



# Sustainability report 2022

Consolidated non-financial report pursuant to  
Legislative Decree 254/2016 Directive (2014/95/UE)



[www.gruppoiren.it](http://www.gruppoiren.it)





Shaping tomorrow  
everyday

# Sustainability report 2022

Consolidated non-financial report pursuant to  
Legislative Decree 254/2016 Directive (2014/95/UE)



# Summary

9 Letter to Stakeholders

# 1

## Iren Group

- 14 Iren: business model and value chain
- 17 - Group Structure
- 20 Scale of the organization
- 24 Main areas served
- 25 Business sectors
- 25 - Production of electricity and thermal energy
- 26 - Market
- 26 - Gas distribution
- 27 - Electricity distribution
- 27 - District heating
- 27 - Integrated water service
- 28 - Waste management services
- 28 - Smart solutions
- 28 - Other services
- 29 - Companies outside the consolidation reporting scope
- 34 Ownership structure
- 36 Awards and recognition

# 2

## Governance for sustainable growth

- 40 Sustainability governance
- 44 - Board of Directors
- 48 - Board committees
- 52 - Board of Statutory Auditors
- 53 - Governance in Group Companies
- 54 - Management structures for sustainability
- 56 Risk management
- 59 - Environmental, social and governance (ESG) risks
- 62 - Climate risks
- 67 Governance policies and tools
- 69 - Code of Ethics
- 71 - Organisational model 231
- 75 - Remuneration policies
- 78 - Policies for the protection of human rights
- 83 - Certified Integrated Management System
- 86 - Privacy management model
- 87 - Legal compliance
- 89 - Codes of Conduct

# 3

## Sustainability strategy

- 92 Strategy for sustainable development
- 93 - Context and scenario analysis
- 97 - Materiality analysis
- 106 - Strategic Plan
- 108 - Monitoring and reporting
- 109 Progress toward goals

## 4

### Stakeholders and creation of value

---

- 114 Stakeholder Engagement
- 117 - Iren Local Committees
- 118 - Material topics: stakeholder involvement
- 122 - Relations with shareholders and investors
- 123 - Relations with financial backers
- 124 - Relations with Institutions
- 125 - Associations and Networks of which the Group is a member
- 129 - Media relations
- 130 Create value
- 131 - Investments
- 134 - Added Value
- 136 - Taxes and duties
- 138 Sustainable finance
- 138 - European Taxonomy
- 144 - Sustainable finance instruments
- 148 - ESG indices and ratings

## 5

### Green transition

---

- 152 Policies for the environment
- 154 Decarbonization and reduction of emissions
- 155 - Direct and indirect energy consumption
- 156 - Atmospheric emissions
- 162 - Control and reduction of emissions
- 165 Energy production and saving
- 166 - Energy production
- 168 - Energy saving in processes
- 169 - Products and services for the energy efficiency of customers and communities
- 173 Sustainable use of water resources
- 174 - Use of water in processes
- 177 - Management of the integrated water service
- 183 Circular waste management
- 184 - Waste produced by Group
- 189 - Waste management services for communities
- 199 Mobility management
- 203 Protection of biodiversity
- 204 - Group policy and principles
- 205 - Activities in protected areas or areas of environmental interest
- 207 - Areas and species protected
- 208 Other initiatives to mitigate environmental impacts
- 208 - PCB management
- 208 - Materials used
- 208 - Qualification of suppliers
- 209 - Environmental compliance and reporting mechanisms

## 6

### Local presence

---

- 212 Sustainable development of the local areas and communities
- 213 - Investments for the local areas
- 215 - Initiatives for communities and local areas
- 229 - Sustainability education
- 231 - Reducing impacts on communities and local areas

## 7 Service quality

- 236** Customer orientation
- 238** - Who we work for
- 238** - Relations with customers
- 243** - Customer satisfaction
- 245** Quality, efficiency and safety in services
- 246** - Sale of energy services and innovative products
- 253** - Electricity distribution
- 256** - Gas distribution
- 260** - Integrated Water Service
- 263** - Waste management services
- 264** - District Heating
- 266** - Smart solutions
- 267** - Energy production
- 268** - Emergency management

## 8 Enabling resources

- 272** Our people
- 279** - Human Resources management
- 289** - Internal communication
- 291** - Corporate Welfare
- 296** - Diversity and inclusion
- 301** - Occupational health and safety
- 308** - Trade Union and industrial relations
- 310** - Iren people in figures
- 317** Our suppliers
- 319** - Qualification, selection and monitoring of suppliers
- 324** - Employment in supplier companies
- 325** - Supplier health and safety
- 326** - Supplier portfolio and purchase volumes
- 329** Innovation and digitalisation
- 330** - Iren Innovation Model
- 335** - AMGA Foundation
- 339** - Digitalisation

## 9 Compliance

- 344** Note on methodology
- 345** - Reporting scope
- 350** - Material topics and related aspects
- 352** GRI content index - connection with Legislative Decree 254/2016, SDGs and principles of the Global Compact (UNGC)
- 360** - Material topics and GRI standards
- 362** TCFD reconciliation table
- 363** EU Taxonomy Statements
- 374** Report of the Independent Auditors
- 378** Glossary





# Letter to stakeholders

[GRI 2-22]

## Dear Shareholders and Stakeholders,

In presenting you with the results of the Consolidated Financial Statements and Sustainability Report for the financial year 2022, we are once again using a single letter for both documents. It is a choice and at the same time a necessity: Iren Group's vision merges development and sustainability into a single value, with the aim of improving people's quality of life, making companies more competitive and looking at the growth of territories through the eyes of change. A firm and transparent commitment that is reflected in the profound integration of the industrial strategy with the sustainability strategy.

The past year has been characterised by the intertwining of three crises: the war in Ukraine and its effects on the energy market; the pandemic, now in its third year, which continues to affect the economy and society, albeit less severely; and climate change, manifesting itself in heat waves, drought and floods, all of which contribute to increased social and economic instability.

**Iren merges development and sustainability into a single value, with the aim of improving people's quality of life**



In this complex context, the Board of Directors confirmed Iren Group's strategic approach, outlined in the Business Plan to 2030, a plan strengthened in its main drivers. Three are the strategic pillars: green transition, with a progressive decarbonisation of all activities and the strengthening of the leadership in the circular economy and the sustainable use of resources; local presence, with an extension of the perimeter in the legacy regions and the evolution as a reference partner for the communities; service quality, through the improvement of performance and the maximisation of customer/citizen satisfaction levels.

The strengthening of the Group's strategy, despite the crisis scenario, on the one hand, demonstrates how sustainability is a constituent value, and, on the other hand, certifies the soundness of Iren's strategic planning, which analyses and evaluates macroeconomic, financial, energy, climate and social trends and scenarios that are decisive for sustainable development, in terms of risks and opportunities. This has allowed Iren Group to define its short-, medium- and long-term strategic priorities - consistent with the UN Sustainable Development Goals (SDGs) to which Iren currently contributes and can contribute in the future - and an action and governance plan in line with the principles of the UN Global Compact, the UN Universal Declaration of Human Rights, and the Conventions and Recommendations of the International Labour Organisation (ILO).

Iren's business model is oriented towards transforming, through the activities managed by the Group, input resources (environmental, social, economic and governance) to create value for the company and the various stakeholders in the short-, medium- and long-term.

Thanks to the synergies between the various business areas, also in a logic of innovation, the Group guarantees the utmost commitment to reduce its environmental impact, to demonstrate social awareness, to satisfy the needs of customers and communities and to guarantee high safety standards for employees and suppliers. In order to translate this commitment into a concrete result, Iren Group has articulated a materiality analysis process that is developed dynamically, involving its stakeholders to share and assess material issues for strategic development and performance reporting.

The integration of the industrial and sustainability strategy is also evident in the numbers: 10.5 billion Euro of planned investments between 2023 and 2030, up by 200 million Euro compared to the previous Business Plan; 80% of the total organic investments over the plan, approximately 7.5 billion Euro, allocated to sustainable projects for achieving the commitments undertaken. A confirmation of the Group's desire to combine its own development with that of the communities, territories and environment, which also concerns the workforce, with an important recruitment plan to support development and which foresees, by 2030 compared to 2022, the entry of about 3,200 new employees into the Group.

This is a significant commitment, guaranteeing the desire to continue along the path taken with the previous Business Plan, the validity of which allowed for record investments in 2022, amounting to around 1.5 billion Euro, up 56% compared to 2021 and more than double that of 2020. In line with the pillars of the Business Plan, 75% of the investments made by the Group were allocated to sustainable projects or activities.

The 2022 results highlight the strength and resilience of the Group's business model. Despite the strong development drive that led to an increase in capital expenditure, the Group kept its net financial debt below planned levels, at 3.3 billion Euro, thanks to the efficient management of net trade working capital in a very volatile environment affected by rising energy commodity prices. Gross Operating Margin (EBITDA) amounted to approximately 1.06 billion Euro, up 3.8% compared to 2021 and 6.4% net of non-recurring effects: an overall increase, negatively influenced by the impact of drought on the energy chain, by the lower consumption of district heating due to milder temperatures, and by higher operating costs due to inflation. The Group Net Profit, equal to 226 million Euro, was also affected by the negative extraordinary impact of the Solidarity Contribution, while compared to a 2021 net profit positively influenced by non-recurring tax income and other contingent assets. Finally, the Group's workforce is growing (up by about 1,500), totalling 10,583 employees at the end of 2022.

The results of the closed financial year are accompanied by an overall positive trend in the sustainability indicators relating to the objectives of the three pillars of the Strategic Plan.

Regarding the green transition, electricity production from photovoltaic plants increased tenfold during the year, although reduced hydroelectric production, caused by drought, led to a slight worsening of carbon intensity, equal to 339 gCO<sub>2</sub>/kWh. The production of biomethane more than doubled compared to the previous year, reaching 5.8 million cubic metres: an increase in the valorisation of waste as an energy source that goes hand in hand with its valorisation as material, grown by 40% compared to 2021, which saw 836,000 tonnes of waste sent for recovery in Group plants. The total energy savings of the production processes amount to about 700,000 toe. Finally, the green energy sold has increased, aimed at encouraging sustainable consumption and reducing the environmental impact generated by our customers. In addition, to support the Strategic Plan, the Group has signed several ESG Sustainability Linked loans whose spread is linked to the achievement of specific environmental objectives related to decarbonization and the rational use of water resources.

In terms of strategic directions oriented towards local presence, the amount of investments made to increase the efficiency of infrastructure and services and to maximise business development opportunities in the reference territories is emphasised: this amounts to 1.4 billion Euro (gross). In 2022, the Group's contribution to the sustainable development of the local areas and communities was also reflected in the implementation and support of 335 sustainability projects. The projects, which range from the construction of plants and infrastructure, education and culture, adaptation to climate change, saving water and energy resources to promoting social inclusion for the most vulnerable, are in line with the Sustainable Development Goals of the 2030 Agenda.

The results of the Eduiren sector deserve a mention: an ongoing dialogue with different audiences to spread the culture of sustainability and innovation across the board, through training offers and joint planning of awareness-raising paths. In 2022, 615 sustainability education projects for citizens and schools were implemented, also in a network with other subjects in the different areas, with the involvement of about 49,000 people who participated in

**1.5 billion Euro of investments (up 56% compared to 2021) of which 75% allocated to sustainable projects or activities**



meetings, visits and events, and with more than 2.4 million digital contacts recorded through the various branded contents available.

The Business Plan to 2030 envisages that around 10 billion Euro, namely 95% of total investments, will be allocated to the Group's reference territories, in order to design a sustainable future beneficial for the communities, by strengthening its local presence, building energy communities and reinforcing its ability to build a system with the territory in order to develop services under concession to help overcome the country's infrastructure gap.

Finally, the service quality improved during the year, as is evident in the increase in the overall customer satisfaction index, which amounts to 91%. The network of local counters grew (+17%) as did the digital services offered to customers, thanks to an increasing penetration of the IrenYou channel (+54% users, equal to over 1.3 million customers). Thanks to district subdivision activities, which allow for greater monitoring and timely intervention, water network leaks were reduced to 31.2%, in line with the target of 20% in 2030, gas distribution networks were 100% inspected, and the installation of gas, electricity and water smart meters continued in line with Business Plan forecasts.

## The valorisation of waste as material has grown by 40% compared to 2021, with 836,000 tonnes of waste sent for recovery



The efficient management of the Group in terms of size and economic-financial indicators, the development of skills and quality in services, the utmost attention to sustainability and care for human resources and customers, are the key factors that have enabled us to achieve the results we are presenting for the approval of the Shareholders, proposing to the Shareholders' Meeting a dividend of 11 Eurocents per share, up 4.76% compared to last year.

The positive results we have achieved, and even more so the challenging goals we have set ourselves for the future, would not be possible without the exceptional contribution of the women and men of Iren Group, who daily infuse their work with competence, responsibility, dedication and commitment, all of which enhance Iren Group's service to the communities. For this reason, also on behalf of the Board of Directors, we would like to express our heartfelt thanks to them. We would also like to thank our Shareholders and Stakeholders, for the incentives they provide us with to pursue sustainable development, and the members of the Board of Directors and the Board of Statutory Auditors for their decisive contribution to the growth of the Group.



Chairperson  
**Luca Dal Fabbro**



Deputy Chairperson  
**Moris Ferretti**



Chief Executive Officer  
**Gianni Vittorio Armani**

# Iren Group

The Group operates in a multi-regional area with more than **10,583 employees**, a portfolio of over **2.2 million customers** in the energy sector, **2.9 million residents** served in the integrated water cycle and over **3.8 million residents** in environmental services.

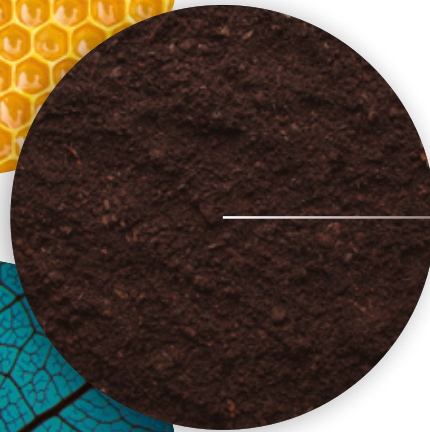


# IN THIS CHAPTER WE TALK ABOUT

business  
model



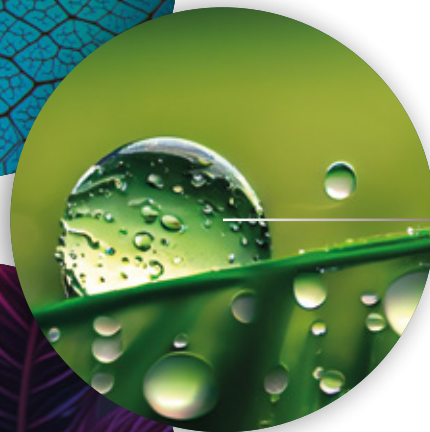
areas  
served



business  
sectors



ownership  
structure



recognition





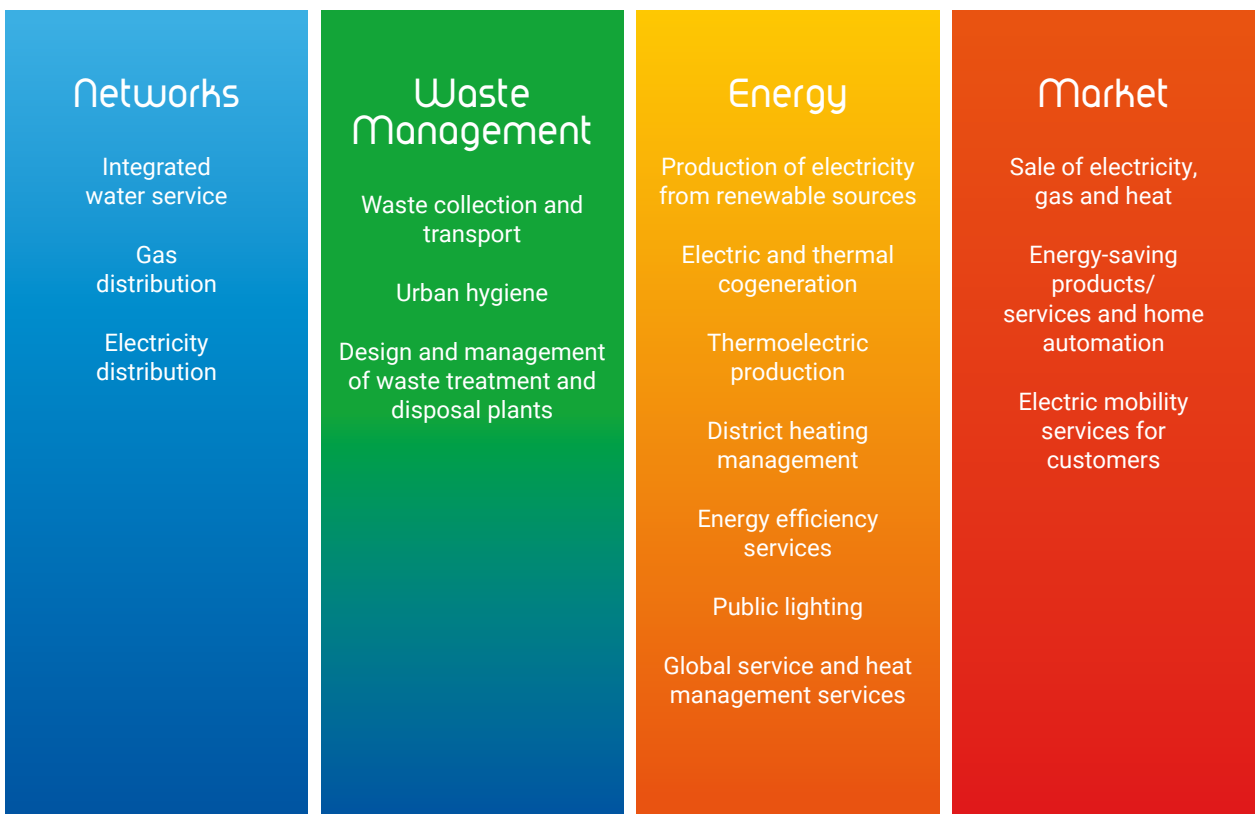
# Iren: business model and value chain

[GRI 2-1, 2-2, 2-6, 2-7, 3-3, 201-1, 203-1, 204-1, 205-1, 302-1, 302-4, 303-3, 303-5, 306-1, 401-1, 403-9, 404-1, G4-EU1, EU2, EU4]

Iren, a multi-utility listed on the Italian Stock Exchange, operates in the sectors of electricity (production, distribution and sale), district heating (production, distribution and sale), gas (distribution and sale), management of integrated water services, environmental services (waste collection and disposal), integrated energy efficiency solutions for public and private entities, and services for public administrations, in various regions of Italy. [» SEE PAGE 24](#)

Iren Group, which boasts a history of 120 years of community services, is structured on the model of an industrial holding company (the parent company Iren S.p.A.), which groups together all the Group’s corporate staff activities, and four Business Units - governed by four parent companies - which preside over activities by line of business according to a model based on skills and process digitalisation, highly scalable with the immediate integration of all the entities acquired. The Group’s structure is aimed at strengthening the local presence and the integration of the different supply chains.

## STRATEGIC BUSINESS UNITS AND AREAS OF ACTIVITY



Iren's **business model** is oriented towards transforming, through the activities managed by the Group, input resources (environmental, social, economic and governance) to create value for the company and the various stakeholders in the short-, medium- and long-term.

The Group works to improve the quality of life of the communities in which it operates, through the provision of services and the creation of infrastructure to enrich and enhance the area. Thanks to the synergies between the various business areas, also in a logic of innovation, the Group guarantees the utmost commitment to reduce the environmental and social impact, to satisfy the needs of customers and communities and to guarantee high safety standards for employees and suppliers.

Iren Group contributes to sustainable development in line with the United Nations Objectives (UN Sustainable Development Goals - SDGs), integrating this commitment into its business model through an assessment of the SDGs to which Iren contributes and can contribute more in the future.

To this end, all 17 SDGs were analysed, with their relative targets, and the Group's areas of activity that contribute to their achievement were identified, allowing for the selection of 9 priority Objectives - to which Objective 17 is added in a transversal manner, considered a fundamental tool to achieve the other objectives - that were taken up in the Strategic Plan [» SEE PAGE 106](#) in which economic, financial, environmental and social sustainability are combined, taking into consideration the priorities of stakeholders detected through the materiality analysis [» SEE PAGE 97](#) and the constant and structured comparison.



Underpinning the business model are the mission, vision and values - approved by the Board of Directors (BoD) and an integral part of the Group's Code of Ethics - which define the Group's purpose and goal and are embodied in the strategies, objectives, policies and governance principles to guide and monitor the Group's sustainable development.

## A business model to create value over time



In 2022, the business model was strengthened through the implementation of several strategic transactions:

- the acquisition of Iren Green Generation (formerly Puglia Holding) and five subsidiaries owning photovoltaic plants with an installed capacity of 121.5 MW;
- the acquisition of the companies Limes 1 and Limes 2, which hold authorisations for the construction of photovoltaic plants with a total capacity of 39 MW located in Lazio;
- the acquisition of two ready-to-build photovoltaic plant projects with a total capacity of 29.9 MW located in southern Italy;
- the acquisition of control of Valle Dora Energia, a company active in hydroelectric production;
- the acquisition of the company Dogliani Energia for the development of district heating in the Piedmontese town of the same name;
- the acquisition of the company Alegas, operating in the sale of gas and electricity, with a portfolio of about 43,000 customers, which allows Iren Group to strengthen its presence in Piedmont, also favouring the development of commercial campaigns for the sale of products and services related to the reduction of consumption in buildings and electric mobility;
- the acquisition of Società dell'Acqua Potabile (SAP), which manages the water service in five municipalities in the Metropolitan City of Genoa (34,000 inhabitants for the water distribution service and about 11,000 for sewerage and wastewater treatment services). The transaction effectively anticipates takeover of the management of concessions intended for Ireti as the sole operator of the area of reference, making it possible to initiate in advance actions aimed at achieving significant synergies;
- the takeover of the management of the Integrated Water Service by Acam Acque in the municipality of Varese Ligure and the transfer of management by Ireti in the municipalities of Gazzuolo and Viadana, located in a non-synergic area for the Group;
- the acquisition of control of SEI Toscana, the company that manages the integrated municipal waste service of the ATO "Toscana Sud", operating in over one hundred municipalities in the provinces of Arezzo, Grosseto, Siena and Livorno;
- the rationalisation and reorganisation of some companies in the Waste Management, Energy and Market Business Units.

For more information on corporate changes, please refer to the Methodological Note [» SEE PAGE 344](#)

In addition, to support its strategic plan, the Group has signed several *ESG Sustainability Linked* loans whose spread is linked to the achievement of specific environmental objectives: reduction of climate-changing emissions, progressive growth in production from renewable sources and rational use of water resources. The Group also entered into a Private Placement to finance certain green investments selected from the eligible projects identified within the *Sustainable Financing Framework* and a loan for the development of Turin's district heating system in the form of a Public Finance Facility (for more details on sustainable finance instruments [» SEE PAGE 138](#)).

The growth and results achieved by Iren also in 2022 testify to the solidity and sustainability of its business model, as well as its resilience in facing global crisis situations such as the current socio-economic one.



## Group Structure (31.12.2022)



BUSINESS UNIT  
**Energy**



BUSINESS UNIT  
**Waste Management**



BUSINESS UNIT  
**Market**



BUSINESS UNIT  
**Networks**

MAIN INVESTEE COMPANIES

**Asti Energia e Calore 62%**  
*B.I. Energia 47.50%*  
**Dogliani Energia 100%**  
*Fratello Sole Energie Solidali 40%*  
**Iren Green Generation 100%**  
*Iren Green Generation Tech 100%*  
*Limes 1 51%*  
*Limes 2 51%*  
*Mara Solar 100%*  
*Omnia Power 100%*  
*Palo Energia 100%*  
*Piano Energia 100%*  
*Solleone Energia 100%*  
*Traversa Energia 100%*  
**Iren Smart Solutions 60%** (+20% Iren Ambiente and 20% Iren Mercato)  
*Alfa Solutions 86%*  
*Lab 231 100%*  
**Maira 82%**  
*Formaira 100%*  
**Valle Dora Energia 74.50%**

**ACAM Ambiente 100%**  
**Amiat V 93.06%**  
*Amiat 80%*  
*A.S.A. (BO) 49%*  
**Bonifica Autocisterne 51%**  
**Bonifiche Servizi Ambientali 100%**  
*Gaia 45%*  
**I.Blu 80%**  
**Iren Ambiente Toscana 100%**  
*CSAI 40.32%*  
*Futura 40%* (+ 20% Iren Ambiente and 20% Sei Toscana)  
*Scarlino Energia 100%*  
*Sei Toscana 41.77%* (+ 20,62 Sienambiente and 16.37% Valdarno Ambiente)  
*Ekovision 100%*  
*Valdisieve 70.96%* (+0.96% Iren Ambiente)  
*Sienambiente 40%*  
*Valdarno Ambiente 56.02%* (+43.98% CSAI)  
*CRCM 76.06%* (+7.15% Sienambiente)  
*TB 100%*  
**Manduriambiente 95.29%**  
**ReCos 99.51%**  
**Rigenera materiali 100%**  
**San Germano 100%**  
*Seta 48.85%*  
**Territorio e Risorse 65%** (+35% ASM Vercelli)  
**TRM 80%**  
**Uniproject 100%**

**Alegas 80%**  
**Salerno Energia Vendite 50%**

**ACAM Acque 100%**  
*Acquaenna 48.5%*  
*ASA (LI) 40%*  
**ASM Vercelli 59.97%**  
**Consorzio GPO 62.35%**  
**Iren Acqua 60%**  
*AM. TER. 49%*  
*Iren Acqua Tigullio 66.55%*  
**Iren Laboratori 90.89%**  
**Minerva 59.97%**  
*Atena Trading 100%*  
**Nord Ovest Servizi 45%** (+30% Amiat)  
**Società dell'Acqua Potabile 100%**  
*E.G.U.A. 49%*

**Key:** in *grey and italics*, companies that are not fully consolidated but are considered but are considered relevant to sustainability and reported separately

## Our resources

**1.3 million TOE**  
of primary energy consumed

**478 million m<sup>3</sup>**  
of water withdrawn for  
production processes

**267 million m<sup>3</sup>**  
of water withdrawn for  
distribution

**10,583**  
employees

**269,500**  
training hours

**5,226**  
suppliers for over **1,760**  
million Euro ordered for  
goods (17%), works (39%) and  
services (44%)

**3.4 GW**  
of installed electrical  
generation capacity

**8,160 km**  
of gas distribution networks

**7,872 km**  
of water distribution networks

**1,109 km**  
of district heating networks

**20,358 km**  
of water distribution networks

**1,361**  
treatment plants

**3,7 million t**  
of waste managed

**3.2 billion Euro**  
of equity

**3.2x**  
NFP/Ebitda ratio

**1.5 billion Euro**  
of gross investments

**4.4 billion Euro**  
of property, plant and  
equipment

## Business Model

### Shaping tomorrow

#### Our vision

to improve people's quality of life. Making companies more competitive. To look at territorial growth with a focus on change. To merge development and sustainability into one unique value. We are the multi-utility company that wants to build this future through innovative choices. For everyone, every day.

#### Our mission

to offer our customers and areas the best integrated management of energy, water and environmental resources, with innovative and sustainable solutions in order to create value over time.

#### Our values

responsibility, belonging, customer satisfaction, growth and enhancement of employees, teamwork, transparency, change, flexibility and sustainability.

### with our strategy



Leader in **green transition** to accelerate sustainability in all businesses



Reference partner in the **area** maximising opportunities for growth and synergy



Highest levels of **quality of service** in all areas, to be the first choice for all stakeholders

### through our value chain



■ Networks BU ■ Energy BU ■ Waste Management BU ■ Market BU

\* for the characteristics of Iren Group's customers see the chapter Service Quality on page 234

\*\* for more details on the supply chain see the chapter Enabling Resources on page 317

## The value we created in 2022

**339 gCO<sub>2</sub>eq/kWh** direct GHG emissions from energy production (scope 1)

**52%** renewable electricity purchased (scope 2 emissions)

**-9%** scope 3 emissions from use of products sold (gas)

**-16%** scope 3 emissions from fuel and energy activities

**268 l/inhabitant/day** of water withdrawals from the environment for water distribution

**836,000 t** of waste sent for material recovery

**0.8 GW** of installed renewable capacity

**324,000 TOE** saved by our customers through the use of Iren products and services

**23.4%** of women in managerial positions

**+2,177** new hires compared to 2020

**47.4** injury incidence rate for employees

**27** average hours of training per employee

**12.2 million Euro** for community projects

**+0.2 GW** of installed renewable electricity generation capacity compared to 2020

**1,124 million m<sup>3</sup>** of gas distributed

**2,751 million m<sup>3</sup>** of gas sold

**3.7 TWh** of electricity distributed

**13.1 TWh** of electricity sold

**2.3 TWh** of heat sold

**170 million m<sup>3</sup>** of water sold

**169 million m<sup>3</sup>** of water treated

**940 TWh** of energy produced from waste

**7,863 million Euro** of revenues

**1,055 million Euro** of Ebitda

**226 million Euro** of net profit

**1,603 million Euro** of economic value generated and distributed

**20** innovation projects

## Our goals for 2030<sup>(1)</sup>

**176 gCO<sub>2</sub>eq/kWh** direct GHG emissions from energy production (scope 1)

**100%** renewable electricity purchased (scope 2 emissions)

**-25%** scope 3 emissions from use of products sold (gas)

**-13%** scope 3 emissions from fuel and energy activities

**261 l/inhabitant/day** of water withdrawals from the environment for water distribution

**2.3 million t** of waste sent for material recovery

**3.4 GW** of installed renewable capacity

**700,000 TOE** saved by our customers through the use of Iren products and services

**30.0%** of women in managerial positions

**+4,000** new hires compared to 2020

**42** injury incidence rate for employees

**30** average hours of training per employee

**+2.8 GW** of installed renewable electricity generation capacity compared to 2020

**6,700 million Euro** of revenues

**1,870 million Euro** of Ebitda

**460 million Euro** of net profit

**10.5 billion Euro** of cumulative gross investments from 2023

**2.7x** NFP/Ebitda ratio

<sup>(1)</sup> All Group objectives are detailed on page 106



# Scale of the organisation

[GRI 2-1, 2-6, 2-7, 201-1, 203-1, 204-1, 302-1, 302-4, 303-3, 305-1, 305-2, 305-4, 305-5, 306-3, 401-1, 403-9, 404-1, 404-3, 405-1, G4-EU2, EU3, EU4]

## Value

**0.11** EURO  
Proposed dividend per share

**1,603**  
MILLION EURO  
Added value  
distributed

**56%**

Ordered to local  
suppliers

**7,863**  
MILLION EURO  
Revenues

**1,760**  
MILLION EURO  
Orders to  
suppliers

**1,485**  
MILLION EURO  
Capex

**1,188**

Suppliers involved in ESG  
profile survey

**95%**

Investments in  
reference local  
areas

**8.8**

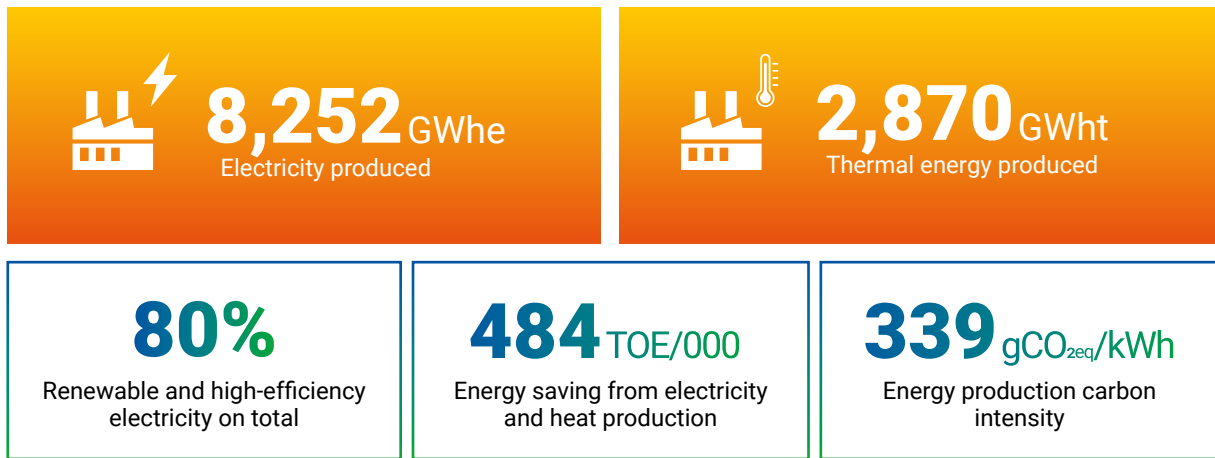
MILLION EURO  
Investments in  
innovation and  
research



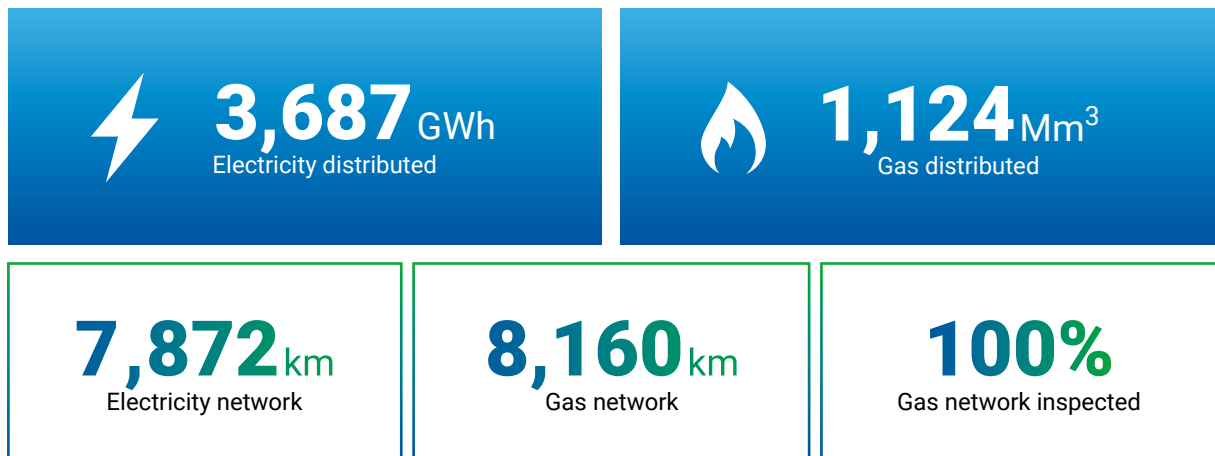
**2,050**

MILLION EURO  
Green Bonds issued

## NET ENERGY OUTPUT



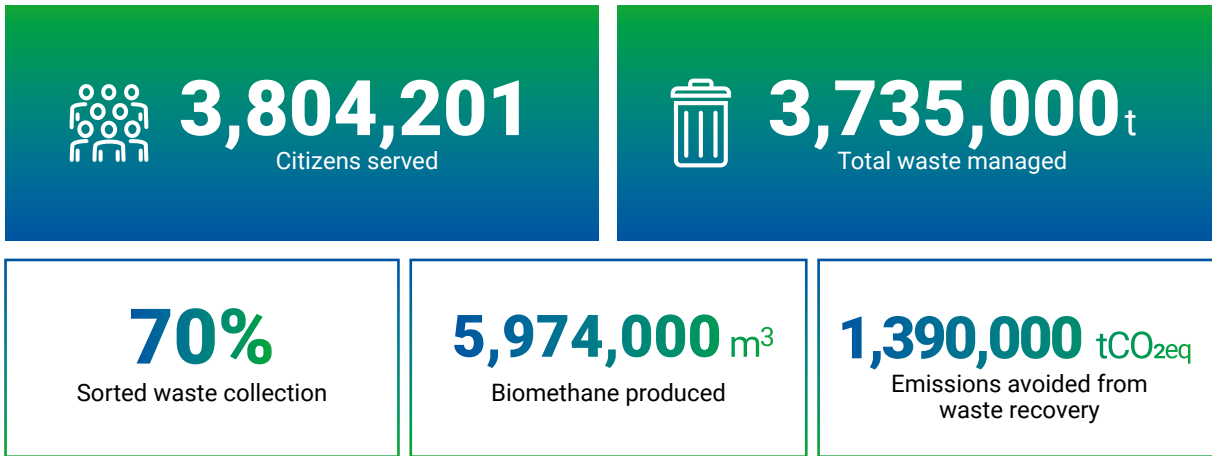
## ELECTRICITY DISTRIBUTION AND GAS DISTRIBUTION



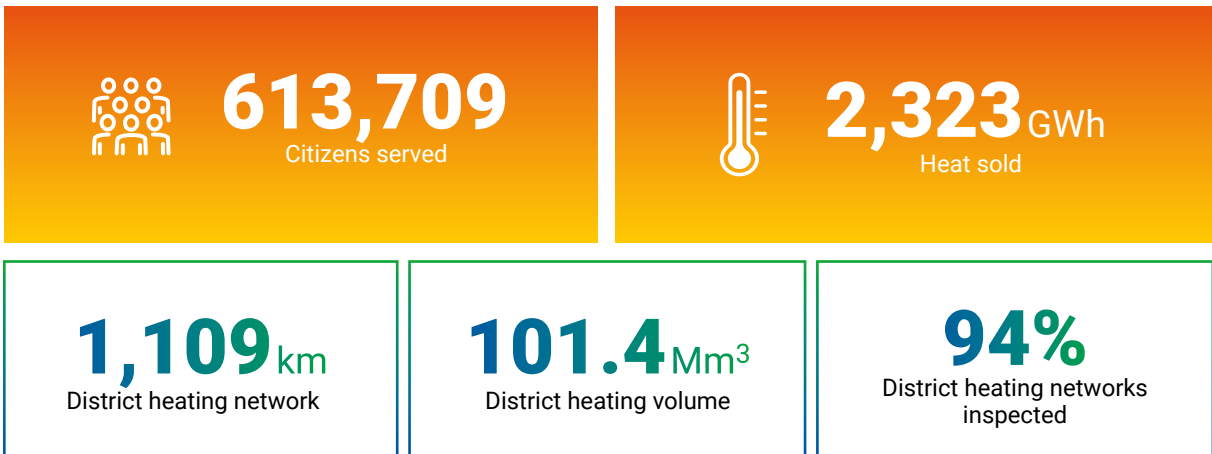
## INTEGRATED WATER SERVICE



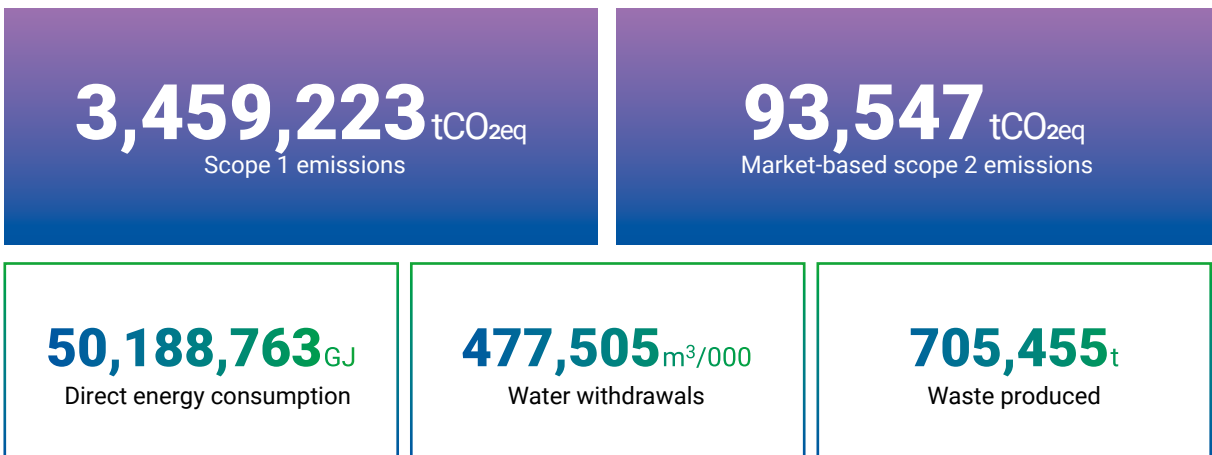
## WASTE MANAGEMENT SERVICES



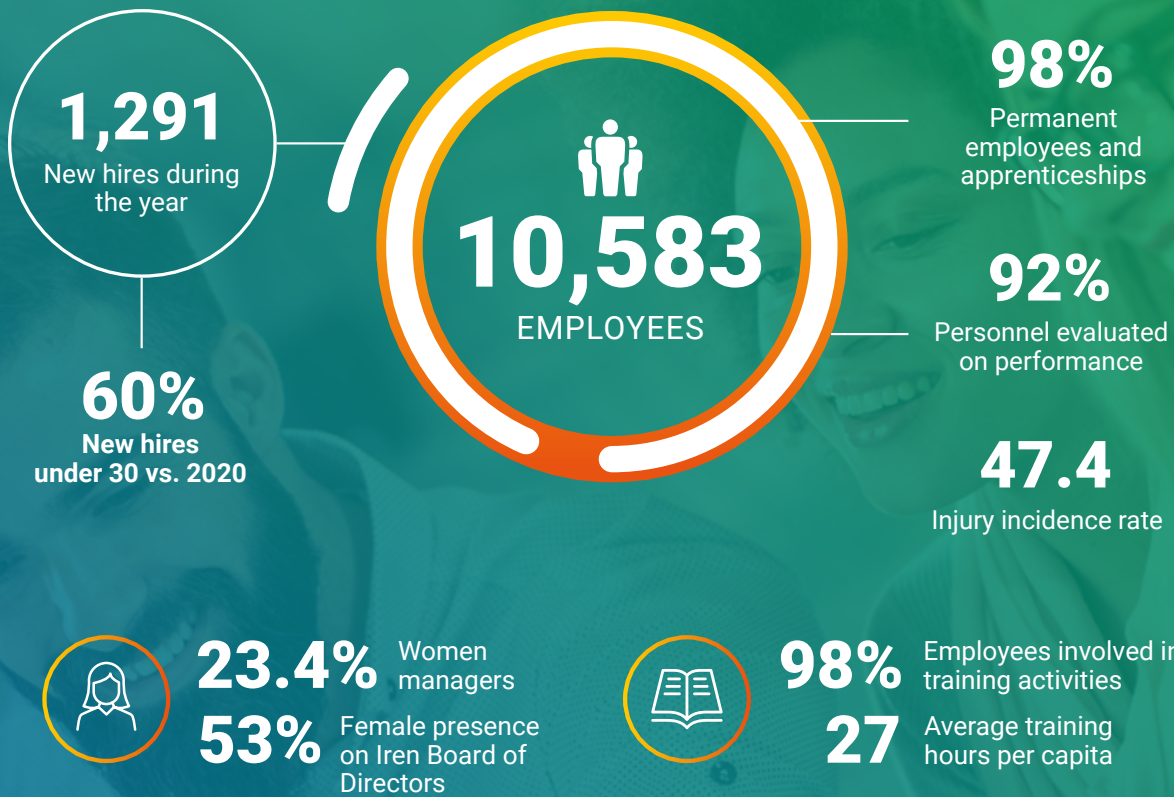
## DISTRICT HEATING



## ENVIRONMENTAL IMPACTS



## Personnel



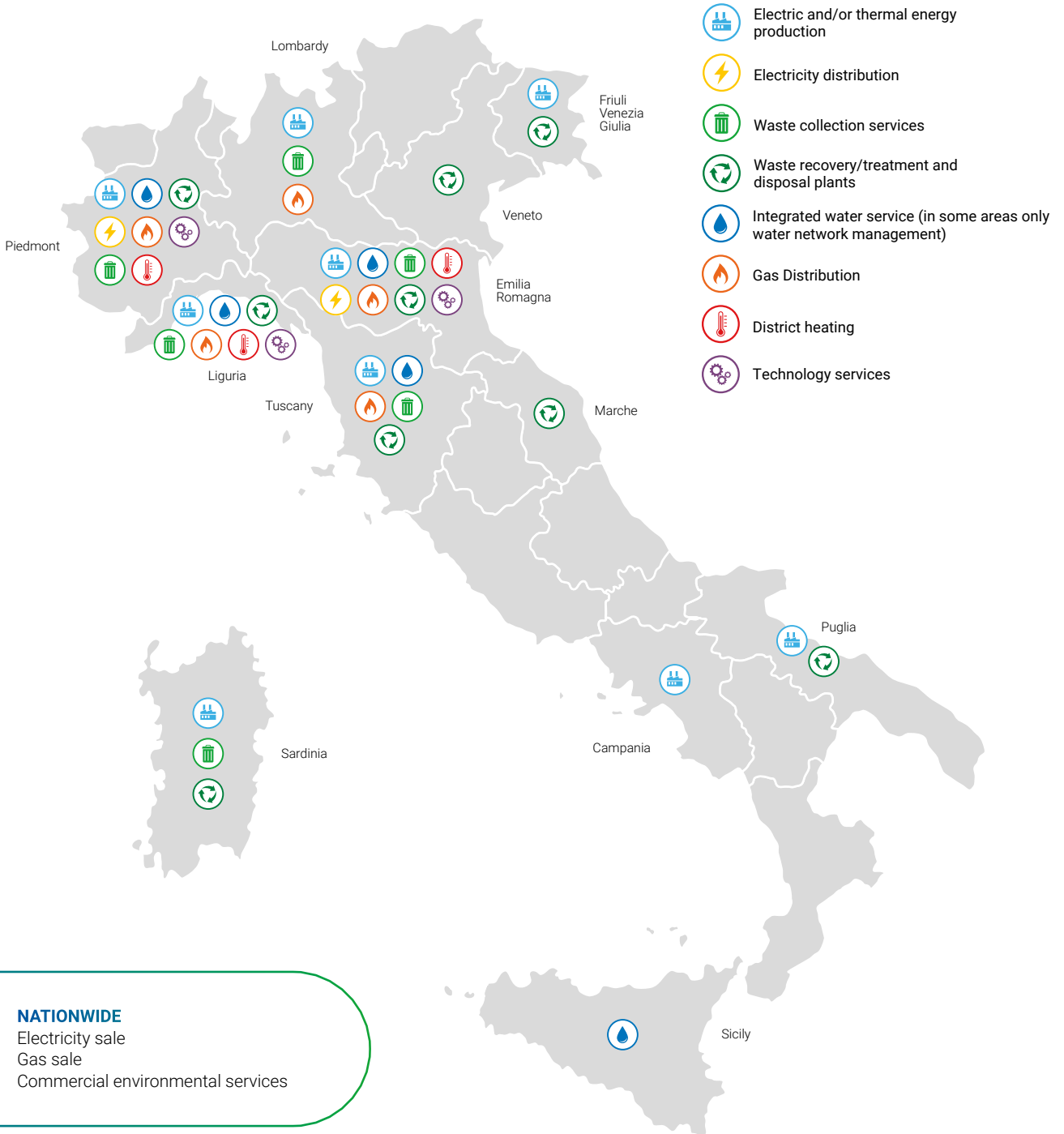
## Customers and Communities





# Main areas served

[GRI 2-1, 2-6]



**NATIONWIDE**

- Electricity sale
- Gas sale
- Commercial environmental services





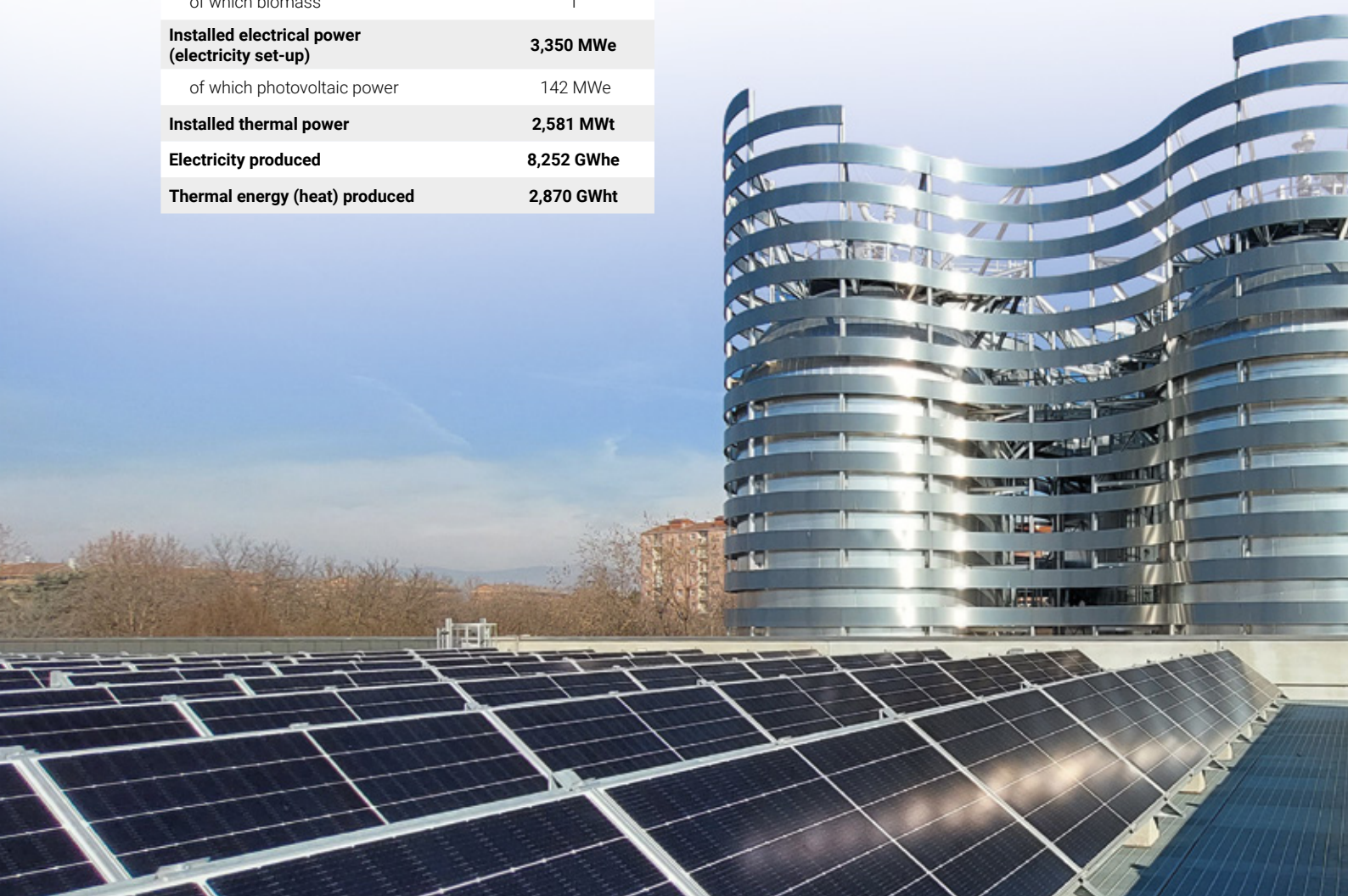
# Business sectors

[GRI 2-6, G4-EU1, EU2, EU3, EU4]

## Production of electricity and thermal energy

Main indicators	
<b>Energy production plants (no.)</b>	<b>209</b>
of which hydroelectric	44
of which photovoltaic	115
of which thermoelectric cogeneration	7
of which thermoelectric	1
of which waste-to-energy	3
of which landfills (post-operation)	5
of which biogas	4
of which thermal	28
of which biomass	1
<b>Installed electrical power (electricity set-up)</b>	<b>3,350 MWe</b>
of which photovoltaic power	142 MWe
<b>Installed thermal power</b>	<b>2,581 MWt</b>
<b>Electricity produced</b>	<b>8,252 GWhe</b>
<b>Thermal energy (heat) produced</b>	<b>2,870 GWht</b>

Electricity produced by plants fuelled by renewable or high-efficiency cogeneration sources, which account for 64% of the Group's plant portfolio, generate 80% of all output. >> [SEE PAGE 167](#)  
 Photovoltaic plants produced 207 GWh of electricity in 2022.



## Market

The Group operates in the sale of electricity, gas and heat for district heating, and of extra-commodity services and products, in particular for energy efficiency. It is present throughout Italy, with a greater concentration in the central-northern areas. The main sources available are the Group's energy production plants.

### SALE OF NATURAL GAS

Main indicators	
<b>gas procured</b>	<b>2,751 million m<sup>3</sup></b>
gas sold to end customers	1,102 million m <sup>3</sup>
gas consumption by the Group	1,402 million m <sup>3</sup>
gas in storage as at 31/12	247 million m <sup>3</sup>
<b>retail customers (no.)</b>	<b>1,032,589</b>
protected	278,048
free market	754,541

### SALE OF ELECTRICITY

Main indicators	
<b>electricity sold</b>	<b>13,124 GWh</b>
to end customers and wholesalers	8,541 GWh
on the Stock Exchange	4,583 GWh
<b>retail customers (no.)</b>	<b>1,183,620</b>
protected market	182,662
free market	1,000,958

In 2022, the volume of electricity sold to customers with higher protection status amounted to 250 GWh, and 1,652 GWh of certified green energy was sold.

### SALE OF HEAT FOR DISTRICT HEATING

Main indicators	
<b>heat sold</b>	<b>2,323 GWh</b>
thermal energy purchased from third parties	4 GWh
customers served	54,986

Through its own co-generation and transport networks, the Group offers the service of district heating to Turin, Nichelino, Moncalieri, Beinasco, Collegno, Grugliasco, Rivoli, Reggio Emilia, Parma, Piacenza, Genoa. District heating helps to protect the environment with greater reliability and safety compared to traditional heating plants.

## Gas distribution

The distribution service, managed in 105 municipalities, guarantees the withdrawal of natural gas from Snam Rete Gas pipelines and its transportation through local networks for delivery to end users. Iren Group also manages the distribution and sale of LPG. In the Reggio Emilia area and the province of Genoa in particular, via 14 and 7 storage plants respectively, located in towns that are still not reached by the natural gas network. LPG distribution is closely connected to the gradual methanisation of the area.

Local Area	km of network	End customers	Gas distributed (Mm <sup>3</sup> )
Emilia Romagna	6,121	397,457	789
Liguria	1,702	313,613	290
Piedmont	337	27,357	45
<b>Total</b>	<b>8,160</b>	<b>738,427</b>	<b>1,124</b>

## Electricity distribution

City	km of network	End customers	Electricity distributed (GWh)
Parma	2,570	130,965	863
Turin	4,753	569,273	2,642
Vercelli	549	29,014	182
<b>Total</b>	<b>7,872</b>	<b>729,252</b>	<b>3,687</b>

In Turin and Parma, the distribution of electricity is carried out by Ireti, while in Vercelli, it is assigned to ASM Vercelli.

## District heating

The Turin district heating network is the most extensive in Italy. In 2022, the development projects envisaged in the Business Plan continued, including the start of laying the network in the municipality of Dogliani (CN) where the service will be introduced.

Area	km of network	Volume (Mm <sup>3</sup> )	Residents served <sup>(1)</sup>
Turin and surrounding municipalities	743	75.5	506,689
Reggio Emilia	221	13.7	56,018
Parma	104	6.3	34,926
Piacenza	31	2.2	8,030
Genoa	10	3.7	8,046
<b>Total</b>	<b>1,109</b>	<b>101.4</b>	<b>613,709</b>

<sup>(1)</sup> Estimated data for residential utilities.

## Integrated water service

Main indicators	
Water networks	20,358 km
Sewer networks	11,279 km
Wastewater treatment plants	1,361
Dams	6
Residents served	2,930,662
Municipalities served	239
Customers served	875,137
Water sold	170 Mm <sup>3</sup>

The integrated water service - which includes the procurement and distribution of drinking water, management of the sewer networks and water treatment activities - is managed in the provinces of Asti, Genoa, La Spezia, Imperia, Savona, Parma, Piacenza, Reggio Emilia and Vercelli (in some areas only water network management).

## Waste management services

Main indicators	
Waste treated	3,734,861 t
Urban waste treated	2,792,116 t
Sorted waste collection <sup>(1)</sup>	70%
Residents served	3,804,201
Collection centres managed	258
Municipalities served	418
Plants managed	60
of which material recovery	20
of which treatment	11
of which storage	22
of which waste-to-energy	3
of which operating landfills	4

<sup>(1)</sup> Figure for legacy regions served

The Group manages environmental health services in the provinces of Piacenza, Parma, Reggio Emilia, La Spezia, Vercelli, Arezzo, Grosseto, Livorno, Siena and in the city of Turin. Through the company San Germano, it provides the waste collection service in several areas of Piedmont, Lombardy and Sardinia.

The environmental services include the collection and sending for recovery or disposal of solid urban waste or similar and non-hazardous special waste, as well as its transportation to plants belonging to the Group or third parties.

## Smart Solutions

The Group, thanks to its know-how, through Iren Smart Solutions (certified ESCo UNI 11352, UNI CEI EN ISO 50001 and F-gas), addresses companies, private condominiums, Public Administration and third sector entities, with an articulated portfolio of services:

- **energy efficiency of buildings** private and public, through the management of all phases related to energy requalification interventions: insulation, replacement of windows and doors, innovative technological services, efficiency of heating and air conditioning systems;
- installation of **photovoltaic, solar thermal and self-generation energy systems**;
- upgrading and management of **thermal plants**;
- realisation of **Renewable Energy Communities (RECs)**;
- **energy consultancy**, energy management and monitoring for energy saving;
- **global service** for the integrated management of electrical and technological plants of complex property assets;
- **relamping LEDs** through energy efficiency projects in lighting, public and artistic lighting, efficient management of traffic light systems.

## Other services

The Group's telecommunications network extends over the Turin area and from the ridge of the Susa Valley to Susa. In Turin, the fibre optic network extends for about 200 km and connects over 400 customer sites, including the main sites of the Group. The network is used, in particular, for the supervision and remote control of electrical distribution, district heating, public lighting and for the data collection system of electric meters and district heating condominiums. Through the Group's network, various passage points for restricted traffic areas (ZTL), traffic light regulators and remote control of the water network are also managed. The network reaches Genoa, Parma, Piacenza and Reggio Emilia, through a redundant 10Gbps infrastructure dedicated to the Group.

## Companies outside the consolidation scope

The Group also includes a number of companies that are not consolidated on a line-by-line basis, but are considered significant in terms of environmental and social sustainability, on the basis of different criteria, such as the stake held, the business managed and the governance in place. For a correct and comprehensive representation of the Group's activities, qualitative and quantitative information is provided below for these companies, expanded compared to the previous year to further improve information.

### B.I. ENERGIA

B.I. Energia S.r.l. is the investee of Iren Energia (47.5%) and Consorzio di Bonifica dell'Emilia Centrale [Central Emilia Conservation Consortium] (52.5%), which manages the flowing water hydroelectric plant (1.8 MW) on the river Secchia, in San Michele dei Mucchietti (Modena), which uses the drop of an existing barrier to produce electricity. In 2022, there was a sharp reduction in the amount of electricity produced, compared to 2021, due to the intense and prolonged drought that characterised the year.

Main indicators	u.m.	2022	2021
Electricity produced	MWh	2,426	4,754

### FRATELLO SOLE ENERGIE SOLIDALI

Fratello Sole Energie Solidali is a social non-profit enterprise founded by Iren Energia (40%) and Fratello Sole (60%) and operates in support of charitable and socially-useful entities in the field of energy costs savings. It provides management and energy efficiency services to the real estate complexes of its 12 founding members, comprising over 3,000 buildings.

Fratello Sole Energie Solidali is responsible for planning and implementing energy efficiency initiatives through its technological partner Iren Smart Solutions, and can also develop e-mobility projects for its customers.

The two construction sites started in 2021 and produced their full effect in 2022, generating total energy savings of more than 264 MWh.

### ACQUAENNA

Acquaenna S.C.p.A., investee of Ireti (48.5%), manages the integrated water service in the ATO (Ambito Territoriale Ottimale, Optimal Territorial Area) of Enna, excluding the municipality of Barrafranca. The Company operates across all stages of the water cycle (catchments, supply, distribution, sewage and treatment), implementing the Area Plan approved by the Mayors' Assembly, planning and making investments and testing with new technological solutions. Acquaenna has a quality management system certified according to ISO 9001.

Main indicators	u.m.	2022	2021
Residents served	no.	144,730	145,627
Municipalities served	no.	19	19
Water sold	m <sup>3</sup>	6,581,500	5,531,737
Water networks	km	1,347	1,309
Sewer networks	km	557	522
Wastewater treatment plants	no.	18	18
Electricity consumption	kWh	11,227,464	12,194,684
Employees as at 31/12	no.	103	103

## AM.TER.

AM.TER. S.p.A. – established by the municipalities of Campo Ligure, Cogoleto, Masone, Mele and Rossiglione together with Iren Acqua (49%) – manages the integrated water service in the west of the province of Genoa, in the areas of the member municipalities and the municipalities of Arenzano and Tiglieto.

The supply sources consist of 103 sources, 13 rivers and 3 wells. The water is treated in 9 treatment plants and 16 disinfection plants, distributed throughout the region. The municipal treatment plant of Rossiglione deals with the final discharge of the sewer networks of the municipalities of Campo Ligure, Masone and Rossiglione.

AM.TER. adopts an integrated Quality, Safety and Environmental management system, in accordance with ISO 9001, ISO 45001 and ISO 14001.

Main indicators	u.m.	2022	2021
Residents served	no.	44,609	44,972
Municipalities served	no.	7	7
Water sold	m <sup>3</sup>	2,086,980	2,110,271
Water networks	km	285	290
Sewer networks	km	128	127
Wastewater treatment plants	no.	11	11
Electricity consumption	kWh	1,067,058	1,020,893
Natural gas consumption	sm <sup>3</sup>	7,649	7,626
Water consumption	m <sup>3</sup>	200	200
Waste generated	t	651	767
Employees as at 31/12	no.	17	14

## EGUA

E.G.U.A S.r.l., investee of Società dell'Acqua Potabile S.r.l. (49%), manages the integrated water service in the municipality of Cogorno (GE). E.G.U.A. has outsourced to Società dell'Acqua Potabile the management of all phases of the integrated water service: capture, purification, treatment, distribution, collection and disposal of wastewater, design, construction, operation and maintenance of networks and plants.

E.G.U.A. has a quality management system certified according to ISO 9001.

Main indicators	u.m.	2022
Residents served	no.	7,736
Municipalities served	no.	1
Water sold	m <sup>3</sup>	297,318
Water networks	km	48
Sewer networks	km	34
Electricity consumption	kWh	297,012

## ASA

ASA S.p.A. is an investee of the municipalities of the provinces of Livorno, Pisa and Siena and Ireti (40%) that manages the integrated water service in five regional sub-districts: North-East (Livorno, Collesalveti and Capraia Isola), Alta Val di Cecina (main municipality Volterra), Bassa Val di Cecina (main municipalities Cecina and Rosignano M.), Val di Cornia (main municipality Piombino) and Isola d'Elba (Elba Island). The Company also manages gas distribution in Livorno, Collesalveti, Rosignano Marittimo, Castagneto Carducci and San Vincenzo.

ASA is ISO 9001 certified.

Main indicators	u.m.	2022	2021
Residents served (IWS)	no.	406,582	395,900
Municipalities served (IWS)	no.	32	32
Water sold	m <sup>3</sup>	24,380,817	25,508,094
Water networks	km	3,636	3,603
Sewer networks	km	1,280	1,270
Wastewater treatment plants	no.	78	73
Residents served by gas distribution	no.	216,208	217,274
Gas distribution customers	no.	98,420	98,739
Municipalities served by gas distribution	no.	5	5
Natural gas distributed	sm <sup>3</sup>	72,949,769	88,015,003
Gas networks	km	702	702
Electricity consumption	kWh	68,922,858	70,423,760
Natural gas consumption	sm <sup>3</sup>	194,235	300,000
Water consumption	m <sup>3</sup>	1,788,377	1,727,540
Waste generated	t	14,342	14,222
Employees as at 31/12	no.	540	535

## A.S.A. AZIENDA SERVIZI AMBIENTALI

The company A.S.A. S.C.p.A., investee of Iren Ambiente (49%), manages the design and construction of plants for the disposal of urban and special, hazardous and non-hazardous waste, the organisation and management, direct and indirect, of plants for the disposal of waste produced by third parties and the remediation of polluted sites. It is the operator of the landfill for non-hazardous waste located in the municipality of Castel Maggiore (BO) which, after almost a year of closure, returned to operation in 2022. ASA adopts an ISO 45001 and ISO 14001 certified management system and the site managed by the company has obtained EMAS registration.

Main indicators	u.m.	2022	2021
Special waste managed (non-hazardous)	t	128,091	2,911
Electricity consumption	kWh	63,216	65,383
Water consumption	m <sup>3</sup>	81	232
Waste generated	t	10,972	8,202
Employees as at 31/12	no.	5	5

## GAIA

GAIA S.p.A., the investee of Iren Ambiente (45%), manages waste treatment, recovery and disposal plants in the province of Asti. GAIA's activities are spread across the entire province of Asti, with a structured plant system: 12 collection centres for citizens to dispose of sorted waste collection, a sorted waste recovery plant, a plant for the mechanical-biological treatment (MBT) of unsorted waste (Asti), a compost and anaerobic digestion plant (San Damiano d'Asti) for the recovery of organic waste and a landfill for non-hazardous waste (Cerro Tanaro). To achieve economically sustainable development, GAIA has worked to adopt a transparent policy and to gradually integrate its management system, obtaining ISO 9001, ISO 45001 and ISO 14001 certifications. All of the sites managed by the Company are EMAS certified.

Main indicators	u.m.	2022	2021
Inhabitants served waste collection	no.	204,465	205,545
Municipalities served waste collection	no.	115	115
Waste collected in Eco-stations	t	8,277	8,714
Waste treated at the plants	t	223,801	211,925
sorted waste recovery	t	36,984	33,600
TMB	t	47,178	47,003
transfer station	t	7,685	7,818
composting	t	53,219	39,679
non-hazardous waste landfill	t	78,735	83,825
Electricity consumption	kWh	5,268,093	6,536,189
Natural gas consumption	sm <sup>3</sup>	21,103	7,600
Water consumption	m <sup>3</sup>	21,267	19,725
Waste generated	t	20,093	23,872
Employees as at 31/12	no.	164	151

## SETA

SETA (Società Ecologica Territorio Ambiente) S.p.A. is the contractor of the urban waste collection service for Catchment Area 16 in the Metropolitan City of Turin. Operating in waste collection and disposal, it is 51.15% controlled by a few municipalities in the Consortium of Catchment Area 16 (area to the north of Turin), both directly and indirectly through the consortium, and is an investee of Iren Ambiente (48.85%).

SETA manages the controlled landfill called Chivasso 0 for the disposal of non-hazardous waste and 11 collection centres across the territory, where citizens can dispose of the sorted waste sent for recovery. SETA adopts a Quality, Safety and Environment management system certified in accordance with ISO 9001, ISO 45001 and ISO 14001.

Main indicators	u.m.	2022	2021
Residents served	no.	224,069	224,243
Municipalities served	no.	31	31
MSW collected - sorted	t	61,348	62,775
MSW collected - unsorted	t	39,802	40,772
Sorted waste collection	%	61	61
Electricity consumption	kWh	494,277	541,038
Natural gas consumption	sm <sup>3</sup>	86,621	63,019
Water consumption	m <sup>3</sup>	9,448	6,123
Waste generated	t	5,445	525
Employees as at 31/12	no.	217	216

## CSAI (CENTRO SERVIZI AMBIENTE IMPIANTI)

CSAI S.p.A., investee of Iren Ambiente Toscana (40.32%), is a public-private company in the province of Arezzo that deals with the disposal of non-hazardous urban-derived waste and non-hazardous special waste, as well as the production of electricity from renewable sources (landfill biogas). The company owns and manages two landfills (in the municipalities of Terranuova Bracciolini and Castiglion Fibocchi) for non-hazardous waste with biogas recovery. As of September 2022, the landfill has suspended transfers due to the exhaustion of the authorised volumes. CSAI disposes of regulated waste from ATO Toscana Sud (provinces of Arezzo, Siena, Grosseto and Val di Cornia) and special waste from the regional and extra-regional territory. CSAI adopts a Quality, Safety, Environment and Energy management system certified in accordance with ISO 9001, ISO 45001, ISO 14001 and ISO 50001.

Main indicators	u.m.	2022	2021
Municipal waste sent to landfill	t	66,087	110,846
Special waste sent to landfill	t	41,628	66,930
Electricity produced from landfills	kWh	22,054,637	20,115,629
Electricity consumption	kWh	1,044,748	980,250
Water consumption	m <sup>3</sup>	2,062	2,466
Waste generated	t	35,175	36,087
Employees as at 31/12	no.	33	33



## SIENA AMBIENTE

Siena Ambiente S.p.A. is a mixed public/private capital company: 60% held by public shareholders (province of Siena and municipalities of the province of Siena) and 40% held by Iren Ambiente Toscana. The company manages, in the province of Siena, landfills, selection plants, waste-to-energy, composting and energy recovery from waste. It also operates, on a residual basis, in the disposal of special non-hazardous waste and, through subsidiaries, produces electricity from renewable sources (photovoltaic plants).

Siena Ambiente adopts an integrated Quality, Safety and Environment management system, according to the ISO 9001, ISO 45001 and ISO 14001 standards and all the managed sites have obtained EMAS registration.

Main indicators	u.m.	2022	2021
Total waste managed	t	204,707	207,487
Organic	t	20,922	29,064
Paper	t	10,139	13,619
Multi-material	t	15,551	20,745
Unsorted	t	35,191	33,725
Waste treated in WTE	t	66,529	69,124
Waste treated by landfills	t	56,374	41,210
Compost produced	t	4,095	5,813
Electricity produced by WTE	kWh	42,598,659	38,062,282
Electricity produced from landfills	kWh	3,508,259	4,846,099
Electricity produced from photovoltaic	kWh	1,986,872	2,107,107
Electricity consumption	kWh	10,786,910	11,237,332
Natural gas consumption	sm <sup>3</sup>	639,236	421,195
Water consumption	m <sup>3</sup>	22,557	23,056
Waste generated	t	182	347
Employees as at 31/12	no.	102	104



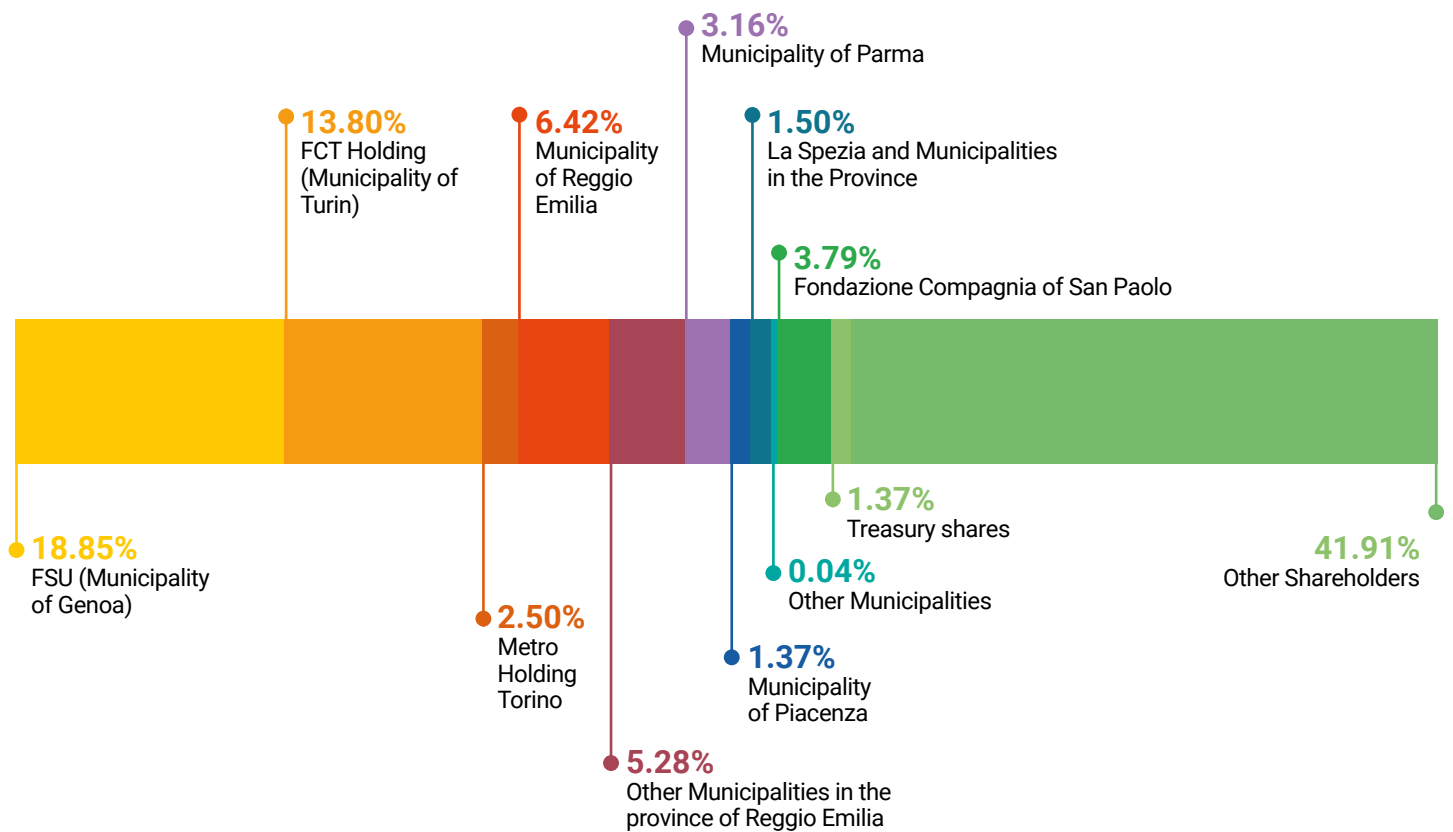


# Ownership structure

[GRI 2-1]

At 31/12/2022, the most significant Group shareholders that hold a stake, directly or indirectly in Iren, are represented in the graph below.

