use of drones for the automated inspection of power lines and other system assets.

Further information on Terna's innovation and the most important projects carried out during the year is provided in the paragraph, "Innovation", on pages 194-201.

### Climate change: opportunities and risks

In common with a lot of infrastructure, the NTG is exposed to increasingly frequent extreme climate events.

Terna's strategy for mitigating the risks to its grid infrastructure and the electricity service is contained in its **Resilience Plan**, a specific section of the Security Plan.

**Climate change** is also a source of opportunities reflected in Terna's strategy and relating to both the core business and Non-regulated Activities.

#### REGULATED ACTIVITIES



The Development Plan and the Electricity System Security Plan include investment projects that have assumed importance in relation to climate change.

The increased **integration of renewable sources and NTG resilience** form two of the main Areas of Action in the 2021 Development Plan, in keeping with ARERA's shift towards the use of output-based solutions, which will tend to **boost Terna's returns in relation to its ability to generate benefits for the system.**

#### NON-REGULATED ACTIVITIES



The Smart Tower project aims to extract value from the NTG by expanding its use from an infrastructure exclusively designed for transmitting HV power to an Integrated Monitoring and Environmental Protection System, exploiting the potential of the IoT (Internet of Things) in relation to "environmental protection services", "NTG services" and "connectivity infrastructure".

The scenarios and trends giving rise to new opportunities in Italy are global-wide, thus also opening the way to potential new opportunities in the non-regulated business, where Terna's International Activities are focused on Brazil, Uruguay and Peru.

#### HIGHLIGHTS IN 2020

**Green Bonds: four issues between July 2018 and July 2020, amounting to €2 billion,** with the proceeds used entirely to finance grid development projects with positive environmental impacts.

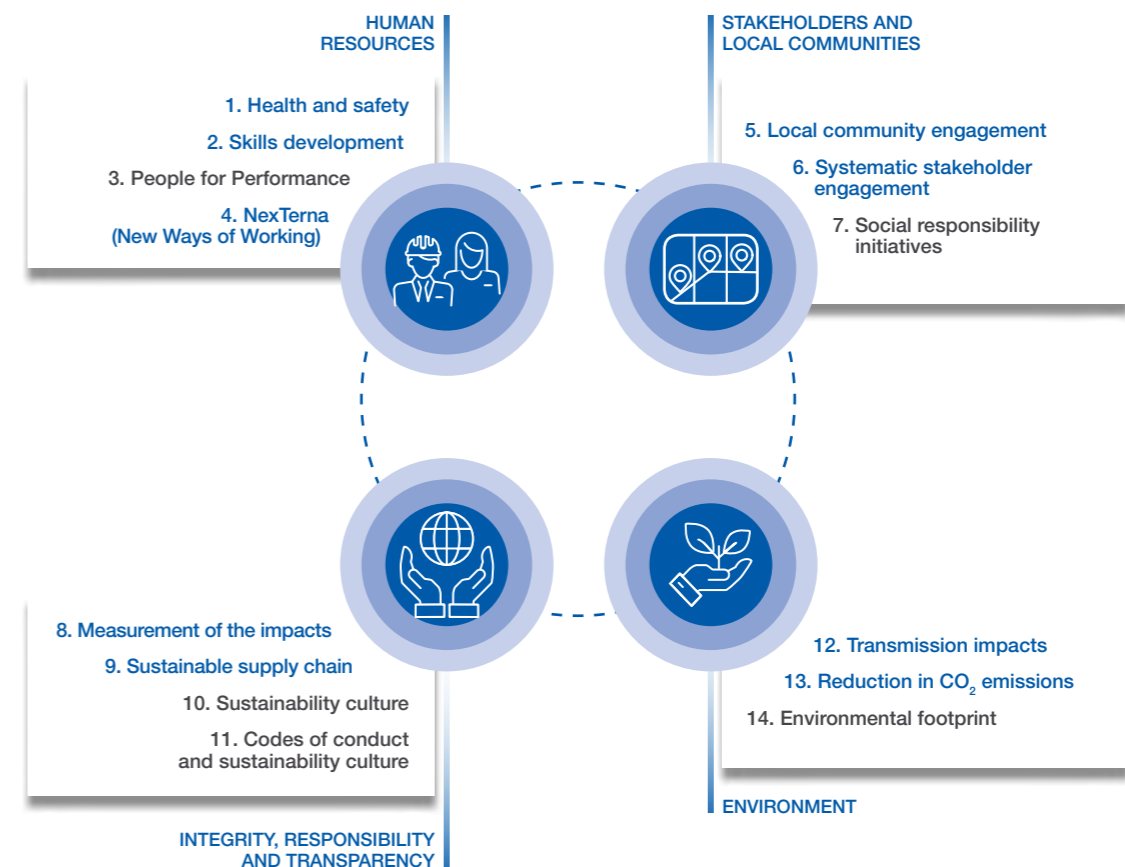
Further details on the "Opportunities and risks connected with climate change" are provided in the specific paragraph on page 79.

# Integrating sustainability into the business

Integrating sustainability into management of the business helps to create value over the medium to long term, enabling us to mitigate ESG risks, equip the Group with the necessary human capital and build positive stakeholder relations.

The principal way in which this can be achieved is by including specific sustainability goals in the Industrial Plan, focusing on four main pillars: Human resources; Stakeholders and local communities; Integrity, responsibility and transparency; and the Environment. The principal goals, and the results achieved at 31 December 2020, are described in the relevant sections of this Report.

Sustainability goals are included in the Long-Term Incentive (LTI) plans for the Chief Executive Officer and the Group's management (further information is provided in the "Remuneration report", available on the website at [www.terna.it](http://www.terna.it)).





## Sustainability governance

Responsibility for identifying and managing issues, projects and policies relating to sustainability has been assigned to a specific “Sustainability” unit within the “External Relations, Institutional Affairs and Sustainability” department. The unit reports periodically to the “Audit, Risk, Corporate Governance and Sustainability Committee”<sup>11</sup>, consisting of members of Terna’s Board of Directors.

The “Sustainability” unit interacts with all the Company’s other departments, starting from “Management Systems” (part of the “Quality and Risk Management” department), which, via the Integrated Management System, is able to optimise coordination of all the actors involved in monitoring quality, environmental performance and occupational safety, as part of a unified Group-wide approach to sustainability. Key areas of interest in this sense regard efforts to ensure respect for human rights within the Group and supply chain sustainability, both of which are subject to specific guidelines.

### Integrated Management System

The Integrated Management System is the tool that aligns day-to-day operations with international UNI ISO standards in terms of health and safety, the environment and the prevention of corruption. Terna currently has 7 certifications and 2 accreditations.

#### HIGHLIGHTS IN 2020

Terna was awarded certification for its Occupational Health and Safety Management System in accordance with the **ISO 45001:2018**, standard, in advance of the deadline in 2021.

### Human rights

In line with the recommendations from the United Nations “The guiding principles on business and human rights”, Terna has adopted guidelines entitled “Respect for human rights within the Terna Group”. The guidelines provide for a periodic due diligence process to be overseen by the Audit department<sup>12</sup>, set out in specific Operating Instructions.

### Supply chain

In keeping with this sustainable approach, Terna also extends its attention to its ESG performance to the supply chain which, in 2020, numbered 2,204 suppliers and involved total expenditure on the procurement of services, supplies and works amounted to over €1,384<sup>13</sup> million. To make its supply chain increasingly sustainable, Terna requires suppliers to meet environmental and social standards in order to qualify during tenders and achieve specific objectives<sup>14</sup>.

<sup>11</sup> Further details are provided in the paragraph, “Corporate governance”, on page 61.

<sup>12</sup> See the paragraph, “Respect for human rights”, on page 114.

<sup>13</sup> 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.

<sup>14</sup> See the paragraph, “Supply chain sustainability” on page 118.



## Importance of local communities

To meet ecological transition objectives, we need to deliver the investment in electricity assets provided for in the Development Plan.

This goal requires us to minimise opposition to projects from local communities (NIMBY) who perceive the impact on their area without seeing the related benefits for the system.

Terna’s answer involves making a major effort to engage with local communities whose areas are directly impacted by the new infrastructure provided for under the Plan. In particular, Terna discusses the need for development of the grid with local authorities and citizens in the course of engagement initiatives, such as, for example, public meetings called “Terna incontra”. The aim of this dialogue is to identify the best possible location for new infrastructure, 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.).

Due to the pandemic, after two “Terna incontra” events in January, in 2020 this type of activity was transferred to digital platforms.

#### HIGHLIGHTS IN 2020

**388** meetings  
with local authorities

**220** public bodies  
involved in the  
consultation process

**70.5%**  
of community  
initiatives aligned  
with SDGs 3, 4,  
7, 9 and 11

In line with the commitment to minimising the visual impact on the landscape of electricity infrastructure, Terna physically removes power lines that have become obsolete and prefers to use, where appropriate, underground cables – that are therefore “invisible” – for new works.

**HIGHLIGHTS IN 2020**



Timed to coincide with presentation of the 2021-2025 Industrial Plan, in November 2020, Terna presented “Driving Energy”, the new payoff that underlines our role in driving and enabling the Italian energy system and the ecological transition, and the communication campaign, “Because everybody has a right to energy. And we have a duty to provide it, every day”. The campaign aims to remind people of the Group’s key objectives: to guarantee future generations a highly efficient, reliable electricity system and a sustainable lifestyle, free from polluting emissions.

Further details on engagement with local stakeholders and, more generally, on relations with other categories of stakeholder are provided in the specific section on pages 125-158.

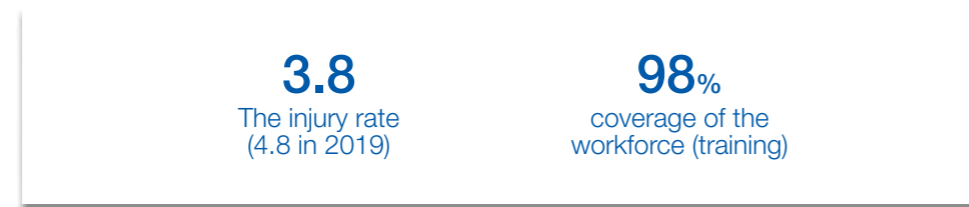


**People**

The growing complexity of a particular type of business such as Terna’s requires the constant availability of the right kind of human capital. The Industrial Plan provides the tools and the resources to put us in an even stronger position in terms of **commitment to occupational safety**, boosting and consolidating our digital skills and the introduction of new ways of organising work (see “NexTerna” on page 148).

Alongside this, the long-standing process of **generational turnover** has resulted in a constant increase in the level of education among the workforce and a gradual reduction in the average age, with the recruitment of 140 people under the age of 30 in 2020 out of a total of 175 new hires.

**HIGHLIGHTS IN 2020**



In January 2021, Terna’s inclusion in the **Bloomberg Gender Equality Index** (GEI) was confirmed for the third year running. This is an international index that measures companies’ performance regarding gender equality issues and the quality and transparency of their public reporting.

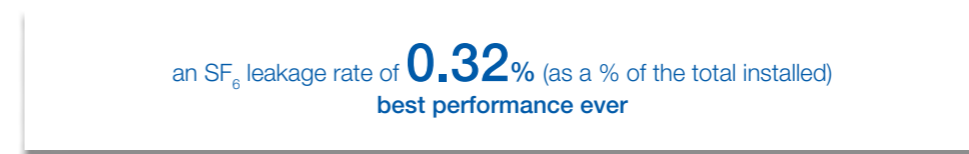
**Environment**



Our commitment to the growing integration of renewable sources into the electricity system has an indelible role to play in establishing a new carbon-free energy model, representing Terna’s most important contribution to protecting the environment.

Alongside long-standing efforts to cut CO<sub>2</sub> emissions linked to our activities, such as, for example, minimising **leakage of the greenhouse gas SF<sub>6</sub>** and implementing **energy efficiency programmes** in offices and at electricity substations, in 2020, Terna completed the preliminary phase of a feasibility study for a deliverable **Science Based Target** (“SBT”). This was approved by senior management in October and formally accepted by the Board of Directors on 11 November 2020. This was followed by formal membership of the SBT Initiative. In 2021, Terna will set an emissions reduction target for 2030, which will then be validated by the SBT Initiative.

**HIGHLIGHTS IN 2020**



Carbon intensity, measured as the ratio of CO<sub>2</sub> emissions (in tonnes) to revenue (in millions of euros), was 46.2 in 2020 (58.2 in 2019), continuing the gradual downward trend seen in recent years (93.9 in 2010).

In terms of environmental impact, Terna’s activities regard less the use of natural resources and the emission of pollutants, and rather more the physical presence of power lines and electricity substations and their interaction with the surrounding natural and manmade environment (see page 204).

**Waste management**

Terna does not use raw materials, but does purchase finished products (electrical equipment, conductors, tools and other components). As part of a circular economy-based approach, at the end of their normal lifecycle, the materials used in electricity infrastructure are recovered for reuse in operations. Only a residual portion is sent to landfill and has an impact on the environment.

**The percentage of waste recovered amounted to 95% in 2020 (94% in 2019 and 86% in 2018).**

In line with sustainability guidelines, Terna promotes initiatives designed to boost internal awareness and the adoption of responsible behaviours in daily working life, such as, for example, “Terna Plastic Free”, the initiative that is eliminating single-use plastic from offices, and “Terna Recycling”, which promotes the separation collection of the waste produced in offices.



## Sustainability ratings

Terna's constant commitment to improvement, through the introduction of guidelines, policies and monitoring systems and our ESG performance, is assessed by the leading international sustainability rating agencies.

Terna's inclusion in all the sustainability indices it was already present in was confirmed in 2020. The Company was, for the third year running, ranked the global number one in the Electric Utilities sector of the Dow Jones Sustainability World Index.

This result led to Terna's inclusion in the Gold Class of "Sustainability Yearbook 2021" published by SAM - Standard & Poor's Global, a leading international publication for analysts and investors.

Since 2017, Terna's ranking in the sectoral index published by SAM - Standard & Poor's Global for the Dow Jones Sustainability Index is one of the objectives included in the

**Long-Term Incentive (LTI) plan** for the Chief Executive Officer and the Group's management (further information is available in the "Remuneration Report").

## Other information

In line with Legislative Decree 254/2016 (art. 3), this Report deals with issues considered to be material in accordance with the Company's materiality matrix, which was updated at the end of 2020. This reflects topics linked to the ecological transition and their sustainable management.

Further information on the method used in the related analysis and on the "Materiality matrix" is provided on page 34.



# Key events

> Inclusion in **Bloomberg's Gender Equality Index** is confirmed

> **"The Sustainability Yearbook 2020"** is published by the rating agency, SAM – S&P Global, confirming Terna's **"Gold Class"** ranking as the number one electric utility in the world for the second consecutive year

> **Next Energy 4**: the first ten teams of innovators are selected to take part in the incubation stage

> The 380kV Colunga-Calenzano power line: Terna presents its plans for construction of the line to the public

> Two new green ATR transformers enter service at the Transmission Operations Area in Turin

> Partnership between **Terna and the Italian finance police (Guardia di Finanza)**: Memorandum of Understanding renewed

> **Strategic Plan 2020-2024** approved, with over €7 billion to be invested in the ecological transition

> Terna's multi-site "Live-line Working" laboratory accredited in accordance with the 17025:2018 standard

> **10 March 2020: Italy's lockdown to combat the spread of Covid-19 begins**

> Covid-19:  
- a live-streamed video conference with Prof. Petrosillo, the Head of the Department of Infectious Diseases at the "Lazzaro Spallanzani" Institute in Rome, and the psychiatrist, Prof. Marchetti, on the Covid-19 emergency is held  
- the "Anti-contagion safety protocol" is drawn up and circulated among all personnel  
- smart working is introduced on an extraordinary basis for all Terna's administrative staff

**January**

**February**

**March**

> Terna and SNAM reinforce their partnership for research and innovation and for convergence between the electricity and gas systems to support the ecological transition

> Terna, Tnet and Swissgrid launch **"Equigy"**, a blockchain platform providing system flexibility

> Terna and Bari Polytechnic launch their Innovation Hub focusing on management of the electricity system and its security

> Terna and Digital Magics launch the first digital Call for Innovation focusing on "I4G - Innovation for the Grid"

**April**

> The Annual General Meeting of shareholders elects the **new Board of Directors** for the three-year period 2020-2022; Valentina Bosetti is the new Chairwoman and Stefano Antonio Donnarumma the new Chief Executive Officer

> Work begins on the 380kV Bisaccia-Deliceto power line, new infrastructure that will enable the use of renewable energy produced in southern Italy

> Reorganisation of the electricity grid in the Bologna area begins, with 31 km of old power lines, consisting of 150 pylons, due to be removed

> Demolition of the foundations for the towers supporting the 380kV Dolo-Camin overhead line: the procedures involving the affected municipalities begin

> Terna becomes a member of ECSSO, the European Cyber Security Organisation

> **3 May 2020: Italy's lockdown ends: "phase 2" begins**

> Covid-19: an online course named "The Covid 19 emergency – Managing work during Phase 2 and rules of conduct"

**May**

**June**

> **"Skill Mapping"** begins with the aim of training and developing personnel based on the mapping of distinctive competencies

> Next Energy 4: Terna, Cariplo Factory and the Cariplo Foundation choose Nemesys, a start-up that specialises in innovative technologies for use in expanding the use of hydrogen

> Terna renews a total of 648 km of fibre network in Lazio

> A new **Green Bond** – Terna's fourth – is issued, raising €500 million

> Work begins on removal of the foundations for 24 pylons – 5 of which on land – in the Venetian lagoon, with a total of 6.5 km of obsolete overhead lines to be removed

> Terna becomes the first company in the world to be certified by the Italian civil aviation authority (ENAC) to mount an "arm" on a twin-engine helicopter used for LIDAR inspections

> The "Vita-lavoro" project is set up to explore synergies between life and work in order to improve people's skills

> IMQ confirms ISO 27001:2013 certification for activities falling within the scope of electricity market monitoring

**July**

**August**

> Terna is included in the **FTSE4GOOD** for the sixteenth year running

> **Two credit facilities linked to sustainable development goals**, worth €300 million, are agreed

> Terna awards its first contract for the predictive maintenance of assets

> ISO certifications: positive outcomes for Energy Systems and Asset Management

> The **Vehicle-To-Grid pilot project** is launched at Mirafiori. Terna, FCA and Engie Eps join forces to develop the world's largest sustainable mobility hub

> Terna and Avvenia, in collaboration with Digital Magics, launch the "EES – Energy Efficiency for Sustainability" call

> The **public consultation** for the new **Italy-Tunisia** connector begins

> Covid-19: Terna offers employees the chance to have a serological test at work

**September**

**October**

> **The Capri-Mainland submarine connection is inaugurated** with the ceremony attended by Italy's Prime Minister

> The process of obtaining consents for rationalisation of the grid connecting Dolo and Camin begins

> A €200 million **credit facility linked to sustainability indexes** is agreed

> Green Procurement: Terna supports the 2020 edition of "Forum Compraverde Buygreen"

> Covid-19: Terna offers employees the chance to have an antigen test at work

> The Group's **"2021-2025 Industrial Plan"** is approved by the Board of Directors and presented to the market

> **"Driving Energy"**, Terna's new payoff, is presented; the communication campaign, entitled "Because everybody has a right to energy. And we have a duty to provide it, every day", gets underway

> Two digital meetings with local communities are held to present and discuss the planned rationalisation of the grid between Dolo and Camin

> Work on the new 28-km underground connection between Italy and Austria begins

> Plastic free: the new guide, "Plastic, from waste to resource. A guide to intelligent consumption" goes online

> The new safety awareness campaign is launched

> Smart working after the pandemic: the related agreement is signed with the unions

> The Coatings project, involving the renewal of overhead lines, wins the 'Sustainable Materials' hackathon organised by Terna with the University of Padua

**November**

**December**

> Contracts awarded for batteries with capacity of 250 MW to boost the flexibility of the electricity grid. Terna is one of the first in the world to promote this project

> The architectural plans for the future Suvereto (LI) and Codrongianos (SS) substations are presented

> Terna, Avvenia and Digital Magics select Hive Power as the best project in the "EES – Energy Efficiency for Sustainability" call

> The updated version of PRINT, an occupational safety tool, is completed

> Covid-19: the **"Sicuri Insieme" ("Safe Together") campaign**, offering employees the chance to have a molecular test and influenza jab at work, is launched

> ISO certifications: ISO 9001, ISO 14001, ISO 45001, BS OHSAS 18001 and ISO 37001 certifications reconfirmed



Overview	30
Structure of the Report	31
Materiality	34
GRI content index	43

Structure of the Report, standards and scope of reporting, materiality analysis, a table linking with the requirements of the “Non-Financial Statement” and the GRI Content Index, providing a solid methodological introduction to the Report.

>>

# 2

**Methodological note and the GRI content index**

# Overview

The 2020 Sustainability Report is Terna's sixteenth annual publication focusing on the Group's environmental, social and governance performance. As in the previous three editions, this Report also has an additional role as the Group's "Non-financial Statement" ("NFS").

As the Terna Group's NFS, this Report contains disclosures on topics deemed to be material and those required by art. 3 of Legislative Decree 254/2016, to the extent necessary in order to understand the Group's activities, its performance, results and the impact produced.

Reporting is based on the GRI Sustainability Reporting Standards published in October 2016 by the GRI-Global Reporting Initiative, applied with the option "in accordance – core".

This Non-Financial Statement ("NFS") was approved by the Board of Directors of Terna S.p.A. of 24 March 2021. This NFS, prepared using the GRI reporting standard "in accordance core" version, was submitted to compliance judgment by Deloitte & Touche S.p.A., which is expressed in a specific "Report of the Revision", with respect to the provisions of Articles 3 and 4 of Legislative Decree 254/16. The opinion of the auditing firm and the related verification activities did not concern the disclosure relating to the "material performance indicators envisaged by the supplement for the Electric Utility sector (EUSS)", the "other published GRI Standards performance indicators" reported on page 47, to the "Tables of Indicators" summarized in the tables on pages 283-300 of this document and the indicators relating to the company Brugg Kabel present on pages 301-304.

The figures in this Statement refer to 2020 (from 1 January to 31 December). Significant events occurring up to 1 March 2021 are also included.

In line with the guidance published by the European Securities and Markets Authority ("ESMA"), and promptly adopted by Italy's Securities and Financial Market Authority<sup>1</sup> ("CONSOB"), regarding the need to take into account the peculiar nature of 2020, a year in which businesses were faced with the difficulties and challenges caused by the Covid-19 pandemic, this Report – which opens with the section, "Terna and the Covid-19 emergency", summarising the potential impact of the pandemic and the steps taken by the Group to combat the effects - includes detailed disclosure on the following aspects: the impact on non-financial matters, and the steps taken to mitigate such impact<sup>2</sup>; social and employees matters<sup>3</sup>; the business model and value creation<sup>4</sup>; risks relating to climate change<sup>5</sup>; links between financial and non-financial information, highlighting how the business's financial situation and performance were impacted by the events resulting from Covid-19<sup>6</sup>.

Finally, any changes to the data published in previous editions are suitably indicated in the document.

<sup>1</sup> Warning notice 1/21 published by the CONSOB on 16 February 2021.

<sup>2</sup> On pages 17 and 138.

<sup>3</sup> On pages 108, 136, 138, 147, 148, 150, 193, 195, 199, 238, 247, 248, 254, 256, 257, 262.

<sup>4</sup> On pages 22, 72, 89, 97, 104, 138, 151, 153, 154, 167, 171, 186, 199, 206.

<sup>5</sup> On pages 17, 166, 171, 228.

<sup>6</sup> On pages 6-7.

# Structure of the Report

The 2020 Sustainability Report opens with the "Summary of the 2020 Report", providing a brief overview of key content and highlights.

In compliance with the Non-financial Statement requirements, the "Profile and activities" section gives detailed information on the Group's organisational and ownership structure, its business model and activities, whilst the next section entitled "Sustainable business management" instead focuses on the cornerstones and the related topic areas in the Group's approach to sustainability.

The first part of the Report ends with a section on "Stakeholder engagement".

The central section, "Electricity service and innovation", deals with the various aspects of Terna's core business – the transmission and dispatching of electricity – placing them within the context of the benchmark SDGs, namely 7 ("Affordable and clean energy"), 9 ("Industry, innovation and infrastructure"), 13 ("Climate action") and 17 ("Partnerships to achieve the goals").

In line with the topics closely related to sustainability, the Report continues with two sections on the "Environment" and "People".

It should be noted that, starting from this edition, the "Green Bond Report", previously attached to this Report, will be published separately on Terna's website.

As usual, in order to aid the reader, information corresponding to specific GRI indicators is denoted by the respective abbreviations in the margins of the text in the relevant passages (an indicator's abbreviation is placed next to the paragraph heading if the entire text is deemed relevant). Starting from this year, the same method of denotation is used for the material results (see the section entitled "Materiality") and for those consistent with the SASB criteria.

The Report concludes with the annexes not falling within the scope of non-financial reporting. These include:

- Tables linking the GRI Standards and the ten Global Compact Principles;
- Tables linking the SDGs and GRI Standards;
- Key indicator tables that reproduce the published GRI Standards, supplemented with additional ones.

## Scope and indicators

Data and disclosures in the 2020 Sustainability Report refer to the Terna Group, meaning the scope that includes Terna S.p.A. and the companies consolidated on a line-by-line basis in its consolidated financial statements for the year ended 31 December 2020.

Notably, starting from the 2020 Sustainability Report, in order to increasingly present the Group's non-financial performance from a "One Company" perspective, data regarding the Tamini Group have been consolidated.

Considering the distinctive nature of the Tamini Group's business and the inconsistency of its data with those for the Terna Group, up through the 2019 Sustainability Report, its key environmental and social indicators – which aid understanding of the Group's activity, performance, results and impact – were reported in a separate section. In any case, in order to ensure the comparability of 2020 data with those of the previous two years, solely for 2020, data referring to the scope used in the 2019 and 2018 Reports are also reported.

Unless otherwise indicated, the following are excluded from the scope:

- Avvenia;
- Brugg Kabel AG;
- company 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 (18 staff at 31 December 2020). Environmental impact analyses for Avvenia completed in 2019 were not material for reporting purposes.

As regards social and environmental data for Brugg Kabel AG (controlled by Terna Energy Solutions following the acquisition of a 90% stake on 29 February 2020), Environmental, Social and Governance (ESG) due diligence was carried out in 2020 in order to verify the soundness and comparability of its environmental and social data with those of the Terna Group.

Brugg Kabel AG (Switzerland) has moreover undertaken to create a straightforward reporting system that can be integrated with Terna's. Brugg Kabel AG's social and environmental data are published in a specific section of the Key Indicator Tables on page 301.

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 importance of the related regulatory framework.

In accordance with the materiality principle, data presented in the Sustainability 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.

In 2020, information on the 342 electricity substations formerly owned by RFI (306 at the end of 2019) was included in the scope of environmental data. Only the substations that, by 31 December 2020, had been integrated into the Terna Group's scope of operations have been consolidated. The remaining eight electricity substations formerly owned by RFI were operated under an O&M (Operation & Maintenance) contract entered into with the previous owner.

In addition to the information in accordance with the requirements of the NFS (identified in the table on pages 41-42) and attributable to material issues for Terna, the Report also contains other complementary ones, disclosed voluntarily (see page 47). For a correct representation of performance, the use of estimates - drawn up according to the best available methods - has been limited as much as possible and is appropriately reported.

All the GRI indicators are listed below in the GRI content index, in which eventual limitations with respect to the relevant requirements are noted (see page 43).

## Comparative analysis of sustainability performance

In the belief that a comparison of environmental, social and governance performance should not only concern the Company but also its stakeholders, as in previous years, this Report also includes comparisons between Terna's results and those of other companies. The comparative sustainability indicators regard the following topics: carbon intensity, the SF<sub>6</sub> leakage rate, per capita hours of training and the staff turnover rate.

The main criteria adopted in the analysis, as a premise for reading and interpreting the comparisons of each of the indicators in the Report, are set out below.

Three company peer groups were chosen:

- the first consists of the leading European and non-European Transmission System Operators in terms of the number of kilometres of line operated;
- the second covers a range of sectors and comprises large Italian companies (the 40 companies listed on the FTSE MIB on 10 July 2020);
- the third consists of the international best performers in the Electric Utilities – ELC sector (identified by the sustainability rating agency SAM – Standard & Poor's Global – and included in the Dow Jones Sustainability World Index in January 2020).

The purpose of the three peer groups – also in connection with the type of indicator examined – is to provide a comparison between companies with the same operating characteristics, including an Italian comparison and one with the top international performers from the same sector. From among companies in the three peer groups, consideration has been given to those that publish useful information for comparison on their websites via their Sustainability Report (even if not drawn up in accordance with the GRI guidelines) or via other documents (integrated reports, HSE reports, financial reports, etc.). This led to a reduction in the sample compared with the number of companies in the peer group at the outset. The comparative analysis necessarily refers to data for 2019, as the comparisons were made whilst the 2020 reports were being prepared, as was also the case for Terna.

It should be noted that, despite the exclusion of explicitly non-homogeneous data, in many cases doubts remain regarding the actual comparability between companies, especially in situations where significant discrepancies were found between the data reported by some companies and the average figure for the peer group.

# Materiality

Regarding the section on non-financial content to be disclosed, Legislative Decree 54/2016 provides for the coverage of “environmental, social and personnel-related matters, respect for human rights and the fight against active and passive corruption, which are deemed relevant taking into account a company’s activities and characteristics”. Such matters should be reported “insofar as is necessary to ensure understanding of a company’s activities, performance, results and impacts”, thereby introducing a materiality criterion into the process of determining the topics to be reported and the extent to which they should be dealt with.

The Decree specifies that information should be provided “in accordance with the methods and principles laid down by the reporting standard used”. Having decided to adopt the GRI Standards as a reference, Terna opted to follow the recommendations of the GRI 101 – Foundation Standard, which contains the basic guiding principles regarding content definition and the quality of reporting. According to this standard, the “material” topics to be potentially included in reporting are those that reflect the significant impacts (positive and negative) of an organisation in the economic, environmental and social spheres, and which influence stakeholders’ decisions.

The choice of topics on which this Report and the Non-Financial Statement are based reflects the updated materiality analysis conducted in December 2020. Specifically, said analysis sprang from a revision of the topic tree with respect to the 2019 version, which took account of strategic trends in recent years (e.g., constant reference to ecological transition) and advancements in key corporate documents.

In updating the “**significance for Terna**” aspect, a series of one-to-one interviews with Terna’s senior management was carried out, followed by a survey involving a questionnaire designed to translate the considerations put forward into a qualitative and quantitative scale of values. The aim was to take a snapshot of the company’s perspective following the re-election of governance bodies and presentation of the new 2021-2025 Industrial Plan, as well as to evaluate the impact of Covid-19 on the significance of the topics explored. The outcomes were then weighted against the assessments completed in 2019, involving a survey completed by managers (on two levels starting from the Group Parent’s Chief Executive Officer) in order to determine the significance of each topic. The results were then submitted to and validated by the Chairman and Chief Executive Officer via an interview.

With regard to the “**significance for stakeholders**” aspect, the results obtained in 2019 via a multi-stakeholder questionnaire (institutional equity investors, distributors, national and local media, national and international opinion groups, non-regulated customers, core suppliers and representatives of local business groups) and the assessment of direct and indirect feedback channels for primary stakeholders were integrated through the analysis of new sources of documentation.

In addition, for the materiality analysis update, a comparison was made between the topics deemed significant for Terna and those identified in the “Materiality Map” issued by the **Sustainability Accounting Standards Board (“SASB”)** as aspects of sustainability that can influence the financial and operating performance of companies in the “Electric utilities & Power generation”<sup>7</sup> sector. Once shorn of the SASB categories proving not to be applicable and taking account of Terna’s distinctive features compared with the sector standard considered (e.g., no relations with end users, absence of power generation activities), the assessment revealed good coverage on the part of Terna with respect to the categories identified by the SASB. The materiality matrix key below clearly shows the correlation between topics deemed most significant for Terna and the SASB categories; it should be noted that this correspondence concerned the issues and not the indicators proposed by SASB.

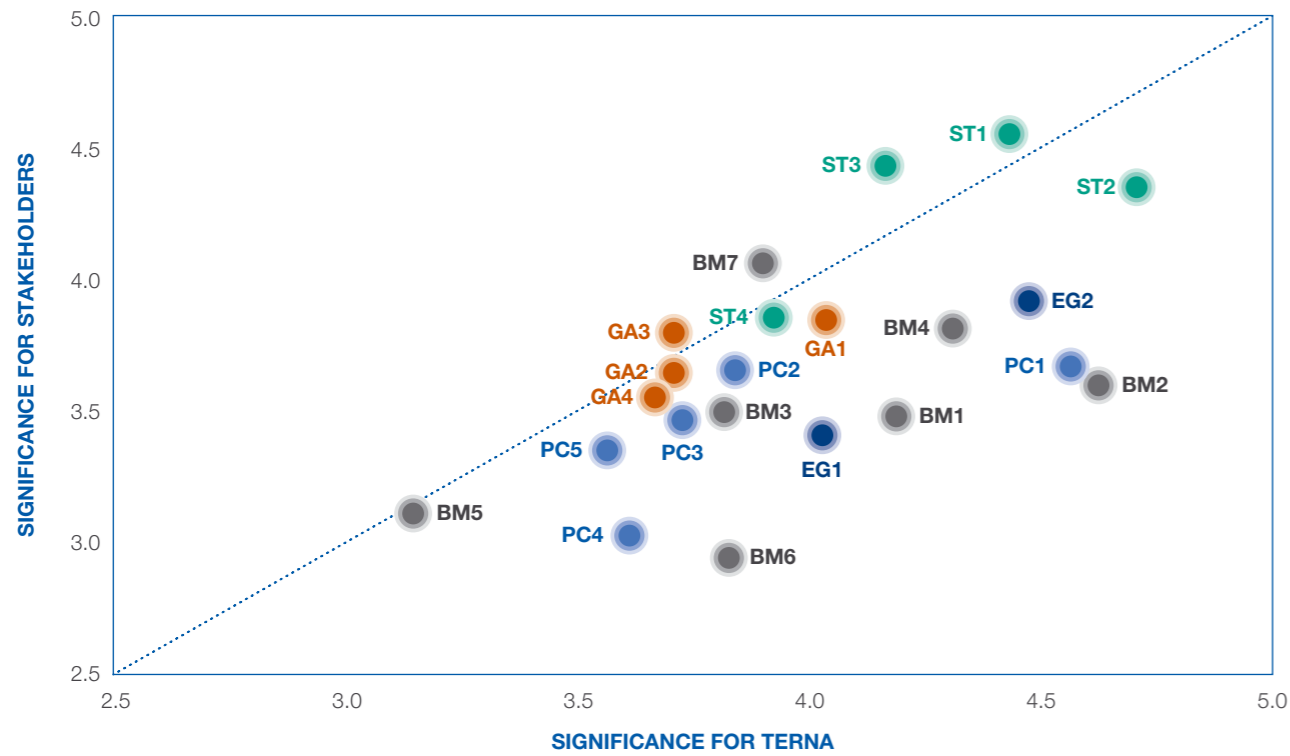
For more details on the correlation between Terna’s material issues and the categories of the Sustainability Accounting Standards Board (“SASB”), please refer to pages 172-173 of the 2020 Integrated Report.

To complete the analysis on Terna Group material issues, the main Sustainable Development Goals (“SDGs”) of reference have been traced back.



<sup>7</sup> Further information is available at this link: <https://materiality.sasb.org/>

**MATERIALITY MATRIX**



KEY	REFERENCE SDGs	MATERIAL TOPIC		
<p><b>ETHICS AND GOVERNANCE MODEL</b></p>		<b>EG1:</b> Governance model effectiveness		
		<b>EG2:</b> Business integrity		
		<b>BM1:</b> Strategic approach to stakeholder management		
		<b>BM2:</b> Delivering on financial and performance goals		
		<b>BM3:</b> Information security		
		<b>BM4:</b> Optimal management of relations with local stakeholders		
		<b>BM5:</b> Growing and diversifying the business		
<p><b>BUSINESS MANAGEMENT</b></p>		<b>BM6:</b> Supply chain sustainability		
		<b>BM7:</b> Innovation and digitalisation		
		<b>ST1:</b> Delivering the ecological transition		
		<p><b>TRANSMISSION SERVICE</b></p>		<b>ST2:</b> Ensuring the quality, security and continuity of the electricity service
				<b>ST3:</b> Grid resilience
				<b>ST4:</b> Economic impacts on the community
				<b>GA1:</b> Mitigating the impact of infrastructure
<p><b>MANAGEMENT OF ENVIRONMENTAL IMPACTS</b></p>		<b>GA2:</b> Protecting biodiversity		
		<b>GA3:</b> Reducing the Group's CO <sub>2</sub> emissions		
		<b>GA4:</b> Reuse and recycling of materials		
		<b>PC1:</b> Workplace health and safety and workers' rights		
<p><b>PEOPLE AND COMMUNITIES</b></p>		<b>PC2:</b> HR development		
		<b>PC3:</b> Promoting wellbeing within the workforce		
		<b>PC4:</b> Advancement of diversity and equal opportunities		
		<b>PC5:</b> Social responsibility initiatives		

A summary of the Company's and stakeholders' points of view is expressed in the **Materiality Matrix**, which makes it possible to identify the “material” topics, namely those deemed most important by Terna and stakeholders. It also highlights any differences in viewpoints on topics between stakeholders and the Company.

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.

Terna's Sustainability Report has always aimed to provide transparent and full disclosure. This same approach has also been adopted in this document, which serves to meet the requirements of Legislative Decree 254/2016. Nonetheless, given the emphasis placed by the standard on materiality, it should be pointed out that some of the topics shown in the matrix are not among those that are strictly necessary “to ensure understanding of a company's activities, performance, results and impact”.

This particularly regards social responsibility, supply chain sustainability, promoting diversity and equal opportunities and business development and diversity. These topics have been identified as falling below a minimum materiality threshold based on a distribution of values of overall significance – provided by adding up the significance scores for stakeholders and Terna – and by the distribution of significance for Terna. Notably, compared with the results obtained in 2019, the topics posted an increase in the significance scores, reflecting greater awareness of the importance of sustainability on the part of internal and external stakeholders, thereby raising the bar. Consequently, some topics, though deemed important by stakeholders, fall below the threshold. These – like all significant topics – are also included in the Sustainability Report, but by virtue of the Company having opted for “voluntary disclosure” and not due to the regulatory requirements of Legislative Decree 254/2016.

**RISKS AND IMPACTS**

The significance of the various topics for Terna and its stakeholders is based on the impacts, both positive and negative, connected to them. In line with the requirement in Legislative Decree 254/2016, to explain “the main risks, generated or incurred, in connection with” the significant topics in terms of materiality, for each of the topics identified, the table below shows an example of the risk involved and the type of impact for Terna and for the specific categories of stakeholder affected. In the classification of impacts for Terna, the categories used in the Company's application of its Risk management business model, whilst the impacts for stakeholders are broken down into:

- Service quality
- Economic
- Health and safety
- Human rights
- Quality of life, well-being

TOPIC	EXAMPLE OF RISK MANIFESTATION	POTENTIAL IMPACT ON TERNA	STAKEHOLDERS POTENTIALLY IMPACTED	POTENTIAL IMPACT ON STAKEHOLDERS
<b>Ensuring the quality, security and continuity of the electricity service</b>	Increase in malfunctions, grid inadequacy	- Operational - Reputational - Economic/financial	Community	Service quality, economic
<b>Delivering the ecological transition</b>	Increased service disruption, grid inadequacy, growth in renewable energy production below expectations	- Operational - Reputational - Economic/financial	Community, electricity sector operators, public decision makers and regulators	Service quality, economic, decarbonisation targets
<b>Grid resilience</b>	Increased service disruption, grid inadequacy	- Operational - Reputational - Economic/financial	Community, local communities affected by the presence of Terna's infrastructure	Quality and continuity of service, economic
<b>Business integrity</b>	Behaviours in breach of statutory requirements	- Reputational - Economic/financial	Shareholders, other stakeholders, who are damaged by Terna's conduct	Shareholders: economic. Other stakeholders: human rights, health and safety, economic
<b>Workplace health and safety and workers' rights</b>	Occupational injuries	- Reputational - Economic/financial - HSE (Health, Safety & Environment)	Personnel, suppliers	Health and safety, human rights
<b>Delivering on financial and performance goals</b>	Economic and financial performance below expectations	- Operational - Economic/financial	Shareholders, credit providers, suppliers, business partners, personnel, community	Economic
<b>Optimal management of relations with local stakeholders</b>	Tensions with local communities affected by grid development	- Reputational - Economic/financial - Operational	Local communities	Quality of life, wellbeing
<b>Innovation and digitalisation</b>	Insufficient innovation capacity for the ecological transition and business growth	- Operational - Economic/financial in the medium-term - Reputational	Community, shareholders, suppliers	Community: service quality. Shareholders and suppliers: economic in the medium-long term
<b>Mitigating the impact of infrastructure</b>	Insufficient consideration given to and containment of negative externalities (excluding CO <sub>2</sub> emissions) resulting from Terna's operations	- Reputational	Local communities affected by the presence of Terna's infrastructure	Quality of life, wellbeing
<b>Economic impacts on the community</b>	Increased cost of the service (caused by Terna)	- Reputational - Economic/financial in the medium-term - Operational	Community	Economic
<b>Strategic approach to stakeholder management</b>	Failure to consider stakeholders' expectations	- Reputational - Operational	All	Quality of life, wellbeing

TOPIC	EXAMPLE OF RISK MANIFESTATION	POTENTIAL IMPACT ON TERNA	STAKEHOLDERS POTENTIALLY IMPACTED	POTENTIAL IMPACT ON STAKEHOLDERS
<b>HR development</b>	Inadequate human capital	- Operational - Reputational - Economic/financial	Shareholders, personnel	Personnel: quality of life, economic Shareholders: economic
<b>Reducing the Group's CO<sub>2</sub> emissions</b>	Insufficient consideration given to and containment of greenhouse gas emissions resulting from Terna's operations	- Reputational	Community	Quality of life, wellbeing
<b>Governance model effectiveness</b>	Below par governance	- Operational - Reputational	Shareholders, credit providers, suppliers, business partners, personnel	Economic (indirect)
<b>Reuse and recycling of materials</b>	Disposal of reusable or recyclable materials on completion of a project in violation of the standards adopted by the Company as part of efforts to develop the circular economy	- Reputational - HSE (Health, Safety & Environment)	Community	Quality of life, wellbeing, health and safety
<b>Information security</b>	Increased disruption to services, loss of confidential data, breach of privacy of grid users, grid inadequacy	- Operational - Reputational - Economic/financial	Community, electricity sector operators, personnel	Quality of service, economic, right to privacy
<b>Protecting biodiversity</b>	Incidents during construction work that may have an impact on flora or fauna and/or contribute to the disappearance of animal or plant species	- Reputational - Economic/financial - HSE (Health, Safety & Environment)	Community	Quality of life, wellbeing, health and safety, economic (reflecting potential fines or remedial action)
<b>Promoting wellbeing within the workforce</b>	Changes linked to alterations to the workplace environment resulting in physical, psychological and social dissatisfaction among the workforce	- Reputational - HSE (Health, Safety & Environment)	Personnel	Quality of life, wellbeing
<b>Social responsibility initiatives</b>	Terna's social responsibility unclear and poorly perceived	- Reputational	Community, personnel	Quality of life, wellbeing Personnel: sense of pride
<b>Supply chain sustainability</b>	Conduct of suppliers not in line with Terna's sustainability policies	- Reputational - Economic/financial	Suppliers	Human rights, health and safety
<b>Advancement of diversity and equal opportunities</b>	Unjustified differences in treatment linked to aspects of diversity; inadequate human capital	- Reputational - Economic (productivity)	Personnel; potential candidates for employment	Human rights, economic
<b>Growing and diversifying the business</b>	Lack of profitability and growth generated by the customer base/orders linked to the non-regulated business	- Operational - Reputational - Economic/financial	Shareholders, credit providers	Economic

The following table links Legislative Decree 254/2016 ("Non-Financial Statement") topics to the topics deemed to be material during Terna's materiality analysis and by the adopted reporting standard. In line with the changes to said decree introduced by Law 145/2018, the following table includes a new column showing exact references to how the Group manages the various risks generated or incurred.

LEGISLATIVE DECREE 254/2016 TOPIC	TERNA MATERIAL TOPIC	RISKS IDENTIFIED	POLICIES ADOPTED AND HOW THE RISKS GENERATED OR INCURRED ARE MANAGED	TOPIC SPECIFIC STANDARD	TOPIC SPECIFIC DISCLOSURE	NOTE
	Mitigation of impact of infrastructure	See materiality risks table (page 39).	<p><b>"Environment" section:</b>  <b>Power lines and local communities</b> (km of lines demolished, streamlining, power lines with reduced visual impact, use of underground lines, mitigation and natural engineering): pages 206-209.  <b>Management and monitoring of electromagnetic fields:</b> pages 215-216.  <b>Reports and complaints regarding environmental concerns:</b> page 216.  <b>"Transmission impacts" target - KPIs and targets in the 2021-2025 Industrial Plan:</b> page 217.</p> <p><b>"Electricity service and innovation" section:</b>  <b>State of progress in implementing previous Development Plans:</b> pages 180-182.  <b>"Sustainable business management" section:</b>  <b>Compliance with legislation:</b> page 107.</p>	304; 413	304-1; 413-2 EU13	
	Reduction of the Group's CO <sub>2</sub> emissions	See materiality risks table (page 40).	<p><b>"Environment" section:</b>  <b>Direct and indirect CO<sub>2</sub> emissions</b> (Containment of direct emissions: SF<sub>6</sub> leakage): pages 221-226.  <b>"Transmission impacts" target - KPIs and targets in the 2021-2025 Industrial Plan:</b> page 217.  <b>Consumption and cuts in emissions: energy efficiency</b> (Energy management system, energy efficiency in substations and offices, vehicle fleet): pages 227-230.  <b>Other indirect CO<sub>2</sub> emissions</b> (Grid losses): pages 231-232.</p>	305; 201 302	305-1; 305-2 305-4; 201-2 302-1; 302-3	
<b>Environmental</b>	Delivery of the ecological transition	See materiality risks table (page 39).	<p><b>"Electricity service and innovation":</b>  <b>Planning and investment for the ecological transition:</b> pages 174-175.  <b>Development of the National Transmission Grid</b> (2021 Development Plan, Reduction of CO<sub>2</sub> emissions in the electricity system; State of progress in implementing previous Development Plans, Connecting new plants; Overseas interconnections, Private interconnectors pursuant to Law 99/2009): pages 183-187.</p> <p><b>"Profile and activities" section:</b>  <b>Opportunities and risks connected with climate change:</b> page 79.</p>	201	201-2	

LEGISLATIVE DECREE 254/2016 TOPIC	TERNA MATERIAL TOPIC	RISKS IDENTIFIED	POLICIES ADOPTED AND HOW THE RISKS GENERATED OR INCURRED ARE MANAGED	TOPIC SPECIFIC STANDARD	TOPIC SPECIFIC DISCLOSURE	NOTE
	Quality, security and service continuity	See materiality risks table (page 39).	<p><b>“Profile and activities “ section:</b>  <b>Electricity transmission:</b> pages 66-68.  <b>Dispatching of electricity:</b> pages 66-68.</p> <p><b>“Electricity service and innovation” section:</b>  <b>Continuity and quality of service:</b> pages 168-169.  <b>Development of the National Transmission Grid</b> (2021 Development Plan, Reduction of CO<sub>2</sub> emissions in the electricity system; State of progress in implementing previous Development Plans, Connecting new plants, Overseas interconnections, Private interconnectors pursuant to Law 99/2009): pages 176-187.  <b>Asset management</b> (infrastructure maintenance, Renewal Plan, Security and resilience of the electricity system): pages 188-193.  <b>Innovation</b> (Open Innovation, Terna Innovation Hub, Factories, Innovation, Research and development initiatives): pages 194-201.</p>	203	203-1; EU28 EU29	
<b>Social</b>	Optimal management of engagement with local stakeholders	See materiality risks table (page 39).	<p><b>“Sustainable business management” section:</b>  <b>Sustainability objectives and targets:</b> pages 99-101.</p> <p><b>Stakeholder engagement” section:</b>  <b>Dialogue with local communities</b> (Local communities; The most difficult cases and shared solutions): pages 137-145).</p> <p><b>“Environment” section:</b>  <b>Power lines and local communities</b> (Planning and consultation): pages 206-209.</p>	413	413-1; 413-2	
	Workers’ health and safety and correct working practices	See materiality risks table (page 39).	<p><b>“Sustainable business management” section:</b>  <b>Respect for human rights:</b> pages 114-117.</p> <p><b>“People” section</b>  <b>Protecting employees’ safety:</b> pages 245-248.  <b>“Health and safety” target – KPIs and targets in the 2021-2025 Industrial Plan:</b> page 251.</p>	403	403-1; 403-2 403-3; 403-4 403-5; 403-6 403-7; 403-9	
<b>Pertaining to personnel</b>	Development of human resources	See materiality risks table (page 40).	<p><b>“People” section:</b>  <b>Development:</b> page 260.  <b>“Application of performance evaluation” – KPIs and targets in the 2021-2025 Industrial Plan:</b> page 260.</p>	401; 404	401-1; 404-1 EU15	
	Advancement of diversity and equal opportunities	See materiality risks table (page 40).	<p><b>“People” section:</b>  <b>Diversity and equal opportunities:</b> page 264.</p>	405	405-1; 405-2	
<b>Respect for human rights</b>	Supply chain sustainability	See materiality risks table (page 40).	<p><b>“People” section:</b>  <b>Safety, the environment and human rights at contractors:</b> pages 252-253.</p> <p><b>“Sustainable business management” section:</b>  <b>Procurement and suppliers:</b> pages 118-120.  <b>“Supply chain sustainability” target - KPIs and targets in the 2021-2025 Industrial Plan:</b> page 120.</p>	406; 407; 412 414	406-1; 407-1 412-1; 412-2 414-1; 414-2	
<b>Fighting corruption</b>	Business integrity	See materiality risks table (page 39).	<p><b>“Sustainable business management” section:</b>  <b>Compliance, integrity and the prevention of corruption</b> (Compliance with legislation; Prevention of corruption): pages 107-113.</p>	205; 206	205-1; 205-3 206-1	

# GRI content index

The GRI content index is available in a series of tables showing the pages in the document in which the information relating to each disclosure requirement can be found.

The page references refer to the disclosures required by the GRI standards. In certain cases, reference is also made to the key indicator tables provided in the annex and which, whilst not falling within the scope of the “Non-Financial Statement”, enable the reader to obtain a more detailed view of the data presented in the document. It should be noted that the reference standards are those published in 2016; any references to subsequent Standards are punctually indicated.

TOPIC	INDICATOR	PAGE AND NOTE
<b>GRI 101 – FOUNDATION (2016)</b>		
		32-38
<b>GRI 102 – GENERAL DISCLOSURES (2016)</b>		
	102-1	54-58, 66-68, 69-72
	102-2	54
	102-3	54-58, 66-68, 69-72
	102-4	59
	102-5	66-68, 69-72
	102-6	54-58, 240-241
	102-7	240-243
	102-8	118-123, 252-253
	102-9	54-58
	102-10	206-220
	102-11	206-220
	102-12	19-20, 52-53, 96-98, 106, 153-156, 214
	102-13	106, 155-156
	102-14	4-5
	102-15	39-40, 41-42, 79-83, 96-105
<b>Organisational profile</b>		
	102-16	19; 96; 126; Report on Corporate Governance and Ownership Structures
	102-17	112, 133-134, 216, Code of Ethics: 44-45
	102-18	61-62, 96-97; Report on Corporate Governance and Ownership Structures
	102-19	61-62, 96-97; Report on Corporate Governance and Ownership Structures
	102-20	61-62, 96-97; Report on Corporate Governance and Ownership Structures
	102-21	Report on Corporate Governance and Ownership Structures
	102-22	61-62; Report on Corporate Governance and Ownership Structures
	102-23	Report on Corporate Governance and Ownership Structures
	102-24	Report on Corporate Governance and Ownership Structures
	102-25	Report on Corporate Governance and Ownership Structures
	102-26	61-62, 96-97; Report on Corporate Governance and Ownership Structures
	102-28	Report on Corporate Governance and Ownership Structures
	102-29	38-40, 61-62, 79-83, 96-105, 63,88; Report on Corporate Governance and Ownership Structures
	102-30	Report on Corporate Governance and Ownership Structures
	102-31	34-38, 96-99, 63
	102-32	30-38
	102-35	Report on Corporate Governance and Ownership Structures
	102-36	Report on Corporate Governance and Ownership Structures
	102-37	Report on Corporate Governance and Ownership Structures
	102-40	128
	102-41	149
	102-42	128
<b>Stakeholder engagement</b>		
	102-43	34-38, 128
	102-44	34-40, 128, 133-152, 147-149
	102-45	32, 54-58
	102-46	30-38
	102-47	34-40
	102-48	32
	102-49	34-38
	102-50	32
	102-51	30, 32
	102-52	30, 32
	102-53	146,152
	102-54	30
	102-55	43
	102-56	30, 268
<b>GRI 103 – MANAGEMENT APPROACH (2016)</b>		
	103-1	32-40
	103-2	The following section on the GRI topic specific includes page references for the information on standards 103-2 and 103-3 for each material topic
	103-3	

## GRI Topic Specific Standards

### GRI 200: ECONOMIC TOPICS

CODE	TOPIC / INDICATOR	PAGE	LIMITATION AND NOTES
<b>ECONOMIC PERFORMANCE</b>		79-83, 84-89, 174-175	
201-1	Direct economic value generated and distributed.	84, 284	
201-2	Financial implications for the organisation's activities due to climate change.	79-83	
201-3	Coverage of the organisation's defined benefit plan obligations.	261	
201-4	Financial assistance received from government.	73	
<b>INDIRECT ECONOMIC IMPACTS</b>		84-89, 134-136, 174-175	
203-1	Infrastructure investments and services supported.	134-136, 174-175	
<b>PROCUREMENT PRACTICES</b>		118-123	
204-1	Proportion of spending on local suppliers.	118, 285	
<b>ANTI-CORRUPTION</b>		109-113	
205-1	Proportion of business units assessed for risks related to corruption and risks identified.	109	
205-2	Communication and training on anti-corruption policies and procedures.	112, 298	Information on suppliers is provided on page 118; for the members of the Board of Directors, see the "Report on Corporate Governance and Ownership Structures".
205-3	Confirmed incidents of corruption and actions taken.	107	
<b>ANTI-COMPETITIVE BEHAVIOUR</b>		10, 63, 107, 150-152	
206-1	Total legal actions for anti-competitive behaviours, anti-trust and monopoly practices and related judgments.	107	
<b>TAX (2019)</b>		85-86	
207-1	Approach to tax.	85	
207-2	Tax governance, control, and risk management.	81, 85	For the reports, see page 112. For the assurance process, see the audit letter to the financial statements.
207-3	Stakeholder engagement and management of concerns related to tax.	86	
207-4	Country-by-country reporting.	56, 86	Revenues from intragroup transactions with other tax jurisdictions, tangible assets different from cash and cash equivalents are not included in the published indicator.

## GRI Topic Specific Standards

### GRI 300: ENVIRONMENT TOPICS

CODE	TOPIC / INDICATOR	PAGE	LIMITATION AND NOTES
<b>ENERGY</b>		204, 228-230	
302-1	Energy consumption within the organisation.	227, 292	
302-3	Energy intensity.	227	
<b>BIODIVERSITY</b>		204, 206-211, 217-220	
304-1	Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas.	217, 291	
304-4	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	217, 219	
<b>EMISSIONS</b>		204, 221-232	
305-1	Direct greenhouse gas emissions by weight (scope I).	221-223, 224, 291	
305-2	Indirect greenhouse gas emissions by weight (scope II).	221-223, 291	
305-3	Other indirect greenhouse gas emissions (scope III).	231, 292	
305-4	Carbon intensity.	223-224, 292	
305-5	Initiatives to reduce greenhouse gas emissions and results achieved.	224-225, 228-230	
<b>EFFLUENTS AND WASTE</b>		204, 212-215	
306-2	Total weight of waste by type and disposal method.	213-214, 290	
306-3	Total number and volume of specific spills.	214	
<b>ENVIRONMENTAL COMPLIANCE</b>		107, 204	
307-1	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	107	
<b>SUPPLIER ENVIRONMENTAL ASSESSMENT</b>		118-123, 204	
308-1	Percentage of new suppliers that were screened using environmental criteria.	118-120	
308-2	Significant negative environmental impacts identified in the supply chain and actions taken.	118-123	

## GRI 400: SOCIAL TOPICS

CODE	TOPIC / INDICATOR	PAGE	LIMITATION AND NOTES
<b>EMPLOYMENT</b>			
401-1	Total number and rates of new employee hires and employee turnover.	239, 252	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees.	240-242, 294	
401-3	Parental leave.	261	
<b>LABOUR/MANAGEMENT RELATIONS</b>			
402-1	Minimum notice periods regarding operational changes including whether these are specified in collective agreements.	263	
<b>LABOUR/MANAGEMENT RELATIONS</b>			
402-1	Minimum notice periods regarding operational changes including whether these are specified in collective agreements.	239, 149	
<b>OCCUPATIONAL HEALTH AND SAFETY (2018)</b>			
403-1	Occupational health and safety management system.	97-98, 149, 245, 252	
403-2	Hazard identification, risk assessment, and incident investigation.	246	
403-3	Occupational health services.	246	
403-4	Worker participation, consultation, and communication on occupational health and safety.	149, 245	
403-5	Worker training on occupational health and safety.	247, 248, 257	
403-6	Promotion of worker health.	147, 248, 261	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships.	118	
403-9	Number of injuries, fatality rate, injury rate, rate of recordable work-related injuries, type of injury, number of hours worked.	249; 295, 297	
<b>TRAINING AND EDUCATION</b>			
404-1	Average hours of training per year per employee by gender and employee category.	254-257	
404-1	Average hours of training per year per employee by gender and employee category.	259, 298	
<b>DIVERSITY AND EQUAL OPPORTUNITY</b>			
405-1	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	149, 264	
405-1	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	61, 240, 264, 283, 294, 300	
405-2	Ratio of basic salary and remuneration of women to men to employee category, by significant locations of operation.	264, 300	
<b>NON-DISCRIMINATION</b>			
406-1	Total incidents of discrimination and actions taken.	114-117	
406-1	Total incidents of discrimination and actions taken.	114, 286	<i>There are no reports of breaches of the Code of Ethics.</i>
<b>FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk and actions taken.	114, 118, 252	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk and actions taken.	120	
<b>HUMAN RIGHTS ASSESSMENT</b>			
412-1	Operations that have been subject to human rights reviews or impact assessments.	114	
412-2	Training provided to personnel on human rights policies or procedures	114	
412-2	Training provided to personnel on human rights policies or procedures	259, 298	
412-3	Total number and percentage of significant investment agreements and contracts that include human rights clauses.	114	<i>All suppliers are required to give a contractual undertaking to comply with Terna's Code of Ethics. See page 118.</i>
<b>LOCAL COMMUNITIES</b>			
413-1	Percentage of operations with implemented local community engagement, impact assessments, and development programmes.	137-145	
413-1	Percentage of operations with implemented local community engagement, impact assessments, and development programmes.	137	
413-2	Operations with significant actual and potential negative impacts on local communities.	139, 206	
<b>SUPPLIER SOCIAL ASSESSMENT</b>			
414-1	New suppliers that were screened using social criteria.	118-123, 252-253	
414-1	New suppliers that were screened using social criteria.	118	
414-2	Significant negative social impacts identified in the supply chain and actions taken.	118	<i>The qualitative description is provided on page 118.</i>
<b>POLITICAL DONATIONS</b>			
415-1	Total financial donations and benefits to parties, politicians and institutions by country and recipient/beneficiary.	134	
415-1	Total financial donations and benefits to parties, politicians and institutions by country and recipient/beneficiary.	134	
<b>CUSTOMER PRIVACY</b>			
418-1	Total number of complaints regarding breaches of customer privacy and losses of customer data.	108, 193	
418-1	Total number of complaints regarding breaches of customer privacy and losses of customer data.	193	
<b>SOCIO-ECONOMIC COMPLIANCE</b>			
419-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	107	
419-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	107	

## List of material performance indicators required to meet sector disclosure requirements for the electric utilities sector (EUSS)

CODE	TOPIC / INDICATOR	PAGE	LIMITATION AND NOTES
<b>ORGANISATIONAL PROFILE</b>			
EU3	Number of residential commercial and industrial customers.	152, 285	
EU4	Length of above and underground transmission and distribution lines by voltage.	67, 287	
<b>SYSTEM EFFICIENCY</b>			
EU12	Transmission and distribution losses as a percentage of total energy.	179, 231	
<b>BIODIVERSITY</b>			
EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas.	209, 210-211, 217	
<b>EMPLOYMENT</b>			
EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category.	243	
EU17	Days worked by contractor and subcontractor employees involved in construction, operation and maintenance work.	252, 299	
EU18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.	252	
<b>LOCAL COMMUNITIES</b>			
EU22	Number of people physically or economically displaced due to new or expanded generation plants or transmission lines and compensation.	139	
<b>CUSTOMER HEALTH AND SAFETY (COMMUNITIES)</b>			
EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.	107	
<b>ACCESS</b>			
EU28	Power outage frequency.	168-169, 288	
EU29	Average power outage duration.	168-169, 288	

## List of other GRI performance indicators published

In line with previous years, 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 34). Finally, it should be noted that these indicators only partially refer to the requirements provided for in the GRI.

CODE	TOPIC / INDICATOR	PAGE	LIMITATION AND NOTES
202-2	Proportion of senior management hired from the local community	265	
301-1	Materials used by weight or volume.	212-213, 293	
303-1	Total water withdrawal by source.	212, 289	
408-1	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour.	114-117, 120-121	
409-1	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour.	114-117, 120-121	

Presentation of Terna: key value-driven and operational SDGs corresponding to the Company's sustainability strategy, the Group's structure and governance, our business model and activities, the 2021-2025 Industrial Plan and main economic impacts.



In brief	50
Benchmark SDGs	52
Structure of the Group	54
Business model and activities	64
2021-2025 Industrial Plan	76
Opportunities and risks connected with climate change	79
Main economic impacts	84

# 3

## Profile and activities

# In brief

This is an introductory section presenting Terna: changes in the Group's structure with respect to 2019, the Parent Company's ownership structure, its governance, business model, core activities, new 2021-2025 Industrial Plan and, above all, the values underpinning our approach to doing business, consisting of the United Nations' Sustainable Development Goals, primarily 7, 9, 13 and 17.

The business model, designed to deliver the current ecological transition, identifies a number of essential enablers ("People"<sup>1</sup> and "Innovation"<sup>2</sup>) starting from Terna's mission, which corresponds with our two core activities and related roles in the electricity system: transmission (TSO-Transmission System Operator) and dispatching (SO-System Operator)<sup>3</sup>. These activities represent the Company's core business ("Regulated Activities"), whilst our other activities are classified as Non-regulated and International.

Information on the 2021-2025 Industrial Plan, presented to the market on 19 November 2020, is followed by a paragraph on "Opportunities and risks connected with climate change"<sup>4</sup>, focusing on the principal reason for the need to implement a new energy model based on the integration of renewable sources.

The section closes with a brief description of revenue in 2020, broken down by type ("Regulated Activities", "Non-regulated Activities" and "International Activities") and the main economic impacts during the year, starting with the value added generated.

## HIGHLIGHTS IN 2020

<p>SRI (Socially Responsible Investors):</p> <p><b>16.0%</b> of the free float (11.8% in 2019).</p>	<p>Investment in 2020:</p> <p><b>€1,351.1 million</b> (up <b>6.9%</b> on 2019).</p>	<p>2021-2025 Industrial Plan:</p> <p><b>€8.9 billion</b> in investment in Italy (up <b>22%</b> compared with the previous Plan).</p>
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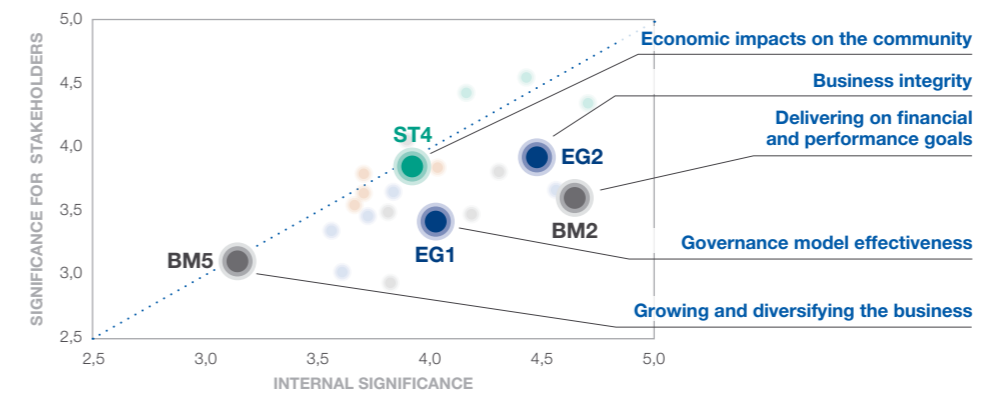
<sup>1</sup> See the specific section on page 237.  
<sup>2</sup> See the specific paragraph on page 194.  
<sup>3</sup> Transmission and dispatching activities are discussed in the section "Electricity service and innovation" on page 161.  
<sup>4</sup> See page 79.

## Link with the relevant materiality matrix topics

This section deals with some of the issues deemed "material" in the analysis completed in December 2020 and thus included in the materiality matrix on page 34.

Specifically, with regard to the category "Ethics and governance model", the topics "Governance model effectiveness" (topic EG1 on page 61) and "Business integrity" (topic EG2 on page 63) and "Taxation" (topic EG2 on page 85) were addressed. As regards "Business management", the topics of "Growing and diversifying the business" (topic BM5 on pages 69 and 71) and "Delivering on financial and performance goals" (topic BM2 on page 73) were addressed. The section closes with a discussion of the categories "Transmission service" and "Economic impacts on the community" (topic ST4 on page 84).

## POSITION OF THE TOPICS IN THE MATERIALITY MATRIX



# Benchmark SDGs

The United Nations' Sustainable Development Goals ("SDGs") are benchmarks for Terna, representing goals that are closely linked to the strategic objective of completing the ecological transition and strictly correlated with the Company's own mission and activities.

The new carbon-free energy paradigm is fully in line with achievement of SDGs 7 ("Affordable and clean energy"), 9 ("Industry, innovation and infrastructure") and 13 ("Climate action"). Moreover, SDG 17 ("Partnerships for the goals") is a powerful tool with which to implement development of the NTG and can provide an additional push in terms of speeding up the timeline and improving overall quality ("do sooner and better").

The convergence of Terna's benchmarks, our mission and our key SDG strategic objectives sums up the Group's sustainability strategy, as outlined in the 2021-2025 Industrial Plan presented to the market on 19 November 2020.