IREN SHAREHOLDING STRUCTURE (% OF SHARE CAPITAL)



At 31 December 2022, the Iren share capital is represented **1,300,931,377 ordinary shares**, of which:

- **705,406,087 ordinary shares with increased voting rights**  
conferring a total of 1,410,812,174 voting rights exclusively on the Shareholders' resolutions subject to increased voting rights (art. 6-bis, paragraph 1 of the Articles of Association);
- **595,525,290 ordinary shares without increased voting rights**  
conferring the equivalent number of voting rights on all Shareholders' resolutions other than those subject to increased voting rights.

At 31 December 2022, the ordinary shares of Iren conferred by 93 Public Shareholders (Finanziaria Sviluppo Utilities, Finanziaria Città di Torino Holding, Metro Holding Torino, Soci Emiliani and Soci Spezzini) to a Shareholders' Agreement aimed at guaranteeing unity and stability of direction, also through the use of the increased voting rights, are divided into:

- **686,696,386 ordinary shares contributed to the Voting Syndicate**  
representing an equivalent number of voting rights on all meeting resolutions other than those with increased voting rights and 1,340,415,436 voting rights with respect to meeting resolutions with increased voting rights;
- **455,379,436 ordinary shares bound by the Block Syndicate**  
representing 35% of the Iren share capital, and their respective circulation is restricted.

During the 2022 financial year, there were no changes in the ownership structure.

Retail shareholders hold more than **5% of the share capital**, while the remainder is held by more than **250 institutional investors**.

On 21 June 2022, the Ordinary Shareholders' Meeting was held, which approved the 2021 Annual financial statements, the dividend proposal, the report on the remuneration policy 2022 and the remuneration paid in 2021. The Shareholders' Meeting also appointed the Board of Directors for the three-year period 2022-2023-2024 and resolved on the annual remuneration to be paid to the members of the Board of Directors pursuant to art. 21 of the Articles of Association.



# Awards and recognition

In 2022, Iren Group received various recognitions relevant to corporate and environmental responsibility.



**Top Employer** certification (for the fifth consecutive year): the official recognition of the Company's excellence in HR policies and strategies and their implementation to contribute to people's well-being, improve the work environment and the world of work.



**Top Utility 2022** Award in the **RSE Research & Innovation** category: recognition of the quality of the research and innovation activities carried out by the Group and the cross-business approach to the dissemination and adoption of innovation in all sectors in which the company operates.



**Best in Media Communication** certification (for the second consecutive year): recognition for the work done to measure the impact of corporate communication, taking into account the positioning in the media and the quality of the relationships established with journalists.



**Best Performance Award** - 'Best Performer of the Year 2021-2022' category awarded by SDA Bocconi. What set the Group apart was the company's strong focus on HR, diversity and inclusion, as well as energy transition and the circular economy.



**The PRIZE**, promoted by UNA - Aziende della Comunicazione Unite. GOLD award in the Corporate Communication category to the "Un mondo da favola" campaign: videos, inspired by some fairy tales, to raise awareness of more environmentally friendly behaviour and to combat waste abandonment.



**Business International Finance Award 2022** in the 'Corporate Finance' category with the project "Industrial and Financial Strategies for Sustainable Development". The award underlines the success of the new Business Plan to 2030, in which ESG objectives drive all business initiatives and 80% of investments are sustainable.



**2022 Smau Innovation Award** dedicated to companies committed to rethinking their business model under the banner of sustainability and process renewal. Awarded the project for the treatment of old monitors and TVs carried out by the Group in collaboration with the start-up Hiro Robotic.



**Utilities Manager**: Iren CEO Gianni Vittorio Armani was awarded the prize in the local public services category. The award is in recognition of Iren's Business Plan to 2030 and its contribution to infrastructure development in Italy.





Governance for  
sustainable  
growth

2

## IN THIS CHAPTER WE TALK ABOUT

governance



risk  
management



policies  
and tools





# Sustainability Governance

[GRI 2-9, 2-10, 2-11, 2-12, 2-13, 2-14, 2-15, 2-16, 2-17, 2-18, 2-20, 2-23, 2-24]

Governance for sustainable growth takes the form of integrating ESG (environmental, social and governance) factors into the strategy, with medium and long-term objectives and targets, and in assessing and managing risks and opportunities arising from ESG factors. The strategic guidelines for sustainable growth, approved by the Board of Directors, guide operations, affect the remuneration policies and are monitored through a reporting system for transparent communication with stakeholders.

The Code of Ethics defines the general principles, the conduct criteria and the control system to maintain and strengthen trust with the stakeholders. Training and raising the awareness of people are the keys to consolidating an ethical culture that tangibly influences the Group's development opportunities. Starting with the Board of Directors, the governance approach involves the entire organisation, assigning specific levels of responsibility to different roles.

## Solid, ethical and transparent governance for sustainable growth



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Commission of offences related to Legislative Decree 231/2001
- Non-compliance with tax regulations
- Non-compliance with financial and non-financial reporting regulations
- Company's administrative responsibility for violation of rules and regulations
- Criminal liability of management for violation of regulations
- Violation of the Code of Ethics conduct criteria
- Infringement of confidentiality or abuse of privileged information
- Negative operational, economic and reputational impacts deriving from conduct contrary to company ethics, rules and regulations



### Opportunities

- Mitigation of risks with potential internal and external economic, environmental and social impacts
- Adherence to the Cooperative Compliance regime in the tax field
- Positive reputation



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Internal Control and Risk Management System
- ERM system integrated with ESG topics
- MbO and LTI system with ESG objectives
- Audit, Risk and Sustainability Committee
- Induction for the Board of Directors on ESG topics
- ESG Strategic Integration Committee
- Code of Ethics
- Organisational Model 231 and information flows to the Supervisory Bodies
- Employee training on Model 231 and Code of Ethics
- Governance solutions consistent with the Corporate Governance Code
- Internal Audit Plan
- Tax Control Framework
- Antitrust Code of Conduct
- Local Committees
- Procedures: Whistleblowing; Internal dealing; Management of information related to transparency obligations; Internal management and external disclosure of relevant information and/or inside information; Governance of administrative and accounting procedures; Drafting of the Sustainability Report/NFS



Iren Group's governance is based on shared rules that inspire and direct strategies and corporate activities. The instruments adopted guarantee respect for ethical values, principles and behaviours within an industrial model that plans for sustainable growth.

In order to ensure consistency between behaviours and strategies, Iren has adopted a system of internal rules that configure a corporate governance model based on the division of responsibilities and on a balanced relationship between management and control, which guarantees that risks and opportunities are duly taken into account in the decision-making processes, contributes to spreading the corporate culture at all levels and enhancing skills, increasing awareness among internal resources and contractors that the Group plays a vital role in creating value for the community.

The integrated strategy of Iren Group and the economic and sustainability objectives [» SEE PAGE 106](#) are defined by the **Board of Directors** of Iren, which examines the risks and opportunities linked to the socio-environmental and economic context, also on the occasion of approval of the Business Plan, the annual budget, the examination and approval of new extraordinary and development operations, the Consolidated Financial Statements and the Sustainability Report.

In defining its strategic guidelines, the Board of Directors contemplates the need to pursue sustainable success, which also extends to the development of remuneration policies [» SEE PAGE 75](#) and the Internal Control and Risk Management System. [» SEE PAGE 56](#)

The long-term (2030) and medium-term (2026) strategic plan, approved by the BoD, includes sustainability objectives and targets [» SEE PAGE 106](#), also in relation to the aspects connected to climate change on which the Group is committed to guarantee transparency in reporting, in particular in relation to the four areas proposed by the Task force on Climate-related Financial Disclosures (TCFD) of the Financial Stability Board (for detailed references [» SEE PAGE 362](#)):

- **Governance** - description of the role of the Iren corporate governance system in relation to climate change issues;
- **Strategy** - illustration of the main risks and opportunities relating to climate change, the different scenarios considered and the corporate strategy developed as the company's response to mitigate and adapt to the risks and to maximise the opportunities;
- **Risks** - description of the identification, assessment and management process for the risks and opportunities related to climate change adopted by the Group;
- **Metrics and targets** - main metrics related to climate change used by the Group, as well as the main objectives set to promote a low carbon business model.

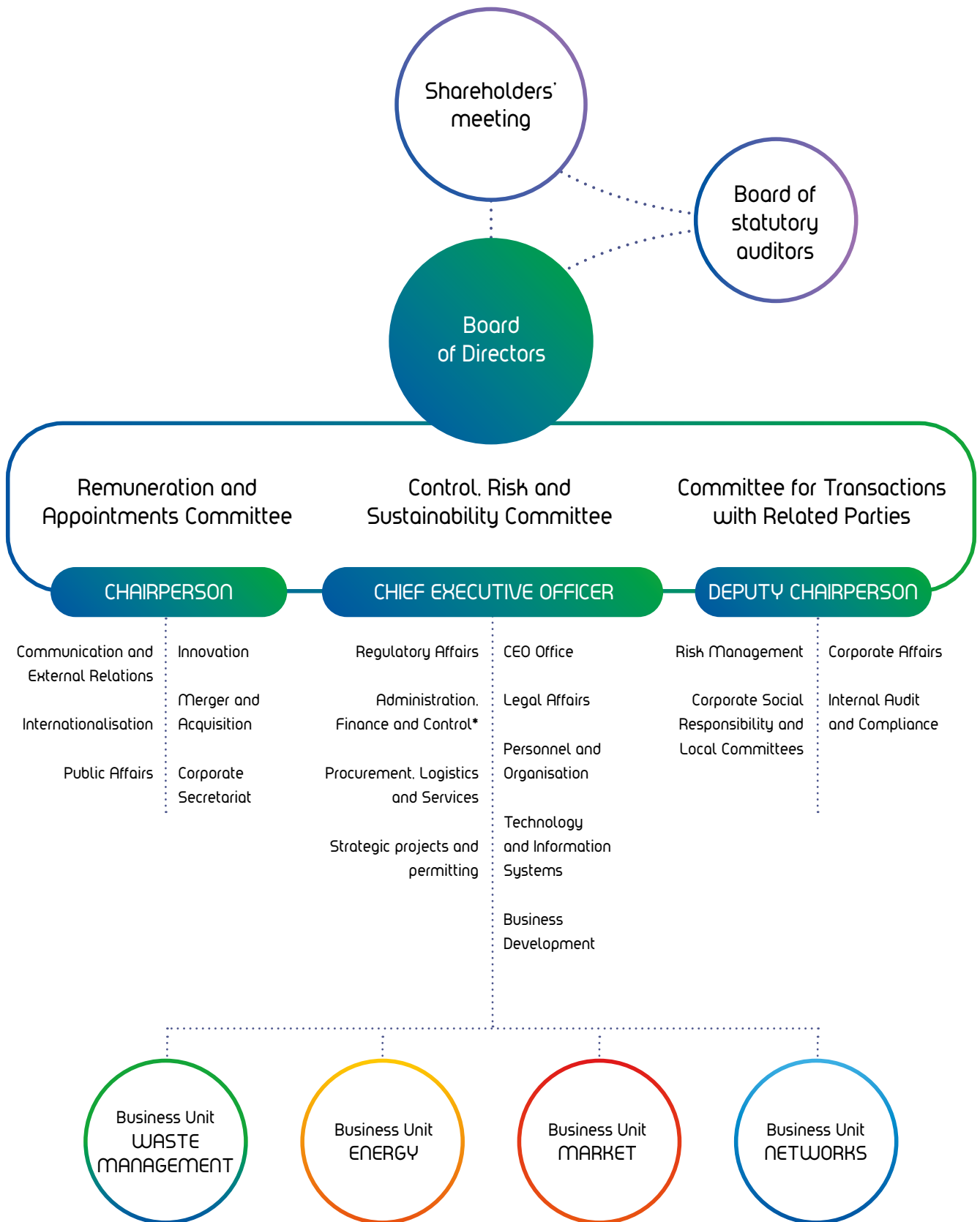
The Board of Directors analyses and approves the Sustainability Report, which serves as a non-financial statement (NFS) pursuant to Legislative Decree 254/2016, drawn up annually to publicise the Group's environmental, social and economic strategies and performance, to transparently communicate compliance with the commitments undertaken, future commitments and ability to meet stakeholder expectations. The Sustainability Report is prepared by the Corporate Social Responsibility and Local Committees Department, which reports directly to the Deputy Chairperson, who holds the relevant powers.

Moreover, in line with the current power structure:

- **the Chairperson** of the Board of Directors plays the role of liaison between the executive and non-executive directors, ensures the effective functioning of the Board's work and is delegated to manage the Group's external communications, institutional relations and, within certain limits, merger and acquisition operations, as well as being entrusted with the management of risks pertaining to his delegated powers, acting in liaison with the Deputy Chairperson;
- **the Deputy Chairperson** is responsible for the management of the 231/01 system, the Privacy system (GDPR), the monitoring of environmental and social sustainability issues, the preparation - through the Corporate Social Responsibility and Local Committees Department - of the Sustainability Report/Non-Financial Statement (pursuant to Legislative Decree 254/2016), the integrated management of the Group's Enterprise Risk Management (ERM) system; the Internal Audit Unit reports hierarchically to the Vice President, while functionally depending from the BoD. The Deputy Chairperson updates the Board of Directors on sustainability projects' status, stakeholder engagement and consultation activities on sustainability issues with stakeholders, also managed through the Corporate Social Responsibility and Local Committees Department. Through Local Committees, of which the Deputy Chairperson is an ex officio member, stakeholders can also draw the Group's attention to issues concerning services and environmental and social sustainability topics. The results of stakeholder engagement activities generate project ideas for the improvement of environmental and social performance and are reported annually in the Sustainability Report;
- **the Chief Executive Officer and General Manager** is the main person responsible for the management of the Company (thus qualifying as Chief Executive Officer) with powers of management, coordination and control, and in particular of organisation and strategic planning, with the indication of objectives and the monitoring and control of activities and results on the Group companies. Holds the role of director in charge of managing the risks pertaining to related duties, acting jointly with the Deputy Chairperson.

The **Control, Risk and Sustainability Committee** » [SEE PAGE 49](#) is responsible for examining the guidelines of the sustainability plan, assessing risks and evaluating economic, environmental and social performance, and supervising the implementation of the sustainability plan and the system for evaluating and improving the environmental, economic and social impact of the Group's activities.

For the integration and monitoring of ESG (Environment, Social, Governance) factors, from strategic planning to the management and monitoring of the Group's activities, the **ESG Strategic Integration Committee** was created » [SEE PAGE 54](#) which includes the Directors of the primary Staff and Business Unit functions, and which operates in close relationship with the **Sustainable Finance Committee** » [SEE PAGE 54](#) relationship with the Sustainable Finance Committee (see page 28) responsible for defining and managing the Group's sustainable finance framework. Iren adopts a traditional corporate governance system that complies with the recommendations of the Corporate Governance Code and with the Regulations on transactions with related parties adopted by Consob.



\* Includes Planning and Investor Relations

## Board of Directors

The Board of Directors (BoD) has full powers for the ordinary and extraordinary administration, implementation and achievement of the company business objectives, with the sole exclusion of powers which by Law or by the Articles of Association are the responsibility of the Shareholders' Meeting.

The Iren Board of Directors is responsible for defining the sustainability policies and principles of conduct to be adopted at Group level, in order to ensure the creation of value over time for Shareholders and for all other stakeholders, together with the definition of the sustainability plan that the Board itself has chosen to integrate into the Strategic Plan for the development of the Group.

The BoD assesses the organisation's economic, environmental and social performance, any significant risks and opportunities, and its compliance with standards, codes of conduct and the principles declared during the approval of the strategic, business and financial planning, the annual budget, the financial statements and the interim management reports. The Board of Directors also evaluates the social and environmental performance reported quarterly and annually in the Sustainability Report. The assessment of social and environmental risks and performance also takes place with the support of the Control, Risk and Sustainability Committee (made up of 4 Independent Directors), which also exercises competences in the field of Corporate Social Responsibility.

The Board of Directors in office at 31 December 2022 was appointed (for three years, until the approval of the Company's Financial Statements at 31 December 2024) by the Shareholders' Meeting held on 21 June 2022 and consists of 15 Members. The Board of Directors, in addition to the provisions of the Shareholders' Agreements between Iren Public Shareholders, is appointed through the submission of lists to ensure the adequate presence of the less-represented gender, as well as Members selected by minority shareholders. The Board of Directors adopts appropriate solutions to facilitate the identification and management **of situations where a Director may be vested with personal interests or interests on behalf of third parties** in a particular transaction. In this case, as provided for by art. 2391 Civil Code, the Director makes a prior communication to the other Directors and to the Board

of Statutory Auditors - specifying the nature, terms, origin and scope of the interest - and, in the case of the Chief Executive Officer, must refrain from carrying out the operation, vesting the BoD with the same.

The BoD, during the meeting of 20 April 2022 formulated its guidelines to the Shareholders on the **qualitative-quantitative composition of the administrative body** for the three years 2022-2024, providing indications on its size and of the Internal Board Committees and on the professional and managerial figures whose presence in the administrative body was considered appropriate. The document (available at [gruppoidren.it](http://gruppoidren.it) > Governance > Shareholders' Meeting) was circulated and made available to the Shareholders' Meeting to allow Shareholders to make their own evaluations on the subject. As far as the quantitative profile is concerned, the number of Board members is deemed adequate in relation to the size and complexity of the Company's organisational structure, in order to effectively oversee the Company's operations in terms of management and control; the correct size of the administrative body is also determined according to the number and composition of the Board Committees, with advisory, proposing and investigative functions, in which a decisive role is entrusted to the non-executive and independent Board members. From a qualitative point of view, without prejudice to the statutory provision regarding possession of the integrity requirements, the objective that the Board of Directors then in office set for itself was to combine different professional and managerial profiles, recognising the value attributed to the complementarity of experience and skills, together with gender and age diversity, for the purposes of the proper functioning of the Board itself. The issue of the appointment and composition of the Corporate Bodies, including the Board of Directors, is among the topics covered by the Policy for managing dialogue with the majority of Shareholders and Investors approved by the Board of Directors ([SEE PAGE 122](#)) and published on the Group's website.

Under the terms of the Articles of Association, the BoD delegates powers to one or more of its members and can assign powers to the Chairperson, Deputy Chairperson and CEO, provided they do not conflict with each other. The Delegated Bodies may delegate part of their duties and responsibilities to those working directly under their management. In such cases, the **delegation process** is based on notarised powers of attorney and letters of appointment naming the delegated persons.

The Delegated Bodies are responsible for assessing whether the delegated persons possess

**19**  
meetings of the  
BoD in 2022

**17**  
on ESG issues

the appropriate skills and personal characteristics, and request periodic reports on the powers conferred with regard to economic, environmental and social aspects. The powers of attorney/ delegation specify which contexts may be sub-delegated, informing the relevant Delegated Body of the same. In the event of sub-delegation, it is the responsibility of the delegating party to evaluate the skills and personal characteristics of the delegates. Delegated persons are generally managers or junior managers, but in certain contexts (e.g. security) may reach clerical workers. The Corporate Affairs and Organization Departments always check the overall consistency and correctness of the delegation system.

The BoD has resolved that the Corporate Social Responsibility and Local Committees Department, centralised at the Parent Company level, among others, reports to the Deputy Chairperson. An Executive has been appointed the Director of this department.

The assessment of the **existence of the independence requirements** for the Directors of Iren is carried out – based on the criteria defined by the TUF and the Corporate Governance Code – by the Board of Directors after appointment and, subsequently, on an annual basis. The assessment is also conducted when circumstances regarding independence arise. The Board of Statutory Auditors checks the correct application of the verification criteria and procedures adopted by the BoD to assess the independence of its members and discloses to the market the outcome of the audit in the Corporate Governance Report or in the Auditors' Report to the Shareholders' Meeting. The BoD establishes rules to ensure the transparency and substantial and procedural correctness of **related party** transactions and discloses them in the Directors' Report. The Board of Statutory Auditors oversees compliance with the adopted rules and refers to them in its Report to the Shareholders' Meeting.

During 2022, the Iren Board of Directors held 19 meetings. There were 17 Board meetings at which **ESG issues** were discussed, with reference to: approval of the Sustainability Report and material issues; quarterly ESG performance of the Group; Strategic Plan to 2030; Code of Ethics; Code of Corporate Governance; guidance on the composition of the Board of Directors; induction organisation to the Board of Directors on ESG issues; Remuneration Policy; risk management and Group risk map; Organisational Model 231; Control, Risk and Sustainability Committee activities; stakeholder engagement; sustainable finance; workers' health and safety; energy scenario and energy price; development of renewables; energy communities; circular economy; business continuity management; Antitrust Compliance Programme; district heating social bonus; Iren ESG Challenge.

Following the renewal of the Board of Directors, an **induction programme** was implemented for the benefit of Board members and the Board of Statutory Auditors, aimed at broadening their knowledge of the business sectors in which Iren operates, of company dynamics and their evolution with a view to sustainable success and of the principles of proper risk management, as well as of the reference legislative and regulatory framework. Starting in June 2022, four induction sessions were held, focusing on relevant ESG issues: presentation of the Strategic Plan with a focus on economic-financial, sustainability and innovation scenarios; presentation of Iren's approach to the strategic integration of sustainability; focus on the water scenario; focus

on the global warming scenario. The initiatives were taken care of both by the relevant Business Unit or Staff Managers and by authoritative external experts. Some of the sessions were held at Iren Group facilities. In addition to induction activities, the participation of Board members and members of the Board of Statutory Auditors in training and in-depth analysis events on the duties and responsibilities inherent to the office of members of administration and control bodies of listed companies was promoted and stimulated, in line with the recommendations of the Corporate Governance Code. All the aforementioned initiatives have been, in various ways, important training, information and communication opportunities, in relation to the corporate, economic, social and environmental aspects.

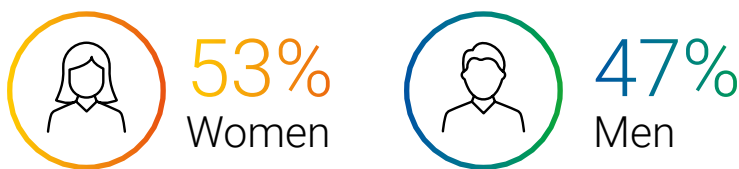
During each meeting of the Board of Directors, a constant data stream by the Internal Board Committees towards all Directors was ensured, also guaranteeing the prompt notification of any critical areas identified. In line with the provisions of the Corporate Governance Code, at least once a year, the Board of Directors performs a **self-assessment of its performance** and that of its Committees (so-called board evaluation) as well of their size and composition. In compliance with the recommendations of the Code, the self-assessment activity took into account the fact that 2022 was the first financial year of the Board of Directors appointed on 21 June 2022. The results of the activity were also presented to the Board of Directors for the purpose of evaluating and implementing the corrective and improvement actions identified on the basis of the critical issues that emerged in past years. As part of the board evaluation activities carried out by the outgoing administrative body, assessments were introduced on the qualitative and quantitative characteristics of the board, also with reference to the issue of independence, diversity and the mix of skills deemed optimal for

the effective functioning of the Board of Directors, which were included in the guidelines addressed to shareholders on the optimal composition of the Board of Directors for the three-year period 2022-2024.

To date, the Board of Directors has not adopted a succession plan for Executive Directors, as the rules for their appointment and replacement are foreseen in the Articles of Association. In compliance with the Recommendation no. 24 of the Corporate Governance Code (January 2020), with resolution adopted on 13 April 2021, the Board of Directors of Iren adopted a contingency plan for the Directors vested with particular offices of the Company.

## COMPOSITION OF THE BOARD OF DIRECTORS AND BOARD COMMITTEES AS AT 31/12/2022

The female gender is represented on the Board of Directors by 8 out of 15 members, in compliance with gender balance regulations.



In terms of age, 6 directors are aged between 30 and 50, 7 are aged between 51 and 60 and two are over 60; the overall average age is 53.



Of directors, 40% have been in office less than or equal to 3 years, 47% between 3 and 5 years, 13% more than 5 years.

The Board members have proven expertise in the sector (industry), in finance, economics, law, science and in environmental and social (ESG) sustainability issues. Moreover, the presence within the Board of Directors of different backgrounds, deriving from the educational backgrounds and international professional experiences of more than 50% of the board members, guarantees Iren the integration of different cultural contributions with respect to the area in which the Group operates.

Name and Surname <sup>(1)</sup>	Office	Gender	Executive	TUF independence	Code independence	Remuneration & Appointments Committee (RAC)	Control, Risk and Sustainability Committee (CRSC)	Committee for Transactions with Related Parties (CTRP)
Luca Dal Fabbro <sup>(2)</sup> ▲	Chairperson	M	● R					
Renato Boero <sup>(3)</sup>	Chairperson	M	●					
Moris Ferretti ▲	Deputy Chairperson	M	● R					
Gianni Vittorio Armani ▲	CEO/General Manager	M	● R					
Francesca Culasso ▲	Director	F		●	●		P	
Enrica Maria Ghia Δ	Director	F		●	●		C	
Pietro Paolo Giampellegrini ▲	Director	M		●	●	P		
Patrizia Paglia ▲	Director	F		●	●	C		
Francesca Grasselli ▲	Director	F		●	●			C
Giuliana Mattiazzo ▲	Director	F		●	●			C
Cristiano Lavaggi ▲	Director	M		●		C		
Tiziana Merlino ▲	Director	F		●	●		C	
Giacomo Malmesi ▲	Director	M		●	●		C	
Cristina Repetto ▲	Director	F		●	●			C
Gianluca Micconi ▲	Director	M		●	●	C		
Licia Soncini Δ	Director	F		●	●			P

<sup>(1)</sup> All members of the Board of Directors are of Italian nationality

<sup>(2)</sup> From 21/06/2022 to 31/12/2022.

<sup>(3)</sup> From 22/05/2019 to 21/06/2022.

Key: M = male; F = female; R = Director in charge of the Internal Control and Risk Management System; P = Chairperson; C = Member; ▲ = Director drawn from the majority list Δ = Director drawn from the minority list

SKILLS OF THE BOARD OF DIRECTORS

Skills	Luca Dal Fabbro	Moris Ferretti	Gianni Vittorio Armani	Francesca Culasso	Enrica Maria Ghia	Pietro Paolo Giampellegrini	Patrizia Paglia	Francesca Grasselli	Giuliana Mattiazzo	Cristiano Lavaggi	Tiziana Merlino	Giacomo Malmesi	Cristina Repetto	Gianluca Micconi	Licia Soncini
Industry	●	●	●		●	●	●	●		●	●	●		●	●
Scientific	●		●						●						
Risk management	●	●	●	●	●					●		●			
ESG	●	●	●	●	●				●	●	●	●			●
Finance				●			●	●					●		
Legal					●	●						●			
IT									●						

In the Report on Corporate Governance and Ownership Structure, guidelines are defined regarding the maximum number of offices for directors in the administrative or control bodies in other listed or large-sized companies, which can be considered compatible with an effective performance of the office of director of Iren, taking into account the commitment deriving from the role held. In the same report, all the roles held by the directors in office are indicated (table 4 of the report).

## Board Committees

---

### REMUNERATION AND APPOINTMENTS COMMITTEE (RAC)

Iren's Remuneration and Appointments Committee, appointed for the three-year period 2022-2024 on 21 June 2022, is made up of four non-executive Directors, the majority of whom are independent, including the Chairperson.

Upon appointment, the Board of Directors assessed that all members of the RAC have adequate knowledge and experience in the field of remuneration policies.

#### The RAC:

- periodically assesses the suitability, overall consistency and actual application of the remuneration policy of Directors and Senior Executives with strategic responsibilities, by making use of the information provided by CEOs;
- submits proposals on the subject to the Board of Directors;
- presents proposals or expresses opinions to the BoD regarding the remuneration of Executive Directors and other Directors with specific office, as well as establishing performance objectives relating to the variable part of said remuneration;
- monitors the application of the decisions adopted by the BoD by verifying, in particular, the actual fulfilment of performance objectives;
- attends to the preliminary work for the preparation of the remuneration policy for Executive Directors and Senior Executives with strategic responsibilities of the Group, needed for the BoD to adopt the measures it is responsible for, after interacting with the Control, Risk and Sustainability Committee on risk profiles;
- formulates opinions to the BoD in respect of its own size and composition, and makes recommendations on the professional figures whose presence in the BoD is deemed desirable;
- proposes candidates to the BoD for the office of Director in cases of co-opting, where independent Directors need to be replaced, ensuring compliance with the requirements on the minimum number of independent directors and on the percentages reserved for the less-represented gender;
- expresses recommendations to the BoD in relation to the maximum number of appointments that members can take as Director or Statutory Auditor in other listed companies, financial, banking, insurance or relatively large companies, compatible with the efficient performance of the office of company Director, bearing in mind the participation of Board members in the Committees established within the Board, as well as the exceptions to the bans on competition provided for by art. 2390 of the Civil Code;
- performs enquiries into preparation of the plan for the succession of Executive Directors, if the BoD decides to adopt such a plan;
- supports the Board of Directors in the annual self-assessment activity.

The power to determine the remuneration of the Directors holding specific office pursuant to the Articles of Association resides with the Board of Directors, upon approval of the RAC and the Board of Statutory Auditors.

The Committee is responsible for the preliminary assessment – with respect to the decisions of the BoD – of the Annual Remuneration Report to be made available to the public before the annual Shareholders' Meeting called to approve the Financial Statements. The Report (to which reference should be made for further details) illustrates the remuneration policy for members of the BoD, the Board of Statutory Auditors and Senior Executives with strategic responsibilities (section one) and the remuneration paid in the reference year to the above subjects (section two). The Report is aimed at increasing the knowledge and awareness of shareholders, investors and the market.



Pursuant to the Committee Regulations, the Chairperson or another member of the Committee must be present at the annual Shareholders' Meeting called to approve the Financial Statements, also in order to inform Shareholders of the methods by which the Committee performs its assigned duties. After the Shareholders' Meeting, the RAC analyses the voting results on the Report on Remuneration Policy and Compensation Paid, examines any concerns arising at the Shareholders' Meeting and carries out assessments to review the Remuneration Policy adopted by the Group. Moreover – in consideration of the consensus collected on the Report and given the results of the engagement activity with proxy advisors and institutional investors, carried out with the support of a consultant – the RAC conducted in-depth studies with the aim of implementing the indications emerged during the Shareholders' Meeting and improving the communication to the market of the remuneration policies adopted.

## CONTROL, RISK AND SUSTAINABILITY COMMITTEE (CRSC)

The Control, Risk and Sustainability Committee (CRSC) is composed of four non-executive directors, all independent. Upon appointment, the BoD assessed that all CRSC members have adequate knowledge and experience in risk management.

Pursuing the priority objective of creating value for its stakeholders in the medium/long-term, the Board of Directors defines the nature and level of risk compatible with the strategic objectives, assessing all the elements that may be relevant for the Company's sustainable success, as well as the guidelines of the Internal Control and Risk Management System, whose adequacy and effectiveness it assesses on an annual basis. In carrying out this role of guidance and assessment, the BoD is supported by the CRSC, which carries out assessments and provides a preventive opinion for the performance of the role that the BoD is responsible for in matters of internal control, risk management and sustainability.

### The CRSC is also called upon to:

- assess, together with the Company Financial Reporting Manager and having consulted with the external auditor and the Board of Statutory Auditors, the proper use of the accounting principles and their consistency for the purpose of drafting the Consolidated Financial Statements;
- express opinions on specific aspects relative to identifying the main corporate risks (in particular, specific aspects relative to Risk Policies, the identification of the main company risks and the Audit Plan, as well as in regards the guidelines of the Internal Control and Risk Management System);
- express preliminary opinions with respect to resolutions of the BoD on a series of issues, including the appointment/ revocation and remuneration of the Head of Internal Audit;
- examine the periodic reports on the assessment of the Internal Control and Risk Management System and those of particular relevance drafted by the Internal Audit Unit;
- monitor the autonomy, adequacy, effectiveness and efficiency of the Internal Audit Unit;
- request that the Internal Audit Unit carry out checks on specific operating areas, providing simultaneous communication to the Chairperson of the Board of Statutory Auditors;
- report to the Board of Directors on the activities carried out and on the adequacy of the Internal Control and Risk Management System at least every six months, on the occasion of the approval of the annual and half-yearly financial reports;
- through suitable preliminary activities, support the assessments and decisions of the Board of Directors relating to the management of risks arising from detrimental acts of which it has become aware;
- supervise the sustainability policies and observance of principles of conduct adopted on the subject by the Company and its subsidiaries;

- examine the issues under enquiry in terms of long-term sustainability of the basic principles and guidelines of strategic planning, of the Business Plan and of short-term planning, supervising the methods for implementing the same;
- assess, together with the Corporate Social Responsibility and Local Committees Department and having consulted the external auditor, the correct use of the standards adopted in order to draft the non-financial information provided for by the legislations in force;
- supervise the system for assessing and improving the environmental, economic and social impacts deriving from the business activities in the local areas;
- examine the periodic reports on the implementation of the structured comparison measures with stakeholders in the local areas where the Group operates, in particular through Local Committees, and those concerning consistency with Corporate Social Responsibility issues of cultural activities and promotion of the Group's image.

The CRSC convenes, at least twice a year, the Chief Risk Management Officer and the other control functions to report on the situation and on the monitoring of the Group's risks.

The Committee requests in-depth reviews of specific issues and commissions detailed analyses of certain sensitive risks or projects of a strategic nature. In particular, the Risk Management Department conducts an annual risk assessment update of the Business Plan, or in any case at the time of its approval.

M&A transactions and other initiatives of a strategic nature are assessed during the year and were subject to detailed analysis, with a particular focus on the impact of these transactions on the Group's sustainability objectives (environmental indicators, where significant, and social indicators relating, for example, to compliance with labour, health and safety and governance policies) and consistency with the EU Taxonomy.

The Risk Management and Corporate Social Responsibility and Local Committees Departments are convened by the CRSC at least twice a year, with one of the meetings held before the approval by the Board of Directors of the Consolidated Financial Statements and the Sustainability Report.



## COMMITTEE FOR TRANSACTIONS WITH RELATED PARTIES (CTRP)

The Committee for Transactions with Related Parties (CTRP), composed of four independent Non-Executive Directors, expresses its opinion on the performance of transactions of lesser and greater importance with Related Parties and, in general, performs all the other duties pursuant to the Regulation on transactions with related parties adopted by Consob.

The procedure for transactions with related parties of the Group, approved by the Board of Directors (available on the Group website), identifies three types of transaction: greater importance, lesser importance, and transactions of small amounts – and lays out procedural and transparency conditions according to the type of transaction, in accordance with the provisions of the Consob Regulation. Iren has also established the Evaluation Commission for Transactions with Related Parties (composed of Chief Officers of the Administration, Finance and Control, Legal Affairs, Corporate Affairs, Risk Management and Corporate Responsibility Departments and, depending on the transaction in question, the other Chief Officers involved), with the function of monitoring the process of evaluating transactions with related parties.

The procedure attributes a central role to the CTRP and, in order to guarantee the double requirement of independence and non-relation of the members of the CTRP with the individual transaction in question, outlines the mechanisms for identifying any persons responsible, as an alternative, for the investigation. For Transactions of lesser importance, the CTRP is required to express a non-binding, supported opinion regarding the Company's interest in the completion of the transaction and the convenience and substantial correctness of the relative conditions. For Transactions of greater importance, the CTRP is involved during the investigatory phase and is required to express a preliminary and binding favourable opinion regarding the company's interest in the completion of the

transaction, as well as the convenience and substantial correctness of the relative conditions. In this case, the Evaluation Commission for Transactions with Related Parties is responsible for the drafting of a document to be disclosed to the public, in accordance with Consob Regulation, within seven days of the approval of the transaction by the competent body or, in the event that the competent body decides to present a contractual agreement, from the moment that the preliminary contract is concluded according to the applicable guidelines.

The procedure for transactions with related parties envisages, in line with the requirements of Consob regulations, an obligation to abstain from voting on minor and major transactions by any Directors who have an interest in the transaction, on their own behalf or on behalf of third parties, that conflicts with that of the Company.

In the case of transactions involving the remuneration of Directors vested with special offices and Senior Executives with strategic responsibilities, the RAC assumes responsibility for the matter, limited to cases where the composition of the Committee meets the minimum requirements of independence and non-relation of its members as required by the Consob Regulation.

Stakeholder information on related party transactions is provided in the Report on Corporate Governance and Ownership Structure and in the interim and annual report on operations.

## Board of Statutory Auditors

Iren's Board of Statutory Auditors in office as at 31 December 2022 was appointed (for three years until approval of the Financial Statements as at 31 December 2023) by the Shareholders' Meeting of 06 May 2021 and is composed of 5 Standing Auditors and 2 Alternate Auditors.

The Articles of Association establish the appointment of the Board of Statutory Auditors through the submission of the lists in order to guarantee an adequate presence of the less-represented gender within the Board.

The Board of Statutory Auditors is called upon to assess the adequacy of the identification, measuring, management and monitoring system for corporate risks, as well as to verify the appropriate and prompt application of corrective actions held to be suitable for reducing company risks to levels considered acceptable by the BoD when defining the business strategy.

**More specifically, on the basis of the above-mentioned information flows, the Board of Auditors is responsible for verifying:**

- the compliance of the acts and deliberations of the governing bodies with the regulation, statutory provisions and the Corporate Governance Code, as well as the tangible means of implementing the same;
- the compliance of management choices with the principles of correct administration and, thus, with the general criteria of economic rationality, such as control of substantial legitimacy and compliance with the operative procedures and/or practices in force;
- the adequacy of the organisation structure compared to the size and complexity of the Company, placing particular attention on the completeness of existing Company departments, on the separation and on contrasting responsibilities in the functions and duties, as well as the clear definition of mandates or powers of each department;
- the adequacy of the internal control system in relation to the size and complexity of the Company and the sector in which the Group operates, as well as strategic objectives;
- fulfilment of the obligations to draw up and publish the Non-Financial Statement under Legislative Decree 30 December 2016, no. 254;
- the adequacy of the procedures adopted by the Board of Directors to regulate transactions with related parties, as well as the compliance of the same with the laws and regulations on transparency and public information.

**Also, the Board of Statutory Auditors, in its capacity as the "Internal Control and Audit Committee", is entrusted with the following tasks:**

- monitor the statutory audit of the Separate Financial Statements and Consolidated Financial Statements, also taking into account any findings and conclusions of the quality controls carried out by Consob;
- review and monitor the autonomy of the Independent Auditors, especially concerning the adequacy of the provision of non-audit services, and, oversee the adoption of appropriate procedures for the authorisation of eligible non-audit services and evaluate in advance each request to refer to Independent Auditors for eligible non-audit services.

The outcome of the supervisory activity carried out is reported in the Report of the Board of Statutory Auditors to the Shareholders' Meeting, which also contains information on the supervision activity carried out with regard to the compliance of the procedures adopted by Iren with the principles indicated by Consob concerning related parties, as well as on their observance.

Composition as at 31/12/2022	
Michele Rutigliano	Chairperson
Simone Caprari	Standing Auditor
Cristina Chiantia	Standing Auditor
Ugo Ballerini	Standing Auditor
Sonia Ferrero	Standing Auditor
Lucia Tacchino	Alternate Auditor
Fabrizio Riccardo Di Giusto	Alternate Auditor

## Governance in Group companies

---

Iren Ambiente, Iren Energia, Iren Mercato and Ireti have a traditional corporate governance system with a Board of Directors composed respectively of 3 members, in the case of the first three companies, and by 4 members, in the case of Ireti, and a Board of Statutory Auditors composed of 3 Standing Auditors and 2 Alternate Auditors.

On 21 June 2022, Iren's Board of Directors made the appointments (for the three-year period 2022-2024) for the position of CEO of first-tier companies (SPL), proposed by Iren's CEO, and for the positions of Chairperson, Director and/or Chairperson or member of the Board of Statutory Auditors of SPL, proposed by Iren's BoD. The appointed persons are primarily selected from Group personnel (Directors of the Parent Company, Senior Executives or Managers of Group

companies, with suitable professional profiles), or persons external to the Group with experience and expertise appropriate to the role in question. One member of the Iren Board of Statutory Auditors must be present on the companies' Boards of Statutory Auditors.

As for the other companies reported in this Sustainability Report, the traditional corporate governance system is the one predominately adopted, with a monocratic composition of the administrative body in some cases and a collegial composition in others. The designations of competence of Iren Group within the governing bodies are disciplined by the respective Articles of Associations and Shareholders' Agreements in force for each company.

Iren's management and coordination of the subsidiaries Iren Ambiente, Iren Energia, Iren Mercato and Ireti is expressly provided and governed by the Iren Articles of Association and those of the aforementioned companies. For other subsidiaries, management and coordination, where not expressly governed by the respective Articles of Association, derives from the organisational structure whereby the Business Departments are appointed by the Parent Company and report to its Chief Executive Officer.



## Management structures for sustainability

---

### ESG STRATEGIC INTEGRATION COMMITTEE

**The integration and monitoring of ESG (Environment, Social, Governance) factors, from strategic planning to the management and monitoring of the Group's activities, is entrusted to the ESG Strategic Integration Committee, set up to ensure:**

- sharing of scenario analyses for proposing guidelines and policies to integrate sustainability into business strategy and processes, to ensure the creation of value over time for the Group, its Shareholders and other stakeholders;
- analysis of risks/opportunities related to ESG matters;
- assessment of the implications of national and European guidelines and standards regarding ESG profiles;
- sharing of environmental and social impact assessments arising from the Group's activities;
- analysis of the ESG positioning of Iren Group and proposal of initiatives for improvement;
- analysis and monitoring of sustainable finance instruments to support the Group's development strategy;
- periodic presentation of updates on ESG integration policies at Group level;
- spreading of the culture of sustainability.

The Committee, which meets at least quarterly, is composed of: Chief Financial Officer, Chief Procurement, Logistics and Services Officer, Head of CEO Office, Chief Communications Officer, Chief Corporate Social Responsibility and Local Committees Officer, Chief Human Resources Officer, Chief Information Systems Officer, Chief Risk Management Officer, Head of Sustainable Finance, Head of Investor Relations and Head of Strategic Planning and Control Management. The Committee is expected to involve the managers of the BUs and other Departments in a targeted manner and ensure the mainstreaming of ESG factors at all Group levels.

### SUSTAINABLE FINANCE COMMITTEE

**The Sustainable Finance Committee operates in conjunction with the ESG Strategic Integration Committee and is responsible for defining the sustainable finance framework, and for carrying out the following tasks:**

- identification and selection of investments, activities and projects considered eligible for access to sustainable finance instruments, based on market standards and national and international frameworks, and which produce a positive and measurable impact in line with the Group's sustainability strategies;
- monitoring of the progress of projects/activities financed with sustainable finance instruments;
- ensuring proper management of the process throughout the duration of the activated loan.

The Sustainable Finance Committee has the right of veto in the selection of activities/projects eligible for sustainable finance instruments, is coordinated by the Chief Financial Officer and is composed of: Chief Corporate Social Responsibility and Local Committees Officer, Head of Strategic Planning and Control Management, Head of Financial Management, Head of Sustainable Finance and Head of Investor Relations.

## CSR AND LOCAL COMMITTEES DEPARTMENT

### The following tasks are attributed to the Corporate Social Responsibility and Local Committees Department:

- definition of the sustainability impacts, targets and objectives for the Group's strategic plans, budgets and finance, in coordination with Strategic Planning, Finance and BUs;
- definition of sustainability goals for the Group's MbO and LTI system, in collaboration with Personnel and Strategic Planning;
- participation in the ESG Strategic Integration Committee and the Sustainable Financing Committee set up to identify, within the Group's investments, those with a positive environmental and social impact;
- overseeing and managing activities for the Group's non-financial reporting according to international standards and presentation to stakeholders;
- definition and enforcement of guidelines on non-financial reporting by Group companies;
- definition of the detailed improvement plan relevant to the Group Corporate Responsibility;
- definition of the engagement plan, management and analysis of the results from the dialogue with stakeholders;
- issue and update of the Code of Ethics, in collaboration with the Internal Audit and Compliance Department;
- issue and update of the operational Regulations for the Local Committees;
- establishment and management of the Local Committees and the on-line platform irencollabora.it;
- coordination of projects promoted by the Local Committees;
- creation of customer satisfaction surveys for Group companies;
- participation in working tables and initiatives on strategic integration of sustainability and CSR;
- processing and provision of data and information for sustainability ratings.





# Risk Management

[GRI 2-12, 2-16, 2-23, 2-24, 3-3, 201-2]

Iren Group has an Internal Control and Risk Management System, under the Corporate Governance Code for Listed Companies and the internal guidelines, which is configured as a transversal process that involves, with different roles and within the context of their respective competences, the administrative and control bodies of the Group, the Control, Risk and Sustainability Committee, the Directors of the Parent Company appointed for the Internal Control and Risk Management System and sustainability, the Head of Internal Audit Unit, the Chief Risk Management Officer and the Financial Reporting Manager, as well as all personnel of Iren Group companies.

**In particular, the Board of Directors assesses the adequacy of the Internal Control and Risk Management System compared to the characteristics of the company and the indications expressed in the guidelines and carries out the following tasks, subject to the opinion of the Control, Risk and Sustainability Committee:**

- defines the guidelines of the Internal Control and Risk Management System in line with the strategies, so that the main risks are correctly identified, as well as adequately measured, managed and monitored, determining the level of compatibility of such risks with business management consistent with the strategic objectives identified;
- at least once a year, assesses the adequacy of the Internal Control and Risk Management System relevant to the characteristics of the business and the risk profile undertaken, as well as its efficacy;
- at least once a year, approves the work plan prepared by the Internal Audit Unit and presented by the competent Delegated Body, after consulting the Directors in charge of the Internal Control and Risk Management System and the Board of Statutory Auditors;
- evaluates the opportunity to take measures to ensure the effectiveness and impartiality of the corporate functions involved in the controls, verifying that they have adequate professionalism and resources;
- assigns – for Iren, to a body made up of external parties, and for the subsidiaries, predominantly to bodies with both internal and external parties – the oversight functions provided for by Legislative Decree 231/2001;
- describes, in the corporate governance report, the main features of the Internal Control and Risk Management System, the methods of coordination among the subjects involved in it, indicating the models and national and international best practices of reference and expressing its assessment of its adequacy;
- assesses, after consultation with the Board of Statutory Auditors, the results presented by the statutory auditor in any letter of suggestions and in the additional report addressed to the control body;
- defines sustainability policies and conduct principles in order to ensure the creation of value over time for Shareholders and for all other stakeholders;
- defines a plan (strategic priorities, commitments and objectives) for the sustainable development of the Group;
- appoints and dismisses, upon proposal of the Deputy Chairperson (competent Delegated Body), in agreement with the Chairperson, subject to the approval of the Control, Risk and Sustainability Committee and subject to the opinion of the Board of Statutory Auditors, the Head of Internal Audit ensuring the latter has adequate resources for the fulfilment of responsibilities and defines remuneration in line with company policies.



Iren’s Board of Directors, through the Control, Risk and Sustainability Committee (CRSC), convenes the Chief Risk Management Officer and the other control departments on at least a half-yearly basis for a report on Group risks in which the risk map is presented with the main risks in terms of impact and probability and any mitigation actions, and provides the results of specific analyses, such as the results of the Risk Commissions and specific risk assessments.

The Risk Management Department periodically updates the Group’s risk map by interviewing all risk owners, sharing and fine-tuning the results. The risk map is very detailed and contains qualitative and quantitative assessments of each individual risk with the specification of controls and mitigation actions in place or planned. For specific projects of a strategic nature - such as, for example, the business plan, acquisition transactions or investments of an industrial nature - CRSC requests a specific risk assessment from the Risk Management Department.

The outcome of the Internal Audits, any critical issues detected and the status of measures implemented following the recommendations issued in the audits of previous years (follow-ups) are reported in the Head of Internal Audit’s six-monthly Report, addressed to the Directors in charge of the internal control and risk management system, the Chairman of the Board of Statutory Auditors and the Chairman of the Control, Risk and Sustainability Committee, to which it is presented during a session, pursuant to the Corporate Governance Code for Listed Companies. The Committee, on the basis of the information received, reports every six months to the BoD pointing out the critical areas identified expressing its opinion on the adequacy of the Internal Control and Risk Management System. With regard to any critical issues identified, the Head of Internal Audit prepares reports on particularly significant events for the Chairpersons of the Board of Statutory Auditors, the Control, Risk and Sustainability Committee and the Board of Directors.

Corporate risk management is an essential component of the Internal Control System, and the Corporate Governance Code for Listed Companies assigns specific responsibilities in this respect. The Enterprise Risk Management (ERM) model of Iren Group defines the methodological approach for the integrated management of the risks, which are broken down into the following phases:



Risk governance is a pivotal tool in sustainability governance

Each process stage is performed in accordance with standards and references defined at Group level.

**The Group's Enterprise Risk Management model regulates the roles of the various parties involved in the risk management process, which is under the responsibility of the Board of Directors, envisages specific Committees that are responsible for the management of each type of risk and focuses in particular on the management of:**

- **financial risks** related to liquidity, interest rates, exchange rates and spreads;
- **credit risks** , related to events that may negatively affect the achievement of credit management objectives;
- **IT risks (cyber risks)** attributable to threats to cyber security, in particular data integrity, confidentiality and availability;
- **energy risks** attributable to the supply of gas for the thermoelectric generation and the commercialisation of electricity and gas, as well as the hedging derivatives markets;
- **climate change risks**, which include risks due to the transition to a low-carbon economy (transition risks) and physical risks that may arise from catastrophic environmental events (acute risks) or from medium- to long-term changes in environmental patterns (chronic risks) [» SEE PAGE 62](#);
- **tax risks**, which can be traced back to the risk of operating in violation of tax regulations or in contrast with the principles and purposes of the tax system;
- **operational risks** relating to asset ownership, the exercise of business activities, processes and procedures. Also included are the rules and regulatory risks, whose impact on the business is monitored on an ongoing basis;
- **reputational risks** related to the impacts of any malpractices on stakeholders.

For each type of risk, specific Risk Policies have been defined - approved by the Board of Directors on the proposal of the Director in charge of the Internal Control and Risk Management System with delegated powers in the field of Risk Management (Deputy Chairperson) in agreement with the Chairperson and the CEO (also identified as Directors in charge of the Internal Control and Risk Management System), to the extent of their respective competences, subject to the favourable opinion of the CRSC and reporting to the Board of Statutory Auditors - with the primary objective of explaining the strategic guidelines, the organisational/management principles, the macro-processes and the techniques necessary for the active management of the related risks.

The Group's risk policies will be updated annually. The body responsible for approving substantive changes is the BoD.







































# Environmental, social and governance (ESG) risks

Ethical and responsible conduct for sustainable growth cannot disregard the assessment of relevant impacts in relation to risks and opportunities related to material topics for Iren Group.

To this end, the environmental, social and governance (ESG) impacts are assessed for each risk category envisaged in the Group’s risk map, as shown in the following map. A comprehensive, detailed and integrated risk register is also produced, which also considers ESG impacts on the mapped risk categories. For each risk category, the operational, contractual and insurance mitigation measures implemented, in progress and to be implemented to reduce the risk level are identified.

By way of non-exhaustive example, the main risk categories with social impacts are: supply chain, consumer behaviour, technological innovation, service quality, infrastructure and plants; those with environmental impacts are: legislative and regulatory changes, natural and accidental events, climate change, infrastructures and plants; while those with an impact on governance are relations with institutional bodies, relations with regulatory

bodies, legal/litigation, internal and external compliance and adequacy of processes. This last aspect is fundamental to guarantee the resilience of the business even in the face of unforeseen events, ensuring the continuity of critical processes. Precisely for this reason, the Group has formalised and implemented a **Business Continuity Management model** with the organisational and technological safeguards to ensure the continuity of processes, as well as a proactive and structured response to emergency or crisis events. In 2022, the Board of Directors approved a “Crisis simulation and test plan in the ordinary course of business”, articulated over a multi-year period, with the aim of practically exercising the Group’s ability to respond to all tested process interruption scenarios and to verify the appropriate implementation of the defined continuity strategies, identify further measures and strategies, and define an action plan.

External Risk		Internal Risk		
<b>A SOCIAL AND ECONOMIC CONTEXT RISKS</b>	<b>B REGULATORY RISKS</b>	<b>D FINANCIAL RISKS</b>	<b>F STRATEGIC RISKS</b>	<b>G OPERATIONAL RISKS</b>
<b>A1</b> Competitors	<b>B1</b> Normative and regulatory changes 	<b>D1</b> Interest rate	<b>F1</b> Model and business sectors  	<b>G1</b> Process adequacy  
<b>A2</b> Financial and capital markets	<b>B2</b> Authorisation processes	<b>D2</b> Credit	<b>F2</b> Capital allocation	<b>G2</b> Infrastructures and plants  
<b>A3</b> Macroeconomic / Politic  	<b>B3</b> Relations with Regulatory Bodies 	<b>D3</b> Liquidity	<b>F3</b> M&A  	<b>G3</b> Environment  
<b>A4</b> Supply Chain  	<b>C RISKS FROM EXTERNAL EVENTS</b>	<b>D4</b> Exchange rate	<b>F4</b> Reputation 	<b>G4</b> Human Resources 
<b>A5</b> Consumer behaviour  	<b>C1</b> Natural/accidental events  	<b>D5</b> Commodities	<b>F5</b> Governance 	<b>G5</b> ICT  
<b>A6</b> Relations with Institutional Bodies 	<b>C2</b> Anthropic events	<b>E LEGAL AND COMPLIANCE RISKS</b>		<b>G6</b> Quality of service  
<b>A7</b> Technological innovation  	<b>C3</b> Climate change  	<b>E1</b> Financial and non-financial information	<b>E2</b> Legal/litigation  	<b>G7</b> Health and Safety 
	<b>C4</b> Illegal acts of third parties 	<b>E3</b> Internal and external compliance	 	<b>G8</b> Purchase planning

ESG categories:  Governance risks  Environmental risks  Social risks

The analysis carried out, also with specific reference to the provisions of Legislative Decree 254/2016 (art. 3, paragraph 1, point c), shows how material topics are considered in the Enterprise Risk Management model (see table below) and how specific management methods are envisaged for each, highlighted in the sections of this document in which the various issues are discussed in more detail.

Material topics	Related risk/opportunity categories (*)	Management methods
Growth and value creation for the company and stakeholders	<ul style="list-style-type: none"> <li>• Strategic (F) • Social and economic context (A)</li> <li>• Regulatory (B)</li> </ul>	page 130
Solid, ethical and transparent governance for sustainable growth	<ul style="list-style-type: none"> <li>• Governance (F5) • Legal/Litigation (E2)</li> <li>• Internal and external compliance (E3) • Reputation (F4)</li> </ul>	page 40
Efficient, reliable and safe management of processes and infrastructure	<ul style="list-style-type: none"> <li>• Operational (G) • Legal/Litigation (E2) • Reputation (F4)</li> </ul>	page 245
Employment, development of human resources and welfare	<ul style="list-style-type: none"> <li>• Human Resources (G4) • Legal/Litigation (E2)</li> <li>• Reputation (F4)</li> </ul>	page 272
Energy production and saving to reduce environmental and economic impacts	<ul style="list-style-type: none"> <li>• Social and economic context (A) • Business model and sectors (F1) • Climate change (C3) • Natural/accidental events (C1) • Environment (G3) • Legal and regulatory changes (B1) • Reputation (F4)</li> </ul>	page 165
Innovation and smart cities	<ul style="list-style-type: none"> <li>• Strategic (F) • Technological innovation (A7)</li> </ul>	page 329
Circular waste management	<ul style="list-style-type: none"> <li>• Business model and sectors (F1) • Environment (G3)</li> <li>• Climate change (C3) • Quality of service (G6)</li> <li>• Supply chain (A4) • Internal and external compliance (E3)</li> <li>• Reputation (F4)</li> </ul>	page 183
Sustainable use of water resources	<ul style="list-style-type: none"> <li>• Business Model and Sectors (F1) • Climate Change (C3)</li> <li>• Process Adequacy (G1) • Environment (G3) • Quality of Service (G6)</li> </ul>	page 173
Decarbonization and reduction of emissions	<ul style="list-style-type: none"> <li>• Climate change (C3) • Process adequacy (G1)</li> <li>• Infrastructure and facilities (G2) • Environment (G3)</li> <li>• Supply chain (A4) • Internal and external compliance (E3)</li> </ul>	page 154
Sustainable development of the local areas and communities	<ul style="list-style-type: none"> <li>• Business Model and Sectors (F1) • Reputation (F4)</li> <li>• Relations with Institutional Bodies (A6)</li> <li>• Technological Innovation (A7)</li> </ul>	page 212
Responsibility and quality in service delivery and customer orientation	<ul style="list-style-type: none"> <li>• Process adequacy (G1) • Quality of Service (G6) • Legal/Litigation (E2) • Internal and external compliance (E3)</li> <li>• Reputation (F4) • Supply chain (A4)</li> </ul>	page 236
Occupational health and safety	<ul style="list-style-type: none"> <li>• Health and safety (G7) • Reputation (F4)</li> <li>• Legal/Litigation (E2) • Internal and external compliance (E3)</li> </ul>	page 301
Industrial relations	<ul style="list-style-type: none"> <li>• Human Resources (G4) • Reputation (F4) • Relations with Institutional Bodies (A6)</li> </ul>	page 308
Diversity and inclusion	<ul style="list-style-type: none"> <li>• Human resources (G4) • Reputation (F4)</li> </ul>	page 296

Material topics	Related risk/ opportunity categories (*)	Management methods
Protection of human rights	<ul style="list-style-type: none"> <li>• Human resources (G4) • Supply chain (A4)</li> <li>• Legal/Litigation (E2) • Reputation (F4)</li> </ul>	page 78
Effective and transparent dialogue and communication with stakeholders	<ul style="list-style-type: none"> <li>• Governance (F5) • Relations with Institutional Bodies (A6)</li> <li>• Financial and non-financial reporting (E1)</li> <li>• Internal and external compliance (E3) • Reputation (F4)</li> </ul>	page 114
Sustainable management of the supply chain	<ul style="list-style-type: none"> <li>• Supply chain (A4) • Process adequacy (G1)</li> <li>• Environment (G3) • Health and Safety (G7) • Reputation (F4)</li> </ul>	page 317
Protection of biodiversity	<ul style="list-style-type: none"> <li>• Natural/accidental events (C1) • Climate change (C3)</li> <li>• Process adequacy (G1) • Environment (G3)</li> <li>• Internal and external compliance (E3)</li> </ul>	page 203

(\*) Specific risks/opportunities identified for each material topic are given in the discussion of management methods.

The Group Risk Management Department, which reports to the Deputy Chairperson, is responsible, among other things, for the audit of the ERM integrated management system of the Group, in terms of methodological approach, definition of the Risk Policies and monitoring of the system and, in collaboration with the Chief Executive Officer, for taking out and managing insurance policies with the support of the Procurement, Logistics and Services and Legal Affairs Departments. A periodic assessment process is also in place with regard to adverse events in the various sectors and across all Group’s operational areas in order to describe in detail their causes and implement the most suitable methods for preventing and/or limiting the impacts of the events.



## Climate risks

The Climate Change Risk Policy of Iren Group carefully analyses and regulates the risk factors, both physical and transitional, the strategies towards these factors (exclusion, acceptance and management) and the guidelines for reporting, aimed at guaranteeing information transparency to all stakeholders.

The Climate Change Risk Commission - made up of the Chief Risk Management Officer, Chief Corporate Social Responsibility and Local Committees Officer, the CFO and the Business Unit Chief Officers - periodically examines the Group's risk profile, defining and proposing to the CEO the updating of the management strategies of the risk classes and reporting to the Delegated Bodies any emerging criticalities. The Risk Management Department considers these risks in its insurance programme.

In 2022, following its launch in 2021, the specific climate change risk assessment model was expanded.

Among the effects of climate change, account is taken of extremes of atmospheric phenomena (**acute physical risks**) that can generate events such as droughts and fires, heat waves, cyclones, landslides, water bombs, floods; these events produce impacts on the hydrology of hydroelectric and aqueduct plants, with the related economic implications and are aspects of attention for the consequences they produce on the property assets (e.g. failures in the district heating network) and on margins (reduction due to damage to production facilities). These events also have an impact on the scheduling of the availability of thermoelectric generating units and the related scheduled maintenance.

Furthermore, climate change trends determine progressive changes in climatic variables (**chronic physical risks**) such as, for example, temperature, which mainly impacts on the dynamics of consumption of heat for district heating, gas, water and electricity or rainfall, with impacts on the production of hydroelectric plants and on the scarcity of water resources for distribution.

Financial implications for the Group, in relation to climate change, also arise from possible political, market, technological and regulatory developments (**transition risks**) that may produce risks and/or opportunities for the Group, such as costs associated with the Emission Trading System and their variation. In the model of assessment of risks from climate change implemented by Iren Group, the analysis is based on the definition of some **time horizons** (2030,

2040, 2050), identified in line with the objectives of the Strategic and Sustainability Plan, and on the use of **climate and socio-economic data** series necessary to define scenarios of evolution of the main quantities underlying the analysis.

Climate data are based on three International Panel on Climate Change (IPCC) scenarios: CPR 2.6, CPR 4.5 and CPR 8.5. The model also uses socio-economic data as inputs that are primarily based on scenarios published annually by the International Energy Agency (IEA) in the World Energy Outlook (WEO).

» SEE PAGE 96

From a methodological point of view, the analysis carried out starts from the results of the implementation of specific models for the Group's key assets, in particular those that would potentially be more exposed to risks from climate change, and which make it possible to carry out a medium/long-term scenario analysis, quantifying the change in economic and financial variables related to the operation of the assets taken into consideration.

The first analysis concerned the association of each risk factor, identified within the scope of the Group's Climate Change Risk Policy, with possible risks/opportunities mapped for the various Group businesses. KPIs, obtained from the simulations, were then analysed, providing a quantification of the impact of risk within the simulation model.

Application of the model shows that actions introduced as part of the Business Plan to 2030, which also outlines asset-specific investments, have a mitigating effect on the impacts of climate change. Mitigation actions of a strategic nature, linked to investments, are flanked by others of an operational and insurance nature.

The table below provides a summary of the analysis carried out and shows the main risks identified for each business area with the relative quantification and the most significant mitigation actions implemented or planned by 2030.

# RISK ANALYSIS

Risk/scope/  
time horizon <sup>(1)</sup>

Impact <sup>(2)</sup>

Mitigation actions  
and their effectiveness

## ACUTE PHYSICAL RISKS

**Drought**

Reduction in hydroelectric production due to changes in water resource availability.

**Scope Impacted:**

Hydroelectric plants.

Horizon: B M L

Reduced marginality relative to hydroelectric production due to drought resulting from increased temperatures (evapo-transpiration from reservoirs) and precipitation regime.

Level: TBD. <sup>(3)</sup>

Analysis of the change in water source availability (primary energy) as well as hydraulic turbine efficiency. Careful management of storage tanks, where present, to ensure the availability of the water resource. Monitoring the ratio of installed power to producible power that varies depending on the availability of the water source. If the ratio is slightly less than 1, the hydraulic turbine can be revamped to increase its efficiency.

Efficacy: TBD. <sup>(3)</sup>

**Extreme events (floods, landslides, storm surges, water bombs, snowstorms...)**

Damage to the infrastructures of the Group and its partners due to the occurrence of extreme weather events.

**Scope Impacted:**

Group.

Horizon: B M L

Direct and indirect damage to the Group with potential business interruption, consequent decrease in turnover and increased costs to carry out repair work.

Level: <sup>(4)</sup> medium.



Implementation of asset-specific analysis and risk assessment to analyse the vulnerability of buildings, machinery, goods, and supply chains to catastrophic natural events. Statistical monitoring of past events and conducting Business Impact Analysis. Some specific mitigation actions at the plant level are, for example, formalised emergency and evacuation plans with assignment of roles and responsibilities and the performance of periodic tests, maintaining distance from waterways, the implementation of earthquake-resistant infrastructure, the definition of a business continuity management plan, and the compartmentalisation of premises. Analysis, for all assets, of insurance strategy to verify adequacy of coverage.

Efficacy: high.

## CHRONIC PHYSICAL RISKS

**Temperature increase**

Inability to meet drinking water demand due to water stress situations.

**Scope Impacted:**

Water distribution networks.

Horizon: B M L

Decrease in the margin of the water distribution networks due to the inability to meet the demand for drinking water in the areas served due to lack of availability of water resources in the supply sources, caused by changes in temperature and precipitation.

Level: low.



Analysis of water source availability, district subdivision and routine maintenance of networks to reduce resource waste (water network leaks at 20% by 2030 compared to the current value of 31.2% in legacy regions).

Implementation of Water Safety Plans.

The Strategic Plan foresees investments for the maintenance of the water network and the consequent efficiency with the reduction of losses equal to about 600 million Euro.

Efficacy: average.

**Temperature increase**

Increase in the volumes of water to be treated at the plant inlet related to the increase in drinking water demand influenced by the increase in temperature.

**Scope Impacted:**

Wastewater treatment plants.

Horizon: B M

Increased wastewater treatment costs due to the increase in the volume of incoming wastewater caused by the change in drinking water demand closely linked to rising temperatures, as well as demographic variables. For mixed network wastewater treatment plants, to which rainwater therefore also flows, the impact also takes into account the variability of rainfall.

Level: TBD. <sup>(3)</sup>

The Strategic Plan includes investments for the maintenance of the sewer networks and the renewal and the expansion of the wastewater treatment system amounting to approximately 600 million Euro.

Efficacy: TBD. <sup>(3)</sup>

Risk/scope/ time horizon <sup>(1)</sup>	Impact <sup>(2)</sup>	Mitigation actions and their effectiveness
--	-----------------------	---

**CHRONIC PHYSICAL RISKS**

**Temperature increase**

Decrease in gas and thermal energy requirements for heating due to the increase in average temperatures, balanced by the increase in electrical consumption (use of air conditioning systems and greater spread of electric mobility).

**Scope Impacted:**  
Market

**Horizon:** (M) (L)

Decrease in EBITDA due to lower sales of natural gas for heating and heat for district heating, offset by increased EBITDA from higher sales of electricity.

**Level:** low.



Monitoring of the volumes of gas and heat sold and planning of a greater penetration of the cooling and electricity sales businesses both in terms of increased volumes and in terms of new customers acquired (especially in the household segment).

**Efficacy:** high.

**Temperature increase**

Decrease in thermal energy demand for heating due to increase in average temperatures.

**Scope Impacted:**  
District heating network.

**Horizon:** (M) (L)

Reduction in the marginality of the district heating network related to the contraction of the demand for thermal energy per capita in correlation with the increase in average temperatures.

**Level:** low.



Annual monitoring of both the heating degree days (in the local areas served) and the thermal energy demand satisfied through the district heating network. Reductions in requirements can be offset by extensions of networks and district heating volumes. The Strategic Plan includes investments for the maintenance, development and extension of the district heating network and the plants which power it with an increase in volumes (+22% to 2030 compared to 2020) amounting to approximately 700 million Euro.

**Efficacy:** average.

**Temperature increase**

Damage to infrastructure caused by increased temperature, e.g. reduced expected life of transformers and substations, and overloading of electricity grids resulting in heatwave-related blackouts.

**Scope Impacted:**  
Electricity network.

**Horizon:** (M) (L)

Increased costs resulting from repairing damage to plant and infrastructure caused by the chronic rise in temperatures. Higher costs to replace damaged components and ARERA penalties resulting from the occurrence of blackouts on the electricity grid caused by heat waves in the summer period.

**Level:** low.



Construction and refurbishment of stations and network renewal. The Strategic Plan allocates investments of around 600 million Euro to the efficiency of electricity distribution networks and plants.

**Efficacy:** high.

**Temperature increase**

Change in electricity production as an effect of temperature increase and solar radiation variation.

**Scope Impacted:**  
Photovoltaic.

**Horizon:** (B) (M)

Change in production with consequent impact on unit margin.

**Level:** TBD. <sup>(3)</sup>

As the park is newly built and acquired, no investments are planned in the short to medium term.

**Efficacy:** TBD. <sup>(3)</sup>



Risk/scope/  
time horizon <sup>(1)</sup>

Impact <sup>(2)</sup>

Mitigation actions  
and their effectiveness

TRANSITION RISKS

**Political and legal**

Tightening of the Emission Trading System Regulations.

**Scope Impacted:**

Thermoelectric power plants.

**Horizon:** (B) (M)

Increased cost of emissions or extended applicability of a tightened ETS to new plants, resulting in decreased plant margins. Financial impacts, such as the increase in the *levelised cost of energy*, resulting from the possible transition to a carbon tax.

**Level:** high.



Monitoring of the CO<sub>2</sub> emissions of the assets and control of the evolution of the relevant environmental regulations. Evaluation of the introduction of technologies aimed at reducing CO<sub>2</sub> emissions into the atmosphere, as well as any revamping necessary to adapt assets to more stringent environmental regulations or the adoption of more sustainable technologies. Partial replacement of fuel gas with hydrogen blend. The Strategic Plan includes investments to improve the efficiency of thermoelectric power plants amounting to approximately 240 million Euro.

**Efficacy:** high.

**Political and legal**

Stricter environmental regulations on waste-to-energy plants.

**Scope Impacted:**

WTE.

**Horizon:** (B) (M)

Costs for revamping and upgrading facilities to more stringent environmental regulations on WTE facilities, including with respect to the introduction of “zero-waste” policies and constraints on air emissions. Increased costs resulting from the introduction of taxation or inclusion of WTE in the ETS in the face of possible tightening of regulations on the subject of atmospheric emissions.

**Level:** high.



Monitoring of the CO<sub>2</sub> emissions of the assets and control of the evolution of the relevant environmental regulations. Assessment of the introduction of technologies to reduce CO<sub>2</sub> emissions, as well as any revamping required to bring assets into compliance with more stringent environmental regulations or adoption of more sustainable technologies, such as carbon capture & storage systems. In a context of technological evolution with regard to the stages of CO<sub>2</sub> capture and storage, the Strategic Plan provides for a share of investment that will be adjusted over time according to the availability of new technologies.