Benchmark SDGs for Terna	7 AFFORDABLE AND CLEAN ENERGY	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	13 CLIMATE ACTION	17 PARTNERSHIPS FOR THE GOALS
Target	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.

For this reason, the section on "Electricity service and innovation" is structured so as to highlight activities carried out by Terna that contribute to implementation of the relevant SDGs, starting with the definition of investments in the new electricity infrastructure as set forth in the 2021 Development Plan, followed by a description of the progress made with respect to previous plans.

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

In this sense, Terna makes reference to Goals 4 ("Quality education"), 5 ("Gender equality"), 8 ("Decent work and economic growth"), 11 ("Sustainable cities and communities"), 12 ("Responsible consumption and production"), 15 ("Life on land") and 16 ("Peace, justice and strong institutions").

## BENCHMARK SDGS FOR THE MANAGEMENT OF TERNA'S ACTIVITIES

SDGs	TARGET
4 QUALITY EDUCATION	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
5 GENDER EQUALITY	Achieve gender equality and empower all women and girls.
8 DECENT WORK AND ECONOMIC GROWTH	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
10 REDUCED INEQUALITIES	Reduce inequity within and among countries.
11 SUSTAINABLE CITIES AND COMMUNITIES	Make cities and human settlements inclusive, safe, resilient and sustainable.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Ensure sustainable consumption and production patterns.
14 LIFE BELOW WATER	Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
15 LIFE ON LAND	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

### Terna endorses the United Nations' "United in the business of a better world"

In the year marking the 75<sup>th</sup> anniversary of the United Nations and the 20<sup>th</sup> anniversary of Global Impact, the UN has invited businesses and business leaders to renew their commitment to global cooperation based on the 10 Principles set by Global Compact and the 17 SDGs and invited governments to move forward in this direction by signing the "United in the business of a better world" statement.

The worldwide Covid-19 pandemic has accelerated and brought about a convergence of pre-existing crises wrought by climate change, economic uncertainty, social inequality and rising disinformation, thus rendering 2020 a year of unprecedented transformation and change.

Terna's CEO, Stefano Donnarumma, has adhered to this renewed commitment, thereby reiterating the Group's commitment to pursuing sustainable and inclusive development goals, envisioning both social and economic opportunities for a reboot following the pandemic.

# Structure of the Group

Based in Rome, the Terna Group owns almost the entire NTG, which is among the most modern and technologically advanced transmission grids in Europe. We are the largest independent electricity transmission network operator in Europe and one of the world's leading operators in terms of the number of kilometres of overhead line managed, with over 74,000 kilometres of high-voltage lines.

The Terna Group's main activities are electricity transmission and dispatching in Italy ("Regulated Activities"), where, under a government concession, it performs the role of TSO ("Transmission System Operator"). It is thus responsible for planning, construction and maintenance of the NTG, as well as management of the electricity that flows through the National Transmission Grid, with the aim of ensuring continuity and quality of the service.

Alongside these activities ("Regulated Activities"), the Group also operates in a number of non-regulated sectors in Italy, leveraging the technical expertise acquired in managing its core business and as a result of innovation ("Non-regulated Activities").

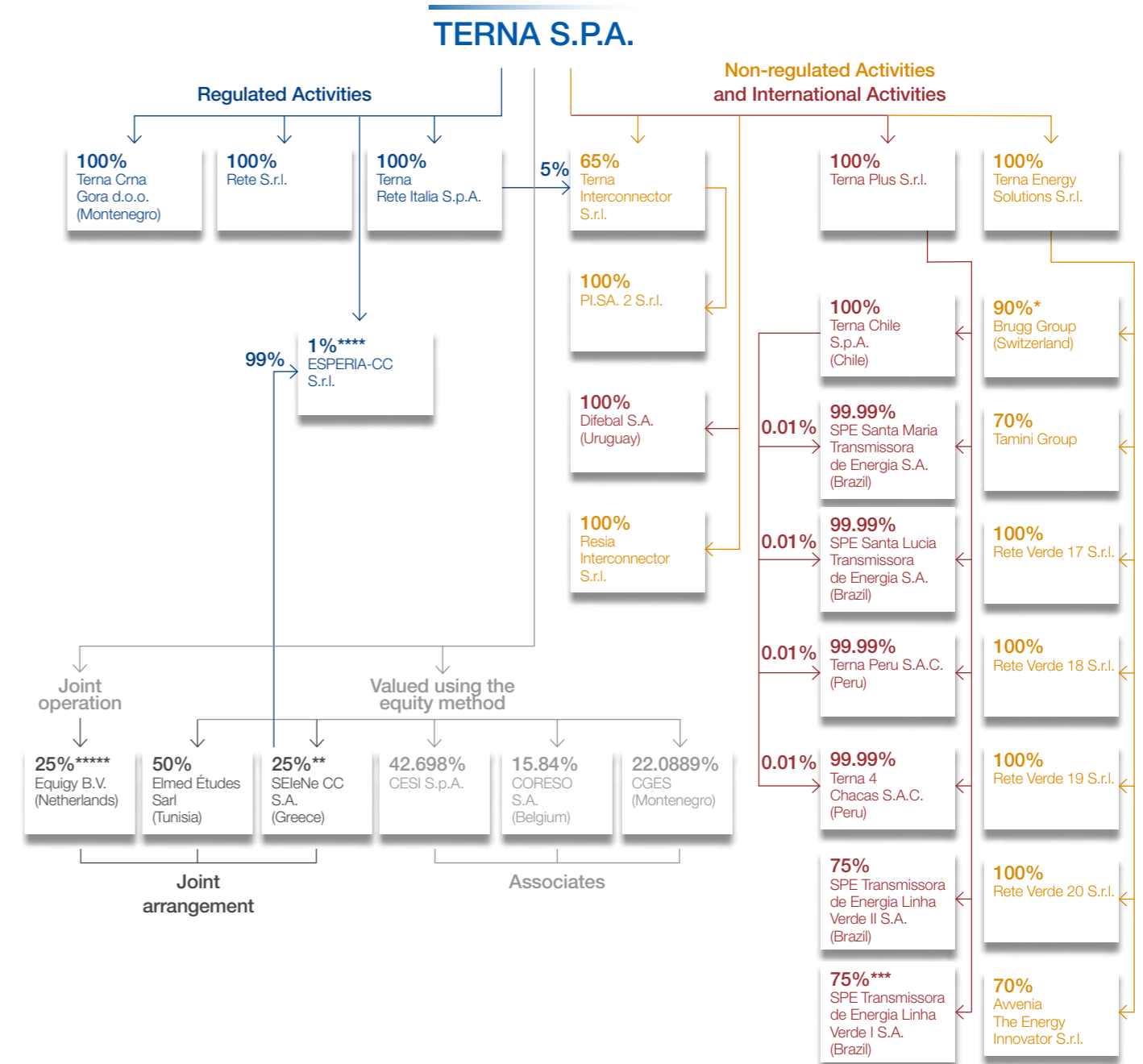
Finally, the Group offers its services and expertise to overseas customers ("International Activities"), including in collaboration with energy operators that have an established international presence. These initiatives focus on countries that require investment in their transmission systems, and which also have stable political and regulatory frameworks and a risk-return profile in line with that of the Company's.

The Parent Company, Terna S.p.A., is listed on Borsa Italiana's screen-based trading system and, at approximately €12.6 billion<sup>5</sup>, ranks among Italy's leading companies by market capitalisation.

<sup>5</sup> Market capitalisation at the close of trading on 30 December 2020. Market capitalisation, calculated on the basis of the average share price for the year, is €12.3 billion.

## Ownership structure

In line with our role in enabling and driving the current ecological transition, the Group's ownership structure as at 31 December 2020 reports a number of updates described in the footnotes.



Compared with 31 December 2019:

- \* On 29 February 2020, Terna, acting through its subsidiary, Terna Energy Solutions S.r.l., completed the acquisition of a 90% interest in Brugg Kabel AG (a Brugg group company). The transaction forms part of the Company's growth strategy.
- \*\* On 22 May 2020, the Company established SEleNe CC S.A., a joint venture 25%-owned by Terna, with the remaining shares held by three other European TSOs. The company will operate as a Regional Security Coordinator, in accordance with European Regulation 2017/1485, for the TSOs who own shares in it.
- \*\*\* On 11 August 2020, Terna, acting through its subsidiary Terna Plus S.r.l., completed the transaction with Construtora Quebec that has led to the acquisition of a 51% interest in the Brazilian-registered company, SPE Transmissora de Energia Linha Verde I S.A.. On 9 September 2020, a further interest was acquired, increasing the Group's interest to 75%.
- \*\*\*\* On 20 November 2020, Terna and the joint venture, SEleNe CC S.A., established ESPERIA-CC S.r.l., a wholly owned subsidiary as a result of its corporate governance structure, despite Terna holding a 1% interest and SEleNe CC S.A. a 99% interest. The company provides support services for dispatching activities (in accordance with European Regulations 2017/1485, 2015/1222 and 2019/943), but is not included among companies that carry out regulated activities which are, therefore, regulated by ARERA.
- \*\*\*\*\* On 1 December 2020, Terna S.p.A. acquired a 25% interest in Equigy B.V., a limited liability company registered in the Netherlands and jointly controlled by Terna and the other TSOs who hold its shares. The investment represents a joint operation under IFRS 11 – Joint Arrangements.

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**SUBSIDIARIES WITH REGULATED ACTIVITIES**

COMPANY	BUSINESS
Terna Rete Italia S.p.A. <b>Workforce: 3,094</b> <b>Revenue: €468.6m</b>	All regulated activities related to operation, routine and extraordinary maintenance, management and development of the NTG.
Rete S.r.l. <b>Workforce: 0</b> <b>Revenue: €137.9m</b>	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>Company incorporated under Montenegrin law</i> <b>Workforce: 11</b> <b>Revenue: €10.6m</b>	Management of construction of the Italy-Montenegro interconnector, on the Montenegrin side.

**SUBSIDIARIES WITH NON-REGULATED ACTIVITIES IN ITALY**

COMPANY	BUSINESS
Terna Energy Solutions S.r.l. <b>Workforce: 39</b> <b>Revenue: €12.7m</b>	Development of new activities and business opportunities in the Italian non-regulated market.
Tamini Trasformatori S.r.l. <b>Workforce: 346</b> <b>Revenue: €128.7m</b>	Production and marketing of industrial and power transformers via six production plants located in Italy in Legnano (MI), Melegnano (MI), Novara, Valdarno (VI), Ospitaletto (BS) and Rodengo (BZ).
Rete Verde 17 S.r.l. <b>Workforce: 0</b> <b>Revenue: €0m</b>	Development of renewable energy initiatives.
Rete Verde 18 S.r.l. <b>Workforce: 0</b> <b>Revenue: €0m</b>	Development of renewable energy initiatives.
Rete Verde 19 S.r.l. <b>Workforce: 0</b> <b>Revenue: €0m</b>	Development of renewable energy initiatives.
Rete Verde 20 S.r.l. <b>Workforce: 0</b> <b>Revenue: €0m</b>	Development of renewable energy initiatives.
Avvenia The Energy Innovator S.r.l. <b>Workforce: 18</b> <b>Revenue: €1.8m</b>	Implementation of energy efficiency projects, including via EPC (Energy Performance Contract) solutions.
Terna Interconnector S.r.l. <b>Workforce: 0</b> <b>Revenue: €57.2m</b>	Development and construction of private infrastructure for interconnections with other countries.
Resia Interconnector S.r.l. <b>Workforce: 0</b> <b>Revenue: €0.2m</b>	Construction and operation of the Italy-Austria interconnector as part of the Interconnector project.
PI.SA 2 S.r.l. <b>Workforce: 0</b> <b>Revenue: €0m</b>	Construction of the Italy-France interconnector following a restructuring of the related activities

**SUBSIDIARIES WITH NON-REGULATED INTERNATIONAL ACTIVITIES**

COMPANY	BUSINESS
Terna Plus S.r.l. <b>Workforce: 35</b> <b>Revenue: €0.9m</b>	Development of new activities and business opportunities in the non-regulated international market, in particular in South America.
Terna Chile S.p.A. <i>Company incorporated under Chilean law</i> <b>Workforce: 0</b> <b>Revenue: €0m</b>	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
SPE Santa Maria Trasmisora de Energia S.A. <i>Company incorporated under Brazilian law</i> <b>Revenue: 4</b> <b>Revenue: €4.6m</b>	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
SPE Santa Lucia Trasmisora de Energia S.A. <i>Company incorporated under Brazilian law</i> <b>Workforce: 19</b> <b>Revenue: €15.0m</b>	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Terna Perú S.A.C. <i>Company incorporated under Peruvian law</i> <b>Workforce: 7</b> <b>Revenue: €17.6m</b>	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Difebal S.A. <i>Company incorporated under Uruguayan law</i> <b>Workforce: 2</b> <b>Revenue: €1.4m</b>	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Terna 4 Chacas <i>Company incorporated under Peruvian law</i> <b>Workforce: 0</b> <b>Revenue: €0m</b>	Construction of the Parish of San Martán 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.
Linha Verde I S.A. <i>Company incorporated under Brazilian law</i> <b>Workforce: 1</b> <b>Revenue: €15.1m</b>	Management of activities involved in the design, construction and maintenance of electricity infrastructure.
Linha Verde II S.A. <i>Company incorporated under Brazilian law</i> <b>Workforce: 11</b> <b>Revenue: €31.7m</b>	Management of activities involved in the design, construction and maintenance of the electricity infrastructure.
Brugg Kabel AG <i>Company incorporated under Swiss law</i> <b>Workforce: 381</b> <b>Revenue: €123.6m</b>	Design, development, production, installation and maintenance of terrestrial electric cables and accessories for high-voltage cables.
ESPERIA-CC S.r.l. <b>Workforce: 0</b> <b>Revenue: €0m</b>	Supply of services to calculate electricity transmission capability to allocate to energy markets. Supply of studies, analyses, data and research to Regional Security Coordinators or Regional Coordinator Centres, as well as the coordination of security assessments.

**ASSOCIATES OR JOINT VENTURES**

COMPANY	BUSINESS
CESI S.p.A. <sup>6</sup> Workforce: 693 Revenue: €139m	Pure and applied scientific research aimed at making advances in the electro-technical, energy, electronic and IT sectors.
CORESIO S.A. <sup>7,8</sup> Company incorporated under Belgian law Workforce: 68 Revenue: €17.7m	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.
CGES <sup>9,10</sup> Workforce: 305 Revenue: €40.6m	TSO for Montenegro's electricity market. Investment acquired as part of the Italy-Balkans interconnector project.
Elmed Études Sarl Workforce: 2 Revenue: €0m	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. Company incorporated under Greek law Workforce: - Revenue: €-m	The Company's objective is to enhance the secure supply of electricity in markets adhering to the relevant European Regional Initiative.
EQUIGY Workforce: - Revenue: €-m	Management of a crowd balancing platform using blockchain technology to foster the inclusion of new flexible resources in the system services market

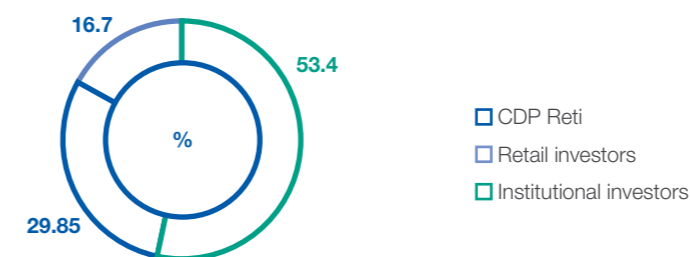
<sup>6</sup> Data refer to 2019. The figure for the workforce refers to 2018.  
<sup>7</sup> Although less than 20%, the investment remains relevant based on the presumption that the Parent Company exerts significant influence. Shareholders include Terna and the operators in France (RTE), Belgium (Elia) and the UK (National Grid), each with 15.84% interests, in addition to the German operator, 50 Hertz Transmission, with 7.90%.  
<sup>8</sup> Data refer to 2019.  
<sup>9</sup> In full, "Crnogorsk Elektroprenosni Sistem Ad".  
<sup>10</sup> Data refer to 2019.

**Ownership structure**

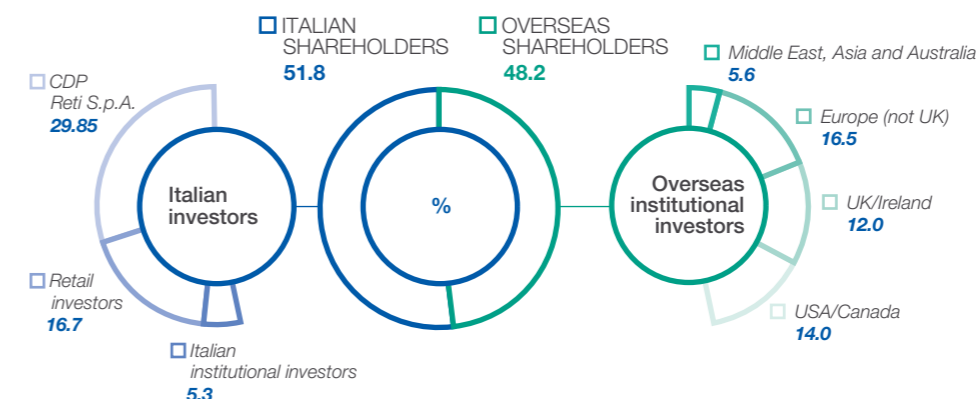
Terna S.p.A's share capital amounts to €442,198,240, comprising 2,009,992,000 fully paid-up ordinary shares with a par value of €0.22 each<sup>11</sup>.

Based on information from the shareholders' register and other available data, in February 2021, Terna's shareholder structure breaks down as follows:

**SHAREHOLDERS BY CATEGORY**



**SHAREHOLDERS BY GEOGRAPHICAL AREA AND CATEGORY**



Shareholdings exceeding the threshold of 1% are reported in compliance with the more stringent reporting obligations imposed by CONSOB:

- **Norges Bank**<sup>12</sup>, equal to 1.643% of the share capital;
- **Inarcassa**<sup>13</sup>, equal to 1.11% of the share capital;
- **Bank of Italy**<sup>14</sup>, equal to 1.017% of the share capital.

<sup>11</sup> In 2020, the Parent Company launched a buyback programme linked to the Performance Share Plan 2020-2023. In the period between 29 June 2020 and 6 August 2020, Terna purchased 1,525,900 own shares (equal to 0.076% of the share capital). The Company does not hold any additional treasury shares with respect to those purchased under the above programme, including through subsidiaries. In this regard, reference should be made to the press release dated 10 August 2020, available at the following link: [https://download.terna.it/terna/2020.08.10\\_CS%20TERNA%20operazioni%20su%20azioni%20proprie%20CHIUSURA%20ITA\\_\\_8d83d42cfd43cb6.pdf](https://download.terna.it/terna/2020.08.10_CS%20TERNA%20operazioni%20su%20azioni%20proprie%20CHIUSURA%20ITA__8d83d42cfd43cb6.pdf)

<sup>12</sup> The interests held by the shareholders, Norges Bank, Inarcassa and the Bank of Italy, were notified in implementation of the transitional regime for enhanced transparency regarding changes in major shareholdings introduced by the CONSOB and most recently extended by Resolution 21672 of 13 January 2021, containing the extension of the provisions relating to the identification of further notifiable thresholds for shareholdings and the declaration of investment objectives, as required by CONSOB resolutions 21326 and 21327 of 9 April 2020, adopted in accordance with article 120, paragraphs 2-bis and 4-bis, Legislative Decree 58 of 1998, as previously extended by resolutions 21434 of 8 July 2020 and 21525 of 7 October 2020.

<sup>13</sup> As above.  
<sup>14</sup> As above.

### Socially Responsible Investors

At the end of 2020, 160 socially responsible investors (SRI), compared with 147 in 2019 and 109 in 2018, had invested in Terna's shares using an approach that takes into account ESG (Environmental, Social, Governance) aspects. Overall, at the end of 2020, SRIs represented 16.0% of Terna's free float (11.8% in 2019 and 9.5% in 2018) and 21.4% of the capital held by identifiable institutional investors (15.4% at the end of 2019 and approximately 12.9% in 2018).

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

The interim dividend for 2020 was 9.09 euro cents (paid on 25 November 2020), while the final dividend to be proposed to shareholders by the Board of Directors at the Annual General Meeting on 30/04/2021 is 17.86 euro cents. Further information on the dividend history may be found at [www.terna.it](http://www.terna.it).

At the Shareholders' Meeting held on 18 May 2020, the 1,697 shareholders representing 1,370,630,144 ordinary shares accounting for 68.2% of the share capital were duly represented exclusively by a Designated Representative<sup>15</sup>.

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 2020, published together with the Annual Report of Terna and the Terna Group. This is available in the "System of Corporate Governance – Governance Report" on Terna's website.

Six requests for information were received by email from non-institutional investors (11 in 2019 and 14 in 2018), regarding information on the Company's activities and information material on the Company.

<sup>15</sup> In view of the regulatory provisions issued in response to the Covid emergency, and specifically the measures set forth in Legislative Decree 18 of 17 March 2020 (the so-called "Cure Italy" Decree), the Company decided to avail itself of the option stipulated in art. 106, subsection 4 of the Decree, which states that attendance at shareholders' meetings by entitled persons may take place exclusively via the representative appointed by the Company pursuant to art. 135-undecies of Italian Legislative Decree 58 of 24 February 1998 (The Consolidated Law on Finance).

## Corporate governance

EG1

The governance system is substantially in line with the principles contained in the Code of Conduct<sup>16</sup> for listed companies adopted by Terna, with the related recommendations made by CONSOB and, more generally, with the international best practices the Company uses as a benchmark.

On 18 May 2020, the Annual General Meeting of the Company's shareholders elected the current members of the Board of Directors, whose terms of office will end with approval of the financial statements for the year ended 31 December 2022.

On that same date, the Board of Directors appointed the Chief Executive Officer and elected the members of the various Board committees.

The current structure of the Board of Directors requires the presence of 13 Directors and one Chief Executive Officer, to whom the Board has granted the necessary authority via a resolution approved on 18 May 2020, in which the Board defined the scope, limitations and means by which to exercise such authority.

The Board of Directors' activities are coordinated by the Chairwoman and supported by the Secretary.

### COMPOSITION OF THE BOARD OF DIRECTORS AS AT 24 MARCH 2021

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	UNIT	
Men	%	53.85
Women	%	46.15
Under 30	%	-
Between 30 and 50	%	38.46
Over 50	%	61.54



<sup>16</sup> The new Corporate Governance Code has been in effect since 1 January 2021 and is available on Borsa Italiana S.p.A.'s website.

<b>Board of Directors</b>	<p><b>Chairwoman</b> Valentina Bosetti</p> <p><b>Chief Executive Officer</b> Stefano Antonio Donnarumma</p>	<p><b>Directors</b> Alessandra Faella Yunpeng He Valentina Canalini Ernesto Carbone Giuseppe Ferri</p>	<p>Antonella Baldino Fabio Corsico Marco Giorgino Gabriella Porcelli Paola Giannotti Jean-Michel Aubertin</p>
<b>Chairman</b>	<p><b>Chairman</b> Mario Matteo Busso</p>	<p><b>Standing Auditors</b> Vincenzo Simone Raffaella Fantini</p>	<p><b>Alternates</b> Massimiliano Ghizzi Maria Assunta Damiano Barbara Zanardi</p>
<b>Independent Auditors</b>	Deloitte & Touche S.p.A.		
<b>Board Committees</b>	<p><b>Audit, Risk, Corporate Governance and Sustainability Committee</b> Paola Giannotti (Chairwoman, independent) Giuseppe Ferri (independent) Marco Giorgino (independent)</p> <p><b>Remuneration Committee</b> Fabio Corsico (Chairman, independent) Gabriella Porcelli (independent) Alessandra Faella (independent)</p>	<p><b>Nominations Committee</b> Gabriella Porcelli (Chairwoman, independent) Fabio Corsico (independent) Jean-Michel Aubertin (independent)</p> <p><b>Related Party Transactions Committee</b> Marco Giorgino (Coordinator, independent) Ernesto Carbone (independent) Paola Giannotti (independent)</p>	

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.

Further information on Terna's corporate governance may be found in the "Report on Corporate Governance and Ownership Structures", which was approved by the Board of Directors on 24 March 2021 and is available in the "System of Corporate Governance – Governance Report" section of Terna's website and in the "Remuneration Report", also on Terna's website.

## Risk management

EG2

The Terna Group's main business is operated as a legal monopoly, subject to the terms of the government concession and the regulations defined by the Regulatory Authority for Energy, Networks and the Environment (ARERA). This means that regulatory risks and risks that may have an impact not so much on Terna, as on the entire electricity system (for example, power outages), are particularly significant. In this regard, risks that may also have long-term effects, such as those deriving from climate change, are relevant to Terna (see pages 82-83).

Terna has identified the main risks associated with its activities and prepared organisational measures, controls and specific instruments with the aim of reducing them and keeping any effects within acceptable limits.

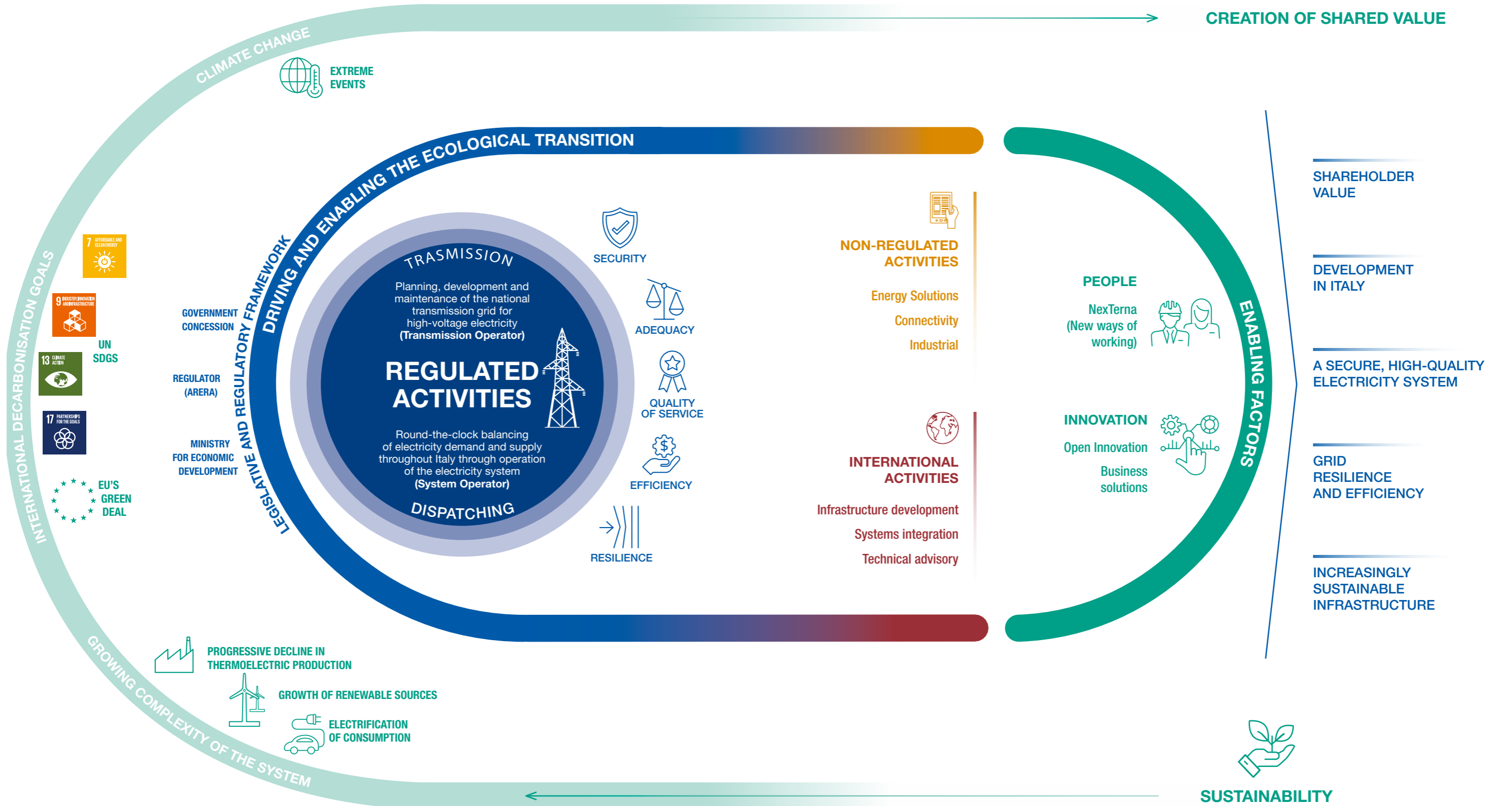
From an organisational point of view, the Group is structured in such a way as to guarantee management and supervision of all its operations and the risks associated with them, as well as a clear allocation of roles and responsibilities. In particular, in line with the provisions of the Corporate Governance Code for listed companies, which the Group has voluntarily adopted, the Audit and Risk, Corporate Governance and Sustainability Committee (hereinafter "Committee"), consisting of the independent directors, supports the Board of Directors in making its assessments and taking decisions relating to the Internal Audit and Risk Management System (IARMS).

The Committee has a direct relationship with the Chief Risk Officer (CRO), who is appointed by the Director that heads the IARMS, with the task of supporting senior management in the definition of risk analysis, management and monitoring policies, and in the effective coordination of the actors involved in the IARMS, in order to maximise its efficiency and reduce duplication of the activities. The CRO reports periodically to the Committee on risk management in the Company.

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.

For details of the different types of risk to which the Terna Group is potentially exposed and the related management systems, reference should be made to the section "Risk management" on page 88 of the Integrated Report for 2020.

# Business model and activities





## Electricity transmission

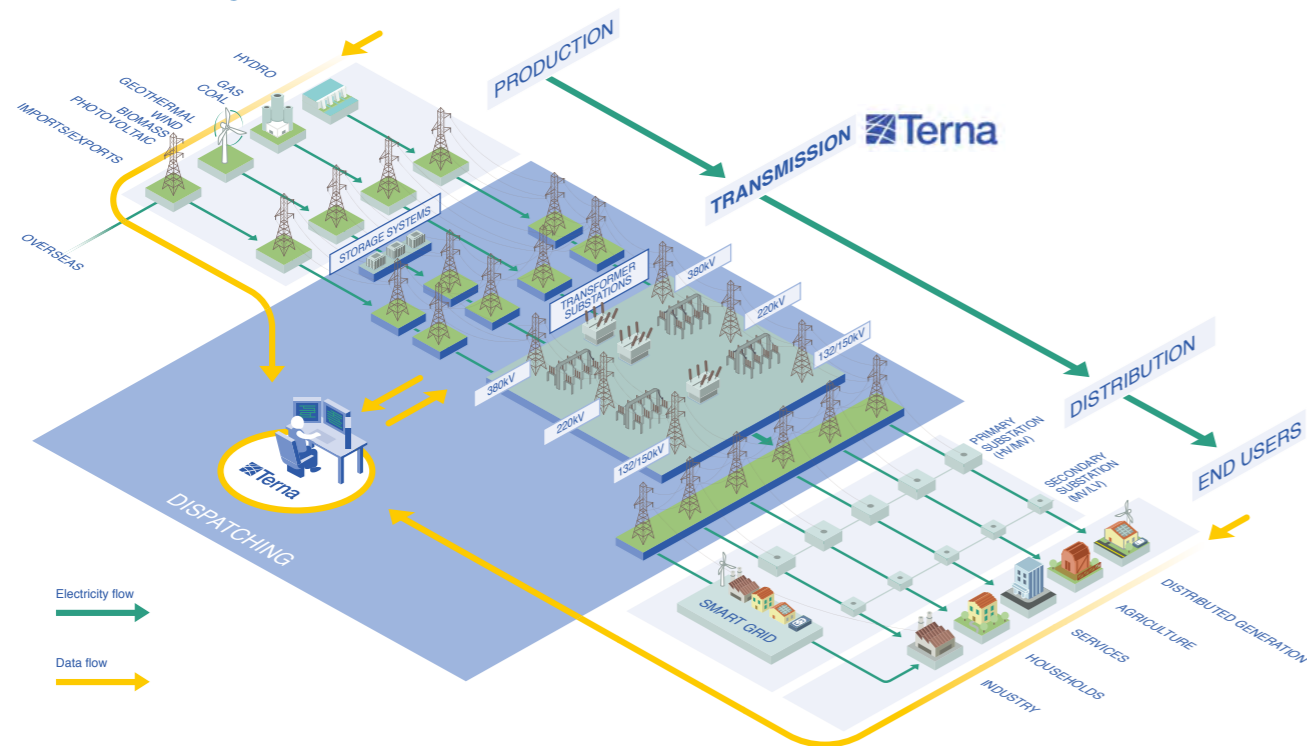
The Italian electricity system chain consists of four segments: production, transmission, distribution and the sale of electricity.

This chart illustrates the two main activities carried out by Terna and that make up its core business: transmission, to which most of this Report is dedicated, and dispatching (see page 68).

These activities constitute a vital segment of the electricity service which, while not perceived as such by end users or the customers of companies that distribute and sell electricity, make Terna ethically responsible towards the whole community. For Terna, this means adopting a sustainable approach to its business, primarily expressed through responsible management of the NTG.

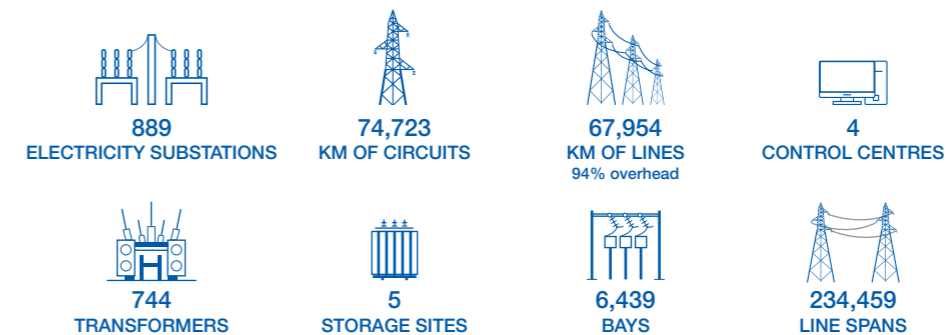


### ITALIAN ELECTRICITY SYSTEM CHAIN



Electricity transmission depends on the following assets:

#### TERNA'S INFRASTRUCTURE\*



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\* Figures updated to 31 December 2020, except for the figure for line spans, which is updated to early 2021.

#### Planning

The grid planning process identifies the structural changes needed so that the transmission system can best carry out its role of guaranteeing the secure, cost-effective transport of the power generated by existing and future production centres to the distribution system and load centres.

Planning and development of the NTG takes into account the objectives set out in the Concession Arrangement and the needs emerging as a result of European scenarios and/or national energy policy.

Development of the NTG reflects the need to:

- Overcome problems that have come to light during grid operations;
- Prevent the occurrence of problems linked to the evolution of the related energy scenario, in terms of increased demand for electricity and changes in the mix of generation assets (the phase-out of coal and growing use of renewable energy sources);
- Ensure the integration of European grids so as to drive the process of integrating European markets.

The new works to be carried out are included in the NTG Development Plan, presented to the Ministry of Economic Development for approval, also taking into account the consultation process carried out by ARERA. Terna follows the complex authorisation process.

#### Implementation of development initiatives

Responsibility for design and construction of the works included in the Development Plan has been assigned to Terna Rete Italia S.p.A., which decides on the need for external resources and establishes the related solutions and technical specifications for the components and materials to be used, in compliance with the technical regulations in force.

Terna Rete Italia also defines the engineering standards for plants connected to the grid, above all standards of construction and the performance standards for equipment, machinery and substation and power line components. The construction of new plants is usually outsourced, whilst strict control is maintained over contractors' approaches to environmental and social concerns (see pages 252-253). Development initiatives also include the construction of interconnectors with other countries (see page 185).

### Dispatching

Dispatching ensures a balance between the quantity of electricity injected into and withdrawn from the system, between energy supply and demand, round the clock, 365 days a year.

This activity has become more complex over time, partly due to significant growth in Non-Programmable Renewable Sources (“NPRS”), requiring greater flexibility, especially in situations where the supply from renewable sources is very high and demand for energy is low.

### Infrastructure maintenance and renewal

The maintenance of power lines, electricity substations and storage systems is carried out by Terna Rete Italia, which is also responsible for defining the technical criteria and standards for the maintenance and renewal of assets (see page 188).

As the TSO, Terna is also responsible for managing producers’ registers, handling the data on injections and withdrawals for use in determining the related revenues and costs, and for processing statistics on the Italian electricity industry. This entails having access to confidential data regarding operators in the system, especially electricity producers. To protect this data, Terna has adopted the best data protection practices in order to prevent the information it holds from being accessible or disclosed to unentitled third parties.



## Dispatching of electricity

As the Italian System Operator, Terna is responsible for the dispatching service forming part of the National Electricity System.

Dispatching is the set of activities necessary to ensure that there is always a balance between demand for electricity throughout the country (manufacturers, service providers, agriculture and households) and the energy produced by power plants.

### DISPATCHING ACTIVITIES



The high degree of complexity and coordination necessary to guarantee correct operations of the system require the presence of a central coordinator, the provider of the dispatching service. This coordinator has control over a large number of both supply-side and demand-side players, and in the last few years also over production from non-programmable renewable sources.

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

Dispatching includes planning for unavailability of the grid and of production plants over different time-scales, 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) and acquisition of resources for dispatching and monitoring power transported for all the power lines that make up the grid.

In particular, “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 management 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.

In 2020, dispatching activities were affected by a number of important events that impacted on the efficient operations of the grid. Further details are provided on page 170.

## Other activities in Italy

The Terna Group pursues business opportunities that go beyond its Regulated Activities and provide the Group with a source of revenue diversification.

Italian activities are the responsibility of Terna Energy Solutions S.r.l., a wholly-owned subsidiary of Terna S.p.A.. This company’s goal is to identify and carry out **projects generated by technological discontinuities and trends in the energy sector**, such as growth in renewable sources, the development of Smart Grids, energy efficiency and telecommunications. The range of projects is described below<sup>17</sup>.

### Connectivity

The core Connectivity business involves making Terna’s infrastructure available to meet the rapidly increasing need for fast, reliable digital connections.

The offering relates to:

- **The lease of dark fibre** - The use of fibre-optic pairs already installed along Terna’s power lines, with connections over shorter distances and offering lower rates of attenuation compared with traditional cables (underground).
- **The lease of power lines** - Thanks to their height and widespread presence throughout the country, pylons are ideal for installing telecommunications antennae in order to expand and strengthen mobile networks and Wi-Fi devices, as well as monitoring systems and sensors.
- **Housing and facilities** - The installation of telecommunications equipment at Terna sites already in operation (cabinets, technology hubs for telecoms networks, data centres), with major benefits in terms of security and the guaranteed redundancy and reliability of connection, both electrical and in fibre optic.



<sup>17</sup> Further information on Non-regulated Activities is provided in the Integrated Report for 2020.

## Energy Solutions

The Energy Solutions offering regards:

- **High voltage** - Creation and upgrading of transmission infrastructure (lines and substations) with turnkey solutions to satisfy both industrial customers' needs and demand for the connection of new renewable energy plants to the grid.
- **Engineering, Procurement, Construction ("EPC")** - Plant engineering activities regarding plants and/or grids owned by third parties. Services comprising the "EPC" product can be broken down into the following macro areas of activity:
  - feasibility studies
  - outline, detailed and executive design
  - management of consents processes
  - management of supply and procurement
  - project management
  - the testing, refurbishment and extension of assets
- **Design** - Design activities not linked to construction activities (feasibility studies, general, detailed and executive design, etc.).
- **Management of HV plants** - Management by the Terna Group of HV plants owned by third parties.
- **Management of HV power lines** - Management by the Terna Group of HV power lines owned by third parties.
- **Re-routings for third parties** - Investment in modifications to existing infrastructure belonging to Terna S.p.A. and Rete S.r.l., at the request of third-party customers, entities and associations.

Support during the design, construction and operation of assets, if required assuming ownership and responsibility for operation over a defined period (BOOT - Build, Own, Operate, Transfer).

- **Smart Grids:**
  - **Energy efficiency** - Support for businesses in delivering energy efficiency, designing and developing innovative solutions to cut energy costs, optimise production processes, and obtain Energy Efficiency Certificates (white certificates).
  - **New Solutions** - Development of integrated solutions designed to meet cutting-edge standards of sustainability and flexibility. Services regarding the New Solutions product may be broken down into the following macro-areas of business:
    - the development and installation of storage systems for industrial enterprises (Storage)
    - the development and installation of power systems that include, by way of example, renewable energy plants, as well as integration systems for storage units so as to cut back on the use of fossil fuels (Smart Island/Smart Grid)
    - the development and installation of co- and tri-generation solutions, namely production plants that combine different forms of energy (Combined Heat and Power – CHP)
    - the design, installation and Operation & Maintenance (O&M) of Quality Power systems
    - consulting and software development for charging hubs.
  - **Services** - Solutions for maintaining and monitoring the solutions designed and implemented (renewable energy plants, storage systems, CHP, etc.) with the aim of preventing, reducing and minimising the risk of malfunctions and disruptions to services.
- **Digital services** - The operation of land surveillance and remote grid management systems. Other value-added services, some provided over software platforms.

Non-regulated Activities also include activities carried out by the Tamini Group and private interconnector projects (see page 186).

## International Activities

The Terna Group's overseas investments are directed towards countries with a stable political and regulatory framework that need to build electricity infrastructure. The aim is to diversify with respect to the activities carried out in Italy, potentially in collaboration with overseas energy operators.

International markets offer opportunities to take part in the development of transmission infrastructure, driven by a growing demand for power and a regulatory framework that allows access to external operators.

Terna's strategic priorities with regard to its International Activities regard:

- **Europe:** strengthen its presence in the Mediterranean basin in order to make Italy the energy hub of the Mediterranean.
- **Latin America:** consolidate the Group's position in countries of interest via the acquisition of new contracts, management of lines in operation, and development of projects underway in Brazil and Peru. The strategy aims to integrate the value proposition with services provided to third parties in both regulated and non-regulated activities.
- **Other geographical areas:** develop services that support the ecological transition and are low-risk and capital-light.

Overseas initiatives of interest to the Terna Group are:

- **Development and management of concessions:** this model envisages the acquisition and operation of transmission systems abroad by taking part in international concession and/or secondary market awards. The International Operations department has developed specific competencies in this field in terms of handling authorisations, project management activities and operation of the lines installed.
- **Energy solutions:** this includes all high value-added non-traditional activities aimed at exporting the experience Terna has in Italy 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, with a view to exporting and taking advantage of the distinctive expertise acquired in Italy.
- **Project Management:** Project Management (EPCM) activities enable the Group to leverage its expertise in carrying out projects overseas and managing infrastructure.

BM5



### Work in progress in South America

In common with the rest of the world, Latin America witnessed a gradual worsening of the situation brought about by Covid-19 during 2020 and, at 31 December 2020, a number of countries are still in the throes of a full-blown health emergency.

Consequently, Progress on projects in Brazil and Peru has been affected by the emergency.

In Peru, after suspending work in response to measures introduced by the government, onsite activity restarted in line with local regulations and the best practices applied by the Terna Group.

In Brazil, both operation & maintenance and construction activities have restarted thanks to the implementation of health protocols specifically designed for the kind of work carried out.



URUGUAY

2020 saw a continuation of activities regarding management of the 500kV Melo-Tacuarembò power line, measuring 213 km in length and in operation since October 2019.



BRAZIL

Operation and maintenance of the Santa Maria Transmissora de Energia (SMTE) power line in the State of Rio Grande do Sul and the Santa Lucia Transmissora de Energia (SLTE) power line in the State of Mato Grosso continued in 2020.

In addition, onsite activity began and engineering work and the acquisition of rights and easements for the SPE Transmissora de energia Linha Verde II S.A. project began. This is the first of the two concessions covered by the preliminary agreement with Construtora Quebec, regarding the construction of a 150-km 500kV power line in the State of Minas Gerais.

Acquisition of the second concession covered by the above agreement was completed in August. This regards the SPE Transmissora de Energia Linha Verde I S.A. project, involving the construction of a 150-km long 500kV power line dubbed the “Governador Valadares-Mutum” in the State of Minas Gerais. The consents process and related design engineering work is underway.



PERU

Work, which began in 2017, on construction of 132 km of new 138kV lines between Aguaytia and Pucallpa is continuing.

Construction, which was temporarily interrupted in March by the lockdown imposed by the government in response to the Covid-19 pandemic, resumed in July 2020.

In the meantime, the procurement of transmission line materials and the related civil engineering works have been completed and the project is expected to reach completion in the first half of 2021.

## Revenue

Revenue from Regulated Activities of €2,148.9 million represents approximately 85.5% of Terna's total revenue. It is determined on the basis of ARERA resolutions establishing the structure and criteria to be used, which the regulator revises each year, if necessary.

BM2



### MAIN TYPES OF ALLOWED COST

#### 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 ARERA.

#### 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.

#### Operating costs

Allowed costs are determined by ARERA at the beginning of the regulatory period, based on operating costs recognised during the relevant year and increased by any remaining portions of additional efficiencies achieved in the previous two regulatory periods. The resulting amount is revalued annually on the basis of inflation and reduced by an efficiency factor designed to ensure that additional efficiencies are, over time, passed back to end users in full.

For further details regarding the main types of cost recognised and the fees for transmission and dispatching services, reference should be made to the “Annual Report 2020”.

In 2020, Terna received government grants of €4,386,484 to fund required modifications to its infrastructure.

GOVERNMENT GRANTS	2020	2019	2018
Grants related to assets received from the Public Sector (*)	4,386,484	5,272,640	19,126,545
Ministry for Economic Development MED-funded projects (*)	0	7,342,518	47,053,291
EU-funded projects (*)	0	0	0

(\*) These grants are deducted directly from the carrying amount of the related assets.

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### Pass-through items

As part of its dispatching operations, Terna manages the cost and revenue items relating to the purchase and sale of energy from and to operators in the electricity market. These are the co-called “pass-through” items that do not affect the Terna Group’s profitability, as the revenues equal the costs.

In 2020, the Terna Group’s pass-through revenues and expenses amounted to a total of €5,504.4 million. For further details, reference should be made to the “Annual Report 2020”.

### Incentive mechanisms

Existing regulations<sup>18</sup> contain mechanisms designed to regulate and incentivise the quality of the service provided by Terna. In this case, the principal continuity indicator is Regulated Energy Not Supplied (RENS). The overall economic impact of these mechanisms is computed at the end of the year (including RENS). In terms of costs, determined periodically on the basis of actual events, Terna has recognised a balance of €4.7 million for 2020 (€0.6 million in 2019).

In 2020, the other activities carried out by the Group generated revenue of €341.0 million from Non-regulated activities, primarily regarding the contribution from Brugg Cables (€149.9 million) and the Tamini Group (€103.9 million), and €23.6 million from International Activities (directly including the margin earned on overseas concessions), primarily reflecting the results of assets operated under concession in Brazil.



<sup>18</sup> ARERA Resolution 567/2019/R/eel.



# 2021-2025 Industrial Plan

In November 2020, Terna's Board of Directors approved the "2021-2025 Industrial Plan", before presenting it to the market.

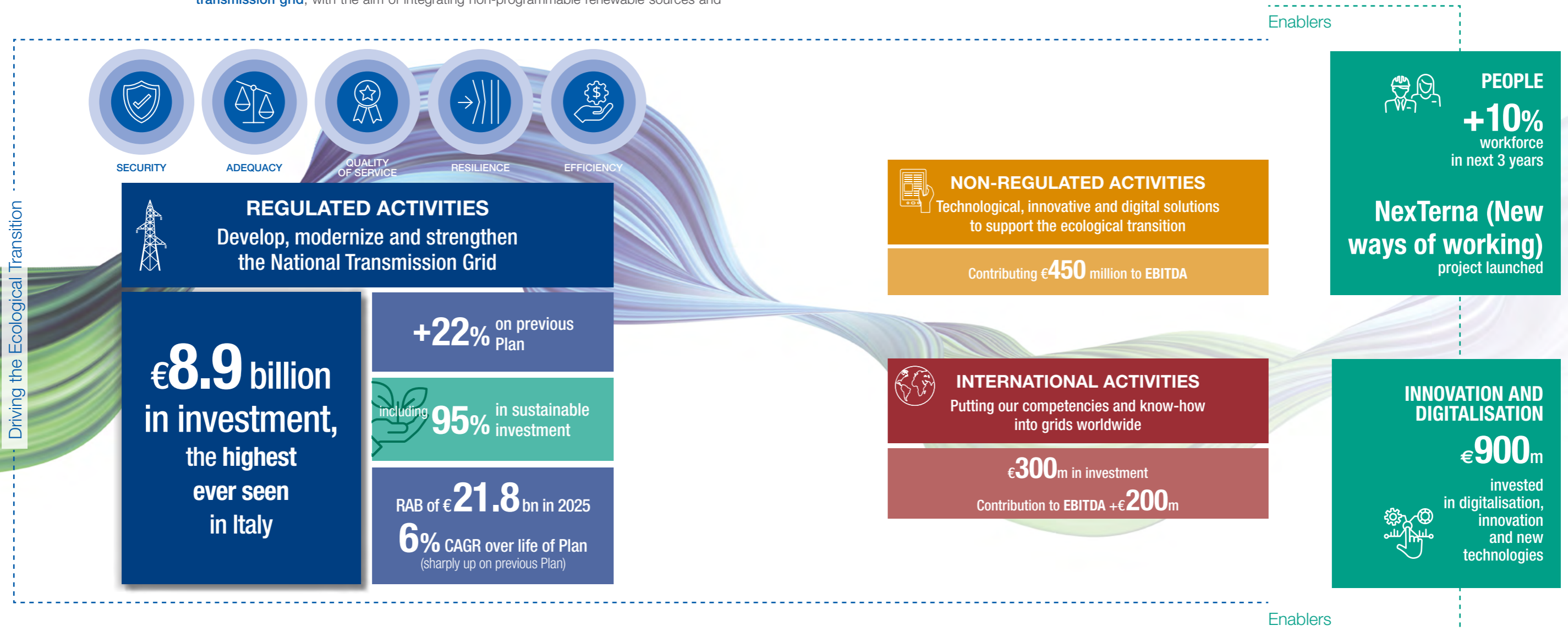
The Plan aims to confirm and reinforce Terna's central role in driving and enabling Italy's energy system and the ecological transition, and as the main driving force behind Italy's achievement of the European Green New Deal goals and implementation of Italy's Integrated National Plan for Energy and the Climate. This will above all involve achieving a 55% cut in CO<sub>2</sub> emissions by 2030, before reaching the target of zero emissions by 2050.

The cornerstones underpinning the new Plan are **sustainable investment in the national transmission grid**, with the aim of integrating non-programmable renewable sources and

boosting system security and resilience in order to resolve grid congestion and upgrade the transmission backbones that play an essential role in linking places of production with consumption. This goal will be achieved by strengthening connections between the north and south of the country and with the islands, and by strengthening cross-border interconnection capacity.

To achieve Italian and European climate objectives, and at the same time make a decisive contribution to restarting the post-Covid economy, Terna has decided to **accelerate investment in Italy, with a total of €8.9 billion to be spent on Regulated Activities over the life of the Plan**. This is the largest amount Terna has ever invested in Italy, marking an increase of 22% compared with the previous Plan presented last March. **Of this investment, 95% is classifiable as green under the criteria in the EU Taxonomy currently being devised.**

This investment is expected to have a major multiplier effect in terms of both GDP growth and job creation: according to recent studies, every billion euros invested in infrastructure generates between two and three billion euros of GDP and around a thousand new jobs.



The development initiatives will be focused on three strategic areas: **Regulated Activities in Italy, Non-regulated Activities and International Activities:**

- **Regulated Activities in Italy** will continue to represent the Group's core business. For these activities the Plan calls for **€8.9 billion in investment** in order to modernise and strengthen the NTG, in line with Terna's role as the enabler of an increasingly complex, sustainable and technologically advanced electricity system.
- **Non-regulated Activities** will focus on the development of innovative, digital solutions to support ecological transition, fully in line with the Group's core business. Specifically, they include the provision of Energy Solutions, the offer of connectivity, and the manufacturing of power transformers and terrestrial cables by Tamini and Brugg.
- **International** activities will centre on maintaining Terna's presence in a number of Latin American countries (Brazil, Peru, Uruguay) in order to exploit the Group's expertise and increase its know-how in cross-border and very high-voltage connections. The Plan envisages taking advantage of new opportunities capable of driving further EBITDA growth in return for low levels of risk and modest capital absorption.

Over the next five years, new technologies and digitalisation will acquire ever greater importance and take on an increasingly central role for Terna, in keeping with their crucial role in enabling the ecological transition for the benefit of the entire system.

Specifically, **Terna will earmark approximately €900 million** of the total €8.9 billion for **digitalisation and innovation**. This will enable Terna to proceed with the rollout of remote control systems for electricity substations and key infrastructure by installing sensors and monitoring and diagnostic systems, including those of a predictive nature, to boost the security of the grid and the country as a whole. Innovation and new technologies will also generate value for the entire system and the market.

A major role in achieving the challenging goals the Group has set itself will be played by Terna's people. The Industrial Plan will result in **significant job creation**. Indeed, Terna expects to see a 10% increase in its workforce in the first three years to over 5,000.

The current, complex scenario requires the adoption of new organisational models, made possible by new technologies, such as the **"New Ways of Working"** project, created to enable the Group to achieve the targets set in the 2021-2025 Industrial Plan.

The project breaks down into seven macro areas of work, designed to help the Terna Group's people adopt new ways of working, take on a new mindset with a view to exploiting talent and managing widespread structural change, as well as to optimise office spaces and their use. This will be done by, for example, introducing virtual offices, distributed offices and forms of coworking capable of ensuring that staff can work well, whilst at the same time benefitting from improved logistics and a better quality of life.

# Opportunities and risks

## connected with climate change

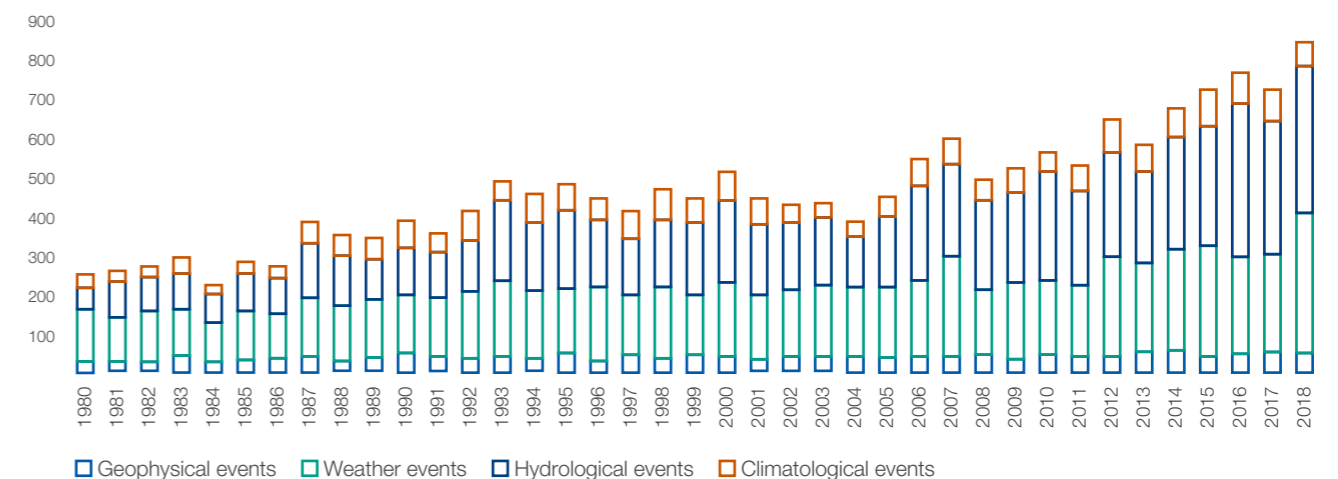
Greenhouse gas emissions represent the most significant impact of human activity on the environment.

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It is by now widely accepted among the scientific community that there is a direct link between the growing concentration of greenhouse gases in the atmosphere and progressive changes in the planet's climate balance. This is resulting in significant rises in temperature, prolonged periods of drought and increasingly frequent and extreme climatic events.

These events are capable of having a growing impact on human activity.

### MAJOR CLIMATIC EVENTS RECORDED ACROSS THE WORLD BETWEEN 1980 AND 2018



Source: NatCatSERVICE – Munich.RE

There is therefore a clear need to take action in the sectors that have the greatest impact on the related dynamics, above all the energy sector, which even today remains highly dependent on the exploitation of fossil fuels.

In this context, given the European drive towards decarbonisation and the significant penetration of renewable forms of energy, high-voltage grids have a major role to play in enabling growth in renewable generation capacity.

Development of the electricity grid is therefore crucial in accommodating the growing amount of power injected into the grid by renewable energy plants, above all those that use intermittent sources such as wind and photovoltaic.

In 2020, against the backdrop of a worldwide Covid-19 emergency, the Italian electricity system had a foretaste of the changes to come. The decline in demand for electricity due to the total

lockdown imposed by the government to contain the virus, resulted in a reduction in power generation from traditional programmable sources (e.g., coal and natural gas power stations). This resulted in non-programmable renewable sources (wind and photovoltaic) accounting for a great share of demand. The resulting situations were somewhat analogous and similar to scenarios envisioned for 2030 set forth in the Integrated National Plan for Energy and Climate (PNIEC). Nonetheless, even on the days of greatest stress, the outstanding sturdiness of the grid infrastructure and the coordinated actions taken by Terna ensured that the grid was spared any significant issues and that no power outages occurred.

In any event, reaching the decarbonisation targets implies that electrification is the key path to follow whenever technologically and economically feasible, given the intrinsic efficiency of the energy carrier. Indeed, **electricity is a highly valued source of energy**, one that can be converted into work and offer very high yields. In contrast, thermal and chemical energy come up against the limits of thermodynamics in order to be converted into work, with an inevitable reduction in overall efficiency.

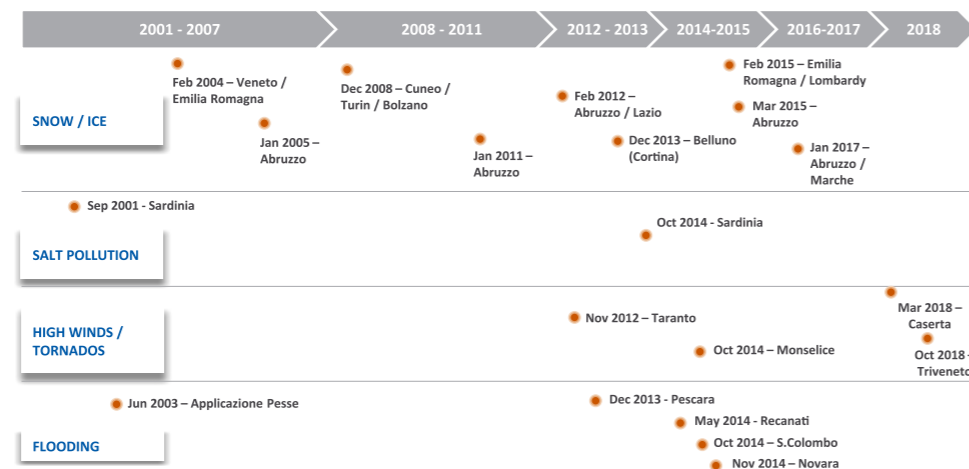
Electrification of final users, where the energy carrier takes on a growing importance in meeting energy needs, will become particularly important in areas where the effects have so far been minimal. These include, by way of example, the residential sector (e.g., heat pumps, induction cooking), transport (electric and/or hybrid vehicles) and in certain high-temperature industrial processes.

**Terna must respond to the current transformation, whilst continuing to provide a reliable, high-quality service for the community.**

The progressive electrification of end uses brings with it a growing exposure to the risks resulting from potential interruptions to the supply of electricity to grid users due to extreme climatic events. The electricity grid is a strategic infrastructure asset that is by its very nature exposed to such events.

In Italy, the greatest risks are linked to hydro-geological instability caused by exceptional rainfall, as well as to the formation of ice sleeves due to wet-snow and high winds that can cause damage to overhead power lines. In addition, the progressive increase in unusual and extreme heat events brings further problems, such as an increase in the risk of fires, which can seriously damage grid structures.

**HISTORICAL RECORD OF SEVERE METEOROLOGICAL EVENTS IN ITALY**



The extreme meteorological events of recent years and, in particular, the variable and extensive nature of such events, makes it necessary to plan for a grid that is capable of coping with these changes. **Climate changes represent a risk that Terna intends to handle by also revising its methodological approach, so as to pinpoint ways to make the system more resilient.**

Resilience is to be understood as a system's ability to absorb and withstand stresses that exceed the system's limits and to rapidly and efficiently return to normal operation, possibly via temporary measures, also ensuring the maintenance, recovery and improvement of the system's essential structures and functions.

Improving resilience requires minimising the risk of malfunctions and can thus be achieved by making the infrastructure more robust and the system more secure, flexible and adaptable.

**Increasing the resilience of the Italian electricity system is one of the challenges posed by the ecological transition.** Reaching this objective entails targeted investments in the infrastructure that aim to prevent and lessen impacts on service continuity along with tools and procedures to handle the emergency and quickly return to normal operational conditions.

In order to aid in planning the related works, Terna has defined a new methodological approach able to evaluate interventions designed to bolster resilience of the NTG and precisely pinpoint those areas of the country that are most likely to be hit by adverse weather conditions. The process will thus make it possible to assess the risk to which the NTG is exposed in the areas identified, locating the network's structurally weakest components and promptly identifying the preventative works needed to make the transmission infrastructure even sturdier.

The following description of the opportunities and risks connected with climate change is presented in accordance with the recommendations for companies published by the Task Force on Climate-related Financial Disclosures.

**Opportunities**

< 207-2

The opportunities linked to climate change constitute a cornerstone of Terna's strategy, regarding both Regulated and Non-regulated Activities in Italy and overseas. Possible sources of opportunity include:

**Products and services**

As regards Regulated Activities, both the Development Plan and the Electricity System Security Plan include investments that have assumed greater importance in relation to climate change.

Enhanced integration of renewable sources and grid resilience form the two major lines of actions in the Development Plan 2021. This approach is in line with a regulatory framework that is moving increasingly towards the use of out-put based solutions, which could boost Terna's returns in relation to its ability to generate benefits for the system.

Terna's Non-regulated Activities will, in the future, also benefit from new possibilities, relating above all to the identification and development of new energy solutions.

### Markets

The scenarios and trends that encourage the development of new opportunities in Italy are of global significance, and therefore also open up new opportunities overseas. This is also true in the realm of Non-regulated Business overseas, where Terna concentrates its activities in Brazil, Uruguay and Peru<sup>19</sup>.

## Transition risks

### Political and legal

There are no specific risks with regard to the introduction of a carbon tax as Terna is not subject to legal obligations regarding cuts in emissions and registers low greenhouse emissions. The same applies to a likely increase in the carbon price, which would in fact improve the ratio between benefits for the system and Terna's investment costs. 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.

### Technological

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.

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.

### Market

No current risks have been noted relating to cost increases deriving from the rise in the price of raw materials due to climate change, which in any case would not to any great extent form part of the risks to which Terna is exposed.

The future performance of electricity consumption in Italy is uncertain, reflecting two contrasting factors: on the one hand, energy efficiency, which is driving down consumption, and, on the other, the progressive switch to electricity in sectors that have typically been tied to the use of fossil fuels, above all transport and heating.

However, even if the amount of electricity transported over the transmission grid were to decline, the regulatory approach to grid assets would normally mitigate the volume risk borne by operators by guaranteeing stable revenues and the recovery of investment costs.

### Reputational

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.

<sup>19</sup> See the paragraph, "International Activities", on page 71.

## Physical risks

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### Acute

In addition to quality of service, the occurrence of extreme climatic events poses a considerable risk to grid infrastructure. Terna has set out its strategy in its Resilience Plan and, with a view to future readiness, its Innovation Plan.

### Chronic

Rising temperatures directly interfere with grid operation, as higher temperatures limit the possible amounts of electricity transmission. Other systemic phenomena, such as rising sea levels, do not have a direct impact.



# Main economic impacts

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## Economic value directly created and distributed

Value added measures the value created by an enterprise, but also by an entire economy, over a certain period, usually a year.

The following figures have been computed under different approach compared with the one used in previous sustainability reports: from this edition of the Report, all the requirements established by Standard GRI 201-1 for reclassification of the Group's consolidated income statement have been taken into account.

### DETERMINATION AND REDISTRIBUTION OF VALUE ADDED <sup>(1)</sup>

	UNIT	2020	2019 <sup>(2)</sup>	2018 <sup>(2)</sup>	CHANGE 20-19	CHANGE % 20-19
A - REVENUE (INCLUDING FINANCIAL INCOME)	€	2,613,331,344	2,383,691,816	2,343,453,341	229,639,527	10
<b>1 - ECONOMIC VALUE GENERATED (A)</b>	€	<b>2,613,331,344</b>	<b>2,383,691,816</b>	<b>2,343,453,341</b>	<b>229,639,527</b>	<b>10</b>
B - OPERATING COSTS	€	1,086,646,224	938,286,449	971,553,759	148,359,775	16
C - REMUNERATION OF EMPLOYEES	€	289,001,287	257,523,131	244,828,800	31,478,156	12
D - PAYMENTS TO THE GOVERNMENT	€	338,927,680	337,429,626	320,273,045	1,498,053	0
E - PAYMENTS TO CREDIT PROVIDERS	€	102,904,766	86,149,234	95,095,920	16,755,532	19
F - PAYMENTS TO PROVIDERS OF RISK CAPITAL <sup>(3)</sup>	€	541,692,844	501,493,004	468,730,134	40,199,840	8
G - INVESTMENTS IN THE COMMUNITY <sup>(4)</sup>	€	588,685	361,970	83,500	226,715	63
<b>2 - ECONOMIC VALUE DISTRIBUTED (B+C+D+E+F+G)</b>	€	<b>2,359,761,486</b>	<b>2,121,243,415</b>	<b>2,100,565,158</b>	<b>238,518,071</b>	<b>119</b>
<b>3 - ECONOMIC VALUE RETAINED (1-2) <sup>(5)</sup></b>	€	<b>253,569,858</b>	<b>262,448,402</b>	<b>242,888,183</b>	<b>-8,878,544</b>	<b>-109</b>

<sup>(1)</sup> Amounts relating to the creation and distribution of economic value have been taken from the consolidated income statement prepared in accordance with IFRS/IAS. In particular, the Group has used IFRS/IAS since 2005.

<sup>(2)</sup> Notably, taking account of the new presentation of "Economic value retained", for comparative purposes, the balances for 2019 and 2018 have been restated, in line with the figures taken from the consolidated income statements for 2019 and 2018.