**Efficacy:** average.

<sup>(1)</sup> Time Horizon: B=brief term, M=medium term, L=long term

<sup>(2)</sup> The rating scale refers to the impact on EBITDA expected in 2030 (downside for risks and upside for opportunities): low <1%, medium between 1 and 5%, high >5%

<sup>(3)</sup> It was decided not to provide a quantification as the valuation refers to a limited number of assets, as indicated below:

- Hydroelectric plants: analysed assets representing 43% of hydroelectric production, so the impact was low in both scenarios;
- Wastewater treatment plans: analysed assets representing 26% of treated water volumes, so the impact was low in both scenarios;
- Photovoltaic plants: analysed assets representing 42% of photovoltaic production, so the impact was low in both scenarios.

In the course of 2022, the scope of analysis was extended and is expected to be further extended in future developments. Similarly, the effectiveness of the mitigation strategy will be made explicit once the assessment has achieved relevant coverage.

<sup>(4)</sup> The quantification is based on the impact of natural catastrophic events on the Group’s main assets.

## OPPORTUNITY ANALYSIS

Opportunity/scope/  
time horizon <sup>(1)</sup>

Impact <sup>(2)</sup>

Strategy to realise  
the opportunity

### Products and services

Dissemination of new integrated solutions, e.g. for production and energy efficiency.  
Market penetration with an energy offering more aligned with changing consumption by end users.

#### Scope Impacted:

Group.

Horizon: B M

Increased revenues from:

- favourable competitive positioning in the energy sector thanks to the dissemination and adoption of new technological solutions;
- direct impact on the number of customers reached, thanks to the push towards electrification of consumption and the change in consumer preferences towards "green" energy;
- increasing number of energy efficiency interventions on buildings.

Level: medium



Monitoring of the penetration rate of services offered and competitors' offerings.  
Expansion of the portfolio of integrated services provided.  
Increased offerings of electricity produced exclusively from renewable sources.  
Dedicated campaigns to respond to changes in consumer preference.  
The Strategic Plan provides for investments related to the deployment of new integrated solutions, such as the installation of public charging stations for electric vehicles, the development of energy communities, e-buses, energy efficiency products/services, new smart cities services amounting to approximately 1.3 billion Euro.

### Market

Access to finance through diversification of financial instruments.

#### Scope Impacted:

Group.

Horizon: B M L

Increased opportunities to access capital through sustainable finance instruments such as Green Bond, EIB loans, Sustainable Loan for Hydro, Sustainability linked revolving credit facility.

Strategic Plan with sustainability objectives and targets, also SBT.  
Publication of the Sustainable Finance Framework, establishment of the Sustainable Finance Committee, third-party reviews of projects financed with sustainable finance instruments, monitoring of regulations, relations with financial markets.

### Resource efficiency

Circular economy.

#### Scope Impacted:

Waste treatment plants.

Horizon: B M L

Increase in revenue related to:

- consolidation of regulatory frameworks that regulate and incentivise material recovery and the production of biogas and biomethane from waste;
- increased volumes handled by current facilities;
- acquisitions of companies in the sector;
- development of plants and technologies for material recovery and production of biomethane, biogas.

Level: high.



Monitoring of regulations and development of an investment plan mainly aimed at the development of plants for the valorisation of waste materials.  
The Strategic Plan includes investments in the circular economy of approximately 1.6 billion Euro.

<sup>(1)</sup> Time Horizon: B=brief term, M=medium term, L=long term

<sup>(2)</sup> The rating scale refers to the impact on EBITDA expected in 2030 (downside for risks and upside for opportunities): low <1%, medium between 1 and 5%, high >5%



# Governance policies and tools

[GRI 2-16, 2-20, 2-23, 2-24, 2-25, 2-26, 3-3, 205-1, 205-2, 205-3]

Iren considers sustainability as a fundamental lever for the creation of value over time for the Group and its stakeholders and, for this reason, is committed to conducting its activities considering the interests of its stakeholders, in the awareness that dialogue and the sharing of objectives are tools through which to create mutual value.

A way of doing business that finds its foundation in the business model [» SEE PAGE 14](#) and in the Group's Strategic Plan [» SEE PAGE 106](#) where there is a concrete commitment towards the Sustainable Development Goals of the 2030 Agenda (SDGs), and which guarantees long-term resilience, also by reacting quickly and effectively to exogenous phenomena, such as the current socio-economic crisis.

**The policies define the Group's commitments to improve its sustainability results, manage and mitigate the environmental, social and governance risks (ESG risks) to which it is exposed, in an integrated manner with the risk management system, and are oriented to:**

- support the strategic choices - including the governance of risks, opportunities and impacts - that are operationally articulated in the Strategic Plan;
- improve the ESG risk management process;
- facilitate the non-financial reporting process;
- increase the level of knowledge and awareness of the expected outcomes regarding the material issues;
- spread the culture of sustainability.

Policies represent a tool for implementing ethical and responsible conduct for sustainable growth, an aspect that is of great importance for Iren Group, which, precisely for this reason, adopts policies that define commitments, behavioural criteria and measures to prevent and mitigate potential negative impacts.

The main instrument is the Code of Ethics [» SEE PAGE 69](#), approved by the Board of Directors, which is also the cornerstone of the Organisational Model aimed at preventing the offences provided for in Legislative Decree 231/2001. The commitments in the Code of Ethics include respect for human rights [» SEE PAGE 78](#).

**Commitments to ethical and responsible conduct for sustainable growth, which apply to all the Group's activities, are further supported by specific management systems, policies and procedures, approved by the Board of Directors or Delegated Bodies, among which are:**

- Internal control and Risk Management System (gruppore.it > governance > internal control, risk management, compliance) [» SEE PAGE 56](#)
- Enterprise Risk Management system policies (gruppore.it > investors > risk management) [» SEE PAGE 58](#)
- Organisation and management model 231 (gruppore.it > governance > internal control, risk management, compliance) [» SEE PAGE 71](#)
- Integrated Certified Management System Quality, Safety, Environment and Information Security (SGC) and related Policy (gruppore.it > about us > management system) [» SEE PAGE 83](#)

- Remuneration Policy (gruppoiren.it > governance > remuneration policies) » [SEE PAGE 75](#)
- Procedure for transactions with related parties (gruppoiren.it > governance > internal control, risk management, compliance) » [SEE PAGE 51](#)
- Procedure for the internal management and external communication of material information and/or privileged information and for keeping the Insider Register (gruppoiren.it > governance > internal control, risk management, compliance > market abuse)
- Internal dealing procedure (gruppoiren.it > governance > internal dealing)
- Tax strategy (gruppoiren.it > governance > internal control, risk management, compliance) » [SEE PAGE 136](#)
- Antitrust Guidelines and Code of Conduct » [SEE PAGE 88](#)
- Vendor management system with ESG criteria (portaleacquisti.gruppoiren.it) » [SEE PAGE 319](#)
- Legality protocols with the Prefectures for the prevention of attempts by organised crime to infiltrate public works contracts and concessions (portaleacquisti.gruppoiren.it > contractual conditions) » [SEE PAGE 319](#)
- Compliance with social standards for the supply chain (portaleacquisti.gruppoiren.it > contractual conditions) » [SEE PAGE 323](#)
- Policy for managing dialogue with shareholders and investors (gruppoiren.it > governance > our governance > shareholder dialogue policies) » [SEE PAGE 122](#)
- Sustainable Financing Framework (gruppoiren.it > investors > financial profile > sustainable finance) » [SEE PAGE 144](#)
- Regulation of Local Advisory Committees and Local Councils for structured dialogue with stakeholders (gruppoiren.it > sustainability > stakeholder involvement > local committees) » [SEE PAGE 117](#)
- Privacy management model for the processing of personal data pursuant to the GDPR » [SEE PAGE 86](#)

The articulated and coordinated system of governance policies and tools - consistent with the mission, vision and Code of Ethics - therefore defines Iren Group's approach towards Environmental, Social and Governance (ESG) issues considered material and their impacts.

## Code of Ethics

The Code of Ethics defines the set of values and responsibilities of Iren Group and identifies the rules of conduct and behaviour for employees and all those who work with and for the Group.

In the context of the specific activities carried out, compliance with the Code of Ethics makes it possible to prevent the offences referred to in Legislative Decree 231/2001, including the offence of corruption.

The Code of Ethics also focuses on the concept of sustainable development, referring to the UN 2030 Agenda objectives, considered fundamental by Iren Group, which believes that behaviours are becoming increasingly ethical and equitable starting from the pursuit of social, economic and environmental sustainability.

In order to make the Group's commitments to ethical and responsible conduct known in a transparent manner, the Code of Ethics is published on the Group's website ([gruppoinren.it](http://gruppoinren.it) > sustainability > sustainability governance > code of ethics).

The Code defines the general conduct criteria regarding respect for the Italian Constitution, laws, regulations and ethical principles, human rights and personal dignity, respect for and protection of the market, competition, and industrial property, protection of personal data, the correct use of technology and the computer system and environmental protection.

The Code of Ethics also regulates the criteria of conduct in relations with Shareholders and personnel – with particular reference to personnel policies, occupational health and safety, duties of employees, conflicts of interest and use of company assets – in relations with customers, suppliers, external collaborators, Public Institutions, judicial agencies, Public Supervisory Authorities, political and trade

union organisations. Other specific rules of conduct concern confidentiality, internal management and communication of information, rewards and benefits, management of promotional activities, sponsorships and contributions, aspects of accounting, taxation and internal controls, reporting and whistleblowing. It is the task of the directors and management to put into practice the values and principles contained in the Code of Ethics, assuming responsibility both internally and externally and strengthening trust, cohesion and the spirit of the Group.

The observance of the contents of the Code of Ethics by all those who work for and with Iren is fundamental for the good functioning, reliability and reputation of the Group; for this reason, Iren is committed to disseminating and promoting knowledge of the Code of Ethics inside and outside the organisation. To this end, 522 employees were involved in Code training in 2022.

Managers of company structures or departments undertake to disseminate the knowledge and sharing of the rules of the Code of Ethics, which is an integral part of employment contracts, to make employees and collaborators follow them, to encourage and protect reports of possible violations from any type of retaliation, as well as promptly reporting any reports received, taking the immediate and essential corrective actions required by the situation.

With regard to the external parties to whom the Code is addressed, the Group undertakes to introduce contractual clauses and/or to obtain signed declarations that formalise the acknowledgement, acceptance and compliance with the principles set out in the Code. Explicit acceptance of the Code of Ethics is required by all suppliers from the offer stage, without the possibility of exceptions or amendments. Companies participating in the tenders are required to report any attempt to disturb, any irregularities or misrepresentation by any competitor or party involved, during the tender and/or when performing the contract, to Iren Group Company that calls the tender, as well as any anomalous request or demand from Group employees or anyone who can influence the decisions of the tender or the contract and its execution.

The Code of Ethics requires recipients to report to the Supervisory Body or their superiors (if employees) or Iren's Internal Audit and Compliance Department, depending on their area of competence, any possible violation of the Code of Ethics or any request for infringement that has been addressed to them.

**Reports to the Supervisory Body may be made by:**

- a special e-mail box accessible only to members of the Supervisory Body;
- letter to be sent to the Chairperson of the competent Supervisory Body;
- computer platform "Iren Integrity Line" where it is possible to report conduct constituting violations, even suspected violations, of the principles enshrined in the Code of Ethics, in Models 231 of the Group companies, as well as violations of corporate policies and rules that may result in fraud or damage, even potential, to colleagues, shareholders and stakeholders in general.

All reports can also be made anonymously with all the guarantees provided by the law on Whistleblowing. In particular, on the "Iren Integrity Line" platform, the identification data of the reporting party, if communicated, are encrypted and therefore visible only and exclusively to the parties delegated to receive and manage the reports.

All personal data is processed in compliance with all data protection regulations applicable in Italy and with fundamental rights and freedoms. In order to make the reporting procedures more user-friendly and simplify them, in 2022 the "Iren Integrity Line" IT platform was improved, making it more easily accessible from the websites of Group companies and more structured to monitor and manage the reports received.

Iren ensures the verification of each report, received pursuant to the methods and through the channels specified, the assessment of the facts and the application of appropriate sanctions in case of breaches.

**For the management of the reports received by the Supervisory Body (SB), and within its competence with a view to guarding against the risk of the offences provided for in Legislative Decree 231/01, there is a special procedure, approved by the Board of Directors, which:**

- if the report is deemed grounded, involves, in addition to the Supervisory Body, the Chairperson and Deputy Chairperson of the Board of Directors, the Chief Internal Audit and Compliance Officer, Chief Human Resources Officer, and Chief Legal and Corporate Affairs Officer for preliminary investigation activities, and, depending on the measures to be adopted, the holder of disciplinary power, the competent Executive Directors, the Board of Directors and the Chairperson of the Board of Statutory Auditors, for the adoption of the measures provided for by the procedure. In addition, the competent Delegated Body, taking into account the findings of the investigation, defines the improvement actions to be undertaken to further strengthen the internal control system;
- in the event that the report is deemed unfounded, it provides for the drafting of a report by the SB stating the decision not to carry out further checks and to proceed to filing. Again, the report is forwarded to the Chairperson and Deputy Chairperson of the Board of Directors.

If the Supervisory Body ascertains that the subject of the report does not fall within its competence, it shall, without prejudice to the obligations of confidentiality and in compliance with the rules and principles protecting the reporter, inform the Group's Internal Audit and Compliance Department.

If the report is forwarded to the supervisor, the supervisor shall report to the Group Internal Audit and Compliance Department.




If the report is sent to the Internal Audit and Compliance Department of the Group, the Chief Officer carries out a specific investigation, the results of which will be the subject of a report to the Chief Executive Officer of the Company concerned, as well as a report to the Chairperson, Deputy Chairperson and Chief Executive Officer of Iren and, if applicable, to the Supervisory Body of the Company concerned, each for the measures for which they are responsible. If the report concerns one of the aforementioned bodies, the outcome of the investigation will not be sent to the person in question.

The Group companies and the Supervisory Bodies shall ensure that those who have made the reports are not subjected to retaliation, discrimination or, in any case, penalisation, whether direct or indirect, for reasons connected directly or indirectly to the report, thus ensuring the appropriate confidentiality. Iren's Corporate Social Responsibility and Local Committees Department has the task of promoting awareness, ensuring the updating, dissemination, interpretation and implementation of the provisions of the Code of Ethics. For utmost dissemination and to support ethical conduct and compliance with the law and Code of Ethics, Iren Group also makes available information concerning laws, regulations and insights regarding quality, safety and environment to

all stakeholders, both internal and external. This can be found on the Company's website and Intranet. In 2022, two reports were made to Supervisory Bodies of Iren Group, relating to possible violations of Model 231, which could also involve violations of the Code of Ethics. The reports were processed and managed in compliance with the provisions of the "Procedure for the management of whistleblowing reports to the Supervisory Body of suspected breaches to the Organisational Model 231". In both cases, after carrying out the relevant investigation, the objects of the reports were considered not relevant from the point of view of Legislative Decree 231/2001 and were not found to be in breach of the Code of Ethics.

## Organisational Model 231

Iren and the Group's main companies have adopted Organisation, Management and Control Models pursuant to Legislative Decree 231/2001 (Model 231), which configure a structured and organic system of control activities and procedures to prevent, where possible, conduct that could constitute the commission of the crimes covered under the Legislative Decree 231/2001, listed below:

Predicote offences (Legislative Decree 231/2001)	Applicability to Iren
<b>Offences related to relations with the Public Administration</b> such as corruption, incitement to corruption, undue induction to give or promise benefits, extortion, embezzlement to the detriment of the State, undue receipt of funds to the detriment of the State, fraud to the detriment of the State, aggravated fraud to obtain public funds and computer fraud to the detriment of the State	
<b>Computer crimes and unlawful processing of data</b>	
<b>Offences of organised crime, both on a transnational and national scale</b> such as, for example, criminal association, Mafia-type association, also foreign, kidnapping for the purpose of extortion, induction to not make statements or to make false statements to the judicial authorities, personal aiding and abetting	
<b>Crimes against public faith</b> such as forgery of money, public credit cards and revenue stamps, and instruments or signs of recognition	
<b>Crimes against industry and commerce</b> such as disturbance of the freedom of industry or trade and fraud in the exercise of trade	
<b>Corporate offences</b> such as, for example, false corporate communications, obstruction of control, unlawful distribution of profits and reserves, unlawful transactions on shares or quotas of the company or of the parent company, transactions to the detriment of creditors, failure to communicate conflicts of interest, bribery among private individuals, instigation of bribery among private individuals, unlawful influence on the meeting, market rigging, obstructing the exercise of the functions of public supervisory authorities	
<b>Crimes for the purpose of terrorism and subversion of democratic order</b> provided for by the Penal Code and special laws	
<b>Offence of female genital mutilation practices</b>	
<b>Crimes against the person</b> such as trafficking in persons, reduction and maintenance in slavery and illicit intermediation and exploitation of labour	

Predicote offences (Legislative Decree 231/2001)	Applicability to Iren
<b>Offences of market abuse</b> abuse of privileged information and market manipulation	✓
<b>Crimes relating to health and safety in the workplace</b> such as manslaughter and grievous bodily harm	✓
<b>Crimes of receiving stolen goods, money laundering, utilisation of money, good or benefits of unlawful origin, self-laundering</b>	✓
<b>Copyright infringement crimes</b>	✓
<b>Crimes of induction to not make statements or to make false statements to the judicial authorities</b>	✓
<b>Environmental offences</b> such as environmental pollution, environmental disaster, culpable offences against the environment, trafficking and abandonment of highly radioactive material, offences against protected animal or plant species, destruction or deterioration of habitats within protected sites, offences relating to atmospheric emissions, management of wastewater discharges, waste management, activities organised for the illegal trafficking of waste	✓
<b>Crimes of employing third country citizens staying illegally</b>	✓
<b>Corruption and incitement to corruption between private individuals</b>	✓
<b>Racism and xenophobia</b>	✗
<b>Fraud in sports competitions, abusive exercise of gambling or betting and games of chance exercised by means of prohibited devices</b>	✗
<b>Tax offences</b> such as fraudulent declaration through the use of invoices or other documents for non-existent transactions	✓

The provisions contained in Model 231 must be complied with by all those who perform, even de facto, management, administration, direction or control functions in the Company, by employees, as well as by those who, although not belonging to the Company, operate on its behalf.

The adoption of Model 231, in addition to representing grounds for exemption from the Company's liability with regard to the commission of the offences referred to in Legislative Decree 231/01, is an act of social responsibility towards its shareholders, employees, customers, suppliers as well as the community and represents a fundamental tool for spreading the culture of sustainability. On this basis, Iren and the four first-tier companies in 2022 updated their Model 231 by including explicit references to sustainability and social responsibility in the General Part and Special Parts. The revision and updating of Model 231 of some Group companies, continued in 2022, also had the aim of guaranteeing its constant consistency with the organisational changes that have occurred and with the introduction by the legislator of new criminal offences, so that the Model maintains over time the effective ability to prevent the commission of 231

crimes. The updated Models 231 were then submitted to the Supervisory Bodies, presented to the Boards of Directors of the individual companies for their approval and published in their entirety on the company intranet with information to all employees, reminding them that they are required to consult and adopt conduct that complies with the provisions of the Model itself. The adequacy, effectiveness and suitability of the Model 231, of which the Code of Ethics is an integral part, is monitored by the Supervisory Body. Each recipient of the Model 231 is required to report any breaches or suspected breaches of the Code of Ethics or the control principles outlined in the Model (so-called whistleblowing). Iren Group has put into operation the new computer application "Integrity Line" for the management of reports, in line with the procedure "Management of whistleblowing reports to the Supervisory Body of suspected breaches of Model 231". The reports may concern any irregularity and/or illicit, commission or omission behaviour that constitute violations, even suspected violations, of the Code of Ethics and of the principles of Model 231, as well as violations of corporate policies, procedures and provisions that may result in fraud or damage, even



potential, to colleagues, shareholders and stakeholders in general, or that constitute acts of a detrimental or illicit nature to the interests and reputation of Iren or of the Group companies. The application guarantees the confidentiality of the whistleblower's identity throughout the entire whistleblowing management process in accordance with the provisions of the whistleblowing legislation (Law no. 179/2017 and EU Directive 2019/1937).

Any reports received from internal and external parties during the period about alleged breaches of the Model or Code of Ethics are discussed in the Supervisory

Body's half-yearly report to the BoD. In 2022, two reports were made to two Supervisory Bodies of Iren Group. The reports were processed and managed in compliance with the provisions of the "Procedure for the management of whistleblowing reports to the Supervisory Body of suspected breaches to the Organisational Model 231". In both cases, after carrying out the relevant investigation, the objects of the reports were considered not relevant from the point of view of Legislative Decree 231/2001 and were not found to be in eventual breach of the Code of Ethics.

## SUPERVISORY BODIES

Iren and the companies in the Group, by resolution of their respective Boards of Directors, have appointed Supervisory Bodies (SB) pursuant to Legislative Decree 231/2001, tasked with monitoring the functioning and compliance of the Model 231 and updating it, and with the objective of meeting the requirements of autonomy, independence, professionalism and continuity of action. The Supervisory Body is vested with the powers of initiative and control necessary to ensure effective and efficient supervision of the operation of and compliance with the Model under the provisions of art. 6 of Legislative Decree 231/01.

The Supervisory Body carries out, with the assistance of the competent Company Departments, checks on the areas of activity that are considered at risk under the Legislative Decree 231/2001, and half-yearly reports to the Board of Directors on its activities and findings. When deemed necessary, the Supervisory Body gives suggestions aimed at improving the control system for activities and oversees their implementation. The assignment of these responsibilities to a body equipped with autonomous powers of initiative and control, together with the correct and effective performance of the same therefore represent fundamental prerequisites for the exemption from liability provided for by Legislative Decree 231/01.

## CORRUPTION PREVENTION

In the performance of its activities, Iren Group companies manage relations with the Public Administrations and with third parties, regulated by the principles established by the Code of Ethics and the Model 231, which provide the guidelines and codes of conduct that aim to prevent, insofar as possible, the commission of offences pursuant to the Decree, including corruption offence.

Company processes are also regulated by specific procedures defining roles, responsibilities and methods of control, establishing the traceability of processes and the clarity of authorisations to ensure transparency and honesty in the company's activities.

The Model 231 of each of the Group companies identifies, within the activities carried out, the corporate

processes and areas "sensitive" to the potential risk of committing the offenses indicated by the Decree.

**Iren's Model 231 identifies the activities sensitive to the risk of corruption, for which suitable internal rules are envisaged to supplement the Code of Ethics (general control principles and specific behaviour and control protocols), such as:**

- the selection and formation of contractual relations with suppliers;
- consulting selection and management (public and private bodies);
- HR selection, recruitment and management, management of the bonus system;
- management of sponsorships, gifts and donations;

- support in the management of relationships with public bodies to attain or renew authorisations, licences and concessions for carrying out corporate activities;
- management of public grants, payments and contributions;
- support to Group companies in participating in tenders for the sale/award of public utility services.

The process mapping, risk self-assessment, preparation of the Model of Organisation, Management and Control, examination and approval of the document by the Board of Directors, its dissemination and relative training initiatives, are also training activities on anti-corruption for each of the parties involved in the various activities.

The audit activities concerning the issue of corruption fall into the context of broader audit activities regarding the internal control system of processes with a view to preventing the most significant risks. By way of example, it is noted that, in 2022, checks were carried out on the following processes: sponsorship management, collection management, consultancy assignments, payment management, reimbursement of expenses to managers, management of environmental certificates.

With regard to communication and training on the offences of the Legislative Decree 231, which also includes policies and procedures for the prevention of corruption, the activity is diversified according to the roles and responsibilities of the recipients, with the aim of conveying knowledge and instructions on specific aspects of the Model 231 such to ensure the awareness and full understanding of the internal provisions to be complied with and the ethical standards that inspire our conduct.

The training for managers, junior managers and office workers is delivered through e-learning sessions that are updated and renewed periodically following changes to legislation. This makes it possible to quickly reach all personnel and to assign the entire path or individual training modules according to the individual's previous training status. The frequency and content of the training activities are designed to provide a full understanding of the Decree and awareness of the Model. Training is mandatory and controls are in place to verify participation and learning. Based on the policy adopted, employee training activities were planned for the year, which saw 2,086 hours provided to 520 employees. A new version of the e-learning course will be activated in 2023 that will take into account regulatory updates.

All employees are also provided with information, through a dedicated section of the Company Intranet,

Training on anti-corruption policies and procedures	2022		2021		2020	
Total trained employees	520		346		535	
of which	no.	%	no.	%	no.	%
Managers	4	3.6	2	2.0	7	7.6
Junior managers	16	4.3	14	4.1	26	8.4
White collars	459	11	301	7.9	490	13.8
Blue collars (*)	41	0.8	29	0.6	12	0.3

(\*) Staff who have voluntarily taken advantage of the training opportunities in the Group catalog on anti-corruption issues.

on their Company's Model 231 and the Code of Ethics. Appropriate communications tools are employed to update employees on any changes to the Model and, in this context, it is noted that the Model itself outlines specific conduct and control protocols which must be complied with by all employees throughout their working activities.

In 2022, no confirmed instances of corruption were reported within Group companies.

## Remuneration policies

[GRI 2-19, 2-20, 2-24]

The Remuneration Policy adopted by Iren Group represents a tool to support its medium- and long-term strategies for sustainable development. In fact, the incentive capacity of the systems is always determined in line with the Group's strategic objectives, with attention to ESG profiles.

In general, the Remuneration Policy represents a tool to ensure the pursuit of business sustainability objectives and guarantee an increase in shareholder value, in line with the Business Plan.

The Policy, in addition to illustrating the criteria for determining the fixed fees due to non-executive Directors, members of the Board of Statutory Auditors and members of the Board Committees, indicates the guidelines, also in terms of pay mix, for the Chief Executive Officer and General Manager and for Senior Executives with strategic responsibilities (Chief Officers of the Waste Management BU, Energy BU, Market BU, Networks BU, Administration, Finance and Control, Human Resources, Information Systems, Procurement, Logistics and Services). In addition, it defines the criteria for the variable long-term incentive for the Chairperson and the Deputy Chairperson, as executive bodies.

The Iren Shareholders' Meeting decides, upon appointment and for the entire duration of office, the total annual remuneration of the members of the Board of Directors and the maximum total amount for the remuneration of the Directors holding specific office provided for in the Articles of Association (Chairperson, Deputy Chairperson and CEO).

The BoD defines, on the proposal of the Remuneration and Appointments Committee and having consulted the Board of Statutory Auditors, the structure and remuneration for the Directors vested with particular offices (Chairperson, Deputy Chairperson and Chief Executive Officer), the remuneration for the participation of the Directors in the Committees set up within the same Board, the policy for the remuneration of the BoD and of the Senior Executives with strategic responsibilities of Iren Group, after preliminary investigation by the Remuneration and Appointments Committee (RAC), carried out jointly with the Control, Risk and Sustainability Committee, as regards risk and sustainability profiles.

The BoD, subject to the RAC assessment, also defines the objectives that determine the variable annual short and long-term component of the remuneration of the Chief Executive Officer and General Manager.

Taking into account the provisions of the remuneration policy, the Chief Executive Officer and General Manager determines the remuneration of Senior Executives with strategic responsibilities and defines the objectives to which the short- and long-term annual variable component of the same is related, involving the RAC in the process, in order to obtain the relevant opinion in advance. The RAC may make use of external consultants who are experts in remuneration policies, verifying in advance that they are not in situations that compromise their independence of judgement.

The remuneration of **Non-Executive Directors** is not related to the results achieved, but it is commensurate with the commitment required of each of them, bearing in mind their potential participation in one or more of the Committees within the Board of Directors.

With regard to the **Directors holding special offices** (Chairperson, Deputy Chairperson and Chief Executive Officer), the gross annual remuneration for the offices held was established by the Board of Directors of the Company, in compliance with the caps set by the Shareholders' Meeting.

For the Chief Executive Officer and General Manager as well as for Senior Executives with strategic responsibilities, the **variable part of the remuneration** is divided into two parts, the short-term and the long-term.

**Short-term variable remuneration** is paid upon the achievement of all performance targets and is set, in the target amount, at 35% of gross annual remuneration for the Chief Executive Officer and General Manager, and at an average of 36.2% of gross annual remuneration for Senior Executives with strategic responsibilities. Short-term variable remuneration is based on a MbO (management by objectives) system that takes into account the Group's main objectives related to economic-financial performance (weight 40%), major strategic projects (weight 30%) and ESG factors through a performance target linked to the priority areas defined in the Business Plan such as decarbonization, circular economy, resilient cities, water resources, customer focus, employee focus and gender diversity, which weighs 30% of the total variable remuneration.

The system provides a “gate” condition linked to the maintenance of the rating on investment grade by a leading rating agency. For 2022, in addition to the minimum threshold of the individual objective, equal to 60%, a minimum threshold of average overall achievement of the individual objectives greater than and/or equal to 70% has been established, as a further condition for access to the payment. In order to incentivise the Group’s value creation with respect to the planned targets, a correction factor for individual results with a priori defined weights and metrics was maintained in 2022 as well. The maximum amount attainable as short-term variable compensation can reach 120% of the target amount.

The Plan for **variable long-term remuneration** - LTI Plan 2022-2024 (Long-Term Incentive) - was approved by the BoD on 28 April 2022. Consistent with its predecessors, it provides for the vesting of a monetary bonus based on three-year 2022-2024 performance. The Plan has among its recipients: Chief Executive Officer and General Manager, the Chairperson and Deputy Chairperson, the Senior Executives with strategic responsibilities, and other top management resources capable of making a significant contribution to achieving the objectives of the Business Plan, subject to precise identification by the Chief Executive Officer.

With reference to the Group’s Senior Executives with strategic responsibilities (including the Chief Executive Officer and General Manager), the maximum monetary incentive was set at 100% of individual gross annual remuneration calculated as of 1 January 2022. With reference to the Chairperson and Deputy Chairperson of Iren, the maximum monetary incentive calculated on an annual basis was established by the BoD, taking into account the indications of the Meeting, in an amount equal to approximately 100% and 75%, respectively, of the total gross annual variable compensation paid to the Chief Executive Officer and General Manager.

Disbursement of the premium, also for the 2022-2024 LTI Plan, is subordinate to meeting a gate condition (attribution, at the end of 2024, of an Investment Grade rating by one of the major ratings agencies) and the achievement of the following objectives, identified in line with as established in the Business Plan: Cumulative EBITDA 2022-2024 (weight: 35%); Cumulative Operating Cash Flow Levered 2022-2024 (weight: 20%); Cumulative Investments 2022-2024 (weight: 20%); Sustainability/ESG - composite target (weight: 25%).

For each economic-financial objective, a threshold level has been defined, equal to 90% of the target as defined, below which no disbursement of the linked premium will be made. An overall threshold level has been defined for the Sustainability/ESG objective, equal to 70% of

the defined target, below which no disbursement of the related bonus portion is envisaged. The ESG composite target considers:

- enhancement of gender diversity (percentage of women managers and junior managers out of total managers and junior managers);
- circular economy (increased sorted waste collection in legacy regions);
- water resources (reduction in water network losses);
- resilient cities (energy savings from Group products/services);
- decarbonization (Scope 1 emissions - carbon intensity of energy production).

In the context of variable remuneration, contractual arrangements are maintained (malus and claw-back clauses) that allow the company to request the return, in whole or in part, of variable components of the remuneration payable or already paid upon the occurrence of certain conditions (“trigger events”) within a certain period of time from the end of the bonus accrual period.

Generally, without prejudice to compliance with the regulations in force, no indemnity is provided for directorship severance for Iren Directors. For the Chief Executive Officer and General Manager of Iren, indemnities are envisaged for any revocation in the absence of just cause, the amount of which is commensurate with the amount due for the period remaining until the end of the current term of employment as an employee, with a minimum limit of six months’ salary. All Senior Executives with strategic responsibilities, including the Chief Executive Officer and General Manager, are provided with severance payments and accruals established by law and by the relevant National Collective Labour Agreement. For Iren’s Chairperson, Deputy Chairperson and the non-executive Directors, no agreements have been established which provide indemnities in the case of early termination of the office.

Iren prepares an Annual Report on Remuneration and compensation paid which, among other things, gives an account of the remuneration paid in the year of reference, for any reason and in any form, by Iren or its subsidiaries. In addition to ensuring transparency, the Report is aimed at increasing the knowledge and awareness of shareholders and, in general, investors and the market.

The Report, examined in a preparatory manner by the Remuneration and Appointments Committee (RAC) and approved by the Board of Directors, is submitted to the Shareholders' Meeting for a vote: a binding vote for the Remuneration Policy (section one) and a non-binding vote for the part relating to the Compensation paid (section two). The Shareholders' Meeting, held on 21 June 2022, approved the Remuneration Policy 2022 and resolved in favour of the compensation paid for the financial year 2021. The voting results are available on the Group's website.

The policy on the subject of the remuneration of the Directors of the Company and of Senior Executives with strategic responsibilities of Iren Group, as well as its implementation, is among the topics covered by the Policy for managing Dialogue with the generality of Shareholders and Investors, published on the website of the Group.

With reference to companies other than the Parent Company, the determination of the remuneration due to the members of the relevant administrative bodies takes into account the principles on this matter resolved by the Shareholders' Meeting of Iren on 21 June 2022.




## Policies for the protection of human rights

[GRI 2-23, 2-24, 3-3, 406-1, 407-1, 408-1, 409-1]

Iren Group supports the principles of the UN Global Compact, to which it adheres, and considers the UN Universal Declaration of Human Rights, the Conventions and Recommendations of the International Labour Organization (ILO)<sup>1</sup> as indispensable, as well as the Earth Charter drawn up by the Earth Council. The principles and policies adopted by Iren Group are, moreover, aligned with the OECD Guidelines for Multinational Enterprises, endorsed by the Italian State.

The Group condemns any form of discrimination and promotes the respect and dignity of all individuals. The suppliers' system is managed with same principles and is also constantly monitored on these aspects.

### Protection of human rights




#### Risks

- Violation of the conduct criteria of the Code of Ethics and current regulations on human rights by employees, collaborators and suppliers
- Discriminatory actions against customers and employees
- Violation of the rights of people with disabilities
- Violation of the rights of employees and contractors in the supply chain
- Negative operational, economic and reputational impacts of human rights violations



#### Opportunities

- Promoting the inalienability of people's rights throughout the value chain



#### Management methods

- Code of Ethics
- Organisational Model 231 and information flows to the Supervisory Bodies
- Contractual clauses with suppliers on social criteria
- National Collective Agreements
- Service charters
- Removal of architectural barriers in Group buildings
- Accessibility of services for people with disabilities
- Whistleblowing procedure

Attention to and respect of individuals are issues that Iren Group places at the heart of its growth and the sustainable development of the community and local area.

The Group operates in Italy where, starting from the fundamental principles of the Constitution of the Republic, an articulated system of rules helps to prevent the risk of violation of human rights; without prejudice to this, Iren Group, in its Code of Ethics, assumes as central respect for human rights, the dignity of people and the condemnation of any discrimination - trade union, political, religious, racial, language or gender -, with the promotion of an inclusive culture at every level. These principles translate into the rejection of all forms of forced labour or employment of irregular staff, of negotiations or assignments that might violate or contradict the fundamental principles underlying the respect for human dignity, and in our commitment to not collaborate with partners that violate these principles. The translation of these principles into commitments and policies is highlighted below.

<sup>(1)</sup> In particular, reference is made to ILO Conventions ILO C1, C29, C87, C95, C98, C100, C102, C103/183, C105, C111, C115, C118, C120, C122, C130, C131, C132, C135, C138, C142, C148, C154, C155, C158, C159, C162, C170, C171, C174, C175, C182, C187, C190.

## EMPLOYEES AND COLLABORATORS

The Group recognises that human resources are a factor of fundamental importance for its development and that their respect and enhancement is a primary value. For this reason, the Group undertakes to implement all the initiatives that make it possible to enhance and increase the skills, creativity and active participation of personnel, to increase their motivation and encourage their professional growth and fulfilment, with the aim of respecting, protecting and promoting human rights and fundamental freedoms for all.

Below are the human rights principles that Iren Group pursues in its relations with its employees and collaborators, requiring them to respect them, in order to foster the construction of a working environment inspired by collaboration, trust and mutual respect.

### **Protecting the health and safety of workers**

Iren recognises the health and safety of workers as a priority objective, to be maintained on a daily basis with a company policy oriented towards making the necessary investments (this principle is expressly set out in the Code of Ethics, the Organisational Model 231 and the Integrated Management System Policy). [» SEE PAGE 301](#)

### **Combating forced labour and child labour**

Iren Group, as expressly explained in the Code of Ethics, rejects any form of forced labour and does not tolerate violations of human rights, nor the use of irregular personnel. Personnel who work in the Group are hired with a regular employment contract and any form of irregular work is not tolerated. The Group therefore excludes the use of child or forced labour and is committed to promoting its effective elimination also along its supply chain.

### **Freedom of association right: trade unions and freedom of association in employee representative bodies**

Iren Group guarantees freedom of association and the effective recognition of the right to collective bargaining, sharing with the trade unions (OO.SS.) a system of industrial relations based on constant and constructive confrontation. To this end, the Group and Trade Unions have signed a Group Industrial Relations Protocol, which dictates the rules that govern relations between the Parties. This has led to a model being put in place based on the sharing of business decisions, which aims to optimise individual workers who, in order to enable healthy development, must be involved and grow in step with the entire organisation. The shared decisions lead to a sense of belonging and, at the same time, place the employee centre stage. The Protocol sets out the methods for approaching industrial relations based on three pillars: bargaining, participation and rules. [» SEE PAGE 308](#)

### **Right to adequate working conditions**

The Group undertakes to require work in compliance with the provisions of the law and collective bargaining in force in terms of working hours and days worked, and to guarantee adequate rest and fair remuneration to all employees. For all employees, the Group adopts national collective labour agreements that guarantee the application of the contractual wages for all. The remuneration policy, within the context of defined budget guidelines, is always based on the evaluation of performance and competences, taking into account, however, the remuneration package of the people holding the evaluated positions. [» SEE PAGE 288](#) In any case, any form of discrimination is avoided by the continuous implementation of retraining initiatives in the event that personnel are unfit for previous responsibilities. The Group's management policy also promotes and supports a proper work-life balance. [» SEE PAGE 291](#)

### **Respect for diversity, non-discrimination and equal opportunities**

Valuing diversity and inclusion are a priority commitment for the Group in order to build a working environment in which all people can feel comfortable and contribute to the achievement of the company's objectives, with their own personal characteristics. To this end, the Group has defined its own Diversity and Inclusion Policy, aimed on the one hand at formalising the principles on which it is based and the ways in which each company initiative on diversity and inclusion is articulated, and on the other at raising awareness on the subject among all personnel, in order to identify lines of action to promote inclusion. The Policy also confirms the Group's commitment, already defined in the Code of Ethics, to upholding respect for the dignity of people and avoiding any discrimination, direct or indirect, based on any kind of diversity, acknowledging the absolute value of the fundamental principles of the Constitution of the Italian Republic. Within the framework of diversity and inclusion policies and initiatives, the Group's commitment to promoting an organisational

culture attentive to the valorisation of its resources is also confirmed by its adherence to various initiatives illustrated in this document. [» SEE PAGE 296](#)

### **Combating harassment and working conditions that may cause discomfort and stress**

The Group does not tolerate any form of violence, harassment and bullying and is committed to taking all appropriate measures to prevent and counter them. In this regard, the Group has formalised the Policy on the management of violence, harassment and bullying in the workplace. The Policy – inspired by the Universal Declaration of Human Rights, the Convention of the International Labour Organisation (ILO) no. 190 on the elimination of violence and harassment in the workplace and the Code of Ethics - outlines the Group's commitment to supporting a safe, respectful and participatory work environment, inspired by principles of correctness, freedom and dignity in professional relationships, free of any form of harassment, sexually inappropriate behaviour and bullying. The purpose of the Policy is to prevent, identify, constantly monitor and avert acts of violence, harassment and bullying, as well as to provide support to people who report them, protecting them from any retaliatory act.

### **Right to privacy of personal and sensitive data**

Iren Group respects the right to confidentiality and privacy of its employees and collaborators, and is committed, in line with the provisions of the Code of Ethics, to the correct use of personal data and information provided to it. In particular, it undertakes to process personal data and information in respect of fundamental liberties and rights, and the dignity of data subjects, with specific reference to the confidentiality, personal identity, and protection of personal data. To this end, the Group has adopted a personal data organisation and management model aimed at protecting the data subject and ensuring the correct application of data protection legislation. [» SEE PAGE 86](#)  
All the above principles are the subject of the training activity addressed to employees on the Code of Ethics, which involved 522 people in 2022.

## SUPPLY CHAIN

Respect for human rights is always, in Iren Group, an indispensable prerequisite for proper business activity, which is also reflected in the supplier management system.

In particular, the Group, in accordance with the provisions of the Procurement Code on the exploitation of labour (Legislative Decree 20/2014 art. 80 paragraph 1), applies the regulations both in public tenders and in those outside the Code and requires suppliers to expressly accept the Code of Ethics as a condition for admission to tenders and as a condition for the effectiveness of contracts.

**In addition, the Group has defined specific contractual clauses concerning compliance with social standards on human rights and working conditions along the supply chain defined by:**

- the eight fundamental Conventions of the International Labour Organisation (ILO): 29 on forced labour, 87 on freedom of association and protection of the right to organise, 98 on the right to organise and collective bargaining, 100 on equal remuneration, 105 on the abolition of forced labour, 111 on discrimination in employment and occupation, 138 on minimum age and 182 on the worst forms of child labour;
- ILO Convention 155 on occupational health and safety;
- ILO Convention 131 on minimum wage fixing;
- ILO Convention 1 on hours of work (industry);
- ILO Convention 102 on social security (minimum standards);
- the Universal Declaration of Human Rights;
- article 32 of the UN Convention on the Rights of the Child;
- national legislation, in force in the countries where the supply chain stages take place, concerning health and safety in the workplace, as well as labour legislation, including legislation on wages, working hours and social security (social security and assistance).

When the above-mentioned national laws and social standards refer to the same subject matter, the supplier must guarantee compliance with the higher standard.



**In order to enable the Group to monitor compliance with these standards, the supplier is required to:**

- inform suppliers and sub-suppliers involved in the contract supply chain that the Group has required compliance with the above-mentioned standards in the contract performance conditions;
- provide, at the Group's request and within the time limit set out in the request, information and documentation relating to the management of activities concerning compliance with standards and references of suppliers and sub-suppliers involved in the supply chain;
- accept and have their suppliers and sub-suppliers accept any audits relating to compliance with the standards, conducted by the Group or by parties indicated and specifically appointed for the purpose by the Group;
- undertake, or have suppliers and sub-suppliers involved in the supply chain undertake, any appropriate corrective actions, including contractual renegotiations, within the deadlines set by the Group, in the event that information in its possession reveals a contractual breach concerning non-compliance with minimum social standards along the supply chain;
- demonstrate, through appropriate documentation provided to the Group, that the clauses are complied with, and document the outcome of any corrective action taken.

Violation of these clauses may lead to the application of the contractually agreed penalty, without prejudice to the Group's right to terminate the contract.

In 2022, the annual analysis was carried out on suppliers through a questionnaire to ascertain the human rights policies adopted by companies that hold active contracts with the Group. [» SEE PAGE 320](#)

**Of the 1,188 supplier companies that responded (29% of the total), 33% have human rights policies in place that fall, in order of priority, into the following areas:**

- equal opportunities and equal treatment irrespective of race, colour, gender, language, religion, nationality, political opinion, sexual orientation, social status, disability, age or other condition of the individual that is not connected to the requirements for carrying out their job;
- formal reporting systems that allow workers to report human rights breaches, ensuring the protection of the reporter's identity;
- training to raise awareness and prevent discrimination;
- checking of the age of employees during the hiring process, including by recruitment companies;
- formalised control systems to ensure that the company does not ask its employees to deposit money/credit cards and does not collect and keep identity documents during the hiring phase;
- mapping of human rights risks.

Furthermore, 21% of suppliers who responded to the questionnaire stated that there is an employee within their organisation who is officially responsible for human rights issues. Finally, 100% of the responding suppliers have not been the subject of human rights complaints or legal action for discriminatory practices.

This survey is repeated annually to maintain constant monitoring of the supply chain.

## CUSTOMERS AND COMMUNITIES

The Group's Code of Ethics states that anyone, in any capacity, working for Iren must respect people's dignity, treat them fairly and avoid any discrimination, and that all Group employees and collaborators are required to treat customers with respect and courtesy.

For this reason, respect for human rights is part of the constant stakeholder dialogue (through the Local Committees) and the Group's commitments are also recalled in the Service Charters adopted, which - in addition to providing for continuity, efficiency, effectiveness of service and respect for the environment and the protection of citizens' health and safety - are based on the principles of:

- respect for equal rights of citizens/customers and non-discrimination in service delivery;
- equal treatment in the performance of the service between different categories or groups of customers/citizens, within the limits made possible by the technical and functional characteristics of the managed infrastructure system;
- particular attention in service provision is paid to people with disabilities, the elderly and members of weaker social groups;
- universal access to water, as a guarantee to all users of the quantity of water necessary to satisfy their basic needs; » SEE PAGE 260
- obligation to inspire its conduct towards citizens/customers with criteria of objectivity, justice and impartiality;
- respect and courtesy, through behaviour, manners and language appropriate to the purpose;
- facilitating the citizen/customer in exercising their rights and fulfilling their obligations;
- citizen/customer participation in the provision of the service, both to safeguard the right to proper provision and to foster cooperation, including by periodically acquiring the users' assessment of the quality of the service provided and making available to them appropriate channels for communicating suggestions and complaints;
- clarity and comprehensibility of messages with the utmost care in the use of simple, immediately comprehensible language;
- accessibility of information by foreign citizens/customers, as much as possible;
- processing of personal data in compliance with the relevant provisions in force.

To help translate these principles into practice, Iren Group's counters/stores have queue-elimination systems dedicated to the elderly, pregnant women and the disabled, stations dedicated to welcoming people with disabilities and multilingual operators to facilitate communication with foreign citizens and customers.

Also in 2022, initiatives were implemented to promote the accessibility and use of services, with particular regard to people with disabilities, the weakest categories and foreign-speaking citizens. In cooperation with the Italian Union of the Blind and Visually Impaired (UICI), an experimental project was carried out to make the new electronic controlled-access bins installed in several districts of Turin accessible to blind and visually impaired citizens, enabling them to distinguish between the different bins, so that they can carry out proper sorted waste collection independently.

To support the economically weaker sections of the population in the context of the energy emergency, the Group set up the District Heating Bonus, using its own economic resources to recognise a discount on invoices to households in all the local areas served that meet the requirements » SEE PAGE 265. A multilingual communication - including French, English and Arabic - was developed in Piacenza to increase waste collection rates and make cleaning activities in the city's market areas faster and more streamlined.

STRATEGIC OPERATIONS

Also in 2022 in the extraordinary transactions aimed at acquiring companies/shareholdings, the Group carried out, with the support of specifically appointed advisors, the appropriate due diligence activities aimed, among other things, at verifying the application of labour and workplace safety regulations provided for by Italian legislation, and the existence of any disputes on the subject, the adoption of a Model 231 and a Code of Ethics, and the identification of any risks linked to the non-application of these regulations and management

models with the adoption of the appropriate actions, such as, for example, the inclusion of conditions precedent and penalties in transactions deemed at risk.

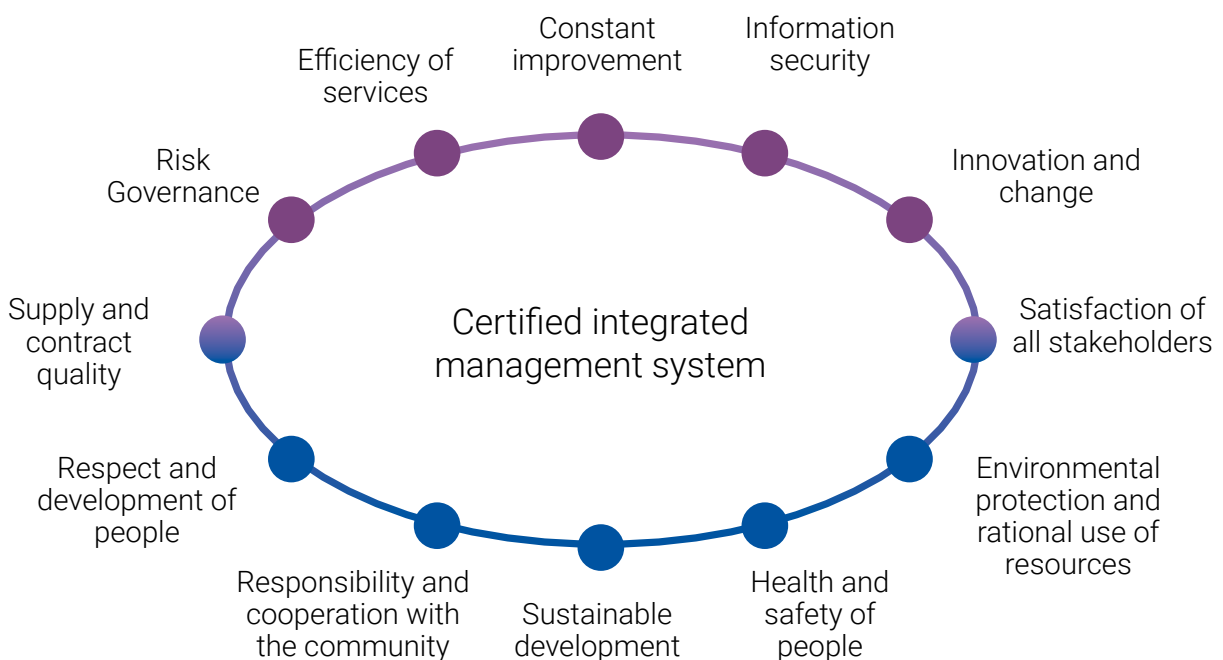
The Control, Risk and Sustainability Committee reviews the analysis carried out with regard to merger and acquisition transactions. In particular, in 2022, the Committee carried out the risk analysis on 5 transactions, prior to the decisions falling within the competence of the Board of Directors.

## Certified integrated management system

Iren Group strives to offer its customers and residents service efficiency, effectiveness, economic convenience and high quality, operating with expertise and professionalism in full respect of the environment and safety, contributing to the well-being of its personnel and the community.

This is why the Group has developed an Integrated Certified Management System (Quality, Environment, Safety and Information Security - QASS), which is structured in such a way so as to adequately monitor all operating processes that influence the service levels with attention increasingly focused on the customer and on the basis of risk identification and governance as part of the ongoing analysis of the organisational context and the needs and expectations of the parties involved. The Certified System is actually a streamlined and flexible organisational model that adapts quickly to changes in customer expectations and needs and organisational changes within the Group, thereby ensuring continuous monitoring of the effectiveness and efficiency of the processes at the same time.

The values of Iren Group are applied and expressed in the QASS Policy, which is acknowledged and shared by all personnel, in the following basic principles of the certified system:



MAIN CERTIFICATIONS <sup>(1)</sup>

Company	ISO 9001 (Quality)	ISO 45001 (Safety)	ISO 14001 (Environ- ment)	ISO 27001 (Information Security)	EMAS	UNI 11352 (ESCo)	ISO 50001 (energy efficiency)	ISO 17025 (Lab)
Iren	•	•	•	•				
Iren Ambiente	•	•	•		• (5 sites)			
Acam Ambiente	•	•	•					
Amiat	•	•	•					•
Bonifica Autocisterne	•							
Bonifiche Servizi Ambientali	•	•	•					
CRCM	•	•	•					
Ekovision	•							
I.Blu	•	•	•					
Futura	•		•					
Manduriambiente	•	•	•					
ReCos	•	•	•					
San Germano	•	•	•					
Scarlino Energia			•					
Sei Toscana	•	•	•					
TB		•	•				•	
Territorio e Risorse	•	•	•					
TRM	•	•	•		• (1 site)			
Uniproject	•		•					
Iren Energia	•	•	•		• (4 sites)	•	•	
Iren Smart Solutions	•	•	•			•	•	
Alfa Solutions	•							•
Iren Mercato	•	•						
Salerno Energia Vendite	•							
Ireti	•	•	•					
Acam Acque	•	•	•					
ASM Vercelli	•	•	•					
Atena Trading	•	•						
Iren Acqua	•	•	•					
Iren Acqua Tigullio	•	•	•					
Iren Laboratori	•	•	•					•
Società dell'Acqua Potabile	•		•					
<b>% coverage <sup>(2)</sup></b>	<b>100%</b>	<b>97%</b>	<b>92%</b>	<b>11%</b>	<b>3% <sup>(3)</sup></b>	<b>10%</b>	<b>10%</b>	<b>17%</b>

<sup>(1)</sup> Orange dots indicate new certifications acquired during 2022.

<sup>(2)</sup> The % coverage is calculated as the ratio between the sum of the number of employees of the companies subject to certification and the total number of employees of the Group.

<sup>(3)</sup> The % coverage is calculated as the ratio of the number of employees at certified sites to the total number of employees in the Group.

**The Group's focus on customers and process quality is also confirmed by the possession of the following additional certifications:**

- ISO 18295-1 certification (service requirements for customer contact centres) for Iren Mercato;
- ISO 18295-2 certification (requirements for organizations using external contact centres) for Iren Smart Solutions, acquired in 2022;
- F-GAS certification (for the management of installations with fluorinated gases) for Iren Smart Solutions;
- Iren Mercato certification in compliance with the Certiquality 66 Technical Document relating to the sale of green energy;
- certification of Iren Mercato in compliance with ST TRAC\_EE for the tracking system of the characteristics of energy from renewable sources, which is a tool to provide customers with a guarantee of the origin of the "green" electricity sold;
- IQNET SR 10 certification (Social Accountability Management System) for Alfa Solutions and SA8000 certification (International Standard for Corporate Social Responsibility Certification) for San Germano.

The Quality, Safety and Environment management systems are overseen for each first-level Company by the Personnel and Organisation Department of Iren.

All the audits carried out by the Certification Bodies at the Group companies in 2022 were concluded with a positive outcome and confirmed the maintenance of the Certifications held.

**During the year, the actions planned to achieve the defined objectives were also implemented:**

- maintenance of all EMAS Certifications and Registrations of the various Group companies;
- maintenance of the Multi-site Accreditation for Iren Laboratori.

The achievement and maintenance of voluntary certificates evidence Iren Group's commitment to sustainability, particularly through the protection of the environment, the rational use of natural resources and energy, full compliance with legislation, raising awareness amongst its customers and suppliers and service levels.

**In order to ensure sustainable company growth based on the principle of continuous improvement, resources were employed for:**

- development of energy production from renewable sources (hydroelectric and photovoltaic) or with high efficiency (cogeneration) and the promotion of district heating, as well as the adoption of the best system technologies available on the market, to guarantee a lower environmental impact;
- improvement of the use of water resources, both in terms of withdrawal and use, and release and discharge;
- renovation of the urban wastewater treatment plants and search for the best technologies available in order to improve the quality of effluents and minimising odorous emissions;
- correct management of obligations concerning special waste, for the phases related to production, storage, transport and final disposal/recovery;
- dissemination of information regarding the impacts of company activities on the external environment, through specific publications such as the Sustainability Report and the Environmental Statements.

**From a management point of view, to reduce the environmental impact of the Group's activities, particular importance was given to:**

- review and update of the Environmental Analysis of Sites, Plants and Processes at all Group companies with ISO 14001 certification;
- mapping of environmental obligations for all Group companies;
- development of the Environment Model which, starting from the mapping of obligations, has led to the definition of procedures aimed at giving uniformity to the management of environmental issues, providing indications on the management and control tools of these issues, including the monitoring of legislative compliance;
- monitoring environmental performance through the use of appropriate indicators for significant environmental aspects;
- analytically testing the impact on the environment, with particular reference to atmospheric emissions, air quality, water discharges, special waste, acoustic emissions and electromagnetic fields;
- specific internal audits aimed at verifying the correct management of the environmental problems connected with company plants;
- fulfilling administrative obligations, with particular regard to the monitoring and control activities associated with the Integrated Environmental Authorisations (I.P.P.C. Directive) and the emission of greenhouse gases (Emission Trading System), for the plants concerned.

## Privacy management model

---

[GRI 2-25, 418-1]

Starting from the entry into force and applicability of the EU Regulation 2016/679 (GDPR) on the protection of personal data, Iren Group has developed a management system that ensures the adoption of the principles applicable to the processing of personal data: principles of lawfulness, fairness, transparency, purpose limitation, data minimisation, accuracy, storage limitation, integrity, data confidentiality and accountability of the data controller.

The document "Group Privacy Management Model", which was prepared in 2022 and approved by the Board of Directors on 24 January 2023, not only formalises the approach adopted, but also ensures that corporate management of privacy issues complies with regulatory principles and spreads the culture of personal data protection within the Group.

The Model defines the roles, tasks and responsibilities of the persons involved in the management of privacy compliance and the main processes prepared and adopted, including keeping the processing register, risk assessment, management of the exercise of

data subjects' rights, management of data breaches, management of third parties and dissemination of privacy culture.

The procedure for the management of data subjects' rights, in particular, defines the set of rules of conduct for the collection and timely processing of requests from data subjects concerning the exercise of their rights under the GDPR, as well as requests for the revocation of consent given under the European Data Protection Regulation. For this purpose, special e-mails have been set up for the Group companies institutionally entitled to receive requests from interested parties. These channels are carefully monitored and, at least once a year, specific analyses of the requests received are carried out in order to verify the most significant aspects such as, for example, the number of requests, the type of rights most exercised, and the timeliness of processing. These analyses are shared within the Privacy Committee, in which the Data Controllers of the companies and the managers of the functions of Iren most involved in relation to privacy issues participate.

The monitoring of the Model is one of the tasks of the Data Protection Officer (DPO) who, also with the support of the competent corporate structures, carries out the necessary controls aimed at verifying the Group's compliance with the defined Model and reports the results of the monitoring activities to the Data

Controllers and any proposals for action to the Privacy Committee, which has the task of defining the strategic direction of the policies on the protection of personal data, assessing their internal implementation and evaluating potential criticalities and areas of risk that have emerged, and directing their mitigation. The Board of Directors is informed, at least once every six months, directly or via the Control, Risk and Sustainability Committee - which in turn is informed at least once every six months by the Data Protection

Officer - about the data protection management system.

Pursuant to the GDPR Regulation, the term complaint means requests forwarded, by natural persons affected by the processing of personal data, to the Guarantor for the protection of personal data, in the face of a possible violation of the law by the data controller. In 2022, 28 complaints were registered. On the other hand, there were no reports of loss or theft of customer information.

## Legal compliance

[GRI 3-3]

The objective to develop the business in close contact with the local communities and areas is placed at the heart of Iren Group's commitment to constantly combine development with respect for rules and regulations, protecting the environment and promoting the protection of natural resources based on principles of sustainable development.

With the aim of identifying and implementing the most appropriate action plan, at least every quarter a regulatory framework is drawn up by the Regulatory Affairs Department in which the impact of regulatory variables on the Group's results is analysed.

**The Italian and international regulatory framework is constantly supervised and monitored through the following activities:**

- analysis and reporting, also at a preliminary stage, of the international, national and local regulatory framework, in support of the Business Units and identification of evolutionary or implementation measures of interest;
- coordination and direction of the corporate functions involved in the implementation of the provisions of national or regional laws, of the Regulatory Authorities and of the reference Bodies, also for the purpose of fulfilling the reporting obligations towards the Sector Authorities;
- coordination and/or support, jointly with the Legal Affairs Department, in the management of "antitrust risk" and "regulatory risk".

The Group concentrates its activities on the active and proactive monitoring of regulatory developments relevant to all the business sectors in which it operates, participating in consultations, hearings before Chambers (both directly and through the Trade Associations it subscribes to) and promoting direct meetings with the Authorities involved.

**In particular, the topics observed in the various sectors are summarised below:**

- **Energy Business Unit** – market reform/updating (capacity market, MSD revision and expansion, adjustments on imbalances), regulation of district heating, reform of the Energy Efficiency Bonds mechanism, hydroelectric concessions for large-scale diversions, incentives for energy efficiency programmes, regulation of energy communities, development of projects involving hydrogen technology;
- **Market Business Unit** – overcoming price protections, reform of general system charges, transposition of Directive 944/2019, implementation of the provisions on the sellers' list, reform of balancing, transport and gas settlement, regasification (integrated capacity and storage auctions, tariff issues for effective recognition of costs incurred and revenue coverage factor);

- **Waste Management Business Unit** – regulation of the tariff (collection and treatment) and of the transparency and quality (contractual and technical) of the urban waste service, support for incentives for renewable sources and biomethane, monitoring of the regulatory framework at national level (PNRR, Decrees transposing EU directives on the circular economy - with particular attention to waste assimilation criteria, shared responsibility of the producer, reform of the consortium system, reorganisation of responsibilities and the National Waste Management Programme - and on the promotion of the use of energy from renewable sources) and at regional level (governance and planning of waste management), support in tenders for the award of the service;
- **Networks Business Unit** (water, gas and electricity distribution) - tariff regulation for cost coverage and national equalisation, safety obligations and contingency plans, energy price, technical and commercial/contractual quality regulation, smart meter installation and their technological evolutions, arrears, tenders for service assignment, climate change and resilience. Specifically for electricity and gas distribution: smart grids, energy communities, updating of network codes, new green inputs, pilot projects for innovative network use, active network management, with the ongoing evolution of local ancillary services.

The following topics were monitored across all Business Units: unbundling and compliance, Remit implementation (regulation on the integrity and transparency of wholesale energy markets), the implementation of the Directive and regulation governing market abuse, preliminary investigations and proceedings of the Antitrust Authority (AGCM).

In addition, the Legal Affairs Department monitors the legislation and, upon request, provides support in its interpretation, provides legal assistance and advice to all the structures of the Parent Company and to the Business Units and participates in working groups on issues involving the Parent Company or the Business Units.

## ANTITRUST COMPLIANCE PROGRAMME

The evolution of the competitive context in the markets in which Iren Group operates requires increasing attention to the principles of the free market and competition, as fundamental values recognised by the Articles of Association and the Code of Ethics.

Iren Group's commitment to the observance of these principles has led to the adoption of an **Antitrust Compliance** programme, aimed at strengthening internal controls, promoting the development of a corporate culture on the subject and, at the same time, preventing the emergence of any violations of the reference legislation. The adoption of the Antitrust Compliance programme was preceded by a phase of mapping out the sensitive business areas and processes, and a phase of assessing the risk of the commission of offences in this area, which allowed the preparation of an organisational model designed on the basis of the specific characteristics of the Group.

### **Following the analysis of national and international antitrust best practices and the Antitrust Authority Guidelines, the following were prepared:**

- antitrust risk report identifying the most exposed areas of the Group's businesses;
- Group Antitrust Code of Conduct, which sets out the guiding canons of conduct to prevent and appropriately manage potentially critical situations, with particular reference to participation in tenders, trade associations or procedures for the management of inspections by Public Administration bodies and the Antitrust Authority;
- Antitrust Guidelines, which define the rules of conduct to be followed by all Iren Group's people, in order to increase their ability to prevent, detect and correctly react in potentially critical situations;
- procedure for managing inspections.



In order to disseminate the Antitrust Compliance Programme to Group employees, documents and an introductory presentation on competition law are published in a dedicated section of the company intranet.

Iren's Board of Directors also appointed the Chief Legal Affairs Office and the Chief Regulatory Affairs Officer as members of the Group's Antitrust Compliance Team and, as such, responsible for the implementation of the Antitrust Compliance Programme for all consolidated Group companies.

In 2022, the contents of the Group's Antitrust Code of Conduct and the procedure for handling inspections were updated in light of the regulatory changes that had taken place and the outcome of the monitoring audit carried out with reference to the first year of application of the Antitrust Compliance Programme. In addition, training sessions addressed to top management and management personnel and aimed at ensuring the knowledge, effectiveness and proper implementation of the Group's Antitrust Guidelines continued.

## Codes of conduct

Iren adheres to the recommendations of the **Code of Corporate Governance** (January 2020 edition), drawn up by the Italian Committee for Corporate Governance and has approved a document that highlights the governance solutions adopted with reference to the provisions of the Code.

The Company discloses to the market its adherence to the Code in the Report on Corporate Governance and Ownership Structure.

Iren Group operates in full compliance with the **Code of Business Conduct for the sale of electricity and natural gas** and, in general, with the standards of ARERA (the Italian Regulatory Authority for Energy, Networks and Environment). Furthermore, the **Service Charters** regulate the activities to achieve high quality and efficiency standards in terms of continuity and customer relations.

### Iren Group service charters

Waste management

Integrated water service

District heating

Thermal and communal electricity plants

Traffic lights

Public street lighting

The background of the cover is a photograph of a young green plant with several leaves growing out of a mound of dark, rich soil. The lighting is soft, highlighting the texture of the soil and the vibrant green of the leaves. A vertical white line runs down the right side of the page, partially overlapping the large 'ESG' text.

# Sustainability Strategy

Economic, environmental and social dimensions  
integrated into the Group's development strategy  
in the medium-long term, consistent  
with the sustainable development goals  
of the UN 2030 Agenda

# ESG

# IN THIS CHAPTER WE TALK ABOUT

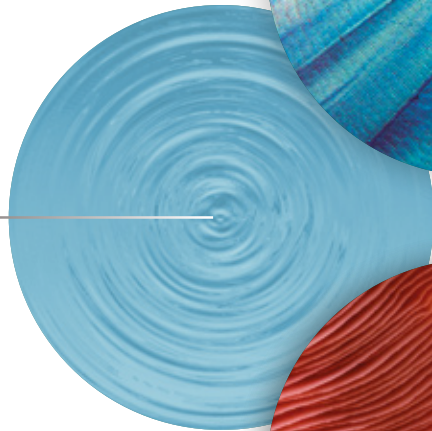
strategy



materiality  
analysis



goals



results

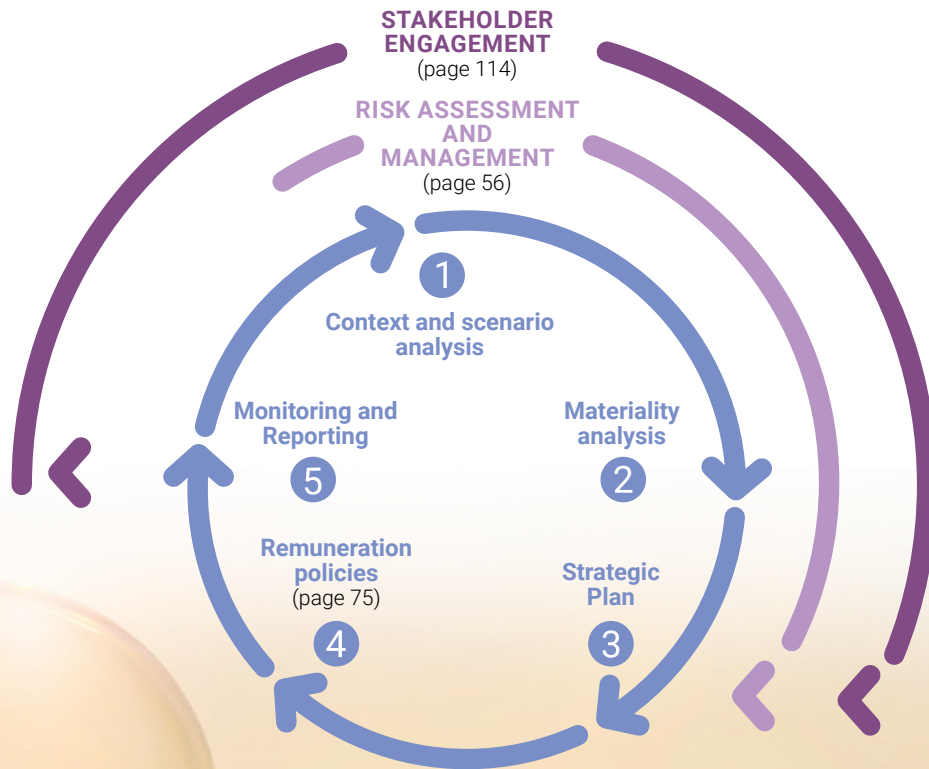




# Strategy for sustainable development

[GRI 2-22]

Environmental, social and governance factors are integrated into Iren Group's strategy and operations through a structured process that involves: analysing the sustainability context and scenarios, identifying priority issues at a strategic and stakeholder level, defining development objectives, planning actions, investments and remuneration policies to achieve the planned objectives, assessing and managing risks/opportunities, monitoring and reporting, through the involvement of relevant stakeholders.



## Context and scenario analysis

Iren Group analyses, in strategic planning and risk assessment, the macroeconomic, financial, energy and climate context and scenarios in the short-, medium- and long-term to identify the factors that may be important for its business from a competitive, sustainable, regulatory and normative point of view and that may affect the pursuit of its development targets.

Detailed information about the energy, regulatory and financial scenarios is provided in the Group's Consolidated Financial Statements.

The **2022 sustainability scenario** is strongly influenced by the intertwining effects of three crises: the third pandemic year, the war in Ukraine and the effects of climate. Crises that are having highly negative impacts on the achievement of the 2030 Agenda's Sustainable Development Goals. The United Nations *2022 Sustainable Development Goals Report* provides strong evidence of the current crises and their interconnectedness.

The Covid-19 pandemic, in addition to directly related human losses, poses critical challenges in the fight against other deadly diseases; extreme poverty and hunger affect millions more people than in 2019; millions of children have lost more than half of their in-person education in two years, affecting their learning and well-being; the socio-economic fallout of the pandemic has affected women even more significantly with job losses, increased unpaid care work and a rise in domestic violence. The largest number of conflicts since the 1950s has exacerbated the humanitarian emergency, leading to a further increase in migration. The Russian-Ukrainian war has contributed to the rising prices of food and energy carriers, aggravated the supply and trade situation and negatively affected the financial markets. A conflict that has led to an increasing unpredictability of the global geopolitical, economic and energy balance, with significant repercussions on the energy security of EU countries.

Climate change is producing an increase in heat waves, droughts and floods affecting millions of people, generating poverty and instability. The green transition is slowed down by the pandemic and the war with high risks of uncontrolled growth of greenhouse gas emissions. Against this backdrop of crisis, the UN

Secretary General called for "an urgent rescue effort for the SDGs", "but there is still hope, because we know what we have to do: end disastrous and senseless war, now; unleash a renewable energy revolution, now; invest in people and build a new social contract, now." Aligning finance with the SDGs remains a key route to shifting economic resources towards better prevention and management of global risks and the achievement of the 2030 Agenda. However, several factors prevent access to sustainable financing in the poorest countries that face a web of short-term emergencies such as climate, food, health and migration.

The **COP15 on desertification**, held in May 2022, adopted decisions on which to base present and future action to ensure greater resilience of ecosystems, reduce land degradation, and restore territories. It was agreed, among other things, to establish an intergovernmental working group in the three-year period 2022-2024 to examine solutions to move from reactive to proactive drought management. The summit also drew attention to the need to address the migration issue caused by desertification.

In June 2022, the **G7** - also open to Argentina, India, Indonesia, Senegal, South Africa and Ukraine - reaffirmed, in addition to its condemnation of Russia and support for Ukraine, its willingness to lead urgent, ambitious and inclusive action to limit global warming to 1.5°C and to accelerate the implementation of the Paris Agreement, committing to a highly decarbonised road sector by 2030, a fully or predominantly decarbonised energy sector by 2035, and prioritising and taking timely steps towards the goal of accelerating the phase-out of coal-fired electricity. Objectives to be combined with those of strengthening the resilience of societies, promoting human rights, addressing disinformation and achieving gender equality.

The **COP27** - held in October 2022 - established a "Loss and Damage" fund for the poorest and most vulnerable countries affected by climate change, albeit against a backdrop of uncertainty about the fund's operational logic.