<sup>(3)</sup> Payments to the providers of risk capital in 2020 correspond with the interim dividend (€182.7 million) payable from 25 November 2020 to the holder of each ordinary share outstanding (net of treasury shares held at the record date of 24 November 2020, 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 24 March 2021 (€359 million).

<sup>(4)</sup> Only donations are considered (for more information on "Investment in the community", see page 134).

<sup>(5)</sup> Corresponds with consolidated net profit for the year after payments to the providers of risk capital.

There was a 10% increase in the economic value generated by the Terna Group in 2020 compared with 2019, due primarily to the overall contribution from the integration of Brugg Cables, which was acquired on 29 February 2020, the tariff increase resulting from the expansion of the RAB and an increase in revenue as a result of the mechanism that rewards quality of service – RENS (essentially due to the pro-rata valuation of the 2020 RENS performance and definition of the RENS performance for 2019).

Compared with 2019, the increase in economic value distributed is due to operating costs (up 16%) and personnel expenses (up 12%), primarily reflecting the contribution from Brugg Cables and the increase in depreciation mainly linked to the entry into service of new infrastructure, payments to credit providers (up 19%, due primarily to interest expense on the debt of the overseas companies and impairment losses on investments in associates) and to the providers of risk capital (up 8%, in line with the growth envisaged in the Industrial Plan).

## Taxation

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 Group's various subsidiaries operate. This reflects the fact that in Italy, the conduct of regulated activities under a government concession requires compliance with the criteria of transparency and legality, also from the standpoint of tax policies.

In any case, Terna does not deem taxation to be a driver in evaluating its business strategy. This is borne out by the fact that even in countries where the corporate tax rate is higher than in Italy (Latin America), the Company is fully aware of the ethical value of fulfilling its tax obligations in terms of our inviolable duty 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.

As regards overseas operations, the Group's 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 enhancing business opportunities.

Moreover, such activities are generally carried out on the basis of concessions, with the revenues determined by local regulatory authorities. Thus, there is an underlying assumption that Group subsidiaries are wholly committed to respecting local tax regulations, also based on their awareness that improper tax planning could cause other operators to find themselves at a competitive disadvantage.

In 2020 the Terna Group reported direct taxation for the year totalling €295.8 million, the lion's share of which regarded Italy, where the vast majority of net operating profit was generated.

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.

### Tax governance, control and risk management

The Group's tax governance is inspired by the principles of correct and prompt determination and payment of the taxes owed by law, implementation of the related controls and minimisation of any tax risk.

Tax risk is understood to comprise not only risks deriving from the possible violation of precise mandatory rules and regulations – for example the failure to comply with new disclosure requirements – but also those linked to the principles and/or aims of the legal systems in the various jurisdictions where the Group operates. Such risks derive from external factors such as, by way of example, uncertain interpretation attributable to ambiguity or the lack of clarity of tax codes and regulations.

The main processes governing taxation and the related obligations are constantly monitored on the basis of procedure 262.

&lt; 207-1

EG2

&lt; 207-2

In 2020, the Group bolstered its own internal control system by updating its organisational model in accordance with the 231 Organisational Model.

A risk assessment regarding tax violations and offenses under Law 231/01 will be completed in 2021, as will definition of the Group's "transfer pricing policy". The latter will 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 ("Master File" and "Local File") called for by Italian legislation.

207-3 &gt;

### Stakeholder engagement

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.

207-4 &gt;

To complete the disclosure presented on pages 56-58, the following table shows key data on taxation relating to Terna and its subsidiaries (in €m).

COMPANY	PRE-TAX PROFIT/LOSS	INCOME TAX EXPENSE FOR THE YEAR	INCOME TAX PAID DURING THE YEAR
Terna S.p.A.	956.9	269.4	303.1
Terna Rete Italia S.p.A.	30.5	9.2	3.1
Rete S.r.l.	77.9	20.0	28.4
Terna Crna Gora d.o.o.	3.7	0.4	0
Terna Energy Solutions	2	0.7	1.4
Tamini Trasformatori S.r.l.	-2.9	0.1	1.7
Rete Verde 17 S.r.l.	-0.1	0	0
Rete Verde 18 S.r.l.	-0.1	0	0
Rete Verde 19 S.r.l.	-0.2	-0.1	0
Rete Verde 20 S.r.l.	-0.3	-0.1	0
Avvenia - The Energy Innovator S.r.l.	-0.4	-0.1	0.1
Terna Interconnector S.r.l.	19.5	5.5	5.4
Resia Interconnector S.r.l.	-0.1	0	0
PI.SA 2 S.r.l.	0	0	0
Terna Plus S.r.l.	-14	-1.8	-3.8
Terna Chile S.p.A.	-0.2	0.5	0
SPE Santa Maria Trasmisora de Energia S.A.	2.1	0.4	0
SPE Santa Lucia Trasmisora de Energia S.A.	6.7	2.5	0
Terna Perù S.A.C.	-9.8	-2.8	0
Difebal S.A.	1.9	1.0	0
Terna 4 Chacas	0	0	0
Linha Verde I S.A.	0.6	0.5	0
Linha Verde II S.A.	-0.4	1.2	0
BRUGG KABEL AG	-1.7	2.1	0

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 financial statements to which reference should be made, 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.

### TAXES PAID OVERSEAS

With regard to taxes paid overseas by the Group's subsidiaries in 2020, the following should be noted:

#### Terna

For activities relating to the Italy-Greece interconnector<sup>20</sup>, income taxes totalling €1,697,796 were paid.

#### Terna Crna Gora

In 2020 the Company invested a total of €5,068,492 in Montenegro, linked to supplies and construction work. Specifically, 2020 saw completion of civil engineering works regarding the route of terrestrial cables, as well as restored protection of marine electrode cables. As regards authorisations, the provisional operating licence was renewed in accordance with Montenegrin regulations (expiring in March 2021).

In terms of operating performance in 2020, the company generated revenue of €10,564,415 and posted a net profit of €3,236,819. Income tax totalling €421,646 was reported, of which €386,825 regarded deferred taxes due to tax depreciation rates exceeding statutory rates and deferred tax assets totalling €34,822 based on tax losses posted in the last 5 years. Consequently, the company does not report any current income taxes paid to the Montenegrin government in Montenegro.

As regards other forms of taxation, in 2020 the company paid property taxes totalling €29,430 (including €26,201 on land it owns in the municipality of Kotor and the remainder on the property used as its registered office, located in the municipality of Podgorica).

#### Tamini Group

Approximately €124,584 was paid, primarily regarding taxes on services and withholding tax.

#### Terna Chile

The Group's Chilean subsidiary paid municipal tax of 4,349,855 Chilean pesos and personal income tax of 4,142,943 Chilean pesos.

#### Difebal S. A.

The company paid 15,718,539 Uruguayan pesos, primarily in the form of value added tax of 7,699,305 Uruguayan pesos, income tax on non-residents of 5,500,073 Uruguayan pesos and personal income tax of 2,344,225 Uruguayan pesos.

#### Terna Perù

Peruvian subsidiaries, Terna Perù S.A.C. and Terna 4 Chacas S.A.C., paid value added tax totalling US\$1,077,316.

<sup>20</sup> 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.

**Brazil**

In 2020, the Brazilian subsidiaries, Santa Maria Transmissora de Energia (SMTE), in the state of Rio Grande do Sul, Santa Lucia Transmissora de Energia (SLTE), in the state of Mato Grosso, Transmissora de Energia Linha Verde I S.A. and Transmissora de Energia Linha Verde II S.A., in the state of Minas Gerais, paid total income tax of 13,523,256 Brazilian reals.

**Brugg Kabel AG**

The Brugg Group (Brugg Kabel AG), through its subsidiaries operating in China, India and Germany, paid income taxes totalling 40.895 Swiss francs and taxes on goods and services totalling 89,407 Swiss francs in 2020.

**Procurement**

As well as providing a service of general importance, Terna's activities help to generate downstream supply chain activity, creating significant economic value and social benefits.

In 2020, total expenditure on the procurement of services, supplies and works amounted to over €1,384<sup>21</sup> million, spread across 2,204 suppliers contracted during the year. In terms of a breakdown of procurement by origin, 97% of the Group's suppliers are Italian and the remaining 3% are overseas.



**Economic impact on the community**

By developing the electricity network, Terna provides a strategic service that contributes towards Italy's economic growth.

The development of interconnections between grids in neighbouring countries facilitates the importation of electricity at competitive prices compared with domestic production, enables additional power reserves, and ensures greater energy market competition. Reducing grid congestion improves the exploitation of power generation resources to meet demand and enables the use of more competitive plants, with positive impacts on competition in the power generation segment and on final prices.

In accordance with the legislative and regulatory framework, all of Terna's grid development investments are assessed from a technical and economic point of view by comparing the estimated cost of implementing a project with the related benefits in order to maximise the cost/benefit ratio. As a result, every euro invested by Terna generates, on average, multiple savings for grid users, as ultimately reflected in the bills paid by the end customer. It is therefore significant that 2020 saw strong growth in Terna's capital expenditure, most of which was earmarked for grid development.

<sup>21</sup> 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 €600 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.

The Terna Group's total investment in 2020 amounted to €1,351.1 million, compared with €1,264.1 million in the previous year (up 6.9%), confirming Terna's great ability to pursue its own objectives despite the enormous difficulties linked to the Covid-19 pandemic.

**INVESTMENT – TERNA GROUP**

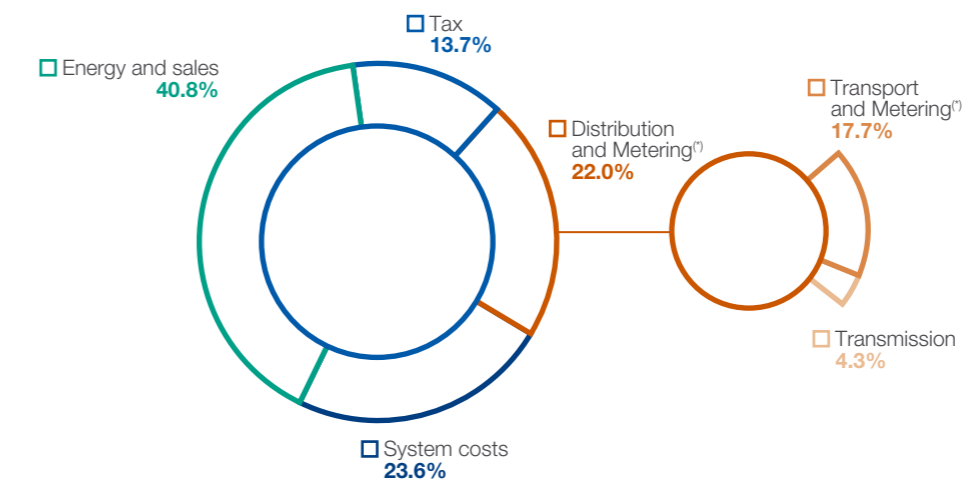
	2020	2019	2018
Total investment (€m)	1,351.1	1,264.1	1,091.1

**Transmission costs in end users' bills**

On the basis of data published by ARERA, the estimated portion of a typical electricity bill for domestic use covering the cost of the transmission service in 2020 is approximately 4.3%.

Compared with the average annual cost to the typical domestic user, estimated at approximately €483 in 2020, the portion of the cost per household that pays for the transmission service is approximately €21 a year.

**COMPOSITION OF A TYPICAL DOMESTIC USER'S BILL – AVERAGE % IN 2020**



<sup>(\*)</sup> Including equalization and quality.

Source: Terna based on ARERA data

<sup>22</sup> Household with 3 kW of subscribed demand and annual consumption of 2,700 kWh.



**Terna-emob**  
ELECTRIC FLEET

A sustainable approach to business takes into account the environmental and social impacts of activities, speeds up the delivery of Industrial Plan objectives and promotes medium- to long-term value creation.

>>

In brief	92
Sustainability model	94
Compliance, integrity and preventing corruption	107
Respect for human rights	114
Supply chain sustainability	118

# 4

## Sustainable business management

# In brief

A sustainable approach to business coincides with the knowledge that we not only have an obligation to our shareholders, but also to all our other stakeholders and the wider community, as enshrined in the Group's Code of Ethics.

This commitment regards all Terna's activities and has led to the adoption of policies, management systems and initiatives that guide the way our businesses are run<sup>1</sup>.

Constant attention to these aspects (ESG – Environmental, Social, Governance), the conduct of audits and the definition of targets have resulted in performances that have been acknowledged by the leading sustainability rating agencies, who include Terna in the main stock exchange sustainability indices<sup>2</sup>, as well as better access to credit.

This section begins with a description of the "Sustainability Model" and then sets out the main sustainability governance tools used by Terna and the related objectives and targets, divided into four areas: human resources; stakeholders and local communities; integrity, responsibility and transparency; and environment. These have then been taken into account in drawing up the 2021-2025 Industrial Plan<sup>3</sup>. In line with non-financial reporting requirements, and including additional voluntary disclosure, information is also provided on the actions taken and the results achieved with regard to compliance, integrity and efforts to combat corruption<sup>4</sup>, respect for human rights<sup>5</sup> and management of the supply chain<sup>6</sup>.

## HIGHLIGHTS IN 2020

For the third year running, Terna has been named <b>global number one in the Electric Utilities sector of the Dow Jones Sustainability World Index</b>	<b>2,529</b> checks of counterparties carried out (anti-fraud and anti-corruption)	<b>94%</b> of works contractors are ISO 14001 and OHSAS 18001 certified
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<sup>1</sup> See the paragraph, "Sustainability governance" on pages 96-98.  
<sup>2</sup> See the paragraph, "Sustainability indices" on pages 102-103.  
<sup>3</sup> See the paragraph, "Sustainability objectives and targets" on pages 99-101.  
<sup>4</sup> See the paragraph, "Compliance, integrity and preventing corruption" on page 107.  
<sup>5</sup> See the paragraph, "Respect for human rights" on page 114.  
<sup>6</sup> See the paragraph, "Supply chain sustainability" on page 118.

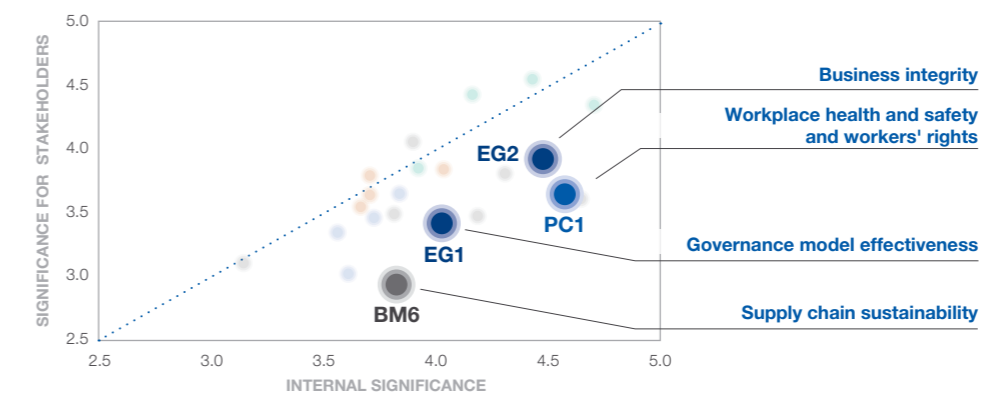
## Link with the relevant materiality matrix topics

This section deals with some of the topics deemed to be relevant in the materiality analysis carried out in December 2020, and therefore included in the related matrix published on page 34.

In particular, with regard to the "Ethics and governance model", "Business integrity" (topic EG2) is fully dealt with in the paragraphs on "Compliance, integrity and preventing corruption" on page 107 and "Respect for human rights" on page 114 and, exclusively regarding sustainability issues, "Governance model effectiveness"<sup>7</sup> (topic EG1), is also covered in the paragraph on "Sustainability governance" on page 96.

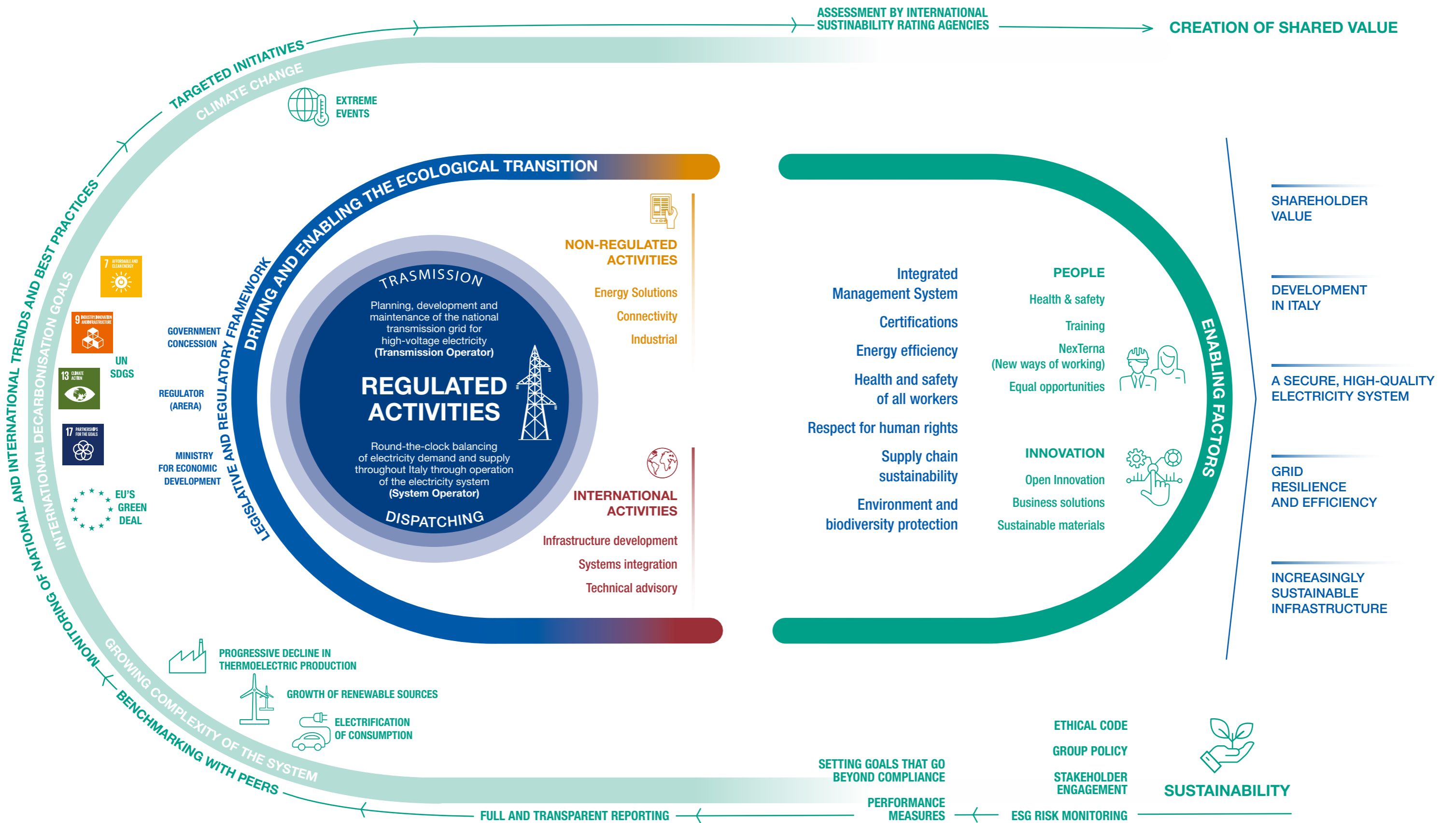
"Our people and the community" and "Business management" are dealt with respectively under "Workplace health and safety and correct working practices"<sup>8</sup> (topic PC1) – exclusively regarding respect for human rights in this section – on page 114 and "Sustainable supply chain" (topic BM7) on page 118.

## POSITION OF THE TOPICS IN THE MATERIALITY MATRIX



<sup>7</sup> See also the paragraphs, "Corporate governance" and "Risk management", respectively, on pages 61 and 63.  
<sup>8</sup> See also the paragraph with the same name on page 245.

# Sustainability model



The sustainability approach enables Terna to leverage the creation of value in the medium to long term, in line with the objectives of the Industrial Plan and, by monitoring environmental, social and governance risks associated with the Group's activities, it also contributes to their achievement.

With this awareness, Terna deploys the best tools to ensure objectivity and methodological soundness in all the processes of analysis, monitoring, measurement and reporting of the ESG aspects of our businesses. These are set out in a "Sustainability Model" that fits in perfectly with the "Business Model", of which it forms an integral part.

In terms of general values, the foundations of the "Sustainability Model" coincide with the Group's mission and Code of Ethics, as well as with the Group's intellectual capital consisting of all our policies, procedures and guidelines.

EG1

## Sustainability governance

The ultimate reference for sustainability governance is the Group's Code of Ethics<sup>9</sup>, which defines the principles and rules of conduct voluntarily adopted to ensure that operations are always in the best interests of the Company, both in terms of internal conduct and relations with all our stakeholders.

Terna's sustainability topics and policies are managed in accordance with a well-organised governance system that includes:

### Audit, Risk, Corporate Governance and Sustainability Committee

in assessing and making decisions on the Internal Audit and Risk Management System (IARMS). Since January 2016, the Committee's tasks have also included sustainability topics such as policies, objectives, the Sustainability Report (which, from the 2017 reporting year, coincides with the Consolidated Non-Financial Statement), and the monitoring of sustainability indicators.

<sup>9</sup> The Code of Ethics is available on Terna's website (<https://download.terna.it/terna/0000/0063/62.pdf>).

### "Sustainability" unit

This unit, which is part of the External Relations and Sustainability department, in collaboration with all the other units concerned, helps to define and disseminate the Group's sustainability objectives in ethical, social, environmental and governance areas.

Preparation of the Sustainability Report, which from the 2017 reporting year coincides with the Non-Financial Statement, is also assisted by the SDM (Sustainability Data Manager), a dedicated non-financial data management software application.

With regard to the prevention of reputational risk, the unit monitors the risks relating to sustainability topics through analysis by the leading rating agencies (for example, SAM – S&P Global, Vigeo Eiris, CDP–Carbon Disclosure Project), which periodically assess the Group's ESG performance.

In 2020, Terna's presence was confirmed in all the leading international sustainability indices (details provided on page 102).

### 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 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.

Despite the situation brought about by the Covid-19 pandemic, the "Management Systems" unit continued to operate smoothly in 2020, as activities were adapted to enable internal and external audits to be carried out digitally. The use of online platforms facilitated an integrated approach, by bringing together auditors from up to six different systems.

In 2020, the Terna Group transitioned to the new versions of the ISO 17025:2018 standard for the multi-site live-line working laboratory and the ISO 50001:2018 standard for all Group companies. The new Accredia regulation that provide for inclusion of any Group department – with at least one employee – within the scope of certification was also implemented, resulting in extension of the certificate to 90 offices and more than 800 substations.

**TERNA GROUP CERTIFICATIONS AND ACCREDITATION**

TYPE	SCOPE	YEAR OF 1ST ISSUE	YEAR OF RELEASE	YEAR OF EXPIRY
ISO 9001:2015	Terna Group (*) (**)	2001	2019	2022
ISO 14001:2015	Terna Group (*)	2007	2019	2022
BS OHSAS 18001:2007	Terna Group (*)	2007	2019	2022
ISO 45001:2018	Terna Group (*) (**)	2019	2019	2022
UNI CEI EN ISO 50001:2011	Terna Group (*) (**)	2015	2018	2021
ISO 55001:2015	Terna S.p.A., Terna Rete Italia S.p.A.	2018	2018	2021
ISO 9001:2015	Tamini Group	1993	2018	2021
ISO 14001:2015	Tamini Group plants at Legnano (MI), Valdagno (VI) and Ospitaletto (BS)	2015	2018	2021
BS OHSAS 18001:2007	Tamini Group	2015	2018	2021
ISO 27001:2013	Terna S.p.A. only for Market Monitoring Code applications	2011	2018	2020
ISO 9001:2015	Brugg Group (premises in Switzerland) Production plant and commercial office	1995	2020	2023
ISO 14001:2015	Brugg Group (premises in Switzerland) Production plant and commercial office	1998	2020	2023
BS OHSAS 18001:2007	Brugg Group (premises in Switzerland) Production plant and commercial office	2010	2019	2022
ISO 45001:2018	Brugg Switzerland	2020	2020	2023
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 17025:2005	Terna Rete Italia S.p.A. for multi-site test laboratories in Viverone (BI), Civitavecchia (RM) and Frattamaggiore (NA)	2014	2017	2022
ISO/IEC 17025:2005	Terna Rete Italia S.p.A. for calibration laboratories in Florence, Turin and Cagliari	2017	2017	2021
ISO 37001:2016	Terna Group (*)	2017	2019	2022
ISO 45001:2018	Terna Group (*) (**)	2019	2019	2022

(\*) Applies to the companies Terna, Terna Plus, Terna Rete Italia and Terna Energy Solutions.  
 (\*\*) Also applies to Terna Crna Gora.

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").

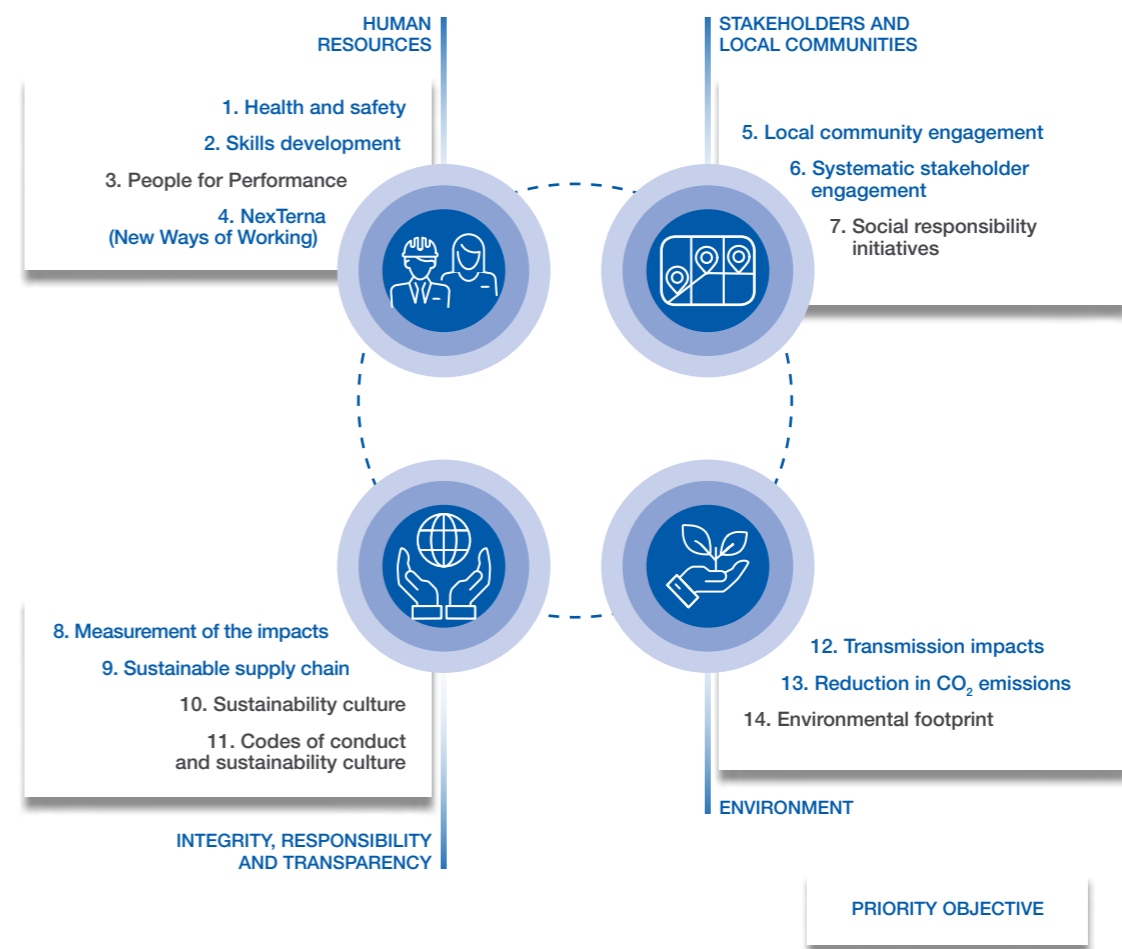
**Sustainability objectives and targets**



In November 2020, at the same time as the new 2021-2025 Industrial Plan was presented to the market, the sustainability objectives were also updated. In line with previous editions, these 14 objectives continued to focus on four thematic areas: human resources; stakeholders and local communities; integrity, responsibility and transparency; and the environment.

The main objectives for the period 2021-2025 are set out in this section (pages 120 and 121), as well as in the sections on "Stakeholder engagement" (page 154), "People" (pages 251, 258 and 260) and "Environment" (pages 207 and 225), which also show the results achieved in 2020 measured against the objectives set out in the previous Plan.

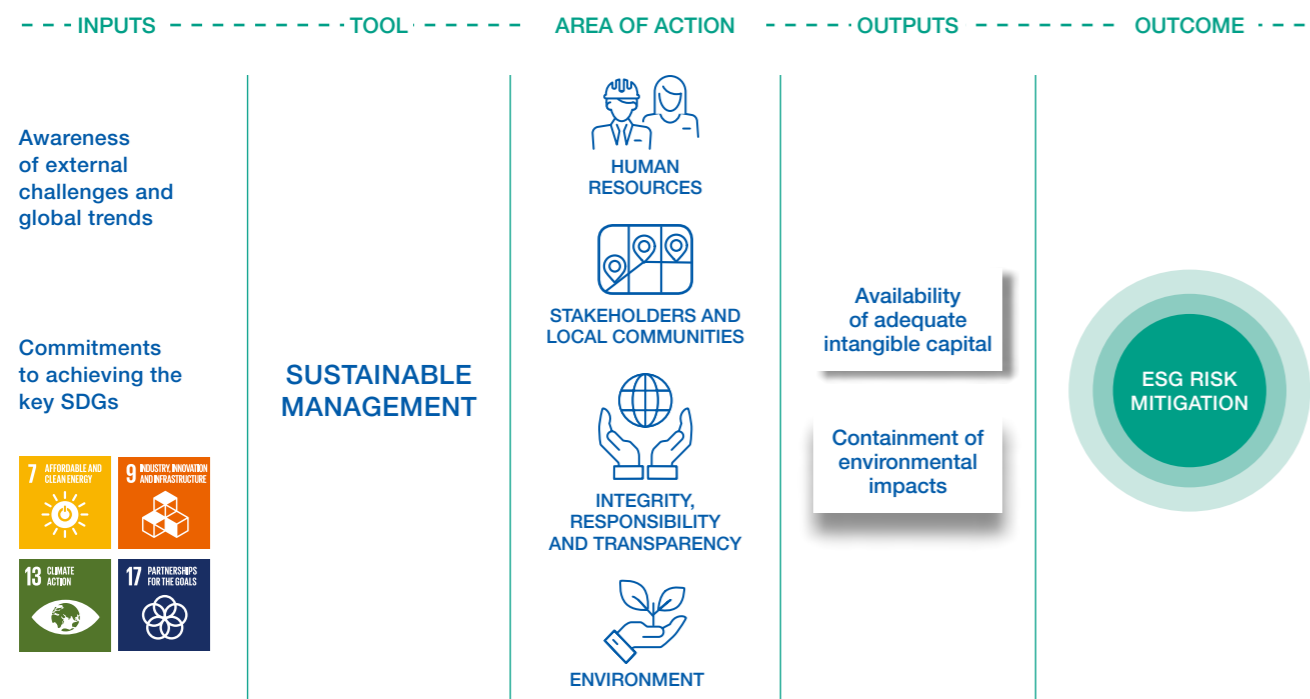
**SUSTAINABILITY OBJECTIVES IN THE 2021-2025 INDUSTRIAL PLAN**



These sustainability objectives help to leverage certain enablers of the objectives set out in the Industrial Plan, and mitigate ESG risks associated with the Group's activities. They are aimed at ensuring the sustainability of our businesses, creating value in the medium and long term, consolidating integration of sustainability within the Group's value proposition, and maintaining Terna's attractiveness for investors through excellent sustainability performance.

Terna's ranking in the sectoral classification drawn up by SAM – S&P Global for the Dow Jones Sustainability Index, which comprises a brief external assessment of the Group's sustainability performance, has been one of the targets included in the Long-Term Incentive (LTI) plan for the Chief Executive Officer and other Group managers (see the "Remuneration Report") since 2016.

**SUSTAINABILITY: A DRIVER OF VALUE CREATION**



The objectives included in the previous Strategic Plan for the period 2020-2024 published in the 2019 Sustainability Report (page 77) are shown in the table below.

**TARGETS AND RESULTS 2020**

PILLAR	KPI	2020	
		TARGET	RESULT
HUMAN RESOURCES	Zero fatal accidents (Terna staff)	0	0
	Safety indicator*	≤ 1	1,09
	Infrastructure Unit personnel involved in the "Zero Accident" Training Plan (%) – From 2019	100%	90%
	Number of people trained in digital skills (cumulative)	(**)	=
	Staff with performance evaluation (%)	85%	95%
STAKEHOLDERS AND LOCAL COMMUNITIES	The previous KPI expired on 31 December 2019. A new KPI is in the process of being defined.	=	=
INTEGRITY, RESPONSIBILITY AND TRANSPARENCY	ISO 14001 and OHSAS 18001 certified suppliers in contract work areas (%)	100%	94%
ENVIRONMENT	Km of overhead lines removed/year	24	22
	Km of new underground and submarine lines	46	71
	SF <sub>6</sub> leakage rate (%)	0.45	0.32

(\*) The Safety Indicator is the ratio between the weighted injury rate (weighting: 30%) and lost day weight (weighting: 70%) for the target year and that for the previous three-year period.  
 (\*\*) The 2020 target was reached ahead of schedule at the end of 2019. The next target (1,300 people) is set for 31/12/2021.



## Sustainability indices

Terna's commitment to improving its ESG (Environmental, Social and Governance) performance is reflected positively in the sustainability ratings assigned by specialist agencies, in the Company's inclusion in the leading stock exchange sustainability indices and in the appreciation shown by socially responsible investors.

Terna continued to be included in all the leading international stock exchange sustainability indices where it was already present.

### Date of first inclusion TERNA'S INCLUSION IN SUSTAINABILITY INDICES (AT 31 DECEMBER 2020)



#### BLOOMBERG GENDER EQUALITY INDEX

An international index that measures companies' performance regarding gender equality issues and the quality and transparency of their public reporting.



#### DOW JONES SUSTAINABILITY INDEX

The DJSI indices select the companies with the best sustainability performances from among those with the highest capitalisation (the top 300 out of 2,500 companies around the world for the World Index) based on assessments carried out by the agency, SAM – Standard & Poor's Global.



#### ECPI

This index was created by ECPI – an Italian agency founded in 1997 which specialises in ratings, sustainability indices and research to incorporate non-financial information into investment processes – based on its own analysis of European companies' sustainability performances.



#### ETHIBEL SUSTAINABILITY INDEX-ESI

The indices are calculated on the basis of ratings produced by Vigeo Eiris, which, as an initial population, include the approximately 10,000 ratings that are contained in the Russell Global Index. Inclusion is subject to the positive opinion of the Ethibel Forum, a panel of independent experts on the various aspects of sustainability.



#### EURONEXT VIGEO

Developed by the Vigeo Eiris rating agency, these indices are based on a population of companies listed in North American, Asian and European markets and included in the STOXX® 1800 list. Vigeo Eiris's ESG indices are drawn up on the basis of a methodology including over 330 indicators and 38 sustainability criteria.



#### FTSE ECPI

Introduced in 2010, these are the sole sustainability indices comprising a selection of companies listed only on the Italian Stock Exchange, based on analysis by the company, ECPI.

### continues TERNA'S INCLUSION IN SUSTAINABILITY INDICES (AT 31 DECEMBER 2020)

#### FTSE4GOOD

The FTSE4Good indices group together the best companies in terms of sustainability performance based on analyses carried out by Evalueserve. The index is reviewed twice a year.

#### MSCI GLOBAL SUSTAINABILITY

MSCI has integrated the original KLD indices – among the first to track companies' non-financial performance, and which are still one of the most accredited benchmarks in the United States – with other sustainability indices.

#### STOXX® ESG

Launched in 2011, these indices are based on assessments made by the Sustainalytics rating agency and select the best shares in terms of ESG performance (around 350) from the 1,800 in the STOXX® Global general index. 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 is the only Italian utility company to be included in all three of them.

#### STOXX® LOW CARBON

Launched in February 2016, the STOXX® Low Carbon Indices aim to provide a selection of companies with low CO<sub>2</sub> emissions. The selection of companies is based on data gathered by the CDP (Carbon Disclosure Project). The components of the indices are selected from the STOXX® Global 1800 list based on their carbon intensity (Scope 1 and Scope 2 of the GHG Protocol), based on the ratio of emissions to revenue.

#### UNITED NATIONS GLOBAL COMPACT - "GC100"

Established in 2013 by the United Nations Global Compact in collaboration with the research company, Sustainalytics, this index encompasses the 100 companies that have distinguished themselves at global level, in terms of both their attention to sustainability issues and their financial performance.

In February 2021, for the third year running, Terna was ranked as the **number one Electric Utility in the Dow Jones Sustainability World Index**.

This result led to the inclusion of Terna in the Gold Class of SAM's "Sustainability Yearbook 2021", a leading international publication focusing on corporate sustainability issues and performance.

### Date of first inclusion



**Terna is the number one Electric Utility in the Dow Jones Sustainability World Index**

Based on assessments carried out by SAM, which each year decides on inclusion in the Dow Jones Sustainability Index, Terna was, for the third consecutive year, ranked number one in the world in the Electric Utilities sector for its sustainability performance.

Confirmed for the 12<sup>th</sup> consecutive year in the index, Terna achieved an overall score of 90/100 (sector average: 43/100), ranking ahead of all the 100 companies assessed in the Electric Utilities sector.

The first place was confirmed by 10 of the 24 assessment criteria applicable to the Company, one more than last year. Terna came first in the economic criteria for Materiality, Innovation Management, Policy Influence and Privacy Protection; in the environmental criteria for Environmental Reporting, Transmission and Distribution; and in the social criteria for Social Reporting, Corporate Citizenship and Philanthropy, Human Capital Development and Talent Attraction and Retention.

Finally, Terna was selected in a number of “investment registers” (e.g., the Ethibel Register) that are developed using selective sustainability criteria, which – especially when public – are a reference point for investors who pay attention to ESG performance.

## Sustainable finance

The integration of sustainability into Terna’s business model increasingly involves definition of a financial strategy aimed at helping Italy to grow sustainably through investments whose dividends will be measured in terms of a better quality of life and greater sustainability for the planet.

This realisation guides Terna’s actions, starting with our active participation in the main international initiatives aimed at raising awareness among financial players and identifying appropriate “sustainable finance” instruments.

Significantly, Terna is a founding member of the **Corporate Forum for Sustainable Finance**, an organisation comprising 22 European companies that monitors the performance of the sustainable finance market, which at the end of 2020, in terms of bonds issued worldwide, was worth over \$1 trillion. The Company is also a founding member of the **CFO Task Force for Sustainable Development**, the international body set up by the United Nations Global Compact with a view to identifying a set of criteria, by the end of 2021, to be shared with the world of finance and business, regarding appropriate selection of investments to assist achievement of the SDGs.

The current crisis situation arising from the Covid-19 pandemic, and the consequent need for adequate recovery plans to restore countries’ economies and provide robust responses to social and environmental demands, is highlighting the importance and resilience of sustainable finance products, which register higher returns than traditional ones<sup>10</sup>.

<sup>10</sup> For more information see the Sustainable Finance Forum study “Sustainable finance after the Covid-19 emergency” available at: <https://finanzasostenibile.it/wp-content/uploads/2020/11/Finanza-Sostenibile-post-COVID.pdf>

Terna’s commitment to sustainable finance is also reflected in our normal relations with our investors, coinciding with an investor engagement model aimed at going beyond the distinction between financial analysts and sustainability analysts, in order to facilitate their assessments and investment choices underpinned by a more comprehensive and medium to long term vision. Therefore, the steady growth of SRI investors as a proportion of Terna’s free float (16.0% at the end of 2020) is a significant performance indicator (see also page 60).

Terna’s “sustainable vocation” was also confirmed by the **“EU Taxonomy Regulation”** approved by the European Parliament on 18 June 2020, which considers electricity transmission activities – and therefore the related investments – to be environmentally sustainable, as they make a substantial contribution to the achievement of the climate change mitigation objective (see also page 153).

From 2018, the strategy of combining sustainability and growth took was implemented with the launch of the Group’s first **green bond** issue for institutional investors, worth €750 million and having a 5-year term, followed in 2019 by a second issue of €250 million and a third issue of €500 million. In 2020, Terna launched its fourth green bond issue worth €500 million. To use the proceeds of these issues, a “Green Bond Framework” has been drawn up, which, together with a second party opinion expressed by the independent advisor Vigeo Eiris, follows the guidelines of the ICMA Green Bond Principles 2018.

Together with the green bond issues, since 2018 Terna has subscribed to five **ESG linked Revolving Credit Facilities** – the first in 2018 amounting to €900 million, the second in 2019 to €1.5 billion, and three in 2020 amounting to a total of €500 million – linked to Terna’s ESG performance in the sustainability indices via a reward/penalty mechanism.

**Terna is the number one Italian electric utility in the Nasdaq Sustainable Bond Network**

On 28 January 2021, the Terna Driving Energy logo was projected on the Nasdaq Tower in Times Square in New York to welcome Terna – the first Italian electric utility ever to achieve this goal – into the Nasdaq Sustainable Bond Network. This sustainable finance platform managed by Nasdaq brings together investors, issuers, investment banks and specialist organisations.

## Networking activities

Terna is present and active, sometimes in positions of leadership, in the principal national and international trade associations that focus on sustainability issues.

### 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.

### CSR Manager Network

A key association for professionals who deal with sustainability and corporate social responsibility issues, including company managers, consultants and researchers.

### 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.

### Transparency International Italy

The Italian branch of the international organisation whose aim is to combat corruption (also see page 109).

# Compliance, integrity and preventing corruption

EG2



Legality and honesty are two of the general principles on which Terna's Code of Ethics and the conduct of its business are based.

## Compliance with legislation

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Compliance with the law is the 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 taking into account 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 2020 or in the previous two years, nor did any of its employees receive criminal convictions (full compliance with regard to both environmental and socio-economic matters).
- In particular, the accounting records for 2020 do not show any pecuniary sanction of an administrative nature, with a fine or penalty in excess of €10,000 relating to environmental matters. With reference to the previous two-year period, it should be noted that in 2018 Terna Rete Italia S.p.A. registered a payment of €12,091. This amount is connected with the penalty issued by the Municipality of Pegognaga (MN) for violation of the municipal regulations regarding the protection of urban and suburban green spaces.
- 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 2020 or in the previous two-year period.
- There were no pending criminal proceedings for injuries caused to third parties by any of Terna's assets. There were 4 accidents in 2020 (6 in 2018 and 2 in 2019).
- 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 2020 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.

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## Data protection compliance

In 2020, Terna drew up and implemented a structured plan of action, in line with the Company's Privacy Management Model and with the Terna Group's Privacy Regulation Guidelines, in order to ensure compliance with personal data protection legislation, (e.g., European Regulation 679/2016 – GDPR<sup>11</sup>, and Legislative Decree 101 of 2018 "Privacy Code").

The main activities carried out by the Data Protection and Privacy unit in 2020 include:

- in collaboration with the Legal and Corporate Affairs and Human Resources and Organisation departments, the new "E-mail and Internet Guidelines" policy on the secure use of e-mail and the internet was drawn up, in compliance with the Resolution of the Italian Data Protection Authority;
- in the context of the Covid-19 emergency, security measures were taken to ensure the integrity and confidentiality of data, as well as the dignity and protection of the personal sphere of the persons concerned (e.g., adoption of ad hoc protocols, appointment of persons authorised to process special data, preparation of privacy notices);
- in line with the recent guidelines issued by the Data Protection Authority, the members of the Supervisory Bodies have been appointed as "authorised data processors";
- in connection with smart working, training webinars on data protection were organised, and in particular an online training course on privacy was provided;
- regarding the company's car sharing service (the "black box" project), a Data Protection Impact Assessment ("DPIA") was carried out in order to avoid risks relating to individuals' rights and liberties;
- an assessment was carried out regarding Terna's processing of judicial data listed in the Register, in which the correct legal basis for legitimising their processing was identified;
- an assessment was carried out regarding Terna's transfers of personal data to non-EU countries, including the preparation of Standard Contractual Clauses in compliance with privacy regulations;
- the notice regarding the personal data processing carried out via the Terna Group's video surveillance systems has been revised and updated;
- following organisational changes, the Group's register of processing activities was constantly updated with the support of Privacy Focal Points;
- the requests received from stakeholders who exercised their right to be forgotten were handled;
- in connection with the recent acquisition of the overseas subsidiary, Brugg Kabel AG, an assessment of the subsidiary's compliance with Swiss data protection legislation was carried out.

On 1 October 2020, Terna appointed a new Data Protection Officer, chosen on the basis of their professional qualities – in particular, specialist knowledge of data protection regulations and practices – and notified the Data Protection Authority of the appointment.

<sup>11</sup> The EU General Data Protection Regulation 2016/679, better known as GDPR, is a European Union regulation regarding the processing of personal data and privacy. It was adopted on 27 April 2016, published in the EU Official Gazette on 4 May 2016, came into force on 24 May of the same year and has been in operation since 25 May 2018.

## Preventing corruption

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The values underpinning Terna's fight against corruption are contained in the Code of Ethics and the tenth principle<sup>12</sup> of the Global Compact.

In January 2017, Terna was the first Italian company to obtain ISO 37001 certification for its anti-corruption 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, 62% of business processes were subject to Risk Assessment in 2020; the cumulative figure for 2018/2020 is more than 71%.

In 2020, collaboration with Transparency continued. This enabled Terna to launch a weekly newsletter called **Transparency Week**, which informs "anti-corruption" officers about the main events that have occurred at national level, including in-depth analysis by external experts.

In addition, 1,619 hours of training were provided to 370 officers to whom the ISO 37001 standard, its impact on Terna's processes and the advantage of having an integrated management system were explained.

Since 2019, Terna has been included in the Business Index on Transparency (BIT). Promoted by Transparency International Italy, this index assesses the level of transparency of Italy's largest companies with regard to anti-corruption issues, integrity and the influence of the private sector on politics. This recognition highlights the attention Terna pays to this issue, and confirms the Company's commitment to sustainability and to maintaining ISO 37001 certification (anti-corruption management system).

Since 2015, Terna has published "Transparent and Open Construction Sites"<sup>13</sup>, 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 anti-corruption certification 37001, was created thanks to the contribution of Terna technicians working nationwide. In 2020, a total of 570 construction sites, 316 projects, 927 contracts and 617 suppliers (223 contractors and 394 subcontractors) were managed.

Terna also requires its suppliers to behave in a manner consistent with the principles of legality and ethics, respect for human rights and environmental protection, as set out in the Supplier Code of Conduct.

<sup>12</sup> "Businesses should work against corruption in all its forms, including extortion and bribery."

<sup>13</sup> <https://www.terna.it/it/cantieri-aperti-e-trasparenti>

In November 2017, the Board of Directors approved the Global Compliance Programme<sup>14</sup> and the Anti-corruption 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 Guidelines contain standards of conduct that all recipients are required to observe concerning, for example, the provision of gifts and donations and the related records, sponsorship and charitable activities, the prohibition of facilitating payments, political contributions and compliance with the Company's obligations regarding training, information and information flows.

In 2016, Terna adopted a Whistleblowing Policy<sup>15</sup> to manage reports, by employees, 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.

In addition, in line with best national and international practices and existing legislation, Terna has put in place specific communication channels, including the web portal, "The whistleblowing procedure", which may be used by all Group companies, and also enables management of anonymous reports and/or reports received from other offline channels. No reports were received in 2020 regard events relating to corruption.

Overall, the Terna Group has adopted three approaches to preventing corruption: its 231 Organisational Model, Fraud Management and Awareness-raising.

### 231 Organisational Model

The 231 Organisational Model – which takes its name from Legislative Decree 231 of 8 June 2001 and was adopted by Terna in 2002 – defines rules of conduct and of internal organisation designed 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, the Model (latest revision: 13 May 2020) breaks down into 12 sections, 1 general and 11 special sections, subdivided by category of offence. The first section regards the prevention of corruption and is supplemented by compliance rules relating to market abuse.

As provided for in the Model itself, responsibility for ensuring compliance with the Model's provisions, its effectiveness and its revision lies with the Supervisory Board, whose members are appointed by the Board of Directors. Reports of any infringements of the 231 Model may

<sup>14</sup> The Global Compliance Program is a monitoring tool for the Group's overseas companies aimed at preventing the commission of crimes under foreign law (accounting offences, terrorist financing, money laundering, copyright infringement offences, workplace health and safety offences), and to protect the individual subsidiaries and the holding company from the possible attribution of liability for criminal conduct perpetrated by employees or persons acting in their name and/or on their behalf. The GCP was last updated in December 2019, in order to enable the introduction of more monitoring tools at overseas subsidiaries.

<sup>15</sup> The policy was subsequently updated, in line with the provisions of Law 179 of 30 November 2017.

be sent directly to the website at [www.terna.it](http://www.terna.it), or the email address [OdV\\_Terna@terna.it](mailto:OdV_Terna@terna.it), or by ordinary mail.

Training initiatives continued in 2020, as described in the section "Raising staff awareness". Further information regarding Terna's Organisational Model and those of other Group companies may be found in the "Report on Corporate Governance and Ownership Structures".

During 2020, three infringements of the 231 Model were reported.

### Fraud management: anti-fraud and trustworthiness monitoring of Terna's counterparties

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, and constant verification of the trustworthiness of counterparties who, for various reasons, have dealings with Terna.

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 2020, in collaboration with a leading international company from the sector, the unit carried out a fraud risk assessment of **10 Group processes** (6 core processes and 4 support processes), involving **60 owners** from various levels of management and **47 corporate units**. More than 170 potential fraud methods relating to **194 activities** were analysed, and a high level of commitment and awareness of ethics and integrity issues was found among the relevant staff of the units concerned.

In line with the principles set out in the Code of Ethics and in special parts C and F of the 231 Model, the Fraud Management unit constantly carries out checks on counterparties (subjective due diligence regarding their financial, equity and reputational situation) and transactions (ex-ante validation of bids for consultancy, professional and IT services contracts, and of procedures for awarding contracts to predetermined suppliers), in order to constantly monitor reputational risk as well as risks relating to anti-money laundering, corruption, terrorism and links with tax havens.

In 2020, approximately **2,529 checks** were carried out, including

- 1,082 analyses of counterparties;
- 1,447 ex-ante checks of contract bids.

Based on the belief that transparency and utmost cooperation with the authorities (especially the police) are vital for promoting and strengthening ethics and legality, in implementation of the memorandum of understanding signed with the Finance Police (*Guardia di Finanza*) (see page 113), data, information and news relating to companies executing contracts and sub-contracts were sent to the Finance Police in order to prevent criminal attempts to infiltrate NTG infrastructure construction projects.

### Trade Compliance and Export Controls

The turbulent nature of international events in recent years has led to an increase in risks associated with foreign trade transactions, as well as with physical and legal entities, and governments and groups of organisations, which threaten the safeguarding of ethical values and vital interests, as well as the international security of individual states, peace, human rights, democracy and the rule of law. Therefore, they are subject to restrictive measures (sanctions) as set out in European Union regulations and directives, state regulatory sources, provisions issued by Italian authorities, and extraterritorial foreign regulations (USA).

With the aim of ensuring that businesses are completely responsible and ethical, in compliance with international standards, and to guarantee the interests of stakeholders (especially lenders, insurers, international stakeholders, etc.), Terna has adopted stringent trade compliance policies and constantly monitors activities carried out by Group companies, especially internationally, via in-depth ex-ante assessment of transactions with foreign countries, regarding both the goods traded and the parties involved in a transaction in whatever capacity.

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### Raising awareness among personnel

All new hires attend training courses which, among other things, aim to ensure awareness and dissemination of the rules of conduct 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. From January 2020, **280 participants** were involved in approximately **8,415** hours of training.

In 2020, the long-term Training Plan 2018-2020 regarding matters relating to the 231 Organisational Model and efforts to combat corruption, which involved 353 staff (equal to 9% of the total workforce), was completed. A new training plan for 2021-2022 was presented in order to continue awareness-raising and training in these areas.

### Clarifications regarding the Code of Ethics and the reporting of violations

With regard to compliance with the Code of Ethics, in addition to the Whistleblowing portal, Terna staff who seek clarifications or wish to report an issue may also contact the Ethics Committee or the Audit department.

The Ethics Committee was established to provide internal and external stakeholders with a specific communication channel for matters dealt with in the Code of Ethics. The members of this Committee, who are appointed by the Chief Executive Officer, are tasked with replying to requests for clarification regarding the Code of Ethics, receiving and examining reports of any violations and, finally, deciding whether or not to instigate an investigation following a report, and providing an appropriate answer.

The Audit department, which is Terna's internal audit unit, is responsible for investigating any reports of violations of the Code of Ethics. The reports gathered by the Ethics Committee and the Audit department are published on page 286.

### Renewal of the memorandum of understanding with the Financial Police (*Guardia di Finanza*)

On 4 March 2020, the memorandum of understanding between Terna and the *Guardia di Finanza* was renewed.

On the basis of the positive experience shared by the parties, the agreement confirms all the actions aimed at safeguarding the construction of electricity infrastructure projects, including:

- safeguarding the regularity and transparency of procedures for awarding works, service and supply contracts;
- combating undeclared employment and social security contribution irregularities;
- prevention of criminal attempts to infiltrate the economic fabric.

This renewed agreement introduces a significant innovation regarding monitoring of the economic support Terna provides to local redevelopment projects (environmental and urban planning) carried out in the public interest relating to compensation and environmental rebalancing arising from the construction of electricity projects. In this regard, a single "contact point" has been set up at Terna for any information or documentation needs relating to investigative activities, which will provide the Special Anti-corruption Unit with qualified data and information, as well as context analyses to be used for collaboration purposes.

In order to consolidate the knowledge and skills of the staff concerned, the agreement enables Terna to promote and organise meetings, seminars and courses for its employees, including the use of qualified *Guardia di Finanza* personnel as teachers.



# Respect for human rights

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- PC1



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, and therefore it is not crucial for the Company to take specific actions on these issues. However, in compliance with developments in international regulations, Terna pays constant attention to respect for human rights<sup>16</sup> and is committed to adopting minimum protection standards where such standards are not guaranteed by local laws.

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 his “Protect, Respect and Remedy Framework”.

These principles, which mark the first introduction – including within the corporate world – of a robust process of prevention, identification and mitigation of the potential impacts of business activities on human rights, currently constitute the global reference standard for companies with regard to human rights.

In view of the ten-year anniversary (June 2021) of the publication of the UN Guiding Principles on Business and Human Rights, upon taking office the German Presidency of the Council of the European Union endorsed the proposal of the UN Working Group on Business and Human Rights to promote a new initiative to take stock of achievements, assess current gaps and challenges and, most importantly, develop a roadmap for wider and more extensive implementation of the UN Guiding Principles on Business and Human Rights by 2030.

Terna’s approach to the cause of human rights has been gradually updated over time, following the evolution of international reference standards and reflecting the system set out in the three fundamental pillars of the UN Guiding Principles.

<sup>16</sup> In February 2017, the French rating and sustainability research agency, Vigeo Eiris, announced the results of its study, “The human rights responsibilities of business in a changing world”, conducted in over 3,000 companies in 35 countries and 38 sectors, in which Terna was ranked 14th overall, and first in the group of the best 30 Italian companies at global level.

## THE PILLARS OF THE UN GUIDING PRINCIPLES

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.

**1**  
States' duty to protect  
PROTECT

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.

**2**  
The responsibility of business enterprises to respect  
RESPECT

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.

**3**  
Access to an effective remedy  
REMEDY

## Protect: adoption of the “Respect for human rights within the Terna Group” guidelines

Terna has always recognised the central importance of human rights, especially since the drawing up of our Code of Ethics (2006) which, as well as taking inspiration from remarkable international documents such as the Universal Declaration of Human Rights, bases its ethical foundations on the ten principles of the Global Compact.

Following adoption of the methodological approach and the contents of the two Ruggie reports, in 2017 Terna drew up guidelines entitled “Respect for human rights within the Terna Group” in order to implement the recommendations of the Guidelines on Business and Human Rights. The guidelines provide for a periodic due diligence process regarding the Group’s respect for human rights, taking into account its interaction with all its stakeholders. Particular attention is paid to vulnerable groups and the human rights most pertinent to Terna’s activities, such as labour rights (e.g., discrimination, forced and child labour, freedom of labour union association, health and safety).





The guidelines show how responsibilities regarding this issue are allocated. In principle, management responsibility for the Group’s human rights rests primarily with the departments responsible for Human Resources and Organisation, Procurement and Tenders and Corporate Security, which are tasked with ensuring that contractors and subcontractors respect human rights and labour protections. The Audit department is responsible for overseeing correct application of the rules in the Code of Ethics, while the Sustainability unit monitors developments in external benchmarks (e.g., international conventions).

## Respect: due diligence regarding human rights

The second pillar of the Guiding Principles on Business and Human Rights is of paramount importance as it introduces the business community to the human rights due diligence process, which Terna has defined in specific Operating Instructions.

This process is divided into four key phases in which Terna pursues these objectives:

### Respect for human rights – due diligence objectives

-  Identification of the areas of the Group's activities, including relations with suppliers, joint ventures and business partners, that are potentially exposed to the risk of violating stakeholders' human rights.
-  Identification of existing risk mitigation measures in these areas (e.g., certified management systems, guidelines, operating instructions, contract terms, training and awareness-raising activities).
-  Preparation of action plans if such measures are found to be lacking or inadequate.
-  Monitoring of the implementation of action plans.

The Audit Plan 2019/2020 provided for assessment (in March 2020) of the Internal Control System (ICS), which verified the adequacy and compliance of measures to mitigate the risk of human rights violations.

In brief:

1. The map of the business areas exposed to risk was reviewed and the Internal Control System was updated with new support procedures. The Internal Control System for monitoring respect for human rights within the "map of business areas exposed to risk" was found to be satisfactory.
2. The adequacy and compliance of the human rights risk mitigation measures taken during the year regarding various human rights was assessed. The measures taken to mitigate the risk of human rights violations were deemed adequate, and no cases of human rights violations were found.

The Audit Plan for the 2020/2021 period provides for an assessment (scheduled for March 2021) to update the map of the business areas exposed to risk, assess the design of the controls envisaged and verify their actual implementation.

## Remedy: complaint mechanisms and remedial actions

In order to provide effective remedial action for the victims of human rights violations, and in line with the provisions of the third pillar of the UN Guiding Principles, the "Respect for human rights within the Terna Group" guidelines deems that the procedures for reporting violations provided for in the Code of Ethics have the same validity as reports regarding alleged human rights violations. These complaint mechanisms are available to internal and external stakeholders, including appealing to the Ethics Committee<sup>17</sup>.

Only one appeal was lodged in 2020, which regarded the working conditions of a supplier's employee. Following a check carried out by the Audit department with the external supplier's support, the complaint procedure was closed as the complaint was deemed to be unfounded.

Based on the findings of the most recent round of due diligence, and in response to complaints received, no remedial action was taken as it was deemed unnecessary.



<sup>17</sup> For more information see "Clarifications regarding the Code of Ethics and the reporting of violations" on page 286.



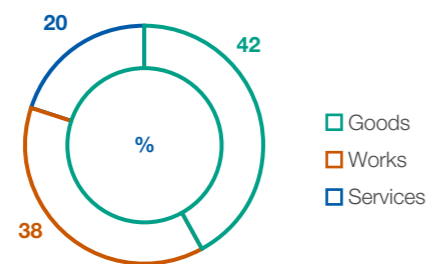
# Supply chain sustainability

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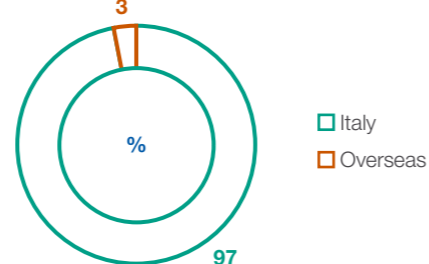
## Procurement and suppliers

As well as providing a service of general importance, Terna's business activities help to generate downstream supply chain activity, creating significant economic value and social benefits. In 2020, total expenditure on the procurement of services, supplies and works amounted to over €1,384<sup>18</sup> million, spread across 2,204 suppliers contracted during the year.

PROCUREMENT BY CATEGORY



PROCUREMENT BY ORIGIN



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 in order 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.

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. These behaviours have been formalised in the "Supplier Code of Conduct"<sup>19</sup> in which each principle is linked to the requirements contained in the qualification process and in Terna's tender and contract documentation. 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 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.

In line with the Company's policies, in view of the Covid-19 emergency, meetings with suppliers were conducted remotely using the means already at Terna's disposal, but which were strengthened in terms of cooperation and collaboration in order to boost the effectiveness and continuity of periodic relations with suppliers.

<sup>18</sup> 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 €600 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.

<sup>19</sup> The document is available for download at: <http://download.terna.it/terna/0000/0930/50.PDF>

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.

### SUPPLIERS ACTIVE IN 2020 AND APPLICATION OF ENVIRONMENTAL AND SOCIAL REQUIREMENTS

	SUPPLIERS ACTIVE IN 2020				AMOUNT PROCURED FROM SUPPLIERS SUBJECT TO SPECIFIC REQUIREMENTS (% OF RESPECTIVE TOTAL AMOUNT PROCURED)			
	NUMBER	% OF TOTAL	AMOUNT PROCURED (€M)	% OF TOTAL	BASIC REQUIREMENTS (1)	ADDITIONAL SOCIAL AND ENVIRONMENTAL REQUIREMENTS (2)	SOCIAL (3) AND ENVIRONMENTAL QUALIFICATION REQUIREMENTS (4)	COUNTRY RISK ASSESSMENT (5)
Total active suppliers	2,204	100	1,384.6	100	100	97.2	37.9	100
Key suppliers	1,893	86	1,345.3	97.2	100	100	39	100
Suppliers in categories relevant for ESG purposes	115	5.2	857.3	62	100	99.9	59.9	100

(1) Compliance with the principles and behaviours provided for in Terna's Code of Ethics and 231 Model.  
 (2) 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.  
 (3) OHSAS 18001 certified occupational safety management system or similar (required only from the suppliers of specific product categories at the time of qualification).  
 (4) ISO 14001 certified environmental management system or similar (required only from the suppliers of specific product categories at the time of qualification).  
 (5) Assessment of the risks of corruption and respect for human rights in connection with a supplier's premises.

The table illustrates the coverage guaranteed by the various initiatives, in terms of percentage of procurement, for significant groups of suppliers active in 2020.

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<sup>20</sup> on the basis of 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 "Guaranteeing safety, the environment and human rights at contractors' construction sites" on page 252).

<sup>20</sup> The matrix for identifying the relevant product categories for ESG purposes was updated in 2017 on the basis of the latest available purchasing data and certain references made public by key stakeholders, such as rating agencies.

The following table refers to new suppliers in 2020.

**NEWLY CONTRACTED SUPPLIERS**

	2020
% of new suppliers – checked for basic requirements (1)	100
% of new suppliers – checked for additional social and environmental requirements (2)	80

(1) Compliance with the principles and behaviours provided for in Terna’s Code of Ethics and 231 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.

**“SUPPLY CHAIN SUSTAINABILITY” TARGET - KPIs AND TARGETS IN THE 2021-2025 INDUSTRIAL PLAN**



KPI	2020		TARGET 2021
	TARGET	RESULT	
<b>ESG CRITERIA IN TENDERS</b>			
Use of ESG criteria in “vegetation management” tenders > €1 million (% of tenders)	100%	100%	100%
Use of ESG criteria in hardware procurement tenders* (% of tenders)	75%	= (**)	75%

(\*) PCs, monitors, printers, video-conference systems, routers, switchers and servers.  
 (\*\*) The failure to meet the target is due to the postponement to 2021 of the 2020 tenders falling under this heading.

**Benchmark SDGs:**



**Qualification of suppliers**

- 407-1 >
- 408-1 >
- 409-1 >

The majority of the most relevant product groups for the core business are subject to a qualification procedure. This allows the qualified supplier to be included in the list of approved suppliers, having met the regulatory compliance requirements, in line with those set out in the Procurement Code, being in possession of the necessary high-quality technical and organisational expertise and being financially sound.

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, 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 standards.

In particular, the obligation to obtain certification for “Vegetation management”, “Pylon painting”, “HV glass insulators”, “150/380kV overhead lines” and the “Laying of 150/380kV cable” was introduced, with the aim of extending the obligation to all areas relating to works contracted out (“Civil works” and “Electrical and electromechanical substation assembly”) and global service areas (“Maintenance of technological systems”, “Maintenance of green areas” and “Cleaning”) by 2021.

**“SUPPLY CHAIN SUSTAINABILITY” TARGET - KPIs AND TARGETS IN THE 2021-2025 INDUSTRIAL PLAN**



KPI	2020		2021	2022	2023	2024	2025
	TARGET	RESULT					
<b>SUPPLIER CERTIFICATIONS</b>							
% of ISO 14001 and OHSAS 18001 certified suppliers in contract work areas	100%	94%	100%	100%	100%	100%	100%

**Benchmark SDGs:**



As far as overseas suppliers are concerned, Terna assesses the country risk, namely the possibility of incurring damages 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 suppliers. However, it could become more significant in view of the expansion of procurement markets and, more generally, Terna’s international growth strategy.

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. 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).

Of the total number of qualified suppliers, 85% have or are acquiring BS OHSAS 18001 safety certification, and 89% have or are acquiring ISO 14001 environmental certification.

**ACTIVE QUALIFICATIONS**

	2020
Number of active qualifications	522
– of which new qualifications during the year	83
Number of qualifications requiring an Environmental and Safety management system	18

In 2020, population of the cybersecurity product category – which was set up in 2019<sup>21</sup> – was launched with 17 new economic operators who thus became part of Terna's approved suppliers register.

At the end of 2019, the Qualification Committee<sup>22</sup> also approved the setting up of the new Industrial IoT segment. Industrial IoT is the branch of IOT which – encompassing Information Technology (IT) and Operational Technology (OT) – collects, transmits, aggregates, stores and analyses data from industrial assets and machinery in order to optimise their reliability and availability, reduce their operating and maintenance costs and extend their operational life.

An enabler of innovation, IoT is constantly evolving and has significant future potential. Therefore, the qualification of **innovative Start-up Company** – as defined by the criteria for the current Business Register – has been introduced for the first time for this specific Group product category, with the application of “simplified” requirements. The registration of companies in the Start-up segment is currently in progress.

## Supplier audits

During the three-year qualification period, Terna checks that suppliers meet the qualification requirements, including the various ESG aspects. In 2020, 647 document audits were carried out.

Terna conducts further checks based on the activities carried out by suppliers and the type of risks assessed as being prevalent in a given category. These include:

- prior checks for applications regarding the award of consulting, professional and IT services contracts, and for awards to previously qualified suppliers;
- on-site checks of qualified/qualifying suppliers. In 2020, 87.5% of these checks focused on companies belonging to categories that are relevant for ESG purposes.

### AUDITS

	2020
Qualification document checks	647
On-site qualification checks	16
including categories relevant for ESG purposes	14

<sup>21</sup> Terna was one of the first Italian contracting entities to set up a specific company qualification product category relating to cybersecurity, with the aim of guaranteeing the selection and high quality of economic operators in a crucial sector for the security of the Italian economy. For more information, see page 96 of the 2019 Sustainability Report.

<sup>22</sup> The Qualification Committee comprises all the managers who report directly to the Chief Executive Officer, the head of the Legal and Corporate Affairs department, and all the managers from the Procurement and Tenders department. The Committee is chaired by an external member with proven expertise in the field and meets periodically.

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 will be revoked off the list.

### MEASURES TAKEN

	2020	2019	2018
Number of suppliers revoked off the list	1	0	0
Number of suppliers suspended	5	8	2
Number of suppliers warned	6	3	2

## 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 on the basis of the Procurement Code, which in turn implements the relevant EU legislation.

### CONTRACTED SUPPLIERS

	UNIT	2020	2019	2018
Number of contracted suppliers	n.	2,204	2,251	2,148
<i>Contract award procedures adopted (% of amounts awarded)</i>				
EU calls for tender	%	74	78	75
Non-EU calls for tender	%	12	13	11
Previously qualified suppliers <sup>(1)</sup>	%	12	8	12
One-off contracts <sup>(2)</sup>	%	3	2	2

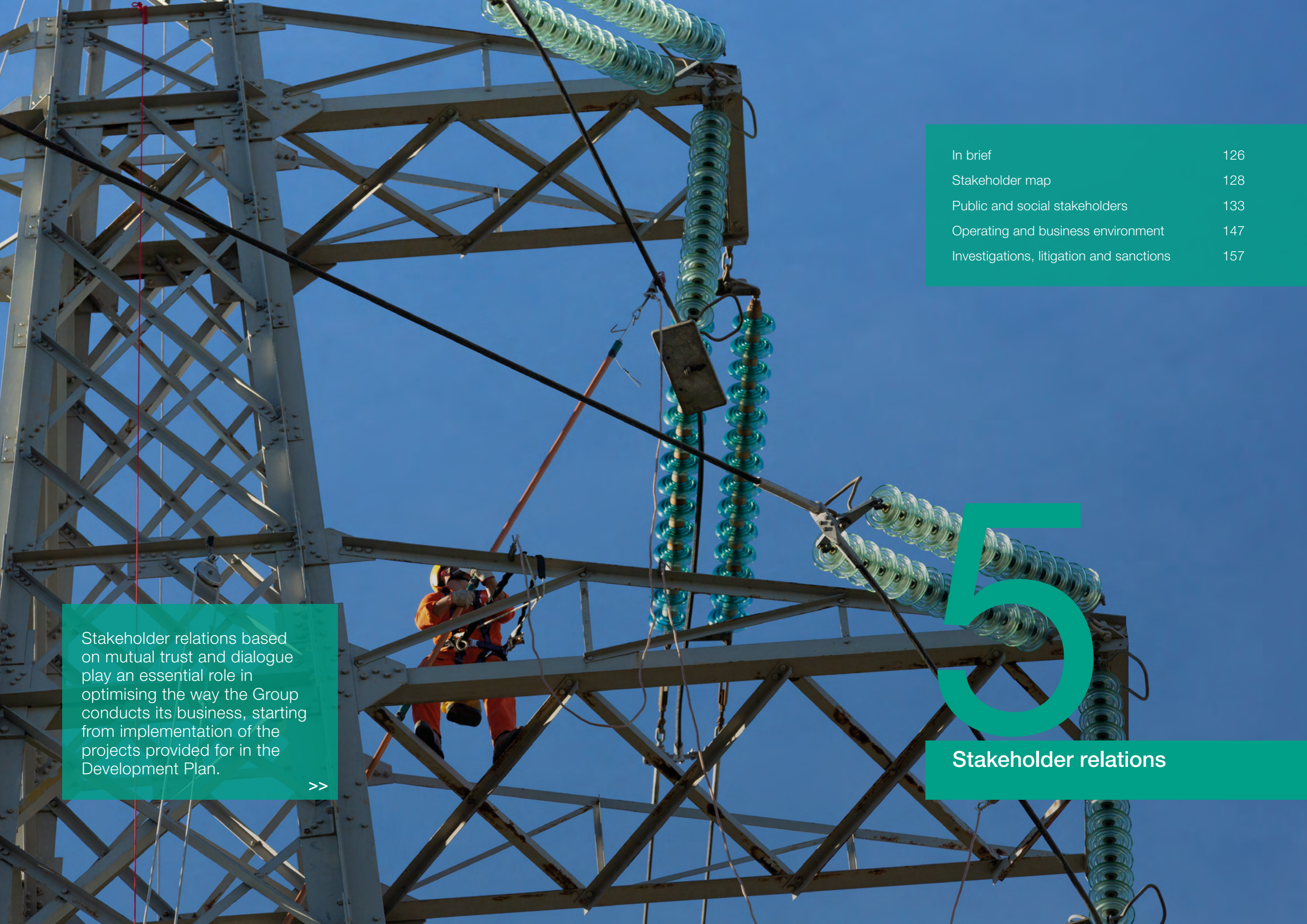
<sup>(1)</sup> Directly assigned professional appointments and/or consulting services.

<sup>(2)</sup> 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..

Finally, Terna is keen to reach a settlement in the event of litigation with suppliers.

### DISPUTES WITH SUPPLIERS

	2020	2019	2018
Pending	30	23	29
In progress	9	2	6
Settled	2	8	0



In brief	126
Stakeholder map	128
Public and social stakeholders	133
Operating and business environment	147
Investigations, litigation and sanctions	157

Stakeholder relations based on mutual trust and dialogue play an essential role in optimising the way the Group conducts its business, starting from implementation of the projects provided for in the Development Plan.



## Stakeholder relations

# In brief

Relations with stakeholders based on mutual trust and that take into account their interests and legitimate expectations form an integral part of responsible business management.

The direct influence of stakeholders whose local areas are due to host a power line or an electricity substation is also of particular importance, as this can have an impact on the timing of the investment in electricity infrastructure to be carried out under the NTG Development Plan, the principal operational tool that will enable us to fully deliver the ecological transition<sup>1</sup>.

In line with the quality principle requiring a “balanced” representation, as provided for in the “GRI 101 Foundation” standards adopted by Terna in our “Consolidated non-financial statement”, and, more generally, with the transparency typical of sustainability reporting, this section includes information on the most difficult cases at local level<sup>2</sup> and, towards the end, on outstanding investigations and litigation<sup>3</sup>.

## HIGHLIGHTS IN 2020

<p><b>388</b> meetings with local authorities.</p>	<p><b>70.5%</b> of community initiatives are aligned with SDGs 3, 4, 7, 9 and 11</p>	<p><b>Terna leads the way in Italy and Europe</b> in terms of the quality of our digital communication (Webranking by Comprend 2020-2021)</p>
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<sup>1</sup> See the paragraph “Dialogue with local communities” on page 137.  
<sup>2</sup> See the paragraph “The most difficult cases and shared solutions” on page 141.  
<sup>3</sup> See the section “Investigations, litigation and sanctions” on page 157.

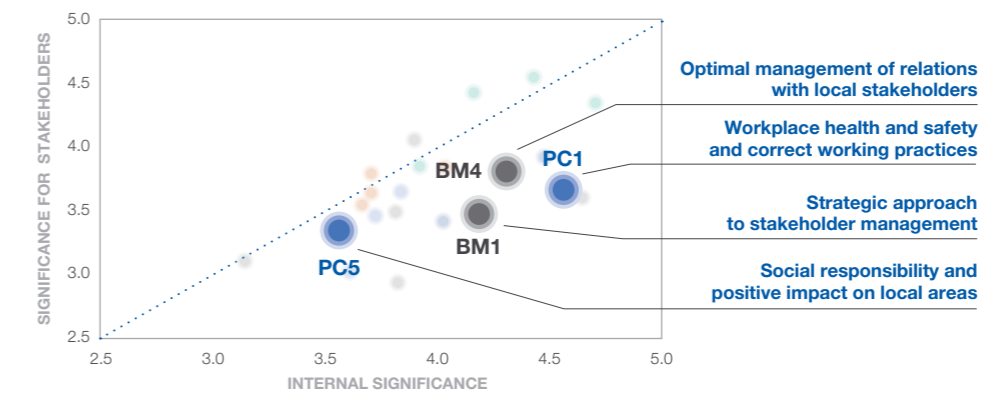
## Links with material topics in the materiality matrix

This section deals with a number of topics classified as significant following the materiality analysis conducted in December 2020 and shown as such in the related matrix published on page 34.

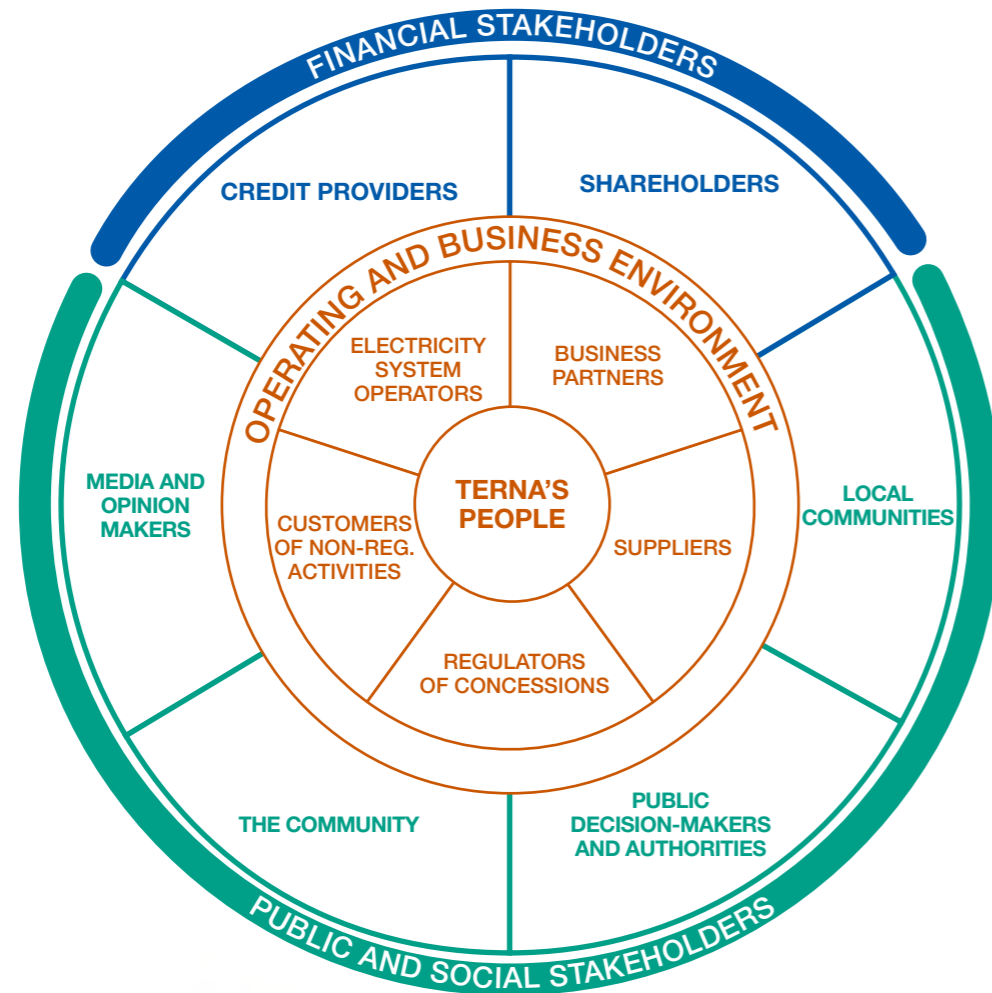
In terms of the “Business management” aspect, this section deals with the “Strategic approach to stakeholder management” (topic BM1, on page 129) and the “Optimal management of relations with local stakeholders” (topic BM4, on page 137).

As regards the aspect relating to “Our people and the community”, this section deals with the topics of “Workplace health and safety and correct working practices” (in this section, limited to the new GRI indicators 403-4 and 403-6), identified by topic PC1 on page 245, and “Social responsibility and positive impact on local areas” (topic PC5, on page 134).

## POSITION OF THE TOPICS IN THE MATERIALITY MATRIX



# Stakeholder map



Terna's engagement with its stakeholders is based on taking their interests into account and analysing their compatibility with the specific interests of the Company, 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 new "Corporate Governance Code"<sup>4</sup>, 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 actions to be undertaken in order to optimise current engagement methods and listen to the most influential stakeholders on a periodic basis.

The outcomes of this mapping, together with indications of the best engagement techniques and tools to use and the ideal frequency of initiatives in order to successfully manage relations with the different categories, thus avoiding the risk of failing to promptly identify any problems, have been incorporated into two specific sets of guidelines. The first set includes all the main categories of stakeholder and the related management model (LG051 - "Stakeholder management model"), whilst the second focuses on local communities (LG060 - "Engaging local stakeholders in the process of investing in Terna's electricity grid").

This section is structured on the basis of the different categories of stakeholder presented in the stakeholder map (public and social stakeholders and operational and business environment, whilst financial stakeholders are dealt with in the section, "Profile and activities", on page 59).

<sup>4</sup> The new "Corporate Governance Code" was approved by Borsa Italiana's Corporate Governance Committee in 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 corporate governance report to be published in 2022. The Code is available at the following link: <https://www.borsaitaliana.it/comitato-corporate-governance/codice/2020.pdf>

## Communication channels

To be able to offer greater accessibility, but also to provide information on the electricity system and, more generally, to develop an energy culture, Terna has over time put in place a number of dialogue and communication channels. These are diversified by type of audience, language and purpose (e.g., requests for information, suggestions, observations and complaints).

The most readily accessible channel and the easiest way to contact Terna is by using one of the various e-mail addresses provided<sup>5</sup> on the website at [www.terna.it](http://www.terna.it). E-mails from employees are sent via the intranet.

A list of “Contacts” is provided in the menu on the homepage of the website at [www.terna.it](http://www.terna.it), which, via a form, provides guidance to anyone wanting to communicate with the Company. This page also lists the certified e-mail addresses to use for communications that have to meet this requirement.

### Social channels

The website homepage also provides access to Terna’s social channels, which increasingly represent a way of getting in touch with the Company.

During 2020, the number of messages received in the Facebook page’s private mailbox folder (photos sent, requests for support regarding CV submissions, observations and suggestions, requests for information and proposals for cooperation) grew 27.8% compared with 2019, with a private response rate by Terna of over 85%.

Overall, during the three-year period 2018-2020, the total number of messages received by private mail from the Facebook page has risen from 208 in 2018 to 317 in 2020, an increase of 52.4%. This growth was driven by increases in the number of requests for support with CV submissions (up from 94 in 2019 to 140 in 2020) and in photos sent (up from 102 in 2019 to 130 in 2020).

### SPECIFIC PORTALS

For electricity operators and suppliers, Terna has three separate company portals (GAUDI, MyTerna and the Procurement Portal), as well as a dedicated call centre, which may be reached via a toll-free number (800-999333).

<sup>5</sup> For example: [sostenibilita@terna.it](mailto:sostenibilita@terna.it), [investor.relations@terna.it](mailto:investor.relations@terna.it), [azionisti.retail@terna.it](mailto:azionisti.retail@terna.it), [ufficio.stampa@terna.it](mailto:ufficio.stampa@terna.it), etc.).

### The GAUDI portal

The GAUDI platform, which may be accessed by producers, distributors, dispatching users, authorities and Italy’s Energy Services Company (GSE), was created by Terna<sup>6</sup> to manage the Consolidated Power Generation Plant Register at national level.

The Register records all the generation plants and the individual units that comprise them, of any size or source (conventional, renewable, cogeneration and storage systems), covering a total of over **950,000 units**. It is expected that the number of plants on the Register by the end of 2021 will total 1,000,000. 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.

Work on integrating the platform with internal systems took place in 2020 with the aim of making them interoperable. This will aid communication with operators and external systems used by distributors and GSE.

Interoperability with distributors systems benefitted from the reengineering of the POD (Point of Delivery) register, with the introduction of new details, such as the Primary Substation or Transformer associated with each POD and management of the status of the POD and the respective schedules. This project means that GAUDI now represents a key record of not only generation plants but also connection points.

This process required a major commitment in terms of communication with distributors and GSE. This will continue throughout 2021 in order to make the register fully interoperable, both regard to data sharing and in functional and operational terms.

Finally, work on adapting the platform to comply with the new European regulations - “Requirements for Generators” and “System Operation Guidelines” – continued.

### 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. The CRM system allows users to do the following:

- **manage and update their data:** it is possible to enter, modify or eliminate contacts and define the users who can interact with Terna via the portal;
- **request connections to the NTG:** it is possible to request a new connection to Terna’s grid, manage the application process, check on the state of progress and sign the related contract;
- **manage contracts:** new contracts with supply-side and demand-side dispatching service users can be entered into, whilst existing contracts can be modified, with the possibility to manage the related procedure and view the state of progress reached;
- **contact Terna:** by using an e-ticketing service, it is possible to communicate with Terna regarding specific issues, checking on the status of the process;
- **view information:** it is possible to consult key information regarding operators’ data, contracts and billing.

MyTerna also enables users to access the most important news about Terna and key links providing support for electricity market operations, as well as a special area in which users can consult the main documents required in order to manage their relationship with Terna.

<sup>6</sup> In implementation of ARERA Resolution ARG/elt 124/10.

### Procurement and supplier qualification portal

The initial encounter between Terna and suppliers (potential or otherwise) takes place in specific sections of the Procurement and Supplier Qualification Portal at [www.terna.it](http://www.terna.it), where it is possible to find information about calls for tenders, participate in online tenders and complete the qualification procedure in order to be included in the list of approved suppliers.

In 2020, approximately **1,494** 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.

With a view to expanding the supplier base, the Procurement and Contracts department carries out scouting activities in the market, including meetings with potential Italian and overseas suppliers. In the case of suppliers who have already been contracted – above all those deemed to be of key importance to the business<sup>7</sup> – Terna maintains direct contacts in order to manage and acquire greater knowledge of specific issues during the procurement process. In this regard, meetings are periodically organised with qualified companies or trade associations to notify them of any updates to requirements or key issues relating to the ethical conduct expected of them when doing business with Terna.



<sup>7</sup> These are suppliers whose contracts are of high value and who are not replaceable or who provide strategic supplies or works that are specific to the electricity system.

## Public and social stakeholders

In addition to the community in its widest sense, this category of stakeholder in the map includes local communities, media and public decision-makers, categories that share an ability to have a major influence on Terna.

### Community

The concept of the community covers current and future end users of the electricity service and the response to their expectations of the electricity service in keeping with the commitments given in Terna's concession arrangement.

Ensuring that everyone has access to a continuous supply of electricity and accelerating full delivery of the ecological transition so as to bequeath a carbon neutral world to future generations, whilst avoiding an excessive increase in overall costs, represent the two very different sides of Terna's commitment to the community and, at the same time, the complexity of the task assigned to us.

In addition to the usual initiatives designed to benefit the community, as part of our commitment to social responsibility, Terna also supported the work of the Civil Protection Agency in 2020 by donating funds to finance the purchase of PPE (masks and gloves) for health workers and ventilators for intensive care units. Over the year, Terna also provided operational support to Rome's Agostino Gemelli University Hospital, helping to boost the capacity of intensive care and other units and in the distribution of PPE.

PC5

203-1 &gt;

**Community initiatives**

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 2020 with the fourth 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, Human Resources and Organisation and the head of the department responsible for "Relations with stakeholders and the academic world, events and sponsorship".

415-1 &gt;

In any event, in line with Terna's Code of Ethics, donations are never made to political parties or their representatives.

Terna is a member of the **London Benchmarking Group (LBG)** and has adopted its 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 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. 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 2020, classified in accordance with the LBG model, are broken down in the following table.

**COMMUNITY INITIATIVES**

	2020	2019	2018
Total value of contributions (excluding internal operating costs)	1,929,368	2,027,598	1,956,323
<b>By type of contribution</b>			
- In cash	1,789,419	1,789,727	1,707,603
- In kind (the donation of assets)	25,100	25,770	1,700
- Working hours	114,849	212,101	247,020
<b>By type of initiative (*)</b>			
- Donations	525,780	179,770	110,200
- Investment in the community	956,140	1,407,583	1,303,314
- Commercial initiatives	447,448	440,245	542,808
<b>By purpose</b>			
- Education and youth	914,013	1,299,624	880,630
- Healthcare	398,880	9,000	23,000
- Economic development	132,240	125,000	105,300
- Environment	95,846	22,550	242,921
- Art and culture	201,300	273,535	418,575
- Social well-being	21,500	10,000	0
- Emergency aid	25,000	166,489	98,484
- Other	140,589	121,400	187,412

(\*) **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")**. This year, in view of the exceptional nature of the situation created by the pandemic, many initiatives related to **SDG 3 ("Good health and wellbeing")**.

In keeping with these guidelines, the most important topics are youth employment – in the form of education and training – and by promoting innovation projects (see the box on the Next Energy project). Work on the initiatives included in the partnership agreement with the LUISS University continued in 2020. This programme aims to provide high-quality training to talented young students (see page 255).

In 2020, spending on initiatives aligned with priority SDGs 3, 4, 7, 9 and 11 accounted for 70.5% of Terna's expenditure on community initiatives.

For the purposes of full disclosure, it should also be noted that, in 2020, expenditure accounted for as donations and sponsorships amounted to €588,685 and €1,024,389.

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 233).

**Next Energy, the Terna programme focusing on young talent and innovation**

The second phase of Next Energy, the programme run by Terna, the Cariplo Foundation and Cariplo Factory, took place in 2020.

The initiative aims to offer concrete growth and employability opportunities to young people and the most talented recent graduates, and support the development of innovative projects, start-ups and businesses focusing on areas relating to development of the energy system.

This year, the six-month internship for the ten young people chosen began in January 2020, before migrating to the Microsoft Teams platform in response to the pandemic. The questionnaires completed at the end of the internship showed that it had been possible to continue to provide high quality tutoring and mentoring by the heads of the departments hosting the internees, all of whom were hired at the end of the process.

The first four editions of Next Energy enabled Terna to attract over 500 CVs, resulting in 23 new recruits. 34 of the 45 internees who took part in the various editions have been hired on permanent contracts.

Another topic, which is currently of minor importance, but has potential linked to the growth of the Group's International Activities, is access to energy (see the box below on the "Mato Grosso" project).

**"Mato Grosso" project**

In line with the agreement signed in November 2016 between Terna and the Parish of Chacas, in August 2019 the company Terna 4 Chacas was incorporated. The company is 99.99% owned by Terna Plus S.r.l., the Terna subsidiary responsible for the Group's Non-regulated Activities overseas, with the remaining stake held by Terna Chile S.p.A.. Terna 4 Chacas has responsibility for supervision, engineering and the supply of goods and services relating to the construction of the power line envisaged in the "Operation Mato Grosso" project.

This 16.5 km, 60kV power line, with some stretches at an altitude of more than 4,000 metres, will safely connect the local Huallin hydroelectric power plant (3 MW), thereby significantly increasing the availability of electricity, for the benefit of local community development projects.

During 2019, the working group comprising Terna technicians and volunteers from Operation Mato Grosso and the parish defined the route of the line and how it will be connected to the existing 60kV Pomabamba – Huari line.

Ahead of the construction phase, an agreement was signed between Terna Plus and the Parish of Chacas in 2019 regarding implementation of all the planned activities. The authorisation process, which Terna has helped to prepare by supporting the Parish in drawing up of technical and design documents, took longer than expected and was completed in February 2020.

Despite the difficulties and delays caused by the progressive spread of the Covid-19 epidemic, during 2020, it was possible to establish the final route, conduct the various field surveys, develop the plans necessary in order to start the civil works, draw up specifications in readiness for procurement of the necessary materials and finalise the technical specifications and the contract governing construction of the line.

Terna and the Parish also agreed to make certain amendments to the contract in order to speed up the supply of materials and the start of work. At the beginning of 2021, the timing of the future stages is heavily dependent on how the pandemic progresses: if there is an overall improvement in the situation, civil engineering works will begin in February to prepare the ground for the subsequent start-up of work on construction of the electricity infrastructure.

**Dialogue with local communities**

In line with the guidelines in the 2021-2025 Industrial Plan, focusing on the ecological transition and Terna's role in driving and enabling the process, and with the resulting need to invest in the electricity infrastructure provided for in the 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.

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**

The Grid Development Plan is drawn up annually<sup>8</sup> and, as required by law, includes the Strategic Environmental Assessment (SEA). This involves an initial public consultation phase that makes available a series of documents, such as the preliminary environmental and monitoring report, on the websites of the Ministry of the Environment and Terna. At this stage, members of the public have 60 to 90 days to submit comments on the plans.

With the aim of ensuring that communities are kept fully informed about planned investment in electricity infrastructure, Terna organises meetings with local authorities, during which the authorities can comment on the plans. The Plan may be discussed, for example, with the regional authority (to date, Puglia and Abruzzo) and the municipal authorities directly affected. Since 2018, this approach to dialogue has also included public meetings called "Terna Incontra" (see page 138).

Following approval of the Plan, consultations are held over a period of one to three years.

During this phase, direct engagement with local communities takes the form of meetings, which vary in number depending on the complexity or interests involved and the number of municipalities affected. These meetings provide an opportunity to illustrate the importance of the infrastructure included in the Plan and to work with local authorities and the public in order to identify shared solutions, achieve the broadest possible consensus and foster acceptance of the project.

In addition to local authorities and citizens, these meetings are also open to other bodies, such as, for example, local cultural heritage agencies, the grantors of water concessions, regional environmental protection agencies, environmental or trade associations and, more generally, all the stakeholders directly or indirectly affected by the project.

Where possible, Terna then takes into account all the observations or requests gathered during the meetings in the design solutions submitted for Single Authorisation. Terna then informs stakeholders of the changes made during specific "Terna Incontra" meetings, held before the start of the consents process.

<sup>8</sup> From 2021, the Development Plan will be drawn up every two years.

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Terna decides whether or not to arrange a public consultation depending on the size of the planned investment in each project in the Plan or the complexity of the infrastructure and the affected area. 80% of our investment in electricity infrastructure is currently the subject of such an engagement process with local communities.

At the end of the consultation, the final design is produced and then submitted to the relevant authorities to begin the consents process. To coincide with this stage of the process, the general public are given a further chance to view the design at their local municipal authority. In the event of changes to the design at the request of the authorities during the consents process, Terna arranges additional meetings with local stakeholders to explain the changes and discuss the best way to proceed with local entities.

**“Terna Incontra”: a channel for ongoing communication with the public**

For a number of years, alongside meetings with authorities, accounting for the largest proportion of this engagement activity, Terna has used a further channel for communicating with local communities: “Terna Incontra” meetings. This is an “open day” type event establishing a channel for ongoing communication with citizens directly affected by new electricity infrastructure, whether a power line or a substation, as part of a participatory design process.

These “Terna Incontra” meetings are not one-off events, but can be organised at any time during the design phase through to the consents process and the start-up of work. In this latter case, Terna engages with the committees to reach agreement with the local authority on the best diversions to use in the event of road closures, the best routes for site traffic, site working hours, etc.

“Terna Incontra” meetings are organised in collaboration with the local authority, which provides an adequate public space (e.g., a council chamber) in which panels showing key information on the project can be set up. This takes a multi-disciplinary approach, providing information on, for example, safety and environmental issues.

Unlike meetings with the authorities, which are often held at short notice, “Terna Incontra” meetings must be pre-arranged as it takes around two weeks to prepare the necessary materials and publicise the event at local level. This is done to encourage the participation of citizens, who are given a brief questionnaire asking for their opinion on the effectiveness and content of the meeting.

Due to the restrictions imposed as a result of the Covid-19 pandemic, in 2020, Terna devised and implemented an innovative form of engagement based on a digital format. This consists of a new way of consulting local citizens and stakeholders, combining 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) in an integrated, coordinated manner. A total of 9 “Terna Incontra” meetings were held in 2020.

In 2020, Terna held a total of 388 meetings with local authorities, involving around 220 bodies, including authorising bodies, local authorities, civil engineering entities, ministries, regional authorities and other economic operators.

AREA	MEETINGS	BODIES INVOLVED
North-west	125	93
North-east	88	66
Centre-South Adriatic Link	51	30
Centre-South Tyrrhenian Link	124	31
<b>Total</b>	<b>388</b>	<b>220</b>

**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 procedure<sup>9</sup> 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.

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**POWER LINE EASEMENTS**

LANDOWNERS* AFFECTED BY THE CONSTRUCTION OF NEW POWER LINES (NO.)	2020	2019**	2018**
Total easements	1,131	834	1,057
of which consensual	648	737	665
of which enforced	483	97	392

<sup>(\*)</sup> “Landowner” means the registered owner or group of owners of a parcel of land in a given municipality; the number of landowners thus coincides with the number of easements.  
<sup>(\*\*)</sup> The figures for 2019 and 2018 have been recalculated on the basis of the number of landowners, rather than the number of individual parcels of land.

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.

The number of easements rose in 2020, primarily due to construction of the new “Re-routing of the 380kV Lacchiarella/Chignolo line at Chignolo Po”, the new “220kV DC connection linking Nave/Cimego to the Agnosine substation being built” and the “Italy-Austria Interconnector”.

The number of enforced easement orders rose in 2020 due to the need to carry out work on infrastructure where authorization was close to expiry.

<sup>9</sup> Law 1775 of 1933; Presidential Decree 327/2001 “Consolidated law on expropriations”.

**Dialogue with local communities overseas**

The authorisation process for the design and construction of the 138kV Aguaytía-Pucallpa power line in Peru is similar to the Italian process, including intense stakeholder engagement from the Environmental Impact Assessment phase (EIA, *Estudio de Impacto Ambiental*).

The process consists of several phases. It begins with a preliminary environmental impact assessment (EVAP, *Evaluación Ambiental Preliminar*) and, after approval by SENACE<sup>10</sup> (a government agency reporting to the Peruvian Ministry of the Environment), continues with environmental assessment activities (EIA). These activities include a Citizen Participation Plan (PPC, *Plan de Participación Ciudadana*), comprising a series of workshops with the local people directly affected by the power line, during which the nature of the project, its main impacts (positive and negative) and management strategies are presented.

The procedures for obtaining easements for the construction and operation of overhead power lines are similar to those in Italy.

Normally, Terna prefers solutions based on mutual consent, involving payment of one-off compensation, at market rates, for easement on private property. Only when it is not possible to reach an agreement is it necessary, as in Italy, to adopt enforcement measures (**imposición de servidumbre**).

**POWER LINE EASEMENTS: AGUAYTÍA-PUCALLPA PROJECT IN PERU**

EASEMENTS RELATING TO CONSTRUCTION OF THE 132 KM POWER LINE IN PERU (AGUAYTÍA-PUCALLPA PROJECT)	TOTAL PLANNED FOR PROJECT	TOTAL AT 31 DECEMBER 2020
Total easements	522	528
of which consensual	501	517
of which enforced	21	11

**Public consultation for new Italy - Tunisia Interconnector begins**

At the end of September 2020, the 8-week Public Consultation for the new Italy-Tunisia power line got underway. The public were given the chance to meet Terna’s engineers and express their opinion and preferences with regard to the two alternative routes being proposed.

The health emergency meant it was necessary to use digital forms of dialogue that made it possible to reach a higher number of people. This enabled anyone interested to find out about the future project and express an opinion in complete safety.

The three virtual meetings were specifically organised for the municipalities of Castelvetrano, Campobello di Mazara and Partanna, the three towns in the Trapani area on the potential routes for the cable. Terna’s designers and engineers were available to describe the two possible routes to participants, clarify any doubts over construction of the power line and to listen to suggestions from people living in the area. The outcome of the consultation will be included, together with the presentation of the project, in the documentation needed in order to begin the related consents process.

The new interconnector between Italy and Tunisia will link the Partanna substation with a corresponding station on the Capo Bon peninsula in Tunisia. It will be connected to the national grid via a converter station. This will be built alongside the existing Partanna substation, using an architectural style and colours in keeping with the landscape and appropriately hidden from view behind trees and shrubs. The line will reach the coast in the form of underground cable laid along existing roads, leaving the environment and landscape untouched, including the coastal area where it will make landfall.

<sup>10</sup> Servicio Nacional de Certificación Ambiental para las Inversiones Sostenibles.

**The most difficult cases and shared solutions**

Reaching a consensual solution entails lengthy and difficult mediation procedures.

Outcomes are usually positive, but during the process local opposition may persist. Terna is willing to examine the situation and seek alternative solutions – even ones that are technically more complex than those originally identified – provided that they are compatible with the general interest of maintaining the safety, efficiency and cost-effectiveness of the electricity service.

In 2020, such cases included.

**DIFFICULT CASES**

**Italy – Switzerland interconnector and upgrade of the Val Formazza HV network**

The consent process for the project began in 2012. Several committees were set up from the outset. In response, Terna scheduled various open meetings (“Terna Incontra”) with local residents. Over the years, Terna has made a series of voluntary additions to the project, in order to meet demands.

In 2017 and 2018, meetings continued with local cultural heritage agencies, the Ministry of Cultural Heritage and Activities and the Piedmont and Lombardy regional authorities, aimed at reaching a solution with the broadest possible consensus. To this end, Terna requested and obtained a suspension of the consent process until May 2018. Following the services conferences held in July 2018 and the meetings promoted by the Prefectures of Verbania and Novara, in which the mayors of the municipalities involved took part, Terna announced its willingness to look at further design solutions with a view to making technical and environmental improvements.

Following the notification from the Environmental Impact Assessment Technical Committee, which suspended the EIA procedure, the interconnector project has been separated from the Val Formazza upgrade works.

During 2019, Terna met with the local bodies and authorities affected by the project (the MED and regional, provincial and municipal authorities), maintaining constant dialogue with a view to identifying a shared project solution.

In 2020, Terna was also in contact with the cultural heritage agency for the Verbano-Cusio-Ossola area in order to reach agreement on the route.

### Upgrade in the Mid Piave Valley

The authorisation procedure for this project began in February 2011. At the same time, a number of municipalities, including Belluno and Soverzene, expressed opposition to the chosen route. In response, Terna proposed an alternative solution in August 2015.

Dialogue with local authorities and local communities continued in 2016, thanks in part to the organisation of four meetings with local residents. In March 2018, the environmental compatibility decree was issued, with a number of restrictions.

In the Planning Agreement entered into in January 2019, Terna and Veneto Regional Authority agreed on changes to the design that will result in the new section of the future 220kV Polpet-Scorzè line being built using underground cable until it crosses the Piave river.

In January 2021, Terna informed Veneto Regional Authority, Belluno Provincial Authority and the municipalities involved that it was willing to extend the use of underground cable to beyond the Piave river.

This change will enable the Company:

- to resolve concerns about interference between the 220kV overhead line between Polpet and Scorzè and Arturo dell'Oro airport;
- to double the length of the line in underground cable from 12.8 km to 24.7 km;
- to avoid two crossings of the Piave river using overhead line at Ponte nelle Alpi.

### Montesano sulla Marcellana electricity substation (SA)

These works were authorised in 2010 by Campania Regional Authority. Initially to be carried out by the company, ESSEBIESSE POWER, responsibility was subsequently transferred to Terna. In 2011, immediately after the works had begun, the municipality of Montesano sulla Marcellana ordered their suspension and initiated legal action. Since 2015, when the process of obtaining the necessary consents for the new substation (more compact than the previous one) designed by Terna began, the local committee has organised several demonstrations. In addition, questions have been put in Parliament and strong opposition has been manifested by the mayor of the town of Marcellana, Campania Regional Authority, private citizens and the mountain community, all of which have expressed their opposition, as well as comments and requests for supplementary information. All the alternative proposals presented by Terna were deemed unacceptable by the local authorities and residents. In 2018, in response to the requests from the local community, Terna announced that, in agreement with the town of Montesano sulla Marcellana, it was willing to consider relocation of the substation. Any solution to the impasse depends on the as yet unresolved legal dispute between ESSEBIESSE POWER and Campania Regional Authority regarding the validity of its authorisation.

### 380kV Volpago substation (TV)

Given the more than 48% shortfall in capacity in the region's electricity system, the 220kV Volpago-Scorzè power line and the 132-kV lines between Polpet, Cordignano, Scorzè and Venice North do not provide sufficient transmission capacity or guarantee adequate security. This means that the area's electricity service lacks the spare capacity needed to protect against the risk of widespread outages.

To resolve these issues, work needs to be carried out in the area between Volpago and Scorzè, involving:

- construction of a 380/220/132kV electricity substation that will enable the injection of additional power into the 132kV grid via the connection between the new substation to the existing 380 kV/220kV lines;
- the laying of underground cable providing new connections between the existing 132kV lines and the future substation;
- the construction of short connections between the existing 220 e 380 kV and the future substation;
- the demolition of existing sections of line close to urban areas.

The Municipality of Volpago was chosen as the location for the new substation in an effort to place it as close as possible to the existing lines and thus reduce the need to build new overhead connections. The planners also sought to identify a location that was not visible from the most heavily populated areas. Almost all of the new 132kV lines, in underground cable, are to be laid along country roads so as not to cause disruption to traffic whilst the work takes place.

Talks are ongoing with Veneto Regional Authority and town councils with a view to finding the best location for the electricity substation and adopting technologies that will minimise the area of land needed and the impact of the new infrastructure.

### The "Cross-Lucana" project

Aimed at connecting plants producing renewable energy from wind power, these works have encountered local opposition, primarily due to the local community's refusal to accept the development of renewable energy plants. A number of outstanding disputes have halted work, which can only continue if the regional authority grants Terna an extension of the related consents. The municipalities most affected are Tolve and Avigliano.

## SHARED SOLUTIONS

### Sa.Co.I.3

The Sa.Co.I.3 project regards renewal and modernisation of the current HVDC<sup>11</sup> electricity connection between Sardinia, Corsica and the Italian mainland, called Sa.Co.I.2, which has reached the end of its useful life. The initiative, which is classified as a Project of Common Interest (PCI), will strengthen the sharing capacity between the countries involved, ensure service continuity and also contribute to the development of the European electricity grid and therefore to the ecological transition to more widespread use of renewable energy sources.

In September and November 2018, Terna launched the public consultation process required by the regulations, organising six information days ("Terna Incontra" events) in Sardinia and Tuscany. In the municipality of Suvereto, where the new substation is planned, a "No SACOI3 Committee" has been set up and also has the support of some local politicians.

Terna is committed to implementing the best technical and environmental solutions for the benefit of the new infrastructure's sustainability, participating in public meetings and technical roundtables in order to engage with local communities. Following meetings with the municipal authority and the Committee, a shared design solution has been arrived at.

<sup>11</sup> High Voltage Direct Current.

Memoranda of understanding were entered into with the municipal authorities involved in 2020 following agreement on the location of the infrastructure.

With the aim of making the project more sustainable from an environmental and landscape perspective, in 2020 Terna held a competition to choose the best design for the two new converter stations. The winning design is due to be chosen in the first quarter of 2021. The municipal authorities that will host the two converter stations have taken an active part in the competition.

#### Grid restructuring in Val di Isarco to provide a connection for BBT

With regard to work on the connection involved in the “Grid restructuring in Val di Isarco to provide a connection for BBT”, Terna, RFI and the Autonomous Province of Bolzano (“PAB”) signed a Memorandum of Understanding in June 2018.

The memorandum refers to a request made to Terna by RFI and BBT for a connection to power the new high-speed railway line in the Upper Val di Isarco. The solution proposed by Terna was added to the Memorandum of Understanding with a large-scale plan to restructure the existing HV power lines. Terna thus set up a technical committee to work with the PAB on establishing a consultation process in the affected areas. This involved listening to the needs of local people and authorities, which then formed the basis for shared design solutions on which there was wide agreement.

At the end of the consultation, on 22 May 2020, agreement was reached by the PAB and Terna, setting out the feasibility ranges of the agreed locations.

In July 2020, work on a voluntary Strategic Environmental Assessment (VAS) at provincial level began. This was based on a feasibility study of the plan, with the aim of ensuring that provincial offices played the fullest role possible in the decision-making process and to ensure that the design took into account the results of in-depth environmental assessments. This procedure was successfully completed on 29 December 2020, with the Provincial Authority’s approval of the restructuring plan.

The final design for the project is currently being prepared on the basis of the environmental requirements of provincial offices. The project will then be submitted to the Ministry for Economic Development for approval and, as regards the Environmental Impact Assessment, to the Ministry of the Environment.

#### Upgrade of the 132kV grid in the Reggio Emilia area

With the aim of identifying widely agreed design solutions, Terna set up a technical coordinating committee on 23 October 2018 with a view to sounding out the needs of local authorities and citizens in the area.

During this first phase, as part of a series of meetings that took place between the end of 2018 and early 2019, Terna gathered the views of municipal authorities, reaching agreement, within the area under examination, on the areas more or less suitable as the location of the infrastructure and studying the feasibility ranges for the overhead sections and those to be in cable. On 23 May 2019, the committee concluded its work with the signature of an agreement by all the municipalities and Terna, setting out the feasibility ranges for the agreed locations for the overhead and cable sections.

The technical committee produced a wide-ranging upgrade plan that, in addition to the construction of new sections of power line, also involved the demolition of power lines in urban areas.

Almost 31 km of existing overhead lines will be demolished, whilst approximately 14 km of new overhead line and 24 km of underground cable will be constructed.

The second phase of the local consultation process, consisting of information days (Terna Incontra) created to illustrate the feasibility ranges to the public, took place in December 2019.

A Memorandum of Understanding is currently being drawn up with the authorities involved. This will set out the agreement reached and include a list of the works to be carried out and their agreed location. Based on this Memorandum of Understanding, and within the agreed feasibility ranges, Terna will complete the design of the infrastructure in line with the views of the citizens who took part. The resulting design will then be submitted for Single Authorisation by the Ministry for Economic Development.

#### Agreement on the location of the RFI connection: 150kV end-user substation at Catenanuova – 150kV Assoro – Catenanuova – Sferro power line

In 2020, Sicily Regional Authority hosted and took part in the technical coordinating committee bringing together Terna, the cultural and environmental heritage agencies in Catania and Enna and the municipalities affected by the project.

The environmental and landscape assessments carried out by Terna were presented to the technical committee, which also discussed the roughly defined alternative locations. At the end of this process, the technical committee produced an agreed solution for location of the infrastructure and this will be submitted for Single Authorisation by Terna. The solution takes into account the views and observations of all the interested parties. A “Terna Incontra” event will be held in 2021 with the aim of presenting the results of the consultation to citizens in the municipalities involved.

## Media and opinion makers

This category of stakeholder includes traditional and digital information providers, national and international opinion leaders, universities and other scientific and research organisations, study groups, national and international influencers, and, more generally, all the stakeholders that serve as mediators between Terna and other stakeholders.

All Terna’s communication activities have been developed in such a way as to make coordination between the various departments and the integration of the various tools and activities even more effective, in order to obtain ever more widespread and consistent coverage across all media.

The Group’s communication generated coverage via the release of a total of 23,525 items, including traditional (newspapers, periodicals, radio and TV) and online media.

In detail, 4,723 press articles appeared (broadly in line with 2019), including 2,006 in the local press. The Company featured 411 times in broadcasts by leading TV and radio channels, whilst 18,391 articles were posted on leading websites (up 35% on 2019).

In order to facilitate broad awareness of electricity issues and to promote the spread of a well-informed energy culture, two integrated online platforms, representing examples of European excellence, have been launched: “**The evolution of the electricity market in numbers**”, including statistical data since 2000 on national and regional demand, consumption, production, fuel, capacity and energy balances; and the “**Transparency Report**”, which focuses on the latest real-time operating data from the national electricity system.

Finally, an English language version of Terna’s new app, providing data on system performance and electricity consumption, covering demand, power generation sources, overseas trading flows and news, has been available since from June 2020.



**Terna leads the way in Italy and Europe in terms of the quality of our digital communication**

The **Webranking by Comprend 2020-2021** study on the quality and transparency of the digital communication of listed companies, carried out in collaboration with Lundquist, ranked Terna number one in Italy and Europe.

Ranked first among the 122 biggest Italian blue chips and among the 500 largest companies in Europe by market capitalization, the study acknowledged Terna's excellence in terms of the credibility, transparency and accessibility of information.

Terna has also been included amongst the four Italian companies classified as "**Gold Class**" in the **.trust** study, a qualitative assessment again conducted by Lundquist. The evaluates a business's ability to effectively and transparently communicate its brand identity to stakeholders, ultimately creating a relationship based on trust.

**Relations with environmental organisations**

Since 2009, Terna's commitment to further improve the environmental sustainability of the NTG has been implemented in concrete partnership agreements with the main environmental organisations.

The most significant include those with Legambiente, WWF and Greenpeace – which were signed or renewed in 2016 – who support Terna in the identification of grid development solutions in line with national and international environmental targets that are shared with local communities.

Information sharing – for example, regarding the scenarios used for Terna's Development Plan – is constant throughout the year and stepped up during the Plan's preparation phase.

**Public decision-makers and authorities**

These public institutions are responsible for regulation, supervision and authorisation of a general nature, and in particular regarding the construction of infrastructure.

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.

In addition to ordinary communication initiatives and institutional relations, Terna took part in a number of information gathering procedures in 2020. These included:

- on 27 July 2020, Terna took part in a hearing before the Senate's Joint Constitutional Affairs and Public Works Committee, looking into draft law 1883 "Conversion into law of law Decree 76 of 16 July 2020, containing urgent measures for simplification and digital innovation" (the so-called Simplifications Decree);
- on 20 June 2020, Terna, at the invitation of the Cabinet Office, took part in the event entitled "Let's plan the restart" – the States General of the Economy; in September 2020, at the request of the Chamber of Deputies' Production Activities, Trade and Tourism Committee, Terna contributed proposals and suggested changes regarding the priority uses of the Recovery Fund.

At the end of 2020, Terna joined other companies in taking part in preparation of the "Pact for the Environment", at the request of the Ministry of the Environment and Land and Sea Protection. The pact will be signed up to by the Ministry and the companies' chief executive officers in early 2021.

# Operating and business environment

These include all the other stakeholders whose engagement with Terna is not determined by the presence of electricity infrastructure on their territory and who interact with Terna because they work there ("People", see the relevant section on page 237), operate in the electricity supply chain (see page 150), have regulatory, supervisory and authorisation power (competent authorities and ministries, see page 146), or have commercial relations (suppliers – see page 118 – customers of Non-regulated Activities and business partners).

**Employee engagement**

This part of the Report describes the main engagement initiatives directed at the Company's people, the key facilitators being internal communication and industrial relations. All other aspects relating to Terna's "People" are dealt with in the specific section from page 237.

**Promoting workplace safety**

From the early days of the pandemic, the "Internal Communication" department kept everybody fully informed about the spread of the virus and provided regular updates. Details of the steps taken by the Company to enable work to continue safely.

On 4 March 2020, just a few days after news of the emergency broke, an event with Prof. Petrosillo, the Head of the Department of Infectious Diseases at the "Lazzaro Spallanzani" institute in Rome, and Prof. Marchetti, a psychiatrist, was live-streamed to personnel. The talk focused on how to best respond to the emergency and was watched by around 2,000 people.

A special section was created on the intranet, featuring a range of useful content, including the measures adopted by national and local authorities. The **Sicuri Insieme** ("**Safe Together**") campaign publicised details of all the rules and instructions to be followed when present in the Company's offices and when carrying out any outside activity or working on the grid. All the useful information and rules of conduct were also made available on the InTerna app installed on all company smartphones.

The most important updates were promptly communicated by email. Communication activity also followed the process of conducting antigen and molecular testing. At the same time, a campaign focusing on how to work remotely was also run, with indications on how to protect people's health.

**Internal communication**

Internal communication makes a major contribution to fostering and disseminating the corporate culture, with the aim of fully engaging everybody in the challenges and targets linked to the Company's role in driving and enabling the ecological transition.

The Covid-19 emergency had a profound impact on the annual planning of activities. Against a rapidly changing, unpredictable backdrop, it was necessary to periodically review priorities, giving primary importance to aspects relating to information and services.

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In this sense, the *Sicuri Insieme* campaign provided information on the pandemic and the rules to follow, instructions on how to effectively work from home and rules governing the return to work and how to use spaces in the Company's offices. The related content was made available to everyone via the intranet, the internal app and posters put up in all the Company's offices.

In a period in which most of the Company's employees were working remotely, internal communication played a key role in maintaining a sense of belonging and identity and reorganised all the activities previously carried out in person so that they could be performed digitally.

**EVENTS**

TOPIC	TARGET	FORMAT
Spallanzani event, 4 March – Covid-19 emergency	All employees	Streamed on the intranet
Christmas greetings and Cascading of 2021-2025 Industrial Plan	All employees	Streamed on the intranet

**KEY INITIATIVES**

INITIATIVE	DESCRIPTION
Communication plans	Office 365, Smart working, Safe with Terna, <i>Sicuri Insieme</i> , Terna Welfare, New ICT portal, Strategic Plan, Christmas.
Accident report – monthly infographic	Graphical restyling and production of monthly updates (news and special section).
Internal App Interna	Launch of the new Internal Communication App. Creation of digital content: Strategic Plan 2020-2024; Terna Welfare; <i>Sicuri Insieme</i> .
Office 365	Introduction of three Microsoft applications (Teams, Sharepoint and One Drive); support for training programme; materials and communications.
<i>Sicuri Insieme</i>	Communication campaign focusing on Phase 2 of the Covid-19 emergency - creativity, posters, communications.
Smart working	Infographics and communications.
Terna Welfare	Materials and communications.
ICT Services portal	Identity portal and communication campaign.
Women's Day	Initiative reserved for Terna's women on the topic of health.
Father's Day	Publication of Intranet news and games for children.
Safe with Terna	Campaign, video, LiHS/Saipem workshop.
Christmas	Live-streamed greetings, news and gifts.

**From the health emergency to “New Ways of Working”: launch of the “NexTerna” programme**

Terna's 2021-2025 Industrial Plan targets 10% growth in the workforce in the first three years: a goal linked to the “New Normal”, the scenario imposed by the lengthy Covid-19 health emergency, which has led to the adoption of Smart working as a key tool in guaranteeing our ability to continue working.

The realisation that it was necessary to find “**New Ways of Working**”, heavily focused on the digitalisation of work, resulted in the Plan that sets out to redefine the Company's organisational model. The new model ensures the optimal organisation and use of office space in order to guarantee efficiency, productivity, logistical benefits and quality of life.

The answer to these new challenges is **NexTerna**, designed to facilitate structural change management, based on a radically new approach to work and people.

The Chief Executive Officer is sponsoring the project, which is overseen by a steering committee consisting of all the executives reporting directly to him.

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Launched in February 2021, NexTerna focuses on seven topic areas: Sustainable and Inclusive Leadership; People Care and Skills: Agile Solutions applied to Processes; Sustainability and Communication; Technology and Digitalisation; Virtual and Physical Spaces; Ne Industrial Relations.

The first phase, which will be concluded by the end of the first half of 2021, is focusing on the planning and delivery of the first pilot projects that, from the second half of the year, will be translated into structured, scalable initiatives. The project is due to develop over several years and is aimed at everyone who works for the Company.

**Industrial relations<sup>12</sup>**

< 402-1

Staff engagement is also achieved via structured dialogue with labour union representatives. All Terna employees are covered by the collective labour agreement adopted by companies in the electricity sector<sup>13</sup>.

In 2020, the unionisation rate of Terna's workforce was 45%, with membership concentrated among the largest trade unions.

Relations between Terna and the trade unions are regulated, at Group level, by the “Industrial relations system protocol”, which sets out the terms of bargaining, dialogue, consultation and prior and/or specific reporting. In line with current regulations, relations between trade unions and the entire Group's workforce are facilitated via provision of dedicated space and notice boards at each workplace.

The involvement of trade union organisations in the event of organisational changes, a central pillar of industrial relations, is governed by legislation, industry contracts and company agreements. In accordance with trade union agreements in force at Terna, in the event of significant organisational changes, preliminary discussions are held with trade unions.

In the three-year period 2018-2020, negotiations with trade unions led to the signing of 43 statements of agreement.

Finally, in 2020, meetings were held by both the Bilateral Training Committee (3 meetings) and the Bilateral Health, Safety and Environment Committee (6 meetings), in order to boost dialogue, discussion and participation in these areas. In particular, an agreement has been reached with a view to making the use of smart working for precise categories of personnel more permanent.

**Worker participation and consultation and communication regarding workplace health and safety**

< 403-4

At Terna, worker participation and consultation are conducted in accordance with the relevant legislation. The periodic meeting on safety, required by art. 35 of Legislative Decree 81/08, is mandatorily arranged by the employer at least once a year or in the event of significant changes in risk exposure. In addition to the employer or a representative thereof, the meeting is attended by the Prevention and Protection Service Manager, the Appointed Doctor and workers' health and safety representatives.

In line with the provisions in the National Collective Labour Contract, in 2018, Terna and the national leaders of the FILCTEM, FLAEI and UILTEC unions set up a Bilateral Health, Safety and Environment Committee to discuss issues relating to occupational health and safety within the Terna Group as a whole. The Committee, established at national level, has three members representing the Company and three representing the national unions.

<sup>12</sup> The data reported in this section do not include Tamini Trasformatori S.r.l. or Avvenia.

<sup>13</sup> Tamini Group employees are covered by the collective labour agreement for the engineering sector; Avvenia's employees by the collective labour agreement for trading companies.

The Committee's main tasks are:

- to contribute to drawing up and gathering information on “good practices” for prevention and proposing solutions, in keeping with legislation, designed to foster workplace health and safety by reducing risk and improving working conditions;
- to encourage the provision of information and training programmes on issues relating to workplace health and safety and environmental sustainability for the employees of the Terna Group and its contractors, focusing above all on prevention and protection managers and workers' representatives for safety and environmental matters;
- to analyse the performance of prevention initiatives, awareness campaigns, and studies and research on safety and environmental protection;
- to examine important events and accident trends and the related occupational diseases;
- to promote studies and research on occupational health and safety, including those conducted with entities outside the Company.

The Committee normally meets every six months, although members representing both the Company and the unions may call for meetings in response to specific situations.

Terna and the national union leaders have also established that the duties and responsibilities provided for in art.13 of the “Agreed protocol governing measures to combat and contain the spread of the Covid-19 virus at workplaces”, dated 14 March 2020, should be assumed by the Bilateral Health, Safety and Environment Committee. This reflects the fact that the Committee has already been assigned responsibility for such issues and, given the national scope of the emergency, it can guarantee the full and prompt participation of all the necessary members, with visibility throughout the Group. The Committee met on six occasions in 2020.

#### 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 systems; 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 a strike.

### Electricity system operators

Together with Terna, these stakeholders make up the electricity supply chain, operating as producers, distributors, wholesalers and consumers. They engage in multiple relations with Terna, which are highly regulated and characterised by reciprocal impact and influence. These stakeholders also have the potential to influence regulatory authorities and public decision makers.

The MyTerna portals and GAUDI<sup>1</sup>, the management system for the Consolidated Power Generation Plant Register at national level, described on page 131, are also used to manage relations with these stakeholders.

#### Consultation Committee

The Committee is a technical body, chaired by a Terna representative. It is the permanent forum for consultation with operators from the electricity sector, in which the various categories of user (distributors, producers from conventional and renewable sources, large industrial customers, wholesalers and consumers) are represented, and includes the participation of ARERA and Ministry for Economic Development as observers.

In 2020, the Committee was involved in preparations for adoption of the 2020 Development Plan. The Committee was also provided with a timely update on the progress of priority development projects. Interactions with the Committee regarding the Development Plan are published on Terna's website<sup>14</sup>.

Despite the restrictions resulting from the Covid-19 emergency, Terna organised a number of occasions for consultation with operators in 2020, during which the Company shared information on the operating environment and presented new projects and changes to the current regulatory framework. For this purpose, Terna organised the following digital events:

- webinars to consult on the 2020 Development Plan;
- webinars to present consultation documents relating to the pilot project regarding provision of the ultra-fast frequency regulation service (“Fast Reserve”);
- webinars to present i) the pilot project for provision of the voltage regulation service via plants connected to the NTG following plant upgrades; ii) the pilot project for provision of the secondary frequency/capacity regulation service using resources previously not enabled; iii) changes to the Regulations for the participation of Virtually Aggregated Mixed Units in the dispatching services market (DSM) and the procedure for day-ahead purchases of resources via these units in 2021;
- webinars to present the rules governing operation of the European platform for the exchange of balancing energy from replacement reserves (RR platform), developed as part of the TERRE (“Trans European Replacement Reserves Exchange”) project, and the rules for coordinating between the DSM and the RR platform.

#### 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.

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.

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 2020, transactions in the DSM amounted to approximately €2 billion.

<sup>14</sup> Interactions with the Committee regarding the Development Plan are available on Terna's website (<https://www.terna.it/it/sistema-elettrico/rete/piano-sviluppo-rete/preparazione-pds-consultazioni>)

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 212 in 2020, accounting for 4,430 MW of power. The related annual cost amounts to approximately €0.25 billion.

EU3 >

**ELECTRICITY SECTOR OPERATORS IN RELATIONS WITH TERNA – NUMBER OF CUSTOMERS**

CUSTOMERS	2020	2019	2018
Interruptible users	212	221	243
Distributors directly connected with the NTG	54*	54*	51*
Supply-side dispatching service users (producers and traders)	136	130	135
Demand-side dispatching service users (traders and end users, including the Single Buyer)	193	187	187

*(\*) 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.*

**Regulators of services operated under concession**

These are the national and EU institutions and public bodies that by law are granted regulatory and supervisory powers over Terna, in its capacity as the operator of the electricity transmission grid and of dispatching activities.

While carrying out its activities and in full compliance with the respective roles, Terna – in its capacity as an independent system operator – maintains transparent and collaborative relations with these bodies, both with regard to compliance with its obligations under the current legislative and regulatory framework, and in order to make a positive contribution towards development of the framework, playing a proactive role and providing technical support to national and European institutions.

Collaboration with institutions specifically involves proposals for solutions that – on the basis of Terna’s distinctive know-how – enable more effective pursuit of institutional objectives, such as market efficiency, promotion of the integration of renewable sources, integration of the national market within the European market, and the integrity and security of the Italian electricity system.

**Relations with European institutions**

Operational since 1 July 2018, the Brussels Office is located in the same building as Cassa Depositi e Prestiti and SNAM, in order to strengthen synergies between their respective activities.

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.

During the Covid-19 health emergency, networking and engagement activities with the various institutions continued regularly, in part in digital format. Terna also continued to take part in all the European and industry associations – especially ENTSO-E, the association of European TSOs – in order to ensure constant dialogue and the adoption of agreed positions versus the related stakeholders, thus ensuring the alignment of all the company departments involved.

The main projects that Terna is following include those identified as forming part of the Green Deal and those relating to European programmes providing financing under the next financial framework 2021-2027. Priority projects of most interest include revision of the TEN-E Regulation and of the Circular Economy Package to reflect new climate targets, Sustainable Finance, sectoral integration and revision of the Guidelines for State Aid regarding the Environment and Energy. Programmes of interest include: Next Generation EU, the Connecting Europe Facility, the Innovation Fund, Horizon Europe and Digital Europe, and the European Regional Development Fund and the Cohesion Fund.

**Sustainable finance: EU taxonomy approved**

Published in the Official Journal of the European Union on 22 June 2020, Regulation (EU) 2020/852 – known as the Sustainable Finance Taxonomy Regulation – has established a framework designed to facilitate sustainable investment. The Regulation sets out the criteria to use in determining whether or not an economic activity qualifies as “green”.

The Taxonomy Regulation identifies six environmental objectives that an economic activity has to meet to qualify as “environmentally sustainable”: 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, and the protection and restoration of biodiversity and ecosystems.

**Electricity transmission is considered one of the activities that make a substantial contribution to meeting climate change mitigation and adaptation objectives.**

The Regulation will be implemented through “delegated acts” to be issued by the European Commission. These will officially establish the technical screening criteria for economic activities included in the framework; the delegate acts for the climate mitigation and adaptation objectives are expected to be published by the end of the first quarter of 2021.

Terna has followed and continues to follow the development of this project, which is crucial for qualifying for the sustainability label for the Group’s investments in the grid, partly in view of the upcoming definition of an EU Green Bond Standard (applying the Taxonomy), which Terna’s market issues will have to comply with.

**“MEASUREMENT OF IMPACTS”**

KPIs AND TARGETS IN THE 2021-2025 INDUSTRIAL PLAN



KPI	TARGET				
	2021	2022	2023	2024*	2025*
Percentage of regulated investments classified as “green” under the current criteria aligned with the EU Taxonomy Regulation (preliminary estimates)	> 95%	> 95%	> 95%	=	=

\* Targets defined following the review planned by the EU after the first three years

**Benchmark SDGs:**



**Participation in European and international associations**

A further opportunity for engagement and dialogue is provided by Terna’s membership of the principal national and international trade associations.

During the Covid-19 health emergency, networking and engagement activities with associations in the sector continued successfully using digital means, with the aim of strengthening dialogue and consolidating participation at international level.

**EUROPEAN ASSOCIATIONS**

**ENTSO-E (European Network of Transmission System Operators for Energy)**

The European Network of 43 Transmission System Operators for Electricity 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).

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, digitisation 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 so-called European Green Deal, a roadmap that seeks to make the EU the first climate-neutral continent by 2050.

**EASE (European Association for Storage of Energy)**

The European association that is responsible for promoting industrial research and development in the field of electricity storage system applications in Europe and around the world and the use of this technology for the transition to a stable, flexible, sustainable and cheaper continental energy system. In particular, EASE is working on the development of a European platform for sharing information in the field of energy storage.

**RGI (Renewables Grid Initiative)**

An association consisting of 11 European TSOs and 12 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 (see also page 118).

**INTERNATIONAL ASSOCIATIONS**

**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 in order to share best practices in the management of electricity transmission grids.

From 2021, Terna is the Association’s Vice Chair, in addition to being on the Steering Board and the Governing Board, and co-chairing the Strategic Working Groups on “Pathways to a Low Emission Power Grid” (SWG1) and “Resilience, infrastructure development and interconnections” (SWG2).

**Med-TSO (Mediterranean Transmission System Operators)**

This association brings together the TSOs from 19 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, as well as chairing the Technical Committee, which is responsible for planning the Mediterranean electricity grid.

**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.

The Company also participates in the activities of organisations with a broader remit (such as Diplomazia, the Council on Foreign Relations, etc.) in order to monitor the socio-political and economic contexts in which to develop or consolidate its business.

In spite of the limitations imposed by the difficult international situation, at bilateral and multilateral level, in 2020, Terna continued to work with European and non-European system operators in areas of common interest, particularly with regard to:

- grid development;
- electricity system operations;
- technological innovation.

The main initiatives worked on during the year include the following.

- Terna, together with another seven European TSOs, signed a joint declaration that aims to highlight the key role played by transmission system operators in guaranteeing the security of electricity systems during the pandemic, ensuring that markets can continue to operate when demand for electricity is falling and the performance of priority maintenance interventions where necessary.
- A joint venture with the TSOs, TenneT (Netherlands/Germany) and Swissgrid (Switzerland) was set up to launch **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.
- Since the end of the year, Terna has taken part in **TERRE** (the “Trans European Replacement Reserves Exchange”). The new 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 the so-called “Region 1”, which 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.
- Finally, Terna has joined another nine European TSOs in a joint initiative with the aim of assessing their role in decarbonizing the energy system. The results will be announced by the middle of 2021.

# Investigations, litigation and sanctions

## Investigations by ARERA

With regard to the investigations initiated by the Regulatory Authority for Energy, Networks and Environment (ARERA) which are of potential interest to Terna, it should be noted that, based on the information in the Company’s possession, the following proceeding is still pending:

- Resolution 158/2018/E/eel – Initiation of an investigation into the availability of transport capacity between Italy and Greece, partly in view of the launch of market coupling on this border pursuant to Regulation 2015/1222 (CACM).

## Litigation

The main commitments and risks not disclosed in the financial statements at and for the year ended 31 December 2020, relating to the Parent Company, Terna, and its subsidiary, Terna Rete Italia S.p.A., are described below. There are no significant commitments or risks for the other subsidiaries at that date.

### Environmental and urban planning litigation

Part of environmental litigation deriving from the construction and operation of Terna’s power plants, consists of legal actions taken against the alleged negative effects of electric and magnetic fields generated by power lines. In general, this litigation necessarily involves the Parent Company, which owns the infrastructure in question.

Moreover, it cannot be ruled out that the parties concerned may also initiate legal proceedings against the subsidiary, Terna Rete Italia S.p.A., as the electromagnetism generated by power lines relates not only to ownership of the plant, but also to its operation and the quantity and quality of electricity it transports.

Regarding this matter, it should be noted that the issue of the Cabinet Office Decree of 8 July 2003 – which set the thresholds for the three parameters (exposure limits, safety thresholds and quality targets) provided for in Framework Law 36 of 22 February 2001, which electricity infrastructure must comply with – led to a significant reduction in any such litigation.

Other environmental and urban planning disputes, which do not relate to electromagnetic fields, are also pending with regard to Terna S.p.A. These disputes are connected with the operation of certain Terna-owned plant, which in the event of an unfavourable outcome could also generate immediate effects for Terna Rete Italia S.p.A. (to date unforeseeable and therefore not included in “Provisions for litigation and sundry risks”), both as the entity appointed by Terna S.p.A. to build the related infrastructure and as the entity responsible for its operation. In particular, charges may arise for Terna Rete Italia S.p.A. connected with changes to the infrastructure involved in such disputes and its temporary unavailability. However, after examination of the disputes in question by Terna S.p.A. and external counsel appointed by the Company, it appears that the possibility of any negative outcomes is remote.

#### Litigation regarding the legitimacy of construction permits and the operation of infrastructure

Another aspect of litigation connected with the infrastructure owned by the Parent Company derives from legal actions brought before the competent administrative courts, aimed at obtaining the annulment of decisions granting consent for the construction and operation of infrastructure. In particular, it should be noted that a dispute is pending regarding the new 380kV “Udine West – Redipuglia” line and related works, which has been in operation for two years. If the appeals lodged by the municipalities and/or private parties are upheld, resulting in annulment of the decree authorising the project, this could also have consequences for operation of the infrastructure.

#### Litigation relating to activities carried out under concession

As the operator of transmission and dispatching activities since 1 November 2005, the Parent Company has been a party in a number of court cases, most of which have contested determinations adopted by ARERA (Italy’s Regulatory Authority for Energy, Networks and the Environment), and/or the Ministry for Economic Development, and/or Terna, in relation to these activities. In cases in which the plaintiffs have, in addition to inherent defects in the contested determinations, alleged violation of the regulations laid down by the aforementioned authorities, or in cases in which the determination has had an impact on Terna, the Company has also taken action to defend its interests through the legal system. Within the scope of such litigation – even though some cases have been concluded, at first and/or second instance, with the annulment of ARERA’s resolutions and, when applicable, of the consequent determinations adopted by Terna – any negative outcomes for the Company itself may be deemed unlikely, as these disputes normally relate to pass-through items.