Less encouraging were the outcomes of the COP in relation to the failure to agree on the phasing out of fossil fuels, partly sustained by the energy crisis triggered by the war in Ukraine, as a means of reducing greenhouse emissions, despite the confirmation of the goal of limiting global warming to 1.5°C compared to pre-industrial levels.

At the end of the year, the **COP15 on Biodiversity** pledged to protect 30% of the Planet's land and water by 2030, to restore 30% of degraded ecosystems, to reduce the risk from pesticides by at least 50%, to allocate 20 billion dollars per year from 2025, and 30 billion dollars from 2030, in aid to poor countries for nature conservation, and to eliminate subsidies harmful to nature. Commitments that did not, however, lead to an agreement to close the economic gap between North and South, and which showed a limitation in the decision not to include the concept of 'nature positive', the equivalent of net zero for biodiversity.

The United Nations **High Level Political Forum on Sustainable Development** (July 2022), outlined a road map that, recognising the urgent need to achieve the goals of the 2030 Agenda, focused on issues to: reduce inequalities and achieve gender equality; mobilise resources to finance development; harness innovation, technology and digitalisation; address climate change, environmental degradation, biodiversity loss and pollution; achieve access to safe and affordable drinking water; develop quality, reliable, sustainable and resilient infrastructure; transforming the agri-food system for sustainability and to provide employment and income; promoting peace and security; protecting and promoting human rights and fundamental freedoms for all; ensuring local implementation of development priorities, with increased global support for less developed countries including through foreign direct investment.

In **Europe**, the energy crisis has at the same time forced a temporary departure from the decarbonization pathway and a strengthening of the related targets in the medium to long-term. In May 2022, the European Commission presented the REPowerEU plan to achieve independence from Russian fossil fuels and boost renewable energy sources, with actions to confirm (or increase) the decarbonization targets of the European Green Deal. At the end of the year, President Ursula von der Leyen, in a letter to the 27 EU Member States, outlined the strategy for a European industrial policy to simplify the energy transition, announcing the proposal to create a European Sovereignty Fund and mechanisms to simplify the state aid framework to enable Member States to support companies in the

transition and development of green technologies. Another significant aspect emphasised by the President is the need to intensify the deployment of renewable energy also to generate a positive impact on energy prices throughout the EU.

On the subject of sustainability, the European Union has produced two important innovations: the Sustainability Reporting Directive 2022/2464 (CSRD) on the new sustainability reporting obligation, which is to be transposed into national law by 6 July 2024 and will be applied in stages depending on the size of the company; and the proposed Directive of 23 February 2022 (DDS) on the duty of care in business for sustainability, which guides the activities of companies in terms of responsible business conduct.

The CSRD will be completed with the adoption of reporting standards, developed by EFRAG, by the European Commission.

The DDS proposal intervenes in three areas: general duties of care for directors with regard to sustainability; obligations for companies with regard to combating climate change (implementing the Paris Agreements); and behavioural obligations with regard to negative impacts on human rights and the environment that may arise from the activities of companies and their value chains. The draft directive is still at an early stage and there are still many elements that could evolve during the European legislative process.

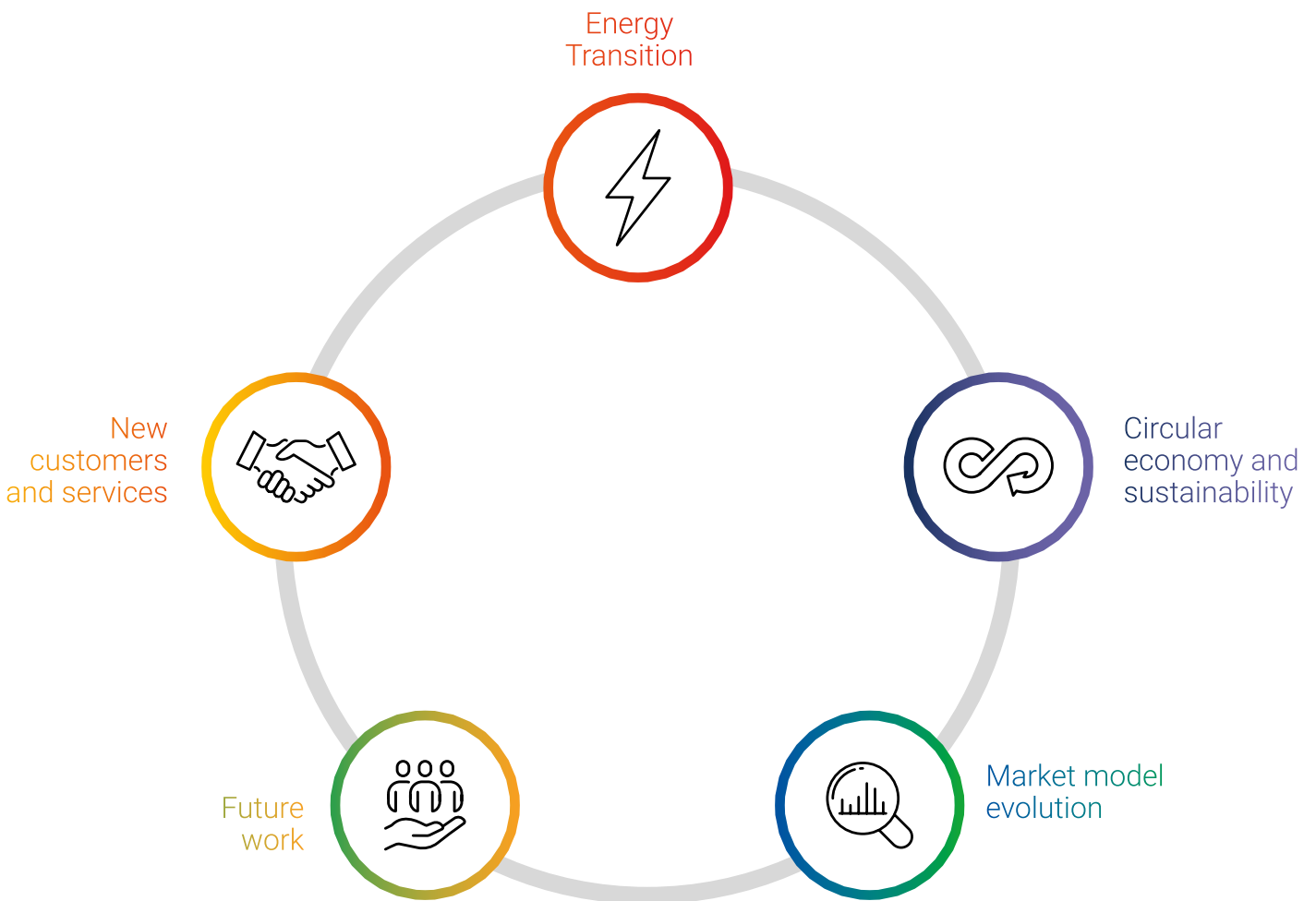
In our country, the year 2022 saw the approval, by a transversal parliamentary majority, of very important additions to the Italian **Constitution**: in Article 9, 'the protection of the environment, biodiversity and ecosystems, also in the interest of future generations' was added to the fundamental principles of the Italian Republic, and in Article 41, it is stipulated that economic initiative must not 'cause damage to health and the environment' and must also be directed and coordinated 'for environmental purposes', in addition to the already envisaged social purposes.

In connection with the escalation of the energy crisis, the "Energy Decree" (converted into Law No. 34/2022) was signed on 1 March 2022, which provides for urgent measures to contain the costs of electricity and natural gas, stimulate the development of renewable energies, and revive industrial policies. It introduces new simplifications for authorisation procedures for renewable energy sources, including a revision of the eligible areas, as well as further measures concerning measures against rising energy prices, support for companies affected by high energy costs, and measures for energy efficiency, biofuels and automotive

transition. Italy is one of the most energy-dependent countries in Europe, largely from countries with an unstable political framework. For energy security, the development of renewables will therefore play a key role, with the attainment of the 40% target of renewables in the Italian energy mix set by the Fit for 55 Plan, for which Italy also has the potential to develop a supply chain of components for renewable generation and storage.

As part of the Italian National Recovery and Resilience Plan (PNRR), the implementation of reforms and investments to help the country become more sustainable and resilient continued. In particular, as far as Iren Group’s areas of intervention are concerned, the PNRR’s progress concerned the circular economy, waste management, energy efficiency interventions, primary water infrastructures for the safety of water supply, management capacity for integrated water services, hydrogeological risk management, increasing network capacity (smart grid), resilience of the electricity system network, hydrogen research projects, green communities, urban regeneration in metropolitan areas, gender equality certification and related incentive mechanisms for companies, and the revision of the public procurement code.

In this context, Iren analysed and evaluated the **prominent trends** that, in the long-term, will be decisive in terms of risks and opportunities for the sustainable development of the Group.



An important role is attributed to **scenarios related to climate change** and its effects on the Group's activities, deriving from the physical environment – critical phenomena (heat waves, floods, etc.) and chronic phenomena (structural changes in the climate) – and the transition situation towards a low-carbon economy.

Underlying the Group's medium-term (2026) and long-term (2030) strategy are various scenario analyses related to the climate change impact:

- **Intergovernmental Panel on Climate Change (IPCC) RCP 2.6**, which predicts a temperature increase at the end of the century compared to pre-industrial levels in a likely range between 0.3°C and 1.7°C considering 'aggressive' mitigation strategies whereby greenhouse gas emissions peak around 2050 and then decline in the second half of the century;
- **IPCC RCP 4.5** which predicts a temperature increase at the end of the century compared to pre-industrial levels in a likely range between 1.1°C and 2.6°C. It is a stabilisation scenario that assumes that by 2070, CO<sub>2</sub> emissions will fall below current levels and atmospheric concentration will stabilise by the end of the century at about twice pre-industrial levels. RCP 4.5 is considered by Iren to be the most representative of the current global climate and policy context and consistent with the temperature increase estimates considering the 2030 targets (Nationally Determined Contributions);
- **IPCC RCP 8.5** (business-as-usual), compatible with a scenario where no particular measures are implemented to combat climate change, which predicts a rise in temperatures at the end of the century in a likely range between 2.6°C and 4.8°C above pre-industrial levels. By 2100, atmospheric CO<sub>2</sub> concentrations will have tripled or quadrupled compared to pre-industrial levels;
- **IEA Net Zero Emissions by 2050 Scenario (NZE)** shows a pathway for the global energy sector to achieve zero net CO<sub>2</sub> emissions by 2050, with advanced economies ahead of the rest. This scenario also meets the main UN Sustainable Development Goals (SDGs) related to energy. It is consistent with limiting the global temperature increase to 1.5°C with no or limited temperature exceedance (with a 50% probability). The NZE Scenario is based on the following principles: adoption of all available technologies and emission reduction options is dictated by cost, technology maturity, policy preferences and market and country conditions; all countries work together to achieve net zero emissions worldwide, recognising the importance of ensuring a just transition; orderly transition throughout the energy sector with security of fuel and electricity supply at all times, minimisation of non-recoverable assets and aiming to avoid volatility in energy markets;
- **IEA Stated Policies Scenario (STEPS)**, which provides a more cautious benchmark for the future, because it does not assume that governments will achieve all the announced targets. It considers, with a sector-by-sector approach, what has actually been put in place to achieve energy-related targets, taking into account not only existing policies and measures, but also those that are being developed. STEPS explores where the energy system could go without significant additional guidance from policy-makers and takes into account the policies and implementation measures affecting energy markets adopted by the end of September 2022, together with related policy proposals, although the specific measures needed to implement them have yet to be fully developed. As with all policies considered, the ambitions stated by governments are not automatically incorporated into the scenario: their full implementation cannot be taken for granted and the prospects and timing for their realisation are based on IEA's assessment of the regulatory, market, infrastructure and financial conditions relevant to the countries;
- **REF-E Italian Electricity Market Scenario 2022**, and in particular, the Reference scenario that predicts high electricity prices in the short term due to a shortage of gas supply. In the medium to long-term, the diversification of fuel supply sources (e.g. LNG) brings the energy market back to a normalisation path and a resumption of the energy transition. The efficiency trend in electricity consumption is also confirmed to be growing in the long-term. The market-driven development of renewable energies makes it possible to partially achieve the currently set 2030 targets (PNIEC);



- **The Italian Electricity and Renewables Market Report 2022 by AFRY**, and in particular the Central scenario confirms the upward trend in energy prices for 2023, followed by a gradual reduction from 2024 onwards linked to the overcoming of geo-political tensions and the gradual stabilisation of gas prices at pre-crisis levels (which nevertheless remains the main driver of electricity prices until 2040); in the medium to long-term, the electricity price continues to fall as a result of increasing RES penetration; the European net zero decarbonization target is reached by 2050.

In planning, the impacts of changing the variables underlying the different scenarios are considered. For example, for the physical risks, the rising temperature trend is considered. The impact that it will have on the lower heat production for district heating and the growth of electricity generation to meet the growing demand for summer air conditioning is analysed in marginality. Other analyses concern the production of electricity from hydroelectric plants in relation to reduced rainfall and the availability of water resources in view of drought phenomena. With regard to transition risks, for example, the reduction in margins associated with the sale of natural gas is considered.

The analysis of the effects of the scenarios described in the business processes, consistent with the guidelines of the TCFD (Task Force on Climate-related Financial Disclosures), was further implemented in 2022 thanks to the application of a management model enabling the assessment of risks and opportunities related to climate change that support strategic choices >> [SEE PAGE 62](#).

## Materiality analysis

[GRI 2-24, 3-1, 3-2, 3-3]

Materiality analysis is the principle for identifying aspects, relevant to the company and its stakeholders, that significantly affect the ability to create value over time, i.e. **material topics** that “represent the organisation’s most significant impacts on the economy, environment and people, including impacts on their human rights”.

Iren - following the GRI Standards and the proposed EFRAG standards that pay great attention to material aspects as an element to strengthen the corporate sustainability strategy - has adopted a materiality analysis process that is developed dynamically, involving its stakeholders - based on the AA1000 AccountAbility Principles of inclusiveness, materiality, responsiveness and impact - to share and assess material issues for strategic development and for reporting its performance through the Sustainability Report.

Within this framework, the 2022 materiality analysis is developed on two levels:

- **assessment of the priority topics** for the Group’s strategies and for its main stakeholders (priority matrix) relevant for guiding the definition of the sustainability objectives of Iren’s Integrated Strategic Plan;
- **“double materiality”**<sup>1</sup>, i.e. the union of:
  - **“impact materiality”** (inside-out perspective) i.e. the generated, negative and positive, actual and potential impacts on people and/or the environment caused by the Group’s operations and investments, its products and/or services or its value chain in the short-, medium- or long-term. Material topics are those for which the Group generates significant impacts;
  - **“financial materiality”** (outside-in perspective), i.e. the negative and positive, actual and potential impacts suffered by the Group. Material topics generate risks or opportunities that can positively or negatively influence the Group’s economic and financial performance in the short-, medium- or long-term and, therefore, create or destroy corporate value.

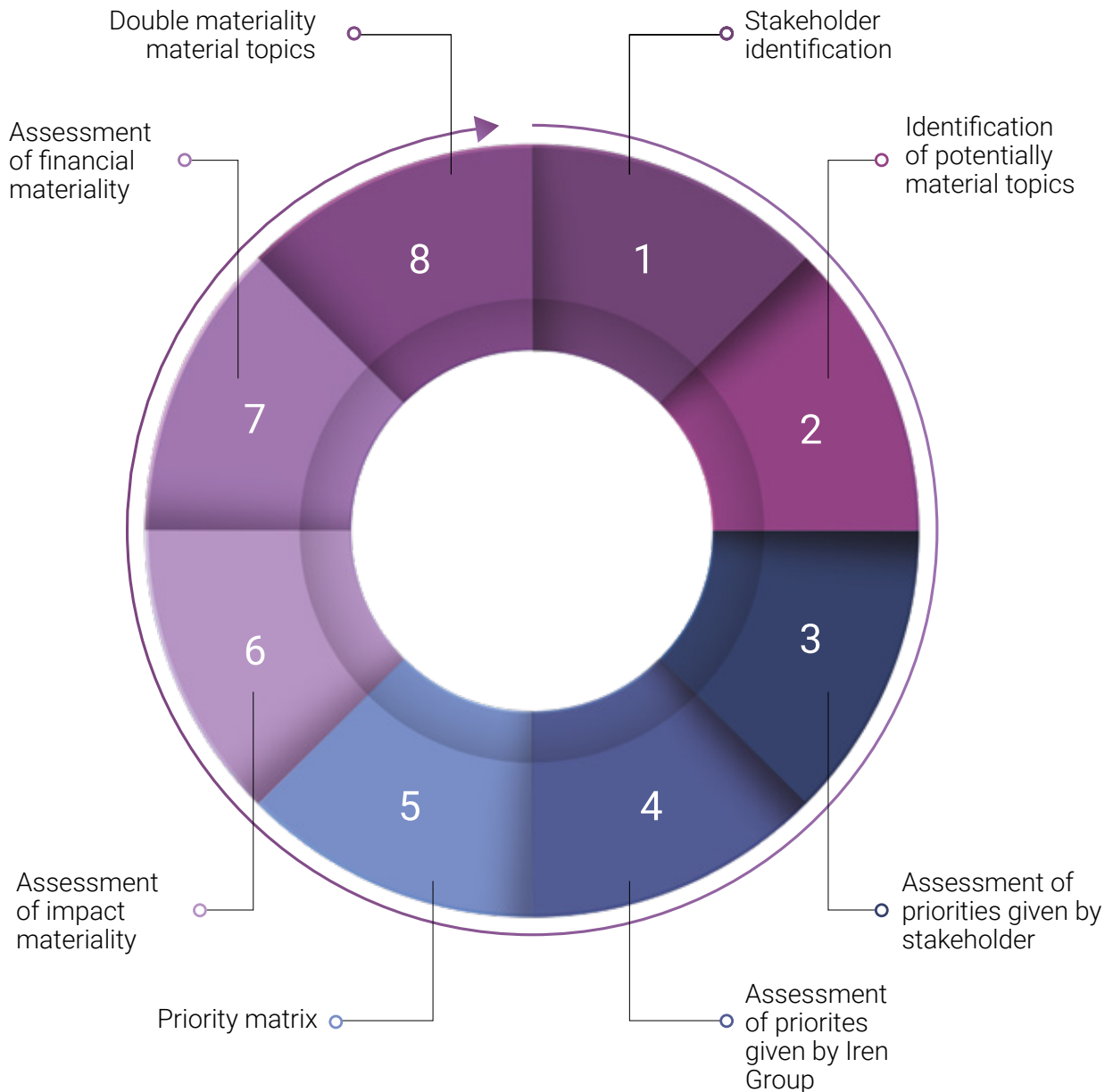
<sup>1</sup> The Corporate Sustainability Reporting Directive (CSRD) - the new European Sustainability Reporting Directive, which came into force on 5 January 2023 - introduces the criterion of double materiality.

Despite the fact that the double materiality approach is still evolving in terms of defining the reference standards and mandated for the company as of 2025 (on 2024 reporting), Iren has proactively carried out an initial exercise to identify topics according to double materiality, with a commitment to refine the analysis in the coming years, following the publication of the methodological guidelines that will define the double materiality process.

Iren Group’s Corporate Social Responsibility and Local Committees Department is responsible for the materiality analysis, defines the guidelines and methodology and involves stakeholders and key figures at company level.

The materiality analysis is specifically reviewed by the Control, Risk and Sustainability Committee and approved by the Board of Directors.

The steps in the materiality analysis process are described below.



## 1. IDENTIFYING THE STAKEHOLDERS

The relevant stakeholders involved in the process are grouped into eight categories: Environment, Shareholders/ Institutions, Customers/Consumers, Community, Suppliers, Future generations, Workers, Investors/Lenders. The first 7 categories are represented in Iren's Local Committees, while the Investors/Lenders category is involved in a structured way with the support of the Investor Relations and Sustainable Finance Functions. At the Group level, the company's top management (Departments and BUs) were involved.

## 2. IDENTIFICATION OF POTENTIALLY MATERIAL TOPICS

The topics were identified by mapping existing and emerging sustainable development issues in Iren Group and took into account the Group's mission, values, policies and Strategic Plan, sustainability scenarios, the 2030 Agenda and European Union goals for sustainable development, Global Compact principles, GRI standards, Legislative Decree 254/2016, the Group's financial and non-financial reporting, customer satisfaction surveys conducted for the managed businesses, the Group's risk map and risk register, regulatory developments in the field of sustainability, material topics of peers and competitors, issues of greatest interest to ESG rating agencies, input from internal experts, external expert assessments contained in reports and analyses (e.g., among others, *The Global Risk Report 2023* by the World Economic Forum, *Europe Sustainable Development Report 2022* by the UN Sustainable Development Solutions Network (SDSN), *Global Outlook on financing for sustainability development 2023* by OECD, *Ministerial declaration* by the UN-High-Level Political Forum 2022, *Asvis Report 2022*, *Sustainable Italy Report 2022* by Cerved, *National Recovery and Resilience Plan*).

The identification of topics led to a revision of the themes identified in 2021 to take into account the context. In particular, the following changes were made:

Topics 2021	Topics 2022	Reason for revision
Value and economic development for local areas	Growth and value creation for the company and stakeholders	Highlighting the ability to create value for different categories of stakeholders, in relation to the growth of the Group
Solid and transparent governance for sustainable growth Ethics, fight against corruption and compliance	Solid, ethical and transparent governance for sustainable growth	Strengthening ethics as a governance factor
Innovation, smart city and sustainable mobility	Innovation and smart cities	Creating greater alignment with Group strategy
Energy efficiency, renewable sources and district heating	Energy production and saving to reduce environmental and economic impacts	Capturing relevant contextual variations
Development of local communities Sustainability education	Sustainable development of the local areas and communities	Capturing contextual variations and better relate issues to Group strategies
Service quality and customer orientation	Responsibility and quality in service delivery and customer orientation	Capturing contextual variations and better relate issues to Group strategies

## 3. ASSESSMENT OF PRIORITIES GIVEN BY STAKEHOLDERS

In order to identify the issues to be considered in the priorities and to gather stakeholders' assessment, 5 workshops were conducted with members of Iren's Local Committees representing the Group's main stakeholder categories (consumers, customers, workers, suppliers, institutions, shareholders, environment, local communities, NGOs, research, schools/universities), followed by the distribution of a structured online questionnaire also addressed to representatives of investors/lenders.

Through the questionnaire, which for each topic proposed the underlying topics and the link to the SDGs (see table “Priority Topics and Related Topics” on page 350 for details), stakeholders were asked to give each topic a priority, using a scale from 1 (lowest priority) to 5 (highest priority).

#### 4. ASSESSMENT OF PRIORITIES GIVEN BY IREN GROUP

At the Group level, an assessment of priority issues in relation to the Group’s development strategies and operations was conducted. The activity involved the first line of management representing all Group Departments and Business Units. The process was the subject of a specific briefing in the Management Committee, followed by dedicated meetings with the most senior manager of each Department and Business Unit, with the administration of a questionnaire through which managers were asked to assign a priority to each topic, using a scale of 1 (lowest priority) to 5 (highest priority).

#### 5. PRIORITY MATRIX

The matrix [» SEE PAGE 101](#) represents the priority issues for stakeholders and in the Group’s strategies, orients the definition of the objectives to be included in Iren’s Integrated Strategic Plan and comprehensive sustainability reporting.

The matrix resulting from the analysis conducted in 2022 shows a substantial alignment between the priorities of stakeholders and those of Iren Group.

The analysis process and the priority matrix were reviewed by the Control, Risk and Sustainability Committee and the Board of Directors, which approved the results at its meeting on 24 January 2023.

#### 6. ASSESSMENT OF IMPACT MATERIALITY

Starting from the topics represented in the priority map, Iren Group started in 2022 the implementation - in line with GRI standards and taking into account the EFRAG draft standards - of the analysis to identify the impacts generated on the economy, environment and people. The identification of the impacts was carried out by the CSR Department, which, starting from the assessments contained in the Group’s risk register, selected the positive and negative impacts produced, also taking into account the contribution to the SDGs resulting from the sustainability objectives defined by the Group.

Following this activity, each identified impact was assessed for its severity (scale 1=low, 2=medium, 3=high) and likelihood (scale 1=low, 2=medium, 3=high), through interviews with the most senior managers of all Group Departments and Business Units and by means of a special assessment tool.

#### 7. ASSESSMENT OF FINANCIAL MATERIALITY

In order to map the impacts from an outside-in perspective, an assessment was carried out, based on the analyses contained in the Group risk register produced by Risk Management, by the Corporate Social Responsibility and Local Committees, Administration Finance and Control, Strategic Planning and CEO Office functions in which the economic-financial impact of the occurrence of external risks and sustainability opportunities was assessed. The assessment was made on the basis of a 5-level magnitude scale in relation to the impact on EBITDA (1 = ≤ 1% change in EBITDA; 2 = between 1% and 3% change in EBITDA; 3 = between 3% and 6% change in EBITDA; 4 = between 6% and 10% change in EBITDA; 5 = ≥ 10% change in EBITDA).

#### 8. DOUBLE MATERIALITY: MATERIAL TOPICS

Once the impacts had been identified according to the criteria of impact materiality and financial materiality, the relative level of double materiality, understood as the union of the two perspectives of equal importance, was attributed to each topic.

The double materiality assessment and identification of material topics was reviewed by the Control, Risk and Sustainability Committee and the Board of Directors, which approved the results at its meeting on 24 January 2023.

## PRIORITY MATRIX

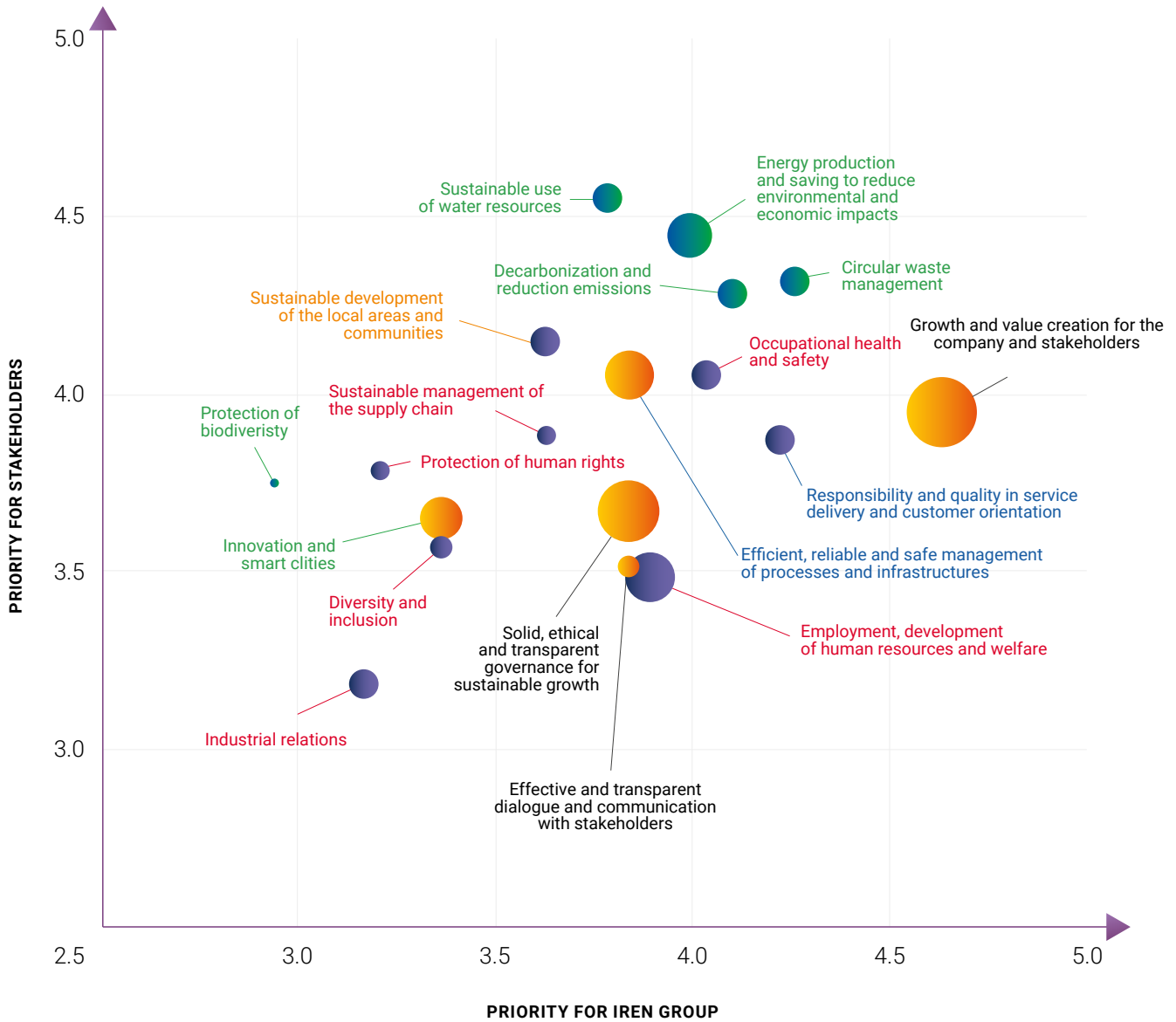
The matrix shows the connection between priority themes, the Group’s strategic pillars and the environment/ climate change, social and governance aspects. Furthermore, through the representation of pointers of different aspects, it is possible to appreciate the level of double materiality attributed to each topic, as detailed in the “Material Topics” table.

### STRATEGIC PILLARS OF IREN GROUP

- Green transition
- Local presence
- Service quality
- Enabling resources














### ESG DIMENSIONS



- Governance
- Environmental/climate change
- Social



## MATERIAL TOPICS










































The material topics are prioritised according to the value attributed in terms of double materiality in the table below, which represents for each topic: the main negative and positive impacts generated vis-à-vis the external context, the relative materiality of the impact, the relative level of financial materiality and the resulting level of double materiality.




Material topics	SDGs	Impacts	Materiality of impacts	Type of impact*	Financial materiality	Double materiality	Managing material topics	
 Growth and value creation for the company and stakeholders	 2	 Realisation of investments that improve the quality of regional infrastructure and promote green transition		D			Please refer to the dedicated chapter (see page 130)	
		 Increased value distributed to stakeholders and direct and indirect economic impacts		D				
	 8	 Reducing the investment needed to maintain the efficiency of existing infrastructure		D				
		 Reduction in the value distributed to stakeholders and positive economic impacts on local areas		D				
 Solid, ethical and transparent governance for sustainable growth	 16	 Value creation fostered by ethical management, adherence to standards and principles of conduct and stable corporate governance		D			Please refer to the dedicated chapter (see page 40)	
		 Mitigation of risks with potential external economic, environmental and social impacts		D				
	 17	 Loss of value resulting from unethical and non-standard conduct or governance instability		D				
		 Negative external impacts produced by regulatory and/or Code of Ethics violations and failure to manage risks		D				
 Efficient, reliable and safe management of processes and infrastructure	 9	 Ensuring constant and continuous access to managed services		D			Please refer to the dedicated chapter (see page 245)	
		 Safety of services managed		D				
	 11	Improving the environmental impact of services		D				
		Economic and social impacts resulting from the absence of essential services		D				
	 12	 Damage resulting from a decrease in the reliability of infrastructure		D				
Uncontrolled circulation of confidential information concerning citizens/clients		D						
 Employment, development of human resources and welfare	 4	 Employment growth as an opportunity for social development		D			Please refer to the dedicated chapter (see page 272)	
		 Stability, quality and work-life balance for employees with positive impacts on local communities		D				
	 8	Dissemination of skills and knowledge in the local area and communities		D				
		Reduced employment opportunities		D/I				
	 10	 Reduction of current employment levels		D/I				
Depletion of skills in the local area and in communities		D/I						

Material topics	SDGs	Impacts	Materiality of impacts	Type of impact*	Financial materiality	Double materiality	Managing material topics
 <p>Energy production and saving to reduce environmental and economic impacts</p>	7	<ul style="list-style-type: none"> <li>Contribution to green transition by reducing consumption of non-renewable natural resources</li> </ul>		D/I			Please refer to the dedicated chapter (see page 165)
	12	<ul style="list-style-type: none"> <li>Dedicated energy efficiency and self-production services for communities and customers</li> </ul>		D			
	13	<ul style="list-style-type: none"> <li>Stress on non-renewable natural resources</li> </ul>		D/I			
	13	<ul style="list-style-type: none"> <li>Negative environmental impacts of non-renewable energy production (emissions)</li> </ul>		D			
 <p>Innovation and smart cities</p>	9	<ul style="list-style-type: none"> <li>Socio-economic development of communities enabled by digitalisation, technological innovation of services and investment to support innovative local cleantech start-ups</li> </ul>		D/I			Please refer to the dedicated chapter (see page 329)
	11	<ul style="list-style-type: none"> <li>Reducing environmental impacts on the local area</li> </ul>		D/I			
	13	<ul style="list-style-type: none"> <li>Missed opportunities for socio-economic progress for the local area and communities</li> </ul>		D/I			
	13	<ul style="list-style-type: none"> <li>Unsustainable use of natural resources and environmental heritage</li> </ul>		D/I			
 <p>Circular waste management</p>	12	<ul style="list-style-type: none"> <li>Reduction of waste production and consequent improvement of environmental quality</li> </ul>		D/I			Please refer to the dedicated chapter (see page 183)
	12	<ul style="list-style-type: none"> <li>Reducing the use of raw materials by extracting new resources from waste</li> </ul>		D/I			
	13	<ul style="list-style-type: none"> <li>Increased waste production and non-recovery resulting in a deterioration of environmental quality</li> </ul>		D/I			
	13	<ul style="list-style-type: none"> <li>Increased use of raw materials and fossil fuels</li> </ul>		D/I			
 <p>Sustainable use of water resources</p>	6	<ul style="list-style-type: none"> <li>Reduction of water withdrawals from the environment for drinking purposes</li> </ul>		D/I			Please refer to the dedicated chapter (see page 173)
	6	<ul style="list-style-type: none"> <li>Safety and quality of water resources for drinking water use</li> </ul>		D			
	6	<ul style="list-style-type: none"> <li>Improving the quality of the water resource returned to the environment</li> </ul>		D			
	14	<ul style="list-style-type: none"> <li>Contribution to the reduction of water stress, through the reuse of water resources</li> </ul>		D/I			
	14	<ul style="list-style-type: none"> <li>Increased water withdrawals from the environment for drinking purposes</li> </ul>		D/I			
	14	<ul style="list-style-type: none"> <li>Worsening of the quality of the water distributed and returned to the environment</li> </ul>		D			
		<ul style="list-style-type: none"> <li>Stress of water resources</li> </ul>		D/I			

Material topics	SDGs	Impacts	Materiality of impacts	Type of impact*	Financial materiality	Double materiality	Managing material topics
 Decarbonization and reduction of emissions		 Reducing environmental impacts leading to climate change		D/I			Please refer to the dedicated chapter (see page 154)
		 Contribution to the achievement of national and international environmental/climate targets		D/I			
		 Environmental impacts contributing to climate change		D			
		 Failure to contribute to national and international environmental/climate targets		D/I			
 Sustainable development of the local areas and communities	  	 Socio-economic development of communities through dialogue, active listening and collaboration with stakeholders		D/I			Please refer to the dedicated chapter (see page 212)
		 Creating and disseminating a culture of sustainability to raise awareness of the value of resources		D/I			
		 Lack of attention to stakeholder demands that may develop socio-economic tensions in communities		D			
		 Unsustainable use of resources due to lack of culture and knowledge		D/I			
 Responsibility and quality in service delivery and customer orientation	   	 Affordability and service quality measures		D			Please refer to the dedicated chapter (see page 236)
		 Development of new products/services that improve the quality of life and sustainable use of resources		D			
		 Inefficiency, inadequate quality and inaccessibility of services		D			
		 Lack of transparency and listening in business practices		D			
 Occupational health and safety	 	 Reduction of injuries/occupational diseases and consequent reduction of pressure on health services		D			Please refer to the dedicated chapter (see page 301)
		 Health prevention for Iren people with positive social and economic impacts for the community		D			
		 Increase in work-related injuries/occupational diseases resulting in increased pressure, including economic pressure, on health services		D			
 Industrial relations		 Ensuring decent work for Iren people with positive impacts on local communities		D/I			Please refer to the dedicated chapter (see page 308)
		 Slowdown/interruption of operations due to workers' strikes		D			



Material topics	SDGs	Impacts	Materiality of impacts	Type of impact*	Financial materiality	Double materiality	Managing material topics
 Diversity and inclusion	<div style="background-color: #e67e22; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">5</div> <div style="background-color: #e91e63; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">10</div>	Ensuring equal professional and salary opportunities for less represented categories		D			Please refer to the dedicated chapter (see page 296)
		 Contribution to reducing youth unemployment		D/I			
		Combating all forms of discrimination		D/I			
		Non-inclusive environment affecting, also culturally, the entire value chain		D			
		 Lack of youth employment opportunities		D/I			
Lack of contribution to the reduction of socio-economic gaps for less represented groups		D/I					
 Protection of human rights	<div style="background-color: #e67e22; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">8</div> <div style="background-color: #e91e63; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">10</div>	Contribution to socio-economic growth that promotes the inalienability of people's rights throughout the value chain		D/I			Please refer to the dedicated chapter (see page 78)
		 Failure to respect fundamental rights in the value chain		D/I			
 Effective and transparent dialogue and communication with stakeholders	<div style="background-color: #2980b9; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">16</div> <div style="background-color: #2980b9; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">17</div>	Ensuring clear and transparent information on strategies and activities managed		D			Please refer to the dedicated chapter (see page 114)
		 Cultural dissemination and community project development		D			
		 Lack of clear, transparent and accessible information to citizens/customers, on services, and to shareholders and investors		D			
		Inadequacy of services to stakeholders' needs		D			
 Sustainable management of the supply chain	<div style="background-color: #a52a2a; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">8</div> <div style="background-color: #e91e63; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">10</div> <div style="background-color: #2e8b57; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">13</div>	Reduction of environmental and social impacts generated by the supply chain		I			Please refer to the dedicated chapter (see page 317)
		 Promoting a culture of sustainable growth in supply chain enterprises		D/I			
		 Increased environmental, economic and social impacts related to the supply chain's failure to adopt sustainability principles and policies		D/I			
 Protection of biodiversity	<div style="background-color: #1e90ff; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">14</div> <div style="background-color: #2e8b57; color: white; padding: 2px; text-align: center; width: 20px; margin: 2px;">15</div>	 Reducing pollution in air, water and soil to counter biodiversity loss		D			Please refer to the dedicated chapter (see page 203)
		 Failure to contribute to the conservation of natural habitats and ecosystems		D			

 Governance topics    
  Environmental/climate change topics    
  Social topics

\* D=impact generated directly; I=impact generated indirectly through business relations

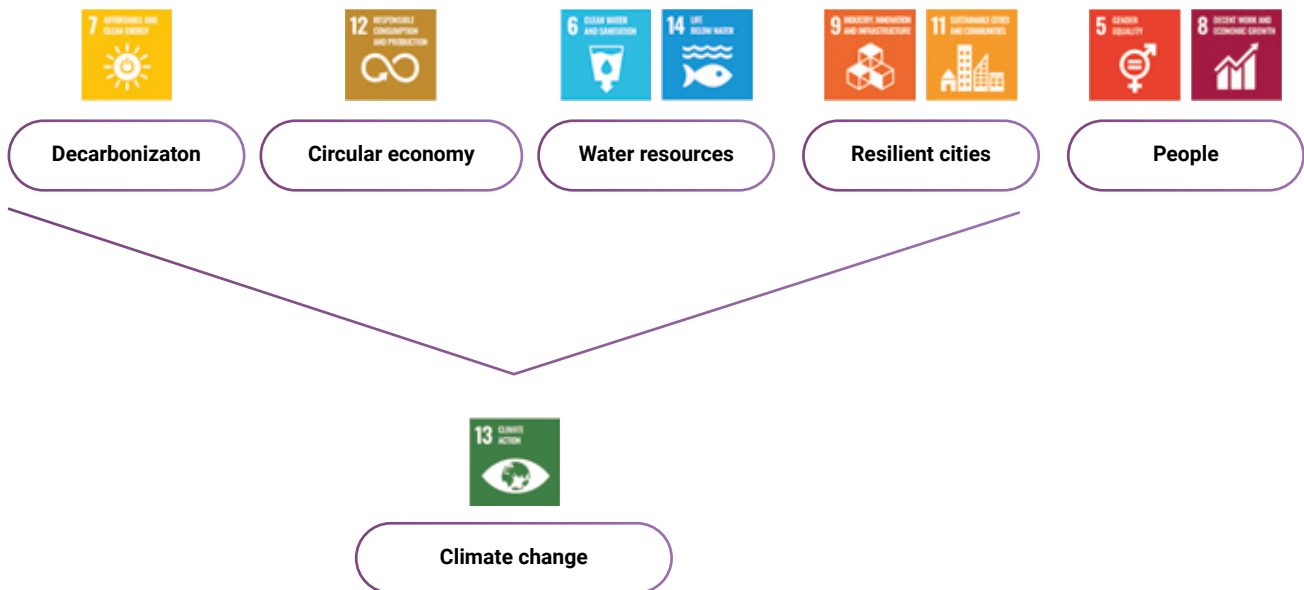
## Strategic Plan

[GRI 2-22, 3-3]

The growth strategy, which the Group started updating at the end of 2022 and which was approved by the Board of Directors on 23 March 2023, is consistent with the Group’s mission and vision and with the sector **main macro-trends** previously described.












The Strategic Plan to 2030, which represents the medium and long-term path, is based on **three pillars**: the **green transition** with a progressive decarbonization of all activities and the strengthening of leadership in the circular economy and the sustainable use of resources; **local presence** with an extension of the perimeter in the legacy regions and the evolution as a reference partner for the communities by expanding the portfolio of services offered; **quality** through the improvement of performance and the maximisation of customer/citizen satisfaction levels.








The **industrial strategy is strongly integrated with the sustainability strategy** that defines precise medium and long-term targets and is divided into the following **5 focus areas**.



The year 2022 confirmed the **resilience of Iren Group’s business model**, even in the face of the global crisis scenario, which will be further strengthened by the investments planned to support the various businesses and, in particular, by the significant share of investments allocated to the achievement of sustainability objectives.

The integration of sustainability in the Strategic Plan and in the drivers of capital allocation, with a **time horizon up to 2030**, helps define the role that Iren Group intends to play for a development consistent with European policies and the challenges emerging from the context. The objectives and targets of Iren Group’s medium- and long-term Business Plan are summarised below.

AREAS OF DEVELOPMENT	Target		SDGs
	2026	2030	
<b>VALUE</b>			
<b>Cumulative Investments from 2023</b>	€ 4.9 billion	€ 10.5 billion	
<b>Portion of sustainable investments</b>		80%	
<b>EBITDA</b>	€ 1,450 million	€ 1,870 million	
<b>NFP/Ebitda ratio</b>	3.2x	2.7x	
<b>Net profit</b>	€ 330 million	€ 460 million	
<b>GREEN TRANSITION</b>			
<b>Decarbonization</b>			
Installed power from renewable sources	1.3 GW	3.4 GW	
Power generation carbon intensity (scope 1)	298 gCO <sub>2</sub> /kWh	176 gCO <sub>2</sub> /kWh	
Renewable electricity purchased (scope 2)	95%	100%	 
Reduction of scope 3 emissions (compared to 2020) deriving from:		25%	
• use of products sold (gas)		-13%	
• fuel and energy related activities			
Energy saving in production processes	1,100 TOE/000	1,740 TOE/000	
Emissions avoided from waste recovery	1,740 tCO <sub>2eq</sub> /000	2,290 tCO <sub>2eq</sub> /000	
<b>Circular economy</b>			
Sorted waste collection in legacy regions	74.6%	76.2%	
Waste recovered in Group plants	1,670 t/000	2,310 t/000	 
Biomethane from biodegradable waste	34 million m <sup>3</sup>	44 million m <sup>3</sup>	
Reuse of wastewater	10 million m <sup>3</sup>	20 million m <sup>3</sup>	
<b>Water resources</b>			
Wastewater treatment capacity	3,850 A.E./000	3,970 A.E./000	 
Water withdrawals from the environment	265 l/inhabitant/day	261 l/inhabitant/day	
Water network leaks	26.5%	20.0%	
District subdivision of water distribution networks	77%	90%	
<b>Resilient cities</b>			
Volumes served by urban district heating	105 million m <sup>3</sup>	116 million m <sup>3</sup>	 
Eco-vehicles out of total	32%	67%	
Green electricity sold to retail customers	2,500 GWh	3,500 GWh	
Energy saving from Group products/services	500 TOE/000	700 TOE/000	

AREAS OF DEVELOPMENT	Target		SDGs
	2026	2030	
<b>LOCAL PRESENCE</b>			
<b>Portion of investments in the territory out of total</b>		<b>95%</b>	
<b>Expansion of local presence</b>			
Inhabitants served district heating	<b>0.65 million</b>	<b>0.7 million</b>	 
Inhabitants served waste collection	<b>5.0 million</b>	<b>5.5 million</b>	
Inhabitants served integrated water service	<b>4.3 million</b>	<b>4.8 million</b>	
<b>E-mobility</b>			
Public/semipublic electric charging columns		<b>4.000</b>	
Electric charging wallboxes installed for private individuals	<b>14,000</b>	<b>60,000</b>	
Electric public transport lines		<b>14</b>	
<b>Energy efficiency and urban requalification</b>			
Energy communities - installed power	<b>150 MW</b>	<b>400 MW</b>	
<b>SERVICE QUALITY</b>			
<b>2G electric smart meters installed</b>		<b>100%</b>	
<b>Gas smart meters installed</b>		<b>100%</b>	 
<b>Insourcing of customer operations key activities</b>		<b>75%</b>	
<b>Network of counters/shops (compared to 2020)</b>		<b>+80%</b>	
<b>Penetration on sale of Iren Plus service platform</b>		<b>39%</b>	
<b>PEOPLE</b>			
<b>Employment, development and skills enhancement</b>			
New hires (cumulative from 2020)	<b>+2,900</b>	<b>+4,000</b>	
Training hours per capita	<b>27</b>	<b>30</b>	
Employees evaluated on performance <sup>(1)</sup>	<b>100%</b>	<b>100%</b>	
<b>Diversity &amp; Inclusion</b>			
Women in managerial roles	<b>26.5%</b>	<b>30.0%</b>	 
Hires under 30 out of total hires <sup>(2)</sup>	<b>70%</b>	<b>75%</b>	
<b>Welfare and personal care</b>			
Injury incidence rate	<b>43</b>	<b>42</b>	
Employees with supplementary health care	<b>93%</b>	<b>95%</b>	

<sup>(1)</sup> Out of eligible population: managers, junior managers and white-collar employees in service for more than 6 months in the year.

<sup>(2)</sup> Progressive percentage on cumulative recruitment from 2020 onwards on a permanent basis and independent of contract takeovers and internalisations.

## Monitoring and reporting

Iren undertakes to manage and measure its performance, considering economic, environmental, and social aspects in defining strategic objectives and reporting of its activities. An approach aimed at the complete integration of sustainability in the strategic business choices.

To this end, the Group has structured an internal system for quarterly monitoring of sustainability performance, which enables it to make the analyses and management decisions necessary to ensure that the objectives of the strategic plan are achieved, and has integrated sustainability objectives into the Group's remuneration system

» SEE PAGE 75.

The Sustainability Report is also a tool for communicating and monitoring the adherence of operations to the strategy and, precisely with this objective, it reports the progress made towards achieving the targets set by the Group Business Plan.



# Progress toward goals

[GRI 2-22, 3-3]

The following are the results achieved in 2022 towards the achievement of the objectives set out in Iren Group's Business Plan.


Areas of development	2022 Results	2030 Objectives
<b>VALUE</b>		
	1.5 billion Euro of gross investments <sup>(1)</sup>	10.5 billion Euro of cumulative gross investments from 2023 <sup>(1)</sup>
	75% sustainable investments in the year	80% sustainable investments over the plan
	Ebitda at 1,055 million Euro	Ebitda at 1,870 million Euro
	NFP/Ebitda ratio 3.2x	NFP/Ebitda ratio 2.7x
	226 million Euro net profit	460 million Euro net profit
<b>GREEN TRANSITION</b>		
	~0.8 GW of installed power from renewable sources	3.4 GW of installed power from renewable sources
	339 gCO <sub>2</sub> /kWh carbon intensity of energy production (scope 1)	176 gCO <sub>2</sub> /kWh carbon intensity of energy production (scope 1)
	52% renewable electricity purchased (scope 2 emissions)	100% renewable electricity purchased (scope 2 emissions)
<b>Decarbonization</b>	-9% scope 3 emissions from use of products sold (gas)	-25% scope 3 emissions from use of products sold (gas)
	-16% scope 3 emissions from fuel and energy related activities	-13% scope 3 emissions from fuel and energy related activities
	700,000 TOE saved from production processes	1,740,000 TOE saved from production processes
	1,390,000 tCO <sub>2eq</sub> avoided through waste recovery	2,290,000 tCO <sub>2eq</sub> avoided through waste recovery
	70% sorted waste collection in legacy regions	76.2% sorted waste collection in legacy regions
<b>Circular economy</b>	836,000 t waste sent for material recovery in Group facilities	2,310,000 t waste sent for material recovery in Group facilities
	6 million m <sup>3</sup> of biomethane produced from biodegradable waste	44 million m <sup>3</sup> of biomethane produced from biodegradable waste
	7 million m <sup>3</sup> of treated wastewater reused	20 million m <sup>3</sup> of treated wastewater reused
	268 litres/inhabitant/day of water withdrawal from the environment	261 litres/inhabitant/day of water withdrawal from the environment
<b>Water resources</b>	31.2% water distribution network leaks	20% water distribution network leaks
	64.3% of water networks divided into districts	90% of water networks divided into districts
	3,536,000 inhabitants equivalent of wastewater treatment capacity	3,970,000 inhabitants equivalent of wastewater treatment capacity

<sup>(1)</sup> Including work for customers carried out by Iren Smart Solutions

Areas of development	2022 Results	2030 Objectives
<b>VALUE</b>		
<b>Resilient cities</b>	101 million m <sup>3</sup> of district heating volumes	116 million m <sup>3</sup> of district heating volumes
	18% eco-vehicles on total fleet	67% eco-vehicles on total fleet
	1,652 GWh of green electricity sold to retail customers	3,500 GWh of green electricity sold to retail customers
	324,000 TOE saved by Group products/ services to customers	700,000 TOE saved by Group products/ services to customers
<b>LOCAL PRESENCE</b>		
	95% investments in legacy regions	95% investments in legacy regions
	0.6 million inhabitants served by district heating	0.7 million inhabitants served by district heating
	3.8 million inhabitants served by waste collection	5.5 million inhabitants served by waste collection
	2.9 million inhabitants served in the integrated water service	4.8 million inhabitants served in the integrated water service
	70 public/semipublic electric charging stations	4,000 public/semipublic electric charging stations
	225 electric charging wallboxes installed for private individuals	60,000 electric charging wallboxes installed for private individuals
	1.2 MW power being installed in energy communities	400 MW of installed power in energy communities
	<b>SERVICE QUALITY</b>	
	17% 2G electric smart meters installed	100% 2G electric smart meters installed
	89% gas smart meters installed	100% gas smart meters installed
	54.8% insourcing of customer operations key activities	75% insourcing of customer operations key activities
	+17% network of counters/shops compared to 2020	+80% network of counters/shops compared to 2020
	32% penetration on sale of Iren Plus service platform	39% penetration on sale of Iren Plus service platform
<b>PEOPLE</b>		
<b>Employment, development and skills enhancement</b>	+2,177 hires compared to 2020	+4,000 hires compared to 2020
	27 training hours per capita	30 training hours per capita
	92% of people evaluated on performance	100% of people evaluated on performance
<b>Diversity &amp; Inclusion</b>	23.4% women in managerial roles	30% women in managerial roles
	60% hired under 30 <sup>(1)</sup>	75% hired under 30 <sup>(1)</sup>
<b>Welfare and personal care</b>	47.4 value of the injury incidence rate	42 value of the injury incidence rate
	78% employees with supplementary health care	95% employees with supplementary health care

<sup>(1)</sup> Progressive percentage on cumulative recruitment from 2020 onwards on a permanent basis and independent of contract takeovers and internalisations.



A scenic view of a river with a waterfall, surrounded by lush green trees and mossy rocks. The waterfall is in the middle ground, with water cascading over a low wall. The foreground is filled with large, moss-covered rocks. The background is a dense forest of green trees under a clear blue sky. The overall scene is peaceful and natural.

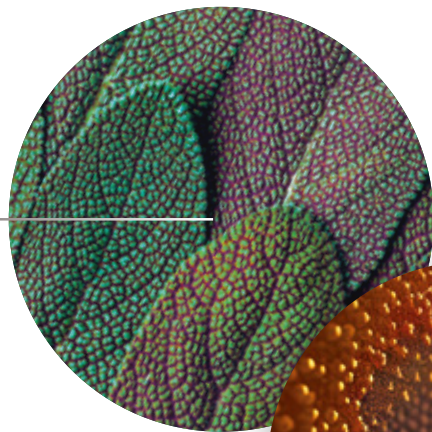
# Stakeholders and value creation

# 44

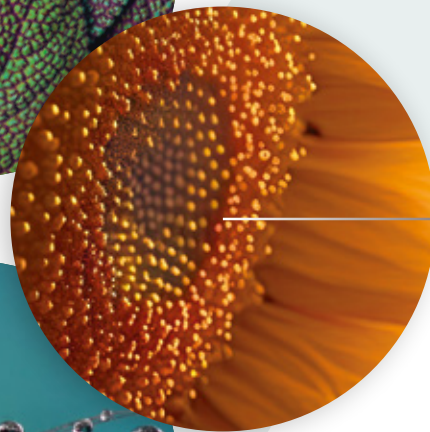


## IN THIS CHAPTER WE TALK ABOUT

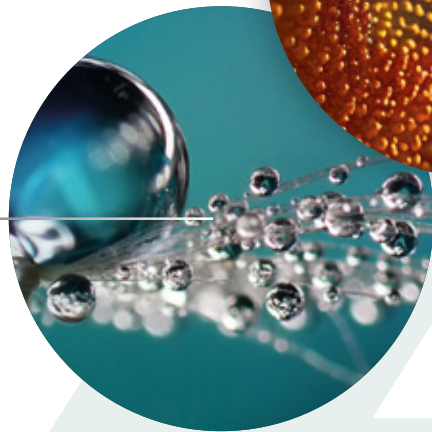
stakeholder

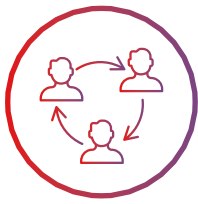


distributed value



sustainable finance





# Stakeholder engagement

[GRI 2-12, 2-14, 2-16, 2-23, 2-25, 2-27, 2-28, 2-29, 415-1]

Stakeholder engagement is crucial both for managing activities and for outlining the Group’s sustainable development strategies. Communication, together with the ability to listen and participation are the fundamental tools of the relationship between the Group and its stakeholders.

## Effective and transparent dialogue and communication with stakeholders



### Risks

- Ineffective communication of strategies, policies and performance to stakeholders
- Disruption of relations/disputes with Public Authorities with subsequent negative reputational impact
- Compromising relations with Shareholders and Investors
- Ineffective communication towards employees
- Errors/omissions in the contents of product/service communication campaigns
- Violation of the Code of Ethics conduct criteria



### Opportunities

- Brand promotion
- Changing consumption behaviour of customers and communities
- Improving the internal climate



### Management methods

- Structured communication plans on strategies, objectives, plants and services
- Code of Ethics
- Organisational model 231 and information flows to the Supervisory Bodies
- Policy for Managing Dialogue with Shareholders and Investors in General
- Local Committees
- Organisational and managerial oversight
- Procedures: Management of Media Relations; Whistleblowing; Internal management and external communication of relevant information and/or privileged information; Internal communication; Management of information relating to transparency obligations

Iren Group considers sustainability as a fundamental lever for the creation of value over time and is constantly committed to conducting its activities considering the interests of its stakeholders, in the awareness that dialogue and the sharing of objectives are tools through which to create mutual value.

The Group is thus oriented to creating, strengthening and expanding its relationships with its stakeholders to guarantee them ample space for discussion and dialogue. Involvement is based on the criteria of inclusion, transparency, fairness, attention to ethical, environmental and social aspects. Dialogue is based on the principles of inclusiveness, materiality and compliance laid down in the AccountAbility AA1000 standard in order to address and responsibly respond to issues and impacts.

The long-term objective of sustainable success, referred to in the Corporate Governance Code of listed companies, to which Iren has adhered, is based on the relationship that the company establishes with its stakeholders as a broad category.

With this in mind, Iren Group ensures the widest and most timely circulation of significant information to its shareholders, institutional investors, intermediaries operating on the financial market and all stakeholders, in order to guarantee broad knowledge and transparency.

For the purposes of transparency and information, every year the Sustainability Report is presented to stakeholders and published on the Group's website. Moreover, Iren manages internal and external communication activities to explore the commitment put in place to ensure environmental, social and economic sustainability in planning and management.

Considering the impact of the Group's activities on the quality of life of residents and the local region, the main stakeholder categories are represented by the Local Committees, created as a tool designed to promote dialogue, debate and participatory planning between Iren Group and its stakeholders.



 <h3>Customers</h3> <p>are bearers of needs to be answered effectively and reliably with affordable innovative, customised and vulnerable-oriented sustainable solution and services</p> <p><b>See chapter "Service quality"</b></p>	 <h3>Suppliers</h3> <p>are partners with whom to collaborate in the growth strategy for ecological transition, local presence and service quality, and with whom to share ideas and innovations for continuous improvement</p> <p><b>See chapter "Our Suppliers"</b></p>	 <h3>Shareholders and Financial Backers</h3> <p>support the Group's growth prospects through a constant and open relationship, based on principles of fairness and transparency, which stimulates the definition of increasingly challenging strategies to create long-term value</p> <p><b>See chapters "Relations with shareholders and investors" and "Relations with financial backers"</b></p>	 <h3>People</h3> <p>are the Group's main resource, an asset to be cultivated through the enhancement and continuous development of skills, attention to welfare activities and promoting a culture of diversity, inclusion and innovation to meet future challenges</p> <p><b>See chapter "Our People"</b></p>
 <h3>Community and territories</h3> <p>are the focus for growth and value creation with which we design initiatives to promote social and environmental sustainability as well as local infrastructural and socio-economic development</p> <p><b>See chapter "Local presence"</b></p>	 <h3>Future generations</h3> <p>will be affected positively or negatively by present actions, the responsibility towards them is to build a balanced development that integrates ecological dimensions, social solidarity and economic capacity, leaving in the hands of future decision-makers and citizens the conditions to continue to ensure the sustainability of the planet</p> <p><b>See chapter "Sustainability education"</b></p>	 <h3>Institutions</h3> <p>build the system of opportunities, rules and collaboration through which citizens, businesses, the financial world, education, research and innovation can contribute responsibly to sustainable development</p> <p><b>See chapter "Relations with Institutions"</b></p>	 <h3>Environment</h3> <p>offers the resources to sustain the needs of humanity and requires the assumption of responsibility in order to reverse the trend of a growing and unsustainable debt towards it</p> <p><b>See chapter "Green Transition"</b></p>

The process of selecting the stakeholders represented in the Iren Local Committees, as provided for in the Regulation approved by the Board of Directors, is structured through a bottom-up mechanism that stimulates the expression of interest by local stakeholders, excluding the Group's self-referentiality in the choice of relevant interests.

According to this mechanism, the task delegated to the directors of the Group consists mainly in a supervisory role over the smooth running of the proceedings, while it is up to the candidates to manifest their capacity as depositary of a relevant interest, demonstrating, according to pre-defined rules, their representative capacity in this regard.

## Iren Local Committees

The involvement of stakeholders in the activities and in the definition of the Group's sustainable development strategy also takes the form of the Local Committees, bodies set up to strengthen relations with communities and local areas, analyse and anticipate their needs, stimulate innovative initiatives in the environmental and social aspects, increase widespread knowledge of the strategies and services offered, guaranteeing a broad representation of stakeholders and directly involving the top management of Iren Group.

Iren Local Committees were set up in 2014, to strengthen and make the dialogue with stakeholders systematic, as well as to guarantee deeper roots in local communities, thanks to participatory planning actions and moments of consultation on sustainability, innovation and the quality of the services managed by the Group. Through Local Committees, stakeholders can also draw the Group's attention to issues relating to services, as well as to environmental and social sustainability. Stakeholder engagement activities generate project ideas for the improvement of environmental and social performance and are reported annually in the Sustainability Report. The Committees are also a tool to collect, through the participatory planning platform irencollabora.it, the ideas and proposals of residents to design new sustainable development solutions, enhancing the experience, knowledge and skills of local communities to create shared value and generate growth for the Group and for the areas in which it operates, with the aim of implementing concrete and tangible projects » SEE PAGE 215

The information flow produced by the platform is also a source that inspires Iren to adopt innovative service strategies and anticipate the needs of the local areas.

The Committees are made up of 15-18 members, the representatives of local stakeholders, who offer voluntary and free participation. In addition to these, there are five members by right: a representative of the municipal capital, a representative of the provincial municipalities, a representative of the Local University, the Iren Deputy Chairperson and the Chairperson, as a permanent guest.

Through specific internal working groups, each Committee oversees the activities for the best implementation of the projects, proposed by the Committees themselves or by citizens via irencollabora.it. In 2022, 66 meetings of Committees and working groups were held, mostly remotely, and in December 2022, the platform irencollabora.it counted 2,190 registered profiles and 129 proposed projects.

In order to increase the opportunities for stakeholder engagement and to stimulate ideas and projects from the target communities, a restyling process of the irencollabora.it platform was initiated in 2022. By enhancing the news section and using a more intuitive and engaging interface (inserting graphic, video and web content), it increased its attractiveness.

Stakeholder engagement activities through the Local Committees are delegated to the Deputy Chairperson who, for their management, makes use of the Corporate Social Responsibility and Local Committees Department, reporting directly to the Deputy Chairperson, and which periodically reports to the Control, Risks and Sustainability Committee and to the Board of Directors on the progress of activities and on the comparison and planning actions carried out within the Committees themselves.

## Material topics: Stakeholder Engagement

Iren has consolidated a process involving stakeholders present in the Local Committees in the materiality analysis » [SEE PAGE 97](#) to share and assess the priority topics for the Group’s strategic development and report its performance.



**Stakeholders are part of the materiality analysis process for strategic and reporting purposes**

The process compares the Group’s vision with that of the various categories of stakeholders to take on board their contribution in defining the strategy and developing reporting that is increasingly relevant and focused on their real interests, providing a clear framework of policies, actions and results achieved.

The materiality analysis, conducted annually, makes it possible to detect the expectations of stakeholders and to understand the evolution of material issues over time. In 2022, the priorities assigned to the issues by stakeholders were identified thanks to 5 face-to-face meetings and an online questionnaire administered to all 95 members of Iren’s Local Committees, as well as to 8 investors and financial backers.

The main high-priority topics highlighted by the different stakeholder categories are listed below, together with the engagement initiatives on these topics managed in 2022.

Stakeholders	Priority topics	Engagement initiatives
<p><b>Shareholders and Financial Backers</b></p>	<ul style="list-style-type: none"> <li>• Growth and value creation for the company and stakeholders</li> <li>• Solid, ethical and transparent governance for sustainable growth</li> <li>• Effective and transparent dialogue and communication with stakeholders</li> <li>• Decarbonization and reduction of emissions</li> <li>• Sustainable use of water resources</li> <li>• Energy production and saving to reduce environmental and economic impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation of the Business Plan to 2030</li> <li>• Roadshows and webcasting</li> <li>• Communication of results and possible future risks</li> <li>• Sustainable Finance Framework</li> <li>• ESG Rating</li> <li>• Shareholders’ Meeting</li> <li>• Materiality analysis</li> <li>• Local Committees</li> <li>• Participations in round tables and events</li> </ul>
<p><b>Customers</b> (retail and business customers, public administrations and consumer associations, energy communities)</p>	<ul style="list-style-type: none"> <li>• Efficient, reliable and safe management of processes and infrastructure</li> <li>• Responsibility and quality in service delivery and customer orientation</li> <li>• Sustainable development of the local areas and communities</li> <li>• Sustainable use of water resources</li> <li>• Energy production and saving to reduce environmental and economic impacts</li> <li>• Circular waste management</li> </ul>	<ul style="list-style-type: none"> <li>• Contact channels with customers</li> <li>• Transparent bills and guides to reading bills</li> <li>• Customer satisfaction surveys</li> <li>• Strengthening innovative and energy efficiency services</li> <li>• Meetings and framework agreements with Associations</li> <li>• Initiatives to support customers in the face of rising energy prices (agreements with consumer associations, instalment plans, agreement with SACE for SMEs, district heating bonus, monthly billing for protected customers, communication campaigns to contain consumption)</li> <li>• Credit management protocols</li> <li>• Social tariffs</li> <li>• Joint conciliation protocols</li> <li>• Initiatives for the dissemination of Energy Communities</li> <li>• Replacement of electricity meters with 2G smart meter devices</li> <li>• Materiality analysis</li> <li>• Local Committees</li> </ul>

## Stakeholders

## Priority topics

## Engagement initiatives

## Environment

- Efficient, reliable and safe management of processes and infrastructure
  - Energy production and saving to reduce environmental and economic impacts
  - Sustainable use of water resources
  - Circular waste management
  - Protection of biodiversity
  - Sustainable development of the local areas and communities
- Development of renewable sources
  - Projects/services for energy saving, energy efficiency and sustainable mobility (IrenGo, Iren Plus, Iren Smart Solutions, Energy Communities)
  - Systems to increase sorted waste collection
  - Obtaining energy from waste
  - Participation in environmental clean-up initiatives and hazardous waste collection activities in collaboration with local entities and organisations
  - Reduction of water and gas network leaks
  - Sustainability education projects
  - Biodiversity awareness initiatives
  - Internal research activities and participation in European and national research projects
  - Materiality analysis
  - Local Committees

## Personnel

(employees, collaborators and Trade Unions)

- Occupational health and safety
  - Protection of human rights
  - Industrial relations
  - Sustainable management of the supply chain
  - Decarbonization and reduction of emissions
  - Sustainable use of water resources
- Meeting with management to discuss the Business Plan
  - Protocol on labour relations
  - Awareness-raising on the reporting of 'near misses' also along the supply chain
  - Employee health and wellness initiatives ("Al cuore della salute", "Gympass", "Telemedicina")
  - Corporate Welfare programme
  - Skills assessment, training and development initiatives
  - Performance Management
  - Enhancement of internal professionalism through storytelling
  - "Iren4Digital" project for digital skills development
  - Work Life Balance
  - Initiatives to spread the culture of diversity inclusion
  - On-boarding programme for new hires
  - "Melagioco" Leadership Development Programme
  - Incentivised termination of employment
  - Constant information through internal channels
  - Events for employees and their families
  - Listening activities through surveys
  - Materiality analysis
  - Local Committees

## Suppliers

(individuals, supplier categories and trade associations)

- Growth and value creation for the company and stakeholders
  - Sustainable management of the supply chain
  - Efficient, reliable and safe management of processes and infrastructure
  - Energy production and saving to reduce environmental and economic impacts
  - Sustainable use of water resources
  - Sustainable development of the local areas and communities
- Presentation of the Business Plan to 2030
  - Procurement portal and Supplier Register
  - Training/information for third-party companies
  - Corporate social responsibility survey for suppliers with insights into environmental, social and ethical aspects management
  - Code of Ethics
  - Materiality analysis
  - Local Committees

Stakeholders	Priority topics	Engagement initiatives
--------------	-----------------	------------------------

**Communities**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Sustainable topics development of the local areas and communities</li> <li>• Energy production and saving to reduce environmental and economic impacts</li> <li>• Sustainable use of water resources</li> <li>• Decarbonization and reduction of emissions</li> <li>• Circular waste management</li> </ul> | <ul style="list-style-type: none"> <li>• 335 community projects</li> <li>• Services for savings, energy efficiency and sustainability</li> <li>• Sustainability education projects</li> <li>• Presentation of development projects for waste material recovery plants</li> <li>• Presentation of initiatives for the development of renewable energy sources</li> <li>• Conferences, seminars and workshops</li> <li>• Subsidy plans for communities affected by emergencies</li> <li>• Plant visits (virtual tours)</li> <li>• Local Committees and "irencollabora.it" platform</li> <li>• Materiality analysis</li> </ul> |
|---|---|

**Institutions**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Sustainable use of water resources</li> <li>• Energy production and saving to reduce environmental and economic impacts</li> <li>• Effective and transparent dialogue and communication with stakeholders</li> <li>• Decarbonization and reduction of emissions</li> <li>• Circular waste management</li> <li>• Responsibility and quality in service delivery and customer orientation</li> </ul> | <ul style="list-style-type: none"> <li>• Participation in meetings with Institutions (consultations, working groups) also through the notification of opinions and documents</li> <li>• Services for savings, energy efficiency and sustainability</li> <li>• Collaboration in institutional environmental projects</li> <li>• Surveys and questionnaires</li> <li>• Conferences, seminars and workshops</li> <li>• Participation in European and national research projects</li> <li>• Local Committees</li> <li>• Materiality analysis</li> </ul> |
|---|---|

**Future Generations**

(school/university, research centres, incubators)

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Sustainable development of the local areas and communities</li> <li>• Growth and value creation for the company and stakeholders</li> <li>• Decarbonization and reduction of emissions</li> <li>• Energy production and saving to reduce environmental and economic impacts</li> <li>• Sustainable use of water resources</li> <li>• Circular waste management</li> </ul> | <ul style="list-style-type: none"> <li>• Sustainability education programmes in schools and universities</li> <li>• Framework agreements with Universities and research centres</li> <li>• Partnerships, projects and investments in research and innovation</li> <li>• Iren Up</li> <li>• Training and recruitment agreements with Universities and Business Schools</li> <li>• Iren Renewables Contest @PoliTO</li> <li>• Apprenticeship and recruitment paths with Technical Institutes</li> <li>• Participation in cultural and scientific events</li> <li>• Guided tours (virtual tours)</li> <li>• Materiality analysis</li> <li>• Local Committees</li> </ul> |
|--|--|





Twelve challenges to support sustainable development in the near future. Twelve topics, in line with the 2030 Agenda, from which to identify the most urgent and strategic ones for companies, institutions and the world of research. This is the objective of the **Iren ESG Challenge**, the international event, launched in its first edition in 2022, to involve the Group's stakeholders together with top management and national and international experts from the world of business, finance and university and scientific research.

The twelve challenges, identified with the support of EticaNews, are a manifesto that reiterates how **fundamental it is to act together and concretely on the environment and climate, on local communities and areas, creating a new shared culture based on innovation**. These are the twelve challenges proposed by Iren:

**CLIMATE IN ACTION** (effectively tackling the grounding of global commitments on emissions reduction by identifying levers to engage private players in the economic and financial system);

**CIRCULAR RESOURCES** (accelerating the development of industrial symbiosis and a culture of product responsibility in the circular economy);

**ASSETS IN NATURE** (building a system that enhances the value of natural capital, recognising its intrinsic potential, in order to further stimulate investors and businesses);

**JUST TRANSITION** (cancelling the fear of backtracking and acting in the expectation of an accelerated transitio);

**SHARED VALUE** (companies are called upon to generate shared value);

**PEOPLE & RESPECT** (lifting the veil on hidden problems in the supply chain);

**SMEs IN STEP** (enabling the SMEs in the supply chain, the least equipped to follow sustainability updates, to understand, even before "executing" ESG requirements from the client);

**STAKEHOLDER ENGAGEMENT** (making stakeholders a necessary counterpart for measuring materiality and impact);

**INCLUSION AND TALENTS** (defining a strategy to engage, create a shared culture, one that includes and values youth and talent in their diversity);

**MEASURING** (learning how to measure data in the field, understanding the need for comparison with the market and competitors, adopting KPI and scoring models that support their materiality);

**SUSTAINABLE FINANCE** (fostering a new relationship between financial institutes and companies, to make them allies in the ESG upgrade, starting with relations with their supply chain);

**DIGITALESG** (promoting new collection systems, but also new frontiers of certification - blockchain - of the information pathway).