Our ability to continue to provide a high quality of service during the radical transformation to a carbon-free energy model is one of Terna's strategic objectives, pursued via investment in new electricity infrastructure and innovation.



In brief	162
Energy sector	164
Continuity and quality of service	168
Planning and investment for the ecological transition	174
Development of the National Transmission Grid	176
Managing electricity infrastructure	188
Innovation	194

# 6

## Electricity service and innovation

# In brief

The objective of guaranteeing the quality, continuity and cost-effectiveness of the electricity transmission and dispatching service over time, as required under the concession arrangement agreed with the government, coincides with goal behind the Industrial Plan 2021-2025, which aims to ensure that Terna can play the role of leader and enabler of the transition to a new energy model, based on the large-scale integration of renewable sources.

The section begins with an assessment of the energy sector<sup>1</sup>, followed by the results for the year relating to service quality and continuity<sup>2</sup> and dispatching.

Reference to SDGs 7, 9, 13 and 17 opens the central part of the section, which focuses on the means at Terna's disposal in order to effectively bring about the ecological transition, starting from development of the grid<sup>3</sup> and the 2021 Development Plan, which is dependent on the four drivers of decarbonisation, market efficiency, security, quality and resilience, and sustainability<sup>4</sup>. This part of the section also focuses on the state of progress in implementing previous versions of the Development Plan.

Connections with new plants<sup>5</sup>, cross-border connections, private Interconnector projects<sup>6</sup> and all the various aspects of asset management<sup>7</sup> complete the overview of capital expenditure and work on developing the grid.

The section ends with a part dedicated to innovation<sup>8</sup>, which is increasingly focused on Open Innovation and research and development.

## HIGHLIGHTS IN 2020

Average Service Availability (ASA): <b>99.99%</b>	Share of electricity consumption met by renewables in May: <b>51.2%</b> <sup>9</sup>	<b>38%</b> of annual demand met from renewable sources
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<sup>1</sup> Page 164.  
<sup>2</sup> See the paragraph, "Continuity and quality of service", on page 168.  
<sup>3</sup> See the paragraph, "Development of the National Transmission Grid", on page 176.  
<sup>4</sup> See the paragraph, "2021 Development Plan", on page 177.  
<sup>5</sup> Page 183.  
<sup>6</sup> See the paragraph, "Private interconnectors pursuant to Law 99/2009", on page 186.  
<sup>7</sup> See the paragraph, "Managing electricity infrastructure", on page 188.  
<sup>8</sup> See the paragraph, "Innovation", on page 194.  
<sup>9</sup> Source: Terna. See the "Monthly Report on the Electricity System - May 2020" - pag. 3, available at the following link: [https://download.terna.it/terna/Monthly%20Report%20on%20the%20Electricity%20System\\_May%202020\\_8d82a3d2088bc5a.pdf](https://download.terna.it/terna/Monthly%20Report%20on%20the%20Electricity%20System_May%202020_8d82a3d2088bc5a.pdf)

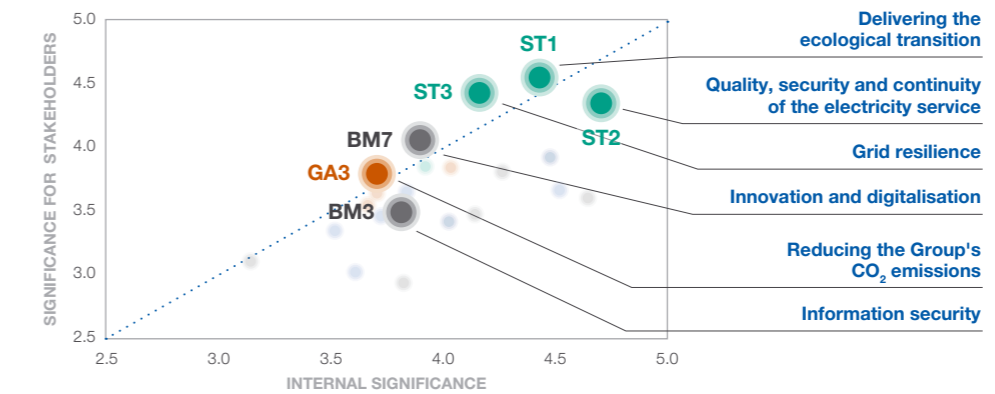
## Links with material topics in the materiality matrix

This section deals with a number of topics classified as significant following the materiality analysis conducted in December 2020 and shown as such in the related matrix published on page 34.

In terms of the "Transmission service" aspect, this section takes an extensive look at the "Quality, security and continuity of the electricity service", identified by topic ST2 and dealt with on page 168; the "Delivering the ecological transition" (page 174, topic ST1); and "Grid resilience" (page 190, topic ST3). With regard to the "Business management" aspect, page 194 deals with "Innovation and digitalisation", identified by topic BM7, and "Information security" (page 192, topic BM3).

The topic area relating to "managing the environmental impacts" is dealt with here with the "Reducing the Group's CO<sub>2</sub> emissions" on page 179 with topic GA3.

### POSITION OF THE TOPICS IN THE MATERIALITY MATRIX



# Energy sector

The energy model based on production from fossil fuels that has for many years driven the world's economic and demographic growth is no longer sustainable.

Energy production from fossil fuels is one of the main causes of anthropogenic greenhouse gas emissions (including CO<sub>2</sub>), whose impacts on the environment and climate, such as the rise in the average global temperature and the intensification of natural disasters, are scientifically recognised and increasingly frequent<sup>10</sup>.

So far, global warming caused by human activities is estimated at around 1°C, with a growth trend of 0.2°C per decade. To halt this trend, a global commitment to rapid and progressive decarbonisation of all energy sectors is needed.

The unavoidable obligation to find an effective, universally shared solution has led to the drafting of international agreements aimed at defining policies and targets to curb the global warming caused by the increase in greenhouse gases in the atmosphere. The first such agreement, reached in Paris in December 2015 within the framework of COP21<sup>11</sup>, was signed by 185 countries who committed to keeping the global temperature rise below 2°C – and, if possible, below 1.5° – compared with pre-industrial levels.

In line with the agreement, in September 2020, the European Commission set a path to reducing greenhouse gas emissions, with the aim of achieving a cut of at least 55% by 2030.

This proposal is in keeping with the European Green Deal, presented in December 2019, which sets out a new efficient and competitive economic growth strategy, based on adoption of a circular economic model capable of decoupling economic growth from the use of resources, restoring biodiversity and reducing pollution by cutting greenhouse gas emissions to zero by 2050.

To achieve these objectives, the Green Deal envisages €1,000 billion in investment over the next ten years, with around a half of this to be invested in energy and approximately €100 billion in grids.

In line with this approach, in December 2019, the Italian government approved and, in January 2020, published the country's Integrated National Plan for Energy and the Climate (PNIEC). This has established national targets to be met by 2030 regarding energy efficiency, renewable sources and cuts in CO<sub>2</sub> emissions, as well as setting goals for energy security, interconnections, the single energy market and competitiveness, development and sustainable mobility, in each case describing the measures needed to ensure their achievement.

Italy's objective is to make a decisive contribution to bringing about the necessary changes in the European Union's energy and environmental policy. By June 2021, the Commission will re-examine and, if necessary, propose changes to energy legislation, with the potential for a revisitation of the targets set out in the national energy and climate plans submitted by individual member states.

Data regarding electricity demand and production in Italy, and the performance of production sources in terms of demand, are shown below.

## ELECTRICITY DEMAND IN ITALY

ELECTRICITY BALANCE IN ITALY (GWh)	2020*	2019	2018	% CHANGE 2020-2019
Net domestic production	273,108	283,950	279,845	-3.8%
From overseas suppliers (imports)	39,787	43,975	47,170	-9.5%
Sold to overseas customers (exports)	-7,587	-5,834	-3,271	30.0%
For use in pumping**	-2,557	-2,469	-2,313	3.6%
<b>Total demand in Italy</b>	<b>302,751</b>	<b>319,522</b>	<b>321,431</b>	<b>-5.3%</b>

<sup>(\*)</sup> Provisional data.

<sup>(\*\*)</sup> Electricity absorbed by the grid through pumping water in order to accumulate energy for later use or to immediately balance excess production.

## ELECTRICITY PRODUCTION IN ITALY

GWh	2020*	2019	2018**	% CHANGE 2020-2019
Net hydroelectric production	47,990	47,590	49,929	0.8%
Net thermal production	157,408	169,290	166,736	-7.0%
Renewable production	67,710	67,070	63,180	1.0%
<b>Total net production</b>	<b>273,108</b>	<b>283,950</b>	<b>279,845</b>	<b>-3.8%</b>

<sup>(\*)</sup> Provisional data.

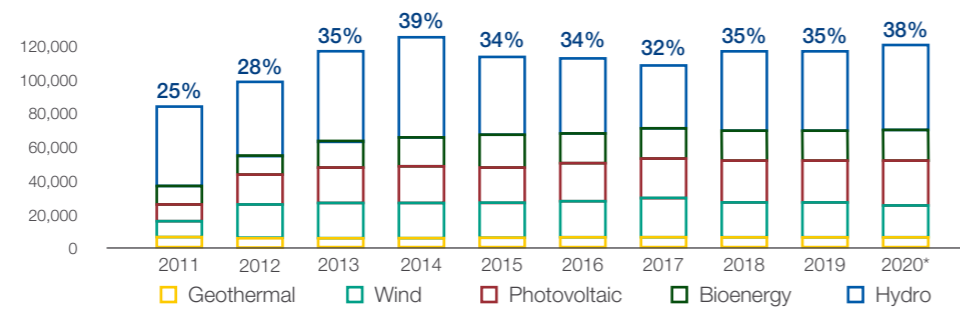
<sup>(\*\*)</sup> The figures for net hydroelectric and net thermal production have been made more accurate, without affecting total net production, which is unchanged.

<sup>10</sup> "Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty" dell'Intergovernmental Panel on Climate Change (IPCC) (October 2018).

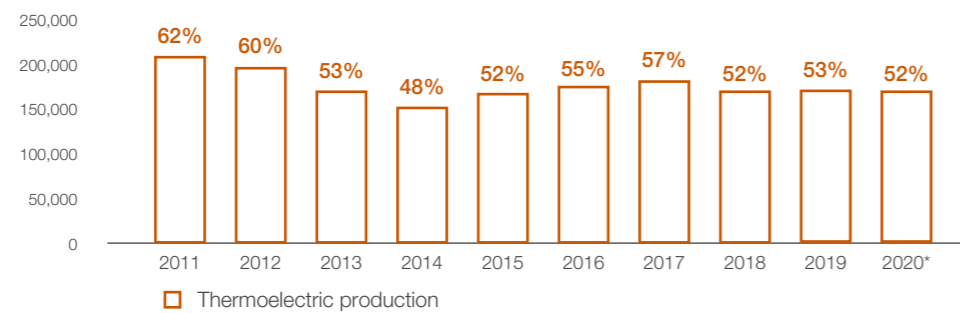
<sup>11</sup> 21<sup>st</sup> Conference of the Parties to the Climate Change Convention.

**PERFORMANCE OF PRODUCTION SOURCES IN TERMS OF DEMAND**

**Renewables sources**



**Traditional sources**



\* Provisional data.

Renewable production rose in 2020 compared with 2019. This was in part due to the Covid-19 health emergency, which had the effect of reducing demand and, therefore, increasing the share of demand met from renewable sources.

The percentages shown in the two graphs compared refer to the share of demand met by renewable sources (top graph) and thermal sources (bottom graph), totalling 90% of demand. The remaining 10% is covered by electricity received from overseas suppliers.

**NO. OF HOURS IN WHICH COVERAGE OF DEMAND BY RENEWABLE SOURCES EXCEEDS THRESHOLD**

	>30%	>40%	>50%
2018	5,653	2,610	767
2019	6,117	2,622	701
<b>2020*</b>	<b>6,436</b>	<b>3,522</b>	<b>1,378</b>

(\*) Provisional data.

As there are 8,760 hours in a calendar year (8,784 in a leap year), it is significant that the trend in recent years has seen an increase in the number of hours during which the share of demand met by RES exceeds the 30% and 40% thresholds.

This reflects both growth in renewable capacity installed and an increasingly integrated approach to managing the various renewable energy sources available.

Finally, in 2020, the significant increase in the share of demand met by renewables is partly due to the impact of the Covid-19 health emergency which, due to the reduction in demand for electricity caused by the closure of factories, resulted in a greater share of demand being met by renewables.

**Share of demand met by renewables reaches an all-time high of 51.2% in May 2020**

The Italian lockdown, which began on 10 March 2020, resulted in an overall decline in demand for electricity. This was more accentuated in northern regions where most of Italy's manufacturing capacity is located and, as a result, where demand for energy is highest.

This situation, consisting of a sharp fall in demand for electricity in Italy (down 10.2% in March 2020, 17.2% in April and 10.3% in May), created the conditions for a **stress test** of the NTG, that would otherwise not have been possible, thereby anticipating the scenarios expected to be seen in future years.

The significant fall in demand led to a major increase in the proportion of energy demand in Italy met from renewable sources in March and April, with 47% of total demand met from green energy sources, a figure that rose to **an all-time high of 51.2% in May**.



- EU29 >
- EU28 >
- ST2**



# 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.

In the context of the growing importance of renewables, some of which are not programmable, Terna is responsible for service continuity on the transmission grid, which is monitored through various indicators, a number of which are defined by ARERA.

The RENS and ASA indicators are the most significant, as they record the frequency and impact on the service of events affecting the electricity network and linked to faults or external factors, such as weather events.

INDICATOR	WHAT IT MEASURES	HOW IT IS CALCULATED
RENS (Regulated Energy Not Supplied)	Energy not supplied following events affecting the relevant grid*.	The sum of the energy not supplied to users connected to the NTG (following events affecting the relevant grid).
ASA (Average Service Availability)	Availability of the service provided by the NTG.	Based on the ratio of the sum of energy not supplied to users connected to the NTG (ENS) and energy fed into the grid.

<sup>(\*)</sup> The "relevant grid" refers to all the high-voltage and very high-voltage network.

**The RENS indicator is also important due to the impact it has on regulated revenue:** ARERA<sup>12</sup> regulates the quality of service provided by Terna through a bonus/penalty mechanism based on this indicator.

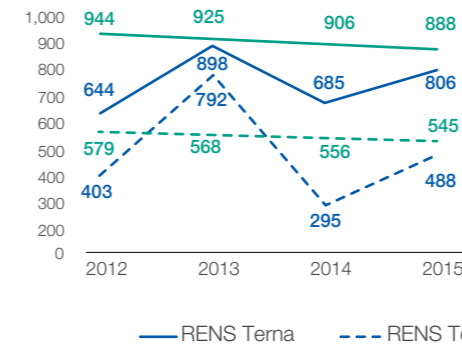
As regards the ASA indicator, the operating performance shows that ASA has remained stable at a high level over the years (the higher the indicator, the better the performance).

This indicator shows that the energy not supplied following a fault on the grid – subject to ARERA's bonus/penalty scheme – represents a minimal part of the total quantity of energy supplied to users of the grid.

<sup>12</sup> Resolution ARG/elt 197/11. This regulates the quality of the service provided by Terna via a bonus/penalty mechanism applicable to the regulatory period 2012-2015 and relating to the Regulated Energy Not Supplied (RENS) indicator attributed separately to the grid owned by Terna S.p.A. and to the one owned by the subsidiary, Terna Rete Italia S.r.l. Since 2016, the quality of the service provided by Terna has been regulated by Resolution 653/15/R/EEL, the latter applicable to the 2016-2023 regulatory period, which takes into account only one indicator, NTG RENS, including the grid owned by Terna S.p.A. and its subsidiary, Terna Rete Italia S.r.l. Resolution 38/2016/R/eel recently clarified that the portion of the network acquired from the FSI Group is excluded from the bonus/penalty mechanism regarding Energy Not Supplied.

## RENS INDICATOR

Service quality provided by Terna grid and Telat grid (Res. 197/11, regulatory period 2012-2015)



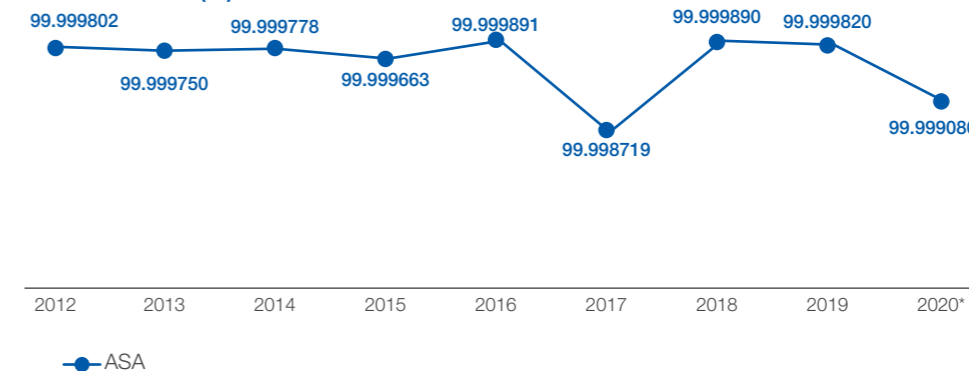
Service quality provided by Terna grid (Res. 653/15, regulatory period 2016-2023)



<sup>(\*)</sup> The RENS indicator for 2020 is provisional and is subject to change following confirmation of the related amount by ARERA.

For the RENS indicator, the targets for 2016–2023 have been set as an average of the RENS indicator for the period 2012–2015, with a 3.5% improvement in performance required for each year compared with the previous one.

## ASA INDICATOR (%)



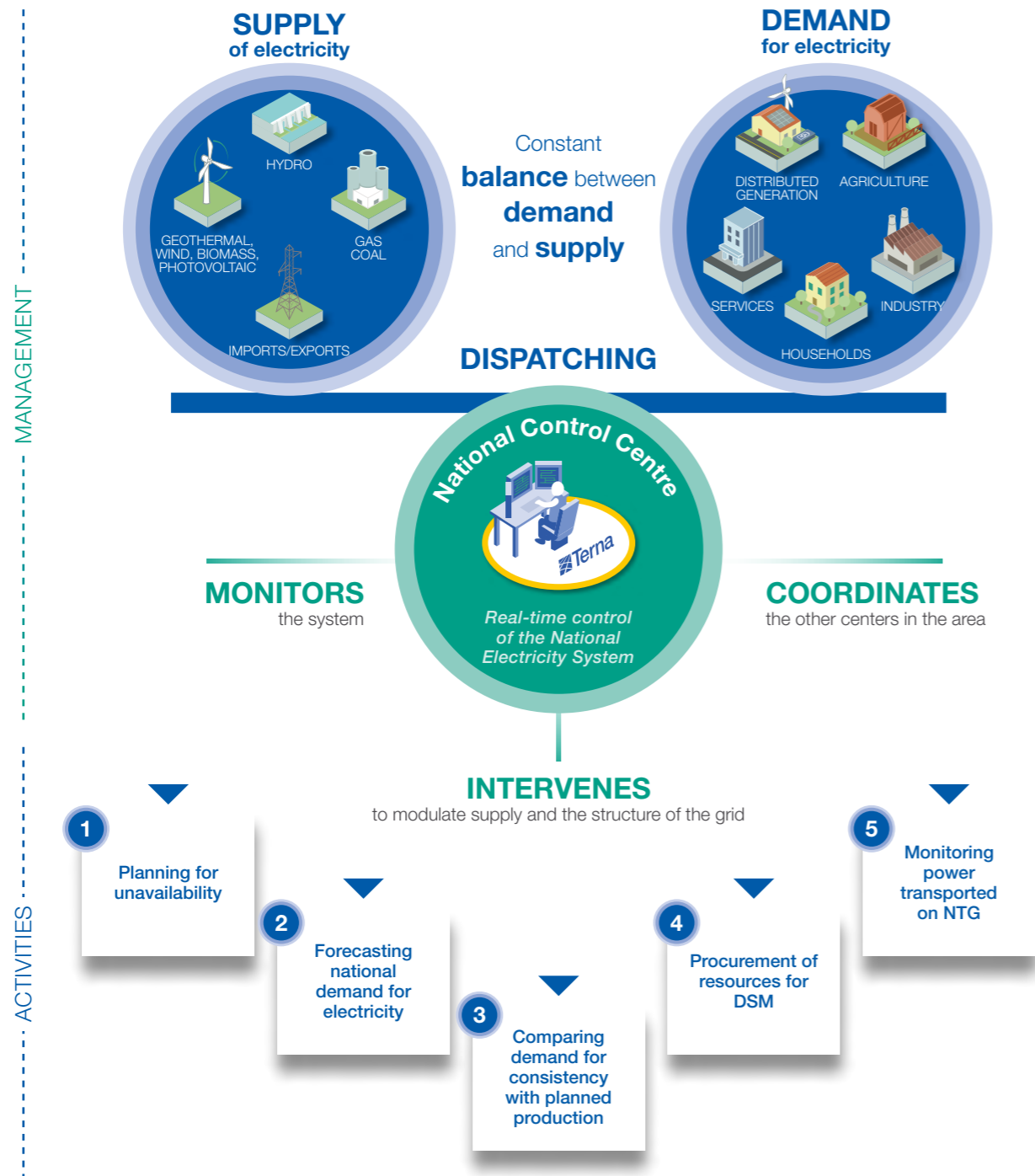
<sup>(\*)</sup> The figure for 2020 is provisional.

The ASA indicator refers to the observation period 2012-2020.



## Key dispatching activities

Dispatching activities aim to ensure that current quality and continuity of service standards are maintained over time. Key developments in 2020 are shown below.



### Safe management of the electricity system during the Covid-19 health emergency

From mid-March, the National Electricity System experienced **unprecedented operating conditions** due to the drastic load reduction resulting from the measures implemented by the Government to contain the Covid-19 pandemic (see also page 17).

These extraordinary operating conditions were determined by a reduction in demand for power at a time of year (spring) when the load is already low and renewable production is high. This made it difficult to regulate voltage, partly due to the lower number of available thermoelectric plants and an uneven load variation between the various regions of Italy. (The reduction was initially very sharp in the northern regions most affected by the epidemic, where demand is highest).

In this situation, the Dispatching unit implemented a series of effective **countermeasures to ensure continuity of the national 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 2020, three live tests were successfully conducted, followed by the related black starts.

Black start testing was carried out in Trentino-Alto Adige in September, in Sicily in October, and in Tuscany and Emilia-Romagna in November.

### Opening up of the DSM to new types of resource

On 20 November 2019, Terna published<sup>13</sup> a document, to be consulted on with entities interested in making use of the **Fast Reserve** service, in the "Pilot Projects" section of its website.

These projects aim to increase the resources available to provide grid services, try out new forms of revenue and test new kinds of fixed-term procurement of resources, partly in view of the future scenarios described in the proposed National Integrated Plan for Energy and Climate (PNIEC).

The Fast Reserve service can thus contribute to system security by improving the speed of response to frequency changes, a service up to now provided by traditional generating plants, which provide a slower response.

The auction for provision of this service was held on 10 December 2020. A high number of bidders participated in the auction: 53 operators and 117 Fast Reserve Units, with allocation of power totalling approximately 249.9 MW.

<sup>13</sup> Resolution ARERA 300/2017/R/eel establishes a process of progressive opening up of the dispatching services market (DSM) to new types of resource, including storage systems and distributed demand and generation, to be implemented via pilot projects.



**TERRE project**

The TERRE (Trans-European Replacement Reserve Exchange) project began in 2013 as an early implementation of the Electricity Balancing Guidelines regarding the design, development, implementation and management of a **platform to share balancing resources among European countries**.

The project involves 11 countries of which nine are full members (France, the UK, Switzerland, the Czech Republic, Poland, Spain, Portugal, Romania and Italy) and two are observers (Bulgaria and Hungary).

The platform successfully went live on 13 January 2021. Italy is connected to “Region 1”, which also includes France, Switzerland, Spain and Portugal (see also page 156).

**European regional coordination initiatives<sup>14</sup>**

On 20 November 2020, Terna and the TSOs of Greece, Romania and Bulgaria, set up the **holding Company SEIeNe CC S.A.**, a jointly owned company under Greek law, thereby creating the Regional Security Coordinator (RSC) of the South East Europe region (“RSC”). The RSC will be responsible for coordinating the management of electricity transmission systems, frequency quality and the efficient use of interconnected resources.

Within the group, the holding company owns the subsidiary ESPERIA-CC S.r.l., which has a 99% stake, while Terna has a 1% stake and exercises control via a shareholders’ agreement. The company acts as Regional Security Coordinator for the GRIT region, which includes the borders between the market areas within the Italian system and the interconnector with Greece.

**Montenegro-Italy connection**

Entering service at the end of 2019, the 600 MW HVDC Montenegro-Italy connection, built by Terna between the electricity stations at Cepagatti (PE) and Lastva, located within the municipality of Kotor in Montenegro, has a total length of 445 km, of which 423 km comprises submarine cables, laid at a maximum sea depth of 1,200 metres and up to 700 metres underground.

During 2020<sup>15</sup>, approximately 1,600 GWh were imported from and approximately 1,000 GWh exported to Montenegro.

<sup>14</sup> These are initiatives to implement Regulation SO GL 2017/1485.  
<sup>15</sup> Provisional operating data.



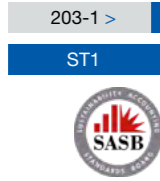
**Coupling with Greece**

On 15 December 2020, all operations relating to the **coupling of the Greek and Italian electricity markets were successfully completed**.

Market coupling enables integration of electricity markets and ensures energy flows from the lower-price country to the higher-price country. This benefits end-consumers by helping to reduce price differentials with neighbouring markets, optimising the use of transport capacity on the interconnector and improving the overall efficiency of the Day-Ahead Market.

In particular, market coupling enables use of interconnection capacity without the need to explicitly acquire physical transmission rights prior to importing or exporting electricity, via an implicit auction mechanism whereby capacity is allocated and valued on the Day-Ahead Market, at the same time as the electricity.





# Planning

## and investment for the ecological transition

In the ecological transition, Terna has the dual role of director and enabler. This involves continuing to provide the entire country with a secure, high-quality electricity service at the best price, and promoting the integration of renewable sources as far as possible, either by directly connecting them to the grid or through grid upgrades, and by improving grid management capabilities when using non-programmable renewable sources to meet high demand.

**Increased use of renewables and development of the electricity grid go hand in hand. Indeed, the latter is an essential enabling factor for the former.**

Terna's activities are, therefore, an integral part of the form of sustainable development set out in the United Nations Sustainable Development Goals and, especially, in Goal 7 ("Affordable and clean energy"), Goal 9 ("Industry, innovation and infrastructure"), Goal 13 ("Climate action") and Goal 17 ("Partnership for the goals").

For the specific implementation of its contribution to the achievement of these SDGs, Terna relies on five main instruments:

- investment in development of the transmission grid (the Development Plan);
- investment in security of service (the Security Plan);
- investment in the resilience of the grid and the service (the Resilience Plan contained in the Security Plan);
- asset management (the renewal and maintenance of infrastructure);
- innovation aimed at supporting the transition to renewables and promoting energy efficiency.

### GROUP CAPITAL EXPENDITURE (€M)

	2020
Development Plan	484.9
Security Plan	228.0
Renovation of electricity assets	409.7
Other capital expenditure	110.8
<b>Total regulated assets</b>	<b>1,233.4</b>
Non-regulated assets*	107.6
Capitalised financial expenses	10.1
<b>TOTAL CAPITAL EXPENDITURE</b>	<b>1,351.1</b>

\* Non-regulated capital expenditure primarily relates to private interconnectors, the Brugg group (primarily contracts falling within the scope of application of IFRS 16), re-routings carried out for third parties and activities in Peru.

## Benchmark SDGs: targets and actions

SDG	TARGET	TERNA'S ACTIONS
	<p><b>7.1</b> - By 2030, ensure universal access to affordable, reliable and modern energy services.</p> <p><b>7.2</b> - By 2030, increase substantially the share of renewable energy in the global energy mix.</p> <p><b>7.a</b> - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.</p>	<p><b>7.1</b> - Focus on innovation to increase energy efficiency and contribute towards decarbonisation of the economy (see page 194); Carry out the investment provided for in the Development Plan (see pages 76 and 177); Seek new non-regulated business opportunities (see page 69).</p> <p><b>7.2</b> - Carry out the investment provided for in the Development Plan (see pages 76 and 177).</p> <p><b>7.a</b> - Play an active role in policy coordination at international level (ENTSO-E, see page 154) and develop overseas operations (see page 71).</p>
	<p><b>9.1</b> - Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.</p> <p><b>9.a</b> - Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States.</p>	<p><b>9.1</b> - Carry out the investment provided for in the Development Plan (see pages 76 and 177) and implement the Resilience Plan (see page 191); Construct cross-border interconnections (see page 185).</p> <p><b>9.a</b> - Develop International Activities (see page 71).</p>
	<p><b>13.1</b> - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.</p>	<p><b>13.1</b> - Implement the Resilience Plan; Research and Development; Innovation: focus on innovation to increase the resilience of the NTG (see page 191).</p>
	<p><b>17.16</b> - Enhance the global partnership for sustainable development complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technologies and financial resources to support the achievement of sustainable development goals in all countries, particularly developing countries.</p> <p><b>17.17</b> - Encourage and promote effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of partnerships.</p>	<p><b>17.16</b> - Play an active role in policy coordination at international level (ENTSO-E, see page 154) and develop overseas operations (see page 71); Active participation in the CFO Task Force for Sustainable Development of the Global Compact (page 104); Sustainable finance initiatives (page 105).</p>

ST1  
ST2



# Development of the National Transmission Grid

Each year, Terna prepares a National Transmission Grid (NTG) Development Plan<sup>16</sup>, which sets out the grid development initiatives envisaged over the next ten years, as well as the state of progress of the development works planned in previous years.

By analysing electricity flows through the grid and developing supply and demand projections – including the growing production from renewable sources – Terna is able to identify grid upgrade requirements and, consequently, to plan the new works needed to ensure the adequacy of the system.

The Plan contains all 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. At the same time, it represents the community's need for a secure, efficient electricity service and Terna's commitment to meet that need.

All investment in development of the grid is subject to a prior **cost-benefit analysis**, comparing the related expenditure with the resulting benefits, expressed in monetary terms. Cost-Benefit Analysis Methodology (CBA 2.0) entails an important alignment with the criteria and methods applied by ENTSO-E and considers and includes indicators of environmental and social benefits.

A positive cost-benefit ratio is a necessary condition of the investment's inclusion in the Development Plan.

The Development Plan is assessed and approved by the Ministry for Economic Development, following the outcome of the public consultation<sup>17</sup> organised by ARERA, and is submitted for evaluation by the grid users' Consultation Committee (also see page 151).

The Plan is also subjected to a Strategic Environmental Assessment (SEA)<sup>18</sup>, with a view to incorporating environmental considerations when preparing the plan, thereby ensuring its environmental sustainability.

<sup>16</sup> Starting with the 2021 Development Plan, the Plan will be drawn up every two years.  
<sup>17</sup> Pursuant to art. 36.13 of Legislative Decree 93/11.  
<sup>18</sup> Or, if necessary, to the procedures for verification of eligibility for the SEA procedure pursuant to Legislative Decree 1 of 24 January 2012.

## 2021 Development Plan

Grid development is one of the key enabling factors in the transition to the future energy system.



Terna's 2021 Development Plan aims to design the grid of the future and, to achieve this, four drivers have been identified:

the electricity system's transition to complete decarbonisation requires use of all the tools necessary in order to fully integrate renewable production plants in order to reduce emissions in the long term.



**Decarbonisation**

the structure and mix of Europe's power generation in general and of Italian generation in particular are undergoing a radical transformation, just as transmission lines are being developed in keeping with new European directives regarding Market Design. The adoption of new mechanisms at national level (in particular, the Capacity Market and the reform of the dispatching services market) will have a major impact on development of the electricity system.



**Market Efficiency**

ensuring the security of the national electricity system and the quality of the service, and creating an increasingly resilient system, capable of handling critical events external to the system itself.



**Security, quality and resilience**

the ability to plan, design and implement on the basis of rigorous analyses that maximise environmental benefits together with economic benefits is the only possible guarantee of sustainability.



**Sustainability**

The drivers of the 2021 Development Plan are pursued along five lines of action:

**PRIORITISATION OF WORKS**

Reorganise the works mix, focusing on the most useful electricity projects that can guarantee the greatest benefit for Italy.

**GRID OPERATION**

Identify and develop initiatives aimed at improving grid operation, with a special focus on enhancing the quality of service and the resilience of the system.

**INTEGRATION WITH LOCAL PLANNING**

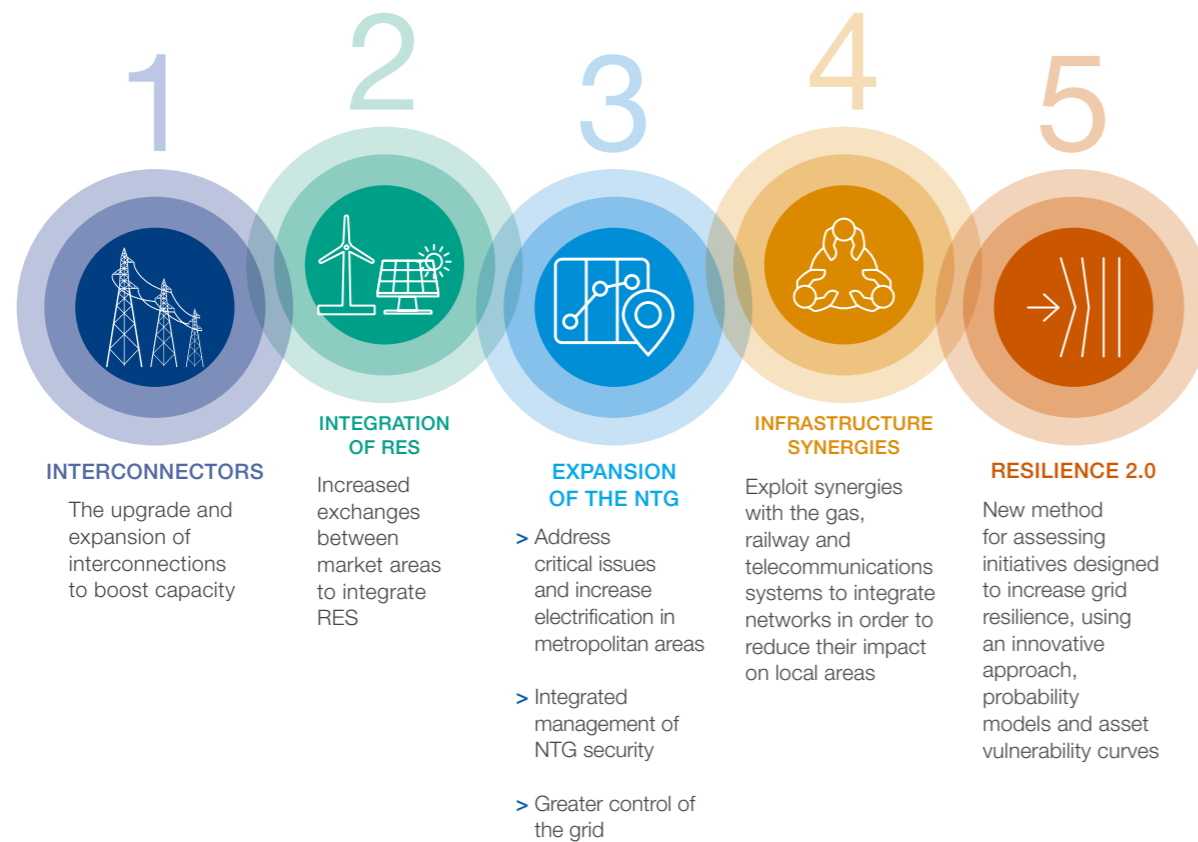
Focus on local development needs in response to Italy's new challenges, such as the new electric mobility projects, paying attention to metropolitan areas and reviewing projects in order to make them eco-sustainable.

**ENVIRONMENTAL SUSTAINABILITY**

Support and guide the ecological transition through the expanding connection and integration of new renewable energy plants.

The key project guidelines have been divided into five lines of action, the main aspects of which are:

**MAIN LINES OF ACTION OF THE 2021 DEVELOPMENT PLAN**



**Reducing CO<sub>2</sub> emissions in the electricity system**

GA3

The policies of the European Union strongly urge an increase in the energy efficiency of energy systems, and greater penetration of technologies with low environmental impact. These measures are ultimately aimed at reducing greenhouse gas emissions as much as possible, especially CO<sub>2</sub>.

The electricity transmission system plays a central role in the integration of energy technologies that enable emissions reduction. Investment in the transmission network is a key tool for achieving the objectives set out at Italian and European level (see also the EU Taxonomy Regulation on page 153), via two main channels:

- a reduction in grid losses;
- better exploitation of power generation resources by shifting production quotas from plants with lower yields – which are nevertheless necessary to cope with grid constraints – to more efficient plants powered by less emissive energy sources (e.g. gas), or to plants powered by renewables.

In the medium to long term ahead of 2030, the various scenarios show the positive effects of development initiatives in terms of cutting emissions. These effects vary, in terms of amount, depending on the scenario analysed. The analyses carried out show that the amount of CO<sub>2</sub> avoided by reducing losses and increasing the efficiency of thermoelectric power plants could reach a maximum value of around 2.1 million tonnes by 2030, particularly under the PNIEC scenario.

**Reduction in grid losses**

< EU12

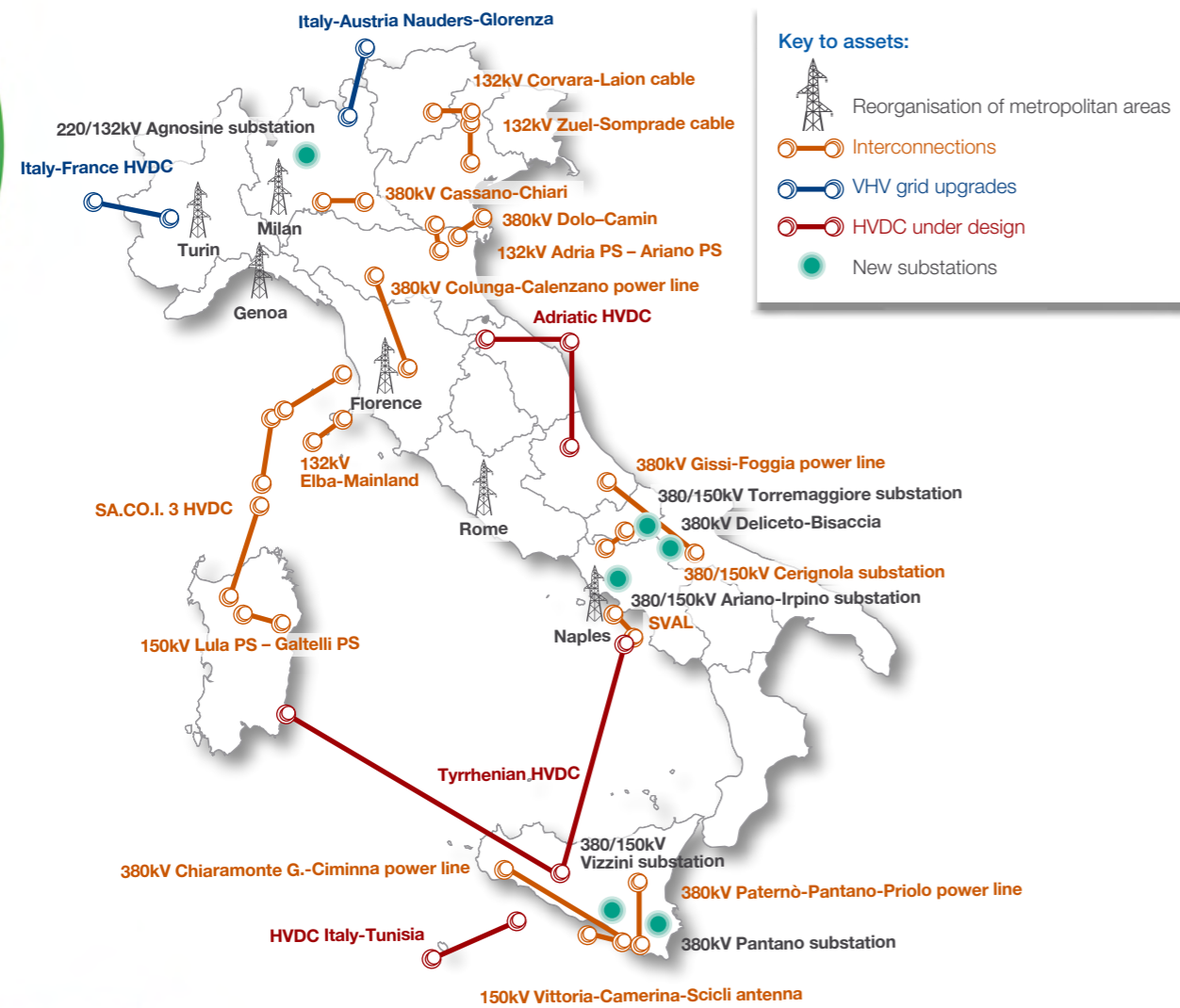
Reducing losses on the transmission grid – with equivalent consumption – leads to a decrease in electricity production by power plants operating throughout Italy, with a consequent reduction in CO<sub>2</sub> emissions linked to production from thermoelectric sources.

**Improvement in the production mix and interconnections with other countries**

Assessment of the increase in the operating efficiency of thermoelectric power plants resulting from the principal upgrades of the NTG is based on simulations that enable evaluation of representative scenarios of different stages of progress in developing the grid.

In particular, dispatching obtained on the Day-Ahead-Market is compared in two situations: one characterised by an expected easing of constraints on interconnection capacity due to the implementation of planned works, and the other characterised by the current constraints on interconnection capacity. Via this analysis, it was determined that reducing interzonal congestion will lead to the replacement of lower yielding plants, with either more efficient production plants or through greater integration of renewable production.

## State of progress in implementing previous Development Plans



### STATE OF PROGRESS OF PREVIOUS PLANS AT 31 DECEMBER 2020

INTERCONNECTORS AND LINES	TERNA KM	STATUS
Italy-France interconnector	190	Under construction
Italy-Austria interconnector	24	Under construction
Italy-Switzerland interconnector	100	Awaiting consents
Italy-Slovenia interconnector	114	Awaiting consents
Sardinia-Corsica-Italy interconnector	540	Awaiting consents
HVDC Centre South-Centre North	221	Consultation
HVDC Italy-Tunisia	200	Consultation
HVDC Mainland-Sicily-Sardinia	950	Consultation
Sorrento Peninsula interconnector	20	<b>Entered service</b>
Restructuring metropolitan areas	182	Under construction
Chiamonte-Gulfi-Ciminna	173	Awaiting consents
Upgrade in the Mid Piave Valley	90	Awaiting consents
Colunga-Calenzano	85	Under construction
Gissi-Foggia	140	Awaiting consents
Cassano-Chiari	36	Under construction
Deliceto Bisaccia	36	Under construction
North-Calabria upgrades	10	Awaiting consents
Paternò-Pantano-Priolo	63	Under construction
Elba-Mainland	35	Awaiting consents

The Sorrento, Stornarella and Selegas substations have entered service, forming part, respectively, of the Sorrento Peninsula HV grid reorganisation project, the HV grid works relating to the harnessing of renewable energy in the area between the provinces of Foggia and Barletta, and the 150kV Selegas substation project.



Substations



### Capri-Mainland connection inaugurated - an example of full integration within the environment

In the presence of the Prime Minister and Terna's CEO, Stefano Donnarumma, the new power line connecting the island of Capri to the mainland was inaugurated in October.

This technologically advanced power plant, in which Terna has invested a total of €150 million, will enable Capri to be supplied with renewable energy and the elimination of polluting emissions, thanks to decommissioning of the current oil-fired power station, while at the same time increasing the island's security.

The new power line, which is invisible as it is entirely laid under water, will ensure a higher quality, and more reliable and efficient local electricity service, as well as considerable environmental and economic benefits for the community. Indeed, thanks to the new connection, Capri will become a fully-fledged part of the national electricity grid, with savings for the community and the electricity system estimated at around €20 million per year and an annual reduction of 130,000 tonnes of CO<sub>2</sub>.

The entry into service of the Capri-Sorrento line is also linked to the project to reorganise the electricity grid on the Sorrento Peninsula, which will allow Terna to dismantle almost 60 km of old, obsolete overhead lines, thereby freeing up valuable land in an area with excellent business prospects.

The work was carried out using technologies with minimal environmental impact: the submarine cables were laid at a depth of more than 100 metres using special engineering techniques (including directional drilling at the points where the cables make landfall) that enabled limitation of interference with marine ecosystems and preservation of the *Posidonia oceanica* seagrass meadows along the coast, leaving habitats unaltered and at the same time guaranteeing protection of the electricity connection.

The Capri electricity station is also a unique example of innovative electricity infrastructure design at global level. Built on an area of approximately 2,700 square metres adjacent to the Gasto recycling depot, the station is the outcome of an international competition organised by Terna and won by Frigerio Design Group, which envisaged the application of various innovative solutions to blend the building within the area's prestigious landscape as seamlessly as possible.

The building is one of the nine projects selected in the "Production" category for The Plan Award 2020, an international award for excellence in architecture. The layout of the station has been designed taking into account the topography of the terrain, using the limestone steps in the area as retaining walls or buildings, while the vegetation that grows spontaneously in the empty spaces helps to mitigate the building volumes.

Work on the foundations of the Sorrento electricity station also uncovered a Roman necropolis consisting of 49 tombs on three levels. The discovery was deemed of particular interest by the Superintendence for Environmental Heritage, which appreciated the care Terna took during the unearthing operations.

## Connecting new plants

Terna has an obligation to connect all potential users requesting connection to the grid<sup>19</sup>, identifying connection solutions in terms of criteria that guarantee the continuity and safe operation of the grid to which an applicant's new plant will be connected.

In particular, Terna is responsible for high and very high voltage connections to the NTG of plants with a capacity of 10 MW or more.

At any one time, Terna handles over 2,400 applications for connection to the grid in relation to future or existing initiatives.

More than 1,500 applications for connection using the general minimum technical solution, relating in particular to the connection of plants using renewable energy sources (RES) to the NTG and representing total capacity of 69.5 GW, are currently in progress.

The publication of the Decree of the Minister for Economic Development and of the Minister for the Environment (4 July 2019), providing incentives in the three-year period 2019-2021 for electricity produced by plants powered by onshore wind, solar panels, hydro power and residual gas from treatment processes, has rekindled interest in the development of projects for RES plants and a rapid increase in applications for new connections to the NTG.

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

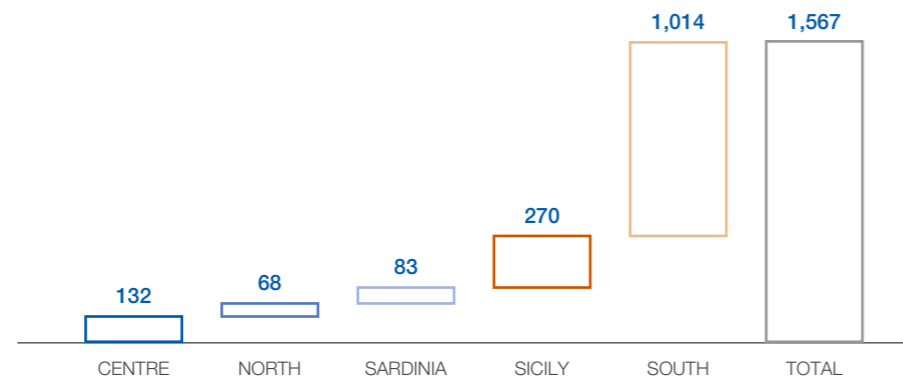
This shows that:

- 87% of the applications received are from southern Italy and the islands (representing capacity equivalent to over 89% 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;
- 30 connection contracts were signed in 2020 (representing total capacity of more than 700 MW), relating to the construction of new RES plants.

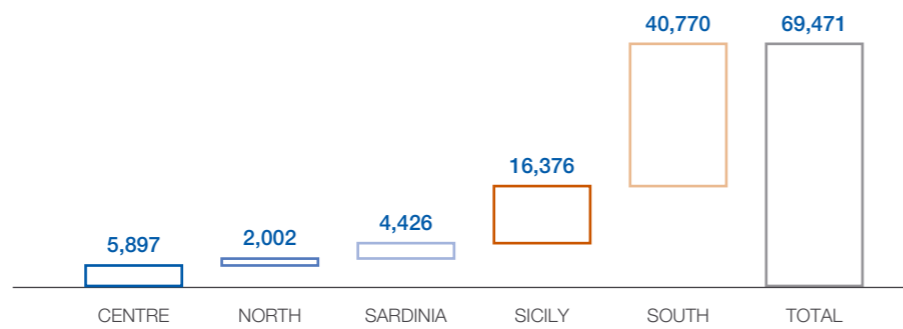
The chart below shows RES connection applications for connection to the NTG managed by Terna, broken down by source and geographical distribution.

<sup>19</sup> Legislative Decree 79 of 16 March 1999 – art. 3, paragraph 1: "The Operator has the obligation to connect all those making such a request to the National Transmission Grid, without compromising continuity of service and provided the technical rules as per paragraph 6 of this article, and the technical and financial terms and conditions for access and interconnection established by ARERA, are complied with".

**NUMBER OF APPLICATIONS**

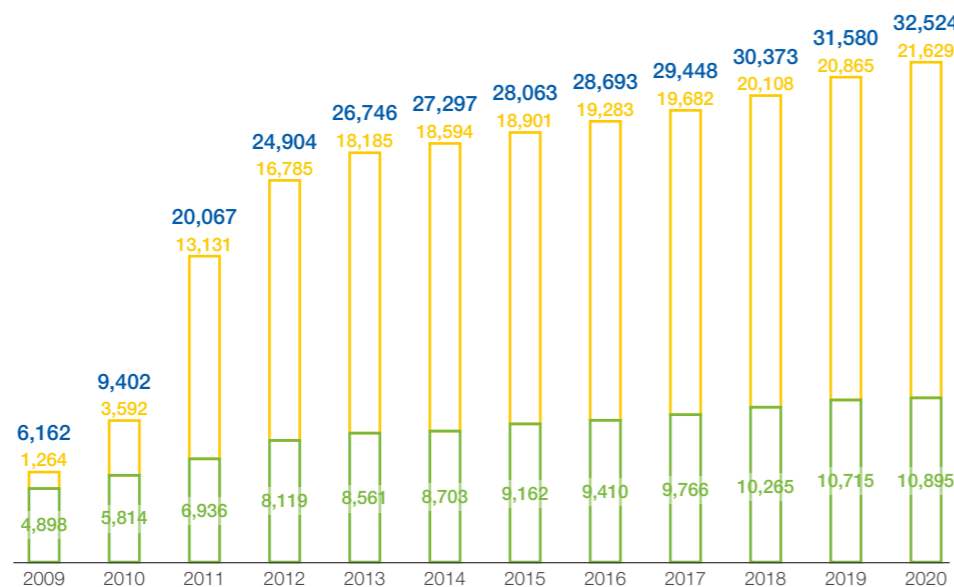


**CAPACITY IN GW**



Data at 31 December 2020.

**INSTALLED PHOTOVOLTAIC AND WIND CAPACITY 2009-2020\* (GW)**

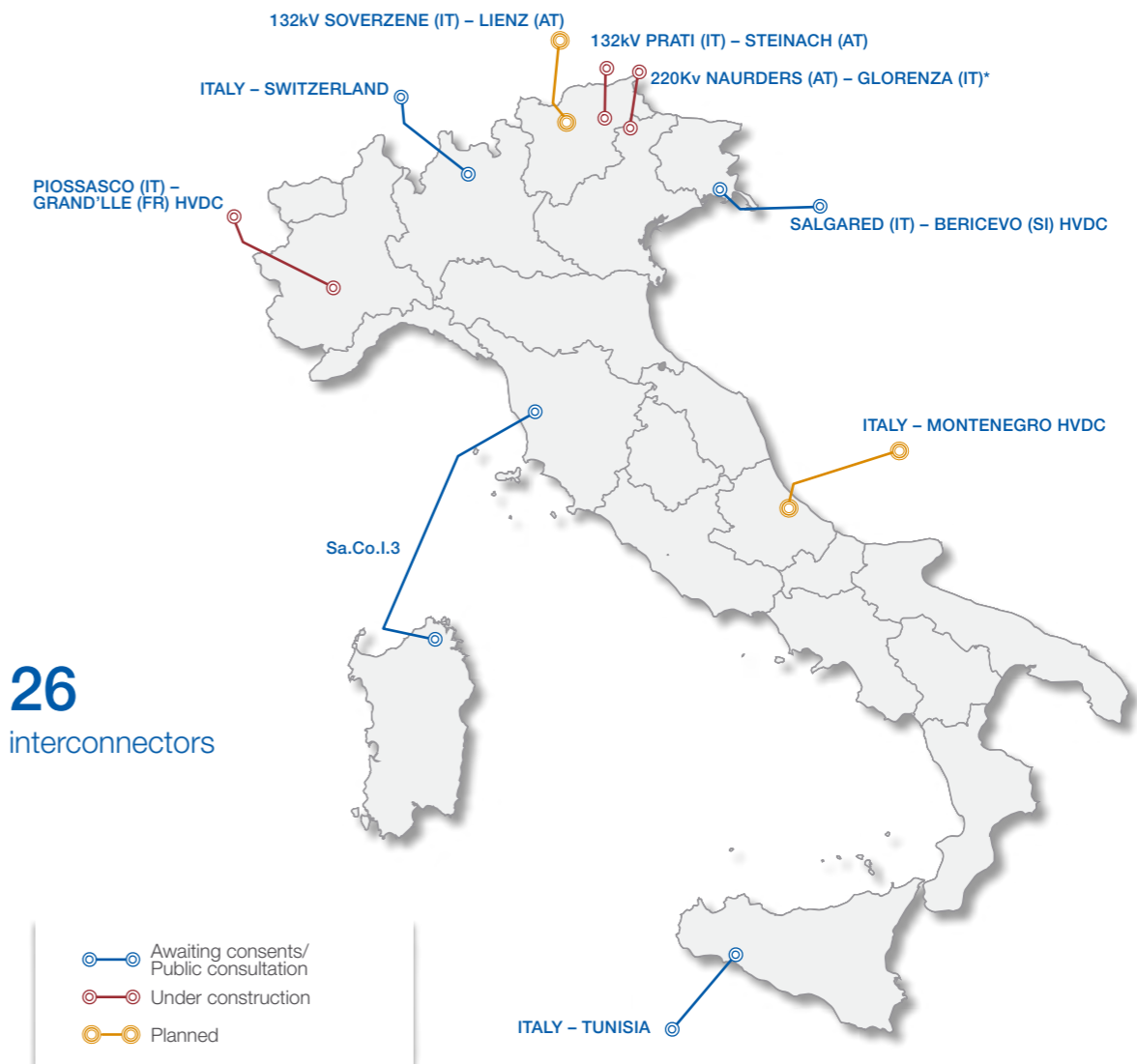


\* Provisional data from Terna for 2020.

**Overseas interconnections**

Its geographical position makes Italy a natural hub in the Mediterranean area and it can count on an electricity border made up of 26 interconnectors<sup>20</sup>, in addition to new lines under construction.

This development work (shown on the following map) aims to increase interconnection capacity (Net Transfer Capacity - NTC) on the electricity borders with foreign countries, enabling a reduction in energy procurement costs and the integration of markets, with the possibility of having more resources for use in managing the Italian and European electricity system.



\* Start preparatory activities for the realization of the work.

<sup>20</sup> These include 3 merchant lines, or lines not owned by Terna, and the Italy-Malta connection owned by Enemalta.

## Private interconnectors pursuant to Law 99/2009

In order to support the development of a single electricity market by expanding the infrastructure needed for interconnections with other countries, EU legislation was introduced, setting 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 – on the basis of public tenders – undertakings willing to finance specific interconnectors in exchange for the benefits deriving from them.

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

These include the interconnectors for the borders with Montenegro (project completed in December 2019), France (at an advanced stage of completion), Austria (preparations are being made to start construction of the connection), Slovenia (currently awaiting the necessary consents) and Switzerland.

### Private “Italy-Montenegro” interconnector

On 28 December 2019, the first module of the 500kV direct current interconnector line between the substations of Villanova (IT) and Lastva (ME) entered commercial service. With a total length of approximately 445 km, and built partly with a submarine cable and partly with a terrestrial cable, it has enabled creation of 600 MW of interconnection capacity between Italy and Montenegro, of which 200 MW is available to the private backers selected in accordance with Law 99/09.

From the date of entry into commercial operation of the asset until the end of the exemption period, Terna will manage routine and special maintenance activities and operate the interconnector on behalf of Monita.

### Private “Italy-France” interconnector

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.

In implementation of Law 99/09, the Terna Group continued work on construction of the private line (corresponding to the Italian portion of one of the two direct current bipoles of the interconnection line) on behalf of Piemonte Savoia S.r.l. (Pi.Sa.), which was transferred to selected private backers in 2017, following the granting of the exemption decree for a capacity of 350 MW.

At the end of 2020, on a total of approximately 95 km of the Italian portion of the connection, connection cables for the entire section, which runs along the A32 motorway and through the Frejus motorway tunnel, had been laid, whilst the installation of fibre serving the interconnection is still in progress.

The civil works for the Piossasco converter station and assembly of all the equipment had been completed by the end of 2020. Preparation and testing of the protection system and checks of the functioning of the converter are in progress.

Due to works delays in both Italy and France caused by the Covid-19 health emergency, the interconnector is currently scheduled to come into operation in the second half of 2021.

### Private “Italy-Austria” interconnector

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 26 km of underground cable 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.

On 18 April 2019, Terna received clearance for the laying and operation of the 220kV cable for the Italian section between the Glorenza substation and Passo Resia, which, together with enlargement of the Glorenza substation and the related works, comprises the Italy-Austria interconnector envisaged pursuant to Law 99/09. Similarly, the Austrian grid operator has obtained all the consents needed for its part of the project.

In October 2019, the Ministry for Economic Development issued a decree to transfer the consents relating to the interconnector to Resia Interconnector S.r.l. (“Resia”), the special purpose vehicle set up in July 2018 by the Terna Group to prepare and expedite – on behalf of the private lenders – the application for exemption from third-party access rights for capacity of 150 MW, and to execute the works.

In March 2020, the exemption process formally began with Resia submitting an exemption application to the Ministry for Economic Development. The Ministry for Economic Development subsequently submitted the exemption application to ARERA to enable the regulator to issue its opinion. On 6 May 2020, Resia submitted the application for exemption, translated into English and German, to the Austrian regulator, E-Control. On 17 November 2020, ARERA granted its approval for the issue of the exemption decree to Resia.

### Private “Italy-Slovenia” interconnector

The creation of a direct current line is planned, partly in undersea cable, between the substations of Salgareda (IT) and Divača/Beričevno (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.

### Private “Italy-Switzerland” interconnector

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

# Asset management

Asset management includes all the activities that enable Terna to operate and maintain its assets, in accordance with the principles of sustainability, operational efficiency, quality and safety, while optimising returns on investment in order to create value for our stakeholders.

The Asset Management system entails a structured approach based on best practices for managing assets throughout their lifecycle, taking into account the related cost cycles and associated risks. It combines management of financial, economic and engineering aspects and includes management of all the phases that make up the lifecycle of infrastructure: design, construction, commissioning, monitoring, maintenance, repair/replacement and, finally, decommissioning.

Terna's main benchmark is the international standard, ISO 55001:2014 "Asset Management-Management Systems-Requirements", which specifies the requirements for an optimal asset management system.

In 2018, Terna became the first Italian company to obtain ISO 55001:2014 certification for its tangible assets management system; the scope of the certification includes high voltage power lines and high voltage substations.

To achieve the objectives set out by the asset owner, the Asset Management department prepares an Asset Management Plan (AMP), which contains all the monitoring, maintenance and renewal/replacement activities planned for assets, based on an analysis of their technical condition, as well as analytics and/or statistical analysis of recorded anomalies and breakdowns.

In 2020, including during the pandemic, in order to achieve the objective of maintaining the quality of service without reducing asset monitoring actions, a contingency plan was drawn up and applied for high voltage power line inspections and high voltage substation checks based on a change in the make-or-buy mix for some activities, and a change of operating method for others.

## Infrastructure maintenance

Maintenance of electricity grid infrastructure is essential in order to guarantee quality of service.

The tools used to support maintenance activities are subject to continuous innovation, as regards identification of the most suitable interventions (using a decision support system called MBI-Monitoring and Business Intelligence), as well as the scheduling and execution of operations (using a WFM - Work Force Management system).

### Infrastructure monitoring and control

- 37,353 checks on substations of various voltage levels (34,740 in 2019). There was a marked increase in checks compared with the previous year;
- visual inspections of 118,280 km of power line, of which 79,350 km using helicopters (visual + infra-red) with an average total frequency of around 1.7 inspections a year for each transmission line;
- a further 73,769 km of power line underwent instrumental controls, both from the ground (2,188 km of power lines), and from the air using helicopters (71,581 km of power lines) to operate flights that use laser scanning surveys to identify any obstructions, particularly trees;
- inspections of 64,764 km of underground cable with a total average frequency of approximately 34 inspections per year.

### Routine maintenance

Repairs are carried out when signs of deterioration are identified as a result of the monitoring process or by on-line sensors. These indications and any problems identified are processed by the expert system used to support decision-making (MBI-Monitoring and Business Intelligence). This system draws up the maintenance plan on the basis of engineering models developed by the Asset Management department.

### Vegetation management

During 2020, vegetation was cut back on around 24,000 km of power line; this has to be done to ensure the correct and safe operation of the lines.

### Live line working

Approximately 1,922 checks and line maintenance interventions using live-line working were carried out. These activities, performed with the line in operation, increase the availability of the infrastructure and help to improve quality of service.

## Renewal Plan

The asset Renewal Plan ("RP") is a set of interventions involving the partial or total replacement of systems or individual components, identified on the basis of an analytical assessment of their technical state, with priority given to assets with the highest health index (HI) and/or failure rate and/or age.

Renewal work is associated with three types of benefit:

- **Sustainability:** resulting from the use of more eco-friendly components, the installation of equipment with vegetable oil insulation, the replacement of fluid oil cables and improvements to the reliability of assets;
- **Innovation and digitalisation:** reflecting the adoption of monitoring systems for existing assets using digital and innovative solutions;
- **Resilience:** work on strengthening the NTG in order to increase the resilience of the infrastructure.

Renewal work (the replacement of components and entire systems) was carried out in 2020 at a cost of approximately €409 million in order to prolong the useful lives of power lines and substations. In terms of power lines, 2,303 km of conductors, 3,178 km of ground wires and 258 pylons were replaced; in terms of substations, 32 static machines, 177 circuit breakers, 406 disconnectors, 601 current transformers and 1,198 voltage transformers were replaced.

ST3

## Security and resilience of the electricity system



The Improvement Plan for Systems to Protect the Security of the National Electricity System (hereinafter “Security Plan”), which is prepared by Terna and approved by the Ministry for Economic Development<sup>21</sup>, is a four-year programme that sets out initiatives to protect the security of the electricity system.

The **2021 Security Plan**, which is the **18<sup>th</sup> edition**, updates the initiatives to protect the security of the electricity system for the **four-year period 2021-2024**.

The Security Plan is fully in line with the evolution of the energy sector towards scenarios characterised by an increase in renewable energy sources, decommissioning of thermoelectric power plants and climate change.

The **key drivers** for the 2021 Security Plan are:

In its capacity as TSO, Terna is responsible for managing the electricity system, and has the key role in the ecological transition process of dealing with the new grid operation paradigms arising from the gradual decommissioning of Italy's thermoelectric assets. This is accompanied by increased production from renewable sources on medium voltage/low voltage (MV/LV) networks that are not directly connected to the TSO network, entailing problems primarily regarding reduction of inertia, voltage regulation and the quality of grid node voltages.

In order to guarantee the security and stability of the electricity system, it is necessary to install:

- **synchronous compensators**, primarily in the areas of Central and Southern Italy, and in Sardinia and Sicily;
- **STATCOM** devices to control grid stability and improve voltage quality;
- **stabilising resistors** to ensure dynamic stability and reduce grid oscillations.

In a context in which extreme weather events are becoming more intense and severe, a broader, forward-looking approach must be taken towards increasing the resilience of the grid, with a view to identifying interventions that strengthen the network and enable it to withstand and/or prevent various types of stress, including in future scenarios.

The Security Plan identifies all possible solutions for increasing the resilience of the electricity grid, which when implemented are also consistent with the Plan's timeframe.

In particular, the 2021 Security Plan includes **infrastructure interventions** that are identified through application of the new **Resilience 2.0** methodology for events involving strong wind and ice and snow events.

Together with the new type of infrastructure intervention, the 2021 Security Plan confirms the **initiatives designed to mitigate** the effects of extreme weather events, especially those involving ice and snow. These include the installation of anti-rotation devices and interphase spacers, and the adoption of technological solutions that can prevent the occurrence of an event and speed up the resumption of service. Particular efforts are made to use Terna's existing infrastructure for the collection and transmission of environmental data to support **monitoring** and the physical resilience of the grid.

<sup>21</sup> Pursuant to Law 290 of 27 October 2003.

In a context where the complexity of the system, which must be correctly interpreted, and opportunities to access new data in order to manage network infrastructure more efficiently and effectively are increasing, data collection is a vital element for the security of the electricity system.

New digital technologies enable this transformation via the collection of as much data as possible, involving Internet of Things-IOT solutions, transfer of large data streams with reliable connectivity solutions (e.g., fibre optics,) and effective data analysis (e.g. advanced analytics).

Via the Security Plan, Terna promotes innovation projects for the construction of a digital infrastructure to support grid security, including:

- the creation of a comprehensive and highly redundant proprietary fibre-optic infrastructure, which is essential for enhancing the security of data transmission;
- the use of pylons as a vector for the collection of various types of data, thus enabling expansion of the scope of data available and improvement of the quality and effectiveness of the overall electricity system monitoring process.

As well as bringing great benefits and opportunities for the evolution of the electricity system, the introduction of new digital technologies also inevitably brings new cyber risks. This requires adoption of solutions aimed at preventing or mitigating cyberattack risk, guaranteeing adequate data security and enhancing the resilience of the digital services Terna provides.

The 2021 Security Plan delivers these objectives through its projects. They are divided into eight thematic areas, representing the specific areas of secure operation of the grid and its infrastructure, to which a ninth thematic area regarding grid resilience has been added as of this edition.

### Security and Resilience Plan 2.0

Previous editions of the Security Plan, as requested by the Ministry of Economic Development, contained a section on ice-snow resilience. Given the growing importance of this issue and the evolution of the methodological approach for identifying interventions to enhance resilience, starting from the 2021 edition of this Plan, it was deemed appropriate to dedicate a specific thematic area – the ninth – to collating all the types of intervention that Terna implements to enhance resilience in response to various types of weather event.

In collaboration with RSE, Terna has defined a new methodological approach, **Resilience 2.0**, with the following objectives:

- use of **probabilistic weather event prediction models** that provide modularity and replicability for **various types of weather event**;
- an **engineering** approach to assess the vulnerability of Terna's assets to extreme weather events, using **vulnerability curves**;
- quantification of the **probability of failures and multiple contingencies** and **their impacts on the electricity system**, in order to **identify**, via **cost-benefit analysis**, the **interventions needed to enhance the resilience** of the system.



**Digitalisation  
and system  
innovation**

ST3



**Grid security  
and stability**



**Resilience  
of the grid**

Thanks to the new methodology, a set of infrastructure interventions has been identified (construction of new cable lines and/or cable mesh for portions of the network), to enhance the grid's resilience in the event of extreme weather events, such as strong wind and ice/snow, as set out in the Security Plan in line with its aims and timeframe.

The new thematic area dedicated to resilience – including Resilience 2.0 infrastructure interventions as well as grid mitigation, renovation and monitoring – thus comprises a “catalogue” of the possible types of intervention Terna implements to enhance resilience in response to different types of weather event, which also underpin the new **Terna Resilience Plan**.

BM3



### Information and cyber security

In order to prevent and promptly manage cyber events, Terna has progressively consolidated its governance model and in 2020 set up a dedicated Cyber Security and Security Platform organisational structure. The Company also strengthened the monitoring and management of security events by creating a dedicated Cyber Defence Centre and defining a Cyber Security Platforms unit to manage cyber infrastructure.

On the regulatory front, greater attention has been focused on this issue at national and European level in recent years, including for example:

- the European Directive on Network and Information Security (“NIS”), which, for the first time at EU level, deals with cyber security and its implementing legislation in a comprehensive and cross-cutting manner;
- the National Cyber Security Perimeter (Law Decree 105/2019), aimed at ensuring a high level of security for the networks, information systems and IT services of public authorities, as well as of essential national, public and private services entities and operators, by establishing a well-defined perimeter and providing preventive measures and controls to guarantee the necessary security standards and minimise risks;
- Regulation (EU) 2016/679 of the European Parliament and of the Council (General Data Protection Regulation - GDPR).

Consequently, an internal control system has been set up that forms the Information Security Framework, consisting of a set of rules and procedures inspired by national and international reference standards (including: NIST, National Framework for Cyber security and Data Protection, ISO 27001). The model supports the main ICT processes, ensuring principles of segregation of tasks, and associating governance responsibilities with operational and cyber security event management responsibilities.

### Cyber security training

In continuation of similar previous initiatives, in 2020, Terna once again participated in specialist training events regarding cyber security issues. In order to maintain a high cyber security awareness profile, at all corporate levels, cyber alerts relating to the main current cyber threats have been constantly circulated via internal communication channels (intranet, etc.).

### Information security risk assessment

In 2020, the usual “information security assessment” initiatives were focused on cyber risks relating to the widespread introduction of smart working, in response to the Covid-19 emergency. The initiatives involved all ICT and cyber security departments responsible for managing the remote access and collaboration infrastructure.

### Penetration tests and vulnerability assessments

Penetration tests and vulnerability assessments were carried out independently and also with the support of external suppliers. In particular, vulnerability assessment/penetration test (“VA/PT”) and red team attack initiatives were implemented to assess the level of cyber security of IT systems, OT systems and systems exposed on the Internet. The analytical tests in these specific areas, as well as the executive and technical system reports, produced an accurate list of vulnerabilities, including details of the risks identified and the requests for monitoring of the recovery plans.

### Identity and Access Management (IAM)

The Identity and Access Management (IAM) process regarding the management of access authorisations to critical IT resources has been strengthened, with particular regard to third parties who remotely access Terna's management systems.

### Monitoring and cyber defence capabilities

During the year, the extension and update of security monitoring services for security systems and networks continued. The incident handling process is being reviewed from a joint Network and Information Security (“NIS”) and National Cyber Security Perimeter perspective, and the review of the related incident classification taxonomy has begun.

The cyber threat intelligence component regarding the ICS area and the Italian national perimeter have been strengthened, and the early warning capability regarding cyber threat intelligence concerning the OT area (Terna Industrial Domain) has been activated. The orchestration and automation platform for centralised automation of IT security processes (e.g. threat hunting, IoC enrichment, etc.) has been developed.



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](mailto:privacy@terna.it)) nor through other reporting or communication channels.

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# Innovation

The current **ecological transition** process requires a new systemic and organic approach to innovation, based around the acceleration of a portfolio of effective research, development and innovation initiatives in keeping with the Group's strategies.

Terna has decided to further speed up its innovation process via a centralised and coordinated vision, in order to promote research and development into ideas and synergistically manage the innovation ecosystem, so as to **enable the transition to the new TSO 2.0 model**.

The change brought about by the transition requires an increasingly intelligent and flexible electricity system management model, both at the level of the grid, thanks to 4.0 enabling technologies (the Internet of Things - IoT, big data, advanced analytics), and in terms of the market. This will bring about an unprecedented revolution that will rapidly result in the integration of distributed generation resources, storage and market demand for services, and the Europe-wide integration of national markets. Moreover, in the medium term, it will be necessary to ensure the progressive integrability and interoperability of electricity grids and other networks (transport, gas, water, etc.), in order to make the Italian and European economies stronger and more eco-sustainable.

## Innovation Plan 2021-2025

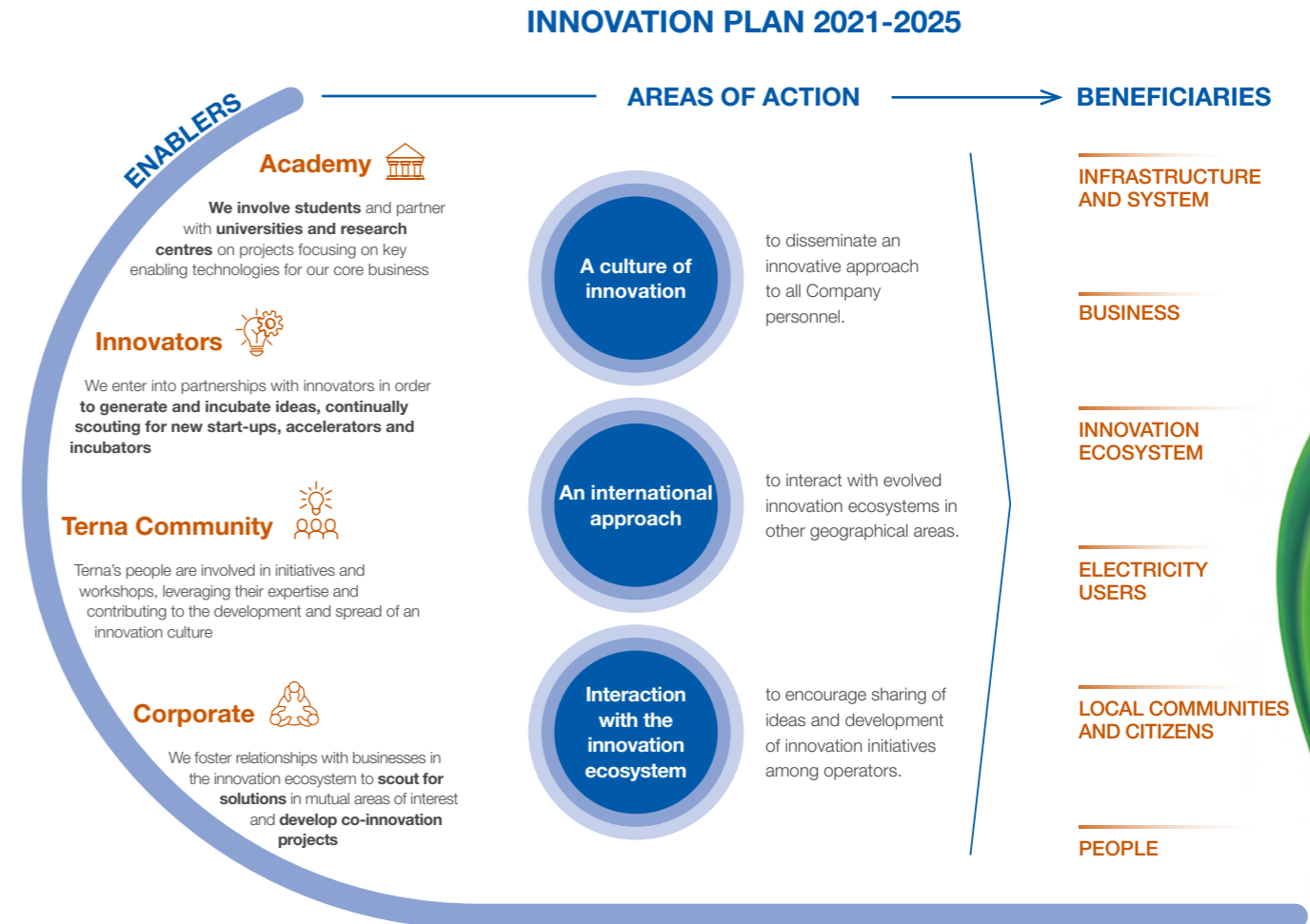
Innovation is one of the pillars of Terna's businesses. Indeed, in the new Business Plan 2021-2025 more than €900 million have been earmarked for **innovation and digitalisation**.

During the second half of 2020, Terna drew up the **Innovation Plan 2021-2025**, which sets out the new innovation model.

Terna has developed an innovation model geared towards meeting new needs and generating value for the Company and our stakeholders, via an approach that is:

- > **Concrete** (from needs to solutions, via a process that develops ideas and implements projects);
- > **Open** (with the involvement of external actors as enablers and beneficiaries);
- > **Inclusive** (with the involvement of the whole Company in the innovation process); and
- > **Distributed** (with gathering of needs and development of ideas and projects in the various organisational departments).

The new Innovation Plan is focused on critical enabling technologies, including a balanced portfolio of initiatives to grasp even the most disruptive challenges, which is achieved via three areas of action:



The Covid-19 emergency posed Terna another important challenge regarding digital systems to support operations strongly impacted by smart working during lockdowns.

Several initiatives have been implemented and launched that have enabled full remote operations, with a gradual shift of working practices towards a new normal. Specific actions have also been undertaken in support of internal processes and skills to promote and sustain **NexTerna**, a key element of the Company's resilience during the Covid-19 health emergency.

The initiatives provided for regard various technological clusters (Full Internet of Things, Advanced Materials, Energy Tech, Digital and Computing, Cybertech and Analytics), and the tools Terna has activated to develop innovation include:

- creation of **Terna Innovation Hubs**;
- implementation of an **Open Innovation** process;
- execution of projects within the **Innovation Hubs** via the **Innovation Factories and central departments**.

## Terna Innovation Hubs

Terna's Innovation Hubs are actual laboratories where new business projects can be created, developed and tried out.

The aim is to bring together a community of people with different experiences and skills, to promote skills integration and development of industrial solutions that can be applied on a larger scale. Synergy with the local community is vital, partly to identify excellence and distinctive skills in local areas.

In 2020, Innovation Hubs hosted the **Terna Start-hub** workshops, albeit virtually. These programmes provided for meeting days held at Terna Innovation Hubs, with the aim of generating ideas in the field of innovation, disseminating specialised content, and presenting best practices and examples of technological applications to the community of Terna's Transmission Operating Areas ("AOTs") nationwide.

Terna's "Innovation Houses" were also the venue for initiatives with universities, acting as transmitters for local innovation ecosystems.

At the **Milan Innovation Hub**, the first phase of development and training for the predictive modelling of electricity transits on a limited portion of the National Transmission Grid was completed. Three start-ups each implemented prototype software trained with the most up-to-date machine learning techniques, made available to Terna for an initial assessment and testing; the results obtained will be evaluated in the upcoming predictive maintenance and advanced analytics initiatives of the System Operator and Transmission Operator Innovation Factories.

The second phase, which is still in progress, involves two start-ups, and is aimed at an operational application to be used in short-term planning of the electricity system.

At the **Turin Innovation Hub**, research and development activities with the **ISI Foundation** were completed. With the support of various Company departments, a prototype algorithm was developed for forecasting the generation capacity needed for primary substations in a portion of the NTG using advanced analytics techniques. The application of advanced mathematics and statistics also enabled the project to investigate the issue of adequacy margins in the electricity system, defining the scope of potential future projects.

The continuation of the engagement phase after the third edition of **Next Energy** at the Turin Innovation Hub saw successful completion of the joint trials with the start-up **WaterView** regarding the potential for video cameras to identify the weather conditions leading to the formation of ice coatings. These trials will continue in 2021 with an application along new lines that are far from the transformer stations.

December 2020 saw the launch of the **Turin E.mobility Lab**, which involves testing the V2G behaviour of electric car charging station systems. In collaboration with Engie-EPS and FCA, the first facilities have been installed and initial testing has begun.

At the **Padua Innovation Hub**, together with the five start-ups selected following the Advanced Materials for Sustainability call (Numanova, RiceHouse, Iris Lab, Particular Materials and Linari Engineering) held in 2019, five innovative projects were launched, including the use of bio-materials to boost the energy efficiency of Terna's buildings, and the study and application of nano coatings to prevent the formation of ice on overhead power lines and ground wires.

## Open Innovation

The Open Innovation approach encourages the opening up of new development fronts within and beyond the Company, through dynamic interaction with universities and research centres and partnerships with peers and large industrial players, as well as access to start-ups and small and medium enterprises.

The portfolio of innovation initiatives is coherently organised through the Innovation Plan, from the birth of new ideas to the development of projects. The new initiatives are included in a framework encompassing the key areas of technological development Terna has identified: digital, energy tech, advanced materials, robotics.

In collaboration with universities and research centres, basic research is conducted on key enabling technologies for the core business, and ideas are also generated and incubated via specific agreements.

### Universities and research centres

- Agreements regarding research, development and innovation activities at Innovation Hubs, and teaching, training and networking activities at the **Universities of Padua** (June 2020) and **Naples** (December 2020); in May 2020 a similar agreement with the **Polytechnic University of Turin** was revised;
- A second research project was developed as part of the five-year partnership with the **University of Stanford** in California, involving selection of a Terna member of staff as a visiting scholar. The aim of the study is to design and test mechanisms to improve the efficiency of electricity markets in Italy.

### Idea generation initiatives

- In November, as part of the **Sustainable Materials Hackathon**, held with students from Padua University and in collaboration with UniSMART, an in-house company at the university, Terna awarded a prize to the coatings project for the renovation of overhead lines;
- The **Smart Tower Hackathon**, developed with the Polytechnic University of Turin and with the support of CLICK Torino concluded in July. This led to the prototyping of two solutions proposed in the idea generation phase regarding monitoring and warning tools for fire risk and air quality.
- Between March and October, Terna took part in the Veneto region **Contamination Lab** initiative, a multidisciplinary cross-contamination project involving university students, recent graduates, PhD students, teachers, experts, professionals and companies in which, thanks to the support of UniSMART, project challenges proposed by the participating companies are developed. The challenge launched by Terna comes within the scope of additive manufacturing and regards the application of 3D printing in corporate operations.

2020  
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Other initiatives: In October, Terna took part in the seventh edition of the **Startup Intelligence Observatory** promoted by PoliHub, which is sponsored by the Polytechnic University of Milan. This innovative research, scouting and community programme is aimed at innovation managers and people involved in corporate digital innovation.

Initiatives involving innovative companies, solvers and start-ups that propose ideas and solutions at various stages of technological maturity, with the aim of seeking new ideas or solutions, at different stages of maturity, which can create value for Terna.

#### Start-ups

- **Next Energy:** The fourth edition of this Open Innovation initiative, consisting of three Calls, aimed at researching and adopting new solutions and technologies to make the electricity system flexible and responsive to change by improving its safety, efficiency and sustainability, has come to an end:
  - the **Call for Talents**, which selected 10 new graduates, who, from January, had access to a 6-month internship at several of Terna's facilities. The internship went ahead despite the Covid-19 emergency, thanks to available smart working tools (see also page 136);
  - the **Call for Ideas**, which was won by the start-up Nemesys in June;
  - the **Call for Growth** which, following completion of the engagement process conducted by the selected start-ups and supported by the Cariplo Factory, led to a technical assessment of the use cases presented for potential collaborations with Terna.
- **Open Italy:** Terna participates in the Open Italy programme, an ELIS Open Innovation initiative set up to encourage dialogue and collaboration between large companies, Italian start-ups/SMEs and innovation facilitators such as accelerators and research centres, regarding concrete innovation projects relating to eight areas of innovation.

The 2020 edition enabled two co-innovation projects to be carried out with SNAM regarding cyber security and satellites.

- **Call for Innovation:** In April and September, with the support of **Digital Magics**, Terna launched two **Calls for Innovation**, which were held digitally for the first time. The initiative is aimed at innovative start-ups and SMEs offering solutions to help improve and innovate the national electricity transmission grid.
  - **Call I4G – Innovation For the Grid** is aimed at identifying advanced analytics algorithms and developing specialist sensors for power lines that can be integrated within the monitoring network to enhance and improve it. At the pitch day held in June 2020, the winner was the start-up InSensus.
  - The **Call for Innovation, EES - Energy Efficiency for Sustainability**, is aimed at identifying **sustainable solutions focused on energy efficiency** that can benefit Terna and may be exploited in the market by Awenia. At the pitch day held in December 2020, the winner was the start-up Hive Power. For Terna, this Call has been a **valuable tool for seeking sustainable grid solutions**, which can enable the ecological transition and develop ideas that make a concrete contribution to achievement of the SDGs.

Both winning start-ups received a €15,000 prize and in the following months were among the start-ups selected to take part in a co-design process with Terna business lines assisted by the partner Digital Magics, which was aimed at defining a technical and economic deliverable for application of the solution developed on an industrial scale.

Initiatives that involve Terna's community of people, with the aim of enhancing, expanding and disseminating the skills and culture of innovation.

In January, specific activities relating to **Intellectual Property Protection** were defined with a view to implementing a process for leveraging and protecting the intellectual property generated by Terna. A stakeholder awareness initiative regarding the intellectual property management process is being carried out, as well as screening of the activities that are in progress and may be enhanced accordingly in terms of Intellectual Property.

During the year, four new Italian patent applications were filed as well as another four at international level, and one design registration was obtained at EU level. In 2020, the asset portfolio consists of 19 assets in the pipeline (compared with 6 in 2019), with 3 patents granted, 8 applications filed and 8 under assessment.

The start-up ecosystem developed by Open Innovation has proved useful during the Covid-19 emergency in providing and developing **smart PPE** solutions for social distancing and contact tracing. Four solutions were trialled between July and September, enabling experience to be gained of the technologies deployed in these areas, as well as preparation of the subsequent market survey. Four solutions have been submitted to management and possible developments are being defined.

In December, technology scouting activities were launched on a global scale, with participation in the first international scale-up summit in Paris, focusing on the ecosystem. During the event, which was held remotely, Terna's team had the opportunity to evaluate technological solutions proposed by innovative international companies regarding the areas of safety and energy harvesting, and to exchange views with teams from other corporations on key innovation topics, including intrapreneurship and corporate venture capital.



Corporate

Initiatives involving large companies and industrial partners, to foster cross-contamination and dissemination of best practices and the development of co-innovation projects.

**MoU with SNAM:** On 15 April 2020, Snam and Terna renewed the memorandum of understanding signed on 1 March 2019, extending it to include a partnership regarding coordinated research, development and innovation, and possible convergences between the gas and electricity systems.

Specifically, the agreement aimed at exploiting potential synergies between the gas system and the electricity system breaks down into three areas of interest:

- **dual-fuel power plants**, where Snam plans to convert its compression and storage plants to gas-electric power, resulting in significant environmental benefits in terms of **reducing the country's CO<sub>2</sub>** emissions, and the development of new flexibility resources for the electricity system;
- **research and development**, in which initiatives relating to so-called “sector coupling” will be developed, with particular reference to power to gas technologies; Development of a roadmap for the construction of pilot electrolysis plants in Italy, aimed at power to gas (P2G) and the consequent provision of flexibility services to the NTG;
- **co-innovation**, to continue the testing and development of innovative initiatives and technological solutions regarding the **sustainability of energy networks**, via infrastructure monitoring using drones, satellites and IoT sensors, as well as workers' safety and the environment.

**Other initiatives:** NDAs were signed with US companies, as well as an MoU with Brugg eConnect, and opportunities were explored in the charging hubs sector. As part of the integration programme for Brugg, 964 programmes were launched during the year, aimed at developing IoT and sensor synergies.

As a partner of the **Maker Faire Rome**, which took place in December, Terna set up a virtual stand to present our latest innovation ideas. Four projects were presented: lot4thegrid, drones and robotics for line monitoring; E-mobility lab (experimental electric mobility demonstrator); and Terna lines simulator (virtual and augmented reality technologies to simulate the impact of electricity infrastructure).

## Factories

The main strategic project streams have been identified in the Transmission Operator (TO) and System Operator (SO) areas. Therefore, two Factories were set up in 2018: the **Transmission Operator Innovation Factory** and the **System Operator Innovation Factory**.

- **The TO Innovation Factory** includes the field of **Transmission Technologies** and is related to asset management, engineering and plant construction processes. It provides support for technological scouting, identification and implementation of technologies, and innovative processes and solutions for the evolution and continuous improvement of the NTG.
- **The SO Innovation Factory** includes the **Dispatching** and Conduction process, as well as **System Engineering** (upgrade and management of the national electricity system, preparation of defence and restart plans, and actions for the commissioning of plants). It also deals with the process of grid research and measurement, calibration and protection systems, malfunction analysis and statistics, functional requirements and system innovation.

Therefore, the SO Innovation Factory mainly focuses on enabling participation in distributed power generation resource markets, electricity demand and storage, with the key objective of promoting the penetration and integration of non-programmable renewable sources into the national electricity and energy system. The priority innovation project streams in this sector regard flexibility of the electricity system (e.g., vehicle-to-grid projects, demand-side response, etc.) and secure management of the electricity system (e.g., R&D relating to the resilience of the electricity system, pilot projects on improved observability of distributed resources, etc.).



In brief	204
Managing the environmental impacts of the electricity grid	206
Atmospheric emissions and energy efficiency	221
Environmental costs	233

Terna's main contribution to protecting the environment coincides with the progressive integration of renewable sources, accompanied by a commitment to minimising the visual impact of our assets on the landscape and to implementing voluntary programmes designed to reduce our environmental footprint. >>

# 7

## Environment

# In brief

Terna's main contribution to achievement of the climate change reduction targets is its commitment to carrying out the investment provided for in the Development Plan, building a grid capable of enabling the ecological transition towards a carbon-free system based on renewable energy.

In terms of environmental impact, Terna's activities regard less the use of natural resources, and the emission of pollutants, and rather more 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. The most important contribution is the physical removal of obsolete power lines following rationalisation initiatives. The activities involved in the construction, maintenance and removal of electricity infrastructure are linked to the production of waste, a high proportion of which is recovered.

In terms of greenhouse gas emissions, Terna has for years focused on a number of voluntary programmes, primarily regarding the achievement of reductions in SF6 gas leakage, making buildings energy efficient and saving energy at substations. Its commitment to tackling climate change was further bolstered in November 2020 when the Board of Directors formally enrolled Terna in the Science Based Target ("SBT") initiative.

Terna has adopted an Environmental Policy that 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<sup>1</sup>, which also covers efforts to reduce greenhouse gas emissions<sup>2</sup>, the implementation of energy efficiency initiatives<sup>3</sup>, and the adoption of measures designed to protect birdlife<sup>4</sup>. Terna extends the issue of environmental protection to both its supply chain<sup>5</sup> and local stakeholders directly affected by NTG development projects<sup>6</sup>.

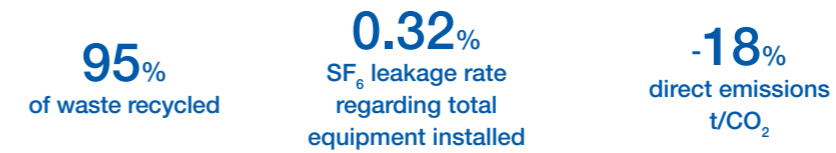
With reference to the scope of environmental data, it should be noted that data referring to Avvenia-The Energy Innovator S.r.l. and Brugg Kabel GA are not included in this section (see the Methodological Note for details on the scope of reporting).

Environmental data for the Tamini Group have also been included in the Group's scope of reporting in 2020. Figures for the subsidiary are included in the following environmental indicators:

- waste;
- direct and indirect energy consumption;
- direct and indirect emissions.

<sup>1</sup> See the paragraph, "Integrated Management System", on page 20.  
<sup>2</sup> See the paragraph, "Atmospheric emissions and energy efficiency", on page 221.  
<sup>3</sup> As above.  
<sup>4</sup> See the paragraph, "Electricity power lines, biodiversity and birdlife", on page 217.  
<sup>5</sup> See the paragraph, "Sustainable supply chain", on page 118.  
<sup>6</sup> See the paragraph, "Local community engagement", on page 137.

## HIGHLIGHTS IN 2020



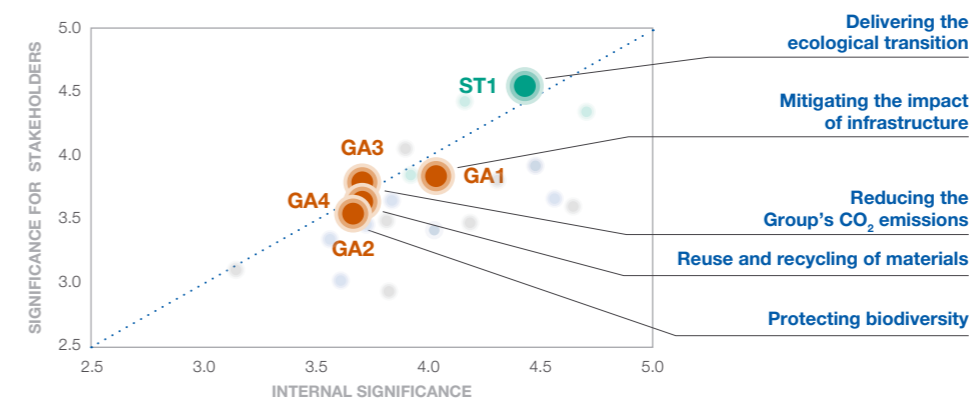
## Links with significant issues in the materiality matrix

This section deals with a number of issues deemed noteworthy based on a materiality analysis carried out in December 2020 and, as such, reported in the matrix shown on page 34.

Specifically, for the aspect "Management of environmental impacts", there is ample distance regarding "Mitigating the impact of infrastructure" (page 206, topic GA1), "Reuse and recycling of materials" (page 212, topic GA4), "Reducing the Group's CO<sub>2</sub> emissions" (page 224, topic GA3) and "Protecting biodiversity" (page 217, topic GA2).

Reduction of the Group's CO<sub>2</sub> emissions is linked to the Group's strategy regarding "Delivery of the ecological transition", shown in the matrix in "Transmission service" (page 174, topic ST1).

## POSITION OF THE TOPICS IN THE MATERIALITY MATRIX



GA1

# Managing the environmental impacts of the electricity grid

The construction, maintenance and presence of electricity infrastructure has an impact on the surrounding areas. The responsible management of these impacts is illustrated below. Aspects relating to greenhouse gas emissions, connected with grid operation and electricity transmission, are dealt with in the section on “Atmospheric emissions and energy efficiency” on page 221.

413-2 >

## Integration of power lines in the environment

The transmission grid has effects on the environment, primarily in terms of visual impact on the landscape produced by the physical presence of power lines and electricity substations.

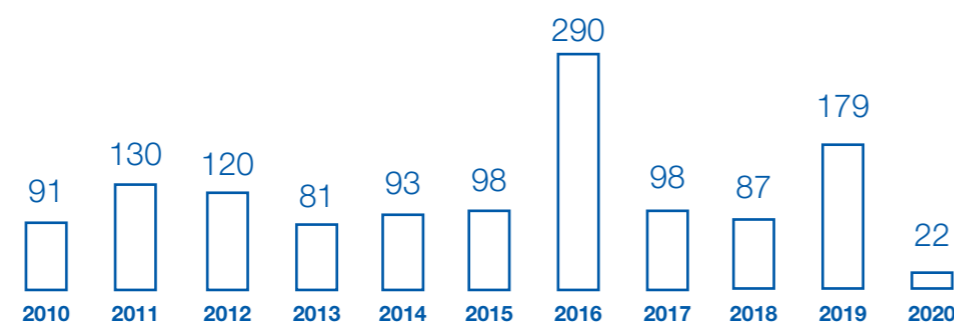
Physical removal of existing lines is one of the most radical ways Terna reduces environmental impacts, also in terms of land use. Demolitions form a part of upgrade initiatives, often resulting from agreements signed with local authorities during the consultation phase prior to the construction of new infrastructure.

In 2020, 22 km of lines were demolished (initial target: 41 km, revised downward during the year to 24 km), freeing up an area equal to 78 hectares. In the period 2010-2020, a total of 1,290 km of lines were demolished. The reduction in the number of km of line demolished in 2020 primarily reflects delays to many interventions due to the Covid-19 emergency.

Demolition is defined as the physical removal of overhead lines and does not include declassified or upgraded lines.

### LINES DEMOLISHED – KM (\*)

**1,290 km**  
total of lines  
were demolished



(\*) 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 2020 target.

### “TRANSMISSION IMPACTS” TARGET

KPIS AND TARGETS IN THE 2021-2025 INDUSTRIAL PLAN <sup>(1)</sup>



VISUAL IMPACT	2020		2021	2022	2023	2024	2025
	TARGET	RESULT					
Km of overhead lines demolished during the year.	24	22	16	86	167	123	45
Km of new underground lines during the year.	67	72	138	60	202	120	600 <sup>(2)</sup>

<sup>(1)</sup> With respect to that published in the 2019 Sustainability Report, the targets set for 2020-2024 have been revised in order to take revised plans and the results for 2019 into account.

<sup>(2)</sup> This figure includes the Pole 1 “Tyrrhenian” link connecting Caracoli with Montecorvino, partly using terrestrial cable (approximately 25 km) and partly with submarine cable (approximately 500 km).

### Benchmark SDGs:



An approach based on sustainability guides all of Terna’s activities, especially those regarding grid development. In terms of NTG development requirements, the interventions with the least environmental impact are rationalisation and reclassification.

### Rationalisation

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.

### Reclassification

This 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.

When grid development requirements entail the construction of new infrastructure, environmental sustainability considerations are taken into account in all phases of a project.

### Planning and consultation

Terna's planning uses assessments based on digital thematic maps, mostly deriving from official sources (regional authorities, water concession authorities, monitoring agencies), organised in a large and constantly updated database. Since 2002, Terna has voluntarily brought forward dialogue with local stakeholders in order to identify shared solutions ahead of any consents process for new projects. Dialogue with local authorities, the Strategic Environmental Assessment (SEA) procedure contained in the Development Plan and public initiatives that address the members of local communities directly affected by the presence of new infrastructure all contribute to the design of initiatives to mitigate environmental impact. (see page 209).

### Design

Choosing the route and location of a substation is the most delicate phase of the design process, as it determines the extent of environmental impact caused by development of the grid.

For this reason, notwithstanding the need to identify a solution that makes it possible to operate and maintain the grid, Terna looks for design solutions that minimise land use, interference with areas of environmental, natural, landscape and archaeological value, as well as urbanised or built-up areas, and the related easements. Terna's design process includes the study of construction plans aimed at utilising existing roads or tracks to minimise the opening up of new access routes, especially in wooded or protected areas, and the assessment of problems relating to vegetation management. This entails the adoption of methods and tools to minimise the impact on biodiversity, such as optimising the height of pylons and their location.

The drawing up of the Environmental Impact Study provides detailed information on the various components that help designers to turn the blueprint into an optimised project. Great attention is paid to minimising the visual impact. If this cannot be mitigated by means of precise and appropriate choices of location and/or by taking advantage of morphological features, the following actions may be taken:

- **Choice of pylons with reduced visual impact.** In recent years, Terna has expanded the range of available pylons that may be used, with the use of new, single-pole pylons with low environmental impact (having an overall surface area of 10 square metres compared to 150 square metres for traditional pad/pyramid type pylons) and the design by internationally renowned architects of pylons that are more integrated into the landscape.
- **Use of underground cables,** which eliminates or reduces the typical visual impact of overhead lines, perceived as negative especially in built-up areas. Underground cables, although appreciated and requested by local authorities, pose technical and financial problems. Underground lines can only be built for a limited number of consecutive kilometres, are less reliable than overhead power lines over time and require much longer repair times in the event of a malfunction. For these reasons, they often do not guarantee adequate security for the electricity system and continuity of service. Underground cables also have a greater impact during the construction phase (e.g., road works) and higher construction costs.

### Execution: site operations

Terna manages the impact of its construction sites on the environment via the operating manual, "The Management of environmental aspects during infrastructure construction", in line with the Group's Environmental Policy and existing regulations.

This operating manual introduces the role of the environmental contact, a person tasked with monitoring the environmental requirements contained in the EIA Decrees and in the opinions of authorities with responsibility for the environment as well as compliance with legal obligations also with reference to contractors' activities. The environmental contact also monitors the indicators set out in ISO 14001 certification, relating to complaints/reports, environmental accidents, waste and the consumption of energy and natural resources.

Special attention is paid to the identification of areas and access roads of sites which, if compatible with technical and design requirements, are located 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 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 (<https://www.aipin.it>).

Terna's environmental policies, which are also applied at construction sites, have been drawn up in accordance with applicable environmental laws and the ISO 14001 Standard. These include such aspects as prevention of groundwater contamination and limited damage to vegetation, the management of accidents, the diminution of atmospheric and noise pollution, the use of vehicles and proper management of waste and excavated earth (see page 252). Internal audit campaigns regarding construction sites make it possible to identify any deviations from the Company's environmental policies.

### Mitigation and offsetting

Either voluntarily or in order to meet requirements imposed during the consents process, Terna adopts mitigation measures to reduce the impact and improve the integration of electricity infrastructure within local areas.

Specifically, in its design process, the Company gives priority to line locations that take advantage of natural morphological features, creates camouflage systems for its electricity substations and makes use of green engineering techniques in order to recreate habitats and stabilise slopes and embankments.

With regard to new overhead power lines, other mitigation procedures consist of camouflaging pylons with paint and using coloured insulators that enable the new lines to blend in better with the landscape.

Offsetting, which is usually of a technical and/or environmental nature, is specified by the authority issuing the consents. In the preparation of a project proposal – together with national, regional and local regulations – this constitutes a "binding standard" for the detailed design and execution of the project.

In most cases, offsetting accentuates or better defines the mitigations proposed in the environmental impact study or imposes new offsets on the advice of specialist bodies (government bodies, grantors of water concessions, park authorities and so forth). Offsets may take the form of compensation. If the competent authority does not consider a residual impact to be sufficiently mitigated, it takes into account another initiative located elsewhere capable of offering environmental compensation.

< EU13



During the year, camouflaging projects regarding the Selegas, Benevento III and Mercatello sul Metauro electricity substations were carried out. Mitigation work was also carried out during construction of the “Udine West – Redipuglia” and “Benevento II – Foggia” power lines.

#### Benevento III electricity substation: planting of over 2,000 trees and shrubs

In February 2020, Terna launched a green engineering project regarding the Benevento III electricity substation in Contrada La Francesca in Benevento.

The project involved planting over 2,000 trees and shrubs along the perimeter of the asset, which will ensure that the infrastructure fits in better with its surroundings and benefit the local ecology and environment.

Based on detailed analysis of the area and its characteristics, the Company identified the most suitable plant species and selected native varieties that are sure to take root and develop and, due to their resilience, best reduce the use of agrochemicals, fertilizers and pesticides and make the initiative even more sustainable. Some of the tree varieties used include wild olive, downy oak, holm oak, ash and laurel. Shrub and grass planting will also be done and involve varieties such as broom, viburnum and common dogwood.

The Benevento III substation, in operation since 2017, forms part of Terna’s work in the Benevento area and aims to ensure better efficiency and environmental sustainability, partly thanks to greater integration into the grid of energy production from renewable sources.

#### EU13 >

Finally, the executive design of some masking interventions regarding electricity substations was completed, which will be carried out in upcoming years.

Moreover, in line with previous years and thanks to field surveys completed by specialists, the **Incremental Ecological Indicator (“IEI”)** was further refined. First developed in 2018, this tool is used to make a qualitative and quantitative assessment of the ecological status of new ecosystems resulting from initiatives such as vegetation restoration, camouflaging, offsets and so forth. This indicator will enable the ongoing monitoring of mitigation work and offsets regarding vegetation, showing the various stages of progress and “health” (biodiversity).

In Abruzzo, following discovery of an Italic necropolis with funeral objects and 12 tombs during work on installation of the 380kV “Villanova-Gissi” power line, Terna began closely cooperating with the relevant agencies in order to ensure recovery, restoration and curation of the artefacts, deemed to be of particular interest, so that they could be housed in a museum. Plans are underway for an exhibition to be held in collaboration with local authorities in the area in which the acropolis was found. In order to promote communication initiatives regarding the artefacts unearthed at Terna’s construction sites, an interdisciplinary working group will be set up together with the relevant agencies.

#### Measurement tools for environmental engineering projects: Incremental Ecological Indicator (“IEI”)

The main objective of the **Incremental Ecological Indicator (“IEI”)** project is to define a methodological standard on which to base a qualitative and quantitative assessment of the ecological status of new ecosystems resulting from initiatives such as camouflaging, mitigation and offsets carried out in accordance with the principles of environmental engineering.

The IEI measurement is based on an analysis involving a combination of several ecological markers, such as flora, vegetation and insect and bird communities. By integrating the outcomes of such analyses, the resulting indicator provides a concise indication of the ecological state of a specific area where work has taken place, thereby allowing for a before and after comparison and an evaluation of changes in the quality of the ecosystem.

Specifically, the indicator derives from a comparison between the complexity of the ecosystem in areas where work has taken place (manipulation) compared with the situation observed in areas defined as control points. With regard to a specific site under observation, control points are areas close to the area where the work has been carried out, the observation of which provides useful information on ecosystem changes underway in the area as a whole.

The indicator itself can be broken down, allowing for both a specific and overall evaluation, with reference to the ecological markers of the various areas being evaluated. In its overall or global form, the indicator measures the extent to which the ecosystem under observation is more or less complex compared with the control area, with reference to all of the markers (birdlife, insect populations, flora and vegetation) and to all of the sites under evaluation, thereby indicating the overall impact of the work carried out.

The mathematical structure of the indicator allows for both an evaluation of individual sites and an evaluation targeting specific ecological markers. From an ecological perspective, from amongst the various parameters considered, the indicator uses established biodiversity measurements such as Shannon entropy, Kullback-Liebler divergence and other classic measurements of abundance and richness.

The Incremental Ecological Indicator project came into being in 2018 and has subsequently developed in various stages:

- **First phase**, establishment of the method’s theoretical foundations on which to obtain operational indications that could be useful in the subsequent phase involving infield data collection;
- **Second phase**, verification of the theoretical basis through samplings of the selected indicators;
- **Third phase**, integration and statistical analysis of field data and methodological updates.

Finally, the method is further perfected via additional collection of field data, partly through analysis of new areas of intervention, and the employment of mathematical and statistical methods to ensure correct application of the indicator formula.

The Incremental Ecological Indicator is certain to become an increasingly important tool for use in evaluating the outcomes of the various interventions based on environmental engineering principles, thus helping to verify their effectiveness on both a local and global level. This will make it possible to perfect the restoration techniques employed, ultimately optimising them and minimising impacts linked to the development and maintenance of infrastructure, leading to an overall improvement in the ecological characteristics of the areas in which work takes place.

303-1 >

## Use of resources and waste management

GA4



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.

Notably, with regard to water consumption, environmental and materiality analyses indicate that the subject is not material. 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 (water withdrawn is shown in the Key Indicator Table on page 289).

### Evolution of the electricity system and environmental impacts: water consumption

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.

Four synchronous compensators fitted with adiabatic cooling towers, thereby requiring the use of water, are currently in operation at Terna's substations. 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 1.3% of Terna's total water consumption (in absolute terms, this form of water consumption is down 54% compared with 2019).

Moreover, for future installations, Terna will evaluate the choice of cooling system during the design stage, also taking into account the area's water stress level (especially in dry periods).

The production and direct management of waste primarily regards the maintenance of electricity infrastructure.

301-1 >

## Resources

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 taking into account the average material content of the various products purchased in the years referred to. The methodology used to evaluate materials has been modified with respect to previous editions of the Sustainability Report, in order to take account of the outcomes and information acquired from LCA studies on power lines (see page 215). For this reason, the data for 2018 differ from those previously published. The bulk of the materials used are steel (pylons) and aluminium and copper (conductors and cables).

## MAIN MATERIALS PROVIDED BY SUPPLIERS<sup>(\*)</sup>

Tonnes

	2020	2019	2018
Steel	18,264	12,694	11,483
Aluminium	11,526	12,590	8,667
Porcelain	891	822	626
Copper (**)	4,967	5,415	4,552
Glass	4,339	3,393	4,189
Dielectric oil (***)	591	1,535	1,405
of which vegetable oil	243	448	431
Polymers	492	402	577
SF <sub>6</sub>	14	17	8

(\*) In 2020, certain items of equipment were purchased for which estimates of the main materials were not available. Estimates are expected to be available in 2021.

(\*\*) It should be noted that the 2019 and 2018 values differ from those published in the previous Reports for evidence subsequent to publication.

(\*\*\*) The reduction in dielectric oil and vegetable oil is due to installation of a lower number of devices containing this type of material.

Specifically, amounts shown in the table reflect a levelling off in the purchasing of equipment used for electricity substations and some considerable changes in the main materials of line components (e.g., aluminium and steel).

## Waste

< 306-2

At the end of their normal lifecycle, the materials used in electricity infrastructure are recovered for reuse in operations. Only a residual portion is sent to landfill and has an impact on the environment.

**The percentage of waste recovered amounted to 95% in 2020** (94% in 2019 and 86% in 2018), **rising to 96% if Tamini is included.**

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 recycled should not be interpreted as indicating a trend.

**WASTE BY TYPE<sup>(1)</sup>**

Tonnes

	2020*	2020	2019	2018
<b>Waste produced <sup>(1)</sup></b>	<b>7,377.6</b>	<b>6,142.2</b>	<b>5,912.8</b>	<b>6,774.2</b>
of which hazardous	4,151.8	3,882.0	3,285.8	3,484.2
of which non-hazardous	3,225.9	2,260.2	2,630.3	3,290.0
<b>Waste sent for recovery</b>	<b>7,060.9</b>	<b>5,854.1</b>	<b>5,558.1</b>	<b>5,799.1</b>
of which hazardous	3,846.5	3,604.9	3,181.7	2,936.1
of which non-hazardous <sup>(2)</sup>	3,214.4	2,249.2	2,376.3	2,863.1
<b>Waste sent for disposal <sup>(3)</sup></b>	<b>343.4</b>	<b>314.8</b>	<b>266.0</b>	<b>1,050.3</b>
of which hazardous	265.4	237.2	48.9	555.8
of which non-hazardous <sup>(4)</sup>	78.0	77.5	220.3	494.5

\* This column also includes data regarding Tamini.

<sup>(1)</sup> Only special waste produced during 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 495 tonnes in 2020, 578 tonnes in 2019 and 388 tonnes in 2018.

<sup>(2)</sup> 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%.

<sup>(3)</sup> Waste sent for disposal may differ from the mere disparity between waste generated and recovered due to temporary waste storage.

<sup>(4)</sup> It should be noted that the 2019 value differ from these published in the previous Reports for evidence subsequent to publication.

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 is 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.

306-3 >

As in the previous two-year period, no significant spills of polluting liquids were reported in 2020.

**Terna's Life Cycle Assessment ("LCA") studies**

Refinement of an initial evaluation of the Group's ecological footprint is an important environmental objective for Terna.

For this reason, the Company is carrying out various **Life Cycle Assessment ("LCA")** studies on components of the electricity network with methodological support from Bocconi University. The evaluations are made in accordance with EN ISO 14040:2006 and UNI EN ISO 14044:2006 Standards applying the Circular Footprint drawn up by the European Commission as part of its Product Environmental Footprint.

In 2020, evaluations concerning overhead lines and underground cables ranging from 150kV to 380kV were carried out.

In the LCA studies, impacts are measured based on different categories. To that end, Terna bases its studies on the calculation method developed by the European Commission's Joint Research Centre. This method makes it possible to identify both the most significant impact categories as well as the most significant life cycles.

This analysis has shown that:

- the most significant impact category is "**Climate change**", linked above all to network losses: the main cause of this impact regards energy production from fossil fuels. The solution is decarbonisation of the energy mix;
- in advancing towards the objective of decarbonisation, "Climate change" takes a backseat to the categories of "**Mineral, fossil & renewable resource depletion**" and "**Particulate matter**", whose impact is due primarily to metal production: steel and aluminium for overhead lines, aluminium and copper for underground cables.

One way of potentially reducing these impacts involves an evaluation of possible actions regarding the supply chain. Specifically, such actions target suppliers of conductors, supports and cables and involve the development of circular solutions and the use of more sustainable materials with a higher percentage of recycled raw materials. To meet these needs, Terna will develop new technical specifications, reward scores and other means by which to reduce the impact linked to the use of metals in conductors, cables and pylons.

In 2021, upon conclusion of the LCA studies on electricity substations, evaluation of the environmental footprint left by Terna's electricity network will be completed.

**Monitoring and supervision of electromagnetic fields**

Protection of the population from exposure to electromagnetic fields is precisely defined by law (the 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 at the network frequency (50 Hz), in children's play areas, residential 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 on its own lines to ensure compliance with the existing regulatory limits and seeks innovative technological solutions in order 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 access 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](http://www.terna.it).

#### Reports and complaints regarding environmental concerns

In line with the ISO 14001 Environmental 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, unlike the last four years, the number of complaints rose (up 18% compared with 2019 to 38) and primarily regarded power lines (92%), relating to **the need to cut back vegetation along power line corridors (32%) and the noise emitted by the infrastructure (32%)**.

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 on page 286.

## Electricity power lines, biodiversity and birdlife

The impact of Terna's grid on biodiversity may take different forms.

During grid construction, the impact on biodiversity is linked to construction site activities (e.g., the opening up 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, in particular on birds, due to the risk of collision, and on protected areas or areas of natural interest.

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 of 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 <sup>(1)</sup>

	UNIT	2020	2019	2018 <sup>(2)</sup>
Lines impacting on protected areas	km	6,951	6,746	6,730
Lines with an impact as a percentage of total lines operated by Terna	%	10.6	10.5	10.4

<sup>(1)</sup> To calculate the percentage of lines impacting on protected areas, the Company has used "ATLARETE" data, which may differ from data in the table showing indicators of the number of lines.

<sup>(2)</sup> Data for 2018 have been revised so as to be in line with the calculations made for 2019. Thus, the data for both years take account not only of the km of overhead power lines with an impact but also of the underground and underwater cables having an impact.

From 2019, the indicator of lines impacting on protected areas has been modified in order to take account not only of overhead power lines having an impact but also of cables (underground and submarine). For the sake of completeness, it should be noted that out of the 922 substations managed by the Terna Group, only 36 are located in protected areas.

Based on GIS data, potential threats from the risk of collision for bird species included in the IUCN Red List IUNC have been accessed.

The presence of power lines may have negative effects on birdlife. While the risk of electrocution regards LV and MV lines and therefore does not concern Terna's infrastructure, HV lines are associated with the risk of collision.

In order to minimise this risk, special devices called "deterrents" have been installed along sections of line with frequent bird traffic, which, with their visual impact and the noise they generate when blown by the wind, make the power lines easier to see for birds in flight.

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**BIRD DETERRENTS ON THE NTG**

	UNIT	2020	2019	2018
Lines involved	no.	77	72	70
Total deterrents installed	no.	16,299	15,552	15,503

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 LIPU (Italian League for the Protection of Birds), highlights a low risk of collision (see the 2010 Sustainability Report, page 116 “Terna-LIPU agreement: a study of the interaction between birdlife and the National Transmission Grid”).

In order to support scientific research and the re-naturalisation of local areas, in collaboration with environmental associations, Terna carries out targeted projects. Over recent years, Terna has implemented the following projects.

**Collision risk prevention tools**

After an initial market survey carried out in 2018 using the CESI research centre and focusing on the availability of different types of deterrents and their actual effectiveness, in 2020 Terna completed another survey at European level. This second one confirmed the validity of the deterrents installed, showing that they are the only ones currently available on the market that meet standards in terms of reliability, duration and installation.

Following successful experimentation on the “Villanova-Gissi” and “Redipuglia-Planais” power lines, an additional trial involving application of AVIMON, the device that records bird strikes against ground wires on power lines, was completed. This time the “Pontelandolfo-Benevento III” line was involved and no reports of any collisions came to light.

**Avian Team**

The Avian Team, active within Terna since 2017, is made up of members of the Transmission Operating Areas (TOAs). The team’s objectives are to resolve potential power line issues caused by birds, develop solutions in line with national and international regulatory frameworks, improve relations with environmental associations and disseminate information on Terna’s actions regarding biodiversity.

Avian Team members have expert knowledge of the assets pertaining to their TOA and work jointly with the individuals in charge of operating teams, the heads of the TOAs and health and safety officers.

**Birdlife Training Plan**

In line with specific EU Directives<sup>7</sup>, Terna has enshrined the objectives to protect and conserve birdlife in its own Commitment to Biodiversity document.

Accordingly, in 2020, Terna launched its first training campaign to protect birdlife designed specifically for operating personnel involved in managing the national electricity system. The aims of the campaign are to raise awareness on the part of staff and to collect additional scientific data concerning the system’s impact on birdlife.

The first edition involved three workshops lasting three hours each.

**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 List that are potentially impacted by its infrastructure.

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 specifically considered the presence of bird species on the IUCN Red List and at Natura 2000<sup>8</sup> sites, namely in protected areas with a high level of biodiversity (approximately 3,000 Special Protection Areas (SPAs) and Sites of Community Importance (SCIs)).

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 as Vulnerable, Endangered, Critically Endangered and Regionally Extinct – had chosen them as their habitat<sup>9</sup>. 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 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 included in the IUCN Red List in which it is classified as “vulnerable” present in the Alpine area between Friuli-Venezia Giulia e Lombardy. A specific study on the ecology of the species is in progress with a view to mitigating this risk.

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<sup>7</sup> Birds Directive 79/409/EEC and Birds Directive 92/43/EEC.

<sup>8</sup> 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 92/43/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 2009/147/EC regarding the conservation of wild birds.

<sup>9</sup> There are 11 risk categories, ranging from Extinct (EX), applied to species for which there is a definite certainty that the last individual has died, to the Least Concern (LC) category, used for species that are not at risk of extinction in the short- or medium-term. Those between the Extinct and Least Concern categories include categories under threat, which identify species at increasing risk of extinction in the short- or medium-term: Vulnerable (VU), Endangered (EN), Critically Endangered (CE) and Regionally Extinct (RE).

### Alternative uses for electricity 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 the 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 the occupation of the new nests.

#### GEOREFERENCED NESTS AT 31 DECEMBER 2020

LOCATION	NESTS		SPECIES CONCERNED <sup>11</sup>
	NUMBER OF NESTS	OF WHICH IN PROTECTED AREAS	
Abruzzo	30	0	Kestrel
Calabria	30	23	Kestrel
Campania	1	0	
Emilia-Romagna	95	31	Kestrel; scops owl, cuckoo common roller
Friuli-Venezia Giulia	20	0	
Lazio	47	14	Kestrel, scops owl, common roller
Lombardy	15	0	
Piedmont	54	25	Common roller
Puglia	72	0	
Sicily	30	10	
Trentino-Alto Adige	8	0	
Veneto	1	1	
Overall total	384	104	

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](http://www.birdcam.it) and on Terna's website).

<sup>11</sup> 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.

# Atmospheric emissions and energy efficiency



At international level, convergence on the action to be taken to combat climate change was best reflected in the agreement signed at the United Nations Climate Conference (COP21) in Paris in December 2015. SDG 13 (Climate action) was also included in the UN's 17 sustainable development goals in the same year.

The guidelines in Terna's 2021-2025 Industrial Plan are consistent with these positions and with the objective of facilitating transition to the production of energy from renewable sources and, more generally, the decarbonisation of production processes.

Climate change entails both risks and opportunities for Terna's business (see page 79) in terms of Regulated and Non-regulated Activities. In particular, with regard to the former, investment in grid development meets the need to facilitate the ecological transition by strengthening transmission capacity and interconnections with other countries, while research and innovation are aimed at identifying smart and sustainable solutions to be offered to the customers of the Non-regulated Activities.

Terna has also carried out a number of trials focusing on battery storage, which could specifically encourage the use of renewable energy sources and, at the same time, solve problems with control of the grid deriving from sudden reductions in renewable electricity production.

With regard to the reduction of CO<sub>2</sub> emissions into the atmosphere by the electricity system as a whole, Terna's main contribution is to carry out the investment provided for in the NTG Development Plan (see page 177). In this section, the focus is on emissions relating to Terna's operating activities.

## Direct and indirect CO<sub>2</sub> emissions

Direct greenhouse gas emissions connected with Terna's activities derive mainly from SF<sub>6</sub> gas leaks (87% of total direct emissions in 2020), which are down from the previous year thanks to resolution of faults and replacement of some equipment.

The remaining direct and indirect emissions are due to energy consumption, especially electricity. There was a decrease (9%) in indirect emissions, reflecting a reduction in electricity consumption (see the specific section on page 227) and a decrease in the emission factor, which fell as a result of a change in the production mix (reduction in thermoelectric production as a percentage of total Italian electricity production). 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 production.

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**TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS - TONNES OF CO<sub>2</sub> EQUIVALENT**

	2020*	2020	2019	2018
Direct emissions	58,793.5	56,202.6	68,404.4	62,999.2
Indirect emissions	60,978.1	59,490.7	65,246.9	64,050.5
Total emissions (direct and indirect)	119,771.6	115,693.3	133,651.3	127,049.7

(\* This column also includes Tamini data.

The direct emissions produced by the Tamini Group are mainly due to natural gas consumption. The table below shows the Terna Group's emissions, without taking into account Tamini, as its environmental impacts in terms of CO<sub>2</sub> are not fully comparable due to the specific nature of its business.

**TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS - TONNES OF CO<sub>2</sub> EQUIVALENT<sup>(1)</sup>**

	2020	2019	2018
<i>Direct emissions</i>			
Leakages of SF <sub>6</sub>	49,013.7	60,162.2	54,846.1
Leakages of refrigerant gases (R407C, R410A) <sup>(2)</sup>	501.4	178.2	427.9
Petrol for motor vehicles	54.2	61.6	36.8
Diesel for motor vehicles	5,418.9	6,767.0	6,295.0
Jet fuel for helicopters	488.0	502.4	605.6
Natural gas for heating	323.1	305.5	316.0
Fuel oil for heating and generators	403.3	427.5	471.8
<b>Total direct emissions</b>	<b>56,202.6</b>	<b>68,404.4</b>	<b>62,999.2</b>
<i>Indirect emissions</i>			
<b>Electricity<sup>(3)</sup></b>	<b>59,490.7</b>	<b>65,246.9</b>	<b>64,050.5</b>

<sup>(1)</sup> The conversion of direct energy consumption and leakages of SF<sub>6</sub> (sulphur hexafluoride) and refrigerant gases into equivalent CO<sub>2</sub> emissions has been carried out using the parameters indicated in the IPCC Fifth Assessment Report (AR5) and the Greenhouse Gas Protocol (GHG) Initiative.

<sup>(2)</sup> The increase in leakages of refrigerant gases (R407C and R410A) mainly derives from the malfunctioning of two pieces of equipment at two sites and the update of the conversion factor for the two gases (Regulation (EU) No 517/2011).

<sup>(3)</sup> The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2020. Allocation for the purposes of the production mix was based on the December 2020 issue of the "Monthly Report on the Electricity System" available on the website at [www.terna.it](http://www.terna.it).

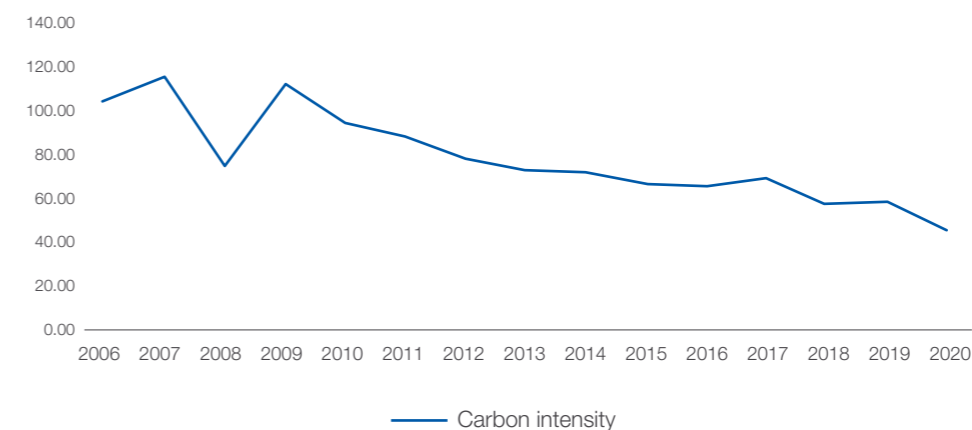
The overall decrease in total direct and indirect CO<sub>2</sub> emissions is reflected positively in the figure for carbon intensity, i.e. the ratio between direct and indirect emissions and revenue of the Terna Group (excluding Tamini), within the context of a gradual downward trend.

**CARBON INTENSITY – TONNES OF CO<sub>2</sub> EQUIVALENT/ REVENUE (€M)**

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	2020	2019	2018
Total emissions (direct and indirect)	115,693.3	133,651.3	127,049.7
Ratio of total emissions to revenue	46.0	58.2	57.8

**CARBON INTENSITY**



Terna focuses its attention on a number of voluntary action programmes aimed at reducing its main sources of greenhouse gas emissions, which primarily regard curbing the SF<sub>6</sub> leakage rate, the energy efficiency of buildings and energy saving at electricity substations.



# FOCUS

## Carbon intensity: comparative data

Since the 2018 Sustainability Report, Terna has extended its benchmarks to include carbon intensity, in order to report a comparison with peer groups on CO<sub>2</sub> emissions standardised by revenue.

This was done by comparing Terna's carbon intensity with those of three peer groups of companies: companies listed in the FTSE-MIB; companies from the Electric Utilities sector included in the Dow Jones Sustainability World Index; and other TSOs.

In the absence of standardisation factors applicable to all sectors, it was deemed relevant to present data on standardisation of emissions by revenue, which, despite differences in the value chain between the various sectors, is an initial important standardisation factor for comparison purposes.

In 2020, the carbon intensity deriving from Terna's activities amounted to 46.2 tonnes of CO<sub>2</sub> equivalent/revenue (€m). In 2019, a year for which comparative data with other companies is available, a carbon intensity of 58 tonnes CO<sub>2</sub> equivalent/revenue (€m) was registered.

As may be noted from a comparison of all three peer groups, Terna ranks significantly below the average in 2019.

	CARBON INTENSITY (TONNES OF CO <sub>2</sub> EQUIVALENT/ REVENUE (€M) - 2019)		
	TSO	FTSE-MIB	DJSI- ELECTRIC UTILITIES
Available data	15	38	10
Min.	11.40	0.9	12
Average	515.79	304.0	388
Max.	5,603.17	6,601.9	1,003
<b>Terna</b>		<b>58.23</b>	

More information on the development of the carbon intensity benchmark is available in the "Sustainability" section of the website at [www.terna.it](http://www.terna.it).

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## Containment of direct emissions: SF<sub>6</sub> leakage

SF<sub>6</sub> (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 leaks into the atmosphere due to defective seals, when faults occur, and also sometimes during the re-pressurising process. SF<sub>6</sub> has a very powerful greenhouse effect, which is 23,500 times greater than CO<sub>2</sub>: leakage into the atmosphere of 1 kg of SF<sub>6</sub> is equivalent to 23.5 tonnes of CO<sub>2</sub>.

The amount of SF<sub>6</sub> present in the Group's infrastructure has risen steadily. This trend, which is common to many transmission grid operators, is linked to the better insulating performance of this gas and the smaller footprint of substations built with equipment containing SF<sub>6</sub> in comparison with more traditional solutions.

During the period from 2012 to 2017, the related target for the leakage rate was 0.60%, down 0.10% compared with 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 from 2020 to 2022, the target was set at 0.45%, due to the expected effect of the additional containment measures implemented in 2018-2020.

### "TRANSMISSIONS IMPACTS" TARGET

KPIs AND TARGETS IN THE 2021-2025 INDUSTRIAL PLAN



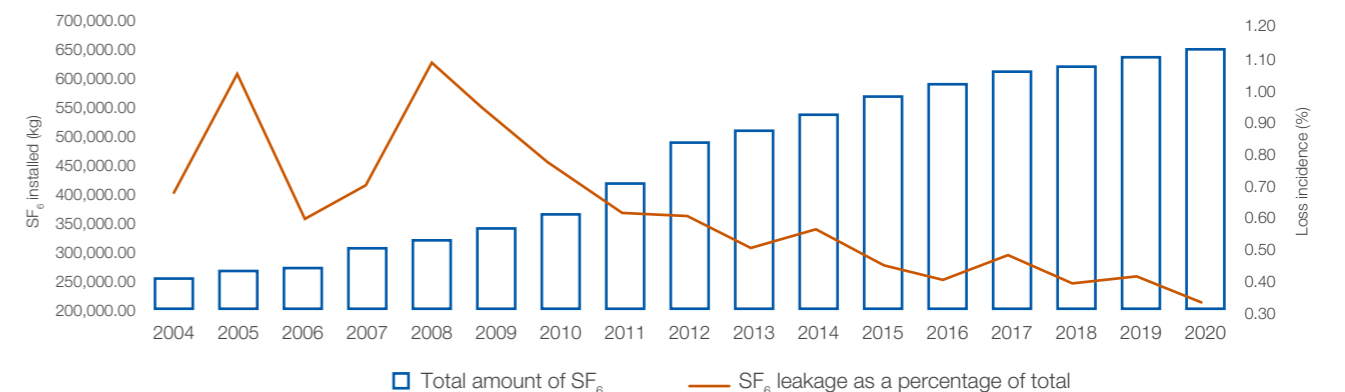
KPI	2020		TARGET				
	TARGET	RESULT	2021	2022	2023	2024	2025
	SF <sub>6</sub> LEAKAGE RATE	0.45	0.32	0.45	0.45	0.45	0.45

### Benchmark SDGs:



The target values should be qualified, bearing in mind the already substantial decrease recorded in the previous five-year period, and the higher average leakage rates of other leading European TSOs (0.7% in 2017).

### SF<sub>6</sub> LEAKAGE



In 2020, the leakage rate regarding total equipment installed and cylinders was **0.32%**, marking an all-time low. This was due above all to the routine and extraordinary maintenance carried out during the year, which enabled prompt resolution of faults and the replacement of some equipment.

## FOCUS

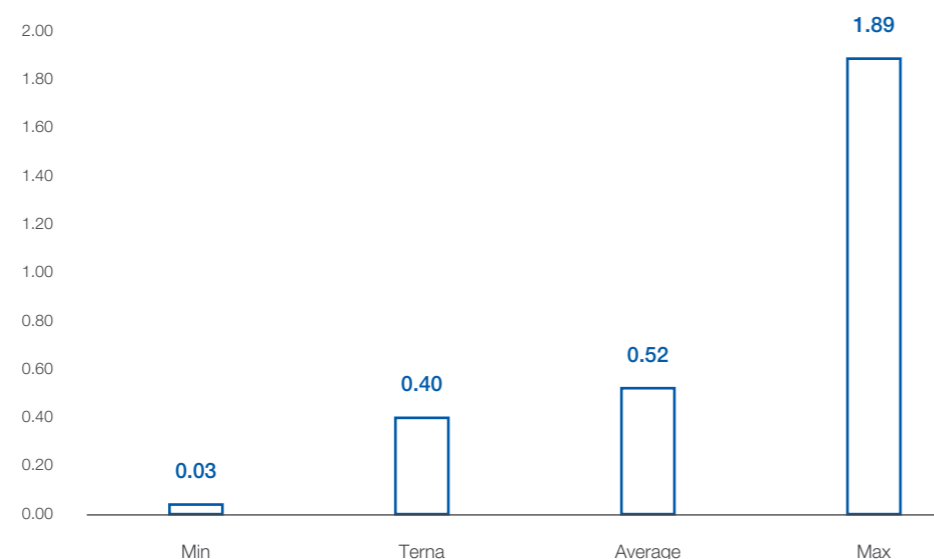
### SF<sub>6</sub> leakage: comparative data

SF<sub>6</sub> gas is used by electricity transmission companies because of its excellent insulating properties.

Due to the specific nature of its use, comparison was only possible with the TSO peer group. The indicator being compared is the leakage rate, which is obtained by calculating the ratio between gas leaks during the year and the total amount of gas installed in equipment. In 2020, Terna registered a leakage rate of 0.32%, a marked improvement on the figure for 2019, the year under comparison, in which the SF<sub>6</sub> leakage rate was 0.40%.

In comparison with the other transmission operators, for 2019 Terna reports an SF<sub>6</sub> leakage rate below the peer group average (calculated as the ratio between the sum of leakages and the sum of the total amounts installed by the TSOs).

#### SF<sub>6</sub> LEAKAGE RATE (%) – 2019 FIGURES



More information on the development of the SF<sub>6</sub> leakage benchmark is available in the "Sustainability" section of the website at [www.terna.it](http://www.terna.it).

### Consumption and cuts in emissions: energy efficiency

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The Terna Group's energy consumption, which also includes the Tamini Group's consumption, is shown below. The Tamini Group's energy consumption is mainly due to natural gas consumption.

#### TOTAL ENERGY CONSUMPTION WITHIN THE ORGANIZATION - GIGAJOULE

	2020*	2020	2019	2018
Direct consumption in GJ	138,254.9	92,038.0	110,574.9	106,069.8
Indirect consumption in GJ	705,112.1	687,913.1	697,600.2	684,672.4
Total consumption in GJ	843,367.0	779,951.1	808,175.1	790,742.2

(\*) This column also includes Tamini data.

The table below shows details of the Terna Group's total energy consumption without taking into account Tamini, as its environmental impacts in terms of CO<sub>2</sub> are not fully comparable due to the specific nature of its business.