The event is also the final stage of Iren's ESG Challenge Award, which selects the 10 best theses on the topic of sustainability and environmental, social and governance challenges, written by undergraduate, graduate or PhD students. More than 240 theses were examined, demonstrating the relevance of the initiative in fostering collaboration between the worlds of education and research and the business community.

## Relations with shareholders and investors

The objective of sustainable success, introduced by the Code of Corporate Governance for listed companies to which Iren adheres, is also based on a solid and transparent relationship with shareholders and investors.

**For this reason, Iren Group is constantly committed to creating, strengthening and expanding adequate spaces for listening and dialogue with shareholders and investors, oriented towards transparency, fairness, ethical, environmental and social issues, and consistency with its core business.**

The Policy for Managing Dialogue with Shareholders and Investors in General (published on the Group's website), approved by the Board of Directors, which regulates the extra-assembly dialogue between the Board of Directors and the representatives of shareholders and investors on issues within the Board's competence and defines the principles, rules and methods for conducting this dialogue, identifying the recipients, the interlocutors, the topics of discussion, the timing and channels of interaction. The Policy is based on the principles of transparency, correctness, punctuality and timeliness of information, equal treatment of shareholders, effectiveness, compliance with regulations - including those on market abuse -, internal governance rules and procedures, always ensuring cooperation and transparency to supervisory authorities, regulators and competent administrations.

The Investor Relations function is responsible for managing relations with shareholders and the financial market, and among other things discloses important information related to the Group. The Director of Administration, Finance and Control, who is in charge, among other things, of the Investor Relations function, is identified as the point of contact for the purposes of the Policy for Managing Dialogue with Shareholders and Investors in General. Moreover, pursuant to the Consolidated Law on Finance, shareholders can ask questions on the items on the agenda of the Shareholders' Meeting, even before the meeting itself.

During 2022, no requests for activation of engagement were received and, also thanks to the structured and transparent attention and activity towards them, no cases of fines and penalties for non-compliance with

laws and regulations were reported to shareholders. Iren Group carries out an intense activity aimed at reinforcing the relationship of trust with its shareholders and at increasing the attention and knowledge of Italian and foreign analysts and investors.

The market's interest in the Group is confirmed by the intensification of relations and opportunities for contact with analysts, also following the positive performances (industrial, economic/financial and relating to sustainability issues) recorded and supported by the Business Plan to 2030.

In 2022, seven brokers covering the bond were confirmed with periodic reports: Banca Akros, Equita, Exane (sponsored research), Intermonte, Intesa Sanpaolo, Kepler Cheuvreux, Mediobanca. The increasing interest shown by investors towards the Group has required greater communication. The roadshow and conferences, organised from time to time by a different broker, were the main tools for making the Group known to Italian and foreign institutional investors.

**In 2022, 18 events (in-person and virtual) were held between roadshows and conferences in the world's major financial centres. More than 130 investment funds met during the year, with a total of 170 fund managers or analysts.**

The direct day-to-day contact with managers of institutional funds and financial analysts that oversee the bond is of particular significance.

The Group has also maintained a constant communication with the market using different channels, including quarterly conference calls for the presentation of the results for the period. Investors are paying increasing attention to environmental, social and governance (ESG) issues both through direct contact with the Group and through ratings issued by specialist rating agencies. Contacts with investors interested in ESG issues intensified compared to previous years, also in relation to the commitments made in the Sustainable Financing Framework, and the Group plans to continue engagement activities by increasing contacts with both institutional and ESG investors. Iren has established a transparent and timely dialogue with ESG investors, taking part in roadshows and conferences on these topics, actively contributing to analyses and surveys

of ESG rating companies, periodically reviewing the investors section of the website to make information more accessible and developing, every year, its own specific analyses aimed at identifying possible areas of improvement. In particular, in 2022 with the new Group website, the investor section has been developed and expanded to make the search for information more immediate, always up-to-date and complete.

## IREN SHARE PERFORMANCE

In 2022, the world's major stock market indices showed a downward trend, mainly due to four factors: rising energy prices, the war crisis, inflation, and the European Central Bank's increase in interest rates. Factors that negatively affected the growth estimates of the world economy, creating the preconditions for a possible period of recession.

Over the course of the year, the FTSE Italia All-Share (the main index of the Italian Stock Exchange) was affected by these factors, falling 14%, while multi-utilities performed worse than the FTSE index, given the impact of the high volatility of the energy scenario and the regulatory uncertainty related to the measures introduced by the Italian Government to contain energy prices in favour of end consumers. Iren Group was also impacted by the higher cost of debt, due to higher interest rates, to finance major investments. At 31 December 2022 (last trading day), the price of Iren stock stood at 1.468 Euro per share, down 44.7% compared to the price at the beginning of the year, with average volumes traded during the period amounting to approximately 1.6 million units per day. The average price was 2.00 Euro per share, which reached the highest level of the year (2.712 Euro per share) on 04 January 2022 and its minimum level (1.284 Euro per share) on 12 October 2022.

## Relations with financial backers

The Group has relations with leading Italian and international Credit Institutions and has access to the capital market in order to research the most suitable forms of financing for its needs and the best market conditions, implementing a management model focused on the resources and financial risk management with the objective of financial optimisation for all of the companies of the Group.

The sustainability of the financial profile has always been a strategic element for the Group, which, also in 2022, maintained its 'Investment Grade' rating following the annual review by Fitch and S&P, thus confirming its solid positioning. On 21 November 2022, Fitch confirmed the 'BBB' rating, with a 'stable' outlook; the same rating is also assigned to the senior unsecured debt. The quality of creditworthiness is based on the Group's vertical integration and balanced business model, which ensure resilience and stability despite the highly volatile energy scenario in 2022. Added to this is the ability to secure a solid liquidity reserve to cope with uncertain market conditions. Similarly, on 12 December 2022, the rating agency Standard & Poor's Global Ratings reaffirmed its positive rating on the Group, confirming its rating

for both long-term creditworthiness at 'BBB-' with a 'positive' outlook and for senior unsecured debt. Among the elements assessed positively are, in particular, the progress made with respect to the Business Plan to 2030, the solid economic-financial metrics and a diversified business model, which represent adequate tools to cope with macroeconomic, regulatory and contextual uncertainties. In addition, the rating also takes into account the state of good liquidity, established credibility on the capital market and excellent relations with banking counterparties, thanks also to an increasing use of sustainable finance instruments. For both agencies, sustainability issues have a neutral or insignificant impact from a credit point of view, both due to the nature of the business and the way sustainability is handled in the Group's strategies. For 2023, the Group's objective is to continue optimising the debt portfolio, including with liability management activities aimed at achieving targets in terms of cost and average life of debt and early maturity management, as well as maintaining the Investment Grade rating for both rating agencies. The Group's EMTN (Euro Medium Term Notes) programme allows it to raise medium-term savings

through the issuance of notes, or securities, placed with institutional investors. The adoption of the programme, since 2015, is part of the financial strategy aimed at ensuring flexibility and optimisation of the debt structure, as well as enabling the timely exploitation of favourable windows in the bond market. The programme, which currently has a ceiling of 4 billion Euro, was renewed in March 2022 to coincide with the adoption of the new Sustainable Financing Framework and with alignment with it for any sustainable bond issues. Iren currently has outstanding bonds for a total amount of 3.05 billion Euro, of which green for over 2 billion Euro, all issued under the EMTN programme and with ratings matching the medium- and long-term rating

assigned by the rating agencies Fitch and S&P Global Ratings. There were no instances of fines or penalties for failure to comply with the regulations and laws for financial backers.



The main rating agencies have confirmed the positive rating of the Group

## Relations with institutions

As indicated in its Code of Ethics, the Group actively and fully cooperates with the Public Authorities, pursuing the objectives indicated by the relevant Public Institutions and effectively cooperates with the authorities/institutions responsible for regulating and supervising local public services. These are actions that the Group pursues, combining them with its mission and with the need for managerial and organisational autonomy shared by all economic operators. The control of relations with institutional subjects is defined by an organisational model that assigns competences and responsibilities to the reference company structures. The Public Affairs Department oversees top-level relations at an institutional level,

especially with international, national and local entities, in order to represent the Group's needs and proposals, in agreement with the relevant Departments and Business Units. The Regulatory Affairs Department manages relations with the Regulatory Authorities and the Associations to which the Group belongs, in close coordination with the Business Units. The Corporate Affairs Department handles communications with the market supervisory authorities (Stock Exchange and CONSOB). The Business Units supervise, with the support of the parent company, the technical and specialised aspects of the services, also interacting with administrative, regulatory and control bodies.

## RELATIONS WITH LOCAL SECTOR AUTHORITIES

Relations with ARERA (Energy, Networks and Environment Regulatory Authority) in 2022 mainly concerned participation, on an individual and/or associative basis, in consultation processes and compliance with communication, information and reporting obligations.

As regards the electricity networks, the multi-year plan for the replacement of electricity meters was defined, launched in November 2021 in the municipalities of Parma and Turin. The plan, which envisages the commissioning of more than 700,000 new 2G smart meters, has been shared and approved by ARERA; the start of the massive replacement plan is also expected for the municipality of Vercelli in 2023.

With reference to the integrated water service and the waste service, the constant dialogue with the Local Sector Authorities and the ETCs (Territorial Competent Authorities) mainly concerned:

- the fulfilments required by the regulations in force, in particular the sending and sharing of data on the qualitative and quantitative levels of the service provided, the costs incurred and the revenues earned as well as the investments made;
- the preparation of the plan of actions necessary to achieve the objectives of environmental sustainability and improvement of the quality offered to users;

- the definition of the tariff update in compliance with the regulatory criteria in force;
- the signing of contracts with ETCs for the concession of the service following awarding of contracts (in particular, for the collection service for the Parma and Piacenza areas).

## CONTRIBUTIONS TO POLITICAL INSTITUTIONS AND PARTIES

The Group's Code of Ethics explicitly states, in paragraph 7.5, that: "*Iren does not make contributions, either directly or indirectly and in any form, to parties, movements, committees and political and trade union organisations, or to their representatives and candidates, except for those due under specific regulations*".

The Group collaborates with Institutions, also financially, for specific projects that are attributable to its mission and, in particular, for projects that contribute to the economic, social and environmental sustainability of the areas of reference. These collaborations, moreover, are always implemented on the basis of clear documentation for the use of resources.

## Associations and networks of which the Group is a member

---

Iren Group has chosen the path of associative participation, which aims to put experience and knowledge at the service of companies and organisations that share a common path of sustainability and responsibility.

Participation in networks and associations is focused on continuous updating, on the dissemination of publications, studies and research, on information and comparison meetings, on the involvement of institutions and social forces to promote strategic issues, stimulating targeted and incisive intervention proposals and policies.

The monitoring, analysis and comparison of emerging trends and regulatory issues are of great importance for the most correct and up-to-date understanding of the reference framework in which the Group operates.

In particular, membership of associations and networks at national level, in line with objective 17 of the United Nations Agenda 2030 "to promote partnerships for sustainable development", is of great importance to the Group, both in terms of attention to sustainability policies and in terms of regulatory and technological updates.



Association/Network	Description
UN - Global Compact	United Nations Global Compact, born from the desire to promote a sustainable global economy: respectful of human and labour rights, environmental protection and the fight against corruption. It is a voluntary initiative of adherence to a set of principles that promote the values of sustainability in the long-term and a commitment, signed with the United Nations by the top managers of the participating companies, to contribute to a new phase of globalisation characterised by sustainability, international cooperation and partnership in a multi-stakeholder perspective.
Global Compact Network Italia Foundation	It was created with the primary purpose of contributing to the development of the United Nations Global Compact in Italy. Global Compact Network Italia works to promote the ten principles of the Global Compact and the United Nations Sustainable Development Goals (SDGs), deepen the themes of sustainability and related fields within the general framework proposed by the Global Compact, assist and support companies and organisations in implementing the ten principles of the Global Compact and the SDGs in their core business and in reporting on sustainability.
Utilitalia	A federation that brings together public service companies that operate in the water, environment, electricity and gas sectors, acting as their representative at European and national Institutions. It was created from the merger between Federutility (water and energy services) and Federambiente (environmental services). It offers support and refresher and training courses, as well as consultancy on contractual, legislative, operational, tax and legal aspects.
Confservizi (at a national and regional level)	A trade union that represents, promotes and protects companies and bodies that manage public utility services such as water, gas, electricity, environmental health and local transport.
Confindustria (GE, PR, PC, RE, SP, TO and VC Valsesia)	The leading organisation representing manufacturing and service companies within Italy that is tasked with contributing to the economic growth and social advancement of the country, alongside political institutions and economic, social and cultural organisations.
Assonime	An association of Italian Joint-Stock companies. It works to improve industrial, commercial, administrative and tax legislation in Italy and represents the views of the companies within Italian, European and international institutions.
Anfida	A national association of private water works companies that belong to Confindustria, which promotes solidarity and collaboration between its member companies, organises studies on topics of interest and acts as their representative with private and public authorities, organisations and administrations.
AIRU (Associazione Italiana Riscaldamento Urbano)	The Italian Urban Heating Association, which represents sector operators with the aim of promoting and disseminating plant engineering innovation and its application.
EHP EuroHeat and Power	An international association that represents the district heating and cooling sector and co-generation sector in Europe.

## Association/Network

## Description

## Elettricità Futura

The main Italian electrical association, created from the merger between AssoRinnovabili and Assoelettrica. It represents and protects both big and small companies that operate within the electricity sector in Italy and counts over 700 operators with plants all over Italy.

## Federazione Italiana per l'uso Razionale dell'Energia (FIRE)

A non-profit association active in the energy and environmental sector, in particular for: promoting good practices for energy efficiency, the use of renewable sources and sustainability; the analysis of topics linked to energy consumption and generation; participation in international projects aimed at the efficient use of energy and environmental resources; the certification of energy managers and ESCOs; training, information and study activities, and the development of new energy management tools.

## Comitato Italiano Gas (CIG)

Non-profit organisation for the study of scientific and technical problems and the publication of technical regulatory documents for the combustible gas sector. The CIG draws up draft standards, specifications and technical reports, proposing them to the UNI for publication; is appointed by the UNI to participate in works by Regulatory Authorities (CEN and ISO); collaborates with the Government, Bodies and National, European and International Associations; carries out training and information activities.

## Sustainable Development Foundation

Reference point for the main sectors and protagonists of the green economy: the economy of sustainable development. It puts experience and knowledge at the service of companies and organisations that share a common path of sustainability and responsibility. It is focused on continuous updating, the dissemination of publications, studies and research, information and discussion meetings, the involvement of institutions and social forces, networks to promote the strategic topics of the green economy.

## Fondazione Symbola

It promotes and aggregates Italian Qualities, through research and projects that enhance initiatives capable of improving the country, focusing on innovation and development, beauty and creativity, human capital and territory. Green economy, culture and social cohesion are for the Foundation's three fundamental indicators to implement a model of 'quality economy' linked to the territory and identity but with a strong vocation for creativity and innovation: the soft economy.

## Sustainability Makers

It brings together the professionals who are dedicated to the definition and implementation of strategies and sustainability projects in business and other organisations: it works to qualify and promote these professionals with the aim of increasing their competence and authority, through training and networking, studies and research, conferences, workshops and webinars. Founded in 2006 as the CSR Manager Network, it changed its name to Sustainability Makers in 2021.

## Kyoto Club

A non-profit organisation made up of companies, bodies, associations, and public administrations committed to achieving the targets for reducing greenhouse gas emissions set out in the Kyoto Protocol, the decisions taken at the EU level, and the 2015 Paris Agreement. As an interlocutor of public, national and European decision-makers and the UN Framework Agreement on Climate Change, Kyoto Club is committed to stimulating targeted and incisive proposals and policies in the energy-environmental sector.

## Association/Network

## Description

### Corporate Forum for Sustainable Finance

An international network of companies committed to supporting and developing sustainable finance as a tool to combat climate change and promote a more sustainable and responsible society.

### Valore D

First association of companies in Italy – over 320 to date, for more than two million employees and an aggregate turnover of over 500 billion Euro – has been committed to gender balance and inclusive culture in organisations and our country for ten years.

### Italian Association of Energy Wholesalers and Traders (AIGET)

Non-profit association that aims to promote initiatives in the economic, financial, technical and scientific fields that benefit the energy sector. AIGET aims to encourage competition and transparency in energy markets, to foster the development of energy trade, especially in electricity, natural gas and related services.

## MAISPEMBA: INTEGRATED URBAN DEVELOPMENT IN MOZAMBIQUE

In the area of partnerships for sustainable development, 2022 saw Iren engaged in the Maispemba project to promote the **integrated urban development of the city of Pemba** in Mozambique, through collaboration and exchange of best practices. A project financed by the European Union, led by the municipality of Reggio Emilia and coordinated by Fondazione E35, with Iren as partner.

The path traced by the project intervenes in different areas and themes: from environmental education to urban waste management, to combating climate change and creating new jobs in the environmental protection sector.

In March 2022, during the first mission to Pemba, Iren technicians provided local operators with guidance on the organisation of the waste management service and possible technical solutions to the difficulties encountered. Afterwards, a Mozambican delegation, led by the Pemba Councillor for the Environment and Waste, visited Reggio Emilia, where they were able to get to know Iren's plants and services and discuss environmental education issues with Eduiren. Afterwards, Eduiren staff reached Pemba to take stock of citizen awareness and environmental education in schools in support of the new waste management plan of Pemba, implemented with Iren's technical support.

In October 2022, the *"Lixo no chao nao (Don't litter)"* campaign started, mobilising environmental activists through murals in parts of Pemba, radio commercials, information material, awareness-raising events in schools, performances, and the planting of new trees in public spaces. The mission also saw the inauguration of the *"Kharibu"* Centre, set up by Eduiren, together with Remida, for research into sustainability and creativity from industrial waste materials.



## Media relations

---

In 2022, Iren Media Relations maintained and strengthened the tried and tested model of proactive company-press relations and timely support for Iren's values and plans for growth and development, also through a significant presence of the Group and its top management in the media, both traditional and innovative.

There were many media relations activities, including educational and in-depth reports on the various actions undertaken by the Group in the difficult energy context created in the country and in Europe. Rising commodity prices, the particular drought of the 2022 summer season and a complex legal and regulatory framework also led to the activation of specific media relations

management actions.

The management of relations with the media and the creation of content (content factory) were developed in synergy with the Investor Relations function for the numerous financial communication actions launched during the year and operated in support of the Group's institutional policies in line with the Public Affairs Department.

The measurement of activities was implemented through new just-in-time media monitoring channels and the Group's positioning was further strengthened through the involvement of top management in new national and international publishing and media activities.





# Create value

[GRI 2-6, 2-23, 3-3, 201-1, 201-2, 201-4, 202-2, 203-2, 207-1, 207-2, 207-3, 207-4, G4-EU10]

The Group's objective is to grow sustainably to ensure resilience and competitiveness and to continue to generate value for stakeholders. The Board of Directors is responsible for sustainable development through the definition of strategies, objectives, action plans and the allocation of investments. The Group's Business Units and Departments are responsible for achieving the objectives of the Business Plan by deploying the human and economic resources provided for in the plan.

## Growth and value creation for the company and stakeholders



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Reduction in value distributed to stakeholders and direct and indirect economic impacts
- Negative ratings or downgrading in ratings
- Loss of business opportunities related to sustainable development in business sectors
- Ineffective performance communication



### Opportunities

- Business opportunities related to ecological transition, circular economy, local area and technological and digital evolution
- Access to sustainable finance instruments
- Increased value distributed to stakeholders and direct and indirect economic impacts



### Management methods

- Planning and monitoring of objectives and targets (economic/financial and ESG) of the Business Plan and Sustainable Financing Framework
- Code of Ethics
- ERM system integrated with ESG topics
- Planning and structured financial management for return on investment
- Adoption of sustainable finance tools to support the development strategy
- Sustainable Finance Committee
- Structured traditional investor relationship system and ESG
- Policy for managing dialogue with Shareholders and Investors in general
- Local Committees
- Transparent performance communications

Iren Group's economic results show, compared to 2021, a significant increase in revenues (+58.7%), mainly due to the increase in energy commodity prices, in relation to the scenario that characterised the year, to the development of turnover related to energy efficiency and building requalification activities, favoured by tax breaks, and to changes in the scope of consolidation. Against this increase, the gross operating margin (Ebitda) grew by 3.8%, while the Group's net profit, which was affected by non-recurring extraordinary factors, decreased by 25.4%.

Economic indicators	u.m.	2022	2021
Revenue	€/mln	7,863	4,956
Gross Operating Margin	€/mln	1,055	1,016
Operating profit (EBIT)	€/mln	464	454
Profit attributable to the Group	€/mln	226	303
Total capitalisation	€/mln	1,898	3,405
Dividend per share	€	0.11 <sup>(1)</sup>	0.105

<sup>(1)</sup> Dividend proposed by the Board of Directors.

Net financial debt as of 31 December 2022 amounted to 3,347 million Euro, compared to 2,906 million Euro as of 31 December 2021, as a result of a significant increase in gross investments, which amounted to approximately 1,485 million Euro in 2022 (+55.5% compared to 2021), allocated to development in the various business sectors, with a prevalence of environmental sustainability and ecological transition (production from renewable sources and circular economy), guaranteeing an important contribution to local communities.

## Investments

Technical investments (millions of Euro)	2022	2021
Generation and district heating	224.6	169.5
Networks (electricity, gas, water cycle)	327.7	307.7
Market	79.4	64.6
Environmental Services	192.6	164.3
Others	73.9	51.7
<b>TOTAL</b>	<b>898.2</b>	<b>757.8</b>

The economic-financial performance of the year confirms – thanks to a business portfolio with a prevalence of regulated activities and a significant increase in investments – a strong focus on developing infrastructures serving the growth of the economic systems of the areas served.

The multi-utility and predominantly regulated business profile ensured a high degree of resilience of the Group to the volatility of the energy scenario, following the start of the Russian-Ukrainian conflict, which characterised the entire year and to the continuing effects of the Covid-19 emergency (for greater details, see the Consolidated Financial Statements). Furthermore, as defined also in the Business Plan to 2030 perspective, particular attention is confirmed to environmental sustainability, to the improvement of the quality of the service, digital transformation, and innovation in synergy with the companies and institutions of the reference areas.

By hiring 1,291 new employees, in 2022, the Group continued an important generational turnover and development process, focused on acquiring the skills needed for digital transformation and growth also in new business lines.

### The strategic guidelines, focused on sustainability profiles, guide the planning of the multi-year investments.

These same profiles are part of the principles of the Code of Ethics that Group companies are required to comply with when making investments: creating value and increasing the Group's assets, management and technological values, the return for Shareholders, and the economic and social well-being for employees and the community. In the planning processes, the Group pays particular attention to the variables, emerging from economic and industrial scenarios of the sector, able to guarantee the medium and long-term availability of energy. Scenarios are analysed by **continuously monitoring industrial, economic, financial and sustainable development dynamics.**

In order to plan the development of **energy production capacity**, the Group considers the medium-term scenarios referred to the electricity and gas markets, the evolution of the capacity market, the price of CO<sub>2</sub> and Energy Efficiency Certificates. Development investments in district heating networks and regulatory scenarios favouring renewable energies' growth are also taken into account. Maintenance programmes aim to maintain efficiency and prevent breakdowns and are planned to minimise the impact

of unavailability on the Group's results.

The energy production facilities of Iren Group are efficient and appropriate in terms of size, thanks to the significant investments in new production capacity and in increasing the efficiency of the existent one. The production capacity planned for 2030, thanks to the investments envisaged in the Business Plan, will also be guaranteed by 2.6 MW of additional installed power for the production of energy from renewable sources (photovoltaic and wind).

In order to ensure that adequate production and reliability standards are maintained, the Group adopts advanced management and maintenance policies (predictive and preventive). It focuses on innovation, both by increasing the efficiency and flexibility of its plants and by developing projects targeted at the energy efficiency of the system (flexibility of combined-cycle plants, management of waste-to-energy plants to seize opportunities of district heating development, installation of heat storage systems, design of mini hydro plants and realisation of photovoltaic plants). In this context, the first electrical storage system has been built at the Turin North power station and electrical storage systems are being commissioned at the Moncalieri and Turbigio power stations, which will make it possible to increase reserve power and producible energy.

**Medium- and long-term gas availability** is planned and ensured through the combined management of several sources: availability of foreign transportation capacity that the Group can use on an event-driven basis, annual availability of storage capacity, wholesale supply contracts, and HUB purchase contracts. The combined use of these sources allows for natural gas demand to be met even during particularly severe periods.

Planning is fundamental for guaranteeing the continuity, reliability and security of the **integrated water service**. This objective is overseen by the resource need analysis for the various areas, also in relation to their possible evolution and seasonality, and the attainment of diversion concessions that are proportional to the identified needs. This is complemented by the planning and management of ordinary and unscheduled maintenance, the renovation of plants and networks to contain water and sewer network leaks, the adoption of remote control systems and the automation of plants, an emergency service, analytical checks and treatments to guarantee compliance with the qualitative

requirements of the water supplied and the waste discharged from treatment plants.

As far as **waste management** is concerned, at plant level, the production capacities of the Group's plants are assessed and planned in relation to the needs and production of each region. Investment planning is aimed at optimising waste management and closing the cycle, aiming at the maximum valorisation of waste in terms of material and energy.

The Group has adopted a planning tool (medium voltage distribution network master plan) to guarantee the reliability of its **electricity distribution** network that defines the renovation, upgrading and extension rules and methods, for the main high-to- medium voltage transformer plants and networks. The renovation and updating plan for the main plants, in addition to the gradual substitution of parts of obsolete plants, includes quality and technical improvements to the grid layout and its adaptation to future load increases. The plan is reviewed and updated in the event that new significant supply requests or reliability and stability issues emerge for the medium voltage network or for the main plants. The management methods are assessed on the basis of the time schedules for the design and implementation of works and in correspondence with technical standards put in place for the construction of new main substations, by verifying and reviewing the projects established in the time schedules. The effectiveness and quality of the interventions carried out are assessed in relation to the performance of the service quality indicators established by the Regulatory Authority for Energy, Networks and Environment (ARERA).

In **gas distribution**, the plan aims to contain leaks, which is the main objective for the safety, quality, efficiency and continuity of service and protection of the environment. Regular ordinary and unscheduled maintenance and the renovation of plants and networks, scheduled searching for leaks, the addition of gas odourants upon receipt by the national transport network, the maintenance of efficient and effective cathodic protection systems and the use of distributed monitoring systems thanks to the remote control, as well as constant supervision of plants and networks by highly qualified and constantly updated staff, all contribute to achieving this objective.

During the planning phase, the Group also analyses the impact of **climate change** scenarios: changes in temperature distributions (chronic physical risks) - which impact the dynamics of gas and heat consumption of district heating, water and electricity - and extremes of weather phenomena (acute physical

risks) such as droughts, heat waves, water bombs, floods, cyclones, landslides. In particular, the latter have repercussions on the hydrology of hydroelectric and aqueduct plants, with the related economic implications, and represent aspects of attention due to the consequences that they may have on the Group's assets, on margins, on the availability planning and scheduled maintenance of thermoelectric production plants (for further details on climate risk management,

» [SEE PAGE 62](#)).

The financial or strategic impacts are primarily analysed in the Group's risk map, which is periodically updated and identifies and quantifies all significant impacts on the business.

» [SEE PAGE 56](#)

## Added value

Iren Group produces added value with respect to the external resources employed, thanks to the effective use of production factors, and contributes to the growth of the economic, social and environmental context, producing important effects on the areas in which it operates, in particular, in view of the investments made, the employment generated and the induced activities it carries out.

The impacts generated by Iren Group on the reference areas contribute to the growth of the economic, social and environmental context



Investments contribute to improving basic infrastructure (electricity, gas, sewerage and water supply networks, wastewater treatment plants) and essential services (waste collection and disposal), generating positive impacts for the local socio-economic and environmental context. Moreover, all of the business areas present significant opportunities for the development of innovative technologies and processes and, consequently, for territorial growth also in terms of know-how.

The Group also contributes to the employment of the area in which it operates and generates added value through actions aimed at increasing professional skills and at consolidating the improvements reached in the level of education. The Group has no specific local recruitment policy; nevertheless, given the specificity of the Italian labour market, there is a high coincidence between the provinces of residence of employees and their assigned place of work: 79% of executives reside in the same region as their place of work.

Iren Group generates opportunities for the development of innovative technologies and processes and for the growth of territorial expertise



The indicator that highlights the Group's ability to produce value and satisfy the economic interests of its main stakeholders is Added Value, which measures the economic performance of operations and the ability to create the conditions for distributing wealth to stakeholders.

In 2022, Iren Group generated a total gross Added Value of about 1,603 million Euro, distributed as follows:

**37.9%**

**to the Company** (nearly 608 million Euro) as wealth retained within the Group, including depreciation and amortisation and retained earnings;

**34.1%**

**to Personnel** (over 546 million Euro) in terms of wages and salaries, charges and other personnel costs;

**9.0%**

**to the Public Administration** (over 144 million Euro) in the form of direct and indirect taxes, net of operating subsidies received;

**6.7%**

**to Financial Backers** (approximately 107 million Euro) in terms of financial expenses incurred;

**11.5%**

**to Shareholders** (over 185 million Euro) as dividend;

**0.8%**

**to the community** (about 13 million Euro) in terms of contributions to social, environmental, cultural and sports events.

## Total gross added value distributed

**9.0%**Public  
Administration**6.7%**Financial  
Backers**34.1%**

Personnel

**0.8%**

Community

**11.5%**

Shareholders

**37.9%**

Company



Determination of Added Value (thousands of Euro)	2022	2021
Revenues from sales and services	7,554,589	4,828,351
Change in work in progress, semi-finished products, finished products and goods	35,700	45,698
Other revenue	150,244	128,074
<b>Production revenue</b>	<b>7,740,533</b>	<b>5,002,123</b>
Raw materials, consumables, supplies and goods	-4,613,809	-2,035,769
Cost for services	-1,621,250	-1,377,920
Other expenses	-24,540	-39,468
Capitalised costs for internal works	57,223	45,256
Provisions for risks	-68,344	-83,841
<b>Intermediate production costs</b>	<b>-6,270,720</b>	<b>-3,491,742</b>
<b>Gross Added Value from core business</b>	<b>1,469,813</b>	<b>1,510,381</b>
Non-core and non-recurring items	132,705	24,011
Net profit from discontinued operations	0	0
<b>Total gross Added Value</b>	<b>1,602,518</b>	<b>1,534,392</b>

## Taxes and duties

Iren Group, while respecting and independently making its own management decisions and in line with its sustainability policy, pursues a tax strategy inspired by principles of honesty, correctness and regulatory compliance, characterised by collaborative and transparent behaviour towards the Tax Authorities and third parties, in order to minimise any substantial impact in terms of risk, be it fiscal or reputational.

To this end, the Board of Directors has approved the document **Fiscal Strategy**, also referred to in the Code of Ethics, which defines the objectives and the approach adopted by the Group in managing the tax variable. The document is made available to all stakeholders on the Group's website (governance > internal control risk management compliance > fiscal strategy) and is updated in a timely manner whenever changes occur at a strategic and/or operational level to the essential elements regulated therein. The Fiscal Strategy establishes the principles of conduct in tax matters, to contain the risk of incurring in the violation of tax regulations or the abuse of the principles and purposes of the tax system, and to ensure the correct and timely determination and settlement of taxes over time. Consistently with these principles, Iren refrains from implementing tax practices or strategies aimed at abusively eroding the tax base and commits itself not to undertake operations and behaviours and not to establish commercial relations or implement company structures that are devoid of economic substance and aimed at obtaining undue tax advantages and that are not justified by valid economic reasons, including organisational or managerial reasons, or in any case consistent with social and business ethics objectives. Iren also undertakes to actively pursue prior certainty of its tax positions and to prevent the start of unnecessary tax disputes or disputes that, in any case, based on a prognostic assessment, could have an unfavourable outcome (principle of "more likely than not"). Where the tax obligations or cases are considered, based on an objective assessment by management, to be unclear or subject to interpretation or, in any case, have margins of uncertainty, Iren acts with full transparency towards the Tax Authorities, according to the instruments made available by the legal system, to achieve the application of the correct level of taxation.

Iren's Board of Directors, supported by the Control, Risk and Sustainability Committee, defined the guidelines for the internal control and risk

management system, including tax risks, and identified the Chief Executive Officer as the person responsible for directing the fiscal strategy, verifying the functioning of the **Tax Control Framework**, i.e. the tax risk management and control system that Iren has adopted to ensure the submission of accurate tax declarations, the correct application of all tax regulations and, when deemed appropriate, the involvement of the Tax Authority in the face of transactions likely to generate interpretative uncertainties.

The Board of Directors has also established the **Tax Risk Management Commission**, composed of four permanent members - Director of Risk Management, Tax Risk Manager, CFO and Financial Reporting and Accounting Manager -, which oversees the processes envisaged by the Tax Control Framework with supervisory and control tasks, as well as monitoring activities, supporting with non-binding advisory and proposing functions, the various actors involved, including the CEO and the Tax Risk Manager, in the performance of their respective tasks. The **Tax Risk Manager** is responsible for monitoring, aimed at verifying the effectiveness and efficiency of the controls in place to protect against tax risks and periodically reports to the Tax Committee on the activities carried out, their results, and the adequacy of the Tax Control Framework. By identifying and assessing risks and the preparation, in collaboration with the functions involved, of operating procedures of a fiscal nature, the Tax Risk Manager ensures that each control owner is aware of and implements the control measures and confirms the effective application of the procedures.

Consistent with the broader system of internal control and risk management, the Tax Control Framework requires that tax risk be managed through the assignment of responsibilities and roles according to three levels of control. **First level control** is represented by the individual operating lines which, daily, in carrying out the activities for which they are responsible, implement the so-called line controls, as defined by Company policies and procedures, aimed at ensuring that operating activities are carried out correctly, including those with repercussions on tax compliance.

Therefore, the first level of control is carried out by the Company management of the individual operating lines, including the Tax and Compliance Department.



**Second level control** is entrusted to the Tax Risk Manager, which differs from the line functions on the basis of compliance with the criterion of separation of duties.

The Tax Risk Manager prepares the annual monitoring plan on tax controls and risks and ensures its execution, identifying any areas for improvement and supporting the control owners in identifying the related corrective actions. Adequate, proportionate and diversified information flows guarantee the circulation of information and ensure that the results deriving from the monitoring activities carried out by the Tax Risk Manager are known at the appropriate Company levels. **Third level control**, entrusted to the Internal Audit Unit, has the objective of verifying the operation and suitability of the internal control and risk management system and identifying anomalous trends and violations of procedures and regulations.

The management of fiscal and tax aspects has been identified as a sensitive activity concerning the tax offences referred to in the Legislative Decree 231/01 that Iren considers potentially applicable in the conduct of business activities. The Procedure for the management of reports to the Supervisory Body, approved by the Board of Directors, regulates the methods of communication and management of reports concerning situations of overt or suspected violations of the law, of the principles of the Organisational Model 231 and of the procedures governing sensitive activities at risk of 231-related crimes, along with instruments for implementing the Model itself (for more details on the Model 231)

» SEE PAGE 71

In order to improve communication and collaboration with the Tax Authorities, Iren Group decided to adhere to the "Collaborative Compliance Regime" (Italian Legislative Decree 128/2015), which provides a new scheme of relations between the Revenue Agency and taxpayers inspired by the principles

of cooperative compliance already adopted by foreign tax administrations. The main benefits of risk management derive from the possibility of joint assessment of any tax risks with the Revenue Agency before the tax return and access to forms of prior appeal with an abbreviated procedure. The Group companies that meet the requirements of the Revenue Agency and are admitted to the "Collaborative Compliance Regime" are Iren and Iren Energia.

Iren has also consolidated a stakeholder involvement process through the Local Committees, representing the main tool for dialogue and discussion between Iren Group and all stakeholders (consumers/customers, employees, suppliers, institutions, shareholders, the environment and local communities).

Lastly, the tax information in the Consolidated Financial Statements and the Sustainability Report is subject to an assurance process by a third party (Independent Auditors).

The income taxes for FY 2022 amount to approximately 129 million Euro (+42.6% compared to 2021). The effective tax rate is 32.31%.

In 2022, the Group received over 52.4 million Euro in benefits and grants from the Public Administration, of which about 4.8 million Euro in capital investments.

Taxes and duties paid (millions of Euro)	2022	2021
Government and Region	128.85	90.33
<b>Total direct taxes and duties</b>	<b>128.85</b>	<b>90.33</b>
ATO concession fees	1.99	2.29
Other concession fees	23.99	23.88
Derivation, taxes and licenses (derivation fees and surtaxes)	26.46	20.55
Taxes and duties	24.60	21.78
<b>TOTAL INDIRECT TAXES AND DUTIES</b>	<b>77.04</b>	<b>68.50</b>
<b>TOTAL</b>	<b>205.89</b>	<b>158.83</b>



## Sustainable finance

---

The financial market has seen strong growth in recent years in sustainable and responsible investments and financing instruments that consider sustainability impacts, including offering more affordable rates based on the achievement of defined and measured goals.

The European Union has given an important impetus in this direction with the adoption, in 2018, of the Action Plan, which outlines strategies and measures for the realisation of a financial system capable of promoting sustainable development, contributing to the implementation of the Paris Agreement on Climate Change and the goals of the United Nations 2030 Agenda. The Plan recommends ten actions to be taken at European level to encourage the channelling of financial investment towards a more sustainable economy, consider sustainability in risk management procedures, and strengthen transparency and long-term investment.

Sustainable finance represents a very significant lever to support the investment plan envisaged in Iren Group's Strategic Plan to achieve the planned sustainability objectives.

## European Taxonomy

---

The Green Deal is Europe's strategy to become a carbon-neutral society by 2050, protect the health and well-being of its citizens, and conserve and enhance natural capital and biodiversity. This challenge requires not only public funds (such as those from Next Generation EU), but also private funds.

For this reason, as part of the Action Plan for Sustainable Finance, the European Commission has defined the Taxonomy (EU Regulation 2020/852), a single system of classification of economic activities that defines the criteria for assessing environmental sustainability, encouraging companies to make their models more environmentally sustainable, implementing investments in this direction, and to provide disclosure of information related to the environment and climate.

The Taxonomy identifies **six environmental objectives** to identify sustainable economic activities:

- climate change mitigation,
- climate change adaptation,
- sustainable use and protection of water and marine resources,
- transition to a circular economy,
- pollution prevention and control,
- protection and restoration of biodiversity and ecosystems.

**An economic activity is aligned with the Taxonomy**, and therefore considered sustainable, if it meets three basic principles:

- contribute substantially to at least one of the six environmental objectives by meeting activity-specific technical screening criteria (substantially contribute);

- Do Not Significant Harm (DNSH) to the remaining environmental objectives;
- comply with the minimum safeguards set out in the OECD Guidelines for Multinational Enterprises<sup>1</sup> and the UN Guiding Principles on Business and Rights<sup>2</sup> (*comply with minimum safeguards*).

Companies required to publish the Non-Financial Statement (NFS) must report three indicators (KPIs): revenue, operating expenses (OpEx) and capital expenditures (CapEx), related to activities aligned with the Taxonomy.

As of 2021, the EU Delegated Regulation (2021/2139) - the so-called Climate Delegated Act - which defines the technical criteria for the first two objectives (climate change mitigation and adaptation) came into force, while the publication of the Delegated Acts for the four further objectives, expected for the second half of 2022, was postponed to 2023.

On 15 July 2022, the Supplementary Delegated Act was published in the Official Journal, which includes gas and nuclear power generation in the Taxonomy. The much-debated inclusion of these activities is justified, according to the European institution, by the fact that both energy sources will be needed over the next decade to enable the gradual energy transition to renewable sources, ensuring that the energy needs of the European population are met.

However, the European Taxonomy Regulation is still in a development phase and the completion of the regulatory process should reduce the current uncertainties about its implementation.

For the first year of application (2022 with reference to the 2021 figures), it was planned to publish the share of turnover, capital expenditure and operating expenditure related to the economic activities eligible for the Taxonomy. As of 1 January 2023, with respect to the year 2022, the three KPIs must relate to the activities aligned to the Taxonomy.

An **economic activity eligible** for the Taxonomy is an activity included in the Climate Delegated Act, regardless of whether it meets the technical criteria established for it. Eligible economic activities, therefore, constitute the set of activities that have the potential to align with the technical screening criteria. **Non-eligible economic activities** are activities which are not included in the Climate Delegated Act.

An **economic activity aligned** with the Taxonomy is one that meets all the requirements: the technical screening criteria, DNSH and compliance with minimum safeguards.

It is important to note that two different types of non-eligible activities are included:

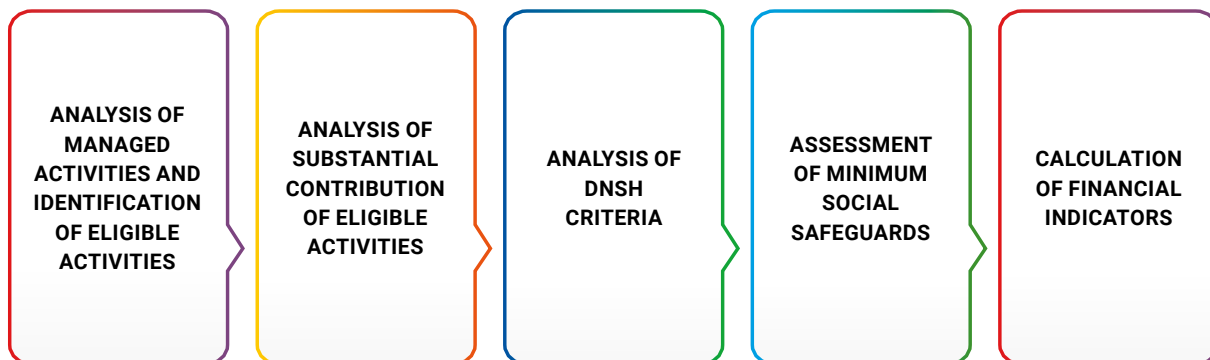
- **activities not included in the Delegated Acts** adopted to date, bearing in mind that the expected evolution of the Taxonomy should, in particular by including other environmental objectives, broaden the scope of eligible activities;
- **activities excluded** because they are not considered to produce significant impacts on the environmental objectives considered by the Taxonomy. For example, one of these is the sale of electricity to end customers, which, according to Iren Group's evaluations, could contribute significantly to the mitigation of climate change in a logic of progressive electrification of consumption, oriented towards the marketing of electricity produced 100% from renewable sources.

To implement the European Taxonomy in the monitoring and reporting system, Iren Group has structured a process and an inter-functional working group (Business Units, Corporate Social Responsibility and Local Committees, Management Control, Regulatory Affairs, Corporate Affairs, Sustainable Finance and Information Systems) that carried out the analysis of all the activities managed, verifying their consistency with the requirements established by the Regulation, in the extension currently in force.

The activity analysis process adopted by Iren is developed as outlined below (» [SEE PAGE 363](#) for more details).

<sup>(1)</sup> OECD Guidelines for Multinational Enterprises – aimed at multinational enterprises operating in Organisation for Economic Cooperation and Development (OECD) member countries – provide non-binding principles and standards for responsible business conduct based on applicable laws and internationally recognised standards.

<sup>(2)</sup> United Nations Guiding Principles on Business and Human Rights (UNGPs) are a tool, consisting of 31 principles, that implement the United Nations' "Protect, Respect and Remedy" framework for human rights in business.



As part of the evaluation process, also in the face of the need to define homogeneous interpretative criteria, the fundamental comparison with the other players in the sector continued, both directly and through associative working groups (e.g. Utilitalia, Assonime).

The analysis carried out, pursuant to art. 8 of the Taxonomy Regulation, on the level of eligibility, alignment and non-eligibility to Taxonomy of Iren Group's economic activities is shown in the table below.



Focus Areas Iren Strategic Plan	Eligible activities		Non-eligible activities
	Aligned	Non-aligned	
Decarbonization	(4.1) Photovoltaic	(4.29) Thermoelectric	
	(4.5) Hydroelectric	(4.30) Cogeneration	
	(4.10) Electricity storage	(4.31) District heating production boilers	
	(4.11) Thermal energy storage		
	(4.14) Retrofit of gas distribution networks		
	(7.6) Renewable energy technologies		
Water resources	(5.1) Water distribution systems		
	(5.3) Wastewater collection and treatment systems (69%) <sup>(1)</sup>	(5.3) Wastewater collection and treatment systems (31%) <sup>(1)</sup>	
Circular economy	(5.5) Sorted waste collection		Unsorted waste collection
	(5.7) Anaerobic digesters of bio-waste		Plants for energy recovery from waste
	(5.8) Composting of bio-waste		Waste storage and transfer plants
	(5.9) Material recovery from non-hazardous waste (42%) <sup>(1)</sup>	(5.9) Material recovery from non-hazardous waste (58%) <sup>(1)</sup>	Mechanical-biological waste treatment (MBT) plants
	(5.10) Closed landfills with biogas production		Liquid waste treatment plants
Resilient cities	(4.9) Electricity distribution		
	(4.15) District heating		
	(6.4) Personal mobility devices		
	(6.5) Company fleet vehicles (21%) <sup>(2)</sup>	(6.5) Company fleet vehicles (79%) <sup>(2)</sup>	
	(6.15) Public electric charging columns		
	(7.1) Construction of new buildings	(7.7) Property management	
	(7.2) Renovation of existing buildings		
	(7.3) Energy efficiency devices		
	(7.4) Electric charging columns at company premises		
	(7.5) Devices for measuring, regulating and controlling the energy performance of buildings		
	(7.6) Renewable energy technologies		
	(9.3) Professional services related to the energy performance of buildings		
	Other		(8.1) Data centre
			Sale of electricity and gas
			Non-renewable gas distribution
			Active and closed landfills without biogas production

<sup>(1)</sup> Percentage calculated on revenues

<sup>(2)</sup> Percentage calculated on costs, as this activity does not generate revenues

It should be noted that the development of the Delegated Acts for the four environmental objectives relating to sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, protection and restoration of biodiversity and ecosystems, should strengthen the adherence of Iren Group's business model to the Taxonomy, considering that the current analysis only covers the objectives of climate change mitigation and adaptation.

## STATEMENT OF THE ALIGNMENT OF IREN GROUP'S ACTIVITIES

The portions of eligible, aligned and non-eligible activities related to the three KPIs required by Taxonomy are represented below. More detailed information on eligible, aligned and non-eligible activities, as well as the criteria for calculating the relative share of revenues, operating expenses (OpEx) and capital expenditures (CapEx), can be found in the tables on page 366.

### Turnover (revenues)

**1,615**  
million  
Euro of  
revenues

from activities  
aligned to  
UE Taxonomy

The total revenues considered to define the indicator (denominator) are those reported in the Consolidated Financial Statements, in compliance with international accounting standards, with the sterilisation of the effects deriving from assets under concession (IFRIC 12). In calculating the indicator, only revenues from external sales were considered in the numerator. Adopting these criteria, in 2022 the share of **revenues from activities aligned**

to the Taxonomy, for the climate change mitigation objective, are **21%**, or more than 1,615 million Euro, mainly related to the activities of sorted waste collection and transport, energy efficiency devices and water collection, treatment and supply systems. It should be pointed out that the Taxonomy does not consider as eligible activities that are of considerable importance for the Group, such as, for example, the sale of electricity

**716**  
million  
Euro of  
OpEx

from activities  
aligned to  
UE Taxonomy

### Operating expenses (OpEx)

The operating expenses considered for the purposes of calculating the indicator do not include the following expenses: overheads, raw materials, personnel for the management of activities, management of research and development projects,

electricity, fluids or reagents necessary for the operation of property, plant and equipment. In 2022, **54% of operating expenses** (OpEx), or approximately 716 million Euro, relate to activities aligned to Taxonomy for the goal of

**846**  
million  
Euro of  
CapEx

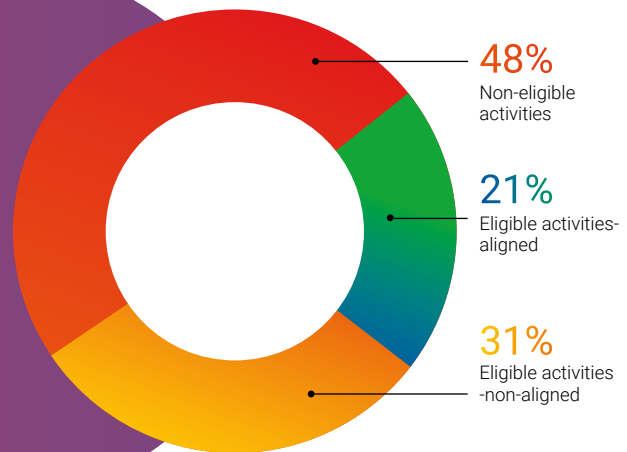
from activities  
aligned to  
UE Taxonomy

### Capital Expenditure (CapEx)

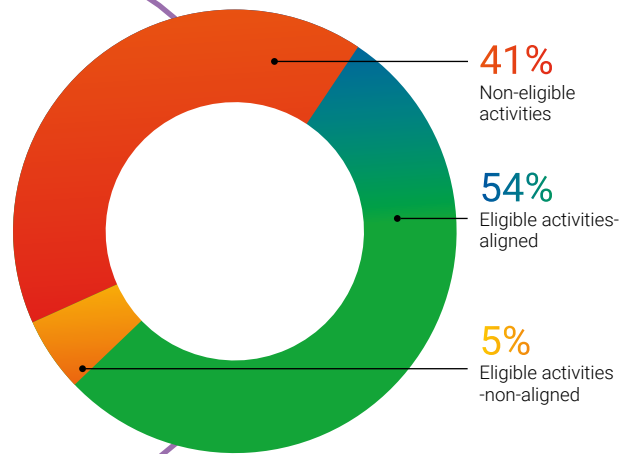
The capital expenditure used to define the indicator includes, at the denominator, increases in tangible and intangible assets before depreciation, amortisation, impairment and any revaluation, including also increases resulting from business combinations and capitalised long-term

leases (IFRS 16). In 2022, **65% of capital expenditures** (CapEx), equal to approximately 846 million Euro, refers to activities aligned with the climate change mitigation objective. The largest share of this concerns investments in photovoltaic solar power plants, plants

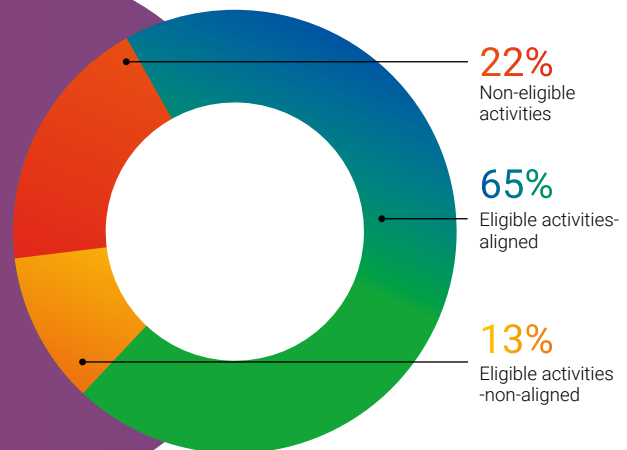
and gas (around 29% of total revenues), which could, in fact, have a positive impact on climate change mitigation if geared towards the marketing of electricity from renewable sources or low-carbon gas. By sterilising this effect, the share of revenues related to eligible activities would be over 80%.



climate change mitigation. These expenses are mainly related to the collection and transport of sorted waste, energy efficiency devices and water collection, treatment and supply systems.



for the treatment of the organic fraction of waste and water collection, treatment and supply systems.



## Sustainable finance instruments

Sustainable finance is one of the enabling levers of the Business Plan to 2030, thanks to an increasing and diversified use of **sustainable financial instruments, which will represent 76% of financing sources by the end of 2022**. The new loans, all linked to sustainability initiatives, were granted to support the investment plans and financial needs of the Group and confirm the trust of the financial system in development projects, making it possible to maintain an adequate balance between short and long-term financial exposure.

In March 2022, the Sustainable Financing Framework was updated for which a second-party opinion was issued by an external body, which ensures its compliance with precise environmental criteria. The portfolio of sustainable instruments that the Group can issue or subscribe to has therefore been enriched with the addition of sustainability-linked instruments, in addition to the green ones in use of proceeds format that are already present. The Framework is aligned with the Green Bond Principles 2021 and the Sustainability-linked Bond Principles 2020 of the ICMA (International Capital Market Association), the Green Loan Principles 2021 and the Sustainability-linked Loan Principles 2022 of the LMA (Loan Market Association) which represent, for today, the most widespread standard among issuers and market operators.

As regards operations on the capital market, in August 2022, a Green Private Placement was signed for the amount of 50 million Euro under the Euro Medium Term Notes (EMTN) Program of 4 billion, with Fitch rating "BBB" and listed on the regulated market of the Irish Stock Exchange. As with the previous sustainable instruments issued, the list of projects refinanced by the Green Private Placement is placed within the Eligible Projects identified in the new Sustainable Financing Framework. The instability of the financial markets, dictated by a complex geo-political and macroeconomic situation, did not allow the Group to take advantage of further financing opportunities through the capital market in line with the average rate and duration of debt; therefore, the Group strengthened bilateral relations and relationships with banking counterparts.

In 2022, in fact, 6 Term-Loan loan contracts with a duration of 5/6 years were signed with various credit institutions and financial counterparties for a total amount of 650 million Euro. All the loan facilities are of the Sustainability-linked type, i.e. they envisage a mechanism for reducing or increasing the margin in the event of the achievement or otherwise of specific sustainability objectives - envisaged in the Business

Plan to 2030 and linked to the decarbonization process undertaken and the rational use of water resources – compliant with the provisions of the new Sustainable Financing Framework.

In March 2022, Iren and CEB (Council of Europe Development Bank) finalised a financing transaction in the amount of 80 million Euro - as a supplement to a loan signed in 2020 with the European Investment Bank (EIB) - under the 2021-2025 Investment Plan for projects to develop and improve the efficiency of the district heating network in the Turin area. For the EIB and CEB, the financed Iren projects can be classified as "efficient district heating and cooling" according to directive 2012/27/EU, and therefore fall within the provisions of the sustainable lending policy for EU banks. Furthermore, in December 2022, the EIB successfully concluded the technical investigation for a further loan to Iren for an amount of 150 million Euro to support the 2022-2026 investment programme in the context of the integrated water service; the transaction is part of the broader framework of the Italian Utilities Programme Loan implemented by the EIB.

Since 2019, Iren has been an active member of the Corporate Forum on Sustainable Finance, which aims to support and develop sustainable finance as a tool to combat climate change and promote a more sustainable and responsible society. The 25 current members from different European countries are committed to making a tangible contribution by actively participating in consultations promoted by the European Union on sustainable finance, disclosure and non-financial reporting.

For 2023, the Group's objective is to continue the activities to cover financial needs to support investments through a balanced relationship between short and medium/long-term funds with attention to the principles of sustainable finance, in addition to compliance with the commitments undertaken towards Socially Responsible Investors (SRI) and defined in the Sustainable Financing Framework.



## IREN GREEN BONDS IN CIRCULATION AT 31/12/2022

Bond	Iren acronym	ISIN	Bond amount (€/000)	Annual coupon (%)	Issue duration (years)	Expiry	Price Issue (%)	Fitch/S&P Rating
Green Private Placement 2028	GPP1	XS2512307229	50,000	2.875%	6	05/08/2028	100.00	BBB
Tap Issue Green Bond 2031	Tap GB4	XS2275029085	200,000	0.250%	10	17/01/2031	94.954	BBB/BBB-
Green Bond 2031	GB4	XS2275029085	300,000	0.250%	10	17/01/2031	99.030	BBB/BBB-
Green Bond 2029	GB3	XS2065601937	500,000	0.875%	10	14/10/2029	99.345	BBB/BBB-
Green Bond 2025	GB2	XS1881533563	500,000	1.950%	7	19/09/2025	99.129	BBB/BBB-
Green Bond 2027	GB1	XS1704789590	500,000	1.500%	10	24/10/2027	98.356	BBB/BBB-
<b>TOTAL</b>			<b>2,050,000</b>					

## ALLOCATION OF GREEN BOND FUNDS

The 50 million Euro of the Green Private Placement, signed by Iren in August 2022, were entirely allocated to the financing of a sustainable project, whose correspondence to precise environmental criteria is ensured by an external certification body. In 2022, the allocation of the net residual amount (45,336,650 Euro) related to the Green Bond, issued on 7 October 2021 (TAP GB4), was also completed.

The allocation of net proceeds, for both green instruments, took place in compliance with the timing established by Iren within its Sustainable Financing Framework, i.e. within the 24-month term which represents, to date, the most common market practice.

In 2022, therefore, the complete allocation of all the net proceeds of the Green Bonds (GB1, GB2, GB3, GB4) and the Green Private Placement issued by the Group was reached; the investments related to them, outstanding at the end of 2022, and shown in the following table, are all confirmed and present in the Group's balance sheet assets as at 31 December 2022.

### INCOME FROM GREEN BONDS ALLOCATED AS AT 31/12/2022 <sup>(1)</sup>

	Green Private Placement 2022		Tap Green Bond 2031 (Tap GB4)		Green Bond 2031 (GB4)		Green Bond 2029 (GB3)		Green Bond 2025 (GB2)		Green Bond 2027 (GB1)	
	Invest. (€/000)	Proj. (no.)	Invest. (€/000)	Proj. (no.)	Invest. (€/000)	Proj. (no.)	Invest. (€/000)	Proj. (no.)	Invest. (€/000)	Proj. (no.)	Invest. (€/000)	Proj. (no.)
Energy efficiency			96,984	8	197,427	6	387,503	11	247,992	4	232,587	6
Renewable sources	50,000	1	9,076	1	33,361	5	4,263	1	134,658	5	160,950	7
Efficiency in waste management and recycling			43,238	4	57,909	6	35,388	3	7,265	1	42,124	1
Waste water treatment			38,105	2	8,393	3	61,595	4	100,439	1	56,119	4
Water service efficiency			-	-	-	-	4,678	1	-	-	-	-
E-mobility			2,505	1	-	-	3,298	1	5,291	1	-	-
<b>TOTAL ALLOCATED</b>	<b>50,000</b>	<b>1</b>	<b>189,908</b>	<b>16</b>	<b>297,090</b>	<b>20</b>	<b>496,725</b>	<b>21</b>	<b>495,645</b>	<b>12</b>	<b>491,780</b>	<b>18</b>
Issue discount			10,092		2,910		3,275		4,355		8,220	
<b>TOTAL ISSUE</b>	<b>50,000</b>	<b>1</b>	<b>200,000</b>	<b>16</b>	<b>300,000</b>	<b>20</b>	<b>500,000</b>	<b>21</b>	<b>500,000</b>	<b>12</b>	<b>500,000</b>	<b>18</b>

<sup>(1)</sup> The 88 projects indicated in the table include projects common to the 6 Green Bond and Green Private Placement issues for different years (47 projects not including common projects).

The positive environmental impacts generated by the projects funded by the Green Bonds are outlined by the main indicators shown in the table below.

More information on Green Bonds and the projects they finance can be found at [gruppoiren.it](http://gruppoiren.it) (Investors > Financial Profile > Sustainable Finance).

Project category and main indicators	u.m.	2022	2021	2020	2019	2018	2017
<b>Energy efficiency</b>							
Electricity produced	MWh	3,586,415	3,847,662	3,486,789	3,833,955	3,887,199	3,884,511
Electricity produced from renewables	MWh	2,002	878	0	657	46	25
Primary energy saved	MWh	1,818,518	1,838,393	1,532,645	1,808,508	2,200,496	2,281,239
CO <sub>2</sub> emissions avoided by non-fossil sources	t	518,485	578,080	492,287	616,258	636,478	724,744
Thermal energy produced	MWh	1,772,079	1,996,062	1,660,701	1,592,436	1,684,507	1,770,005
Electricity input to the grid	MWh	3,659,913	3,585,171	3,505,548	3,790,141	3,803,936	4,222,786
Network losses (electricity)	MWh	154,624	87,791	94,613	154,570	166,866	158,921
Electricity and gas smart meters installed	no.	1,467,723	1,418,954	1,385,339	1,330,716	1,188,480	966,569
<b>Renewable sources</b>							
Primary energy saved	MWh	2,568,895	2,497,041	2,101,596	2,827,848	3,254,066	3,663,699
Electricity produced from renewables	MWh	469,433	713,362	765,174	777,269	904,438	761,335
Thermal energy distributed	MWh	3,048,357	3,144,036	2,856,932	2,779,773	2,816,307	2,956,143
CO <sub>2</sub> emissions avoided by non-fossil sources	t	839,626	1,057,353	1,074,207	1,320,889	1,371,073	1,581,848
<b>Waste management and recycling efficiency</b>							
Refuse Derived Fuel (RDF)	t	53	8,461	9,429	16,523	2,585	7,886
Sorted waste collected	t	836,095	856,682	825,674	813,804	788,313	711,910
Unsorted waste treated	t	353,871	366,570	371,735	415,905	445,411	464,837
Plastic sent for recovery	t	225,509	221,783	59,635	-	-	-
Blupolymer produced	t	26,564	19,137	7,054	-	-	-
Bluair produced	t	32,271	8,538	6,648	-	-	-
Biomethane produced	smc	5,816,501	1,778,145	-	-	-	-
Emissions of CO <sub>2</sub> avoided	t	400,018	367,637	102,162	-	-	-
<b>Waste water treatment</b>							
Equivalent residents served (potential)	no.	634,578	628,878	625,806	531,528	515,650	295,650
Volumes of water for reuse/Volumes of treated water	%	41	32	31	32	30	30
Wastewater treatment plants	no.	1,323	1,291	1,310	1,293	1,278	1,122
Sewer networks	km	10,852	10,842	10,739	10,662	10,606	9,924
<b>Water service efficiency</b>							
Smart meters installed	no.	156,203	127,046	96,965	51,742	-	-
<b>E-mobility</b>							
CO <sub>2</sub> emissions avoided by non-fossil sources	t	1,821	1,420	1,069	789	52	-

## ESG Indices and Ratings

---

Iren Group's choice to place sustainability at the heart of its development is confirmed in the Business Plan to 2030: circular economy, water resources, resilient cities, decarbonization and people are at the heart of the Group's agenda for coming years.

Of the total organic investments, 80% or about 7.5 billion Euro, will be earmarked for sustainable projects to achieve commitments made consistent with the United Nations 2030 targets. This is a tangible commitment that confirms the desire to merge the Group's development with that of the communities, local areas and the environment.

**ESG indices** include company shares with strong sustainability profiles, with the aim of providing socially responsible investors with a method of evaluation based on the premise that businesses with sustainable approaches to environmental, social and governance issues outperform their competitors in the long term.

Since 2021, Iren's stock has been included in the Euronext MIB ESG Index, the first ESG index designed by Euronext to identify large Italian listed issuers with ESG best practices. Iren is also included in several ESG indices issued by FTSE Russell, Euronext, Bloomberg and STOXX.

**ESG ratings** are considered a strategic tool to support investors and identify risks and opportunities regarding sustainability within their investment portfolio, contributing to the development of active and passive sustainable investment strategies. Iren has been evaluated by various rating agencies.



<b>CDP</b>	CDP, an independent non-profit organisation that globally collects, analyses and disseminates data on the environmental performance of companies, cities, states and regions, has confirmed Iren Group's A- rating for climate change-related performance for 2022.
<b>MSCI</b>	The MSCI ESG Rating assesses the exposure to and ability to manage risks and opportunities related to ESG factors, across several topics: CO <sub>2</sub> emissions, water stress, opportunities in renewables, other pollutant emissions and waste, human capital, corporate governance and corporate conduct.
<b>SUSTAINALYTICS</b>	In the Sustainalytics ESG Risk Rating, which analyses the relevance of environmental, social and governance issues and how the company manages the risks arising from these issues, the Group earned 24.9.
<b>ISS ESG</b>	ISS ESG, which assesses ESG performance on the basis of around 100 indicators divided into 6 macro-areas, gives Iren a B- rating.
<b>MOODY'S ESG</b>	In the ESG Assessment by Moody's, one of the largest global rating agencies, the Group gets a rating of 64 (advanced) out of 100.
<b>S&amp;P GLOBAL</b>	For the first year, Iren participated in the Corporate Sustainability Assessment by S&P, one of the leading global rating agencies. The final score for 2022 is 63/100 (evaluation on the 83/100 percentile).
<b>BLOOMBERG GENDER PROFILE</b>	Bloomberg's Gender-Equality Index (GEI), which measures gender equality in five pillars: women's leadership and internal talent pipeline, equal pay and gender pay equity, inclusive culture, anti-sexual harassment policies, and promotion activities towards women, gives Iren a rating of 72.09 out of 100.
<b>OTHER RATINGS</b>	Iren is rated in other ratings such as IGI (70.4/100, ninth position out of 86) and Corporate Knights (overall score 51.2%).



# Green transition



# IN THIS CHAPTER WE TALK ABOUT

emissions  
reduction



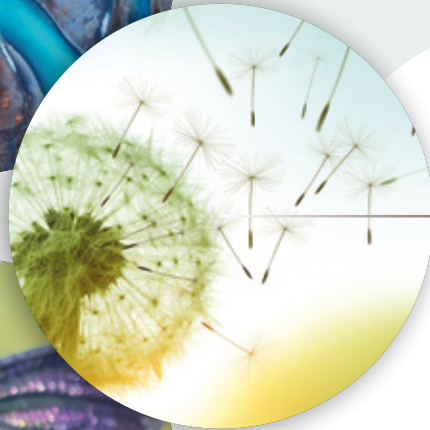
energy  
savings



water  
resources



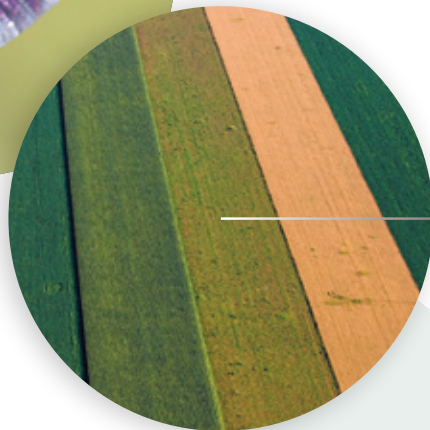
circular  
economy



mobility



biodiversity

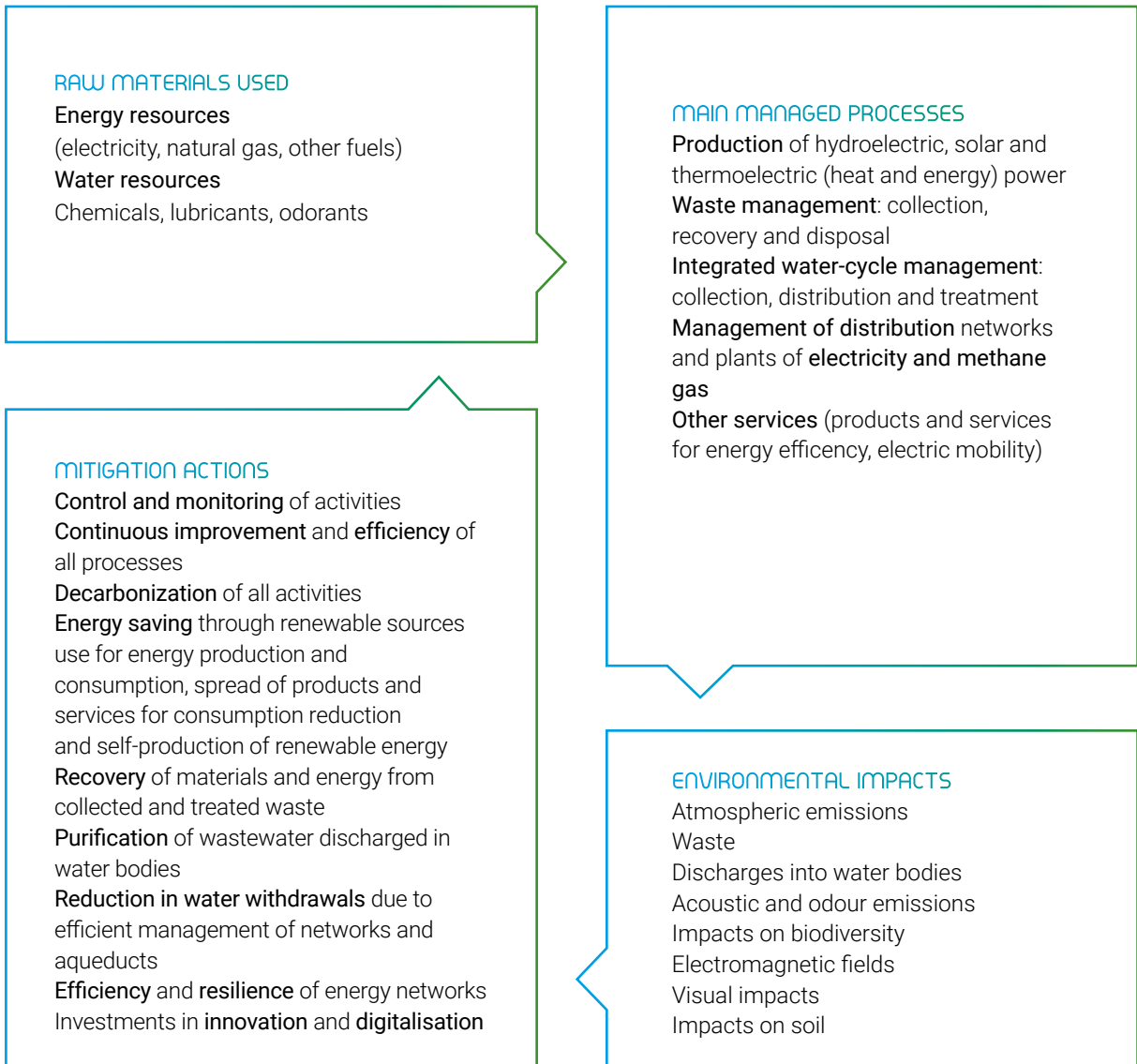




# Policies for the environment

[GRI 3-3, 203-1]

Iren Group operates in sectors that, by their nature, generate direct and indirect impacts on the environment and, in turn, are strongly influenced by the natural resources used in the processes. Aware of its role in the ecosystem in which it operates, Iren places the protection of the quality of the environment and the rational use of natural resources at the centre of its commitments and strategy.



*Direct and indirect impacts of the environmental behaviour of the value chain (from clients to final customers)*



To ensure sustainable management and contain the environmental impacts of its processes, Iren Group has set up, for each Business Unit, specific organisational units dedicated to overseeing compliance with environmental authorisations, sector regulatory compliance, and the implementation and coordination of activities in the environmental field (controls and checks, monitoring of environmental data, etc.). Furthermore, with the guidance, supervision and commitment of the management and the involvement of all employees, the Group has developed an environmental management system (part of the integrated certified management system, [» SEE PAGE 83](#)) that aims to ensure the lowest environmental impact of processes through the management and adequate operational control of its activities.

Through its environmental management system, the Group incorporates an assessment of environmental risks and opportunities and related impacts into its strategic and operational decision-making processes in order to ensure a coherent and balanced growth path.

This is why, also for the purpose of obtaining and maintaining environmental certifications (ISO 14001, ISO 50001, UNI CEI 11352, F-GAS and EMAS registrations), periodic analyses are carried out on all Group plants and assets: for each activity, the direct and indirect impacts relating to the main environmental aspects (consumption, waste, emissions, soil pollution, odours, traffic, electromagnetic fields, noise) are assessed, key performance indicators are monitored and specific improvement objectives are defined.

The progress made in 2022 towards these objectives, detailed in the following paragraphs, was also made possible by the acquisition of new companies active in the field of renewable electricity production from photovoltaic plants, sorted waste collection and recovery of materials from waste, and by investments in the development of all services: the expenses and investments made during the year that contribute to environmental protection amount to approximately 762 million Euro, allocated as follows:

- 46%** to the construction of new wastewater treatment plants, to the efficiency of water supply networks, to the cathodic protection of gas networks, to smart metering and to the strengthening of substations and plants of the electricity distribution networks;
- 32%** to the optimisation of sorted waste collection systems to pursue the recovery objectives defined by local area plans and material recovery plants;
- 12%** to the development of energy production from renewable sources, electrical and thermal storage, district heating networks, the efficiency of production plants through flexibility interventions;
- 10%** to implement services and products with positive environmental impacts for customers and the development of energy communities.

In addition to fully complying with all environmental regulations and optimising business processes, the environmental management policy is also reflected in investments in development, research and innovation, and in activities to raise awareness and create awareness of environmental issues among stakeholders. In particular, the involvement and conscious participation of employees, through information and training activities, is a necessary condition for the implementation of any program of prevention and dissemination of the culture of sustainability and environmental protection.

The commitment to environmental protection is made even more concrete by the 2030 Strategic Plan, which places the **green transition** among its three pillars of future growth, to be implemented through:

- progressive **decarbonization of all activities** through the growth of energy production from renewable sources, innovation of technologies and processes in district heating management, preparation of gas distribution networks for hydrogen transport and reduction of the carbon intensity of energy production plants to achieve the targets validated by Science Based Target Initiative (SBTi);
- strengthening of the **leadership in the circular economy** through the continuous increase in sorted waste collection, the transfer of the Group's best practices to newly acquired areas, the investment in automation and digitalisation and the development of new plants in the material recovery chain that also allow producing biomethane from the organic fraction of waste;
- the **efficiency of the integrated water service**, significantly reducing network losses, with a consequent reduction in water resource withdrawals from the environment and energy consumption, increasing the treatment capacity and reuse of purified water.



# Decarbonization and reduction of emissions

[GRI 2-23, 3-3, 302-1, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7]

In its strategic guidelines, Iren Group has made a commitment to constant containment of emissions into the atmosphere, defining objectives for the reduction of CO<sub>2</sub> emissions and the increase in those avoided thanks mainly to the use of renewable sources, district heating and to the valorisation of waste as a material.

## Decarbonization and reduction of emissions



### Risks

- Failure to meet the targets set out in the Business Plan and consequent negative impacts (operational, economic and reputational) also on accessibility to sustainable finance instruments
- Negative impacts on environment, health and safety with consequent negative reputational and economic impacts
- Unintentional exceeding of emission thresholds provided for by environmental authorisations or regulations
- Chronic or extreme natural phenomena from climate change that may cause impacts on assets/performance
- Loss of environmental certifications
- Tightening of emission constraints and need for adaptation of processes/plants
- Errors/omissions in the design/permit/implementation activities with subsequent impairment of plant operating continuity



### Opportunities

- Growth in renewable production contributing to decarbonization
- Reducing environmental impact
- Business opportunities related to green transition



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Sustainable Financing Framework
- Code of Ethics
- Organisational Model 231 and information flows to the Supervisory Bodies
- MbO and LTI system with ESG objectives
- Improvement plans and related investments
- ERM system (Operational Risk Policy and Climate Change Risk Policy)
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- Procedures: Environmental analysis; Management of emissions from waste-to-energy plants, thermoelectric plants and treatment plants; Management of emergencies aimed at returning within certain times within the established emission thresholds; Car fleet management and maintenance
- Adoption of best available technologies
- Continuous emission monitoring systems and real-time connection with control bodies
- Periodic audits by control bodies
- Environmental authorisations

## Direct and indirect energy consumption

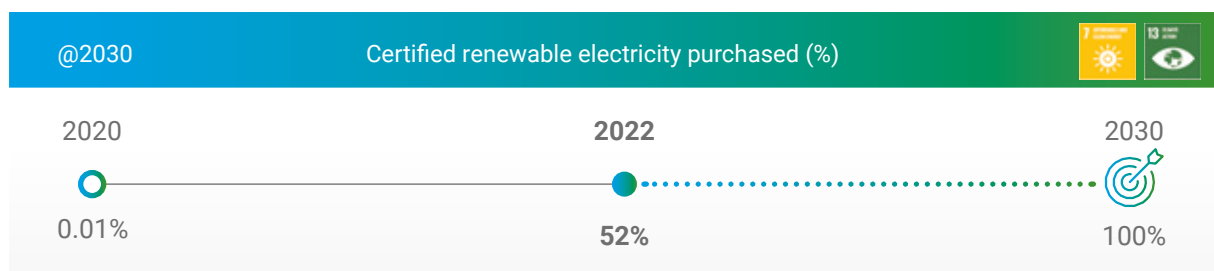
**-17%**  
direct energy  
consumption  
compared to  
2021

The **direct energy consumption** of the Group concerns the use of fuels for the production of electricity and heat (co-generation plants, thermal plants, boilers, waste-to-energy plants and landfills), and the non-renewable primary energy flows not directly associated with the production of energy (e.g. site heating, fuel for the company vehicle fleet, etc.), used in carrying out its activities. Energy consumption decreased by 17% compared to 2021, mainly related to lower energy production from cogeneration and thermoelectric power, due to several factors: the hot thermal season that generated a drop in demand for heat, plant downtime due to water shortages that made it impossible to use water cooling systems, and maintenance work that required plant downtime.

In order to reduce its reliance on natural gas and the resulting negative impacts, the Group has defined a ten-year strategy of transition to renewable energy sources, also supported by storage systems, which will lead to a one-third reduction in natural gas consumption by 2030.

**Indirect energy consumption** refers to the electricity purchased and consumed by the Group, both for its offices and plants. The electricity used by the energy production plants is self-generated and can be partly purchased from third parties, if the needs exceed self-generation. In 2022, indirect energy consumption is 423 GWh, or 79,013 TOE (3,307,475 GJ), with a slight increase of 5% compared to 2021, due to several factors: the growth of the company perimeter and the start-up of new plants in the waste treatment sector, the unavailability of water, due to the drought, which has made it necessary to use alternative cooling systems, where present, in the energy production plants, as well as the increased use of pumping and lifting from wells for the aqueduct networks.

To mitigate the impact of electricity consumption, the Group has set a goal in its Business Plan to purchase 100% of its certified energy from renewable sources by 2030. In 2022, electricity was purchased from renewable sources, certified through a Guarantee of Origin (GO), covering about 52% of the total purchased.



Direct energy consumption by energy source	u.m.	2022	2021	2020
Natural gas	sm <sup>3</sup> /000	1,395,057	1,689,348	1,723,470
		1,166,267	1,412,295	1,440,821
Diesel	t	46	62	44
	TOE	47	63	45
Biogas from landfills, treatment plants and biodigesters <sup>(1)</sup>	m <sup>3</sup> /000	39,652	32,152	30,443
	TOE	16,401	11,984	11,497
Fuel for motor vehicles	t	15,617	11,849	10,643
	TOE	16,023	12,137	10,900
TOTAL	TOE	1,198,738	1,436,479	1,463,262
	GJ <sup>(2)</sup>	50,188,763	60,142,518	61,252,146

<sup>(1)</sup> Energy consumption from renewable sources.

<sup>(2)</sup> Conversion to GJ is done using the conversion factor 1 TOE = 41.868 GJ.

## Atmospheric emissions

The emissions of greenhouse gases (GHG) are produced by Iren Group directly in the operational processes (scope 1) and indirectly both through the possible supply of electricity from third parties (scope 2) and along the value chain (scope 3).

Here they are considered and counted as GHG emissions (in terms of CO<sub>2</sub> equivalent):



all direct emissions produced by sources owned by the Group, i.e. emissions generated by the combustion of fuels and waste for the production of energy and heat, those originating from the company vehicle fleet, fugitive emissions related to the dispersion of methane gas into the atmosphere in the gas distribution service, emissions related to methane dispersion produced by the decomposition processes of organic waste in landfills, those related to fluorinated gases, including the insulating SF<sub>6</sub> used in electricity distribution infrastructures, and refrigerant gases normally contained in air conditioning/refrigeration systems, and finally, those deriving from the consumption of fuels for heating the buildings of the various sites and for other activities supporting production;

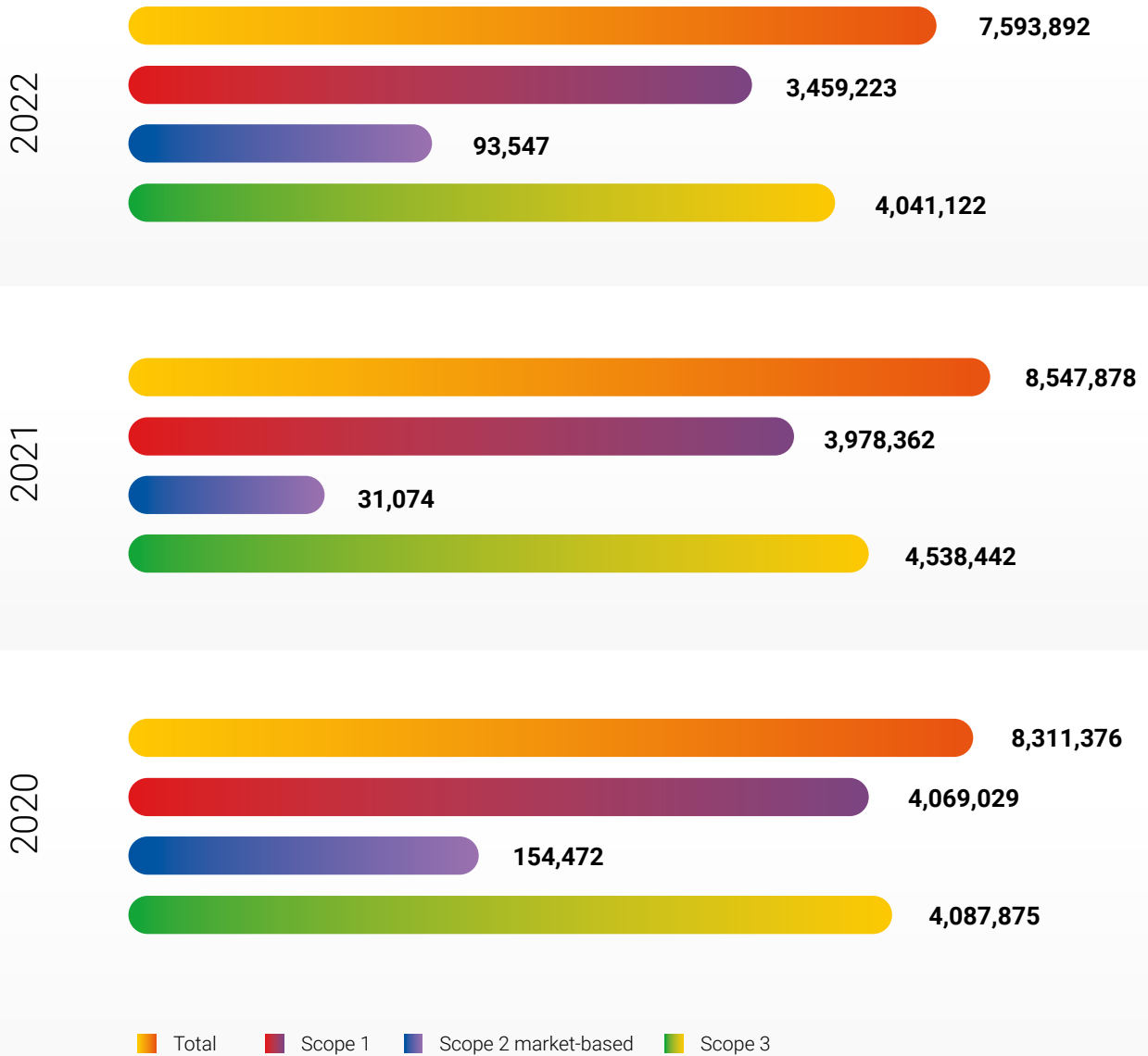


emissions deriving from the Group's indirect consumption, i.e. the emissions generated by electricity purchased from third-party suppliers and consumed both in the Group's plants and offices;



all emissions which, although connected to core and business activities, are not directly controlled by the Group but are produced in Iren's value chain, both upstream and downstream.

## Total GHG emissions (tCO<sub>2eq</sub>)



The decarbonization strategy adopted by the Group has led to the definition, in the Strategic Plan to 2030, of significant targets for the reduction of GHG emissions that affect production processes, procurement and commercial policies.

In 2022, these emission reduction targets were validated by the Science Based Target Initiative (SBTi):

- 47% reduction in the carbon intensity of energy production (scope 1) by 2030 compared to 2020;
- zeroing of scope 2 emissions, calculated according to the GHG Protocol market-based methodology, by supplying 100% renewable electricity by 2030;
- reduction of 25% of scope 3 emissions related to the use of products sold (category 11 of the GHG Protocol) and 13% of scope 3 emissions related to the purchase of energy (category 3 of the GHG Protocol), by 2030 compared to 2020.

SCOPE 1 EMISSIONS

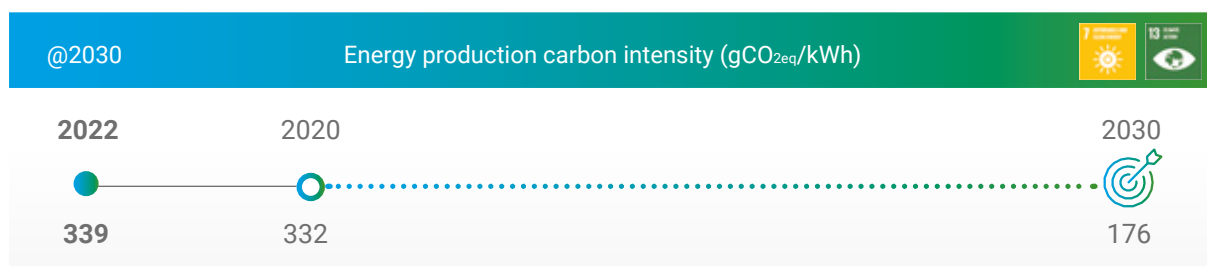
Direct GHG emissions - Scope 1 (tCO <sub>2eq</sub> )	2022	2021	2020
Production facilities <sup>(1)</sup>	3,256,849	3,764,218	3,856,284
· of which co-generation, thermal and thermoelectric power plants	2,808,945	3,333,617	3,418,020
· of which waste-to-energy plants (non-biogenic portion)	447,882	430,573	438,232
· of which combustion reactions for process uses or services	22	28	32
Company vehicles <sup>(2)</sup>	25,258	19,978	18,555
Gas distribution network <sup>(3)</sup>	18,927	22,699	21,039
Landfills <sup>(4)</sup>	149,573	163,106	166,025
Other emissions (heating, air conditioning, and other production support activities) <sup>(5)(6)</sup>	8,616	8,361	7,126
<b>TOTAL</b>	<b>3,459,223</b>	<b>3,978,362</b>	<b>4,069,029</b>

<sup>(1)</sup> The fuel emission coefficients published in the 2022 National Standard Parameter Table of the Ministry of the Environment and the Energy Security were used.  
<sup>(2)</sup> INEMAR - ARPA Lombardia (2018) emission coefficients were used.  
<sup>(3)</sup> A gas leakage rate value of 0.1% and methane GWP (Global Warming Potential) of 28 were assumed.  
<sup>(4)</sup> The GWP of methane of 28 was used.  
<sup>(5)</sup> Fuel emission coefficients published in the 2022 National Standard Parameters Table and specific GWPs for individual fluorinated gases were used.  
<sup>(6)</sup> Includes emissions of ozone-depleting substances, expressed as tCO<sub>2eq</sub>.

Direct biogenic GHG emissions (tCO <sub>2eq</sub> )	2022	2021	2020
Waste-to-energy plants	466,163	448,147	456,119
Landfills, treatment plants and biodigesters	46,447	32,796	24,915
<b>TOTAL</b>	<b>512,610</b>	<b>480,943</b>	<b>481,034</b>

The carbon intensity of energy production stands at 339 gCO<sub>2eq</sub>/kWh in 2022 (the index is calculated according to SBTi considering all scope 1 emissions of energy production plants, related to all electricity and heat produced).

The growth, compared to the previous year, is mainly due to the significant reduction in hydroelectric power generation - linked to the water shortage that characterised 2022 - and in thermal power generation in high-efficiency cogeneration plants, also linked to the climate effect that led to a drop in heat demand.



The objective set out in the Group’s Business Plan is to reduce the carbon intensity of energy production to 176 gCO<sub>2eq</sub>/kWh in 2030. The path, defined for the achievement of this objective, includes several variables: industrial, such as the development or acquisition of renewable sources for energy production, scenario, such as the availability of hydrogen and renewable gases that allow the use of fuel blends to replace natural gas alone, and technological, such as the capture and storage of CO<sub>2</sub> emitted by plants.

SCOPE 2 EMISSIONS

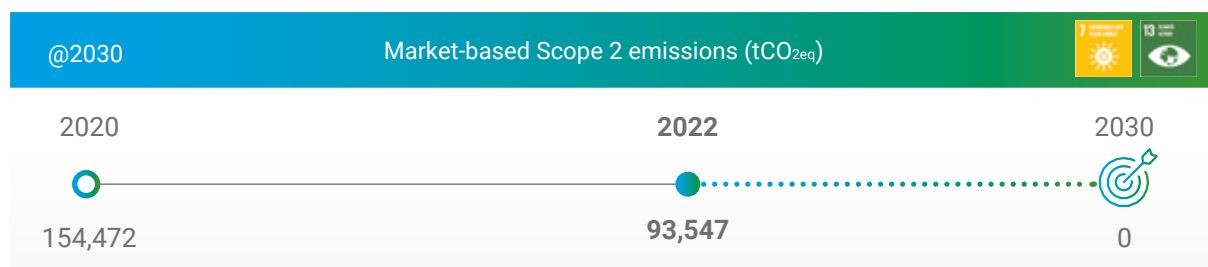
GHG emissions - scope 2 (tCO <sub>2eq</sub> )	2022	2021	2020
Location-based methodology <sup>(1)</sup>	109,857	111,869	99,720
Market-based methodology <sup>(2)</sup>	93,547	31,074	154,472

<sup>(1)</sup> The location-based methodology considers the average emission intensity of the networks where energy consumption occurs (using primarily network average emission factor data). Emissions are therefore obtained by multiplying the electricity purchased from third parties by the emission factor of the national production electricity mix, which for 2022 is equal to 260 kgCO<sub>2</sub>/MWh, for 2021 it is equal to 278 kgCO<sub>2</sub>/MWh and for 2020 is 296 kgCO<sub>2</sub>/MWh (source: Italian National Inventory Report 2022, ISPRA).

<sup>(2)</sup> The market-based methodology considers the emissions of the type of electricity the company has chosen to purchase. The emissions are, therefore, obtained by setting at zero emissions the share of electricity purchased from renewable sources certified by Guarantee of Origin and multiplying the share of electricity purchased from non-renewable sources by the emission factor that refers to the national residual mix of the previous year, which for 2022 is 456.570 kgCO<sub>2</sub>/MWh, for 2021 is 458.57 kgCO<sub>2</sub>/MWh, and for 2020 is 458.57 kgCO<sub>2</sub>/MWh (source: European Residual Mixes, AIB).

Compared to the previous year, there is a slight decrease in location-based scope 2 emissions in 2022, despite the slight increase in indirect energy consumption described above, due to the reduction in the emission factor.

The increase in scope 2 market-based emissions compared to 2021 is linked to the reduction of the Guarantee of Origin (GO) electricity used. In fact, the management model adopted by the Group envisages that the main source of GO coverage for internal consumption is the production of renewable energy from the Group’s plants. The latter, particularly hydroelectricity, suffered a major reduction in 2022 due to water scarcity.



### SCOPE 3 EMISSIONS

The Group is indirectly responsible for emissions produced by its suppliers and customers and by the entire value chain. This is why it is committed to constantly refining the scope 3 emissions reporting scope.

Despite the increase in the total order of about 12% - a figure on which the calculation of the emissions of purchased goods and services, capital goods, upstream transport and distribution is based - overall scope 3 emissions are down compared to 2021, mainly due to the lower contribution of emissions from the use of products sold, emissions related to the use of fuel and energy (not included in scope 1 or 2 emissions) and emissions related to investments following the consolidation within the scope of Sei Toscana.

GHG emissions - Scope 3 (tCO <sub>2eq</sub> )	2022	2021	2020
Purchased goods and services <sup>(1)</sup>	1,019,014	993,814	765,777
Capital goods (plants and machinery) <sup>(1)</sup>	17,501	7,190	3,256
Fuel- and energy-related activities (not included in Scope 1 and 2 emissions) <sup>(2)(3)</sup>	402,180	470,642	480,459
Upstream transport and distribution <sup>(1)</sup>	157,273	107,164	35,389
Transport of waste produced <sup>(4)</sup>	62,652	57,759	75,379
Business travel <sup>(5)</sup>	477	220	137
Employee commuting <sup>(6)</sup>	20,400	12,750	12,750
Use of products sold <sup>(7)</sup>	2,238,594	2,673,920	2,464,655
Downstream leased assets <sup>(8)</sup>	10,326	9,268	8,602
Investments <sup>(9)</sup>	112,705	205,715	241,472
<b>TOTAL</b>	<b>4,041,122</b>	<b>4,538,442</b>	<b>4,087,876</b>

<sup>(1)</sup> All orders placed with suppliers during the year are analysed and emissions related to each type of goods, services and capital equipment purchased are estimated using the GHG Protocol's Quantis Scope 3 Evaluator tool.

<sup>(2)</sup> Emissions are calculated using Well-to-Tank (WTT) UK Government GHG Conversion Factors for Company Reporting, which quantify the emissions associated with the extraction, processing, and transportation of purchased fuels and electricity. Emission factors are kept constant and equal to the base year 2020 for the purposes of comparability over the years and monitoring of the target validated by SBTi.

<sup>(3)</sup> The 2021 figure has been restated following the recalculation of emissions using the base year 2020 WTT emission factors (see note 2).

<sup>(4)</sup> The emissions generated by the disposal of waste produced by the Group have been estimated, using emission factors from the Ecoinvent 3.7.1 database reprocessed using Simapro software.

<sup>(5)</sup> Emissions from business travel are calculated through the Group's travel agency (which handles all employee travel), which performs the environmental impact analysis. For the calculation of CO<sub>2eq</sub> emissions, all services booked through the travel agency portal (plane, train, rentals, hotel) are considered.

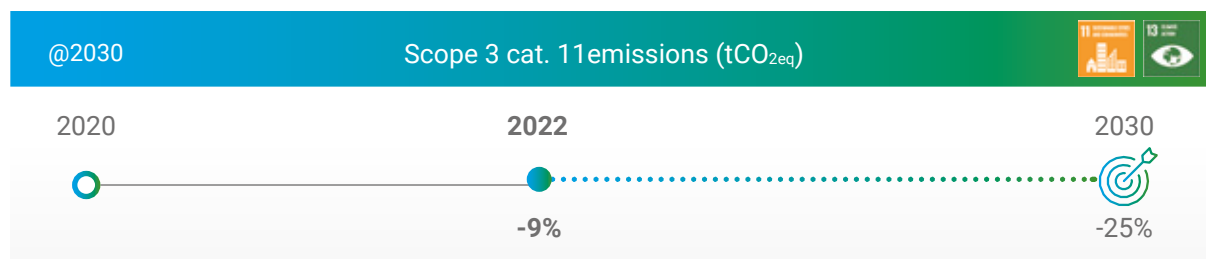
<sup>(6)</sup> Estimated on the basis of the average number of employees (range over 10,000) using the GHG Protocol's Quantis Scope 3 Evaluator tool.

<sup>(7)</sup> Volumes of gas distributed to end customers multiplied by the emission factor related to the combustion of the gas are considered.

<sup>(8)</sup> Calculated based on the value of rental and lease income earned using the GHG Protocol's Quantis Scope 3 Evaluator tool.

<sup>(9)</sup> Estimated for investee companies not consolidated on a line-by-line basis using the GHG Protocol's Quantis Scope 3 Evaluator tool. The estimate is based on the annual revenues of the companies and the proportional share of Iren Group's investment in each company.

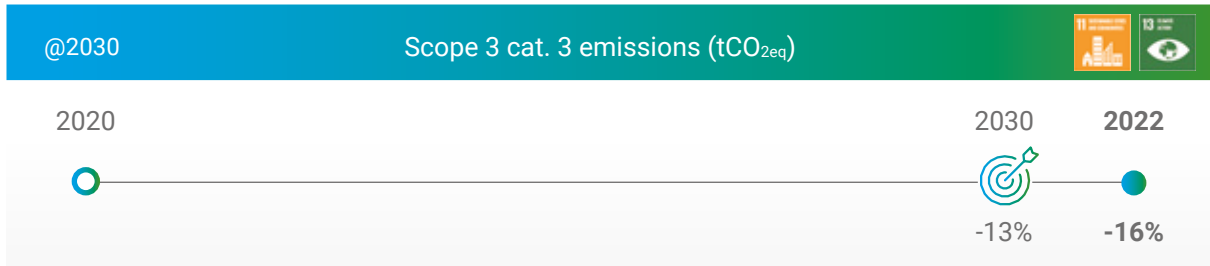
The Business Plan targets include a 25% reduction in scope 3 emissions related to the use of products sold (category 11) and a 13% reduction in scope 3 emissions related to fuel and energy use (category 3), not included in scope 1 or 2 emissions.





Emissions related to the use of products sold refer to those due to combustion, by the end user, of the natural gas distributed in the Group’s networks. The reduction, foreseen by 2030, takes into account scenario analyses that consider aspects such as: the progressive electrification of consumption, the reduction in demand for natural gas for heating due to the rise in average temperatures, the market penetration of hydrogen and renewable gases.

In 2022, there was a significant drop in this category of emissions, due to the contraction in the volumes of natural gas distributed, linked to both the warm heating season and the trend in the cost of raw materials, which has led to a reduction in demand.



The item related to the purchase of fuels and electricity quantifies the emissions produced to extract, process and transport the fuels and electricity purchased by the Group. This type of emission is also expected to decrease as a result of both a reduction in the Group’s consumption, thanks to activities planned to minimise the carbon intensity of energy production, and changes in emission factors. These emissions reflect the reduction in the Group’s overall energy consumption, described above.

Other atmospheric emissions from production plants concern sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), and particulates.

Atmospheric emissions (t)	2022	2021	2020
SO <sub>x</sub> <sup>(1)</sup>	25	43	63
NO <sub>x</sub>	746	969	1,030
Particulates <sup>(1)</sup>	9	10	11

<sup>(1)</sup> The data is calculated from the flue gas volume at the stack and the concentration measured by the emission analysis performed by an accredited external laboratory. The determined parameter, which describes the condition of a short period, is then extended to the whole year. This method of calculation may lead to significant differences from one year to the next.

## Control and reduction of emissions

All power plants fuelled by renewable energy sources, waste or natural gas, for their power supply adopt low-emission and pollutant-reducing combustion technologies (catalysts to reduce CO and NO<sub>x</sub>). Continuous emission monitoring systems allow the real-time detection of the main pollutants and the improvement of the efficiency of the combustion process of the cogeneration plants, of the larger thermal ones, serving the district heating networks, and of the waste-to-energy plants. The latter are also required, pursuant to the relevant Integrated Environmental Authorisations (IEA), to comply with stricter emission limits than those contained in national legislation.

Pursuant to the I.P.P.C. environmental legislation and relevant IEAs, it is mandatory for power plants with a capacity exceeding 50 MW to continually improve environmental services, by updating to the best available technology in order to continually reduce the pollution for the different environmental compartments, including atmospheric emissions. In addition, all thermal and thermoelectric plants, including cogeneration, with a capacity above 20 MW are subject to the system called "European Union Emission Trading Scheme" (EU-ETS). Through the annual monitoring and reporting of greenhouse gas emission data, the aim of this system is to support a more cost-effective reduction of emissions over time at European level and to promote low-carbon investments.

The generation of electricity from renewable sources creates significant positive effects on the reduction of emissions and the predominant co-generation framework (production of electricity and thermal energy that feeds the district heating networks) of the Group's thermoelectric plants significantly contributes to containing specific greenhouse gas emissions.

The combustion of the biogas produced in landfills produces the maximum reduction of methane and other greenhouse gas emissions, although its conversion into CO<sub>2</sub> has a potential greenhouse effect 28 times lower than natural gas.

In addition to monitoring and limiting emissions of power plants, Iren Group is contributing to reducing CO<sub>2</sub> emissions also through specific investments and initiatives, such as:

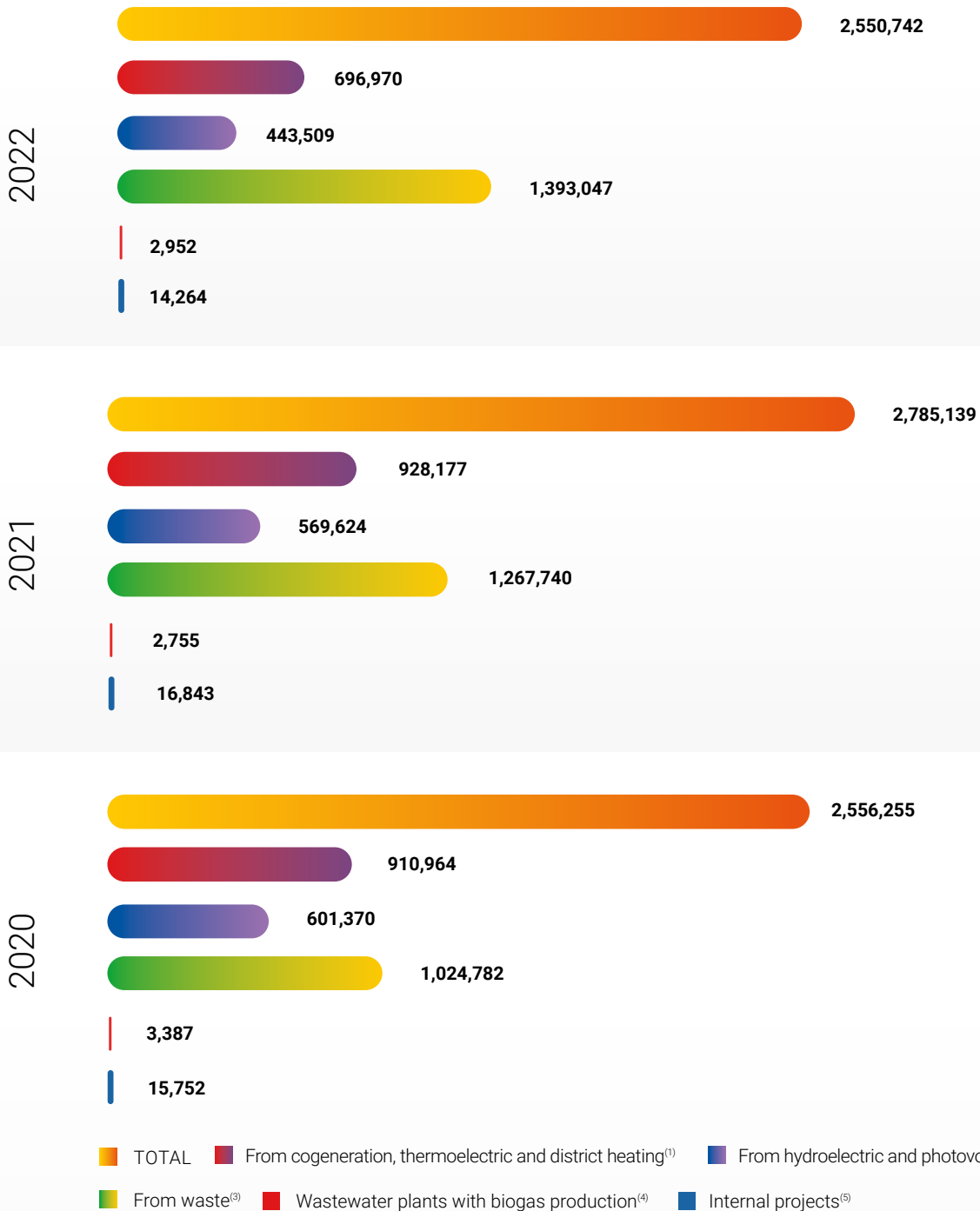
- **district heating** that uses heat produced in cogeneration, replacing traditional condominium boilers and reducing the natural gas consumption;
- **heat accumulators** that store the thermal energy produced by cogeneration plants when the demand for heat is lower, in order to release it during peak load hours of the district heating network, thus reducing the use of integration boilers and allowing a reduction in fuel consumption and related emissions of pollutants into the atmosphere;
- **electric accumulators** that can store or deliver electricity, providing flexibility to the electricity grid and strong support for the development of renewable generation;
- **sorted waste collection and recovery of materials from waste** that allow avoiding both emissions for the production of new materials and emissions that materials would have produced if sent for disposal and generate a positive impact on the environment, for example, through the reuse of plastics, including as a substitute for fossil fuels, and the production of compost and biomethane from organic waste;
- **sustainable mobility** and reduction of employee travel through smart working and agile ways of working.

“

Over 2.5 million tonnes of CO<sub>2eq</sub> avoided by eco-friendly energy production, sorted waste collection, material recovery and numerous other initiatives

Total emissions avoided in 2022 by adopting the listed initiatives are summarized in the graph below:

CO<sub>2</sub> emissions avoided (t)



<sup>(1)</sup> The calculation considers as a benchmark the emissions of the national thermoelectric system equal to 443.510kgCO<sub>2</sub>/MWh in 2022, 452.268 kgCO<sub>2</sub>/MWh in 2021 and 457.059 kgCO<sub>2</sub>/MWh in 2020 (Terna and PNA data). The data also includes emission reductions from heat storage systems.

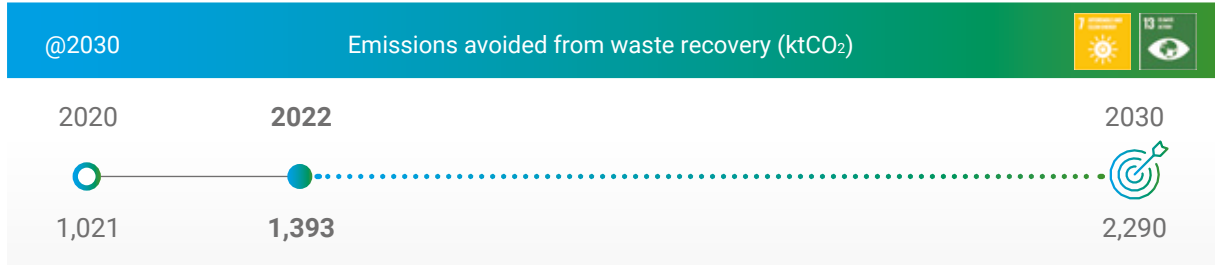
<sup>(2)</sup> The calculation considers emission reductions from hydroelectric and photovoltaic plants, compared with the conventional thermoelectric mix.

<sup>(3)</sup> CO<sub>2</sub> avoided from waste takes into account: - production from biogenic sources: electricity produced from biogas (landfills and biodigesters), electricity and heat produced by WTE, assuming 51% of the total production of WTE as a renewable source (Source: GSE) and, in the event that there is also production of thermal energy, converting thermal energy into electrical energy according to specific factors (for PAI = 1/6.88, for TRM = 1/4.5, for Piacenza = 1/6) and applying the national reference parameter (see note 1); - sorted waste collection: correlation between the most significant tonnes of recycled waste (paper and cardboard, plastic, organic and green, wood, iron, glass) and the tonnes of CO<sub>2</sub> equivalent saved (source: Waste management options and climate change EC-AEA 2001); - material recovery: the emissions avoided by the primary materials recovered in Group plants and diverted from incineration (plastic, durable goods, other materials) or by the secondary raw material produced by their recovery (compost, blair).

<sup>(4)</sup> The calculation takes into account the amount of biogas from the treatment plants from which electricity was produced.

<sup>(5)</sup> Internal Group initiatives are considered (e.g. energy efficiency of plants/processes, electrical storage, electric mobility).

In the Business Plan to 2030, the Group expects to avoid almost 2.3 million tonnes of CO<sub>2</sub> emissions thanks to sorted waste collection and recovery of materials and energy from waste.



Emissions of NO <sub>x</sub> and SO <sub>x</sub> avoided <sup>(1)</sup> (t)	2022	2021	2020
Nitrogen oxides (NO <sub>x</sub> )	594	546	467
Sulphur oxides (SO <sub>x</sub> )	182	229	271

<sup>(1)</sup> The calculation considers emissions that, for the same amount of energy produced, would have been generated by domestic heating systems and the national electricity production network, subtracting the emissions effectively produced by the Group's plants.

**OTHER INITIATIVES TO REDUCE EMISSIONS**

In order to reduce **fugitive emissions** related to the dispersion of methane gas into the atmosphere in the gas distribution service, the Group adopts distributed monitoring systems (remote control), anti-intrusion systems, the continuous planned search for leaks and the ordinary and extraordinary maintenance of networks, measuring and reduction units.

In order to optimise **mercury abatement**, the experimentation of a pilot plant for the filtration of fumes on a fixed bed of activated carbon continued at the Turin waste-to-energy plant in 2022.

For the containment of the biogas emissions from **landfills**, cycles of internal control are carried out for the regulation of the valves at the top of the biogas collector wells with measurement of the capturing efficiency of the plant.

Another initiative regarded the replacement of diesel-powered roll on/roll off compactors with electronic equivalents. In 2022, 6 new equipment was purchased, which make it possible to reduce emissions into the atmosphere and, at the same time, noise emissions.



# Energy production and saving

[GRI 2-6, 2-23, 3-3, 302-2, 302-4, 302-5, G4-EU1, EU2]

Iren Group has defined important objectives in its development plan to produce ‘green’ energy and save natural resources, particularly energy resources, is committed to ensuring high levels of energy efficiency in the management of its activities and offers energy efficiency solutions to customers. Choices that contribute not only to reducing environmental impacts, but also to mitigating the economic impact on communities resulting from the rising cost of energy commodities.

## Energy production and saving to reduce environmental and economic impacts



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Impacts inconsistent with directives and guidelines on energy efficiency and production from renewable sources, resulting in negative economic and reputational impacts
- Shortage of water resources affecting hydropower generation
- Reduction in demand for district heating caused by the rise in average temperatures
- Chronic or extreme natural phenomena from climate change that may cause impacts on assets/performance
- Changes in the legislative/regulatory framework regarding incentives for energy efficiency measures



### Opportunities

- Growth in renewable production contributing to the green transition
- Independence from fossil resources
- Growth in services dedicated to energy efficiency and self-production for communities/customers
- Extendability of district heating systems in new geographical areas



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Sustainable Financing Framework
- MbO and LTI system with ESG objectives
- ERM system (Operational Risk Policy and Climate Change Risk Policy)
- Construction/acquisition of new renewable plants
- Development of a portfolio of energy efficiency services/products for customers and communities
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- EMAS Certification
- Procedures: Environmental analysis; Execution of energy refurbishment of buildings; Management of energy resources
- Temperature monitoring
- Adoption of best available technologies
- Maintenance plans, including predictive plans
- Energy manager
- Energy diagnosis
- Monitoring and studying energy consumption

## Energy production

The Group's power production plants consist mainly of hydroelectric and photovoltaic plants that use renewable sources and combined-cycle co-generation thermoelectric plants, which are some of the most efficient technologies available on the market. Furthermore, co-generation fuels the urban district heating network, which, compared to traditional heating systems, allows for reductions in energy consumption and improves environmental performance.

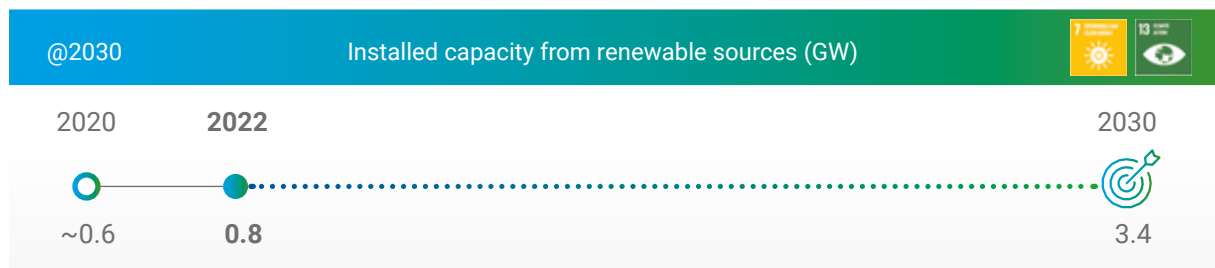
In 2022, Iren Group produced 8,252 GWh of electricity, more than 80% from renewable sources (water, solar, biomass or waste) and high-efficiency co-generation.

**8,252**  
**GWh**  
of electricity  
production

The objectives of the Strategic Plan to 2030 provide for an increase in installed capacity from renewable sources in order to reach a total of 3.4 GW. To increase the installed power of the hydroelectric plants, the projects for the reactivation of the Noasca (TO) and Giffoni (SA) plants and the San Mauro (TO) weir generator unit are continuing. In addition, the Group consolidated Valle Dora Energia, owner of the hydroelectric plants in Chiomonte and Susa, with a total capacity of 18.2 MW, from June 2022.

For the development of photovoltaic and wind power plants, the Group's strategy is oriented towards building and, secondarily, acquiring new plants to benefit the decarbonization and energy independence of the country system as well. At the beginning of 2022, the Group acquired **photovoltaic parks** in Puglia, bringing the total installed photovoltaic capacity to 210 MW by the end of 2022.

In addition, plants with an additional 69 MW of installed capacity are under construction and numerous other projects, totalling more than 500 MW, are in the development and authorisation phase. These plants are located in different Italian regions, with a particular focus on the Group's core areas.



## ELECTRICAL STORAGE FOR THE ENERGY TRANSITION

In 2022, Iren Group's first electricity storage system went into operation at the Torino Nord cogeneration plant. The system, which can store up to 6.7 MWh of energy, is an important support for the development of renewable energy sources for the energy transition, in line with the Group's objectives and national strategies, providing support services for the stability of the national electricity transmission grid. The system also makes the Torino

Nord plant even more flexible, i.e. capable of accommodating the natural intermittency of renewable sources. In a scenario aiming at the decarbonization of production, batteries assume a key role in the gradual transition to a zero-emission electric system.

The Group's Strategic Plan envisages the installation of about 300 MW of electrical storage by 2030. The next ones, which will come into operation at the end of 2023, will be installed at the Turbigio and Moncalieri power plants and will store up to 20 MWh of energy.

In addition, the Group was awarded two new storage plants, of 40 MW and 8 MW respectively, in Sardinia. Other electricity storage systems are being studied and will be implemented in the coming years in line with the Group's strategy and the emerging opportunities in the electricity market.

Net energy output	Installed power (MW)	Electricity production (GUJhe)		
		2022	2021	2020
Hydroelectric plants	622	793	1,239	1,295
Photovoltaic plants	142	207	21	21
Thermoelectric plants	1,219	1,658	2,337	2,706
Cogeneration plants <sup>(1)</sup>	1,263	4,955	5,611	5,454
Waste-to-energy plants <sup>(1)</sup>	95	605	578	598
Landfills	7	27	31	29
Biogas plants	1	5	5	7
Other renewables	1	2	1	0
<b>TOTAL</b>	<b>3,350</b>	<b>8,252</b>	<b>9,823</b>	<b>10,110</b>
		Thermal energy production ( GUJht)		
Cogeneration plants	874	2,135	2,564	2,230
Boilers	1,516	434	480	533
Waste-to-energy plants	191	301	285	180
Biomass	0.4	0.3	0.3	0.3
<b>TOTAL</b>	<b>2,581</b>	<b>2,870</b>	<b>3,329</b>	<b>2,943</b>

<sup>(1)</sup> The capacity of the cogeneration plants and waste-to-energy plants refers to the electrical set-up; the capacity of these plants in cogeneration set-up is 1,092 MWe and 62 MWe, respectively.

## Energy savings in processes

The efficient use and saving of energy resources are among the main objectives of Business Plan of Iren Group, pursued - in the short, medium and long-term - across all Business Units with increasing efficiency in processes and services, through solutions to guarantee stakeholders a reduction in energy consumption and through the use of technological systems, monitoring and guidance of correct behaviour.

The total energy savings generated by the Group in 2022 stood at about 699,000 TOE (equal to about 30 million GJ), with contributions from various areas of operation.

Energy savings in processes <sup>(1)</sup> (TOE/000)	2022	2021	2020
<b>Energy production plants</b>			
Cogenerators and boilers <sup>(2)</sup>	208	238	223
Hydroelectric <sup>(3)</sup>	138	215	225
Waste-to-energy plants <sup>(4)</sup>	63	60	60
Thermoelectric <sup>(2)</sup>	28	31	30
Landfills <sup>(3)</sup>	5	6	5
Photovoltaic <sup>(3)</sup>	36	4	4
Biogas plants <sup>(5)</sup>	6	2	3
Sorted waste collection <sup>(6)</sup>	103	97	92
Material recovery <sup>(6)</sup>	90	69	17
Heat accumulators <sup>(7)</sup>	14	9	5
Other internal projects <sup>(8)</sup>	8	9	8
<b>TOTAL</b>	<b>699</b>	<b>740</b>	<b>672</b>

<sup>(1)</sup> Values are calculated in accordance with the criteria indicated in the notes to each table item. In some cases, the energy saved may increase/decrease in a manner that is not directly proportional to the increase/decrease in production, due to an increase of the specific consumptions used for calculations;

<sup>(2)</sup> Comparison between gross production and actual fuel consumption of the Group with the consumption that the national electricity grid and the "national average" production system would have recorded to produce the same quantities of electricity and heat;

<sup>(3)</sup> The calculation was based on the assumption that there was zero fuel consumption and compared the consumption recorded by the national electricity grid for the production of the same quantities of electricity;

<sup>(4)</sup> Sum of electric and thermal energy production converted to electric, according to specific factors (PAI=1/6.88, Piacenza=1/6, TRM=1/4.5), multiplied by the coefficient for electric energy (187 TOE/GWh);

<sup>(5)</sup> Cubic metres of natural gas produced (60% of biogas) multiplied by the Sm<sup>3</sup>/TOE conversion factor 0.836;

<sup>(6)</sup> Energy consumption avoided for the primary production of the main materials collected separately and recovered in the Group's plants;

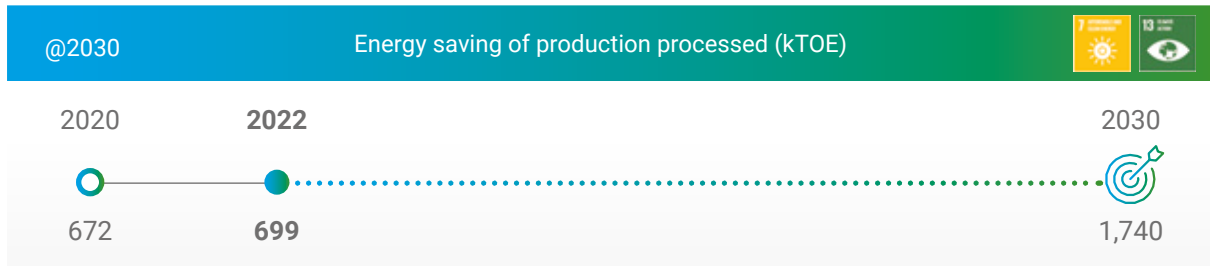
<sup>(7)</sup> Fuel not consumed in the production of the stored heat;

<sup>(8)</sup> This includes savings obtained from activities of energy efficiency of production processes, from water houses, from projects to reduce the impacts related to the mobility of employees (IrenGo, Ecoviaggio, smart working and teleworking).



The goals of the Strategic Plan include increasing energy savings from manufacturing processes to 1,740,000 TOE in 2030.

For this reason, Iren Group invests in internal projects and initiatives that, in 2022, mainly involved interventions on thermoelectric production plants, in the context of ISO 50001 Certification, and consumption efficiency interventions, with a total saving of about 2,000 TOE.



### ENERGY EFFICIENCY CERTIFICATES (EECS) AND INCENTIVES

Thanks to the high-efficiency co-generation plant of Torino Nord, 128,700 Energy Efficiency Certificates (EECs) were obtained in 2022, equivalent to an equal amount of TOE of energy savings. While public lighting projects, carried out in various areas, resulted in 6,019 EECs being awarded during the year.

The requirement to produce (or purchase on the market) and supply Energy Efficiency Certificates to the GSE (Electricity Services Provider) is the sole responsibility of Ireti (as distributor) and is valid for 2022 (with maturity 31 May 2023).

In 2022, no EECs were purchased, but the remaining 63,947 EECs were sold at an average price of 258 Euro/EECs, following the completion of obligations.

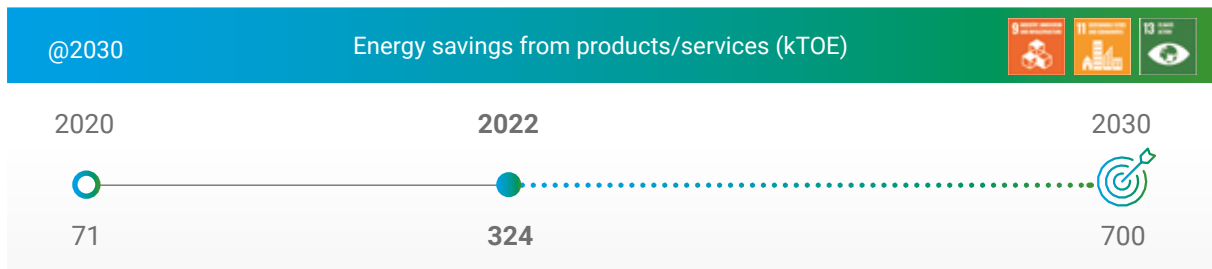
During the year, around 2,638,000 CO<sub>2</sub> allowances (EU Allowances) were purchased to meet the obligations provided for in the Emissions Trading System (ETS) legislation related to emissions generated by Iren Group's plants.

Green Certificates were replaced by equivalent incentives which, in 2022, the Group matured in the volumes below:

Incentives by plant (no.)	2022
Hydroelectric	193,852
Waste-to-energy plants (TRM)	243,657
<b>TOTAL</b>	<b>437,509</b>

## Products and services for the energy efficiency of customers and communities

In order to generate positive environmental impacts downstream in the value chain, the Group has set in its Strategic Plan a target by 2030 of 700,000 TOE of energy saved, thanks to the offer of products and services that increase the energy efficiency and self-production of communities and citizens. For 2022, the savings achieved in this area amounted to 324,000 TOE and are attributable to the energy efficiency and rebuilding interventions carried out for private customers and Public Administrations, to the offer of "low-carbon" products and services of the Iren Plus portfolio, the sale of green electricity, as well as the spread of energy communities.



## REBUILDING AND ENERGY EFFICIENCY INTERVENTIONS

Iren Group contributes to the reduction of environmental impacts by customers, through energy efficiency and rebuilding interventions that concern:

- **energy requalification of buildings** with the launch of numerous interventions, including several social housing buildings mainly in Genoa, Reggio Emilia and Savona, also with aesthetic purposes related to the renovation of façades;
- **efficient city public lighting**, thanks to the replacement of traditional lamps with LED fixtures that guarantee a reduction in energy consumption of more than 50%. The main project concerns the city of Turin, in addition to the activities carried out in the municipalities of Alba, Asti, Biella, Fidenza, Vercelli, Cuneo and other small municipalities;
- **upgrading of heating plants in municipal buildings**, with the continuation of work on the heating plants of numerous buildings in the city of Turin;
- **installation of thermostatic valves and allocators** in condominium contexts reduces consumption in individual flats with respect to the situation pre-intervention;
- **redevelopment of heating systems in private buildings** with the replacement of diesel and traditional boilers with high energy efficiency condensing boilers in condominium buildings.

## ENERGY COMMUNITIES

In 2022, the line of activities was consolidated, in line with the projections of the Business Plan, for the development of energy communities and collective self-consumption systems in order to promote the widespread production from renewable sources to condominiums, Public Administrations and small and medium-sized businesses.

During the year, the Group received 38 full service contracts for the construction of renewable plants and the setup of the activities of as many energy communities, mainly condominiums, with an average installed power of about 20 kW.

Energy communities represent a collaborative form of energy production, centred on a local exchange system capable of facilitating sustainable development and reducing energy dependence on the national system. Their operation is based on the involvement of a number of private and/or public entities, which form a legal entity to produce electricity from renewable sources. Users in the energy community with their own electricity generation plant sell the part in excess of their own consumption to other parties connected to the local public grid.

In addition to meeting the energy needs of their members, energy communities stimulate the emergence of new socio-economic models characterised by circularity: their members actively follow all stages of the energy process, from production to energy consumption and exchange, in accordance with the principles of environmental, social and economic responsibility that focus on the active and shared participation of people.

To accelerate and trigger the process of building energy communities, Iren Group plans, for larger plants, to fully finance the investment and take care of the design, construction and maintenance of the plant as well as the management of the energy community.

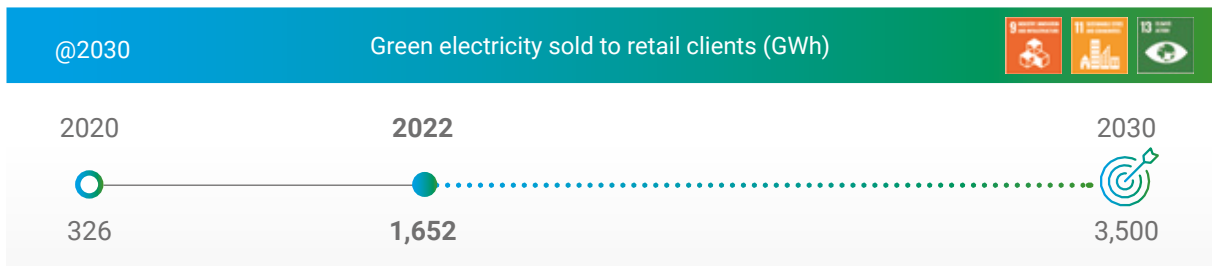
## LOW CARBON PRODUCTS AND SERVICES

Iren Group offers a range of green products and services (Iren Plus portfolio) that allow customers to obtain important results from the point of view of rationalising energy consumption:

- **turnkey photovoltaic systems**, from design to installation, for the production of clean and sustainable energy that can be stored thanks to the storage system and used only when needed;
- latest generation **heat pumps** allow to manage gas better and save up to 40% compared to current consumption;
- high-performance **windows and doors** to improve the energy efficiency of homes;
- **intelligent thermostats** for energy efficiency that ensure the boiler is switched on for the minimum time necessary to maintain the desired temperature;
- latest generation **condensing boilers** that allow saving up to 25% in consumption. Thanks to the recovery of part of the latent heat of the fumes and, consequently, to the lower use of fuel, the boilers produce, in addition to savings, less environmental pollution.

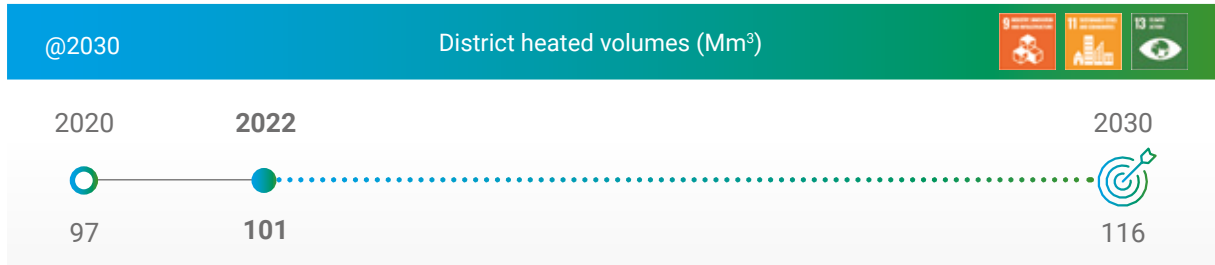
In addition to these products and services, the Group has consolidated its portfolio with the promotion of **green offers** both for the supply of **electricity** produced entirely from renewable sources, and through the first pilot projects aimed at offsetting CO<sub>2</sub> emissions related to the **supply of natural gas**. The solution envisaged for the latter is represented by certified carbon credits that attest to the offsetting or absorption of the CO<sub>2</sub> emitted into the atmosphere by the combustion of the gas. Carbon credits are generated from the development of environmental protection projects, accredited by major international standards.

Among the goals of the Strategic Plan is a steady increase in green electricity sales, to reach 3,500 GWh in 2030: in 2022, the Group sold certified green electricity for 1,652 GWh.



## DISTRICT HEATING

In the coming years, the plan to extend the district heating volume will offer customers the chance to contribute to the improvement of air quality in urban environments. The progress of this expansion is linked to the 2030 target in the Group's Business Plan.



In 2022, in addition to the management of the existing district heating networks, business development activities continued, both in the new areas of network extension and in the areas already served, in the Turin metropolitan city area and in the Emilia area, conditioned by the energy scenario that characterised the year.

In particular, as part of the Turin network saturation project, new volumes of approximately 1 million cubic metres were connected. In addition, during the year, the storage systems in Mirafiori Nord and the “Giardino del Calore” in San Salvario came into service to support the city grid.





# Sustainable use of water resources

[GRI 2-6, 3-3, 303-1, 303-2, 303-3, 303-4, 303-5]

The goals outlined in the Group’s Business Plan include the rational use and protection of water resources; consequently, the Group has defined targets regarding the quantity of water resources withdrawn for distribution for drinking water purposes and the quality of waste returned to the environment, representing key factors for sustainable management.

## Sustainable use of water resources



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Failure to achieve the targets set by the regulation
- Negative impacts on environment, health and safety with consequent reputational and economic impacts
- Interruptions to the integrated water service
- Failure to meet regulatory water quality levels for distributed and discharged water
- Accidental spills impacting groundwater and surface water bodies
- Chronic or extreme natural phenomena from climate change that may cause impacts on assets/performance
- Shortage of water resources due to droughts and climate change



### Opportunities

- Access to reward systems linked to improved environmental performance
- Reduction of energy consumption related to the reduction of water resource leaks in the network
- Reduction of water withdrawals from the environment for drinking purposes
- Improving the quality of the water resource returned to the environment
- Reuse of water resources with contribution to water stress reduction



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Sustainable Financing Framework
- Code of Ethics
- Organisational Model 231 and information flows to the Supervisory Bodies
- MbO and LTI system with ESG objectives
- Investment plans for plant and network optimisation
- ERM system (Operational Risk Policy and Climate Change Risk Policy)
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- Procedures: Environmental analysis, Management of water resources, Management and control of water withdrawals and discharges, Programmed search for water leaks, Management of accidental spills of hazardous and/or polluting substances
- Water resources monitoring plans with targets on water resource withdrawn
- Strategies for conservation and reuse of water resources
- Temperature monitoring
- Adoption of best available technologies

## Use of water in processes

The commitment to reducing environmental impacts is reflected in the conscious and sustainable use of water resources in all the Group's processes and services, in terms of both withdrawals and consumption and releases and discharges.

Most Group companies have implemented a certified environmental management system (ISO 14001) and the main production sites have EMAS registrations; therefore, they have procedures for the management of water resources, which represent an operating tool for the management of withdrawals and discharges. The procedures apply to:

- the various types of production processes and/or supplies of services, which require the use of the "water" resource, even for a secondary purpose;
- water withdrawal of any kind and purpose;
- treatments and qualitative modifications of the resource water made for any reason;
- water discharges of any kind, purpose and origin to soil, subsoil, surface water bodies and sewers.

## WATER WITHDRAWALS

The water supply to the Group's sites is made by withdrawing water from surface water bodies (reservoirs, rivers), from the sea and from groundwater pumped from wells and water mains.

Almost all of the Group's water withdrawals are attributable to **electricity and heat generation** activities: in particular, the cogeneration and thermoelectric plants, which use about 98% of the Group's total withdrawals, use water mainly for cooling thermal cycles. In order to contain and mitigate the impact of these plants on water bodies, in addition to the chemical and physical parameters, the temperature difference between withdrawal and discharge is also monitored to ensure that the water is always returned to the environment at the correct temperature. In energy production, each activity regarding the use of water sources is regulated by legal provisions of the law or authorisations with the responsibility laying in the hands of the Legal Representative of the Company or Managers, provided with specific powers of attorney and proxies, who have the task of managing and supervising the correct performance of the activities and the correct application of the procedures. Moreover, the "environmental analysis" document, prepared for each site/plant, allows for the identification of the environmental aspects related to water resources and the obligations foreseen by environmental legislations. The analysis also identifies the applicability of the legislation to the Group's plants as well as the compliance with the regulations in force.

**-8%**  
water  
withdrawals  
compared to  
2021

In 2022, the Group's water withdrawals decreased overall by 8% compared to 2021, mainly due to the lower use of cooling water for cogeneration plants linked to lower production. The enlargement of the company perimeter does not significantly influence the trend in withdrawals, as these are mostly companies operating in sectors where the use of water is not significant, compared to the Group's total withdrawals.

WATER WITHDRAWAL BY SOURCE (m<sup>3</sup>/000) <sup>(1)</sup>

Sources	2022	2021	2020
Water mains	2,364	2,787	2,450
Surface water	457,785	493,418	535,074
Seawater	10,859	13,810	9,751
Groundwater	6,497	6,737	7,417
<b>TOTAL</b>	<b>477,505</b>	<b>515,156</b>	<b>554,692</b>

<sup>(1)</sup> All withdrawal sources (except seawater) are composed of freshwater ( $\leq 1,000$  mg/L of total dissolved solids). For the integrated water service, withdrawals for industrial use in water treatment and purification activities are considered, and throughputs feeding local community waterworks are excluded.

Water used in hydroelectric power generation is considered as passing through and is therefore not counted in the Group's total water withdrawals. In fact, in these plants, the water, captured by intake works in surface water bodies and artificial reservoirs, is returned to the environment without changing its chemical and physical characteristics. In all plants, the 'Minimum Vital Flow' (DMV) is guaranteed, which is the water supply that can guarantee the natural ecological integrity of the surface water body, with particular reference to the protection of aquatic life. The DMV is defined by the Concession Specifications or by regional regulations in implementation of the approved Water Protection Plans, in accordance with the Ecological Flow Guidelines, and through agreements with the competent authorities.

In the summer of 2022, as a result of the severe drought that hit northern Italy, the Group adjusted the daily scheduling of hydroelectric power generation, particularly at the Ceresole Reale plant, to allow all farms in the Canavese area to irrigate their crops, thus enabling them to help the plantations that were most affected by the drought. This was possible thanks to constant discussions with the consortia and a weekly concertation of irrigation needs.



## RECOVERY AND REUSE OF WATER RESOURCES

With a view to circularity and mitigation of the impact of its activities on water resources, in a context where climate risks such as drought and water stress are continuously increasing, the Group promotes, where possible, water recovery and reuse initiatives.

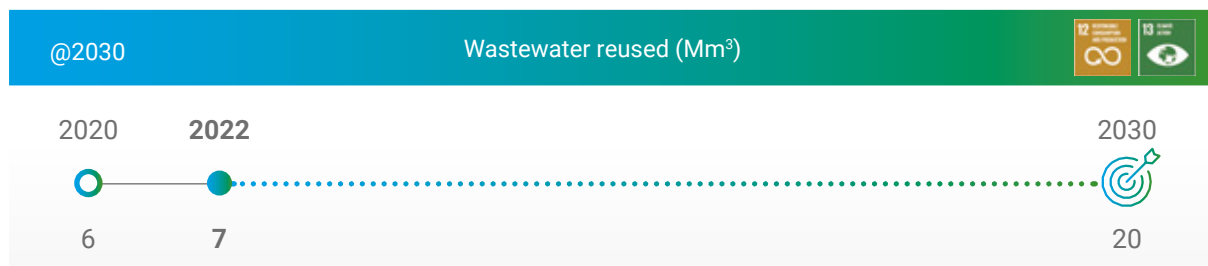
An example is the Torino Nord **cogeneration** plant, which is equipped with recovery systems for secondary rainfall rainwater and condensate from the air cooling system entering the turbine. The industrial water produced is stored in a tank and used for firefighting purposes, to supply the demineralised water production installation and for plant-related services.

Water recovery and recycling systems are also present in **waste treatment plants**: for example, in waste-to-energy plants, water is recovered and recycled, where

possible, to extinguish combustion slag and to cool the plant; in other plants, there are rainwater recovery systems that, after being treated, are used to irrigate green areas or to wash indoor areas.

Wastewater treated by **wastewater treatment plants** can be reused for irrigation purposes (agriculture, green spaces and sports facilities) and industrial purposes (plant cooling, street cleaning). Water reuse can reduce pressure on natural water resources and combat water scarcity, promoting the transition to production models centered on the concept of circular economy.

The Group, which currently recovers around 7 million cubic meters of water thanks to the Mancasale wastewater treatment plant, has set itself the goal of reaching 20 million cubic meters of recovered resources by 2030.



## WATER DISCHARGES

The activities carried out by the Group generate water discharges, whose management is regulated by Integrated Environmental Authorisations, Consolidated Environmental Authorisations and existing legislation:

- industrial discharges (including water used for the cooling of plants);
- integrated water service (process water from purification and treatment systems that do not contain particular pollutants);
- waste management and treatment;
- washing vehicles and industrial areas;
- discharge of domestic water at non-industrial sites.

Most water discharges are composed of water used in the cooling process at thermoelectric plants, which is discharged to surface water (rivers).

Discharges, like withdrawals, are also 8% lower than in 2021.



WATER DISCHARGES (m<sup>3</sup>/000) <sup>(1)</sup>

Destinations	2022	2021	2020
Surface water	458,984	494,744	536,634
Groundwater <sup>(2)</sup>	148	102	151
Seawater	10,881	13,810	9,768
Sewer	5,864	6,500	6,481
<b>TOTAL</b>	<b>475,877</b>	<b>515,156</b>	<b>553,034</b>

<sup>(1)</sup> All discharges (except seawater) are composed of freshwater ( $\leq 1,000$  mg/L of total dissolved solids). For treatment plants, only process water is considered, not treated wastewater serving communities (see page 180).

<sup>(2)</sup> The figure for 2021 has been restated for data collection refinement.

The water withdrawn is almost totally returned to the environment: about 0.3% of withdrawals, equal to 1.6 million m<sup>3</sup>, is consumed in industrial processes. Predominantly water evaporated during production processes (WTE and thermoelectric plants) and used for the district heating networks.

## Management of the Integrated Water Service

### WATER PRODUCTION AND DISTRIBUTION

The supply of water for the distribution of drinking water to the communities is carried out in compliance with regulations and concessions and according to effectiveness and efficiency criteria.

The criteria for using resources consider several factors: authorised quantities, size of reserves in the main reservoirs, the quality of available surface water, the hydrological features of the basins, final

data relating to the previous year and the current year. Modern automation and remote control equipment ensure the water catchment, purification, and lifting systems' best operation.

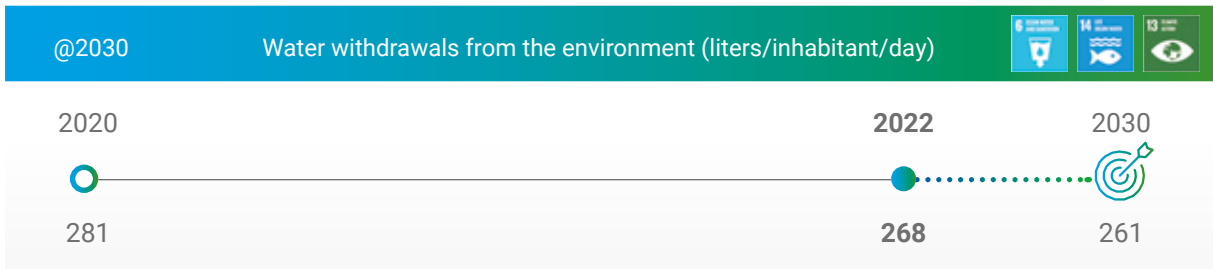
The water injected into the network shows a decrease of 4% compared to 2021, due in part to the significant improvement achieved in reducing water network leaks.

Water injected into the network (m <sup>3</sup> /000)	2022	2021	2020
Piacenza	30,913	32,608	31,041
Parma	35,075	37,645	38,095
Reggio Emilia	43,989	44,936	45,818
Vercelli	8,617	8,614	8,916
Genoa <sup>(1)</sup>	87,125	87,725	90,605
Savona	18,574	19,540	19,093
Imperia	3,198	3,108	3,080
La Spezia <sup>(2)</sup>	37,876	39,800	38,002
Other provinces <sup>(3)</sup>	1,425	3,941	4,956
<b>TOTAL</b>	<b>266,792</b>	<b>277,917</b>	<b>279,606</b>

<sup>(1)</sup> From 1/7/2022 some municipalities in the Genoa area were added, by virtue of the acquisition of the Società dell'Acqua Potabile (approx. 2.8 million cubic metres for the period).

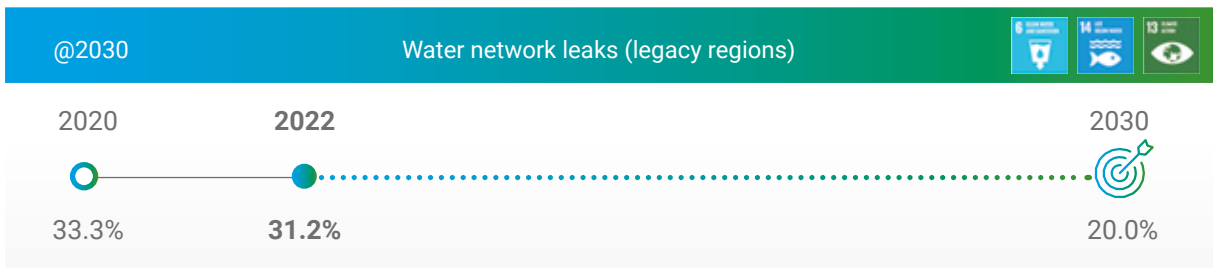
<sup>(2)</sup> As from 1/1/2022, the management in the municipality of Varese Ligure was taken over.

<sup>(3)</sup> As from 1/1/2022, the Group ended the management of the municipalities in the province of Mantua in which it operated, 2 municipalities in the province of Asti remain in the perimeter.

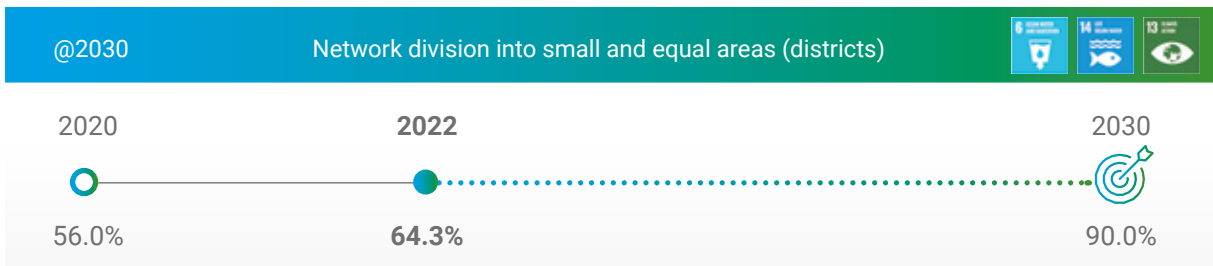


The commitment of Iren Group in the enhancement and protection of the water resource is expressed in the constant activity of research and reduction of network losses and in the sensitisation of customers and citizens to the reduction of waste. In fact, in the 2030 Business Plan, the Group has planned major investments to make the water distribution service increasingly efficient, with the aim of reducing water withdrawals from the environment and significantly reducing network losses.

The percentage of network losses stands at 31.3% (31.2% in the legacy regions), registering a significant reduction compared to 2021 (32.6%), with levels well below the national average of 40.7% (ISTAT data).