#### TOTAL ENERGY CONSUMPTION WITHIN THE ORGANIZATION BY PRIMARY SOURCE - GIGAJOULE <sup>(1)</sup>

	2020	2019	2018
<i>Direct consumption in GJ</i>			
Petrol for motor vehicles <sup>(2)</sup>	782.2	889.2	531.8
Diesel for motor vehicles <sup>(2)</sup>	73,219.0	91,433.4	85,056.6
Jet fuel for helicopters	6,825.4	7,027.2	8,470.0
Natural gas for heating	5,762.6	5,448.6	5,636.3
Fuel oil for heating and generators	5,448.8	5,776.5	6,375.2
<b>Total direct consumption</b>	<b>92,038.0</b>	<b>110,574.9</b>	<b>106,069.8</b>
<i>Indirect consumption in GJ</i>			
Electricity to power substations and offices <sup>(3)</sup>	687,913.1	697,600.2	684,672.4

(1) Direct consumption data in tonnes and thousands of m<sup>3</sup> are shown in detail in the "Key indicator tables". To convert the volumes of primary resources into gigajoules, the parameters set out in the Global Reporting Initiative (GRI) protocols were used (Reference: Indicators IP Protocols: EN).

(2) Only the consumption of operating vehicles is taken into account and not the cars used by managers.

(3) Allocation for the purposes of the production mix was based on the December 2020 issue of the "Monthly Report on the Electricity System" available on the website at [www.terna.it](http://www.terna.it)

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 (see "Asset management" on page 188);
- 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 4,118 hours (consumption equal to 0.6 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 2020) and for office and laboratory use. The figure relating to office consumption is 96,805 GJ (down from 97,278 GJ in 2019) which, compared to the total number of Terna employees (less blue-collar workers), corresponds to per capita consumption of 33.3 GJ. This last figure is the latest in a constant downward trend (34.0 GJ in 2019 and 39.7 GJ in 2018), bearing out the effectiveness of the energy efficiency measures in offices and buildings described on page 229.

Compared with 2019, the overall trend in direct and indirect consumptions was down by 3.5%, reflecting reductions in electricity consumption and in the power used by asset monitoring equipment (both decreases are due to causes connected with the Covid-19 emergency).

### Energy Management System

In line with its energy efficiency objectives, the Group has been certified in accordance with the UNI CEI EN ISO 50001:2011 standard since 2015. In 2020, it made the transition to the new version of the ISO 50001:2018 standard.

After the installation of sensors to measure energy consumption in real time at 80% of Terna's main sites, a baseline for long-term improvement initiatives for all of the sites monitored was defined in 2017.

In 2020, the online project to monitor the electricity consumed by transformer substations was completed. Launched in 2018, the project regarded 24 substations across the country selected according to climatic location, size and type of activity.

The monitoring data from sensors installed in these 24 substations enabled identification of specific **Energy Performance Indicators (EnPI)** to assess the performance of buildings and substations.

Between 20 and 40 meters were installed at each substation to measure the electricity used, and after monitoring, energy audits will be carried out to define improvement targets. The sensors installed send data to the "EciWeb" computer system for deferred and/or online monitoring of energy-intensive elements (for Terna: office buildings and substations) relating to the high-voltage electricity transmission service.

The EciWeb information system enables analysis of:

- the electricity consumption of 10 major buildings, representing over 80% of the electricity consumed at Terna Group buildings;
- the electricity consumption of 164 transformer stations, which represent around 60% of the total amount consumed by Terna's substations.

In the three-year period 2018-2020, 62 energy audits were carried out on office buildings and substations. In compliance with Legislative Decree 102/2014, the audits carried out have been uploaded to the website set up by ENEA. In 2020, Terna also participated in the "Class A Italy" initiative promoted by ENEA to raise awareness of energy efficiency issues.

Gathering and analysis of the data monitored online and preparation of energy audits for other Terna sites will continue throughout 2021. In line with the sustainability objectives included in the 2021-2025 Industrial Plan regarding the "Energy efficiency of offices", a project was launched at the beginning of 2021 to carry out 35 energy audits on the Terna Group's buildings, with the aim of defining an energy consumption reduction goal for the Group's offices via targeted efficiency improvement projects.

The project, which has been entrusted to the subsidiary Avvenia, will be coordinated by the Group's Energy Manager, in collaboration with the Health, Safety, Environment and Services department.

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 (in MWh) that will be saved over a five-year period via the replacement of 56 autotransformers in 8 Transmission Operating Areas nationwide (by 2022 56 transformers will have been replaced with expected total saving of approximately 70,000 MWh).

Regarding in-house training programmes, the "Management Systems" department has prepared the following training/information activities:

- ISO 50001:2018 standard refresher course (held in November 2020);
- EciWeb application: Energy consumption monitoring (to be held by the end of 2021);
- Video awareness-raising activities regarding energy efficiency (to be held by the end of 2021);
- Online energy consumption monitoring system for electricity substations (to be held by the end of 2021).

### Energy efficiency in substations and offices

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.

In offices, the main sources of energy consumption relate to lighting, the data centre, air-conditioning and heating. Notably, a number of Terna's offices have either 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, thereby combining civil engineering works with improved energy performance.

Below is a description of initiatives launched in recent years to reduce energy consumption, of which the benefits are measurable:

#### • Summary of previous years' initiatives

At 31 December 2020, the energy efficiency initiatives launched in 2014 had led to an overall reduction of around 1,060 tonnes of CO<sub>2</sub> (including 354 tonnes of CO<sub>2</sub> in 2020 alone).

• Improving the efficiency of air conditioning systems

In January 2020, a geothermal heating system that uses flowing water began operating at the 380kV substation in Martignone (BO). The system, developed in collaboration with our technology partner, the Bologna-based Ateneo, has led to a reduction of approximately 28 tonnes in annual CO<sub>2</sub> emissions. During the year, an improved variant entered service that will ensure a further reduction of approximately 13 tonnes of CO<sub>2</sub>.

• Improving the efficiency of lighting systems

In 2020, the lighting systems at substations managed by the Central-south Lazio, Florence, Codrongianos and Brugherio Infrastructure Units, as well as at the Company's office in Rome (Galbani hub), were replaced with LED lighting systems; Terna expects to see an annual reduction of more than 896,000 kWh, the equivalent of approximately 311 tonnes of CO<sub>2</sub> a year.

• Self-production of electricity from renewable sources

From 2020, two new renewable self-production plants have been operating:

- the Palermo Transmission Operating Area office, which has led to a reduction of approximately 12 tonnes of CO<sub>2</sub> via the production of approximately 37,000 kWh of electricity;
- the Parma Infrastructure Unit office, which has led to a reduction of approximately 5 tonnes of CO<sub>2</sub> via the production of approximately 15,000 kWh of electricity.

**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 four 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 87% are equipped with Euro 6 and Euro 5 engines (for further information on vehicles and the related impact of the fleet, see the relevant table in the "Key indicator tables" on page 292).



Other indirect CO<sub>2</sub> emissions

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In addition to emissions relating to electricity consumption, Terna's most significant indirect emissions are connected to grid losses. The indicators relating to emissions produced as a result of air travel by staff are shown on page 292.

**Grid losses<sup>12</sup>**

Grid losses are defined as the difference between energy injected by producers (including imported energy) and final consumption; the relevant 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.

**GRID LOSSES<sup>1</sup>**

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	2020		2019		2018	
	% Compared with energy demand	GWh	% Compared with energy demand	GWh	% Compared with energy demand	GWh
VHV and HV grid	1.6	4,982	1.4	4,555	1.4	4,583

<sup>1</sup> The grid losses figure in the table corresponds to the arithmetic moving average of losses with a three-year window as annual data (three-year period 2016-2018 for 2018, 2017-2019 for 2019, 2018-2020 for 2020).

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 the 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.

CO<sub>2</sub> emissions associated with grid losses amounted to 1,551,131 tonnes in 2020 (1,533,654 tonnes in 2019 and 1,553,716 in 2018). The trend differs from the one regarding losses measured in GWh due to changes in the conversion factor used to convert energy into CO<sub>2</sub> equivalent emissions, which in turn is affected by changes in the production mix among Italian power generators.

<sup>12</sup> Terna is considering aligning its carbon footprint analysis with the recommendations of the GHG Protocol guidelines, which require inclusion of grid losses in the Scope 2 category.

### Terna adopts a Science Based Target ("SBT") to contribute to reducing greenhouse gas emissions into the atmosphere

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 2015 Paris Agreement, which - if adopted across the board - would ensure that temperature increases are kept below specific limits.

With its fundamental role as director and enabler of the current ecological transition phase, Terna has voluntarily opted to link the twofold task of maintaining the already excellent level of quality and continuity of the electricity transmission service, and making all necessary investment in the NTG to incorporate the growing share of production from renewable sources, to the adoption of an SBT.

This additional contribution by Terna to combating climate change, in terms of systemic sustainability and in line with SDG 13 ("Climate action"), was implemented at the end of 2019 via the launch of a process to formally adopt an SBT.

In the first quarter of 2020, Terna carried out its own survey of CO<sub>2</sub> emissions (Scopes 1, 2 and 3). This was followed by a feasibility assessment of a Science Based Target deliverable, which was approved by senior management on 19 October 2020, and formally signed off by the Board of Directors at a meeting on 11 November 2020. Later, a formal letter of enrolment in the SBT Initiative was signed.

During 2021, Terna will define an emissions reduction target for 2030, which will be submitted to the SBT Initiative for validation.



## 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/EC). According to this Recommendation, the term "environmental expenditure" includes the cost of initiatives undertaken by a company, directly or via third parties, in order 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 assessed as being significant (e.g. substation noise, electromagnetic fields, etc.) within the Company's ISO 14001 certified Environmental Management System, in order 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 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 on the basis of the Company's existing accounting system.

The latter condition meets the need to minimise the use of estimates based on non-accounting procedures.

## 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 resources, and only take into account 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)

	2020	2019	2018
<i>Capital expenditure</i>			
Environmental offsets <sup>(1)</sup>	5.5	8.7	7.1
Environmental impact studies <sup>(2)</sup>	3.9	3.8	3.5
Environmental activities – new plant <sup>(3)</sup>	5.5	5.5	3.9
Environmental activities – existing plant <sup>(4)</sup>	6.0	3.4	2.9
Demolitions <sup>(5)</sup>	1.3	1.7	2.2
<b>Total capital expenditure</b>	<b>22.3</b>	<b>23.1</b>	<b>19.6</b>
<i>Costs</i>			
Cost of environmental activities <sup>(6)</sup>	26.8	24.2	23.8
<b>Total operating costs</b>	<b>26.8</b>	<b>24.2</b>	<b>23.8</b>

(1) **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.

(2) **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.

(3) **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, the testing of excavated soil and rocks). Therefore, a value of 1% of the capital expenditure cost for projects with similar characteristics has been taken into account.

(4) **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).

(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 environmental operating costs, but do comprise the majority of such costs.





In brief	238
Overview of the workforce	240
Health, safety and correct working practices	245
Recruitment and selection	254
Training	257
Development	260
Company welfare	261
Diversity and equal opportunities	264

A culture focusing on safety, performance and innovation, but also on effective company welfare and work-life balance initiatives. This is how Terna increases its human capital.



## People

# In brief

People make up Terna's human capital and are thus both a central element in the Company's activities as well as individuals with value to be enhanced and rights to be respected.

The definition and management of personnel policies is the responsibility of the Human Resources and Organisation department, whilst matters regarding health and safety at the workplace are entrusted to the Health, Safety & Environment department, in turn reporting to the Corporate Affairs department.

Alongside our well-established, but constantly renewed, commitment to issues concerning safety and accident-prevention, Terna managed the Covid-19 health emergency in 2020 by extending the possibility to work from home ("Smart Working") to all administrative staff and migrating the largest possible number of activities to Microsoft's digital platform, "Teams".

This way of operating was made possible by updating staff's digital skills (the focus of intense training activities kicked off in 2018), the availability of laptop computers, tablets and smartphones, and by the Virtual Private Network ("VPN") IT infrastructure, which allows for online training courses and interaction with the outside world.

At the end of 2020, Terna began to look at the organisational aspects of work in a post-Covid-19 world and this has already produced a twofold outcome. On the one hand, this has led to an agreement with the labour unions on future ways to make the most of Smart Working. On the other, it has led to the creation of "NexTerna", a cultural project designed to transform ways of working so as to boost responsibility and involvement in the objectives and challenges set forth in the Industrial Plan.

The process of generational turnover continued despite the pandemic, resulting in the recruitment of 175 new staff members (181 including Tamini).

Finally, the percentage of women in the total workforce continues to grow, rising from 9.0% in 2005 to 14.2% at the end of 2020 (13.9% including Tamini). It should be noted that the data reported in the following highlights do not include Tamini.

## HIGHLIGHTS IN 2020

**140** new recruits under the age of 30

**98%** of the workforce took part in at least one training course

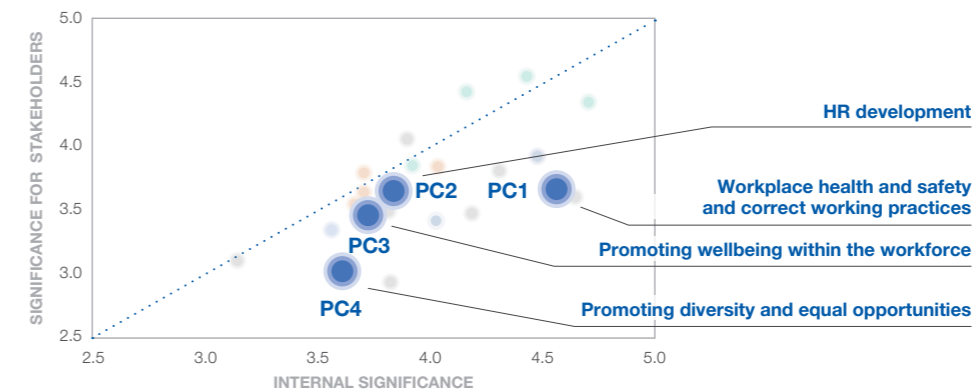
**19.8%** of managerial positions are held by women, exceeding the percentage of women forming the total workforce (14.2%)

## Links with material topics in the materiality matrix

This section deals with a number of topics classified as significant following the materiality analysis conducted in December 2020 and shown as such in the related matrix published on page 34.

Specifically, as regards the "Our people and the community" aspect, there is ample coverage of "Workplace health and safety" (page 245, topic PC1); "HR development" (page 260, topic PC2); "Promoting wellbeing within the workforce" (page 261, topic PC3) and "Promoting diversity and equal opportunities" (page 264, topic PC4).

### POSITION OF THE TOPICS IN THE MATERIALITY MATRIX



# Overview of the workforce

The Group employs a total of 4,735 people (up 445 compared with 2019). This figure includes 381 Brugg Group and 342 Tamini Group personnel, 59 individuals employed under local contracts by overseas subsidiaries (35 in Brazil, 11 in Montenegro, 7 in Peru, 2 in Uruguay, 2 in United States and 2 in India, the last 4 for Tamini).

The tables below present Group data for 2020 on a like-for-like basis compared with 2018 and 2019, therefore excluding the Tamini Group, Avvenia and overseas subsidiaries, reporting a total of 3,935 personnel.

In order to increasingly present data from a "One Company" perspective, for 2020 alone, in addition to the like-for like comparison basis with 2018 and 2019, an additional column including Tamini Group personnel has been inserted. As for data concerning Brugg Kabel AG staff, considering that 90% of the company was acquired during the year, available figures are reported in the Key Indicator Tables (see note on page 32).



## COMPOSITION OF THE WORKFORCE

	2020*	2020	2019	2018
<b>Total</b>	<b>4,277</b>	<b>3,935</b>	<b>3,872</b>	<b>3,843</b>
of whom men	3,684	3,376	3,334	3,326
of whom women	593	559	538	517
<i>By category</i>				
Senior managers	70	63	61	57
Middle managers	641	620	597	614
Office staff	2,336	2,221	2,200	2,124
Blue-collar workers	1,230	1,031	1,014	1,048
<i>By type of contract</i>				
- permanent <sup>(1)</sup>	4,275	3,934	3,869	3,842
- of whom men	3,683	3,376	3,332	3,325
- of whom women	592	558	537	517
- fixed-term	2	1	3	1
- of whom men	1	0	2	1
- of whom women	1	1	1	0
<i>By type of employment</i>				
- full-time	4,254	3,920	3,854	3,822
- of whom men	3,679	3,371	3,329	3,320
- of whom women	575	549	525	502
- part-time	23	15	18	21
- of whom men	5	5	5	6
- of whom women	18	10	13	15
<i>By age</i>				
- below the age of 30	1,114	1,106	987	885
- between the ages of 30 and 50	1,857	1,660	1,733	1,681
- over the age of 50	1,306	1,169	1,152	1,277
<i>Average age (years)</i>				
Average age	41.4	40.9	40.8	41.8

\* This column includes data for Tamini.

<sup>(1)</sup> Permanent contracts also include apprenticeships.

The total turnover rate for incoming staff (4.5%; 4.3% including Tamini) continues to reflect the generational turnover policy launched in 2017, together with the growth outlook in the Industrial Plan.

175 people (181 including Tamini) joined the Group in 2020, including 140 under the age of 30. The process of generational turnover underway has produced a steady increase in the level of education among the Group's workforce. In 2020, 96.2% of employees had a university degree or high-school diploma. The average length of service is 14 years.

The turnover rate for outgoing staff is 2.9%. This figure is linked primarily to retirements and, to a lesser extent, to voluntary resignations (37 in 2020 and 44 including Tamini).

At 31 December 2020, there were 6 active agency contracts (compared with 11 in 2019 and 13 in 2018; 24 including Tamini).

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## WORKFORCE TRENDS

	2020*	2020	2019	2018
<b>Total employees</b>	<b>4,277</b>	<b>3,935</b>	<b>3,872</b>	<b>3,843</b>
<b>Employees recruited during the year</b>	<b>181</b>	<b>175</b>	<b>287</b>	<b>420</b>
- men	152	146	240	326
- women	29	29	47	94
- below the age of 30	140	140	208	284
- between the ages of 30 and 50	31	27	73	130
- over the age of 50	10	8	6	6
<i>Rate of recruitment in % <sup>(1)</sup></i>				
<b>Total</b>	<b>4.3</b>	<b>4.5</b>	<b>7.5</b>	<b>12.0</b>
- men	3.6	3.8	6.2	9.3
- women	0.7	0.7	1.2	2.7
- below the age of 30	3.3	3.6	5.4	8.1
- between the ages of 30 and 50	0.7	0.7	1.9	3.7
- over the age of 50	0.2	0.2	0.2	0.2
<b>Employees leaving during the year</b>	<b>124</b>	<b>112</b>	<b>258</b>	<b>85</b>
- men	116	104	233	76
- women	8	8	25	9
- below the age of 30	24	22	21	16
- between the ages of 30 and 50	19	13	24	16
- over the age of 50	81	77	213	53
<i>Turnover rate in % <sup>(2)</sup></i>				
<b>Total</b>	<b>2.9</b>	<b>2.9</b>	<b>6.7</b>	<b>2.4</b>
- men	2.7	2.7	6.1	2.2
- women	0.2	0.2	0.7	0.3
- below the age of 30	0.6	0.6	0.5	0.5
- between the ages of 30 and 50	0.5	0.3	0.6	0.5
- over the age of 50	1.9	2.0	5.5	1.5

(\*Data regarding Tamini are included in this column.

<sup>(1)</sup> The rate of recruitment shows the ratio of employees joining to the number of employees at 31 December of the previous year.

<sup>(2)</sup> The turnover rate shows the ratio of employees leaving to the number of employees at 31 December of the previous year.

## Generational turnover

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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.

The most important of these include the transmission of knowledge and experience, often one-of-a-kind, via in-house tutoring as part of training programmes and on-the-job experience.

In the five-year period between 2016 and 2020, incoming staff totalled 1,311 compared with 709 outgoing staff.

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.** As at 31 December 2020, **6.1%** of the workforce in the next 5 years, of which:

Senior managers	<b>0.0%</b>
Middle managers	<b>1.4%</b>
Office staff	<b>3.3%</b>
Blue-collar workers	<b>1.4%</b>

**B.** As at 31 December 2020, **14.9%** of the workforce in the next 10 years, of which:

Senior managers	<b>0.4%</b>
Middle managers	<b>4.1%</b>
Office staff	<b>7.4%</b>
Blue-collar workers	<b>3.1%</b>

## IMPACT OF GENERATIONAL TURNOVER IN THE PERIOD 2014-2020 (\*)

INDICATOR	UNIT	2020	2014
Average age	yrs	40.9	46.6
Average length of service	yrs	14.1	21.2
Percentage by composition of age: >50	%	29.7	45.3

<sup>(\*)</sup> 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).

## FOCUS

### Staff turnover: comparative data

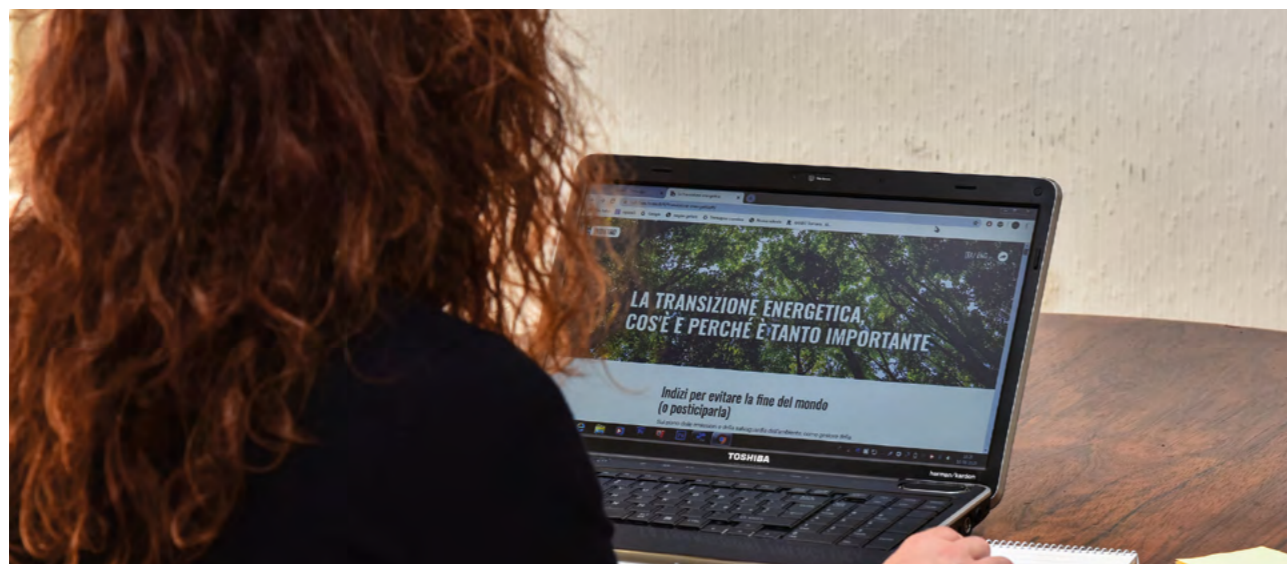
Terna's "staff turnover rate" is defined as the ratio of employees leaving during the year to the number of employees at 31 December of the previous year.

As the staff turnover rate is an indirect indicator of the internal company climate affecting all divisions, the figures for transmission companies (TSO peer group) and those of large companies listed on the Italian Stock Exchange (FTSE-MIB) were taken into account, as were those for companies in the Electric Utilities sector included in the Dow Jones World Sustainability Index.

In 2020, Terna's turnover rate was 2.9%. In 2019, the year for which comparative data is available, Terna's turnover rate was 7%, reflecting implementation of the generational turnover programme. A comparison with peer group averages reveals that Terna's turnover rate in 2019 was below the average for both companies listed on the Italian Stock Exchange (FTSE-MIB) and transmission companies (TSO group). In contrast, it was slightly above the average for companies included in the Dow Jones Sustainability peer group.

	TURNOVER RATE (%) – 2019		
	TSO	FTSE-MIB	DJSI- ELECTRIC UTILITIES
Figures available	14	39	10
Min.	1.8	2.4	2.6
Average	7.7	10.6	6.3
Max.	19	26.1	10.5
<b>Terna</b>		<b>6.7</b>	

Details on the staff turnover benchmark are available in the "Sustainability" section of the website at [www.terna.it](http://www.terna.it).



## Health, safety and correct working practices



Working safely, without putting their health at risk, is a fundamental right of employees, and Terna invests a great deal in order to guarantee this right for its people.

A safety culture is present throughout the Company, so that the supply chain actors who play a decisive role in operations can also be involved in the process of ensuring ongoing attention and improvement.

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, who represent employees with national collective bargaining agreements in the electricity sector.

The National Collective Labour Contract also provides for the establishment of a bilateral body – 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 (see the section on "Engagement and consultation of workers and communication on matters of health and safety at the workplace" on page 149).

### Protecting employees' safety

Terna's commitment to safety must be seen in the context of existing regulatory provisions. Italian safety legislation<sup>1</sup> 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.

At Terna, special attention is paid to 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, described below.

#### HEALTH AND SAFETY AT THE WORKPLACE: TOOLS AND PROCESSES

##### Clear safety policy guidelines

The importance of protecting people from physical harm is enshrined in Terna's Code of Ethics. The occupational safety policy sets out its guidelines with an explicit commitment to promoting accident prevention for all employees, including those employed by contractors.

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<sup>1</sup> Legislative Decree 81/2008 "Consolidated law on the protection of health and safety at the workplace", dated 9 April 2008.

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**BS OHSAS 18001:2007 and UNI EN ISO 45001:2018 certified management system**

The system to manage “Health and Safety at workplaces”, voluntarily adopted by the Terna Group, covers 100% of the Company’s activities and is incorporated within the Group’s other certified management systems.

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.

The importance of the system hinges on its ability to greatly reduce the risk of injury, thereby ensuring workers a healthy workplace equipped with the resources needed to carry out their jobs in safety. In a field as heavily regulated as that of workers’ health and safety, a strong management system also 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).

It has been implemented based on a risk management system defined under art. 28 of Legislative Decree 81/08 and set forth – as per the BS OHSAS 18004 Standard - in the Risk Assessment Document.

The system covers all workers employed at subsidiaries wholly owned by the Parent Company, Terna S.p.A., during the carrying out of their assigned activities at the places where they operate. Personnel at the Group companies, Tamini and Brugg, are likewise covered by safety management systems certified in accordance with the ISO 45001:2018 Standard.

**Organisational unit responsible for safety**

This unit comprises operating units throughout Italy for each of which a health and safety officer and an appointed doctor 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 also constantly analyses and monitors risks arising from the Company’s activities.

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**Management of accidents and “near misses”**

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 in order to reduce the possibility of a repeat occurrence.

In the case of a serious or fatal injury, or when a more in-depth investigation is called for, an internal commission comprised of Terna safety experts and specialists is set up and tasked with drafting a detailed report containing the measures to be adopted throughout the Company.

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**Supervisory activities**

The correct and complete application of procedures is subject to inspections by employers, internal compliance checks for all Terna Group companies and the external audits required for certification. Elected staff representatives, responsible for verifying the application of standards (staff and health and safety representatives), are also present.

As regards activities carried out by contractors, Terna conducts inspections of its own construction sites in order to verify the correct application of accident prevention regulations by the responsible health and safety officers and contractors (see also page 252).

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**Health Surveillance**

Health surveillance requires active collaboration between the employer, worker, and physician in charge, and is one of the most important activities an employer is assigned by law in order to protect the health and safety of workers.

The ultimate objective of health surveillance is prevention. Its aim over time is to verify the adequate relationship between workers’ health conditions and the specific duties assigned to them.

**Health, Safety and Environment (HSE) Section in the Document Centre of the Company’s intranet**

The Company’s intranet has a section containing legislation on safety at the workplace (national and regional provisions and technical standards issued by the competent authorities).

There is also a specific section on managing electrical risks, therein containing all of the FAQ and company instructions on the application of Terna’s Provisions for the Prevention of Electrical Risk.

**Information and training activities**

All staff have access to key information regarding health and safety and innovations through various channels, including the Company’s intranet and information meetings.

In 2020, around 24,700 hours of training were dedicated to health and safety issues, of which over 40% was aimed at blue-collar workers (additional data on training may be found on page 259).

The considerable reduction in the total number of training hours in 2020 is due to the Covid-19 emergency and the resulting impossibility to utilise the facilities and equipment at the Viverone Training Centre (Biella). This centre provides training on safe working practices when climbing pylons (through the use of life-size pylons) and regarding live-line working in a controlled environment.

**Occupational safety performance targets**

The system of indicators includes the “occupational safety indicator”, comprising the injury rate and lost day rate, to which the remuneration variable of personnel in the departments concerned is linked.

This indicator takes account of injuries involving contractors’ personnel (see page 251).

**Applied research**

A standing committee involving various company departments was set up and tasked with identifying and experimenting with new personal protective equipment (Smart PPE) to aid workers as they carrying out their activities by encouraging good practices and responsible behaviour both individually and collectively.

In 2020, against the backdrop of the Covid-19 emergency, experiments were conducted on wearable tags able to monitor the distance between individuals in both a closed and open environment.

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All of the initiatives undertaken are designed to create an increasingly deep-rooted **safety culture**, based on a constant and continuous commitment and also resulting in new approaches.

2020 saw continuation of the **Zero Accidents** project launched in 2018 and aimed at promoting a global approach to safety that involves all of the Company's staff as well as people working in various capacities at Terna's plants. Moreover, a new campaign currently underway called, **"Sicuri Insieme"** ("**Safe Together**"), was launched to ensure that all employees have access to regular health checks relating to Covid-19.

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**Zero Accidents**

This project entails an integrated pathway encompassing various activities focusing on:

- operational safety (working methods, equipment, etc.);
- behavioural safety (instruction, training, etc);
- the safety of personnel employed by external contractors.

In terms of operational safety, an effective internal prevention system has been created and put in place. It involves a new way of conducting site inspections, replacing the traditional onsite visits with a new approach centred around an assessment of the organisation and processes.

July 2020 saw continuation of the educational campaign concerning behavioural safety. This year the limitations imposed by the measures to contain the pandemic led to the adoption of digital tools. Specifically, this involved 2 webinars for the heads of Transmission Operations departments and Infrastructure Units and a subsequent 45 webinars involving approximately 1,350 Infrastructure Unit technical and operating staff, making a total of more than 3,400 hours of instruction.

As to external contractors, procedures have been put in place to closely monitor the safety of personnel and assess any injuries that occur. Procedures have also been adopted to record the data needed to compute contractors' injury rates.

Additional information is provided on page 258.

403-6 >

**Covid-19 emergency: the "Safe together" campaign**

In 2020, Terna adopted all measures needed to combat and reduce the spread of Covid -19 at the workplace, scrupulously adhering to special measures put in place by the authorities in response to the Italian epidemiological situation and worldwide pandemic.

Terna has regularly issued and disseminated company policies and informative communications designed to reduce the risk of infection, promptly updating the measures to be adopted, also set forth in the anti-infection safety protocol.

During this entire period and throughout Italy, various **screening campaigns** were carried out on a purely voluntary basis utilising serological tests, antigen swabs and molecular swabs to identify any asymptomatic carriers of the virus. These campaigns also offered access to the normal influenza vaccines.

Additional information on this project is provided on pages 7 and 146.

**Occupational injuries**

< 403-9

As in previous years, there were no fatal workplace accidents among the Group's employees in 2020. In contrast, there was one serious injury resulting in an initial prognosis of more than 40 days. The total number of injuries amounts to 27, including 2 with a prognosis of less than 30 days.

The injury rate reports a decrease compared with the previous year (further details regarding health and safety data and injury rates by gender are provided for in "Key indicator tables" on page 295).

**OCCUPATIONAL INJURIES, TERNA EMPLOYEES GRI-ILO DEFINITIONS (\*)**

	2020**	2020	2019***	2018
Injury Rate	0.91	0.77	0.95	1.28
Fatality rate	0	0	0	0
Serious injury rate where the initial prognosis is more than 40 days	0.03	0.03	0	0
Number of injuries	35	27	33	40
- of which serious, where the initial prognosis is more than 40 days	1	1	0	0
- of which fatal	0	0	0	0
Number of hours worked (****)	7,655,802	7,038,326	6,938,961	6,226,931
<b>TYPE OF OCCUPATIONAL INJURIES</b>				
Falling from height	1	1	0	0
Traffic accident injury	2	2	9	9
Electrocution	2	2	0	0
Impact, crushing, cut	11	7	10	14
Falling on level ground, slipping	14	11	10	12
Manual handling of loads	2	2	0	1
Projection of solid fragments and/or liquid substances	3	2	2	1
Other	0	0	2	3

(\*) As required by GRI protocols, the definitions adopted are those provided for by the International Labour Organisation. To aid comparison with other sources, the following notes show the figures for the same indicators calculated using alternative formulae.

(\*\*) This column includes data regarding Tamini.

(\*\*\*) Compared with that reported in the 2019 Sustainability Report, the number of injuries dropped from 34 to 33 in that INAIL recognised one injury as an illness, with a consequent restatement also of the 2019 injury rate.

(\*\*\*\*) From 2020, the figure for number of hours worked includes the hours worked by senior management and hours of training..

**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 **4.6 including Tamini in 2020, 3.8 in 2020, 4.8 in 2019** data revised following the reduction in the number of injuries from 34 to 33) and **6.4 in 2018**.

**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).

**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 serious 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 serious injury rate is **0.1 in 2020**.

The serious injury was due to electrocution, which occurred during electrical measurement and testing at a station on an air-insulated high-voltage disconnecting switch.

After a serious or fatal injury involving a worker employed by Terna or a contractor, an internal committee is set up and entrusted with analysing the individual events and drafting technical reports containing a description of the dynamics of the accident and pinpointing possible causes. Following the investigations, an action plan with steps for improvement is drawn up so as to reduce the risk of the accident happening again.

As regards Tamini, the injuries primarily related to cuts caused by incorrect handling of metal sheets or by the inattentive use of machinery such as, by way of example, carpentry equipment. In order to prevent any reoccurrence, controls during those phases of work posing risk of injury are stepped up and training/awareness programmes targeting specific operations are carried out.

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 (\*)**

	2020**	2020	2019	2018
Lost Day Rate (***)	41,59	40,07	35,77	34,40
Occupational Diseases Rate	0,03	0,03	0	0
Absentee Rate	5,870.2	5,246.5	6,378.6	6,937.4

\* As required by GRI protocols, the definitions adopted are those provided for by the International Labour Organisation. To aid comparison with other sources, the following notes show the figures for the same indicators calculated using alternative formulae.

\*\* This column includes data regarding Tamini.

\*\*\* Compared with the information published in the 2019 Sustainability Report, the lost day rate for 2019 has declined as Inail (Istituto nazionale Assicurazione Infortuni sul Lavoro, Italy's National Institute for Insurance against Accidents at Work) has classified one injury as a disease.

**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 for **2020 is 0.21 including Tamini and 0.20 excluding Tamini, 0.18 for 2019 and 0.17 for 2018.**

**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 2020, one case of occupational disease was reported by Terna.

**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 **2.9 for 2020 including Tamini (2.6 without Tamini), 3.1 for 2019 and 3.5 for 2018.**

As regards workers employed by contractors, there were two fatal injuries in 2020 due to burns and electrocution caused by work in a de-energised situation not carried out at a height. The three accidents that caused serious injuries were related to the manual handling of loads, a fall from a height and slipping.

Contractors' health and safety protection measures are described on page 252.

**OCCUPATIONAL INJURIES SUFFERED BY CONTRACTORS AND SUB-CONTRACTORS - GRI-ILO DEFINITIONS (\*)**

	2020	2019***	2018***
Injury Rate	1.13	1.57	0.89
Fatality rate	0.06	0.04	0.04
Serious injury rate where the initial prognosis is more than 40 days	5,246.5	6,378.6	6,937.4
Number of injuries	0.09	0.07	0.08
- of which serious, where the initial prognosis is more than 40 days	38	44	21
- of which fatal	3	2	2
Number of hours worked	2	1	1
<b>TYPE OF OCCUPATIONAL INJURIES</b>	<b>6,721,754</b>	<b>5,599,272</b>	<b>4,712,074</b>
Falling from height	1	3	3
Traffic accident injury	2	1	0
Electrocution	1	0	0
Impact, crushing, cuts	20	22	10
Falling on level ground, slipping	7	9	4
Burns	1	1	0
Manual handling of loads	5	4	0
Projection of solid fragments and/or liquid substances	0	1	0
Other	1	3	4

(\*) 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.

(\*\*) This table does not include data regarding Tamini as the nature of the company's business does not involve the major use of contractors or subcontractors. As a result, the table does not show hours worked by the employees of contractors or subcontractors. There were no injuries in 2020.

(\*\*\*) It should be noted that the figures for 2019 and 2018 differ from those published in previous reports as the criteria used to calculate the hours worked by contractors' employees have been revised.

**Injury Rate.** The number reported corresponds to injuries entailing at least one day's absence from work, 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, 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 ILO rate). Based on this method of calculation, the injury rate is **5.7 in 2020, 7.9 in 2019, 4.5 in 2018.**

2020 saw continuation of the monitoring of construction sites and injuries to people employed by contractors and subcontractors carrying out work for Group subsidiaries overseas. No injuries were reported in 2020.

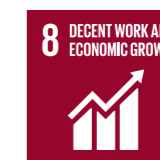
**"HEALTH AND SAFETY" TARGET**

**KPIs AND TARGETS IN THE INDUSTRIAL PLAN 2021-2025**

KPI	2020		TARGET				
	TARGET	RESULT	2021	2022	2023	2024	2025
Safety indicator *	< 1	1.09	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1

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

**Benchmark SDG:**



## Safety, the environment and human rights at contractors' construction sites

The rise in the number of staff employed by contractors and subcontractors in 2020 is linked to the increase in the number of construction sites.

This figure is especially impressive as it reflects Terna's ability to start back up after the lockdown in March and April 2020, providing clear benefits in terms of job retention among the Company's supply chain.

EU17 >

### EMPLOYEES OF CONTRACTORS AND SUBCONTRACTORS<sup>(\*)</sup>

	2020	2019	2018
Number of days worked	884,441	736,746	620,010
Full Time Equivalent	4,020	3,349	2,818

*(\*) The figures take into account the duration of contracts and the variable nature of the related workforce and pertain to the different types of contract 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 on the basis of average daily attendances at the largest sites and the value of the works contracted out at smaller sites. Further information about the types of contract used by contractors is not available. Finally, it should be noted that the figures for 2019 and 2018 differ from those published in previous reports as the criteria used to calculate the hours worked by contractors' employees have been revised.*

*(\*\*) This table does not include data regarding Tamini as the nature of the company's business does not involve the major use of contractors or subcontractors. As a result, the table does not show hours worked by the employees of contractors or subcontractors.*

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 particular reference to occupational safety, the requirements of which are excluded from any lowest price concerns during the award process.

EU18 >

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 Plan and in the Operational Safety Plan 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 a deputy and an appointed physician;
- a requirement that the contracts entered into with contractors include the need to keep records of any injuries occurring during the year.

The actual implementation of training is verified via the "Qualified Company Personnel" online platform.

In order to minimise the risk of violations 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. 45 checks were carried out in 2020;
- 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, 20 construction sites were monitored in 2020 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.

# Recruitment and selection

Staff recruited on the external labour market are university graduates, especially engineers and graduates from technical colleges, most of whom have specialised in electrical engineering. Once hired, the new recruits acquire the specific knowledge and skills they need through specific training courses.

In 2020, the Talent Acquisition & Employer Branding department stepped up its strategy to attract potential staff by introducing new initiatives and innovative tools designed to boost the recruitment of new personnel and enhance the development of existing staff.

The Covid-19 emergency resulted in an intensive use of digital platforms both for job interviews and participation in events and job fairs.

**Next Energy**, an excellence programme designed to insert new university graduates with an interest in innovation, reached its fourth edition in 2020. This and other initiatives involving start-ups with projects for staff recruitment and training are described in the box on page 136 and in the section entitled “Open Innovation” on page 197.

In order to sustain a virtuous exchange process between the Company and the outside world and support the search for new resources, the Human Resources, Organisation and General Affairs department manages relations with schools, universities and job centres.

To this end, despite the Covid-19 health emergency, Terna continued with the **Work- School Project**, a work experience scheme, in 2020. The fourth edition was revamped in order to set up a virtual online classroom for students from schools scattered throughout Italy. This solution made it possible for 8 of the 10 schools involved to complete the programme, thereby allowing 273 4<sup>th</sup> and 5<sup>th</sup> year students at vocational training institutes specialising in electrical engineering to complete their training.

Students also took part in an 8-day online taster course focusing on soft skills, and the 68 5<sup>th</sup> year students who were interested in contacting Terna were able to do so via one-to-one meetings with Terna recruiters.

## STEM professions and the Role Model project: Terna's commitment

In 2020 Terna took part in the **Role Model Project**, an initiative forming part of the work experience scheme, **Sistema Scuola Impresa**, run by ELIS. Between 2018 and 2020, it involved 26,000 students, more than 30 companies 166 in-person meetings 40 online meetings with the support of around 170 role models.

Four Terna staff volunteered to take part by meeting and sharing their experiences with students, emphasising the importance of continuing education and selection of the best career pathway, with special attention paid to young women and their access to professions in the **STEM** (Science, Technology, Engineering and Mathematics) sector.

The role model's task was to stimulate and encourage the young participants to be aware of their talents and discover their professional vocation. All of the role models are passionate professionals who have a STEM background and/or work in technical or technological fields.

Thanks to the presence of woman role models, in addition to attracting young women to the Company, this project raised all students' awareness of the topics of female empowerment and non-discrimination in traditionally male dominated labour market sectors.

Terna plans to continue taking part in this project in 2021, increasing the number of role models to 5.

The Company continued its partnership with Luiss University to support engineering and economics students from South American countries. The two students selected in the first edition of the **International Training Program** completed their apprenticeship at Terna in July 2020, after which one was hired by Terna Brazil.

Students in the second edition, one from Brazil and one from Peru, are taking part in a two-year Business Administration specialisation course at the Luiss begun in September 2019. They started their apprenticeship in Terna's International Operations Division in February 2021.

In September 2020, Terna participated in a one-day online event called the **Ideathon Startup Intelligence** promoted by PoliHub of Milan's Polytechnic University. The initiative gave partner companies the chance to take part in a contest of ideas and to work with millennials, so as to better understand their needs, attitudes and modes of interaction.

A total of 13 round tables produced 13 reports sub-divided into 3 broad categories: New generations, Sustainability and Customer experience.

In December 2020, Terna took part in the **Sustainable Materials Hackathon**, a contest carried out online together with the University of Padua. This multi-disciplinary, team-based contest benefitted Terna as well as students and is a concrete example of collaboration that was conceived, set up and developed in an entirely digital format.

**Hackathon Sustainable Materials, new ideas from young students for the future grid**

This contest, which drew to a close at the end of 2020, called for the generation of innovative ideas and was organised by Terna in collaboration with UniSMART, the University of Padua foundation. The more than 25 participants included university students, researchers, and post-graduates of STEM degree courses (Science, Technology, Engineering and Mathematics) at the Ateneo Veneto Institution.

The challenge was to generate and develop innovative solutions and services in the field of **Advanced Materials** following the principles of sustainability and circular economy. The idea put forward by the winning team centred on innovative coating solutions to reduce pollution through the use of titanium dioxide and to boost resilience via an innovative powder coating able to prevent the formation of ice ("sleeves") on power grids.

The winners, chosen by a panel comprising experts from Terna and the UniSMART foundation, were awarded a prize of 3,500 euros and offered the chance to develop their ideas in collaboration with Terna. During the digital marathon, all of the participating teams were able to take part in a one-day training session, during which Terna's Human Resources and Organisation department offered advice and real practice on how to best come across in a job interview.



# Training



PC2

Training is ongoing and provided at Terna throughout employees' working lives. The aim is to create value for people by increasing and diversifying their skills (employability) and to create value for the Company by developing human capital in line with its mission and business strategy as set out in the Industrial Plan 2021-2025.

In line with previous years, training was provided to new hires in order to facilitate their insertion, boost their professional, technical and operational skills, transmit highly specialised knowhow and ensure compliance with guidelines pertaining health and safety, privacy and the organisational model 231 (more information is provided in the box below).

The Covid-19 health emergency failed to halt training activities, which were offered in digital format whenever possible.

**New training projects** - First-time initiatives carried out in 2020 included:

- **Train the Trainers**, designed for 241 colleagues who over the years have acted as teachers, tutors and trainers in various training activities. This project is aimed at developing new skills and experimenting with innovative teaching methods to encourage the sharing, development and preservation of knowledge within the Company. Launched in June 2020 with a digital kick-off, the initiative is divided into a series of workshops, webinars and lab experiments that should draw to a close at the start of 2021 with a final celebration event. To date, it has provided 5,157 total hours of training.
- The **De-energised working methods** plan, designed to develop and consolidate knowledge regarding conventional methods applicable to work on de-energised lines and substations. Training focuses on theoretical aspects and has involved 961 participants. 189 editions were completed during the year, making a total of 15,352 hours of training.
- The **catalogue of specialisation courses** available online via Teams for technical and operational staff at infrastructure units. More than 350 colleagues took part in the courses, making a total of more than 2,500 hours of training.
- In relation to safety at the workplace, specifically as regards compliance with requirements set forth in the **Consolidated Law 81/08**, a training project especially designed for health and safety officers centring on coordinated implementation of the anti-Covid 19 prevention and control measures was carried out. Upon completion of the course, the participants received a certificate qualifying them as **Expert COVID Managers**.

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**Other training projects** - Initiatives begun in previous years that continued in 2020 included:

- The **Zero Accidents** project, launched in 2018, offered training initiatives delving further into the topic of safety at the workplace with a focus on the human factor. This included 45 webinars for approximately 1,350 technical and operational personnel and in addition 50 managers at Infrastructure Units. Additional information is on page 248.
- Launched in 2018, the **Terna 4.0 Go Digital** project has involved around 350 colleagues having outstanding digital skills. It continued in 2020 with new editions of the “Envisioning Academy”, entailing training and blended sessions to better prepare participants for the challenges presented by innovation, and the Envisioning Community, a thematic platform on the social media Yammer that allows users to share content.
- In the area of digital skills, **Adoption of the Microsoft Office 365 Suite** project was launched. The aim of individuals trained in the Terna 4.0 Go Digital project and adequately prepared by Microsoft is to teach all company staff how to use the Teams, One Drive and SharePoint applications.
- From amongst those initiatives centring on compliance, mention should be made of the **Business Ethics** course for new recruits, set forth in the Organisation and Management Model training plan drawn up in compliance with Legislative Decree 231/2001 and, in relation to the General Data Privacy Regulation (“GDPR”), the **campaign to raise awareness about e-learning as applied to the subject of Smart Working**.
- The year also saw continuation of “**Onboarding Terna**”, a project initiated at the end of 2018 to build awareness of Terna’s values and team working skills and designed for employees who have joined the Company since 2015.

Mention should be made of the following **job swap initiatives for employees** of Terna:

- **Guest Auditor Program**, which enabled two internal staff members to join the Internal Audit team for a period of around three months;
- **TSO Erasmus Terna - RTE** (second edition), involving the selection of two employees from Terna and two employees from the French TSO, Réseau de Transport d'Électricité (“RTE”) to exchange jobs for four weeks starting in November;
- **Exchange Programme Terna – Caiso**, which made it possible to host a senior manager from the California Independent System Operator (Caiso) for one month in the dispatching department. During 2021, a Terna employee will enjoy the same experience in California;
- **Visiting Scholar Stanford**, offering the chance to attend a seminar of courses at this prestigious California university and take part in a strategic research project.

**“DEVELOPING COMPETENCIES”**

KPI AND TARGETS IN THE INDUSTRIAL PLAN 2021-2025

KPI	2020		TARGET
	TARGET	RESULT	2021
Number of people trained in the digital skills (cumulative).	1,000	918	1,000
Safety culture training via the “Zero Accidents” project (since 2019)	100%	90%	100%
Infrastructure and unit personnel who have received safety training (%).			

Benchmark SDGs:



In 2020:

- 132,487 hours of training were provided (134,524 including Tamini), of which 60% led by in-house trainers;
- 98% of staff members attended at least one training course (96% including Tamini);
- 34 hours of training were provided per capita, down from the average for previous years due to the Covid-19 emergency.

**TRAINING**

	2020*	2020	2019	2018
Average hours of training				
- per employee <sup>(1)</sup>	32	34	47	55
By category <sup>(2)</sup>				
- senior managers	18	19	40	29
- middle managers	25	25	28	32
- office staff	30	31	43	59
- blue-collar workers	40	47	66	64
By gender <sup>(3)</sup>				
- men	33	34	47	53
- women	24	24	30	47
Hours of training in human rights	996	996	1,132	0
Participants in the course on human rights (%) <sup>(4)</sup>	6.4	6.4	7.2	0

<sup>(1)</sup> This column includes data relating to Tamini.  
<sup>(2)</sup> Ratio of total hours of training to the average number of employees.  
<sup>(3)</sup> Ratio of total hours of training by category to the average number of employees by category.  
<sup>(4)</sup> Ratio of total hours of training by gender to the total number of employees during the year (including those working for the Company for less than a year) by gender.  
<sup>(5)</sup> Percentage of employees who have followed at least one training course on human rights during the year.

Further information on training indicators is provided in the “Key Indicator Tables” on page 298.

**FOCUS**

**Staff training: comparative data**

Comparison of staff training performance is based on the per capita hours of training provided by companies. As per capita training is not necessarily linked to either the size of a company or the sector in which a company operates, data from all three peer groups (TSOs, electric utilities in the Dow Jones Sustainability Index and FTSE-MIB companies) were considered. (Additional information on how the benchmarking of staff training is conducted may be found in the “Sustainability” section of the Company’s website at [www.terna.it](http://www.terna.it)).

In 2020, Terna provided 34 hours of training for each employee, representing a downturn compared with the average for previous years due to the hygiene and health measures implemented in response to the Covid-19 pandemic. Consequently, hands-on training activities were by necessity cancelled (e.g., operational staff training).

This benchmark refers to data for 2019, a year in which Terna provided 47 hours of training per employee, ranking Terna above the average figure for all three peer groups. It should be noted that the Terna figure does not include on-the-job training.

	HOURS OF TRAINING PER CAPITA – 2019		
	TSO	FTSE-MIB	DJSI- ELECTRIC UTILITIES
Data available	10	39	10
Min.	16.3	7.2	14.4
Average	38.5	31.1	43
Max.	72	60	72
<b>Terna</b>		<b>47</b>	

# Development

PC2

In support of human resource development policies, Terna utilises the Professional System as its main tool for managing roles, skills and development paths within the organisation, enhancing the Group's key competencies.

Notably, as regards human capital development initiatives, 2020 saw the launch of the **Terna Skill Mapping** project. This introduces a corporate tool for mapping Group employees' key skills and correctly guiding training and development pathways.

As regards the **People for Performance ("P4P")** initiative, launched in 2018 and gradually expanded in 2019, 2020 saw the system extended to include the entire workforce.

In order to support achievement of the strategic objectives and performance, Terna has introduced variable incentive schemes differentiated by type of role:

- a Long-Term Incentive (LT) Plan, linked to long-term corporate objectives, including sustainability, for managers who perform key roles in the attainment of the Company's strategic objectives;
- an MBO (Management By Objectives) scheme for management, linking the amount of individual bonuses to:
  - the extent to which quantitative objectives are achieved, both at company and individual level, some of which relate to Terna's social and environmental commitments (e.g., the occupational safety indicator);
  - the qualitative assessment of performance, based on management behaviours.

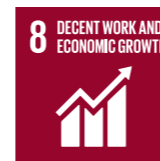
### "APPLICATION OF PERFORMANCE EVALUATION"

KPI AND TARGETS IN THE INDUSTRIAL PLAN 2021-2025



KPI	2020		TARGET				
	TARGET	RESULT	2021	2022	2023	2024	2025
	Employees taking part in performance appraisals (%)	85%	95%	95%	95%	95%	=

### Benchmark SDG:



To boost productivity, Terna has also signed an agreement with the trade unions regarding a performance-related bonus for blue-collar workers and office staff, which takes into account the Company's overall performance and specific objectives linked to employees' operational performance.

# Company welfare

PC3

Pay and conditions for Terna's staff (remuneration, working hours, holidays and other aspects of employment) are, as in other large companies in the electricity sector, substantially better than the Italian average.

Benefits are provided for all employees, including those on part-time contracts and apprenticeships. These include:

- supplementary healthcare;
- supplementary pension schemes (voluntary);
- insurance for non-occupational accidents;
- recreational associations;
- maternity leave that goes beyond legal requirements;
- soft loans for first-time home buyers and to meet needs arising from serious family situations;
- canteen or food vouchers.

Terna's employees (excluding senior managers, who can participate in a different fund) are automatically enrolled in the Supplementary Healthcare Fund for ENEL Group employees (FISDEI).

Medical care for illnesses is partly covered by FISDE, for members (enrolled employees) as well as their dependents.

BENEFICIARIES	INFORMATION AND RISK PREVENTION	TREATMENT
Employees	Yes	Yes
Employee's dependents	No	Yes

Terna offers its staff defined contribution supplementary pensions on a voluntary basis. Senior managers can join the Fondenel<sup>2</sup> pension fund. Other employees (blue-collar workers, office staff, middle managers) can join the Fopen<sup>3</sup> pension fund.

During their working lives, all employees are contractually entitled to receive a "loyalty bonus" on reaching their 25th and 35th year of employment at the Company.

In 2018, Terna also launched 2 initiatives focusing on company welfare and Smart Working, both consolidated in 2020..

<sup>2</sup> <http://fondenel.previnet.it>  
<sup>3</sup> [www.fondopensioneopen.it](http://www.fondopensioneopen.it)

**Terna Welfare**

Given the positive outcomes in 2018 and following the stipulation of specific agreements with the trade unions, “**Terna Welfare**” was continued and enhanced in 2020. This initiative enables Terna Group staff to use a part of their performance-linked cash bonus to purchase goods and services or to make supplementary pension contributions.

The amount chosen is tax-exempt and in 2020 the top-up provided by the Company was increased to 16% (compared with 15% in 2019 and 12% in 2018).

In defining the plan, special attention was given to the “Family” aspect, especially as regards the portion of the bonus earmarked by employees to reimburse family-related expenditures, pertaining to schooling and education, such as tuition, study vacations, books and fees.

**Smart Working**

To help staff reconcile their working and home lives, the **Smart Working** trial was launched on 1 July 2018, involving around 100 employees who work at the Company’s Rome offices.

In view of the positive outcome and feedback, in 2019, Smart Working was extended to an additional 500 employees in Rome and in other cities such as Turin, Milan, Padua and Naples. The planned extension to the remaining Transmission Operating Areas in Florence, Cagliari and Palermo was sped up due to the Covid-19 emergency.

Specifically, since issuance of the Cabinet Office Decree of 4 March 2020 and in conjunction with the initial closure of schools, the Company extended the possibility of working from home to employees throughout Italy who have young children, people who have an autoimmune disease or are undergoing chemo or radiation therapy and the over-65s. In compliance with the instructions set forth in the Cabinet Office Decree of 9 March 2020, since 13 March 2020 this possibility has been extended to all areas of the work carried out by staff with administrative duties.

Accordingly, the number of employees working from home rose from 476 at the start of 2020, right before the pandemic, to 2,827 at the end of 2020, representing an increase of 494%.

As at the date of this report, the Company foresees a maximum 40% presence of employees and is looking at possible Smart Working solutions in the post Covid-19 era. To this end, in November 2020, Terna signed **an agreement with national trade unions** which, once the state of emergency has ended, provides for the introduction of **Smart Working in a structured form**. Specifically, depending on an employee’s role, the agreement will enable staff to work from home for up to one or two days a week, with additional work-life balance schemes introduced for expectant mothers and new parents and, outside normal work hours, the right to disconnect thanks to the application of best practice behaviours on the part of both colleagues and managers.

Care for children and other family members

< 401-3

Italian law regulates maternity leave and parental leave and provides general coverage. In comparison, Terna offers more favourable conditions, in application of the National Collective 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;
- unpaid leave, with no restrictions on use, in the event of illness of children under the age of 3;
- 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;
- paid leave to workers who are new fathers, with up to 5 days paid by the Company as well as 5 paid by state social security (INPS);
- more flexible work 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 the work-life balance and further support parenthood such as, by way of example, the possibility to take half a day’s leave to accompany children on their first day of primary school. Moreover, the plan to set up a childcare centre at the Company’s head office in Rome is currently being implemented, with the aim of maximising working parents’ balance between their work and parental commitments.

The table below shows the number of employees who have taken at least 29 days’ parental leave.

	2020*	2020	2019	2018
Total	31	30	18	16
- women	26	25	15	14
- men	5	5	3	2

(\*) This column also includes figures for Tamini.

Employees taking parental leave in the three-year periods shown subsequently returned to work.

In 2020, 32 workers took compulsory maternity leave.

# Diversity and equal opportunities

- 405-1 >
- 405-2 >
- PC4

Terna uses 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 Guidelines (e.g., its Human Rights Policy).

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.

The percentage of women in the 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 14.2% at the end of 2020 (13.9% including Tamini). In the same year, 24.4% of hires, not taking into account blue-collar workers, were women (21.1% in 2019; 23.8% including Tamini).

### Inclusion in the Bloomberg Gender Equality Index (GEI)

In January 2021, Terna's inclusion in the Bloomberg Gender Equality Index (GEI) was confirmed for the third consecutive year. The GEI is an international index that measures companies' performance regarding gender equality issues and the quality and transparency of their public reporting.

The Company improved its GEI score the previous year, outperforming the average achieved not only by companies included in the index but also that reported for the Utilities sector subgroup. The GEI measures gender equality based on five pillars: female leadership and talent pipeline, equal pay between men and women, inclusive culture, sexual harassment policies and female advancement. Specifically, Terna was recognised for its excellent performance concerning gender pay equality as well as the progress achieved by the company in the areas of inclusive culture and female advancement ("Equal Pay & Gender Pay Parity" and "Pro-Women Brand").

A score of 100/100 for disclosure showcases Terna's choice of reporting transparency and quality. The final GEI 2021 edition included 380 companies in 44 countries and regions, operating in 11 different market sectors.

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 2020, the percentage of female managers out of the total number of managers (19.8%) was once again higher than the percentage of women in relation to the total number of employees, without taking into account blue-collar workers (19.2%). 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 the pay gaps are consequently more influenced by the nature of the related roles and the fact that there are few incoming and outgoing staff.

### EQUAL OPPORTUNITIES FOR MEN AND WOMEN

PERCENTAGES	2020*	2020	2019	2018
<i>Pay gap between men and women % <sup>(1)</sup></i>				
Senior managers	84.2	83.1	83.0	78.9
Middle managers	95.3	95.3	94.6	93.9
Office staff	99.0	100	99.4	97.7
<i>% remuneration gap between men and women % <sup>(2)</sup></i>				
Senior managers	87.5	87.7	81.4	74.3
Middle managers	95.8	95.8	95.1	95.0
Office staff	94.5	95.3	96.4	93.6

<sup>(1)</sup> This column includes data regarding Tamini.

<sup>(1)</sup> This figure is based on the annual basic 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.

<sup>(2)</sup> 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. This figure has not been calculated for blue-collar workers as there are no women in this category. In addition to basic pay, total pay also includes productivity bonuses, various forms of incentive and the value of benefits received during the year.

Almost all employees are Italian citizens (only 33 employees have foreign citizenship).

< 202-2

At 31 December 2020, Terna employed 144 people from legally protected categories (142 in 2019 and 140 in 2018; 157 people in 2020 including Tamini), in line with the regulations applicable to the Company. Additional indicators regarding equal opportunities are available (see the tables on page 300).





Independent Report issued by  
Deloitte & Touche S.p.A. on  
the limited assurance of the  
Consolidated Non-financial  
Statement for 2020.



Report

# Independent

limited assurance report on the  
Consolidated Non-financial Statement for 2020

# Deloitte.

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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, 2020 prepared on the basis of art. 4 of the Decree, and approved by the Board of Directors on March 24, 2021 (the "NFS").

#### 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.

Ancona Bari Bergamo Bologna Brescia Cagliari Firenze Genova Milano Napoli Padova Parma Roma Torino Treviso Udine Verona

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### 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. and Terna Rete Italia S.p.A. 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.
- at site/plant level, Direzione Territoriale Nord-Ovest – Area Operativa Trasmissione Torino and Unità Impianti di Pont-Saint-Martin – Terna Rete Italia S.p.A., 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, 2020 is not prepared, in all material aspects, in accordance with articles 3 and 4 of the Decree and GRI Standards.

### Other matters

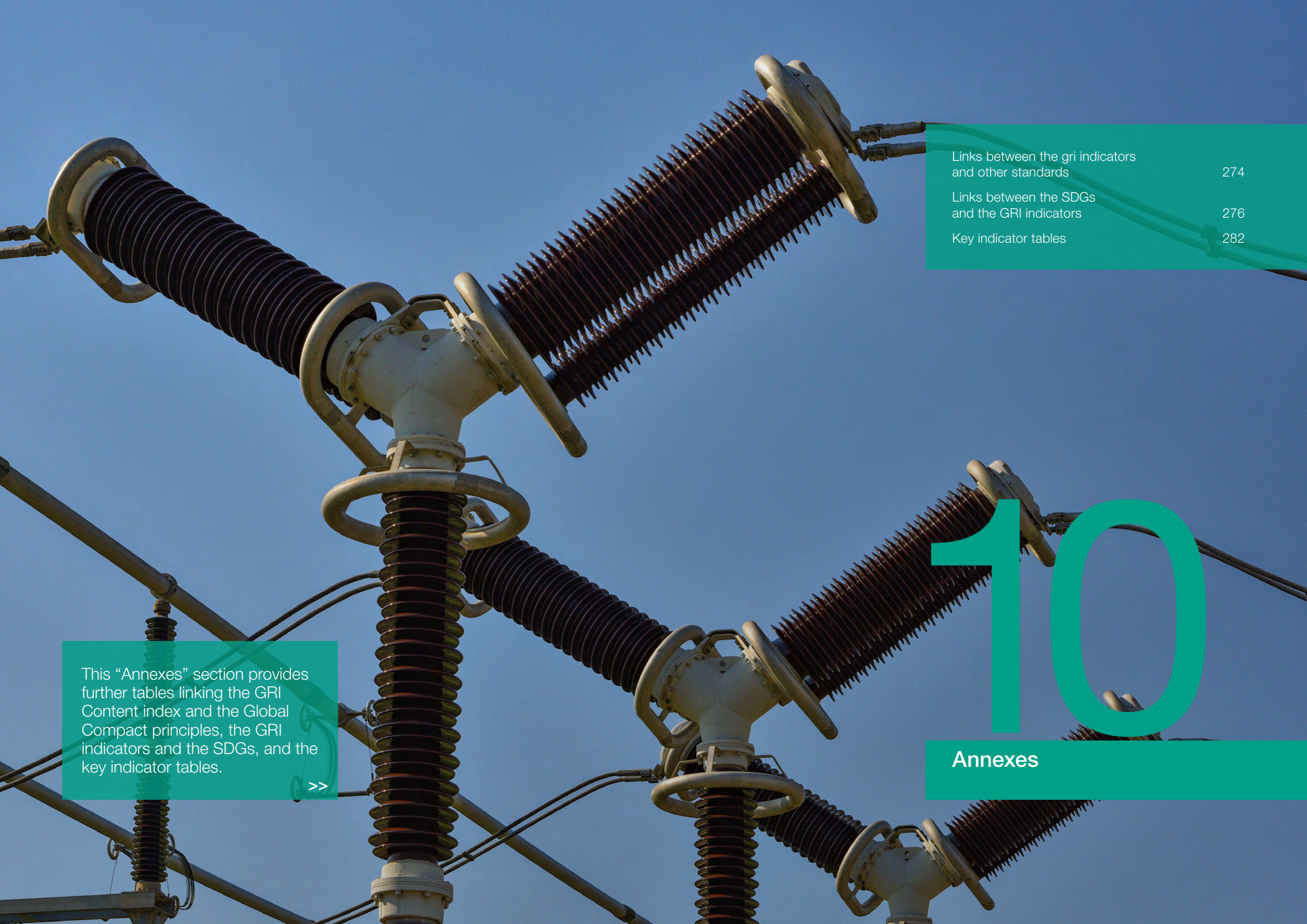
The NFS for the years ended December 31, 2018 and December 31, 2019, whose data are presented for comparative purposes, have been subject to a limited assurance engagement by another auditor that respectively, on 11 April 2019 and 16 April 2019, expressed an unmodified conclusion.

DELOITTE & TOUCHE S.p.A.

Signed by  
**Franco Amelio**  
 Partner

Milan, Italy  
 April 8, 2021

*This report has been translated into the English language solely for the convenience of international readers.*



Links between the gri indicators and other standards	274
Links between the SDGs and the GRI indicators	276
Key indicator tables	282

This “Annexes” section provides further tables linking the GRI Content index and the Global Compact principles, the GRI indicators and the SDGs, and the key indicator tables.



# 10

**Annexes**

# Links

## between the gri indicators and other standards

This table shows the links between the GRI Standards performance indicators applicable to Terna and each of the ten Global Compact Principles, with the aim of helping interested stakeholders find the relevant information to enable them to assess Terna's implementation of the principles.

AREA	GLOBAL COMPACT PRINCIPLE	GRI TOPIC AND DISCLOSURES	PAGE OF THE REPORT
Human Rights	<b>Principle 1</b> Businesses should <b>support and respect the protection of internationally proclaimed human rights</b>	<b>Human rights</b>	
		"Investment" Aspect	412-3 46, 114
		"Assessment" Aspect	412-1 46, 114
		<b>Society</b>	
		"Local Communities" Aspect	413-1 46, 137 413-2 46, 139-206
	<b>Principle 2</b> Businesses should <b>make sure that they are not complicit in human rights abuses</b>	<b>Human rights</b>	
		"Investment" Aspect:	412-3 46, 114
		"Supplier Human Rights Assessment" Aspect	414-1 46, 118 414-2 46, 118
		<b>Human rights</b>	
		"Investment" Aspect	412-3 46, 114
<b>Principle 3</b> Businesses should <b>uphold the freedom of association</b> and the effective recognition of the <b>right to collective bargaining</b>	"Supplier Human Rights Assessment" Aspect	414-1 46, 118 414-2 46, 118	
	"Supplier Human Rights Assessment" Aspect	414-2 46, 118	
	407-1 46, 120		
	<b>Labour</b>		
	"Labour/Management Relations" Aspect	402-1 46, 149	
Labour	<b>Principle 4</b> Businesses should <b>eliminate all forms of forced and compulsory labour</b>	<b>Human rights</b>	
		"Force or Compulsory Labour" Aspect	409-1 47, 114-117, 120-121
	<b>Principle 5</b> Businesses should <b>effectively abolish child labour</b>	<b>Human rights</b>	
		"Child Labour" Aspect	408-1 47, 114-117, 120-121
	<b>Principle 6</b> Businesses should <b>eliminate all forms of discrimination</b> in respect of employment and occupation	<b>Economy</b>	
		"Market Presence" Aspect	202-2 47, 265
		<b>Correct labour practices</b>	
		"Employment" Aspect	401-1 46, 240, 242, 294
		"Training" Aspect	404-1 46, 259, 298
	<b>Principle 6</b> Businesses should <b>eliminate all forms of discrimination</b> in respect of employment and occupation	"Equal Opportunities" Aspect	405-1 46, 61, 240, 264, 283, 294, 300
"Equal Remuneration for Men and Women" Aspect		405-2 46, 264, 300	
<b>Human rights</b>			
"Non-Discrimination" Aspect		406-1 46, 114, 286	

AREA	GLOBAL COMPACT PRINCIPLE	GRI TOPIC AND DISCLOSURES	PAGE OF THE REPORT
Environment	<b>Principle 7</b> Businesses should support a <b>precautionary approach to environmental challenges</b>	<b>Environment</b>	
		"Materials" Aspect	301-1 45, 212-213, 293
		"Water" Aspect	303-1 47, 212, 289
		305-1 45, 221-223, 224, 291	
		"Emissions" Aspect	305-2 45, 221-223, 291 305-3 45, 231, 292
	<b>Principle 8</b> Businesses should undertake initiatives to promote <b>greater environmental responsibility</b>	<b>Environment</b>	
		"Materials" Aspect	301-1 45, 212-213, 293
		"Water" Aspect	303-1 47, 212, 289
		"Biodiversity" Aspect	304-1 45, 217, 291 304-4 45, 217, 219
		"Effluents and Waste" Aspect	306-2 45, 213-214, 290 306-3 45, 214
<b>Principle 9</b> Businesses should encourage the <b>development and diffusion of environmentally friendly technologies</b>	"Compliance" Aspect	307-1 45, 107	
	"Supplier Environmental Assessment" Aspect	308-1 45, 118-120 308-2 45, 118-123	
	<b>Environment</b>		
	"Energy" Aspect	302-3 45, 227	
	Emissions" Aspect	305-4 45, 223-224, 292 305-5 45, 224-225, 228-230	
Combatting corruption	<b>Principle 10</b> Businesses should <b>work against corruption in all its forms</b> , including extortion and bribery	<b>Society</b>	
		"Anti-corruption" Aspect	205-2 44, 112, 298 205-3 44, 107
		"Public Policy" Aspect	415-1 46, 134

# Links

between the SDGs and the GRI indicators



## GOAL 1 – No poverty

End poverty in all its forms everywhere.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Accesso alla terra	413-2	46, 139, 206
Disponibilità di prodotti e servizi per coloro che dispongono di un basso reddito	419-1	46, 107
Accesso all'energia elettrica	EU28	47, 168-169, 288
	EU29	47, 168-169, 288



## GOAL 2 – Zero hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Access to the land	413-2	46, 139, 206
Infrastructure investment	201-1	44, 84, 284
	203-1	44, 134-136, 174-175
Physical and economic displacement	EU22	47, 139



## GOAL 3 – Good health and wellbeing

Ensure healthy lives and promote well-being for all at all ages.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Air quality	305-1	45, 221-223, 224, 291
	305-2	45, 221-223, 291
	305-3	45, 231, 292
Occupational health and safety	403-2	46, 246
Spills	306-3	45, 214

## GOAL 4 – Quality education

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Employee training and education	404-1	46, 259, 298



## GOAL 5 – Gender equality

Achieve gender equality and empower all women and girls.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Equal remuneration for women and men	405-2	46, 264, 300
	401-1	46, 240-242, 294
Gender equality	405-1	46, 61, 240, 264, 283, 294, 300
	201-1	44, 84, 284
Infrastructure investment	203-1	44, 134-136, 174-175
	406-1	46, 114, 286
Non-discrimination	406-1	46, 114, 286



## GOAL 6 – Clean water and sanitation

Ensure availability and sustainable management of water and sanitation for all.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Spills	306-3	45, 214
Sustainable water withdrawals	303-1	47, 212, 289
Waste	306-2	45, 213-214, 290
	304-1	45, 217, 291
	304-4	45, 217, 219
Water-related ecosystems and biodiversity	306-3	45, 214
	EU13	47, 209, 210-211, 217

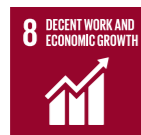


## GOAL 7 – Affordable and clean energy

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Access to electricity	EU28	47, 168-169, 288
	EU29	47, 168-169, 288
Energy efficiency	302-3	45, 227
	EU12	47, 179, 231
Infrastructure investment	201-1	44, 84, 284
	203-1	44, 134-136, 174-175





## GOAL 8 – Decent work and economic growth

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Abolition of child labour	408-1	47, 114-117, 120-121
Availability of a skilled workforce	EU15	47,243
Diversity and equal opportunity	405-1	46, 61, 240, 264, 283, 294, 300
Earnings, wages and benefits	401-2	46, 261
Economic performance	201-1	44, 84, 284
Elimination of forced or compulsory labour	409-1	47, 114-117, 120-121
Employee training and education	404-1	46, 259, 298
Employment	401-1	46, 240-242, 294
Energy efficiency	302-3	45, 227
	EU12	47, 179, 231
Equal remuneration for women and men	405-2	46, 264, 300
Freedom of association and collective bargaining	407-1	46, 120
Labour practices in the supply chain	414-1	46, 118
	414-2	46, 118
Labour/management relations	402-1	46, 149
Materials efficiency	301-1	45, 212-213, 293
Non-discrimination	406-1	46, 114, 286
	403-1	46, 246
Occupational health and safety	403-2	46, 246
	403-4	46, 149, 245
Youth employment	401-1	46, 240-242, 294



## GOAL 9 – Industry, innovation and infrastructure

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Infrastructure investment	201-1	44, 84, 284
	203-1	44, 134-136, 174-175
Research and development	201-1	44, 84, 284

## GOAL 10 – Reduced inequalities

Reduce inequality within and among countries.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Economic development in areas of high poverty	203-1	44, 134-136, 174-175
Equal remuneration for women and men	405-2	46, 264, 300

## GOAL 11 – Sustainable cities and communities

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Infrastructure investment	201-1	44, 84, 284
	203-1	44, 134-136, 174-175

## GOAL 12 – Responsible consumption and production

Ensure sustainable consumption and production patterns

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Air quality	305-1	45, 221-223, 224, 291
	305-2	45, 221-223, 291
	305-3	45, 231, 292
Energy efficiency	302-3	45, 227
	EU12	47, 179, 231
Materials efficiency/recycling	301-1	45, 212-213, 293
Procurement practices	204-1	44, 118, 285
Spills	306-3	45, 214
Waste	306-2	45, 213-214, 290

## GOAL 13 – Climate action

Take urgent action to combat climate change and its impacts.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Energy efficiency	302-3	45, 227
	EU12	47, 179, 231
	305-1	45, 221-223, 224, 291
	302-3	45, 227
	305-2	45, 221-223, 291
GHG emissions	305-3	45, 231, 292
	204-1	44, 118, 285
	305-4	45, 223-224, 292
	305-5	45, 224-225, 228-230
	201-2	79-83
Risks and opportunities due to climate change	201-2	79-83





## GOAL 14 – Life below water

Conserve and sustainably use the oceans, seas and marine resources.

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Marine biodiversity	304-1	45, 217, 291
	304-4	45, 217, 219
	EU13	47, 209, 210-211, 217
Ocean acidification	305-1	45, 221-223, 224, 291
	305-2	45, 221-223, 291
	305-3	45, 231, 292
	305-4	45, 223-224, 292
	305-5	45, 224-225, 228-230
Spills	EU12	47, 179, 231
	306-3	45, 214



## GOAL 15 – Life on land

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Forest degradation	305-1	45, 221-223, 224, 291
	305-2	45, 221-223, 291
	305-3	45, 231, 292
	305-4	45, 223-224, 292
	305-5	45, 224-225, 228-230
Mountain ecosystems	304-1	45, 217, 291
	304-4	45, 217, 219
	EU13	47, 209, 210-211, 217
Natural habitat degradation	304-1	45, 217, 291
	304-4	45, 217, 219
	EU13	47, 209, 210-211, 217
Spills	306-3	45, 214
	304-1	45, 217, 291
Terrestrial and inland freshwater ecosystems	304-4	45, 217, 219
	EU13	47, 209, 210-211, 217

## GOAL 16 – Peace, justice and strong institutions

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Abolition of child labour	408-1	47, 114-117, 120-121
	205-2	44, 112, 298
Anti-corruption	205-3	44, 107
	307-1	45, 107
Compliance with laws and regulations	206-1	44, 107
	419-1	46, 107
Non-discrimination	406-1	46, 114, 286
Protection of privacy	418-1	46, 193



## GOAL 17 – Partnerships for the goals

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

TOPIC	GRI STANDARD DISCLOSURE	PAGE
Responsible approach to taxation	207-1	44, 85
	207-2	44, 81, 85
	207-3	44, 86
	207-4	44, 56, 86



# Key indicator tables

The following tables present the indicators provided for in the Global Reporting Initiative standards, together with other indicators that Terna believes it is important to publish to illustrate its performance. Certain data already included in the body of the Report are shown for the sake of completeness. Key environmental and social data for the Tamini Group has been consolidated in 2020. As a result, solely with regard to 2020, a number of tables show both the Tamini Group's consolidated data and the data relating to the scope used in the 2019 and 2018 Reports.

For each indicator, the tables show:

- the unit of measurement
- the data for 2020, 2019 and 2018
- if material, the absolute change between 2020 and 2019 with reference to Terna's scope excluding the Tamini Group
- if material, the percentage change between 2020 and 2019 with reference to Terna's scope excluding the Tamini Group. This change may not match the change calculated on the basis of the figures in the table which, in general, have been rounded to one decimal place.

In general, the figures have been calculated at 31 December and refer to the full year in the case of flow indicators.

This section ends with an overview of key environmental and social data for the subsidiary, Brugg Kabel AG, a 90% stake in which was acquired on 29 February 2020. The company is a subsidiary of Terna Energy Solutions.

To facilitate the reader, definitions of the units of measurement used to report the indicators are defined below. Reference should also be made to the table of acronyms provided after the indicators.

## KEY TO UNITS OF MEASUREMENT

#	Category
%	Percentage
€	Euro
€000	Thousands of euros
€m	Millions of euros
GJ	Gigajoule
GWh/year	Gigawatt hours per year
GWh	Gigawatt hour
hrs	Hours
Kg	Kilogrammes
Km	Kilometres
m <sup>3</sup>	Cubic metres
Min.	Minutes
MW	Megawatt
no.	Number
tonnes	Tonnes
CO <sub>2</sub> in tonnes	Carbon dioxide in tonnes
yrs	Years

## Profile and activities

### Corporate governance <sup>(1)</sup>

#### COMPOSITION OF THE BOARD OF DIRECTORS AT 24 MARCH 2021

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	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Men	%	53.8	55.6	55.6	-	-
Women	%	46.2	44.4	44.4	-	-
Under the age of 30	%		-	-	-	-
Between the ages of 30 and 50	%	38.5	22.2	22.2	-	-
Over the age of 50	%	61.5	77.8	77.8	-	-

<sup>(1)</sup> Further details of Terna S.p.A.'s corporate governance are provided in the "Report on Corporate Governance and Ownership Structures", published on the website ([www.terna.it](http://www.terna.it)).

### Shareholders

#### COMPOSITION OF THE SHAREHOLDER BASE

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
CDP Reti S.p.A. <sup>(1)</sup>	%	29.85	29.85	29.85	-	-
Other institutional + retail investors	%	70.15	70.15	70.15	-	-
of which significant institutional investors <sup>(2)</sup>	%	5.12	5.12	5.12	-	-

<sup>(1)</sup> A subsidiary of Cassa Depositi e Prestiti S.p.A.

<sup>(2)</sup> 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.

#### SOCIALLY RESPONSIBLE INVESTMENTS <sup>(1)</sup>

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
% of share capital held by identifiable institutional investors owned by SRIs	%	21	15	13	6	0.4

<sup>(1)</sup> In addition to more traditional criteria, these investments are also based on an approach that takes into account ESG (Environmental, Social, Governance) aspects. Further details of SRIs are provided on page 60 in the section of this Report entitled "Profile and activities".

#### SHAREHOLDER RETURN

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Total Shareholder Return (TSR)						
- since the IPO	%	801.5	724.3	558.8	77.2	11
- since the beginning of the year	%	9.4	25.1	7.3	-15.7	-63

## Economic performance

GROUP FINANCIAL HIGHLIGHTS <sup>(1)</sup>

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Revenue	€m	2,513.5	2,295.1	2,197.0	218.4	9.5
EBITDA	€m	1,830.4	1,741.2	1,650.6	89.2	5.1
EBIT	€m	1,186.6	1,155.1	1,096.5	31.5	2.7
EBT	€m	1,093.1	1,077.4	1,007.7	15.7	1.5
Net profit	€m	785.5	757.3	706.6	28.2	3.7

<sup>(1)</sup> The above amounts have been taken from the Group's reclassified income statement for 2020.

201-1 > Value added <sup>(1)</sup>MEASUREMENT AND REDISTRIBUTION OF VALUE ADDED <sup>(1) (2)</sup>

	UNITÀ	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
A - Revenue (including financial income)	€	2,613,331,344	2,383,691,816	2,343,453,341	229,639,527	10
<b>1 - ECONOMIC VALUE GENERATED (A)</b>	€	<b>2,613,331,344</b>	<b>2,383,691,816</b>	<b>2,343,453,341</b>	<b>229,639,527</b>	<b>10</b>
B - Operating costs	€	1,086,646,224	938,286,449	971,553,759	148,359,775	16
C - Remuneration of employees	€	289,001,287	257,523,131	244,828,800	31,478,156	12
D - Payments to the government	€	338,927,680	337,429,626	320,273,045	1,498,053	0
E - Payments to credit providers	€	102,904,766	86,149,234	95,095,920	16,755,532	19
F - Payments to providers of risk capital <sup>(3)</sup>	€	541,692,844	501,493,004	468,730,134	40,199,840	8
G - Investments in the community <sup>(4)</sup>	€	588,685	361,970	83,500	226,715	63
<b>2 - ECONOMIC VALUE DISTRIBUTED (B+C+D+E+F+G)</b>	€	<b>2,359,761,486</b>	<b>2,121,243,415</b>	<b>2,100,565,158</b>	<b>238,518,071</b>	<b>119</b>
<b>3 - ECONOMIC VALUE RETAINED <sup>(1-2) (5)</sup></b>	€	<b>253,569,858</b>	<b>262,448,402</b>	<b>242,888,183</b>	<b>-8,878,544</b>	<b>-109</b>

<sup>(1)</sup> Amounts relating to the creation and distribution of economic value have been taken from the consolidated income statement prepared in accordance with IFRS/IAS. In particular, the Group has used IFRS/IAS since 2005.

<sup>(2)</sup> Notably, taking account of the new presentation of "Economic value retained", for comparative purposes, the balances for 2019 and 2018 have been restated, in line with the figures taken from the consolidated income statements for 2019 and 2018.

<sup>(3)</sup> Payments to the providers of risk capital in 2020 correspond with the interim dividend (€182.7 million) payable from 25 November 2020 to the holder of each ordinary share outstanding (net of treasury shares held at the record date of 24 November 2020, 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 24 March 2021 (€359 million).

<sup>(4)</sup> Only donations are considered (for more information on "Investment in the community", see page 134).

<sup>(5)</sup> Corresponds with consolidated net profit for the year after payments to the providers of risk capital.

## Sustainable business management

## Electric utilities

## CUSTOMER ACCOUNTS REGULATED MARKET

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Interruptible users	no.	212	221	243	-9	-4.1
Distributors directly connected with the NTG <sup>(1)</sup>	no.	54	54	51	0	0.0
Supply-side dispatching service users (producers and traders)	no.	136	130	135	6	4.6
Demand-side dispatching service users (traders and end users, including the Single Buyer)	no.	193	187	187	6	3.2

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

## Suppliers

## NUMBER AND QUALIFICATION OF SUPPLIERS

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Number of suppliers</b>						
Number of contracted suppliers	no.	2,204	2,251	2,148	-47	-2.1
<b>Procurement of materials and services</b>						
Goods	€m	577	839	656	-262	-31.2
Works	€m	529	388	340	141	36.2
Services	€m	278	257	188	21	8.2
<b>Supplier origin (% of total)</b>						
Italian suppliers	%	96.9	88.0	92.8	8.9	10.1
Overseas suppliers	%	3.1	12.0	7.2	-8.9	-74.2
<b>Award procedures <sup>(1)</sup></b>						
European tenders	%	73.9	77.8	74.9	-3.9	-5.0
Non-European tenders	%	11.8	13.2	10.9	-1.4	-10.3
Fixed	%	11.6	7.5	12.0	4.1	54.2
One-off contracts <sup>(2)</sup>	%	2.7	1.6	2.2	1.2	75.4
<b>Qualification</b>						
Companies on list of approved suppliers	no.	522	508	414	14	2.8
Qualified categories	no.	47	47	45	0	0.0
Number of audits	no.	647	766	1,214	-119	-15.5

<sup>(1)</sup> Based on the percentage of the value of contract awards.

<sup>(2)</sup> The "One-off contracts" category primarily includes: sponsorship and donations, fees paid to public entities and trade bodies and contracts awarded to previously qualified suppliers by Terna Plus.

## Credit providers

## DEBT

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Financial debt	€m	9,173	8,259	7,899	914	11
Equity <sup>(1)</sup>	€m	4,416	4,232	4,054	184	4
Debt to Equity	%	207.7	195.2	194.8		

<sup>(1)</sup> The figures for equity at 31 December 2020, 2019 and 2018 include non-controlling interests in the Tamini Group and the subsidiaries, Terna Interconnector, Avvenia, SPE Transmissora de energia Linha Verde II S.A., SPE Transmissora de energia Linha Verde I S.A. (acquired on 11 August 2020) and Brugg Kabel AG (90% acquired on 29 February 2020).

## Reports and complaints

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## IMPLEMENTATION OF THE CODE OF ETHICS

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Total reports received <sup>(1)</sup>	no.	5	5	2	-	-
Areas of operation for which reports received <sup>(2)</sup>						
- Treatment of employees	no.	1	-	2	-	-
- Supplier management	no.	1	5	-	-	-
- Environment and Safety	no.	-	-	-	-	-
- Corruption/ Corporate loyalty	no.	-	-	-	-	-
- Terna's Compliance /Other	no.	3	-	-	-	-
Outcome of reports						
- Without grounds	no.	4	3	2	-	-
- Action taken <sup>(4)</sup>	no.	-	2	-	-	-
- Under investigation	no.	1	-	-	-	-

<sup>(1)</sup> In 2020, three reports were sent to the Audit department by mail/email and two via the Whistleblowing portal. In 2019, reports were sent to the Audit department by mail, and one via the Whistleblowing portal. The reports received in 2018 were sent to the Audit department. It should be noted that in 2020 there were no episodes of discrimination and harassment, the only appeal in this regard concerned the working conditions of an employee of a supplier. Following a verification carried out by the Audit with the support of the external supplier, the report was deemed unfounded.

<sup>(2)</sup> Each report or infringement may relate to any number of areas of operation.

<sup>(3)</sup> 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 report.

## ENVIRONMENTAL COMPLAINTS

	UNIT	2020		2019		2018		CHANGE 20-19		% CHANGE 20-19
		RECEIVED	DEALT WITH	RECEIVED	DEALT WITH	RECEIVED	DEALT WITH	RECEIVED	RECEIVED	
Total complaints received	n°	38	31	20	17	26	24	18	90	
<b>Environmental aspect of complaints received</b>										
- Waste	n°	2	2	-	-	-	-	2	-	
- Noise	n°	12	8	6	4	12	11	6	100	
- Biodiversity	n°	1	0	-	-	-	-	1	-	
- Landscape	n°	2	2	-	-	-	-	2	-	
- Electrical and magnetic fields	n°	2	2	3	3	8	8	-1	-33	
- Lighting	n°	0	0	-	-	-	-	0	-	
- Vegetation management	n°	12	12	9	8	4	3	3	33	
- Other	n°	7	5	2	2	2	2	5	250	

## Litigation

## ENVIRONMENTAL LITIGATION

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Pending	no.	85	88	85	-3	-3
In progress	no.	7	10	7	-3	-30
Settled	no.	10	7	18	3	43

## SUPPLIER LITIGATION

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Pending	no.	30	23	29	7	30
In progress	no.	9	2	6	7	350
Settled	no.	2	8	0	-6	-75

## CUSTOMER LITIGATION

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Pending	no.	11	11	15	0	0
In progress	no.	0	3	0	-3	-100
Settled	no.	0	7	0	-7	-100

## LITIGATION WITH EMPLOYEES

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Pending	no.	8	8	11	0	0
In progress	no.	3	4	3	-1	-25
Settled	no.	3	7	2	-4	-57

## Electricity service and innovation

## Grid

## ELECTRICITY SUBSTATIONS

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>380kV</b>						
Substations	no.	166	165	164	1	0.6
Power transformed	MVA	119,458	117,504	115,258	1,954	1.7
<b>220kV</b>						
Substations	no.	146	149	150	-3	-2.0
Power transformed	MVA	32,397	31,996	31,417	401	1.2
<b>Lower voltages (≤ 150kV)</b>						
Substations	no.	577	574	567	3	0.5
Power transformed	MVA	3,972	3,884	3,914	88	2.3
<b>TOTAL</b>						
Substations	no.	889	888	881	1	0.1
Power transformed	MVA	155,827	153,384	150,589	2,443	1.6

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## POWER LINES

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>380kV</b>						
Length of circuits	km	12,867	12,854	12,496	13	0.10
Length of lines	km	11,686	11,673	11,315	13	0.11
<b>220kV</b>						
Length of circuits	km	11,847	11,845	11,915	2	0.02
Length of lines	km	9,477	9,473	9,549	4	0.04
<b>Lower voltages (≤ 150kV)</b>						
Length of circuits	km	50,009	49,969	50,031	40	0.08
Length of lines	km	46,790	46,761	46,806	29	0.06
<b>TOTAL</b>						
<b>Length of circuits</b>	<b>km</b>	<b>74,723</b>	<b>74,668</b>	<b>74,442</b>	<b>54</b>	<b>0.07</b>
underground cables	km	2,181	2,091	1,945	90	4.30
submarine cables	km	1,762	,762	1,454	-	-
200, 400 and 500kV direct current	km	2,435	2,435	2,077	-	-
<b>Length of lines</b>	<b>km</b>	<b>67,954</b>	<b>67,907</b>	<b>67,671</b>	<b>47</b>	<b>0.07</b>
underground cables	km	2,181	2,091	1,945	90	4.30
submarine cables	km	1,762	1,762	1,454	-	-
200, 400 and 500kV direct current	km	2,115	2,115	1,757	-	-

## Quality of service

## GRID EFFICIENCY

	UNIT	2020	2019 <sup>(1)</sup>	2018	CHANGE 20-19	% CHANGE 20-19
Power supplied	GWh/yr	302,751	319,622	321,431	-16,871	-5.3

<sup>(1)</sup> The figure for 2019 has been recalculated with the final data for that year and is, therefore, different from the figure shown in the 2019 Sustainability Report. The figure for power supplied in 2020 is provisional.

## TECHNICAL QUALITY

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
ASA (Average Service Availability) <sup>(1)</sup>	%	99.99908	99.99982	99.99989	-0.00074	-0.001
SAIFI + MAIFI (System Average Interruption Frequency Index) Terna <sup>(2)</sup>	no.	0.26	0.35	0.27	-0.09	-25.7
AIT (Average Interruption Time) Terna <sup>(3)</sup>	min.	0.76	0.94	1.03	-0.18	-19.1
RENS (Regulated Energy Not Supplied) Terna <sup>(4)</sup>	MWh	275	540	344	-265	-53.3
SAIDI (System Average Interruption Duration Index) <sup>(5)</sup>	hrs	0.0806	0.0158	0.0096	0.0648	411

<sup>(1)</sup> ASA measures the availability of the NTG. It is calculated as the ratio of the sum of energy not supplied to users connected to the NTG (ENS) and the energy fed into the grid. At the date of preparation of this document, the figures for 2020 are not yet final and have not been approved by the regulator (ARERA), and are therefore to be considered provisional.

<sup>(2)</sup> The number of short and long outages. It is calculated as the ratio of the number of users connected directly to the NTG involved in the outages and the number of users of the NTG. At the date of preparation of this document, the figure for 2020 is not yet final and has not been approved by the regulator (ARERA), and is therefore to be considered provisional.

<sup>(3)</sup> The average duration of electricity system (NTG) outages in a year. It is calculated as the ratio of the energy not supplied in a certain period (ENS) and the average power absorbed by the electricity system in the period in question. At the date of preparation of this document, the figure for 2020 is not yet final and has not been approved by the regulator (ARERA), and is therefore to be considered provisional.

<sup>(4)</sup> The indicator also includes energy not supplied to directly connected users due to events on other grids not forming part of the NTG and a share of the energy not supplied due to events of force majeure or major incidents (a "major incident" is any outage where the energy not supplied exceeds 250 MWh). The share included in the RENS indicator is a percentage that declines as the amount of energy not supplied in the individual major incident increases. The lower the indicator, the better the service performance. At the date of preparation of this document, the figure for 2020 is not yet final and has not been approved by the regulator (ARERA), and is therefore to be considered provisional.

<sup>(5)</sup> SAIDI measures, on an annual basis, the average duration of interruptions for each end user served. It is calculated as the ratio between the total duration of interruptions for all end users and the total number of end users served. It is also possible to calculate it based on ASA, using the formula SAIDI = 8760 - (ASA [in %] / 100 \* 8760).

## Environment

WASTE BY TYPE <sup>(1)</sup>

	UNIT	2020*	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Waste produced <sup>(1)</sup></b>	<b>tonnes</b>	<b>7,377.6</b>	<b>6,142.2</b>	<b>5,912.8</b>	<b>6,774.2</b>	<b>229.4</b>	<b>4</b>
of which hazardous	tonnes	4,151.8	3,882.0	3,285.8	3,484.2	596.2	18
of which non-hazardous	tonnes	3,225.9	2,260.2	2,630.3	3,290.0	-370.1	-14
<b>Waste sent for recovery</b>	<b>tonnes</b>	<b>7,060.9</b>	<b>5,854.1</b>	<b>5,558.1</b>	<b>5,799.1</b>	<b>296.0</b>	<b>5</b>
of which hazardous	tonnes	3,846.5	3,604.9	3,181.7	2,936.1	423.2	13
of which non-hazardous <sup>(2)</sup>	tonnes	3,214.4	2,249.2	2,376.3	2,863.1	-127.1	-5
<b>Waste sent for disposal <sup>(3)</sup></b>	<b>tonnes</b>	<b>343.4</b>	<b>314.8</b>	<b>266.0</b>	<b>1,050.3</b>	<b>48.8</b>	<b>18</b>
of which hazardous	tonnes	265.4	237.2	48.9	555.8	188.3	385
of which non-hazardous	tonnes	78.0	77.5	220.3	494.5	-188.5	-71

<sup>(\*)</sup> This column also includes data regarding Tamini.

<sup>(1)</sup> Only special waste produced during 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 495 tonnes in 2020, 578 tonnes in 2019 and 388 tonnes in 2018.

<sup>(2)</sup> 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%.

<sup>(3)</sup> Waste sent for disposal may differ from the mere disparity between waste generated and recovered due to temporary waste storage.

## TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS

	UNIT	2020*	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Direct emissions	tonnes of CO <sub>2</sub>	58,793.5	56,202.6	68,404.4	62,999.2	-12,201.8	-18
Indirect emissions	tonnes of CO <sub>2</sub>	60,978.1	59,490.7	65,246.9	64,050.5	-5,756.2	-9
<b>Total emissions (direct and indirect)</b>	<b>tonnes of CO<sub>2</sub></b>	<b>119,771.6</b>	<b>115,693.3</b>	<b>133,651.3</b>	<b>127,049.7</b>	<b>-17,958.0</b>	<b>-13</b>

<sup>(\*)</sup> This column also includes Tamini data.

## DIRECT AND INDIRECT CONSUMPTION OF ENERGY BY PRIMARY SOURCE

	UNIT	2020*	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Direct consumption	GJ	138,254.9	92,038.0	110,574.9	106,069.8	-18,536.9	-17
Indirect consumption	GJ	705,112.1	687,913.1	697,600.2	684,672.4	-9,687.1	-1
<b>Total consumption</b>	<b>GJ</b>	<b>843,367.0</b>	<b>779,951.1</b>	<b>808,175.1</b>	<b>790,742.2</b>	<b>-28,224.0</b>	<b>-3</b>

<sup>(\*)</sup> This column also includes Tamini data.

## WATER CONSUMPTION

	UNIT	2020*	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Water withdrawn by source	m <sup>3</sup>	204,333	192,635	175,116	179,722	17,519	10.0

<sup>(\*)</sup> This column also includes Tamini data.

The following tables show further details of the Terna Group's environmental performance excluding Tamini, given that the relevant environmental data are not fully comparable due to the specific nature of its business.

## 306-2 &gt; Waste

## WASTE MANAGEMENT

WASTE MANAGEMENT <sup>(1)</sup>	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>WASTE PRODUCED</b>	tonnes	<b>6,142.2</b>	<b>5,912.8</b>	<b>6,774.2</b>	<b>229.4</b>	<b>4</b>
<b>WASTE RECOVERED</b>	%	<b>95</b>	<b>94</b>	<b>86</b>	<b>1.0</b>	<b>1</b>
<i>Non-hazardous special waste</i>						
<i>Machinery, equipment, pylons, conductors and cables</i>						
- quantity produced	tonnes	1,582.4	1,832.2	2,073.0	-249.8	-14
- quantity sent for recovery	tonnes	1,635.7	1,801.4	2,136.0	-165.7	-9
<i>Packaging</i>						
- quantity produced	tonnes	418.8	318.8	365.2	100.0	31
- quantity sent for recovery	tonnes	431.0	315.2	365.4	115.8	37
<i>Other</i>						
- quantity produced	tonnes	258.9	479.3	847.9	-220.4	-46
- quantity sent for recovery	tonnes	182.5	259.7	357.6	-77.2	-30
<b>TOTAL NON-HAZARDOUS SPECIAL WASTE</b>						
- quantity produced	tonnes	2,260.2	2,630.3	3,290.0	-370.1	-14
- quantity sent for recovery	tonnes	2,249.2	2,376.3	2,863.1	-127.1	-5
<i>Hazardous special waste</i>						
<i>Machinery, equipment, pylons, conductors and cables</i>						
- quantity produced	tonnes	2,745.0	2,381.5	2,014.9	363.5	15
- quantity sent for recovery	tonnes	2,676.5	2,335.2	2,024.1	341.3	15
<i>Oils</i>						
- quantity produced	tonnes	913.7	849.7	1,347.0	64.0	8
- quantity sent for recovery	tonnes	853.0	801.7	803.0	51.3	6
<i>Lead batteries</i>						
- quantity produced	tonnes	28.4	27.1	37.2	1.3	5
- quantity sent for recovery	tonnes	23.6	27.0	36.5	-3.4	-13
<i>Waste consisting of materials containing asbestos</i>						
- quantity produced	tonnes	0.0	0.0	0.0	0.0	0.0
<i>Other</i>						
- quantity produced	tonnes	195.0	24.3	85.1	170.7	702
- quantity sent for recovery	tonnes	51.9	17.9	72.5	34.0	190
<b>TOTAL HAZARDOUS SPECIAL WASTE</b>						
- quantity produced	tonnes	3,882.1	3,285.8	3,484.2	596.3	18
- quantity sent for recovery	tonnes	3,604.9	3,181.7	2,936.1	423.2	13

<sup>(1)</sup> Only special waste produced during 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 **495 tonnes in 2020, 578 tonnes in 2019 and 388 tonnes in 2018**.

## Biodiversity

## BIRD DETERRENTS ON THE NTG

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Lines involved	no.	77	72	70	5	6.9
Total deterrents installed	no.	16,299	15,552	15,503	747	4.8

POWER LINES IN PROTECTED AREAS <sup>(1)</sup>

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Lines impacting on protected areas	km	6,951	6,746	6,730	205	3
Lines with an impact as a percentage of total lines operated by Terna	%	10.6	10.5	10.4	0.1	1.0

<sup>(1)</sup> To calculate the percentage of lines impacting on protected areas, the Company has used "ATLARETE" data, which may contain differences compared with the data presented in the tables showing indicators of the number of lines. The figures also take into account the km of impacting overhead lines, as well as impacting underground and submarine lines.

## Quantities and emissions

TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS <sup>(1)</sup>

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Leakages of SF <sub>6</sub>	CO <sub>2</sub> in tonnes	49,013.7	60,162.2	54,846.1	-11,148.4	-18.5
Leakages of refrigerant gases (R22, R407C, R410A)	CO <sub>2</sub> in tonnes	501.4	178.2	427.9	323.1	181
Petrol for motor vehicles	CO <sub>2</sub> in tonnes	54.2	61.6	36.8	-7.4	-12.0
Diesel for motor vehicles	CO <sub>2</sub> in tonnes	5,418.9	6,767.0	6,295.0	-1,348.0	-19.9
Jet fuel for helicopters	CO <sub>2</sub> in tonnes	488.0	502.4	605.6	-14.4	-2.90
Natural gas for heating	CO <sub>2</sub> in tonnes	323.1	305.5	316.0	17.6	5.80
Fuel oil for heating and generators	CO <sub>2</sub> in tonnes	403.3	427.5	471.8	-24.3	-5.70
<b>TOTAL DIRECT EMISSIONS</b>	<b>CO<sub>2</sub> in tonnes</b>	<b>56,202.6</b>	<b>68,404.4</b>	<b>62,999.2</b>	<b>-12,201.8</b>	<b>-18</b>
<i>Indirect CO<sub>2</sub> emissions in tonnes</i>						
<b>Electricity</b>	<b>CO<sub>2</sub> in tonnes</b>	<b>59,490.7</b>	<b>65,246.9</b>	<b>64,050.5</b>	<b>-5,756.2</b>	<b>-8.80</b>

<sup>(1)</sup> The conversion of direct energy consumption and leakages of SF<sub>6</sub> (sulphur hexafluoride) and refrigerant gases into CO<sub>2</sub> equivalent emissions has been carried out using the parameters indicated in the IPCC Fifth Assessment Report (AR5) and the Greenhouse Gas Protocol (GHG) Initiative. The conversion of indirect electricity consumption is carried out taking into account the share of total Italian electricity production represented by thermoelectric production in 2020. Allocation for the purposes of the production mix was based on the December 2020 issue of the "Monthly Report on the Electricity System", available on the website at [www.terna.it](http://www.terna.it).

QUANTITIES AND EMISSIONS OF SF<sub>6</sub>

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Quantity of SF <sub>6</sub>	kg	649,781.7	636,132.0	619,167.2	13,649.7	2.1
- in operating equipment	kg	600,870.5	589,728.3	575,912.7	11,142.1	1.9
- in cylinders	kg	48,911.2	46,403.7	43,254.5	2,507.5	5.4
SF <sub>6</sub> leakage rate	%	0.32	0.40	0.38	-0.08	-20.2
SF <sub>6</sub> greenhouse gas emissions	kg	2,085.7	2,560.1	2,333.9	-474.4	-18.5

305-4 &gt;

**CARBON INTENSITY – TONNES OF EQUIVALENT CO<sub>2</sub> / REVENUE (€M)**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Ratio of total emissions (direct and indirect) to revenue	CO <sub>2</sub> in tonnes / (€m)	46.0	58.2	57.8	-12.2	-21

305-6 &gt;

**REFRIGERANT GASES – QUANTITIES AND EMISSIONS**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Quantity of R22	kg	20	38	39	-17.5	-46.7
Leakages of R22	kg	0	0	0	0	0
Quantity of R407C	kg	2,258.0	2,386.5	2,711.9 <sup>(1)</sup>	-128.5	-5.4
Leakages of R407C	kg	70.9	5	173	65.6	1,227.7
Quantity of R410A	kg	10,503.5	10,033.6	9,526.6	470.0	4.7
Leakages of R410A	kg	180	88	76	92	104.1
Quantity of other refrigerant gases	kg	2,545.5	2,148.7	1,354.6	396.8	18.5

<sup>(1)</sup> The figure for 2018 differs from the one indicated in the previous report due to the emergence of evidence after publication.

305-3 &gt;

**INDIRECT CO<sub>2</sub> EMISSIONS FOR AIR TRAVEL BY EMPLOYEES <sup>(1)</sup>**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Total emissions	CO <sub>2</sub> in tonnes	623	4,297	1,560	-3,673	-85

<sup>(1)</sup> The conversion factors indicated in the Greenhouse Gas Protocol Initiative were used to quantify the CO<sub>2</sub> resulting from air travel by employees. The reduction in 2020 is primarily linked to the Covid-19 emergency.

**QUANTITIES AND EMISSIONS FOR MOTOR VEHICLES <sup>(1)</sup>**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Total motor vehicles	no.	1,422	1,429	1,436	-7	-0.5
Nitrogen oxide (NOx) emissions <sup>(2)</sup>	kg	6,603	7,315	7,594	-712	-9.7

<sup>(1)</sup> The table shows the vehicles in Terna's fleet that, in the period in question, were refuelled on at least one occasion, based on claims for fuel expenses. Consumption data for fleet vehicles is shown in the following tables.

<sup>(2)</sup> The figure is calculated on the basis of the data provided by motor manufacturers and included in registration certificates, as well as on estimates of the mileage covered by the vehicles. The figure shown in the table for 2020 refers to **86.0% of the Company's operating vehicles (88% in 2019 and 83% in 2018)**.

**Consumption**

302-1 &gt;

**DIRECT AND INDIRECT ENERGY CONSUMPTION WITHIN THE ORGANIZATION BY PRIMARY SOURCE**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Petrol for motor vehicles <sup>(1)</sup>	tonnes	17.5	19.9	11.9	-2.4	-12.0
Diesel for motor vehicles <sup>(1)</sup>	tonnes	1,690	2,110	1,963.0	-420.4	-19.9
Jet fuel for helicopters	tonnes	153.0	157.6	190.0	-4.5	-2.9
Natural gas for heating	000's of m <sup>3</sup>	144.1	139.7	144.5	4.4	3.1
Fuel oil for generators and heating	tonnes	125.7	133.3	147.1	-7.6	-5.7
Electricity	GWh	191.1	193.8	190.2	-2.7	-1.4

<sup>(1)</sup> Only the consumption of operating vehicles is taken into account.

**TOTAL ENERGY CONSUMPTION WITHIN THE ORGANIZATION BY PRIMARY SOURCE- GIGAJOULE <sup>(1)</sup>**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Petrol for motor vehicles <sup>(1)</sup>	GJ	782	889	532	-107	-12.0
Diesel for motor vehicles <sup>(1)</sup>	GJ	73,219	91,433	85,057	-18,214	-19.9
Jet fuel for helicopters	GJ	6,825	7,027	8,470	-201.7	-2.9
Natural gas for heating	GJ	5,763	5,449	5,636	314.0	5.8
Fuel oil for generators and heating	GJ	5,449	5,777	6,375	-327.7	-5.7
<b>TOTAL DIRECT CONSUMPTION</b>	<b>GJ</b>	<b>92,038</b>	<b>110,575</b>	<b>106,070</b>	<b>-18,536.8</b>	<b>-16.8</b>
Electricity to substations and offices <sup>(2)</sup>	GJ	687,913	697,600	684,672	-9,687.1	-1.40

<sup>(1)</sup> Only the consumption of operating vehicles is taken into account.

<sup>(2)</sup> Allocation for the purposes of the production mix was based on the December 2020 issue of the "Monthly Report on the Electricity System", available on the website at [www.terna.it](http://www.terna.it).

**PAPER CONSUMPTION**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Certified paper (100% recycled)	tonnes	45	58	61	-13	-22.5

**CONCENTRATION OF PCBS**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
PCB > 500 ppm	tonnes	0	0	0	0	0
50 ppm < PCB < 500 ppm	tonnes	0.65	0.15	0.05	0.50	333

**Environmental costs****ENVIRONMENTAL COSTS – CAPITAL INVESTMENT AND OPERATING COSTS <sup>(1)</sup>**

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>CAPITAL EXPENDITURE</b>						
Environmental offsets	€m	5.5	8.7	7.1	-3.2	-37
Environmental impact studies	€m	3.9	3.8	3.5	0.1	3
Environmental activities – new infrastructure	€m	5.5	5.5	3.9	0	0
Environmental activities – existing infrastructure	€m	6.0	3.4	2.9	2.6	76
Demolitions	€m	1.3	1.7	2.2	-0.4	-24
<b>Total capital expenditure</b>	<b>€m</b>	<b>22.3</b>	<b>23.1</b>	<b>19.6</b>	<b>-0.8</b>	<b>-3</b>
<b>Costs</b>						
Cost of environmental activities	€m	26.8	24.2	23.8	2.6	11
<b>Total operating costs</b>	<b>€m</b>	<b>26.8</b>	<b>24.2</b>	<b>23.8</b>	<b>2.6</b>	<b>11</b>

<sup>(1)</sup> Details of the accounting method used are provided on page 233.

## People

### Size and composition of the workforce

401-1 &gt;

#### WORKFORCE TRENDS

	UNIT	2020 <sup>(1)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Total employees</b>	<b>no.</b>	<b>4,277</b>	<b>3,935<sup>(2)</sup></b>	<b>3,872</b>	<b>3,843</b>	<b>63</b>	<b>1.6</b>
Employees recruited during the year	no.	181	175	287	420	-112	-39.0
Employees leaving during the year	no.	124	112	258	85	-146	-56.6
- men	no.	116	104	233	76	-129	-55.4
- women	no.	8	8	25	9	-17	-68.0
- below the age of 30	no.	24	22	21	16	1	4.8
- between the ages of 30 and 50	no.	19	13	24	16	-11	-45.8
- over the age of 50	no.	81	77	213	53	-136	-63.8
<b>Turnover rate<sup>(2)</sup></b>	<b>%</b>	<b>2.9</b>	<b>2.9</b>	<b>6.7</b>	<b>2.4</b>	<b>-3.8</b>	<b>-56.9</b>
- men	%	2.7	2.7	6.1	2.2	-3.4	-55.7
- women	%	0.2	0.2	0.7	0.3	-0.4	-68.2
- below the age of 30	%	0.6	0.6	0.6	0.5	0.0	4.0
- between the ages of 30 and 50	%	0.5	0.3	0.6	0.5	-0.3	-46.2
- over the age of 50	%	1.9	2.0	5.5	1.5	-3.5	-64.1

<sup>(1)</sup> This column includes data for Tamini.

<sup>(2)</sup> The turnover rate shows the ratio of employees leaving the Company to the number of employees at 31 December of the previous year.

<sup>(3)</sup> The nationalities of people employed by Terna are as follows: 3,902 of Italian nationality (including 681 managers); 4 Ecuadorians, 4 Romanians, 3 Spaniards (including 1 manager), 3 Ukrainians, 2 Egyptians, 2 Indians, 2 Iraqis, 2 Moroccans, 2 Moldovans, 1 Albanians, 1 Belgian (a manager), 1 from Burkina Faso, 1 from Mauritius, 1 Iranian, 1 from the Ivory Coast, 1 Russian, 1 Senegalese and 1 Tunisian.

As indicated on page 265 of this Report, the total number of people from legally protected categories employed by the Group is 144, reflecting four additions and no leavers.

405-1 &gt;

#### COMPOSITION OF THE WORKFORCE

	UNIT	2020 <sup>(1)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Total employees</b>	<b>no.</b>	<b>4,277</b>	<b>3,935</b>	<b>3,872</b>	<b>3,843</b>	<b>63</b>	<b>1.6</b>
By type of contract							
- permanent	no.	4,275	3,934	3,869	3,842	65	1.7
- fixed-term	no.	2	1	3	1	-2	-66.7
By type of employment							
- full-time	no.	4,254	3,920	3,854	3,822	66	1.7
- part-time	no.	23	15	18	21	-3	-16.7
By gender							
- men	no.	3,684	3,376	3,334	3,326	42	1.3
- women	no.	593	559	538	517	21	3.9
By age							
- below the age of 30	no.	1,114	1,106	987	885	119	12.1
- between the ages of 30 and 50	no.	1,857	1,660	1,733	1,681	-73	-4.2
- over the age of 50	no.	1,306	1,169	1,152	1,277	17	1.5
Average age of employees and years of service							
Average age	yrs	41.4	40.9	40.78	41.79	0.1	0.2
Average years of service <sup>(2)</sup>	yrs	14.3	14.2	14.10	15.3	0.1	0.4

<sup>(1)</sup> This column includes data for Tamini.

<sup>(2)</sup> In the case of employees joining Terna as a result of the acquisition of a business unit, the average for years of service takes into account previous employment.

#### COMPOSITION OF THE WORKFORCE BY CATEGORY

	UNIT	2020 <sup>(*)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Total</b>	<b>no.</b>	<b>4,277</b>	<b>3,935</b>	<b>3,872</b>	<b>3,843</b>	<b>63</b>	<b>1.6</b>
Senior managers	no.	70	63	61	57	2	3.3
Middle managers	no.	641	620	597	614	23	3.9
Office staff	no.	2,336	2,221	2,200	2,124	21	1.0
Blue-collar workers	no.	1,230	1,031	1,014	1,048	17	1.7

<sup>(\*)</sup> This column includes data for Tamini.

#### COMPOSITION OF THE WORKFORCE BY TYPE OF QUALIFICATION

	UNIT	2020 <sup>(*)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
University degree	%	34.2	36.4	35.4	32.5	0.97	2.7
High-school diploma	%	50.0	50.5	50.5	51.2	0.02	0.0
Vocational qualification	%	8.8	9.3	9.9	10.9	-0.57	-5.8
Elementary/Middle school	%	7.0	3.8	4.2	5.5	-0.42	-10.0

<sup>(\*)</sup> This column includes data for Tamini.

#### Health and safety

##### OCCUPATION INJURIES SUFFERED BY EMPLOYEES - GRI-ILO DEFINITIONS<sup>(1)</sup>

&lt; 403-9

	UNIT	2020 <sup>(4)</sup>	2020	2019 <sup>(2)</sup>	2018	CHANGE 20-19	% CHANGE 20-19
Injury rate			0.77	0.95	1.28	-0.18	-19
Serious injury rate where the initial prognosis is more than 40 days		0.03	0.03	0	0	-0.03	-
Lost day rate <sup>(1)</sup>		41.59	40.07	39.31	34.40	0.76	2
Occupational diseases rate		0.03	0.03	0	0	0.03	-
Number of injuries	no.	35	27	33	40	-6	-18
- of which serious, where the initial prognosis is more than 40 days	no.	1	1	0	0	1	-
- of which fatal	no.	0	0	0	0	-	-
Number of hours worked <sup>(3)</sup>	no.	7,655,802	7,038,326	6,938,961	6,226,931	99,365	1

##### TYPE OF OCCUPATIONAL INJURIES

Falling from height	no.	1	1	0	0	1	-
Traffic accident injury	no.	2	2	9	9	-7	-78
Electrocution	no.	2	2	0	0	2	-
Impact, crushing, cuts	no.	11	7	10	14	-3	-30
Falling on level ground, slipping	no.	14	11	10	12	1	10
Manual handling of loads	no.	2	2	0	1	2	-
Projection of solid fragments and/or liquid substances	no.	3	2	2	1	0	0
Other	no.	1	0	2	3	-2	-100

\* **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 the UNI 7249:2007 Standard. This indicator has been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is **4.7 including Tamini in 2020, 3.8 in 2020, 4.8 in 2019 and 6.4 in 2018.**

**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).

**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 injury rate is also calculated in accordance the UNI 7249:2007 Standard. This indicator has also been calculated using a multiplication factor of 1,000. Based on this method of calculation, the lost day rate is **0.21 including Tamini in 2020, 0.20 in 2020, 0.18 in 2019 and 0.17 in 2018.**

**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. There was one case of an occupational disease within Terna in 2020.

<sup>(1)</sup> Calculation of the lost day rate took into account days of absence due to injuries and any cases of absence due to injuries occurring in previous years, accounting for days of absence on an accruals basis.

<sup>(2)</sup> Compared with that reported in the 2019 Sustainability Report, the number of injuries dropped from 34 to 33 in that INAIL recognised one injury as an illness.

<sup>(3)</sup> From 2020, the figure for number of hours worked includes the hours worked by senior management and hours of training.

<sup>(4)</sup> This column includes data regarding Tamini.

## OCCUPATION INJURIES SUFFERED BY EMPLOYEES – BY GENDER

	UNIT	2020 (*) (**)	2020	2019 (***)	2018	CHANGE 20-19	% CHANGE 20-19
Number of injuries	no.	35	27	33	40	-6	-18.2
of whom men	no.	35	27	32	39	-5	-15.6
of whom women	no.	0	0	1	1	-1	-100
Injury rate – male employees		1.04	0.88	1.03	1.42	-0.15	-14.6
Injury rate – female employees		0	0	0.23	0.28	-0.23	-100
Lost day rate – male employees		46.19	44.50	39.66	38.87	4.84	12.2
Lost day rate – female employees		9.41	9.96	2.80	0.28	7.16	255.7

(\*) This column includes data regarding Tamini.

(\*\*) From 2020, the figure for number of hours worked includes the hours worked by senior management and hours of training.

(\*\*\*) Compared with that reported in the 2019 Sustainability Report, the number of injuries dropped from 34 to 33 in that INAIL recognised one injury as an illness.

## AUDITS AND INSPECTIONS

	UNIT	2020 <sup>(1)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Periodic health inspections	no.	3,832	3,390	3,377	2,959	13	0.4
Medical examinations by appointed doctor <sup>(1)</sup>	no.	197	197	271	233	-74	-27.3
Inspections and audits <sup>(2)</sup>	no.	161	143	113	72	30	26.5

<sup>(1)</sup> In Tamini's case, one examination is carried out per factory.

<sup>(2)</sup> Audits conducted by personnel responsible for health and safety officers and managers responsible for Transmission Operations.

<sup>(3)</sup> This column includes data regarding Tamini.

OCCUPATION INJURIES SUFFERED BY CONTRACTORS AND SUBCONTRACTORS - GRI-ILO DEFINITIONS<sup>(1) (\*\*)</sup>

&lt; 403-9

	UNIT	2020	2019(***)	2018(***)	CHANGE 20-19	% CHANGE 20-19
Injury Rate		1.13	1.57	0.99	-0.44	-28
Fatality rate		0.06	0.04	0.04	0.02	50
Serious injury rate where the initial prognosis is more than 40 days		0.09	0.07	0.08	0.02	29
Number of injuries suffered by employees of contractors	no.	38	44	21	-6	-14
- of which serious	no.	3	2	2	1	50
- of which fatal	no.	2	1	1	1	100
Number of hours worked		6,721,754	5,599,272	4,712,074	1,122,482	20

## TYPE OF OCCUPATIONAL INJURIES

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Falling from height	no.	1	3	3	-2	-67
Traffic accident injury	no.	2	1	0	1	100
Electrocution	no.	1	0	0	1	-
Impact, crushing, cuts	no.	20	22	10	-2	-9
Falling on level ground, slipping	no.	7	9	4	-2	-22
Burns	no.	1	1	0	0	0
Manual handling of loads	no.	5	4	0	1	25
Projection of solid fragments and/or liquid substances	no.	0	1	0	-1	-100
Other	no.	1	3	4	-2	-67

(\*) **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 indicator has been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate is **5.7 in 2020, 7.9 in 2019 and 4.5 in 2018.**

**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).

(\*\*) This table does not include data regarding Tamini as the nature of the company's business does not involve the major use of contractors or subcontractors. As a result, the table does not show hours worked by the employees of contractors or subcontractors. Tamini did not record any injuries in 2020.

(\*\*\*) It should be noted that the figures for 2019 and 2018 differ from those published in previous reports as the criteria used to calculate the hours worked by contractors' employees have been revised.

## Personnel development

404-1 &gt;

## TRAINING

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	UNIT	2020 <sup>(5)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Average hours of training</b>							
- per employee <sup>(1)</sup>	hrs	32	34	47	55	-13	-28
<b>By category<sup>(2)</sup></b>							
- senior managers	hrs	18	19	40	29	-21	-53
- middle managers	hrs	25	25	28	32	-3	-11
- office staff	hrs	30	31	43	59	-12	-28
- blue-collar workers	hrs	40	47	66	64	-19	-29
<b>By gender<sup>(3)</sup></b>							
- men	hrs	33	34	47	53	-13	-28
- women	hrs	24	24	30	47	-6	-20
Proportion of employees involved <sup>(4)</sup>	%	96	98	98	100	0	0
<b>Hours provided</b>							
<b>Total</b>	hrs	<b>134,524</b>	<b>132,487</b>	<b>183,193</b>	<b>203,556</b>	<b>-50,706</b>	<b>-28</b>
- hours led by internal trainers	hrs	79,060	79,060	91,406	140,509	-12,346	-14
Participants in courses on 231 Model	no.	457	353	461	1,795	-108	-23

<sup>(1)</sup> Ratio of total hours of training to the average number of employees.

<sup>(2)</sup> Ratio of total hours of training by category to the average number of employees by category.

<sup>(3)</sup> Ratio of total hours of training by gender to the total number of employees during the year (including those working for the Company for less than a year) by gender.

<sup>(4)</sup> Percentage of employees who have attended at least one training course during the year.

<sup>(5)</sup> This column also includes data regarding Tamini.

## COMPENSATION

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Average cost per employee <sup>(1)</sup>	€	81,132	78,529	80,475	2,603	3
Senior managers included in Long-Term Incentive (LTI) plan	no.	85	75	72	10	13
Variable pay as a percentage of fixed pay <sup>(2)</sup>	%	11	11	11	0	0
MBO	no.	326	319	315	7	2

<sup>(1)</sup> The term "employee" refers to each employee of the Company including senior managers.

<sup>(2)</sup> The amounts regard the incentives paid to all employees, including senior managers, and exclude fringe benefits.

## ORGANISATIONAL CLIMATE

	UNIT	2020 <sup>(5)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Total voluntary resignations	no.	44	37	43	34	-6	-14.0
Turnover rate for voluntary resignations <sup>(2)</sup>	%	1.04	0.96	1.12	0.97	-0.2	-14.3
Absences per employee <sup>(1)</sup>	hrs	48	43	51	53	-8	-15.7
Absentee rate <sup>(3)</sup>		5,870.2	5,246.5	6,378.6	6,937.4	-1,132	-17.7
Vacant position filled by internal candidates <sup>(4)</sup>	%	81	81	95	88	-14	-15

<sup>(1)</sup> This refers to non-contractual forms of absence (illness, injury, leave, strikes, unpaid leave) during the year.

<sup>(2)</sup> This is the ratio of the total number of voluntary resignations to the total workforce at 31 December of the previous year.

<sup>(3)</sup> This refers to the number of days of absence due to illness, strikes and injury out of the number of days worked during the same period, multiplied by 200,000. To aid comparison with other sources, this indicator has also been calculated as a percentage of days worked. Under this method of calculation, the absentee rate is **2.9 including Tamini and 2.6 excluding Tamini in 2020, 3.1 in 2019 and 3.5 in 2018**. The causes of absence taken into account do not include maternity leave, marriage leave, study leave, trade union activities, other forms of paid leave and suspensions.

<sup>(4)</sup> The percentage represents vacant managerial positions filled by internal candidates during the year under review. Internal candidates taking up such positions break down as follows: **by gender**, 33 men and 4 women; **by age range**, 28 aged between 30 and 50 and 9 over 50; **by category**, 10 executives, 25 middle managers, 2 office staff. No internal candidate belonged to a legally protected category.

<sup>(5)</sup> This column also includes data regarding Tamini.

AVERAGE YEARS OF SERVICE OF EMPLOYEES LEAVING THE COMPANY<sup>(1)</sup>

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Total leavers</b>	yrs	<b>24.0</b>	<b>31.6</b>	<b>23.3</b>	<b>-7.6</b>	<b>-24</b>
Men	yrs	25.3	33.3	24.8	-8.0	-24
Women	yrs	16.0	20.8	13.7	-4.8	-23
Below the age of 30	yrs	2.0	1.5	0.6	0.5	33
Between the ages of 30 and 50	yrs	6.0	6.8	6.9	-0.8	-12
Over the age of 50	yrs	34.3	38.0	35.7	-3.7	-10

<sup>(1)</sup> In the case of employees joining Terna as a result of the acquisition of a business unit, the average for years of service takes into account previous employment.

## Employee engagement

## UNIONISATION OF EMPLOYEES

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Unionisation rate	%	45.1	45.0	46.1	0.1	0.2

## UNION AGREEMENTS

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Union agreements signed during the year	no.	16	18	9	-2	-11.1

## FLEXIBLE EMPLOYMENT CONTRACTS AND TERMS

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Interns and apprentices working at Terna	no.	32	18	29	14	77.8
Incidence of part-time contracts	%	0.4	0.5	0.5	-0.1	-19.1

EMPLOYEES OF CONTRACTORS AND SUBCONTRACTORS<sup>(1) (2)</sup>

	UNIT	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
Days worked	no.	884,441	736,746	620,010	147,695	20.0
Full-time equivalents (FTEs)	no.	4,020	3,349	2,818	671	20.0

<sup>(1)</sup> The figures take into account the duration of contracts and the variable nature of the related workforce, and relate to the different types of contract awarded by Terna, ranging from major works to those for the cutting back of vegetation located under power lines. The number of days worked and FTEs are estimated on the basis of the average daily attendances at the largest sites and the value of the works contracted out at smaller sites. Further information about the types of contract used by contractors is not available. It should be noted that the figures for 2019 and 2018 differ from those published in previous reports as the criteria used to calculate the hours worked by contractors' employees have been revised.

<sup>(2)</sup> This table does not include data regarding Tamini as the nature of the company's business does not involve the major use of contractors or subcontractors. As a result, the table does not show hours worked by the employees of contractors or subcontractors.

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## Equal opportunities

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## EQUAL OPPORTUNITIES FOR MEN AND WOMEN

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	UNIT	2020 <sup>(a)</sup>	2020	2019	2018	CHANGE 20-19	% CHANGE 20-19
<b>Women out of total employees</b>							
- women out of total	%	13.9	14.2	13.9	13.4	0.3	2.2
- women out of total, net of operating personnel	%	19.5	19.2	18.8	18.5	0.4	2.1
- women in senior management roles out of total senior managers <sup>(b)</sup>	%	11.4	11.1	11.5	14.0	-0.4	-3.5
- women in senior and middle management roles out of total senior and middle managers	%	19.3	19.8	19.8	19.7	0.0	0.0
- women in middle management roles	%	20.1	20.6	20.6	20.2	0.0	0.0
<b>% growth in employment</b>							
- annual change: women	%	3.7	3.9	4.3	19.7	-0.4	-9.3
- annual change: men	%	1.0	1.3	0.2	8.1	1.1	550.0
<b>Leavers<sup>(c)</sup></b>							
- women leaving the Company	%	1.4	1.5	4.8	2.1	-3.3	-68.8
- men leaving the Company	%	3.2	3.1	7.0	2.5	-3.9	-55.7
<b>Hires<sup>(c)</sup></b>							
- women joining the Company	%	5.1	5.4	9.1	21.8	-3.7	-40.7
- men joining the Company	%	4.2	4.4	7.2	10.6	-2.8	-38.9
<b>Management positions</b>							
- senior female managers out of total women	%	1.3	1.3	1.3	1.6	0.0	0.0
- senior male managers out of total men (excluding blue-collar workers)	%	2.5	2.4	2.3	2.2	0.1	4.3
<b>Promotions<sup>(d)</sup></b>							
- promotions to middle management as % of previous category - women	%	1.3	1.5	0.0	5.9	1.5	-
- promotions to middle management as % of previous category - men	%	1.9	2.0	0.2	12.5	1.8	900.0
<b>Pay gap between women and men<sup>(e)</sup></b>							
- senior managers	%	84.2	83.1	83.0	78.9	0.1	0.1
- middle managers	%	95.3	95.3	94.6	93.9	0.7	0.7
- office staff	%	99.0	100.0	99.4	97.7	0.6	0.6
<b>% remuneration gap between women and men<sup>(e)</sup></b>							
- senior managers	%	87.5	87.7	81.4	74.3	6.3	7.7
- middle managers	%	95.8	95.8	95.1	95.0	0.7	0.7
- office staff	%	94.5	95.3	96.4	93.6	1.1	1.1
<b>Other indicators - equal opportunities</b>							
% of total management positions in revenue-generating operations held by women <sup>(f)</sup>	%	14.0	10.0	8.5	16.3	1.5	17.6
% of total STEM positions held by women <sup>(g)</sup>	%	17.7	17.8	-	-	-	-

<sup>(1)</sup> The percentage of leavers (hires) for women and men shows the ratio of employees by gender leaving (hired by) the Company during the period to the total number of employees by gender at 31 December of the previous year.

<sup>(2)</sup> The figure is based on the ratio of promotions to middle manager during the year to the number of personnel categorised as office staff in the previous year, calculated by category (men/women). Promotions of blue-collar workers to an administrative position or of middle managers to senior management are not taken into account as the numbers are immaterial on an annual basis.

<sup>(3)</sup> The figure is based on the annual basic pay of women in the different categories as a percentage of the annual basic pay of men in the same categories. The figure has not been calculated for blue-collar workers as there are no women in this category.

<sup>(4)</sup> The 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.

<sup>(5)</sup> This column also includes data regarding Tamini.

<sup>(6)</sup> This figure shows the percentage of executives and middle managers in revenue-generating operations who are women; typically, these operations do not include support functions such as Human Resources, Legal, IT, Administration, etc.

<sup>(7)</sup> This figure shows the percentage of STEM positions held by women; the figure is only available from 2020 as it was not recorded in the past.

<sup>(8)</sup> Solely considering positions up to two levels below the Terna S.p.A.'s CEO, women hold 19.4% of such positions, up on the 13.2% of 2019.

## Brugg Kabel

The following tables show key environmental and social data for Brugg Kabel AG, a Swiss-registered company in which Terna acquired a 90% stake on 29 February 2020, through its subsidiary, Terna Energy Solutions S.r.l., as part of its strategy for expanding Non-regulated Activities.

## Key environmental indicators

## WASTE

WASTE MANAGEMENT	UNIT	2020
<b>Special waste</b>	<b>tonnes</b>	<b>3,451</b>
Total hazardous special waste	tonnes	29
Total non-hazardous special waste, including:	tonnes	3,422
Metals	tonnes	2,682
Other	tonnes	740

## CONSUMPTION, EMISSIONS AND QUANTITIES

TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS	UNIT	2020
Total direct emissions (scope 1)	CO <sub>2</sub> in tonnes	2,679
Electricity <sup>(1)</sup> (scope 2)	CO <sub>2</sub> in tonnes	1,521.00
Air travel by employees (scope 3)	CO <sub>2</sub> in tonnes	60

<sup>(1)</sup> Due to a lack of data, the figure for 2019 has been used.

## DIRECT AND INDIRECT ENERGY CONSUMPTION BY PRIMARY SOURCE

	UNIT	2020
Diesel for motor vehicles	Litres	14,344
Diesel	litres	58,350
Gas for heating <sup>(1)</sup>	GWh	7
Electricity <sup>(1)</sup>	GWh	9

<sup>(1)</sup> Due to a lack of data, the figure for 2019 has been used.

## WATER CONSUMPTION

	UNIT	2020
Water withdrawn by source	litres	14,732

## Key social indicators

## SIZE AND COMPOSITION OF THE WORKFORCE

	UNIT	2020
<b>Total employees</b>	<b>no.</b>	<b>381</b>
Employees recruited during the year	no.	46
- men	no.	38
- women	no.	8
- below the age of 30	no.	15
- between the ages of 30 and 50	no.	21
- over the age of 50	no.	10
<b>Employees leaving during the year</b>	<b>no.</b>	<b>27</b>
Leavers due to retirement	no.	1

## COMPOSITION OF THE WORKFORCE

	UNIT	2020
<b>Total employees</b>	<b>no.</b>	<b>381</b>
By type of contract		
- permanent	no.	356
- fixed-term	no.	25
By type of employment		
- full-time	no.	354
- part-time	no.	27
By gender		
- men	no.	336
- women	no.	45
By age		
- below the age of 30	no.	63
- between the ages of 30 and 50	no.	209
- over the age of 50	no.	109
Average age of employees and years of service		
Average age	yrs	41.49
Average years of service	yrs	8.20

## COMPOSITION OF THE WORKFORCE BY CATEGORY

	UNIT	2020
<b>Total</b>	<b>no.</b>	<b>381</b>
Senior managers	no.	5
Middle managers	no.	20
Office staff	no.	193
Blue-collar workers	no.	163

## COMPOSITION OF THE WORKFORCE BY TYPE OF QUALIFICATION

	UNIT	2020(*)
University degree	%	100
High-school diploma	%	0
Vocational qualification	%	0
Elementary/Middle school	%	0

## Health and safety

## OCCUPATION INJURIES SUFFERED BY EMPLOYEES - GRI-ILO DEFINITIONS (\*)

	UNIT	2020 (**)
Injury Rate		3.75
Fatality rate		0
Serious injury rate where the initial prognosis is more than 40 days		0
Number of injuries	no.	12
- of which serious where the initial prognosis is more than 40 days	no.	0
- of which fatal	no.	0
Number of hours worked	no.	640,647
Lost day rate		112.07

## TYPE OF OCCUPATIONAL INJURIES

	UNIT	2020
Falling from height	no.	0
Traffic accident injury	no.	1
Electrocution	no.	0
Burns	no.	0
Falling on level ground, slipping	no.	4
Manual handling of loads	no.	2
Crushing/impact/cuts	no.	5
Other causes	no.	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.

**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 the UNI 7249:2007 Standard. This indicator has been calculated using a multiplication factor of 1,000,000 instead of 200,000 (thereby resulting in an injury rate 5 times the ILO injury rate). Based on this method of calculation, the injury rate **18.73**.

**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).

**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).

**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 injury rate is also calculated in accordance the UNI 7249:2007 Standard. This indicator has been calculated using a multiplication factor of 1,000. Based on this method of calculation, the lost day rate is **0.56**.

(\*\*) The figures refer to the date of acquisition of Brugg Kabel, 1 March 2020.

## Equal opportunities

### EQUAL OPPORTUNITIES FOR MEN AND WOMEN

	UNIT	2020
<b>Women out of total employees</b>		
- women out of total	%	11.8
- women out of total, net of operating personnel	%	20.6
- women in senior management roles out of total senior managers	%	0
- women in senior and middle management roles out of total senior and middle managers	%	8.0
<b>Pay gap between women and men <sup>(1)</sup></b>		
- senior managers	%	-
- middle managers	%	96.2
- office staff	%	87.2
<b>% remuneration gap between women and men <sup>(2)</sup></b>		
- senior managers	%	-
- middle managers	%	96.1
- office staff	%	86.7

(1) The figure is based on the total annual pay of women in the different categories as a percentage of the total annual pay of men in the same categories.

(2) The 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.

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[www.terna.it](http://www.terna.it)

Mercurio GP  
Milan

Strategic advisory  
Creative concept  
Graphic design  
Layout  
Editing

[www.mercuriogp.eu](http://www.mercuriogp.eu)

Password Language Services S.r.l.  
Rome

Translation