Among the initiatives for the reduction of leaks in the aqueduct networks, we note the district division: a technique that involves dividing the networks into small homogeneous areas, the so-called districts, which allow daily monitoring and constant analysis of hydraulic parameters. In this way, the instrumental leak detection campaigns are punctual and targeted only to the districts on which the monitoring has detected hidden leaks. Currently 64.3% (65.2% in the legacy regions) of the total managed network is district divided, thanks to approximately 160 new districts implemented by 2022, in line with the 2030 target of reaching 90% of the managed networks.



## WATER HOUSES

The network of houses for the free supply to citizens of water (chilled and sparkling), coming from the managed aqueducts, allows to strongly reduce the use of plastic bottles (about 19 million 1.5 litre bottles in 2022) and, consequently, the production of waste (679 tonnes of PET avoided), with an estimated saving of 1,770 tonnes of CO<sub>2</sub> thanks to the avoided consumption of 1,292 tonnes of oil equivalent for the production of bottles.



### WATER SAFETY PLANS

The Water Safety Plan (WSP) is a model, introduced by the World Health Organisation, that consists of a detailed risk analysis of the entire water-drinking chain, starting from the capture of the water resource up to the point where the water is made available to end users. This approach aims to ensure the protection of water resources and reduce potential health hazards in water for human consumption.

With the implementation of WSP, it is possible to ensure that all phases of water collection, treatment and distribution are subject to continuous and permanent risk assessment and management, through the multidisciplinary nature of the experts involved in the team (AUSL, ARPA, Regions, ATO and municipalities) to achieve a complete knowledge of the system, with the integrated water service manager as the main player and responsible for preparing the WSP.

In the water risk assessment, related to the first WSP launched by the Group, a particular focus is on climate risks intended both as exceptional weather phenomena (floods, severe droughts) and as changes in the quality/quantity of water resources due to climate change.

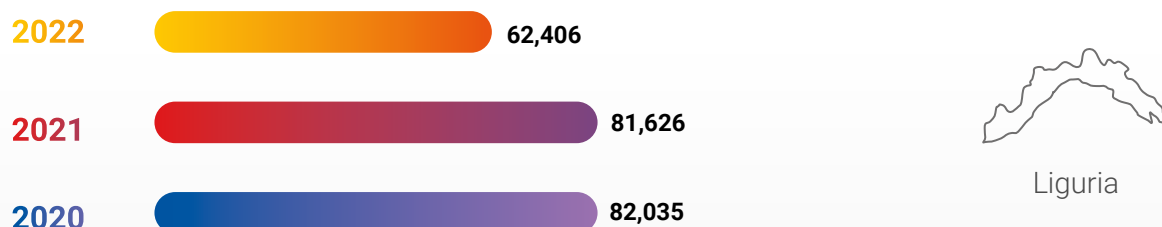
Iren Group, considering all the managed local areas as a whole, has embarked on a path to adopt and implement the WSP, giving priority to the supply areas with the largest number of inhabitants and sensitive users (hospitals, nursing homes, schools), which will be followed by the launch of the remaining plans according to a defined chronological schedule and final validation by the Ministry of Health and the Istituto Superiore di Sanità. At present, the 9 completed WSP, distributed among the provinces of Genoa, Parma, Piacenza and Reggio Emilia, cover 31% of the served population.

### SEWER AND TREATMENT QUALITY

Urban wastewater from public sewers is treated at 1,361 treatment plants of varying capacity and type. In the central plants, pre-treatments are carried out to remove coarse matter, sand and oils, primary treatments to remove settleable solids and traditional secondary and tertiary treatments for nitrogen removal and with chemical and biological dephosphating systems. The Group also manages several phyto-purification plants that use plants' treatment activity and are used both for the purification of sewage (sub-surface flow system) and for the refinement of water treated in traditional treatment plants (surface flow systems).

The volumes of wastewater treated in 2022 were down overall compared to previous years, mainly due to the severe drought that affected the areas of operation and, in relation to the Genoa area, due to some periods of shutdown that affected some plants.

Treated wastewater (m<sup>3</sup>/000)<sup>(1)</sup>

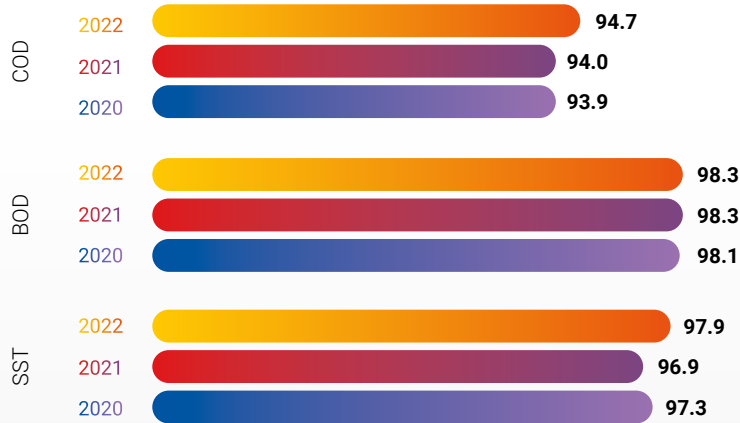


<sup>(1)</sup> For the volumes of water treated, all the Group's treatment plants with a capacity of more than 2,000 inhabitant equivalent are considered. In Liguria, the Group does not manage the sewerage and treatment service in the Savona and Imperia areas.

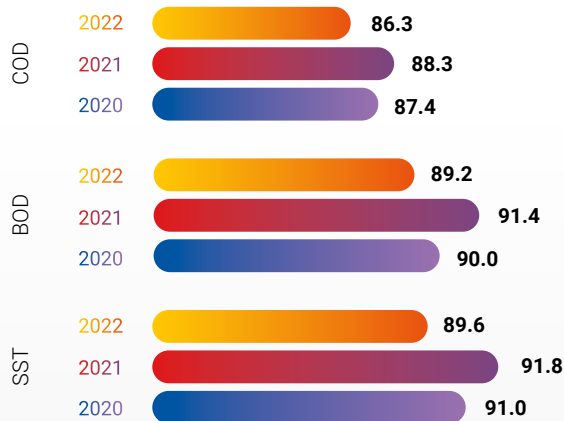
Wastewater quality is measured by the percentage of reduction of the main pollutants leaving the plants compared to the quantities entering: BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), SST (Total Suspended Solids). The Group's goal is to ensure the following percentages of reduction in the purified water: COD greater than 90%, BOD greater than 94%, and SST greater than 93%.

Overall, the following average results were obtained in 2022: 90.8% for COD, 94.6% for BOD, and 93.6% for SST. The chart details the reduction by geographic area.

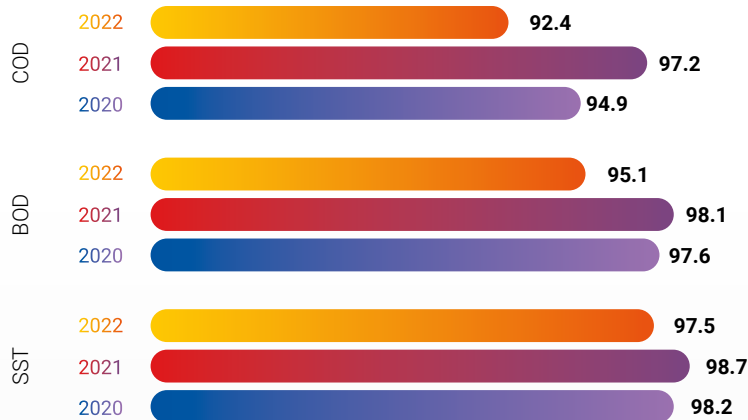
Pollutant reduction by geographical area (%)<sup>(1)</sup>



Emilia-Romagna



Liguria

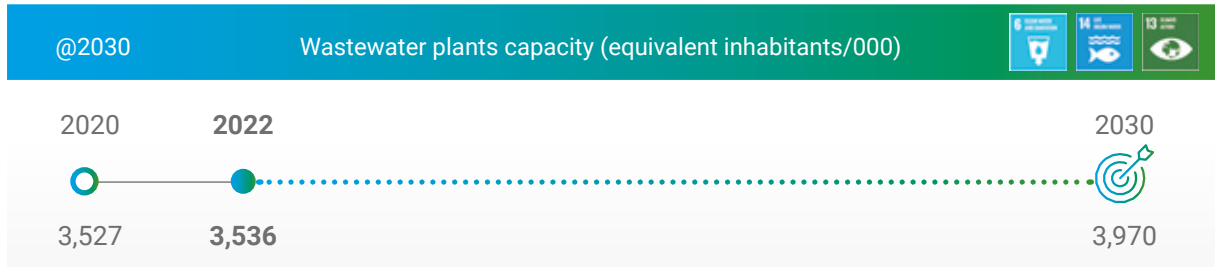


Piedmont

<sup>(1)</sup> For calculation of pollutant reduction, all the Group's treatment plants with a capacity of more than 2,000 inhabitant equivalent are considered. In Liguria, the Group does not manage the sewerage and treatment service in the Savona and Imperia areas.

The Group’s long-term objectives also include increasing the capacity of its sewage treatment plants in order to provide increasingly extensive and efficient service and to improve the environmental impact of wastewater management.

In 2022, the Group’s wastewater treatment capacity reached 3,532,000 inhabitant equivalents, plus 3,700 inhabitant equivalents in the Genoa metropolitan area served from 2022.



Lastly, the Group is committed to the containment and abatement of **odorous emissions** from treatment plants by confining them to secure rooms during the process in order to allow the air to be aspirated and treated.

## DESTINATION OF TREATED WASTEWATER

All the water bodies that receive wastewater treated by the Group in the Emilia and Piedmont regions fall within the Po river basin. The land lies within an area declared as sensitive so the plants, depending on their size, are subject to the application of the strictest nitrogen and phosphorus limits.

The wastewater treated by the treatment plants in Liguria’s served areas is discharged into the Ligurian sea (mainly the Gulf of Genoa, the Gulf of Tigullio and the Gulf of La Spezia).



# Circular waste management

[GRI 2-6, 2-23, 3-3, 306-1, 306-2, 306-3, 306-4, 306-5]

Iren Group manages its own waste and the waste managed on behalf of local communities with the aim of reducing its production and increasing recovery and production of energy from waste, according to the principles of prevention, sustainability and safety. Dialogue and a constant flow of information on the topic with Institutions and residents are essential, as is the training provided in collaboration with schools and universities.

## Circular waste management



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Impacts inconsistent with circular economy directives or negative environmental, health and safety impacts with consequent negative reputational and economic impacts
- Chronic or extreme natural phenomena from climate change that may cause impacts on assets/ performance
- Non-/missed attainment of environmental authorisations
- Incorrect handling of waste by employees or suppliers



### Opportunities

- Favourable regulatory framework
- Growth opportunities in the domestic market
- Increased consumer awareness



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Sustainable Financing Framework
- Code of Ethics
- Organisational Model 231 and information flows to the Supervisory Bodies
- MbO and LTI system with ESG objectives
- ERM system (Operational Risk Policy and Climate Change Risk Policy)
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- EMAS Certification
- Adoption of best available technologies
- Procedures: Environmental analysis; Special waste management; Hazardous and non-hazardous waste management
- Environmental authorisations
- Requirements in the specifications for the tracing of waste and timely checks
- Qualification and monitoring of suppliers
- Audit of the most significant and potentially sensitive contracts concerning environmental protection

## Waste produced by the Group

The Group's main waste-generating activities are:

- processes for the **treatment and processing of waste**, urban and special, for communities and private bodies (e.g. leachate generated at landfills, ash and debris from waste-to-energy plants, etc.);
- the **treatment and purification of water** in the management of the integrated water service for the municipalities served (e.g. sludge, sand);
- operation and maintenance of heat and **energy production plants** and **electricity and gas distribution networks**.

The Group's attention to the environment is also reflected in the correct management of the waste produced in carrying out the activities, in accordance with the **principle of the waste hierarchy**, which aims to prevent the production and use the waste produced first of all as a material, through reuse and recycling, then as energy and, only in the residual phase, through disposal (art. 179 of Legislative Decree no. 152/2006).

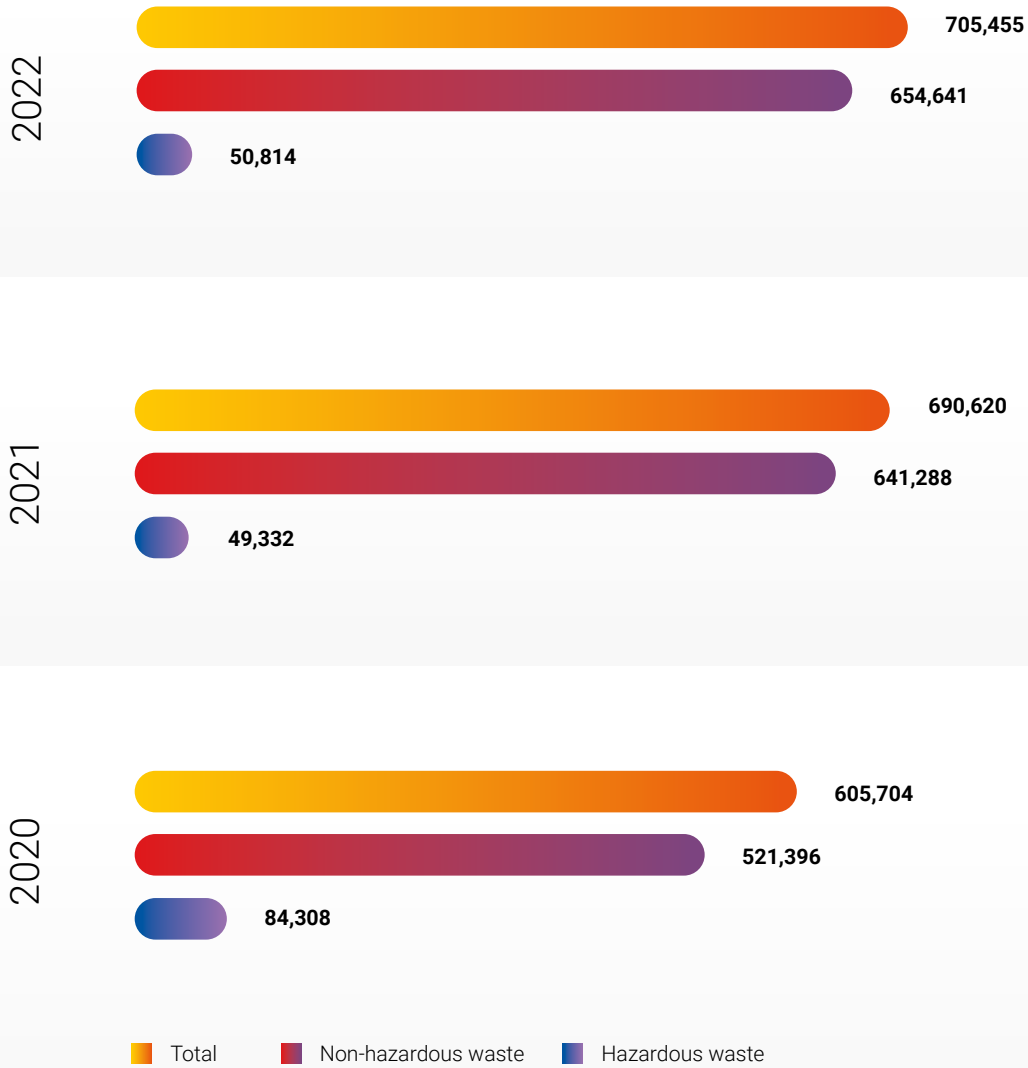
The management of special hazardous and non-hazardous waste produced at the main production sites is carried out in compliance with the procedures laid down in ISO 14001 standard or EMAS registrations, for sites with such certifications, and in accordance with environmental regulations. The transport and recovery/disposal of waste produced by company processes is carried out, where possible, internally by the Waste Management Business Unit and, where it is necessary to use third parties, it is always entrusted to bodies registered with the Register of Environmental Managers. The quantities of waste produced are monitored periodically and communicated annually to the Chambers of Commerce through the MUD declaration.

Systems of sorted waste collection, aiming to increase material recycling, have been installed in all Group sites. Policies limiting the use of paper have also been drawn up and implemented through dematerialisation and computerisation of processes.





Waste produced by Group processes (t)



In 2022, the Group produced nearly 706,000 tonnes of waste, of which about 660,000 tonnes was non-hazardous. The slight increase over the previous year (about 2%) is mainly due to the consolidation of new companies acquired during the year and the start of operation of new waste treatment and recovery plants.

In addition to complying with the legislative framework, the waste cycle is closed with a particular focus on the enhancement of the waste resource (recycling, material recovery and preparation for re-use) with priority to the energy recovery of waste that cannot be usefully recovered, and only as a last resort to disposal.

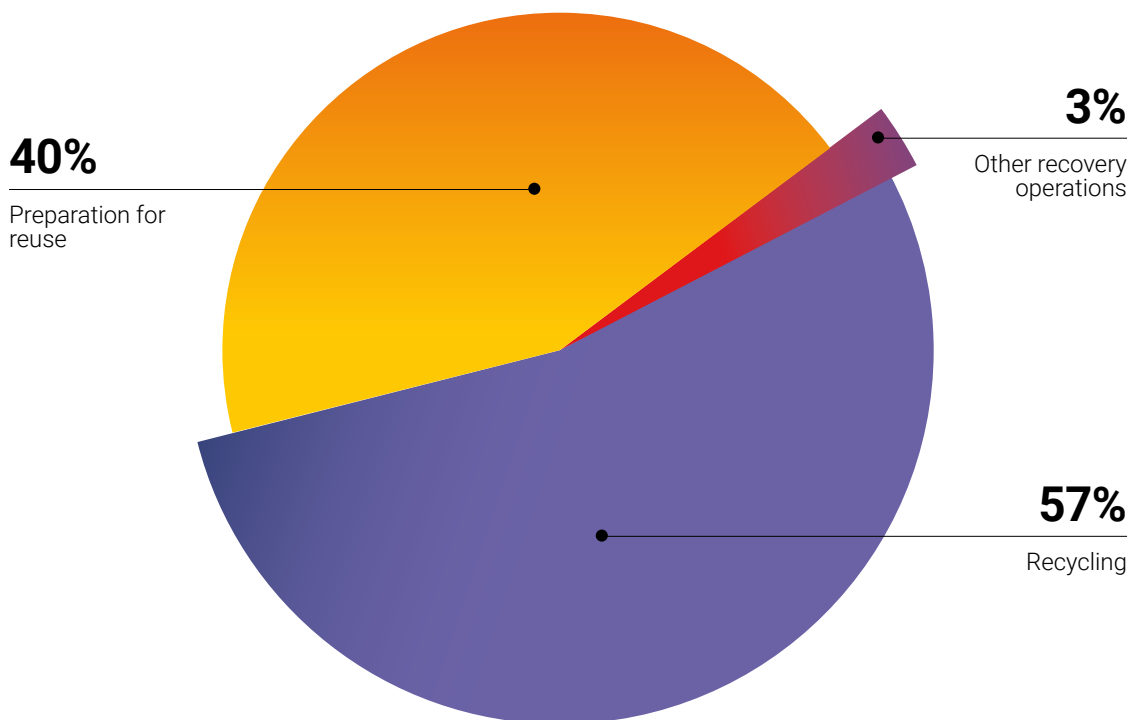
Waste generated by business and main materials (t) <sup>(1)</sup>	2022	2021	2020
Waste management services	547,391	532,610	437,406
of which non-hazardous	497,109	483,653	353,433
• Slag	178,292	169,701	173,558
• Leachate	73,229	84,756	71,536
• Sludge	15,757	15,647	7,534
• Sands	3,960	4,826	4,548
• Metals	8,096	8,898	8,238
• Other waste	217,775	199,825	88,019
of which hazardous	50,282	48,957	83,973
Integrated water service	155,242	156,508	167,185
of which non-hazardous	154,979	156,315	167,072
• Sludge	136,425	131,752	143,727
• Sands	4,019	7,679	5,762
• Sieve/muddle	4,914	5,94	5,637
• Other waste	9,621	11,490	11,946
of which hazardous	263	193	113
Net energy output	975	1,027	892
of which non-hazardous	748	864	704
of which hazardous	227	163	188
Other non-hazardous waste	1,806	456	187
Other hazardous waste	41	19	34
<b>TOTAL</b>	<b>705,455</b>	<b>690,620</b>	<b>605,704</b>

<sup>(1)</sup> The difference between waste generated and its destination (tables below) is mainly due to the amount of liquid waste used as fluidisers in the solid waste inerting process. It should be noted that the Group's activities do not produce any radioactive waste.

## Allocation of the waste produced

### WASTE DIVERTED FROM DISPOSAL

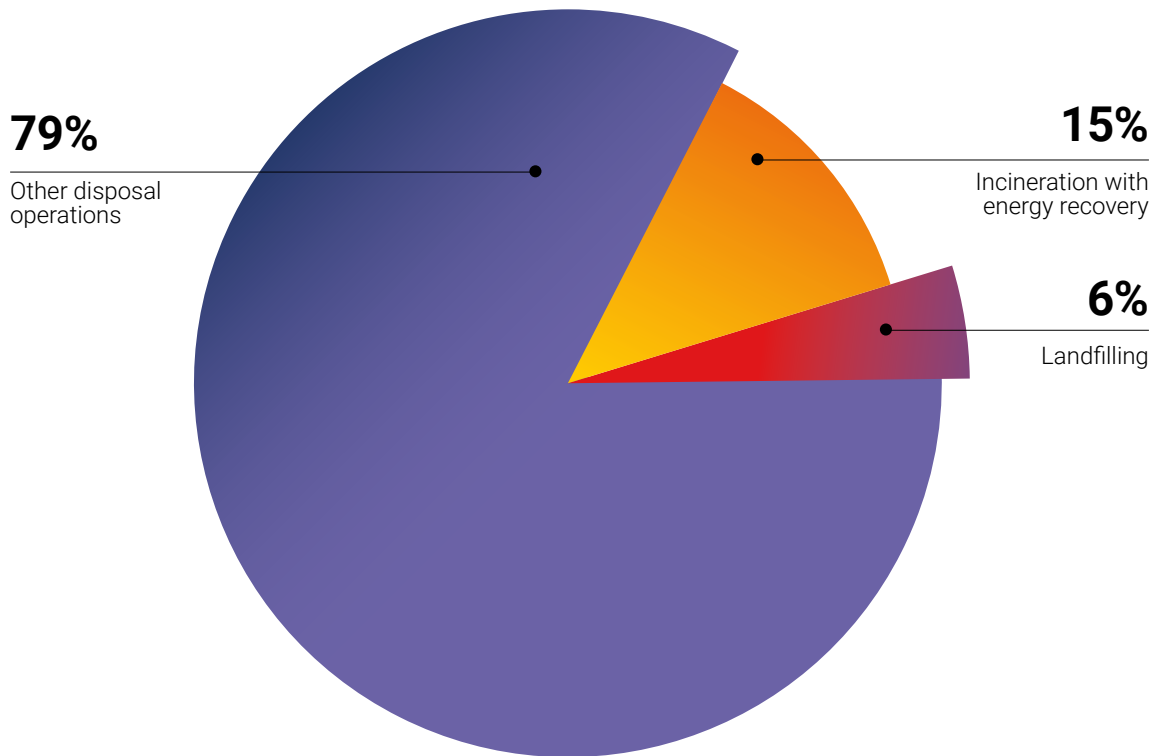
In 2022, approximately 62% of the waste produced by the Group was diverted from disposal and sent to the material recovery chain through recycling, preparation for reuse or other recovery operations, in facilities owned by the Group or by third parties.



The details of the waste diverted from disposal are shown in the following table.

Waste diverted from disposal (t)	2022		2021		2020	
	Group plants	Third-party plants	Group plants	Third-party plants	Group plants	Third-party plants
Preparing for reuse	38,369	136,539	41,221	180,446	46,311	128,108
<i>of which hazardous</i>	84	11,721	29	8,855	48	23,708
Recycling	7,576	240,309	4,085	172,995	192	168,792
<i>of which hazardous</i>	8	10,639	-	11,148	-	24,543
Other recovery operations	2,549	11,414	2,515	14,425	47	13,123
<i>of which hazardous</i>	11	67	35	1,143	13	275
<b>TOTAL</b>	<b>48,494</b>	<b>388,262</b>	<b>47,821</b>	<b>367,866</b>	<b>46,550</b>	<b>310,023</b>

WASTE DISPOSED



The remainder of the waste produced by the Group (around 38% of the total) was sent for incineration with energy recovery (15%), landfill (6%) and other disposal operations (79%), in plants owned by the Group and by third parties, in the quantities shown in the table below.

Waste disposed (t)	2022		2021		2020	
	Group plants	Third-party plants	Group plants	Third-party plants	Group plants	Third-party plants
Incineration with energy recovery	39,876	746	46,254	195	36,301	828
<i>of which hazardous</i>	4	-	64	-	4	-
Landfill	6,780	8,389	14,784	20,814	7,725	4,864
<i>of which hazardous</i>	6,650	3	7,267	105	-	-
Other disposal operations <sup>(1)</sup>	123,007	88,412	120,319	70,788	124,832	74,692
<i>of which hazardous</i>	14,261	7,323	15,440	5,711	8,616	27,112
<b>TOTAL</b>	<b>169,663</b>	<b>97,547</b>	<b>181,357</b>	<b>91,797</b>	<b>168,858</b>	<b>80,384</b>

<sup>(1)</sup> Includes 706 tonnes of waste sent to incineration without energy recovery at third-party plants.

# Waste management services for communities

## WASTE COLLECTION

Iren Group operates in the waste collection sector in a number of different capacities, depending on the agreements in place with service providers:

- as operator, on the basis of long-term agreements, in 274 municipalities in the provinces of Parma, Piacenza, Reggio Emilia (Iren Ambiente), La Spezia (Acam Ambiente), Vercelli (ASM Vercelli), in the city of Turin (Amiat) and, from 2022, in the provinces of Arezzo, Grosseto, Siena and six municipalities in the province of Livorno (ATO Toscana Sud), thanks to the acquisition of Sei Toscana. In these contexts, the Group collaborates with the Regulatory Bodies to define targets and plan the collection systems;
- as a contractor, in the case of San Germano, with operational support to local authorities or other operators, in 144 other municipalities.

In 2022, the Group provided urban waste collection services in a catchment area of more than 3.8 million residents, where about 2.9 million tonnes of urban waste were managed.

**Preventing generation, increasing sorted waste collection levels, and recycling waste** are critical objectives of management policies, as they reduce disposal requirements and thus the overall environmental impact. To this end, Iren Group promotes awareness and information initiatives to disseminate culture, awareness and behaviour oriented towards reducing waste production, through communication to citizens and schools, the introduction of punctual pricing systems that create attention and responsibility towards consumption styles more oriented towards reducing waste and scrap, and incentives to use good practices such as family self-composting.

In addition to specific communication and information campaigns aimed at raising awareness among citizens to reduce waste production, Iren Group adopts advanced collection systems (door-to-door, ecological islands with user recognition, punctual pricing), which contribute to achieving excellent levels of sorted waste collection: in 2022, the Group recorded **70% of sorted waste collection in the legacy regions** (Emilia-Romagna, Liguria and Piedmont), compared to a national average of 64%. The slight decrease compared to 2021 is linked to a general decrease in the production of organic waste and paper in almost all municipalities served.

In some areas, **levels of excellence** are around 80%, notably the provinces of Parma and Reggio Emilia, while the province of La Spezia reached 75%, a record in the Liguria region.

These excellent results are the result of the collaboration between Iren Group and the municipalities, but also of the commitment of the citizens, who show their awareness of the importance of this service with a view to protecting the territory.

SORTED WASTE COLLECTION IN LEGACY REGIONS (%)



In the **other reference areas** (ATO Sud Toscana and areas served by San Germano), the sorted collection figure stands at 61.1%, which is affected by the contribution of the ATO Sud Toscana, acquired on 1 July 2022.

**SORTED WASTE COLLECTION IN OTHER TERRITORIES (%)**

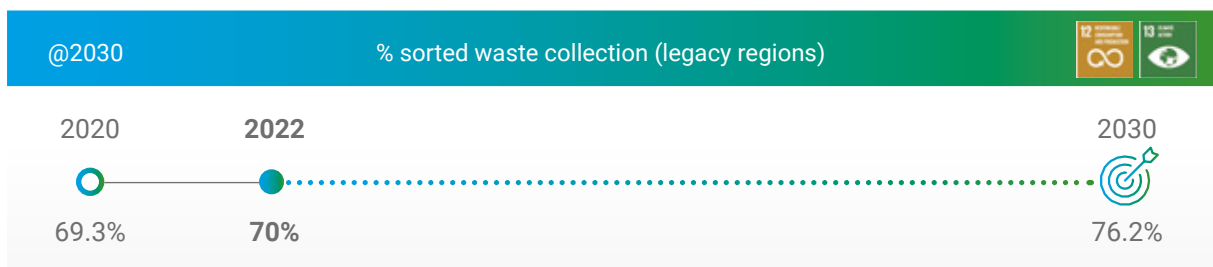


In the system offered to citizens to increase the results of sorted waste collection, the presence of 408 Collection Centres (167 in legacy regions and 241 in other reference areas) is particularly significant, where it is possible to freely confer the different types of waste inside large containers. The range of services is completed by collecting bulky waste at home and services dedicated to companies for the management of waste assimilated to urban waste.

1.1 million tonnes are sorted. Positive results were also recorded in the municipalities served under contract by San Germano, 247,000 tonnes of sorted urban waste collected, an improvement on 2021.

Of the 1.6 million tonnes of municipal waste collected in the areas in which the Group operates as manager (Emilia-Romagna, Liguria, Piedmont and Tuscany),

In line with sector directives and territorial planning, the Group has confirmed in its Business Plan to 2030 its commitment to achieve further growth in sorted waste collection to reach, by 2023, 76.2% in the legacy regions served and 75.3% in the other reference areas, through the continuous development of proximity and home collection services and punctual pricing systems.



At the end of 2022, residents of legacy regions served by punctual metering systems are 25% of the total.

SORTED WASTE COLLECTION BY METHOD (t)

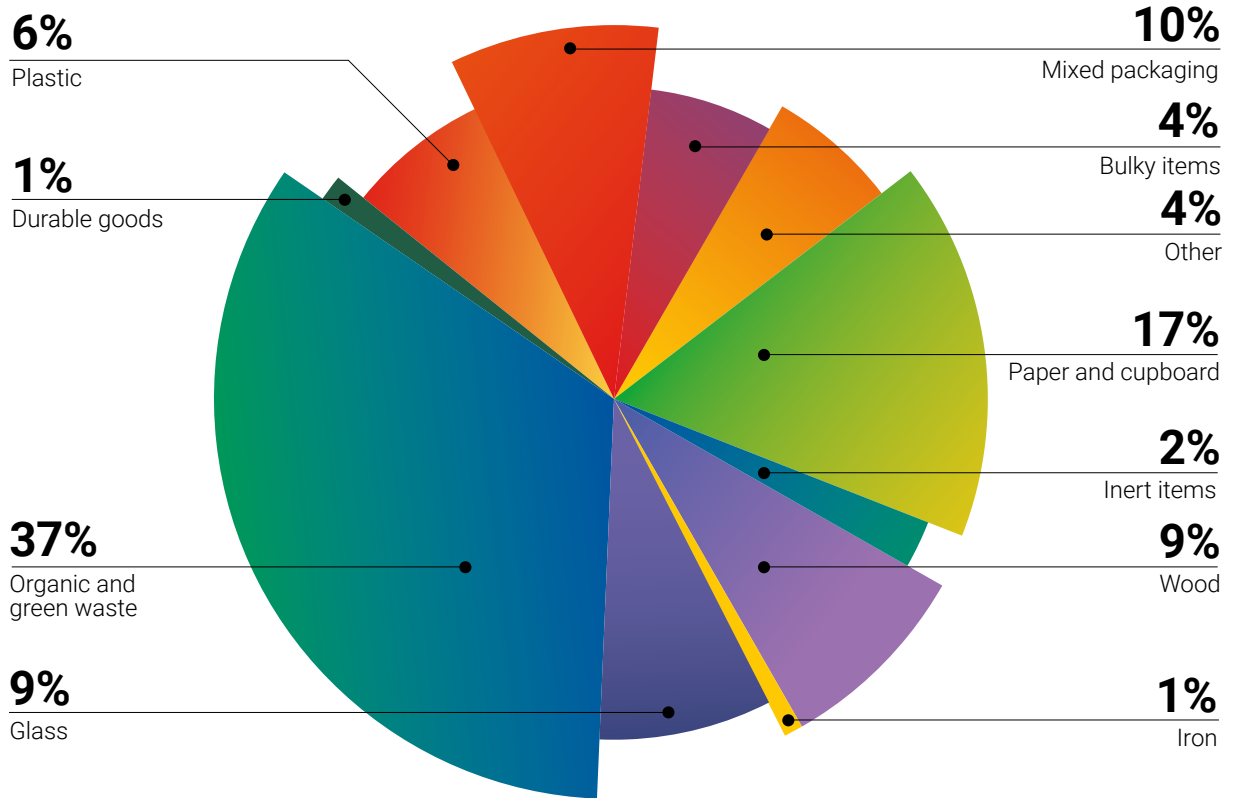


For the development and increasingly efficient management of the service, the importance of the process computerisation project (JustIren) is emphasised, which allows for important environmental benefits, thanks to optimisation of collection, waste delivery logistics, monitoring of services rendered in the local area, and extension of the punctual pricing method.

The sorted waste collected, up overall by 10% compared to 2021 due to the extension of the managed perimeter to the Tuscan area, is sent for recovery in the Group's plants, through the specialised platforms and sectors, thanks to the agreements in place with the consortia belonging to CONAI (National Packaging Consortium), or through private operators.



Sorted waste recovered by type (%)



### WASTE RECOVERY, TREATMENT AND DISPOSAL

In order to guarantee an effective management of the entire waste cycle, the Group is also committed to the treatment and disposal, the recovery of material and the exploitation of the resource waste for the generation of electricity, heat and biogas through a structured system of plants.

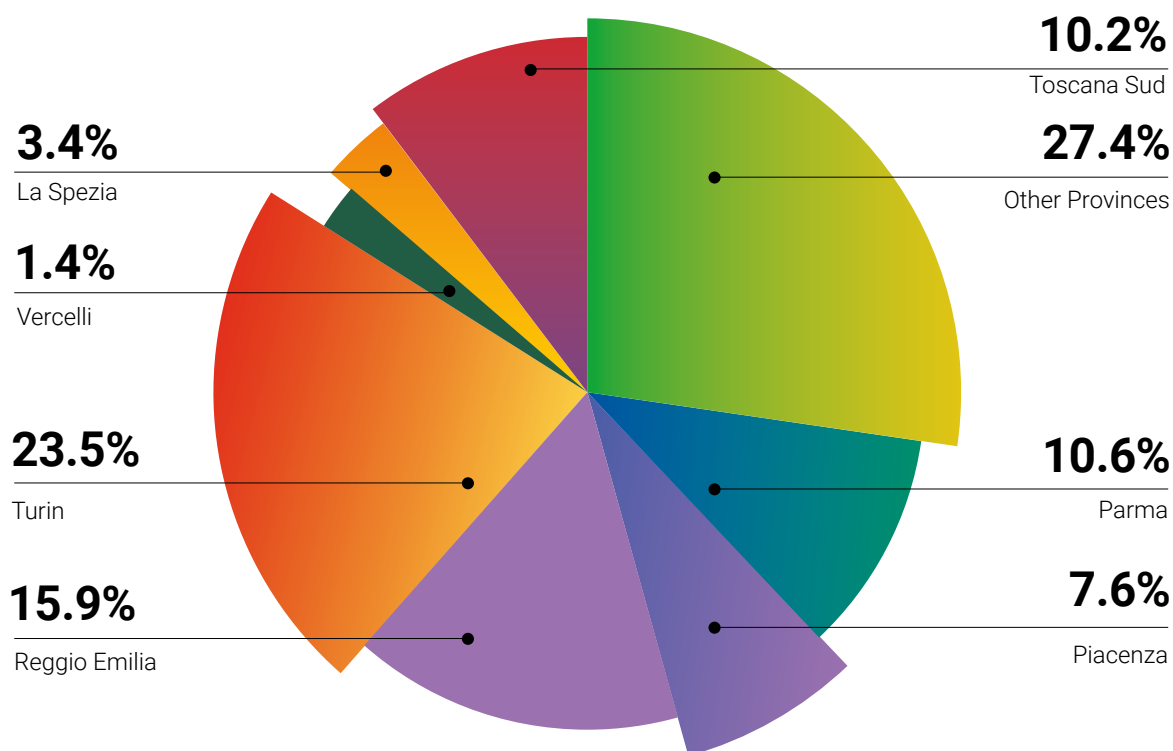
In 2022, the Group’s plant park grew, thanks to both the construction of new plants and the expansion of the company perimeter: **commissioning of the Parma paper and plastic recovery plant - ReCaP**, Italy’s largest hi-tech plant in terms of volumes of paper and plastic treated, and the **Gavassa (RE) OFMSW treatment and valorisation plant**, while as regards the new acquisitions, the Group has been enriched with a **plant for the valorisation of paper and cardboard (CRCM)**.

The plants owned by Iren Group at 31/12/2022 are as follows:

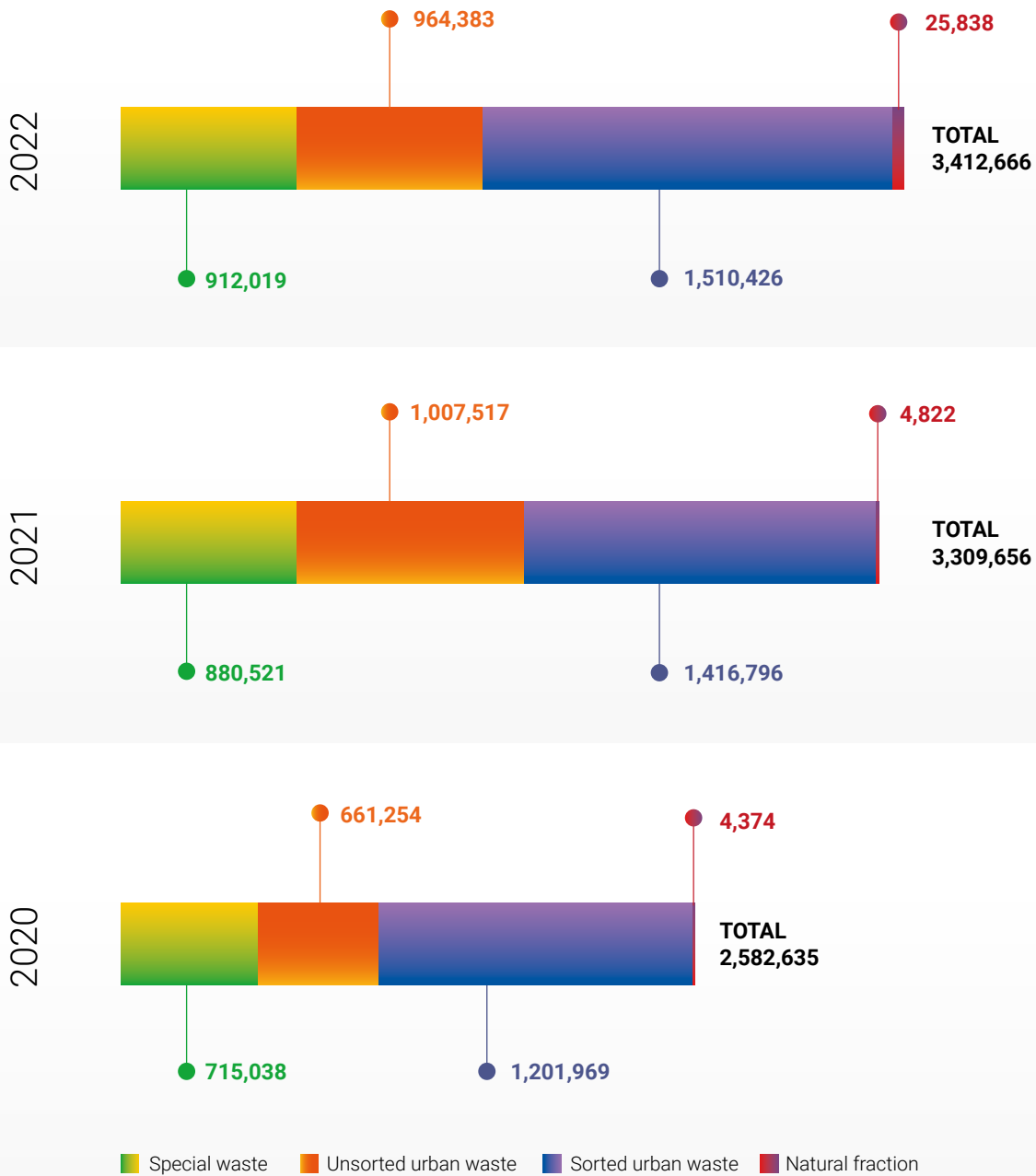
Plants	Number
Waste-to-energy plants	3
Operating landfills	4
Storage and transfer	22
Liquid waste treatment	6
Material recovery	15
Organic waste treatment and recovery	5
Mechanical-biological treatment	5

In 2022, a total of 3.7 million tonnes of waste was managed, including 387,000 tonnes collected by San Germano (these quantities are not included in the breakdowns below).

Waste managed by area of origin (%)



Waste managed by type (t)



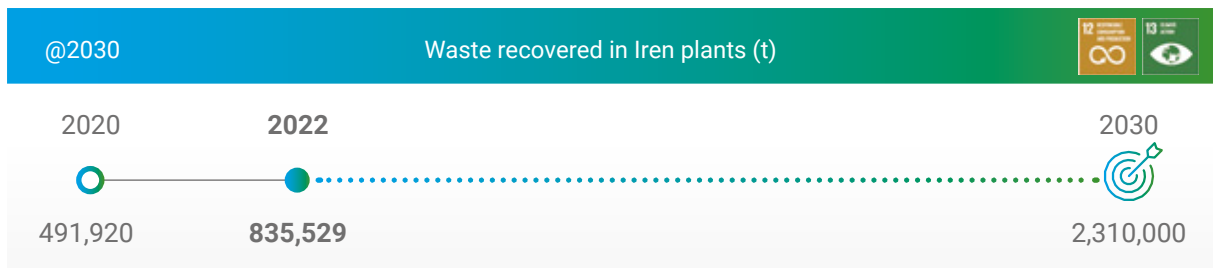
The **sorted component** of waste is up compared to 2022, thanks to the expansion of the corporate perimeter and, above all, of the material recovery plants: the construction of new plants and the full operation of the plants activated in 2021, recorded a 40% increase in waste managed in the Group’s material recovery plants.

As already highlighted above, in the Business Plan to 2030, the Group places the closure of the circular economy cycle at the centre of its strategy, envisaging huge investments in numerous new plants for the recovery of the organic fraction - with the production of compost and biomethane - of paper, plastic and wood, with the production of materials that are reintroduced on the market: the goal is to reach 2.3 million tonnes of material recovery capacity from waste in owned plants.

## CIRCULAR PLASTIC



In 2022, Iren started a partnership to produce 120 million bags for sorted waste collection, generated from **recycled plastic** collected in the areas of Parma, Piacenza and Reggio Emilia. This is a **virtuous example of circular economy**, the result of an agreement between I.Blu, a Group company that manages four major plastic recovery and recycling plants, and Relife, an innovative player in the circular economy sector, with the contribution of COREPLA, the National Consortium for the collection, recycling and recovery of plastic packaging.



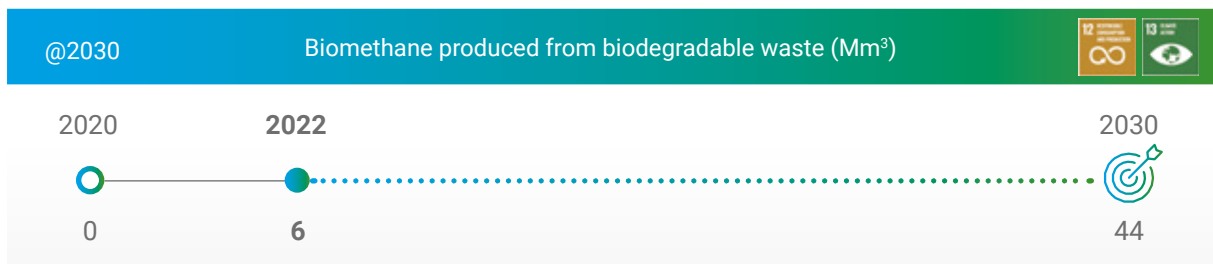
## PRODUCTION OF BIOMETHANE

The organic waste treatment and valorisation plants of Cairo Montenotte (SV), Santhià (VC) and Gavassa (RE) valorise organic waste and produce, in addition to quality compost, biomethane, a natural gas that derives from the refining and treatment of the biogas produced during the anaerobic digestion phase of organic waste and the green fraction.

The process, called upgrading, allows to increase the percentage of methane contained in the biogas, up to about 99%. In this way, the energy characteristics and uses of biomethane correspond to all effects to those of natural methane, with two substantial differences: it is not extracted from the bowels of the earth, and it is obtained from renewable raw materials.

Biomethane is a renewable source of energy, an example of circular economy and an indispensable support for decarbonization, for example of the mobility sector, which contributes to reducing the use of fossil fuels, the main source of climate-changing gas emissions.

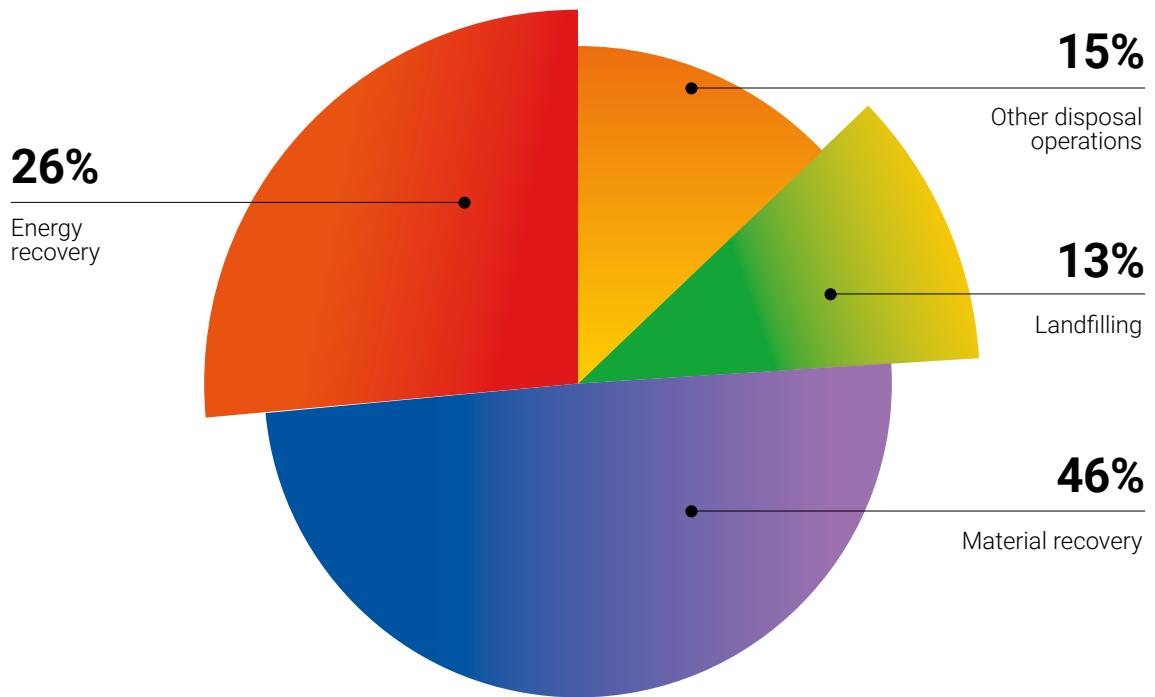
In 2022, Iren produced almost 6 million cubic metres of biomethane, in line with the growth target of the Business Plan to 2030.



The **unsorted component** of the waste is destined for various disposal methods searching for the best use of the waste resource that sees energy recovery, through waste-to-energy, as the most effective solution from an environmental point of view.

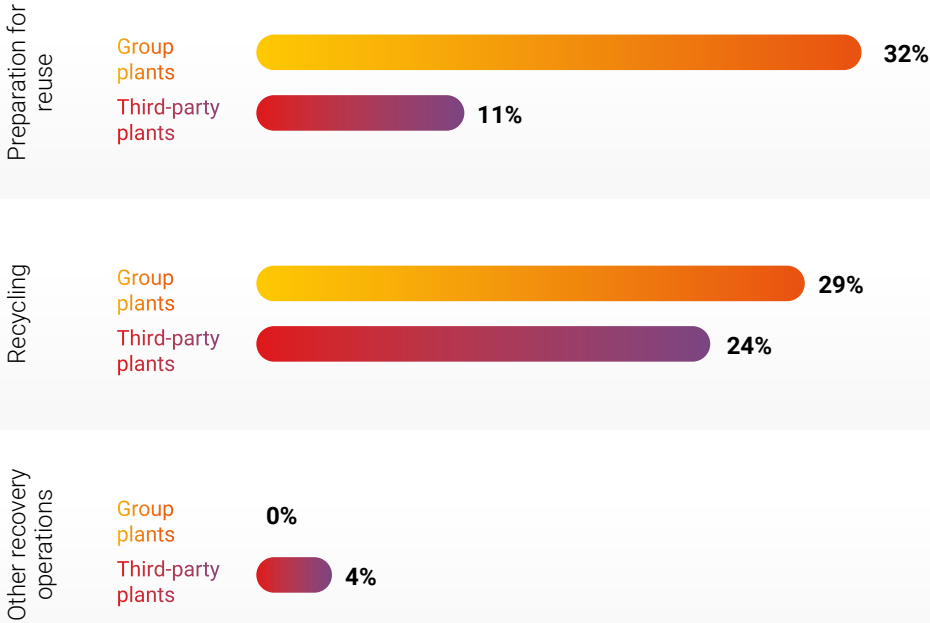
Other disposal operations include mechanical-biological treatment (MBT), which, through the mechanical selection of unsorted waste, separates the organic fraction and stabilises it biologically for recovery. In 2022, approximately 220,000 tonnes of waste was processed at the Group's MBT.

Destination of managed waste (%)



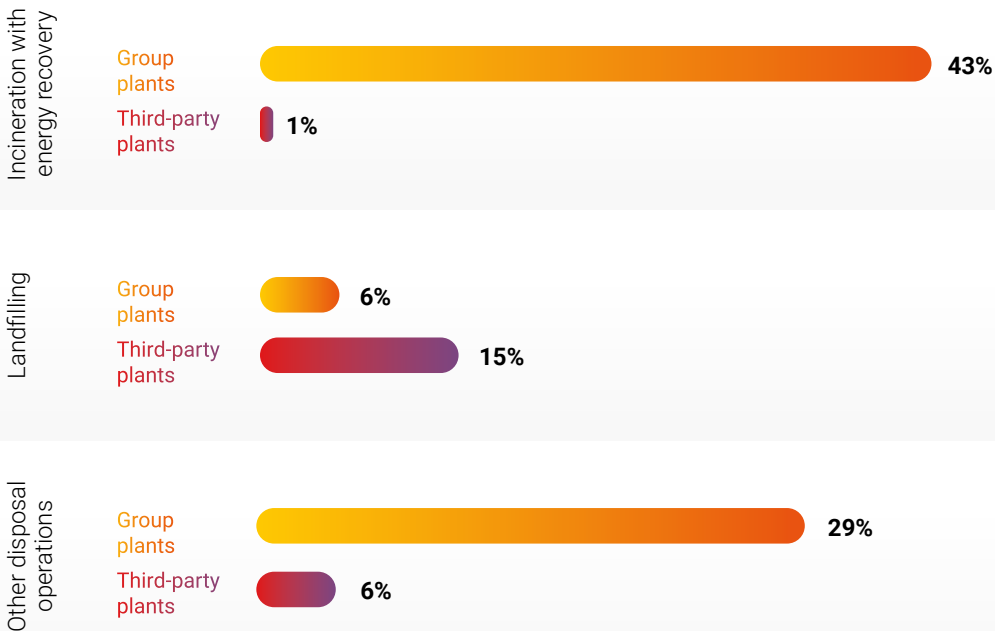
Of the total waste managed in 2022, 46% was destined for the material recovery chain in Group and third-party plants.

WASTE SENT FOR MATERIAL RECOVERY (%) <sup>(1)</sup>



43% of the portion of waste that could not be recovered as a material was sent to energy recovery and the remainder to other disposal operations or to landfills. Almost all (99.9%) of the waste sent to landfill is special waste.

WASTE DISPOSED (%) <sup>(1)</sup>



Also in 2022, no waste was sent for incineration without energy recovery. Compared to the total waste managed by the Group in 2022, only 4% is of hazardous type <sup>(1)</sup> (about 12,000 tonnes sent to material recovery and about 118,000 tonnes to disposal).

<sup>(1)</sup> The Group does not handle radioactive waste. Specific management and control procedures are in place at the plants, which require that any waste with a radioactive load intercepted prior to entering the plants (e.g. household/medical waste) is inspected by qualified experts, stored in special quarantine areas and sent for disposal only when the radioactive load has decayed.



# Mobility management

[GRI 302-1, 302-2, 305-1, 305-5, 305-7]



over  
**7,200**  
vehicles



over  
**1,300**  
environmentally friendly vehicles  
(electric, LPG, methane, hybrid)

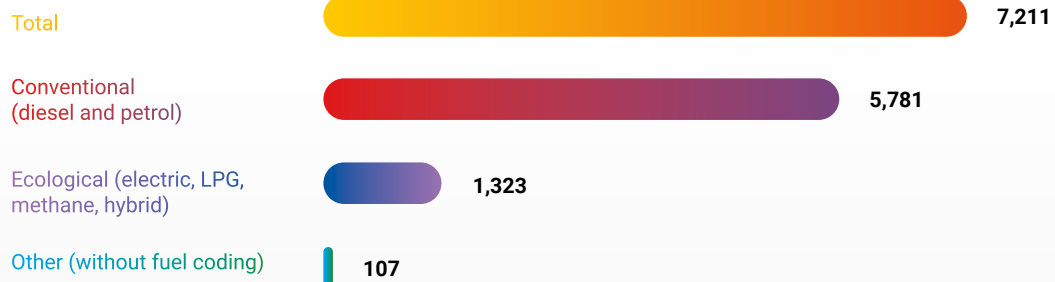
Iren Group has a fleet of over 7,200 vehicles, 18% of which are environmentally friendly (electric, LPG, methane, hybrid). More than half of the fleet is dedicated to waste collection and transport services, activities for which significant distances are expected, depending on the peculiarities of the area served. In 2022, almost 900 owned or hired vehicles of the new companies acquired during the year joined the Group's fleet, of which less than 9% were environmentally friendly.

The Group undertakes to contain the negative impacts deriving from road traffic, through the progressive electrification of the fleet, the systematic renewal of vehicles and the promotion of initiatives aimed at employees.

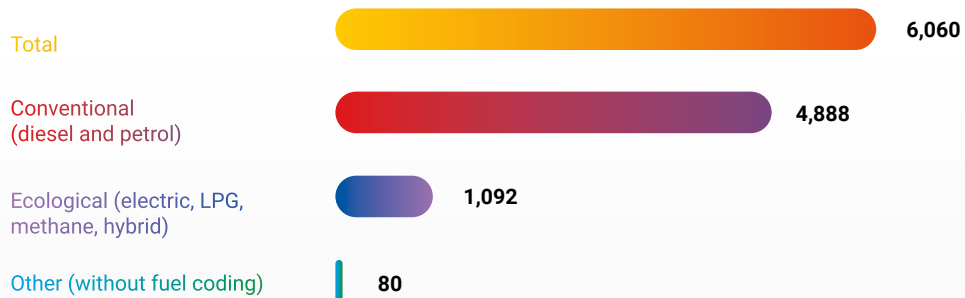
The management of vehicles is performed pursuant to the corporate guidelines that define levels of safety, maximum distances travelled and criteria of replacement in relation to total distances travelled, the age of the vehicle and level of wear and tear, the changing operating needs and the management synergies between the different areas of operation. Obsolete vehicles are replaced with electric or Euro 6D category vehicles.

Owned and leased vehicles as at 31/12/2022 (no.)

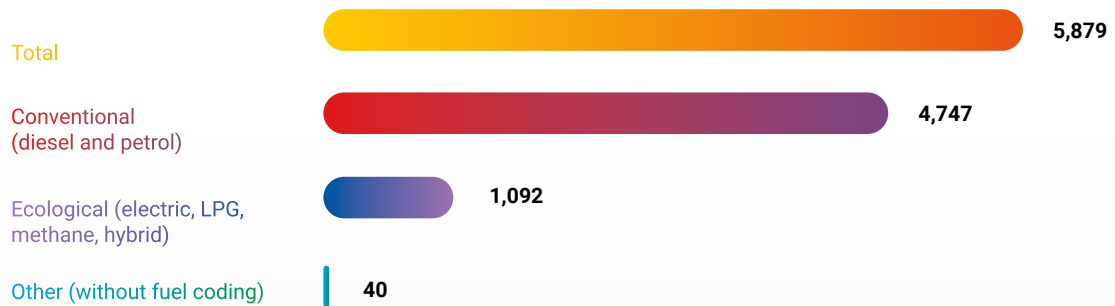
2022



2021



2020





ATMOSPHERIC EMISSIONS OF COMPANY VEHICLES (t)

Types of emissions (t) <sup>(1)</sup>	2022	2021	2020
NO <sub>x</sub>	64	53	55
VOC	2	2	3
CO	25	20	25
PM10	5	4	4
CO <sub>2</sub>	25,257	19,978	18,555

<sup>(1)</sup>The emissions are calculated multiplying the km travelled by the vehicles (broken down into different Euro categories, type of fuel and vehicle) by the more recent emission coefficients (source: INEMAR - ARPA Lombardy 2018). The mileage is obtained from the Group’s management software and through data from fuel companies on which merit checks are carried out

Atmospheric emissions in 2022 show an increase of 26% compared to the previous year, both due to the overall increase in the number of vehicles, and, to a large extent, due to the significant increase in the distance travelled by vehicles dedicated to waste collection services, which are affected by the expansion of the company perimeter and the areas served by San Germano. Furthermore, the year 2022 compares with the previous two years, which were strongly influenced by the pandemic period that limited travel (in 2019, for example, CO<sub>2</sub> emissions exceeded 20,000 t against a fleet of 5,630 total vehicles).

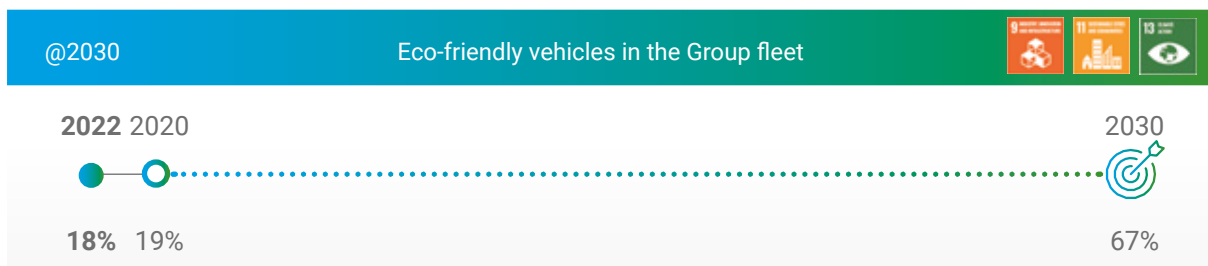
The Business Plan to 2030 pushes towards sustainable mobility, with the aim of making 67% of the company fleet eco-friendly.

The goal can be achieved mainly thanks to the **IrenGo** project, which involves purchasing full-electric vehicles – cars, vans, vehicles for sorted waste collection and heavy vehicles – and the installation of recharging infrastructures (recharging units and wall boxes) at the Company’s premises. At the end of 2022, about 950 electric vehicles were already on the road (cars, vans and waste collection quadricycles) and there were nearly 1,000 operational recharging points. These are vehicles that contribute to the improvement of air quality in the urban contexts in which they operate on a daily basis.

In 2022, the first sweepers for **cleaning cycle paths** came into operation in Turin: these are small vehicles, powered entirely by electricity in order to reduce not only polluting emissions, but also noise impact. In addition, they are equipped with a hydraulic and water recirculation system to minimise dust lift.



In 2022, the IrenGo project on the company fleet made it possible to avoid the emission of approximately 1,820 tonnes of CO<sub>2</sub> and to save over 340 TOE.



Progress towards electrification of the fleet in 2022 was influenced by the entry into the Group of new companies, acquired during the year, which will apply the Group’s vehicle management policies gradually from 2023. Net of the change in the company perimeter, the total number of vehicles would be 6,318 (of which 180 additional to 2021 for the new areas of operation acquired by San Germano in 2022), of which 1,245 with eco-friendly fuels, equal to 19.7% of the total.

The Group also promotes initiatives for the **sustainable mobility of employees**: incentives to use public transport (purchase of season tickets at a discounted price, in instalments or charged to their salary), alternative methods of transportation to get to work, such as the “Ecoviaggio Smart” app, which offers the possibility of organising car-sharing journeys for work.

In addition, the Group promotes remote working modes (teleworking and smart working) which, in 2022, involved more than 3,700 employees, generating a positive environmental impact, thanks to the reduction in travel: almost 8 million km not travelled, which avoided more than 1,140 tonnes of CO<sub>2</sub> and saved 535 TOE.







# Protection of biodiversity

[GRI 2-23, 3-3, 304-1, 304-2, 304-3, 304-4, G4-EU13]

To protect biodiversity and natural habitats, as well as entering into partnerships with Bodies, Institutions and Associations, Iren Group has developed a policy to ensure that the activities managed are compatible and sustainable for the environment and maintain its natural balance.

## Protection of biodiversity

### Risks

- Natural/accidental event affecting minimum vital water flow mechanisms according to regulations
- Possible gaps in monitoring the biodiversity impact of plants, activities or services
- Accidental spills impacting biodiversity

### Opportunities

- Improving impacts to counter biodiversity loss

### Management methods

- Biodiversity Policy
- ERM system integrated with ESG topics
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- Procedures: Environmental analysis
- Asset mapping for the assessment of impacts on biodiversity (ongoing)
- Plant equipment and monitoring systems to minimize possible impacts on biodiversity
- Contingency plans
- Collaboration with local protection agencies, institutions and associations

**Protecting biodiversity** from the continuous deterioration of natural habitats and threats to certain species is one of the main issues considered by the European Union in its environmental policy, oriented to the conservation of natural and semi-natural

habitats and of wild flora and fauna within the territory of member states. To this end, a network of special protected areas was established at European level under the Directive "Natura 2000", involving various Italian regions and areas.

The network also includes certain environments transformed by man over time which represent important areas for the survival of numerous species of plants and animals. The protection of Natura 2000 sites is mandatory (Presidential Decree 357/1997 “Regulation implementing Directive 92/43/EEC on the conservation of natural habitats, and of wild flora and fauna” and Presidential Decree 120/2003).

The regulation establishes that the territorial planning and programming must take into account the naturalistic-environmental value of Sites of Community Importance (SCI) and Special Protection Areas (SPA). In addition, it establishes that any plan or project, inside or outside these areas, which may in some way affect the conservation of protected habitats or species, must be subject to an appropriate assessment of the impact it may have on the sites concerned. Prior to the implementation of new measures, the development of new networks and the execution of significant maintenance activities (revamping/repowering), which may lead to environmental impacts for the “Natura 2000” protected areas, they must be submitted for **prior assessment in order to protect the areas**. It is also necessary to verify that machinery, plants and equipment subject to the measures possess the environmental requirements necessary and to

assess the potential impacts resulting from the use of hazardous substances and the adoption of appropriate management measures. In particular, the **impact assessment** (art. 5 Presidential Decree 357/1997) is the procedure implemented in cases where an intervention may significantly affect an SCI or an SPA in the “Natura 2000” network. The Ministry of the Environment and Energy Safety (MASE) publishes decrees which list the Italian SCIs.

The realisation and management of plants, activities and projects must be carried out in accordance with Italian environmental regulations (Legislative Decree 152/2006) which provide for the **integration of environmental aspects in the development of plans and programs and the Environmental Impact Assessment (EIA)**, with the aim of identifying and assessing in advance the effects on the environment of certain public or private projects - in their start-up phase or in case of significant changes to existing projects - and of identifying the measures to prevent, eliminate or minimise negative impacts on the environment before they actually occur, analysing the impact in terms of atmospheric emissions, water withdrawals and discharges, waste, noise and odours.

## Group Policy and principles

Iren Group formalised, in its Biodiversity Policy, its commitment to the conservation of biodiversity, which is based on the adoption of an effective management model, consistent with the National Strategy for Biodiversity, with European Union strategic objectives (European Green Deal and EU Biodiversity Strategy to 2030) and with the United Nations Sustainable Development Goals (SDGs). The principles on which the Group’s Policy is based are:

- **conservation** of the biodiversity of ecosystems, in particular for the activities carried out in vulnerable or protected natural areas;
- **monitoring** and **mitigation** of the impacts of the activities on biodiversity;
- **promotion of environmental improvement** through actions aimed at protecting areas of high ecological value and disseminating a culture of biodiversity;
- raising **awareness** and **knowledge** about biodiversity, its protection and conservation, encouraging best practice and passing it on internally and externally;
- **collaboration** with local associations and communities in actions and projects designed to increase stakeholders’ awareness of the importance of protecting biodiversity.



## Activities in protected areas or areas of environmental interest

The Group's activities, by their very nature, have a direct or indirect impact on the air, water resources, soil, ecosystems and the species that inhabit them. This is why Iren, aware that the preservation of the natural ecosystem is essential for long-term global sustainability, promotes the sustainable development of its activities.



The **electricity generation** activities in protected areas mainly concern hydroelectric plants, their impact on water resources and in terms of acoustic emissions. In order to contain and monitor the wide-ranging environmental impacts of hydroelectric plants, **Environmental Impact Assessments** are carried out and water withdrawals and releases are managed according to the concessions issued by the competent authorities.

Management Plans have been prepared for all the reservoirs managed (pursuant to Legislative Decree 152/2006) with the relevant impact studies for those affecting SCIs. The sources involved in water withdrawals at hydroelectric plants are the Ligurian Sea, the Po River, the Naviglio Grande canal, the Orco, Dora Riparia, Maira, Brugnato, Secchia, Bussento, Tanagro, Sele, Tusciano, Calore, Picentino, Terza rivers and the water table, through wells, for industrial use. Water discharges flow into the Ligurian sea, the basin of the Po, Ticino, Dora Riparia and Secchia rivers, lake Pian Telesio in Piedmont, the Chisola and Piantonetto streams, and the Naviglio Grande canal in Lombardy. All discharges are made up of cooling water from the plants or from the treatment processes of the water used in production sites. Monitoring the presence of any pollutants in the effluent and keeping the water temperature within certain ranges are essential for the protection of aquatic fauna and flora. At the Turbigio and Moncalieri power plants, for example, the temperature of the water leaving the condensers, discharged into the Naviglio Grande canal (or alternatively into the Ticino river) and near the confluence of the Po river canal, is monitored. For the Moncalieri cogeneration plant and the Baiso hydroelectric plant, the health status of the watercourses on which the plants are located is monitored by calculating the **Extended Biotic Index (EBI)**. The EBI is based on the analysis

of a group of invertebrate animal organisms, the macro-invertebrates, that colonise different types of watercourses. Based on the grouping unit and the species identified during sampling, which takes place upstream and downstream of the power plants, the quality of the watercourse can be established. Moreover, the measures to improve efficiency of hydroelectric plants, carried out by the Group, had positive repercussions on the entire system, as they reduce the need to produce energy from fossil sources and help to reduce atmospheric emissions. For all the redevelopment work carried out on plants, the plant IAFR certification (certifying that it is powered by renewable sources) was obtained, which identifies the environmental benefits expected in terms of reductions in SO<sub>2</sub>, CO<sub>2</sub>, NO<sub>x</sub>, particulate and natural gas emissions. In order to minimise the acoustic impact on the surrounding environment, all systems are properly soundproofed.



The development of the **electricity distribution network** may directly involve or be in the immediate vicinity of various areas of the "Nature 2000" network, including: Collina di Superga (SCI), Meisino (SPA), Stupinigi (SCI), in the city of Turin, Lama del Badiotto (SPA) and Garzaia della Brarola (SPA), in the city of Vercelli. The electricity distribution network of Parma does not affect SCIs or SPAs in the "Natura 2000" network.



**Waste management and environmental health** activities do not affect protected areas. Plants with greater capacity (waste-to-energy plants and landfills) are equipped with a green system, in harmony with the vegetation climax in which they are situated, with visual and environmental mitigation functions. The impacts related to the activities carried out are examined annually with the aim of verifying the result of the interventions carried out and of having all the elements necessary to confirm or modify the system implemented, in order to assess compliance with environmental regulations and authorisations and to define/update management systems improvement plans, including those related to environmental performance. The **Parma Integrated Environmental Centre (PAI)** operates in a largely industrial area and has a "green system" that, in addition to complying with the mitigation of particulates, also restores some habitats and acts as an ecological

bridge between different biotopes and will lead to the creation of an ecosystem that could be an important resource for the overall recovery of the landscape and ecological value of the area. Every year, a monitoring campaign is carried out on the content of the particulates collected from the plants sowed, in order to estimate the environmental benefits in terms of the atmospheric particulate matter removed. The **Piacenza waste-to-energy plant** is located in an area that is not subject to any urban, landscape, hydrogeological, seismic or territorial constraint and in which there are no protections for parks, oases or other protected areas. The **Turin waste-to-energy plant (TRM)** obtained a positive environmental compatibility assessment via a process that included an Environmental Impact Study, the conclusions of which, in terms of vegetation, flora, fauna and ecosystems, demonstrated that the site is located within a highly developed area where no specific natural value has been detected in regard to vegetation and wildlife. Despite being in the middle of an EIA phase, the introduction of the plant does not indicate the appearance of significant symptoms of stress on the ecosystems that already suffer from human impact; the emissions do not cause any harm to the local fauna present across a vast area, including the areas of particular naturalistic interest represented by the Stupinigi Natural Park and the system of protected areas of the Po river belt.



The management of the **gas distribution** service does not have any particular impact on biodiversity. Infrastructure development, maintenance and management activities rigorously comply with the regulatory framework relevant to environmental impact. Annual walking inspections are carried out within the natural areas where pipes are present and at the end of the winter season to not damage the vegetation.



Regarding the **integrated water service**, all the water bodies receiving wastewater treated by the Group in the Emilia and Piedmont regions are located in the basin of the Po river, which falls within the area declared sensitive. Wastewater treatment plants, therefore, are subject, depending on size, to the application of more restrictive limits for nitrogen and phosphorus. The wastewater treated by the treatment plants situated in the Liguria area is drained into the Ligurian sea from the coast (mainly the Gulf of Genoa, the Gulf of Tigullio and the Gulf of La Spezia). The treatment activity is, by its nature, aimed at maintaining optimal environmental conditions and its main objective is to ensure that discharges are appropriately treated so that they are compatible with the natural habitats of the receiving bodies of water. In the same way, protecting the areas in which sources of water withdrawal are found is of the utmost importance for the management of the integrated water service. Screenings and environmental impact assessments are carried out within the timeframe required by regulations, both for water treatment plants and water withdrawals. The Genoese plants of the Brugnato Dam lie within Antola Regional Park (Genoa), while the Gorzente lakes lie within the Regional Park of Capanne di Marcarolo, partly within the Province of Alessandria. In the Province of Piacenza, the Group owns a lowland forest within the protected area of Conoide del Nure and Bosco di Fornace Vecchia (SCI). The treatment plants managed in the province of La Spezia are located near the Cinque Terre National Park/Cinque Terre Marine Protected Area, the Porto Venere Regional Nature Park, the Regional Nature Park of Montemarcello-Magra-Vara and the Regional Islands of Portovenere Marine Protection area.


No natural habitats were offset during the reporting period.

## Areas and species protected

Iren Group constantly collaborates with the Management Bodies of the protected areas in which it works to safeguard the ecosystem and protected species.

It also undertakes to increasingly extend the mapping and location of plants and networks to identify their potential interferences with the protected areas they are located or in their vicinity.

The main Sites of Community Importance and Special Protection Areas near which there are plants and/or infrastructures managed by Iren Group are monitored annually. There are 376 protected species present in the sensitive areas around which the Group operates and listed on the IUCN Red Lists, belonging to the following categories:



IUCN categories	Total number 2022
Critical risk (CR)	13
Endangered (EN)	31
Vulnerable (VU)	41
Near threat (NT)	35
Less concern (LC)	213
Regionally extinct (RE)	3
Data deficient (DD)	13
Not applicable (NA)	27
<b>TOTAL</b>	<b>376</b>

### BEES IN PLANTS FOR THE ECOSYSTEM

In 2022, two beehives were positioned in the **Turin waste-to-energy plant** area and two in the **Parma Integrated Environmental Centre** with the aim of monitoring, on an experimental basis, the quality of the area and of various environmental factors and to facilitate pollination.

More than 120,000 bees have been placed in the hives, which are able to pollinate about 60 million flowers every day in the surrounding area and to produce about 20 kg of honey per year. The project also envisages - through the observation of the behaviour, health and productive capacity of bees - the verification of behaviour and the recording of any behavioural changes in the ecosystem created. The increasingly massive use of insecticides, herbicides and pesticides and the reduction of biological diversity caused by industrial agriculture, put a strain on the survival of bees and all pollinators that are the basis of the delicate balance of the Earth's ecosystem, which is reflected in biodiversity.





# Other initiatives to mitigate environmental impacts

[GRI 2-27, 301-1, 301-2, 307-1]

## PCB management

Polychlorinated biphenyls (PCBs) are aromatic compounds – consisting of toxic chlorinated molecules that are persistent organic pollutants with bio-accumulative properties – found in transformers and other electrical equipment. To avoid forms of pollution or dispersion of these substances, Iren Group regularly and continuously updates the number of machines containing insulating oil and the quantity contained in them, in accordance with registration and cataloguing procedures. The

environmental performance improvement programme of electricity distribution provides for the gradual decommissioning of electrical devices containing PCB/PCT contaminated oil. The goal is to keep the disposal trend steady until the elimination of all of the contaminated devices. In 2022, 13 electrical and electronic equipment containing oil contaminated with PCBs at concentrations between 50 and 500 ppm were sent for disposal, in the quantities indicated in the table.

Oil containing PCB disposed of (kg) <sup>(1)</sup>	2022	2021	2020
with PCB content of over 0.05%	0	0	0
with PCB between 0.005% and 0.05%	2,924	4,223	3,560
<b>TOTAL</b>	<b>2,924</b>	<b>4,223</b>	<b>3,560</b>

<sup>(1)</sup> The total amount of oil containing PCB in transformers and other equipment as at 31/12/2022 is approximately 47,950 kg.

## Materials used

The production and service activities involve the use of process materials acquired from external suppliers, including, for example, products for cooling and lubricating plants and machinery, substances for treating water, and reagents for waste treatment and waste-to-energy processes. In 2022, the Group used 167,943 tons of process materials in total, with a marginal proportion of renewable and recycled materials, considering the type of processes managed.

## Qualification of suppliers

As part of the qualification process, Group suppliers are required to possess environmental certifications or if they have, in any case, acquired significant and interrelated elements of the environmental system [» SEE PAGE 319](#). Moreover, information is specifically requested regarding the use of materials with low emissions, low energy consumption, of recycled or recyclable material and the eventual adoption of procedures for the storage and collection of recyclable materials in order to guarantee recycling.



## Environmental compliance and reporting mechanisms

The Environmental Management System (ISO 14001) adopted by the Group involves all employees who are required, as part of their duties, to participate in the process of risk prevention, environmental protection and protection of their own health and safety, of colleagues and third parties. To this end, the Group also contributes to the research and development of advanced technologies aimed at safeguarding resources and reducing the environmental impact and related risks.

There are many instruments at the disposal of the stakeholders to report an environmental breach: these methods include written communications via post, e-mail, fax and social media channels. All communications are considered and sent to the competent offices, which carry out to the appropriate checks, and, lastly, each stakeholder receives a response in relations to their reports.



The **production and distribution of electricity and heat** services are certified by standards of quality, safety and environmental management, and are, therefore, subject to internal and external audits with regard to the processes and obligations relevant to environmental legislation. In addition, for electricity and heat production plants covered by the ETS, the annual communication and verification, by accredited third parties, of the CO<sub>2</sub> emitted by the plants is required.



With regard to the **waste management services**, residents and Public Authorities have access to an environmental contact centre where it is possible to report any breaches and/or critical situations pertinent to the environment. Moreover, “Environmental Inspectors” operate in the provinces of Piacenza, Parma and Reggio Emilia, who patrol the areas of competence in order to identify illegal landfills and abandoned waste hazardous to the environment. Once a report is received, the Environmental Inspectors organise the verification activities and the necessary treatment for the resolution of the problems identified, pursuant to the proper procedures. In addition to this type of reporting, the Inspectors also provide information to residents about correct waste separating methods and the use of the collection service. Furthermore, specific

procedures provide guidelines for operators concerning the processes to be implemented for the solution and/or limitation of any environmental emergencies that may arise during the performance of services.

In relation to **waste-to-energy plants**, emission data are released to the Supervisory Authorities in real time. These figures are public and can be viewed daily on the websites. To ensure IEA provisions on communication anomalies are adhered to, a 24-hour technician service has been established.



In the **integrated water service**, the entire cycle is subjected to constant monitoring of operating parameters, also through remote control systems of the plants, providing for the execution of tens of thousands of laboratory analytical determinations and the continuous improvement of the use of water resources, both in terms of withdrawal and use, and of release and discharge. The integrated water service is also subject to controls pursuant to the law by local Regulatory Authorities. The optimisation of the corrective measures put in place to minimise possible negative effects of problems identified, is often carried out through the involvement of other Bodies, including through specific operational protocols.

In 2022, the Group paid 24 fines and penalties - of which 11 related to the year of reporting and 13 to previous years - for non-compliance with environmental laws and regulations, mostly related to discharge authorisations of some wastewater treatment plants, exceeding of tabular limits of effluent output and reporting on waste registers. These are fines and penalties all below 10,000 Euro (significance threshold set by the Group).



Local  
presence



## IN THIS CHAPTER WE TALK ABOUT

development  
of the local  
areas



initiatives  
and projects



education





# Sustainable development of the local areas and communities

[GRI 2-23, 2-27, 3-3, 203-1, 413-1, 413-2, 416-1, G4-EU22, EU25]

Iren Group identifies the focus for progress and the creation of shared value in the current and future communities and local areas of reference. Improving people's quality of life, making businesses more competitive, looking to the growth of local areas through the eyes of change and making development and sustainability a single value. Iren Group's vision is to make this future a reality.

## Sustainable development of the local areas and communities



### Risks

- Failure to meet the targets set out in the Business Plan and consequent negative impacts (operational, economic and reputational)
- Disruption of relations with the representative subjects of the local areas with subsequent reputational impact
- Negative perception by the community related to the presence of plants or managed activities
- Lack of perception of the Group's investments for the development of regional infrastructures
- Lack of attention to stakeholder demands that may develop socio-economic tensions in communities
- Slowdown in the dissemination of sustainability culture in communities



### Opportunities

- Policy and legislative framework increasingly oriented towards sustainable development
- Participation in national and international networks for sustainable development
- Brand promotion
- Enhancement of the local areas
- Changing consumption behaviour of customers and communities



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Code of Ethics
- Organisational Model 231 and information flows to the Supervisory Bodies
- MbO and LTI system with ESG objectives
- Structured communication plans on strategies, objectives, plants and services and local impacts
- Local Committees
- Eduiren educational programme
- Sustainability awareness programmes
- Monitoring activities and definition of corrective actions in case of claims/complaints
- Procedures: Sponsorship management; Media Relations management; Whistleblowing
- Plants open to visitors

## Investments for the local areas

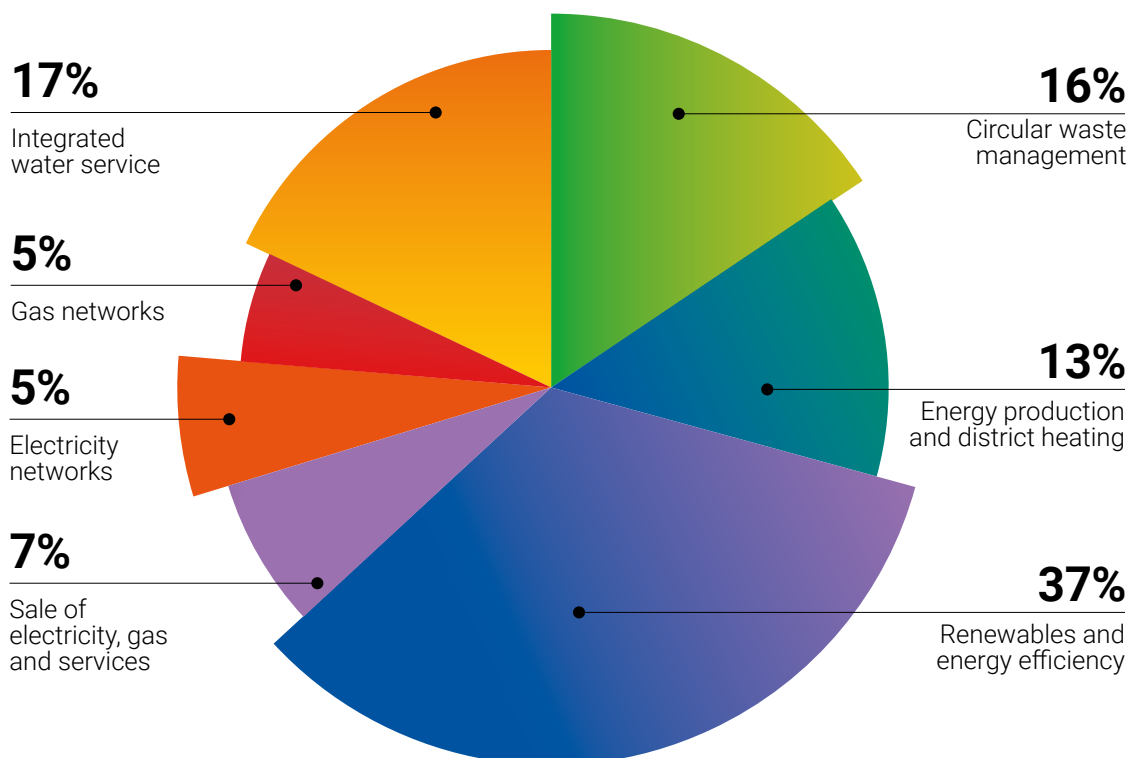
about  
**10**  
billion Euro  
investments for  
the territories of  
reference  
equal to  
about  
**95%**  
of the total

Iren Group has been characterised by strong territorial roots, continuously confirmed by the value generated in the areas of operation, in terms of economic, occupational, social and cultural impacts. Local presence represents one of the three pillars on which the Group's growth strategy is based, understood as the growth of penetration in legacy regions and the ambition to become a reference partner for communities, thanks to the expansion of the portfolio of services offered.

The Business Plan to 2030 foresees, in fact, that about 10 billion Euro, equal to 95% of the total investments, will be destined to the territories of reference to design a sustainable future to the benefit of the communities, increasing the base of customers and citizens served in the different businesses and more than doubling, compared to 2020, the areas in which Iren is present with at least four services. The ambition of the Group to become the reference partner in the territories is pursued by expanding the range of services offered to municipalities, through the proposal of new services for smart cities, e-mobility, public transport and urban and infrastructural redevelopment.

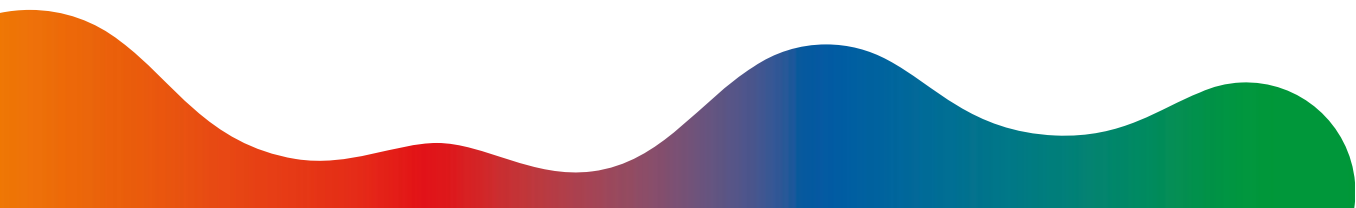
In 2022, the strategic guidelines of the Business Plan, oriented towards the local area, found concrete expression in the amount of investments made to increase the efficiency of infrastructures and services and to maximise the opportunities for business development at the service of the reference territories.

This is **1,406 million Euro** gross (including works for customers in the area carried out by Iren Smart Solutions and approximately 310 million of financial investments aimed at development through merger and acquisition transactions), representing about 95% of the total gross investment, as broken down below:



Sector analysis shows:

- in **circular waste management**, the largest share of investments relates to the construction and development of material recovery plants in Piedmont (wood, plastic and organic recovery with biomethane production) and in Emilia-Romagna (paper, plastic and organic recovery with biomethane production) and growth in central Italy with the acquisition of Sei Toscana. In addition, there are initiatives for the implementation and digitalisation of waste collection systems with punctual pricing in all the areas served;
- in the **integrated water service**, the most significant investments regard the efficiency of the water distribution networks, the upgrading, construction and renovation of wastewater treatment plants, as well as the installation of smart meters to improve the monitoring of water supplies and consumption;
- in the **electricity distribution networks**, the most significant investment initiatives in all the areas managed are related to the resilience, the renewal and adaptation of electrical substations and the widespread use of new generation smart meters (2G);
- in **gas distribution**, the most significant investments regard ordinary and extraordinary maintenance for the efficiency and safety of the network and plants, the digitalisation of processes, the installation of digital meters, and the extension of the network to serve new areas;
- in the **sale of energy and innovative services**, the commitment is focused on the ever-increasing quality of service to customers in all the territories of reference, thanks to investments in the digitalisation of operations and the gradual expansion of the service portfolio for home automation, energy efficiency and e-mobility;
- in the production from **renewable sources**, in the target areas, investments are aimed at maintaining existing plants and expanding the plant park to increase installed capacity and production, both hydroelectric and photovoltaic;
- in the area of **energy efficiency**, also thanks to incentive systems, the most significant share of resources was allocated to the rebuilding and energy requalification of buildings of public and private customers in the Group's reference areas;
- in **energy production and district heating**, most of the investments are related to the construction of new production lines from cogeneration at the Moncalieri (Turin) plant and from thermoelectric production at the Turbigio (Milan) plant, the renewal of substations in all areas served by district heating (Turin, Parma, Piacenza, Reggio Emilia, Genoa), the extension of the Turin network and the saturation of the Reggio Emilia, Parma and Turin networks.



## Initiatives for communities and local areas

---

In 2022, the Group's contribution to the sustainable development of the local areas and communities was also reflected in the implementation and support of 335 **sustainability projects**.

The projects, which range from the construction of facilities and infrastructure, education and culture, adaptation to climate change, saving water and energy resources to promoting social inclusion for the most vulnerable, are in line with the Sustainable Development Goals of the 2030 Agenda.

### PROJECTS OF THE IREN LOCAL COMMITTEES

To identify the needs of the local areas and develop shared initiatives with the communities, Iren's Local Committees develop a process of constant listening and participatory planning with stakeholders. [» SEE PAGE 117](#)  
Through the tool of the Local Committees, the Group can on the one hand intercept the needs of the local area and on the other hand detect the potential impacts of its activities on the communities.

In this sense, the Iren Local Committees guarantee:

- listening to communities and mapping key issues and reports;
- sharing information on the Group's strategies, actions, projects and services in the local area in a logic of transparency and collaboration;
- raising awareness of responsible behaviour, which is necessary to promote the sustainable development of communities and the local area;
- active participation of local communities in the implementation and identification of projects for the environmental and social sustainability of the local area.

**79**  
projects  
completed  
at the end  
of 2022

In 2022, the Local Committees of Genoa, Parma, Piacenza, Reggio Emilia and Turin incubated 33 projects - 17 of which already completed during the year, and the others are in the development phase - concerning environmental, social and educational issues. At the end of 2022, there are a total of 79 projects implemented by the Committees, which can be consulted on [Irencollabora.it](http://Irencollabora.it). Below is a breakdown of projects completed in 2022 and those in the pipeline.



## PROJECTS COMPLETED IN 2022

Project (implementer)	Local Committee	Description
<i>Lostello Porta a Porta</i> Lostello door to door (Emc2 Onlus)	Parma	Implementation of a new home collection service of used clothes, carried out thanks to the work of the users of the socio-educational pathways and apprenticeships activated by Emc2, with the help of cargo bikes and electric vehicles. The collected clothes, once hygienically and stylistically treated, are made available to other citizens, with positive impacts in reducing waste production. Neighbourhood shopkeepers also use the service for home deliveries to the elderly population struggling with daily errands.
<i>Libri con le Ruote in provincia</i> Books on Wheels in the province (ParmaKids)	Parma	Green and low-impact travelling library on two wheels, with books for children up to 10 years of age from the Libraries of the City of Parma. The "Books on Wheels" arrived in the municipalities of Salsomaggiore Terme, Colorno and Traversetolo and three events were organised to spread the values of environmental sustainability among children and parents, distributing books dedicated to the environment that have become part of the travelling library's equipment. Three free reading aloud courses were also held for adults to train new readers to read aloud to children at future stages of Books on Wheels.
<i>RI-leggi-AMO</i> ("San Lazzaro Alberoni" primary School)	Piacenza	Exchange of recyclable objects (plastic and aluminium) with books in order to spread awareness that any gesture, even small, repeated constantly, can change the environment and the quality of life. 250 pupils collected the recyclable material at home and delivered it to school, receiving an "Environmental courtesy voucher" to collect a book or a plant or seeds from school to make the area flourish. At the same time, landscaping actions were initiated to improve the school area.
<i>La manna dal cielo</i> Manna from the sky (Azienda Agraria Istituto Raineri Marcora)	Piacenza	Construction of a water system to recover rainwater from roofs to feed the irrigation systems of the school's farm and convey it to a collection and storage network. Recovered rainwater feeds the existing irrigation systems, providing the necessary supply to the farm's crops during drought periods. The project combines the logic of the circular economy with the dimension of training and involvement of students and teachers. The know-how and techniques applied are disseminated and made available to local farms. The project was selected in the context of the AmbientAzioni tender of Piacenza.
<i>Furgone frigo contro lo spreco alimentare</i> Refrigerated van to combat food (Emporio Solidale Dora)	Reggio Emilia	The Emporio Solidale Dora of Reggio Emilia, with the aim of expanding the range of food products offered to families in economic difficulty, has introduced the chain of fresh products. In addition to the refrigerated counter, which provides fruit and vegetables by intercepting surpluses from fruit and vegetable markets and food companies, a mobile refrigerator was introduced for the recovery, transport and storage of fresh food, enabling the collection of remaining fruit and vegetables from supermarket counters.
<i>Suoni d'acqua, di storie e di passi</i> Sounds of water, stories and footsteps (Cooperativa Sociale Risonanze)	Reggio Emilia	Rediscovery and preservation of a part of the heritage of environments, stories and traditions of the territories of Villa Canali and Fogliano, in the municipality of Reggio Emilia. Leveraging the leitmotif of sounds, initiatives of an artistic nature have been developed to enliven the area by involving the many new residents of the two hamlets. Music to rediscover the Lodola stream, the parks in Canali and Fogliano, the ancient Via Francesca, the knowledge and memories of the elderly was the leitmotif of the activities aimed mainly at autistic and vulnerable children.



Project (implementer)	Local Committee	Description
<i>Lo sport sostenibile. Chi fa questo vince Sustainable sport. Whoever does it wins</i> (CSV Emilia)	Reggio Emilia	Implementation of 'sustainable sport' practices through a twofold action: facilitation of the inclusion of disabled children and young people within sports clubs active in the area and dissemination, within the same sports communities, of good environmental practices. A brochure has also been produced and distributed to all young members and their families, promoting 'responsible and sustainable sport' and good practices of responsibility towards the environment; panels installed at sports facilities encourage virtuous behaviour in terms of water and energy saving, waste reduction and sorted waste collection.
<i>Plastic on the road</i> (Associazione CISV Fraternità)	Turin	Awareness-raising and education on saving resources and waste are at the heart of this project, selected in the framework of the Ambientazioni call for tenders in Turin, which consists of the construction of machinery for the creative recycling of plastic to make new objects. Aimed mainly at young people, the project is characterised by a workshop and itinerant approach, with a connotation that promotes active citizenship, allowing young people to see first hand how their unused plastic materials can be fragmented, melted in special moulds and transformed into new valuable objects thanks to easily transportable machinery.
<i>ClimatelsNotCool</i> (ARCI Crack24 aps)	Turin	Hub of artistic events united by the intention of activating, together with the citizenship, an open look at the environment. Moments of aggregation - performances, flashmobs, conferences, interviews, meetings, bike rides and workshops - offered citizens the opportunity to meet, talk, reflect and discuss with experts on the environment, climate change and its impact on everyone's life.
<i>Emporio solidale 2021</i> <i>Solidarity emporium 2021</i> (Il Ce.Sto Coop)	Genova	It stems from the experience gained in the distribution of food to families in the historic centre in a state of poverty, putting people in contact with a network of "donors", including Banco Alimentare, Ricibo, traders and supermarkets, voluntary associations and other active realities in the historic centre of Genoa. In addition to providing material help, the network has also activated moments of exchange and sharing of knowledge and cultures, aimed at improving and developing the social context in which it operates. The project acts mainly in a neighbourhood composed of an elderly population, a new population of residents with foreign citizenship and a new population of young people with not always stable professional situations.
<i>Ciassa Verde –</i> <i>Piazza Verde –</i> <i>Green square</i> (Associazione BtoBE)	Genova	It promotes environmental sustainability in the outskirts of Genoa, particularly in Valpolcevera, by enhancing the neighbourhood through the creation of murals to raise awareness (especially among young people) on sustainability issues. The mural, which through the representation of episodes of everyday life proposes food for thought and the sharing of good sustainability practices, was created with paints capable of capturing CO2 on the spans of the railway bridge in front of Piazza Pallavicini.
<i>Siamo in ascolto</i> <i>We are listening</i> (Associazione Diritti degli Anziani - La Spezia)	Genova	Creation of a qualified listening centre, a helpline, to help elderly people and/or those who request it to find themselves in the midst of bureaucracy, to provide social security and material aid. The listening centre, also with the support of a psychologist, provides a point of reference and cultural mediation on how to face the difficulties of daily life, a way to share emotions in order to reduce the feeling of isolation, benefiting from the discussion.

Project (implementer)	Local Committee	Description
<p><i>Gli anziani in Valpolcevera tra Ponte Morandi e Covid-19</i></p> <p>The elderly in Valpolcevera between the collapse of Morandi Bridge and Covid-19 (Associazione Diritti degli Anziani Genova)</p>	Genova	Help to the elderly population of Valpolcevera to find themselves between bureaucracy, social security and health, through the contribution of some volunteers trained for the purpose. It was created as a response to the need of the elderly to have a point of reference in the emergency situation from Covid-19, above all because it is managed by peers who can best give concrete feedback and suggestions.
<p><i>Cafè Alzheimer "Il Piccolo Principe"</i></p> <p>Alzheimer Coffeehouse "The Little Prince" (Associazione Nuovo CIEP)</p>	Genova	It draws attention to an increasingly widespread problem among the elderly population that critically involves the entire family nucleus: Alzheimer's and cognitive disorders. Cafè Alzheimer "Il Piccolo Principe" is a place where volunteers and workshop leaders alternate for socialisation, art, creativity, activities to maintain the residual attentional, cognitive and motor skills and support activities for patients and their carers. In particular, the Café's monthly openings were increased, support workshops were differentiated and better qualified, and new instrumental resources, materials and specific aids were acquired to support the residual cognitive and motor skills of the elderly.
<p><i>CertOSA in verde #coltiviamoci il futuro</i></p> <p>Green CertOSA #let's cultivate our future (Chance eventi - Suq Genova)</p>	Genova	Creation of a series of workshops, educational and exchange activities between Genoa citizens and new citizens from different countries of origin, to promote sociality and also the knowledge of good behavioural practices. The educational paths focused on the theme of circular ecology for an intergenerational and intercultural pact, in favour of a sustainable future and for the care of the natural heritage of the neighbourhood. Online courses, multilingual video stories for children have also been activated and are now available to teachers in schools in the district.
<p><i>TooRNA® for low impact families</i></p> <p>(tRicciclo - Bimbi a Basso Impatto - Low impact children)</p>	Genova	Creation of a playful-practical info-training course aimed at improving the lifestyle of parents and children, with particular attention to saving resources, reducing environmental impact, environmental and social sustainability, health and well-being of the family. A communication campaign, the distribution of flyers and information material and the organisation of micro-events for parents and children have made it possible to disseminate the best practices of reuse, savings, self-production and critical consumption.
<p><i>City Garden at the Nora Public Park</i></p> <p>(ARCI Genova)</p>	Genova	Redevelopment of the spaces in the Nora Public Park through the creation of a city and educational urban garden, by assigning and entrusting the plots of land to the care of citizens who have requested them. Collaborations were set up with the surrounding schools and services (kindergarten and day care centre) in the park to design educational paths and meetings for exchange and socialisation between children, the elderly and the neighbourhood.

## PROJECTS UNDER IMPLEMENTATION IN 2022

Project (implementer)	Local Committee	Description
<i>Il giardino condiviso</i> The shared garden (Associazione Donne Ambientaliste di Parma)	Parma	Setting up a green space at the Liceo Scientifico Marconi to activate a green classroom for environmental education, both for the High School students and for the city's schools of all levels, with which to develop integrated teaching paths. A meeting place, open to citizenship, to promote awareness of environmental sustainability and education projects on biological diversity, a space for knowledge exchange activities and experimentation.
<i>SOS CO<sub>2</sub> - Educhiamoci al futuro</i> SOS CO <sub>2</sub> - Let us educate ourselves for the future (“Dante-Carducci” Lower Secondary School)	Piacenza	Encouraging sustainable mobility of students and school staff in home-to-school travel. The starting point is the creation by the students of an App to monitor sustainable travel, which will be rewarded with discount vouchers to be used at bookshops, social nurseries, local sports retailers, or for courses on bicycle maintenance. Concomitantly, the management of an educational garden will contribute to the reduction of CO <sub>2</sub> through its assimilation and storage in vegetable crops and soil. The most virtuous classes will be rewarded during an open day dedicated to publicising their achievements. The project was selected in the Piacenza AmbientAzioni call for proposals.
<i>Il mio banco...nel verde</i> My bench...in the green (Direzione Didattica 2° Circolo di Piacenza)	Piacenza	Training responsible young citizens who love reading, greenery and the land. Educational and pedagogical actions will be carried out to build the 'identity card' of some trees in the school garden and the park in front of it. The project is completed by a series of moments of reflection on the different types of recycling of various materials, on individual and collective responsibility in fulfilling concrete commitments to improve environmental and air quality. The project was selected in the Piacenza AmbientAzioni call for proposals.
<i>Second Chance</i> (Società Cooperativa Sociale Rigenera)	Reggio Emilia	Spreading a shared narrative on the issues of circular economy and environmental sustainability by highlighting how apparently unusable objects and materials can be transformed into other artefacts, acquiring a second chance and a new life. The following will be activated: training aimed at people with disabilities to carry out small creative recycling jobs; environmental education workshops with primary school children; a workshop narrating the results of the course to the neighbourhood population and sale of the objects made; social stuffing and green care workshops open to citizens.
<i>Natura tra i piedi</i> Nature between our feet (L'Ovile Cooperativa di Solidarietà Sociale s.c.r.l. - Ecosapiens)	Reggio Emilia	Training, co-planning and realisation of equipped spaces within the former Cave Corazza Oasis of the Poviglio municipality, with experimentation of innovative educational paths in the environment for infant-toddler centres, preschools and first-cycle primary schools in the Reggiana plain. The space set up, designed by teachers and children, will remain available for citizens and families to use for independent activities in nature. Entirely natural and environmentally friendly facilities will be set up in the Oasis, dedicated to play and innovative educational activities, outdoor education activities will be organised, and questionnaires, online interviews and project impact assessment activities will be carried out.
<i>Vi.Ve_Coop - Bosco Cooperativo</i> Vi.Ve_Coop - Cooperative woods (Legacoop Emilia Ovest)	Reggio Emilia	The environment and its protection are the focus of projects aimed at reducing the impacts of economic activity through the Vi.Ve_Coop initiative. The idea is to create a physical place, a cooperative forest-park, that can provide concrete evidence of the commitment of the cooperative business world. The planting of trees, their maintenance and their endemic ability to store carbon dioxide are the basis of the project, in line with regional policies. The cooperative forest will be built in a symbolic context, the Cervi Museum in Taneto di Gattatico (RE), capable of bringing together different value connotations, linked not only to nature, but also to the safeguarding of traditions and culture.

Project (implementer)	Local Committee	Description
<b>Cooperfor2030</b> (Confcooperative - Unione Provinciale Reggio Emilia)	Reggio Emilia	Promotion of initiatives to raise awareness within companies, proposing good practices and concrete actions that can be implemented towards achieving the 17 SDGs by 2030. The project envisages activities aimed at employees to promote virtuous behaviour in the workplace, meetings/workshops/visits aimed at member cooperatives and external stakeholders, and communication activities to promote sustainability towards specific targets.
<b>Un viaggio intorno al cibo</b> A journey around food (CNA Reggio Emilia)	Reggio Emilia	Food and environmental education aimed at local primary school children to provide them with the tools to make consumption choices and adopt conscious behaviour. The project aims to raise awareness of environmental sustainability among the younger generations, starting with zero-kilometre food, reuse in the kitchen, food packaging and the use of packaging, and ending with the issue of food waste. The project envisages the direct involvement of CNA artisans through company visits by schools and educational workshops to present artisan products, their history, their link with the territory, the ingredients used, nutritional properties and environmental sustainability aspects.
<b>Educazione DIGIAMBIENTale</b> (The Hub Reggio Emilia Soc. Coop.)	Reggio Emilia	Correcting and reorienting young people's passive attitudes towards new technologies, promoting sociability, making them understand the pervasiveness of the digital, whose usefulness, but also sometimes non-essentiality, it is important to appreciate. The project offers three educational workshops, aimed at 8-13 year olds, on the theme of reuse, environmental sustainability, and the circular economy. In the form of a game, each workshop is a working project covering in a simplified manner all the activities and skills required of a digital design team.
<b>Scarto Matto Mad Waste</b> (Il Ginepro Società Cooperativa Sociale)	Reggio Emilia	Workshop on recovering cardboard and other materials, aimed at creating objects and furniture entirely from recycled material. The twice-weekly workshop will be part of a larger recycling-reuse project: a workshop and sales space for recovered and restored objects-furniture. The objective of giving new life to materials otherwise destined to become waste is combined with a therapeutic objective, as the workshop is aimed at individuals and families living in conditions of marginality and socio-economic difficulty in the mountain area of the Reggio Emilia Apennines.
<b>La Rete delle Portinerie di Comunità Green</b> Green community network (Rete Italiana di Cultura Popolare)	Torino	Building with citizens everyday services and a place for meeting, culture and sociability in Turin's Borgo San Paolo district. The intention is to redevelop a green area, create open-air classrooms with workshop activities for children and adults, install a bike sharing station and a small cycle workshop with related courses, activate charging points for electric vehicles, and create an open-air cinema area.
<b>Irrigazione Responsabile Responsible Irrigation</b> (Orti Generali srl- impresa sociale)	Torino	Decarbonise the existing irrigation system at Orti Generali and allocate excess energy to a nascent Renewable Energy Community, helping the neighbourhood's residents most vulnerable to energy poverty. The project responds to a twofold need: the responsible use of water and energy resources and the involvement of the community and the local area in a process of strengthening green citizenship. Family events on the topic of energy transition, educational workshops with schools and workshops for adults complete the project. The project was selected in the context of the AmbientAzioni call for tenders in Turin.

Project (implementer)	Local Committee	Description
<p><i>Produciamo energia rinnovabile</i>  <i>We produce renewable energy</i>            ("Curie Vittorini" Secondary School))</p>	Torino	<p>Building a site for generating electricity from renewable sources, training future designers. An outdoor laboratory, consisting of a small wind farm and a photovoltaic plant, will be set up to popularise and experiment with energy production from renewable sources, which can be used permanently by students and the network of schools in the area. The resulting electricity will be sufficient to meet the energy needs of one point for charging smartphones, devices and micro-mobility vehicles.</p>
<p><i>Il sentiero nel bosco</i>  <i>The walk in the woods</i>            (Amici dei Sentieri)</p>	Torino	<p>Making usable one of the variants of the hiking itinerary linking the Basilica of Superga to the Sacro Monte di Crea, allowing us to reach the Romanesque abbey of Santa Fede in Cavagnolo. The project aims to restore and safeguard an area otherwise destined for abandonment, with serious damage to the environment and people. The work also includes the placement of appropriate signage (notice boards with description panels, route markings, photographs). The trail will also make it possible to carry out environmental education initiatives and organise open-air events.</p>
<p><i>La Valbisagno educa al futuro: clima, risorse, tutela del paesaggio</i>  <i>The Valbisagno educates for the future: climate, resources, landscape protection</i>            (Associazione Nuovo CIEP)</p>	Genova	<p>Arousing an informed interest in young people and the educational community in the Bisagno Valley in terms of climate change and its local consequences. Around a meteorological station installed on the roof of a school building next to the Bisagno stream, scientific observations and experiments, laboratory activities, guided tours, research and training courses will be carried out. All activities will be interconnected and converge on a website where all materials will be available to project participants.</p>
<p><i>Villa Durazzo Pallavicini: il valore dell'acqua</i>  <i>Villa Durazzo Pallavicini: value of water</i>            (L'Arco di Giano coop. soc.)</p>	Genova	<p>Creation of a demonstrative water recirculation system at the end of the Villa Durazzo Pallavicini visitor route, through which to educate and raise awareness among citizens on water wastage and to demonstrate to visitors, particularly school children, the potential of proper water rationalisation.</p>

## OTHER INITIATIVES OF LOCAL COMMITTEES

In 2022, the sixth and fourth editions of the AmbientAzioni call for tenders for Piacenza and Turin were promoted, respectively, as well as the first edition of the AmbientAzioni call for tenders for Reggio Emilia, which had as their object the design of tools, actions and initiatives to save energy and water resources, the reduction of waste production, the reduction of CO2 production and the mitigation and adaptation to climate change.

The Piacenza and Reggio Emilia calls for tenders were aimed at citizens over the age of 18, school and university institutes, organisations and associations of persons or companies, while the Turin call was aimed at young people aged between 18 and 26. Participants were asked to submit innovative projects that could be replicated in other contexts and with demonstrable economic and social benefits for the community.

In the complex context of the crisis, with important repercussions in terms of the energy crisis, the Local Committees have become a privileged and systematic channel of dialogue to explore and monitor the future energy scenario and the actions introduced by Iren Group for families, businesses and local areas.

Iren Local Committees were also a place for in-depth discussion and debate on issues such as the 2021 Sustainability Report, the update of the Iren Business Plan and the assessment of sustainability issues material to the strategy and drafting of the 2022 Sustainability Report.

Also, 2022 marked the renewal of the three-year mandate of the Genoa Local Committee.

## Donations and sponsorships

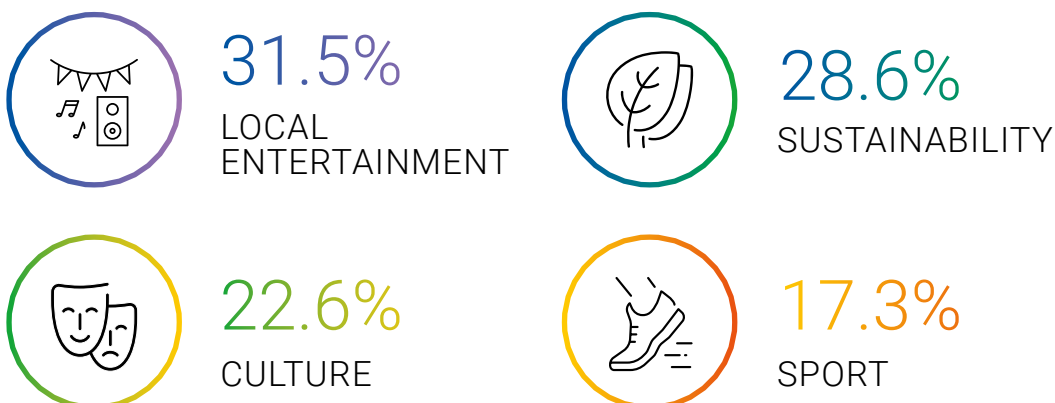
Consistent with its 2030 objectives, in 2022, Iren Group pursued numerous initiatives with the aim of **promoting the socio-economic development of the territories in which it is present**, also by supporting organisations and institutions in their promotion and participation activities.

As a result, during the year, Iren invested **more than 12 million Euro in 318 projects**, ranging from culture, sport, entertainment (music, shows, conventions), to the support of entities such as foundations, theatres and museums in the various territories where the Group operates.

The projects, selected on the basis of their consistency with the Group's vision to positively affect the local areas and citizens, were chosen according to their distinctive characteristics, territorial roots and traditions, and values and mission in line with those of the company: for this reason, different events and activities were held that involved a wide and heterogeneous audience, starting with the new generations.

The strategic commitment of 'shaping tomorrow every day' was put into practice by the new generations themselves, positioning themselves as the vector of a better future, to respond to the needs of the local areas, creating new opportunities and more sustainable solutions for the country.

A widespread effort that involved local areas and people, with a multiplicity of initiatives, an economic commitment and resources that, for the year 2022, was divided as follows:



Beginning with the **Eurovision Song Contest 2022**, a long season of music festivals with a green footprint was inaugurated, including all cities where the Group is present, and partnerships were forged to promote sustainable solutions.

For the summer event season, the **Get Into the Green** campaign was launched: an initiative designed to create value for citizens by giving back to the territories moments of aggregation and recreation in meeting places. The aim was to shorten the distance between musicians and audience, between centre and periphery.



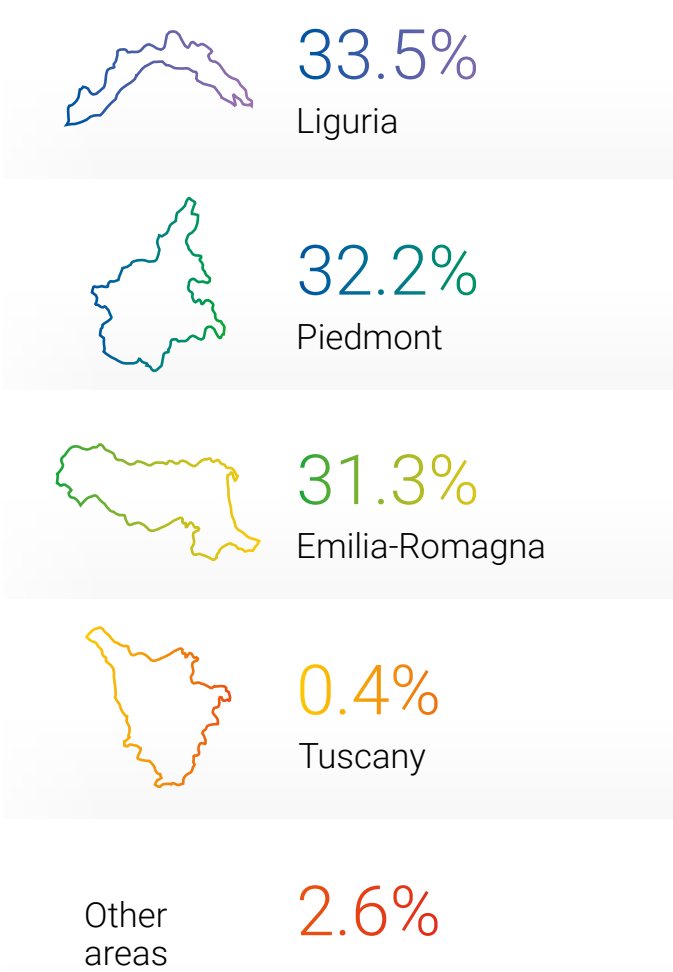
Not only music, but also **sport**: there are many amateur and professional sports associations supported by Iren Group, with particular attention to minor sports, women's and para-Olympic categories.

This important contribution is part of a broader strategy of sharing values such as inclusion, integration, teamwork, determination, collaboration, belonging and ethics.

A partnership that contributes to translating Iren's daily commitment to a concept that also passes through sport as a factor capable of setting people and communities in motion.

Also in 2022, the interest in and commitment to culture as a vehicle that can promote places, traditions, stories and communities and generate direct and indirect impacts remained central.

Donations and sponsorship by area



Three are the outstanding initiatives through which Iren Group told its circular economy model in concrete terms: installations, games and moments of dialogue were the drivers of communication on the urgency of acting on sustainability issues and citizen empowerment:



### Genoa, Euroflora, the International Flower and Ornamental Plant Show (XII edition)

Fifteen days in an exceptional location, the Nervi parks, with a stand devoted to eco-sustainable solutions, gaming, and hospitality, estimated 240,000 visitors. A major event that saw Iren Group supporting the initiative to celebrate not only lush blooms and intense colours, but above all to communicate and raise awareness of nature's energy preservation.



### Turin, International Book Fair (XXXIV edition)

At Italy's leading publishing and culture event, with over 160,000 visitors in 2022, it was decided to participate with an unusual and original presence, creating **Planets B**: a publishing house of guidebooks to alternative planets to Earth to which we will be forced to emigrate once we have completely destroyed our planet due to an unsustainable development model. A provocation that aroused the curiosity and interest of the public and journalists, created to raise awareness of the need to invest and anticipate the green transition.



### Reggio Emilia, Internazionale Kids (II edition)

Three days of meetings and discoveries to talk about current affairs, sport, the environment, books, music within the event dedicated to the world of international journalism involving the new generations on the fundamental themes of current affairs and information. The success of the first edition was confirmed again in 2022 with more than 8,500 participants. During the three days of the festival, several Iren initiatives took place, including a guided tour of the Iren power plant in Reggio East with a light and music show and meetings in collaboration with Geopop to present the video "Che fine fa l'organico?" ("What happens to organic waste?").

## Communication with the local areas

In 2022, Iren's Business Plan to 2030 saw its operational application in the areas of reference: this was the main objective of local communication, to make the link with the cities, associations and people even more visible and concrete, as well as to narrate and describe the development model in the newly acquired areas.

All communication activities undertaken have been aimed at improving the quality of life in local communities, in ways and means that are always different according to the specific target landscape. The most significant themes were sustainability in all its aspects, and the need for action in the face of the great challenges of ongoing climate change.

In 2022, Iren Group carried out communication campaigns and actions aimed at promoting not only the services it provides, but above all the company's circular economy model underpinning these services, through unusual means and places, in order to constantly and consistently reach the stakeholders of reference for each action.

Most of these projects had a significant impact on the local areas in which they were carried out.



## Cultural projects

### Pesalibro

Participation in the initiative of the Passerini Landi Library of Piacenza to exchange books by weight. Iren has maintained the link established since the first editions and to strengthen this free exchange of used books, a collection was organised at the Piacenza office in Strada Borgoforte.

### "5 Terre" project

The Cinque Terre are a precious land of great beauty, but they are also delicate and must be protected so that beauty can be enjoyed over time. The large number of tourists frequenting the villages and paths, especially during the summer season, has a strong environmental impact, which must be managed with great care and awareness, even during the boat trip in order to avoid littering. The project envisaged the installation of waste collection islands on boats departing from La Spezia and Porto Venere, where plastic and cans, paper and residual non-recyclable waste could be collected directly by ACAM Ambiente with the aim of reducing the amount of waste left in the area.

Walks were also organised on the trails during which Park guides, specially trained by ACAM technicians, explained the damage caused by abandoning waste in the environment. The initiatives are free of charge, subject to prior reservation at the Park, and hikers can 'pay the ticket' by contributing concretely to the cleaning of the trails, with gloves, bags and containers provided by ACAM.

### Day of the Sea

The coasts, the sea and their riches were celebrated during the "Day of the Sea" in La Spezia: an initiative in cooperation with the City Council, the Port Authority, the Chamber of Commerce and numerous schools and associations in the area. Activities, installations and workshops scattered around the city, all aimed at fostering a culture of respect for the sea and the environment. Iren participated with an installation and a photo competition dedicated to the themes of plastic pollution of the marine environment.

### Ciak, si scala! Mountaineering and climbing cinema

The exhibition, inaugurated on 4 July 2022 and curated by the National Mountain Museum of Turin, collected original posters and scene photos selected from the approximately 8,000 items of the Cinema Documentation Fund of the Museomontagna Iconographic Collections, and film sequences from its historical film and video library, which holds approximately 4,000 titles. In August, a selection of films and documentaries dedicated to the mountains of the Himalayas, Patagonia and Tierra del Fuego, the Orco Valley and the Gran Paradiso Park were screened at the Palamila, at the Massimo Mila Refuge in Ceresole.

The exhibition was supported and hosted inside Iren's Casa Alpina: a concrete sign of the strong bond that binds Iren and the Gran Paradiso National Park, companions for decades in a partnership of respect for nature, protection of the landscape and enhancement of environmental resources.

### Climapark

New exhibition and teaching centre on climate and glaciers in the Gran Paradiso National Park at the Iren dam at Lake Teleccio in the municipality of Locana (TO). The project, the result of an agreement between the Locana municipality, Gran Paradiso National Park, Iren and the Italian Meteorological Society, directed by Luca Mercalli, allows visitors to the Teleccio dam and the Piantonetto Valley to learn more about climate change, thanks to exhibition panels and educational videos. During the opening event, which was streamed live on Facebook in July, talks by meteorologists Luca Mercalli and Daniele Cat Berro provided an in-depth look at the topics at the centre of the Climapark mission, from the climate emergency, including the severe drought situation in 2022, to the effects on glaciers.

### A brick plant

In March, a model of the plant made from almost 25,000 LEGO® bricks of various sizes and colours was installed in the office building of the Turin waste-to-energy plant. The result of meticulous work, the model, 231.5 cm long, 119 cm wide and 70 cm high, represents to scale and in great detail all the parts of the waste-to-energy process and represents a further step in the cognitive and educational path, aimed not only at young people, that Iren has always pursued.

### Green Week in Parma

On the occasion of Green Week, an initiative within the Festival of the Green Economy held in Parma, Iren's plants, and the circular economy model, were the protagonists with the "The Factories of Sustainability" tour, also with visits dedicated to students. In addition, the Group played a leading role, enhancing the debate with its know-how in the energy sector, and focusing on the sustainability goals of the Business Plan to 2030.

## Cultural projects

### The beauty of water in the Maira Valley

The photo contest, promoted by the Group, saw the participation of professionals and photography enthusiasts in the enhancement of the area's charm, with a special focus on the water resource: the winners' shots were published on social networks and were displayed during the conference "Entrepreneurship in the Highlands", an opportunity to bring together companies and institutions to identify, starting from success stories, possible development scenarios for the mountains.

### Iren ESG Challenge 2022

The event, which took place on 1 December in Genoa, brought together stakeholders from the academic, corporate, financial and institutional worlds, and provided an opportunity to discuss sustainability challenges and their practical applications in the world of innovation and finance. It was also the closing moment of the contest through which Iren Group awarded the ten best university theses on ESG (environmental, social and governance) issues. The papers collected between the end of September and the beginning of November were examined by a scientific committee and the ten theses with the greatest impact were awarded a cash prize.

### Recruiting Your Talent is Different

Stakeholders from the scientific and academic world were the protagonists of the recruiting project, carried out in collaboration with the Polytechnic University of Turin, which launched a call open to all its members to try their hand at a sustainable innovation project. From the teams that applied, nine profiles were selected to be placed in the Renewables Department of Iren Group.

### ArtEco

The contest offered local illustrators the opportunity to create illustrations representing the ten key concepts underpinning the Iren@2030 Business Plan and to compete for a cash prize.

### Artistic substations

A call promoted by Iren Group, in collaboration with the Culture and Youth Sector of the municipality of Parma, to identify artists under 35 who could express the company's challenges and vision to 2030 through street art. The works of the five winning artists, inspired by the values of environmental and social sustainability, present different styles but are united by their originality and communicative effectiveness. The works were carried out on as many electricity substations in the city and are the focus of a video promoted through social and media outlets.

## Social projects

### Sorting without differences - EcoBarriera

The project, winner of the Anci Conai 2021 tender, started in 2022 as an experimental environmental awareness initiative in a Turin neighbourhood, in cooperation with the City of Turin and District VI. The aim was to create opportunities for dialogue and discussion on ecological issues, involving associations and third sector organisations operating in the area. Among the projects presented, in coordination with the association SuMisura Aps - which has long been active in the neighbourhood with the aim of promoting, facilitating, accompanying and developing cultural processes of proximity that bring together diversified realities - awareness-raising activities on sorted waste collection, recycling and the valorisation of resources were carried out in order to reach as many citizens as possible, diversifying age, social background and nationality of origin.

## Environmental projects

### Sustainable use of resources

Start of operations of **ReCaP**, the new paper, cardboard and plastic sorting plant built by Iren within the Integrated Environmental Pole of Parma (PAI), with the aim of closing the entire system of collection and valorisation of the material flows collected through the sorted waste circuit in the three Emilian provinces of Parma, Piacenza and Reggio Emilia. The system was also presented through social channels with a video illustrating its operation.

**The Site in Gavassa (RE)**: in order to publicise the biodigestion plant that will produce compost and biomethane from organic waste, several presentation occasions have been created since May 2022, 'explorations' of the site open to citizens, invitations to the press and local administrators. In addition, the initiative "A spectacular site" with guided tours, theatre performances and family workshops was realised, with the aim of making the site a safe and transparent experience.

Inauguration of the **new heat storage and solar thermal plant in Mirafiori Nord (TO)**, located in the area previously occupied by the old thermoelectric power plant.

To promote the sustainable use of resources, the main initiatives concerned:

- awareness-raising campaigns in the Emilia-Romagna region aimed at **proper waste management, water and energy saving** and, more generally, environmental sustainability. The communication tools chosen with the aim of reaching the target audience and **contributing to the creation of a shared culture of sustainability** are, among others, posters, letters to families, information brochures in several languages, press advertisements, videos, web, social;
- **information material on sorted waste collection** for users in the various territories and specific targets in Piacenza, ad hoc communications and information campaigns on the occasion of the activation or extension of collection services (Pap, punctual Tari, start-up of exhausted oil collection in Parma and Reggio Emilia) and the seasonal activations of GiroVerde (home collection of clippings and pruning) in Reggio Emilia;
- **voluntary waste collection initiatives** in several municipalities in the Emilia-Romagna area. Through technical support, Iren has supported the initiatives organised by the Plastic Free association and Legambiente in the province of Piacenza; in the province of Reggio Emilia it has collaborated with numerous municipalities, Plastic Free, Uisp and Legambiente, and in Parma it has also participated with various partners;
- project "**Sei di cocchio? Il vetro è un'altra cosa**", launched by CoReVe (Consortium for the recovery of glass) and Iren Group, with the aim of raising awareness on the correct disposal of packaging among operators in the HoReCa sector (Hotels, Restaurants and Catering), among the largest producers of glass waste. Parma, Piacenza, Reggio Emilia and La Spezia hosted the initiative. The project was developed from April to September in three main phases: the first, which involved the analysis of the material collected before the start of the communication activity; the second, of an informative nature, which saw the distribution of specific gadgets, aimed at raising awareness among operators; and finally the third, the final phase, characterised by the analysis of the sorted material;
- **Energia al cubo**: a project, launched by Erion Energy (a consortium dedicated to the sustainable management of waste batteries and accumulators) in cooperation with Iren, to raise awareness of the correct management of spent batteries and increase their return. More than 80,000 citizens from six municipalities in the Parma and Reggio Emilia area competed in October to collect the largest amount of this waste, delivering it to the more than 143 collection points inside schools, supermarkets and tobacco shops. On the podium were the municipalities of Quattro Castella and Noceto, which respectively received a set of street furniture made entirely of recycled plastic. All other participating municipalities were given a total of 60 trees of different types to be planted on public land;
- campaign to support the installation of **Smart Eco-islands** in Turin in the neighbourhoods Madonna di Campagna/Borgo Vittoria and Barriera di Milano for almost 100,000 inhabitants and 400 eco-islands in total. Timely information and communication activity was conducted before and during the installation of the eco-islands, through dialogue with districts, OPR, ATC, condominium administrators, neighbourhood associations, schools, direct communications to citizens and the opening of a dedicated information point. Communication was also supported by digital and print activities;
- carrying out an awareness-raising campaign aimed at the **citizens of Vercelli** on the correct way to dispose of waste, through the creation of a concise vademecum, distributed in homes and available online at [www.asmvercelli.it](http://www.asmvercelli.it), illustrating the main types of waste and the mistakes to avoid when sorting. The waste sorting brochure (Rifiutologo) has also been updated, creating a real guide to proper sorted waste collection.
- **clean-up days of paths, beaches and the seabed** in Ligurian territory, for a total of 34 environmental initiatives, organised by several local municipalities in which ACAM Ambiente participated as a technical sponsor;
- communication campaigns relating to the launch of new services, or changes in **methods for collection/disposal** of waste in the municipalities of: La Spezia, Calice al Cornoviglio, Castelnuovo Magra, Carro, Deiva Marina, Luni, Monterosso al Mare, Riomaggiore, Sesta Godano;
- **#ButtaBene** campaign in Tuscany with activities to involve citizens and provide information on the correct way to manage sorted waste collection;
- **ConversAzioni Carbon Neutral**: workshops and activities at the event "ConversAzioni Carbon Neutral";
- Bright – **La notte dei ricercatori**: presence of a Sei Toscana stand at the University of Siena on the occasion of the "Bright 2022" event, where a game was organised to make people sort waste correctly;
- campaign "**Bella la mia città**" carried out in the municipality of Siena, on the occasion of the new organisation of collection services, to raise awareness of better waste management. Four commercials, made with the participation of Siennese citizens, were broadcast by local broadcasters and spread on social channels.

## Environmental projects

### Energy efficiency, artistic and public street lighting

The project **"Italia in Classe A"**, carried out in cooperation with ENEA, involved the production of a series of films on the subject of energy requalification of buildings. In Genoa in particular, the project examined the redevelopment of buildings in the area affected by the Morandi Bridge collapse that will be used by the municipality of Genoa for social housing activities.

### Water

Inauguration of **public water dispensers** in Lugagnano Val d'Arda (PC), at the Campovolo Concert Arena and in Taneto (RE). On this occasion, information activities on the conscious use of water resources were promoted. Presentation of the works in progress **at the wastewater treatment plant of Rottofreno (PC)** that will allow the achievement of higher purification yields with a significant improvement in the quality of the water discharged into the Trebbia River.

Inauguration of the **new San Vitale Baganza (PR) water plant**, which saw the construction of a new drinking water storage tank, a new water treatment plant and new pumping systems.

### Air quality

From April to October 2022, **two beehives** were housed in the area of the Turin and Parma waste-to-energy plants in which around **120 thousand bees** were placed, pollinating around 60 million flowers every day in the area surrounding the plant. The objective of the activity was to initiate monitoring of air quality and various environmental matrices through constant observation of bee behaviour, health, and honey production capacity. Bees are in fact considered the sentinels of the environment, because from the analysis of their well-being we can deduce the state of health of the ecosystem in which they live.

### Plant open days

**Plants in the Emilia-Romagna region** opened their doors to foreign delegations (municipality of Johannesburg, Polish Ministry of Infrastructure) to explore the topics of circular economy and water resource management, creating a beneficial exchange dialogue for future challenges.

**In the Piedmont area**, visits by foreign delegations (Algeria and Denmark) were made to the Turin North power plant, while Mirafiori Nord hosted members of the European Carbon neutral Cities Association. More than 60 architects and engineers from Annecy visited the Polytechnic power plant. The doors of the hydroelectric power station at Frere in the Vallone di Unerzio were opened to the public. As well as hosting institutional visits, the Turin waste-to-energy plant also hosted internal and external conferences, helping to promote dialogue and discussion with stakeholders: the conference, promoted by Enea and Utilitalia, aimed at presenting the Guide for energy diagnoses in the waste incineration sector; the day of work within the international project "Taka Nadifa" (Clean Energy), co-financed by the European Union and the Algerian government, in collaboration with CESI in Milan and IBF International consulting, for the development of renewable energies in that country; a meeting dedicated to the training of company junior managers, in collaboration with The European House Ambrosetti, which ended with a visit to the plant.

## Sustainability education

Eduiren is the educational sector of Iren Group, dedicated to spreading the culture of sustainability and innovation across the board and for everyone: a sector that thrives on direct contact with schools and other players in the area, through its educational offerings and the joint planning of awareness-raising paths.

Educating for sustainability is maintaining continuous dialogue with different audiences, in a path of **research and experimentation** of new tools for the dissemination of sustainability issues to targets of all ages.

In 2022, Eduiren underwent a major overhaul with a **new catalogue** and a **new website** ([www.eduiren.it](http://www.eduiren.it)). "Direzione 2030" is the new catalogue of **educational offers** designed to support schools with interdisciplinary opportunities with the aim of tackling the topic of green transition in a vertical perspective, from pre-school to secondary school.

**Eduiren: a narrative, workshop and inclusive approach to contribute to the sustainable territorial growth model**



The catalogue consists of numerous activities: **five workshops**, differentiated by school order and activated in presence and remotely; field experiences with **virtual and in-presence visits to the plants** of the Group. For teachers, **training courses** to design engaging and experiential activities and two **webinar** cycles are organised, curated by Andrea Vico and Federico Taddia, dedicated to green transition, biodiversity and new citizenship practices. Among the novelties is also a national **contest, "Planet Fan"**: an initiative aimed at involving male and female students to turn them into young science communicators and green influencers on circular economy issues. "Direzione 2030" is a project realised in partnership with La Lumaca, a cooperative operating in the field of sustainability education and communication, and G-Lab of Fondazione Golinelli, a body accredited by the Ministry for the training of school personnel. Completing the "Direzione 2030" proposal is the **new website** of Eduiren, completely redesigned to form a

**digital ecosystem** that can accompany and enrich the educational project with in-depth materials, videos and virtual tours of the plants, quizzes and interactive games, news and curiosities.

With a view to designing new ways of education and multiplying knowledge, the relationship with **Giffoni Innovation Hub** and **Unitalia** continued with the production of a second short film: "**Chiara come l'acqua**", presented at the **Giffoni Film Festival**. The video was presented in Parma, in the frame of the **Festival of Sustainable Development**, with other workshop initiatives, conceived in collaboration with **ASviS** and the **University of Parma**, to raise awareness among the new generations for a conscious use of water resources.

Among the new tools is the quality online dissemination guaranteed by **Geopop**. Andrea Moccia made the video "**Che fine fa l'organico?**" premiered at the "**Internazionale Kids Festival**" in Reggio Emilia, which gives an insight into the treatment of organic waste in the Iren biodigester in Cairo Montenotte. The video has recorded over 2,300,000 views.

"A spectacular site" was, instead the leitmotif that accompanied a series of initiatives dedicated to the **biodigester being built** in Reggio Emilia: a calendar of walks and shows directly inside the site to recount its characteristics, included within "Reggionarra", one of the main national events of "diffuse narratives". The concept of 'regeneration', the focus of the open site, was also brought into **TerraMadre** in Turin. A stand completely oriented towards dissemination and experiential knowledge with tactile moments dedicated to the materials regenerated by the Group, animations through actors, and the tasting of the "Ri-sorso" cocktail, made without waste and with recycled ingredients together with Pause-Fondazione Reggio Children: a lateral approach to tell the story of regeneration, also successfully hosted within the Iren stand at **Ecomondo**.

The **Spazio Goccia** in Luzzara (RE) has resumed its educational and experiential offers aimed at promoting a water culture. These include the educational course **"Come un acquario di acque dolci"**, which transformed the space into an 'artistic residence' for boys and girls (the "Collettivo delle Rane") with the creation of **"Il murale sott'acqua"**. Educational efforts also took the form of initiatives designed to create value in **events and manifestations**, forming alliances in the local areas, and experimenting with different and innovative ways of talking about the environment and sustainability. As part of **Fotografia Europea** in Reggio Emilia, the workshop **"Forze insospettabili. Fotografia e batteri a confronto"** was proposed to make participants reflect on the wonders performed by micro-organisms in wastewater treatment processes.

At the **International Book Fair** in Turin, the comic book **"A bordo del Nautilus"** was presented. It is set in an imaginary future, amidst clean energy sources, technologies and solutions to safeguard the environment. The book was produced by the students of primary schools, with the creative support of cartoonist Lorena Canottiere.

In Genoa, for **Euroflora**, Eduiren proposed an interactive itinerary on the integrated water cycle, hydroelectric energy and the sustainable use of resources, as well as crosswords and animated rebuses designed for children on the themes of water and the environment.

The game as an educational tool was also used at the **Science Festival** in the installation **"Non solo parole: mille linguaggi per la transizione ecologica"**, which featured a cinema hall, with screenings of the short films "La Challenge" and "Chiara come l'acqua", three thematic maxi-crosswords and a creative workshop, where participants produced posters on their idea of a sustainable future. For children and families, the ecospectacle **"Il canto dell'albero"** was staged and for schools, the **"A tu per tu con Geopop"** meeting with the team's science influencers was organised. The new instruments were also protagonists at the Festival Libro Aperto in Baronissi (SA).

In Turin, the project **"Eco Barriera Differenziamo senza differenze"** has seen the creation of a network of subjects promoting initiatives on the topics of sorted waste collection and waste reduction: a calendar made up of meetings, cookery courses, workshops, research in the area and podcasts.

The training proposals also included a remodelling of the way in which visits were used and narrated, with the **creation of virtual tours** (PAI in Parma, Rapallo wastewater treatment plant, thermoelectric power plant in Moncalieri) to tell the story of people, processes and positive impacts on the environment, and on-line guided tours, such as "Benvenuti nel mondo di sotto" at the Arbarello (TO) electricity transformation substation,

which involved about 1,300 students from all over Italy. **International engagement** also continued with active participation in the **European projects** Multipliers and Maispemba. **Multipliers** is aimed at sharing best practice in environmental education and **creating open scientific** communities for effective public awareness actions. Italian educational experiences are coordinated by Eduiren on the topic **Clean Water & Sanitation**. In cooperation with the secondary school Istituto Istruzione Superiore Blaise Pascal of Reggio Emilia, meetings with experts, plant visits, peer-to-peer training sessions, research on the history and quality of water in the Reggio Emilia area, and awareness-raising initiatives for families and citizens were planned. The **Maispemba project**, led by the municipality of Reggio Emilia and participated in by Iren, aims to promote the integrated urban development of the **city of Pemba in Mozambique** through decentralised cooperation practices. Iren's contribution includes technical advice on waste cycle issues and environmental education strategies, as was the case for the third mission to Pemba, which involved Eduiren.

Noteworthy among the initiatives arising from the consolidated relations in the territory is the project of the IIS "Cappellini Sauro" in **La Spezia**, which saw students engaged in a detailed analysis of the functioning of sorted waste collection within the institute with a redesign of management, and the development of the offers proposed to citizens and schools by the CEAS Terre Reggiane-Tresinaro Secchia in Scandiano (RE).



**Eduiren: 615 sustainability education projects reaching 48,933 people**

In 2022, a total of 615 sustainability education projects for citizens and schools were implemented, also in a network with other subjects in the different areas, about 49,000 people participated in meetings, visits and events, and more than 2,400,000 digital branded content contacts were recorded.

## Reducing impacts on communities and local areas

All of the Group's activities are planned and carried out with an awareness of its responsibility towards the communities and local areas: producing wealth while protecting the environment and respecting the expectations of its stakeholders. For this reason, Iren Group has developed performance monitoring tools such as environmental impact assessments, analytical controls, internal audits and legal compliance checks.

At plants external acoustic emissions are monitored to ensure the absence of any noise pollution to the local population. Even the products and services offered, before being placed on the market, are subjected to quality checks and controls, also to protect the health and safety of customers. In the event of faults, the Group has adopted specific procedures, which allow prompt and effective communication about service outages and disruption caused to residents within the times provided by legislation. For activities within the electricity, gas, water and district heating sectors, the Group also complies with the guidelines specified by ARERA. In addition to managing compliance with legislation, the Group has developed regulations, internal requirements and procedures and adopted initiatives that mitigate impacts on the communities. The activities are carried out through efficient, reliable and secure processes and infrastructures, which is fundamental in the management of essential services for communities.

The main activities of the Group that impact the communities and local areas are described below.



### Production of electricity and heat:

In its Business Plan, Iren has made a strong commitment to the development of renewable sources and thermal and electrical storage to meet the challenge of decarbonization. The management of energy production activities is formalised by specific procedures and conducted in compliance with the law. Emissions are constantly monitored and controlled. Investments are being made constantly to optimise the energy efficiency of plants. Energy production plants are all equipped with control protocols, in compliance with environmental legislation and authorisation provisions. The combined production of electricity and heat makes it possible to develop the district heating service in a logic of circular use of resources and reduce environmental impacts.



### Waste collection and management:

the Group manages waste across all stages (collection, selection, transport, treatment and disposal) contributing to the recovery of materials and energy production, thus reducing the use of non-renewable resources. The circular economy is at the heart of the Group's waste management strategy. It is committed to increasing the percentage of sorted waste collection with new technologies for the valorisation of non-recoverable waste, and increasing the recovery of materials and the production of fuels from biodegradable waste at its plants.



### Integrated water service:

the monitoring of leaks in the water distribution networks is constant in order to reduce the waste of water resources. For this reason, the Group has defined specific objectives to reduce water withdrawals from the environment and dispersions in the network. Network control, extension and maintenance interventions are completed with the aim of minimising inconvenience for residents. The high quality of the water supplied is guaranteed by the continuous analytical controls carried out, even beyond the legal requirements, on the entire water process: from the capturing sources to treatment, filtration and disinfection processes, and from accumulation and storage tanks to the various points of the distribution network. In wastewater treatment, the Group undertakes to maintain the high operational standards of its plants and to inform the local community concerning the functioning of the plants. The focus on the sustainable use of resources is central to the Business Plan, which includes major investments to reduce network losses, improve the quality of purified water and its reuse.



### Gas distribution:

the Group is committed to reducing the number of leaks through the gradual renewal of the network. The proper management of plants and gas networks, the use of appropriate resources and the use of suitable tools, together with continuous monitoring, are the main elements to ensure the safety of citizens, preventing potential impacts and accidents. These elements are subject to constant analysis and improvement measures in order to increase their effectiveness while respecting efficiency. Furthermore, in order to reduce disruption for local communities when sites are opened, residents, economic associations and municipalities are involved in defining appropriate time frames.



**Electricity distribution:** in the management of electricity networks, one of the main objectives is the constant maintenance of plant service levels in compliance with the resolutions in force. To reduce the impacts on the territory and communities, the Group takes steps to ensure compliance with electromagnetic field limits through specific measurements on all new substations built.



**Public lighting:** the most impacting factors are night-time light pollution, resulting from artificial light shining outside the designated areas (particularly towards the sky), and photobiological risk, linked to the possibility that looking directly at light sources can damage the human eye. These factors are monitored through the inclusion of stringent construction requirements in lighting purchase specifications at the design stage.



**Site management:** when managing construction sites of scheduled activities with the potential to create inconvenience for the public, the Group works by agreeing with stakeholders on the schedules, times and operational means and identifying strategic periods throughout the year (for example, during August), in order to minimise the impact on the public, with particular attention to disadvantaged groups and economic activities. Additionally, all the necessary measures are adopted to guarantee maximum site safety for residents, especially in cases of work carried out on roadside sites.



**Traffic light systems:** in the design and construction of traffic light systems, stringent specifications are prepared for the choice of materials, which are binding and also review the critical issues that emerged in previous constructions of similar systems. The impacts on the health and safety of the public are also constantly analysed and monitored.



**Realisation of new plants:** the construction of new plants is an opportunity for growth for the local area in the medium- and long-term, in addition to being a necessity for the development of Iren Group; thus, dialogue between Iren and its stakeholders is necessary, based on transparency and correctness of information. Before embarking on the authorisation process to build new plants or infrastructures, the Group considers it essential to conduct information meetings with local communities, explaining the project in detail and its impact on the local areas. The Conference of Services is an example of cooperation between

public administrations, residents, businesses and local authorities, where dialogue with citizens and institutions is guaranteed. For major projects, the party appointed to issue the authorisation convenes the Conference of Services (made up of the various interested parties), which must give its opinion concerning the feasibility of the project, indicating the necessary conditions to obtain the agreements, opinions, concessions, authorisations, licences, clearances and consents required by the law. For the operation of certain types of production installations, which may generate significant environmental impacts, an IEA (Integrated Environmental Authorisation) is necessary, which verifies that the operation to be authorised has limited environmental impacts, in compliance with the conditions set by the European Union. During the construction of new plants, all executive and management aspects are evaluated, with particular attention to assessing the impacts generated by the presence of construction sites. Audits are carried out on the work of the businesses' personnel for all contracted activities in compliance with the procedures adopted in the context of the Integrated System (Quality, Environment, Safety). In 2022, there were no transfers, not even temporary ones, of people following on from the construction of new plants.

In 2022, there were no significant cases of claims or lawsuits with citizens and the community.







iren

Service  
quality

## IN THIS CHAPTER WE TALK ABOUT

our  
customers



responsibility



relations and  
satisfaction



efficiency  
and safety





# Customer orientation

[GRI 2-6, 2-23, 2-25, 3-3, 206-1, 406-1, 416-2, 417-2, 417-3, G4-EU3]

High-quality levels and service innovation to meet new and emerging customer demands are a guarantee for the Group's long-term growth. The strategy is strongly oriented towards the development of new integrated services to anticipate market trends. Technological innovation, sustainability of resources, green transition and digitalisation are some of the levers on which Iren Group is acting to expand its market, with high added-value service and consultancy offers that meet the needs of customers with broader prospects of satisfaction and loyalty. Agility, smartness, fairness, and transparency inspire the Group to improve its relationship with its customers continuously. Together with efficiency, reliability and safety, which are fundamental elements both for the quality of services and for ensuring the proper use of resources and the reduction of impacts.

Iren Group invests to guarantee security, continuity, health and business sustainability, aware of the responsibility that energy and waste management service management entails, for the present and for the future of people and the environment.



## Responsibility and quality in service delivery and customer orientation



### Risks

- Failure to meet the targets set out in the Business Plan and consequent negative impacts (operational, economic and reputational)
- Loss of customers
- Inefficiency, inadequate quality and inaccessibility of services
- Errors in service charges and credit management
- Reduction in customer satisfaction levels
- Commercial practices inconsistent with the existing legal/regulatory framework
- Non-compliance with customer protection protocols and regulations
- Failure or improper management of customer relations
- Delays/defaults by suppliers in the execution of outsourced activities
- Disputes with customers, Consumer Associations/Class action suits
- Ineffectiveness of business strategy



### Opportunities

- Market share development
- Development of new products/services that improve the quality of life and sustainable use of resources
- Changing consumption behaviour of customers and communities
- Customer loyalty
- Brand promotion



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- MbO and LTI system with ESG objectives
- Code of Ethics
- ARERA Consumer Code and Code of Business Conduct
- Service charters and service specifications
- Integrated Certified Management System
- ERM system integrated with ESG topics
- Multi-channel CRM and caring initiatives
- Specific agreements with consumer organisations and constant monitoring of relations
- Protocols and regulations concerning customer protection via specific processes and procedures
- Annual customer satisfaction surveys and identification of improvement actions
- Local Committees
- Procedures: Iren Plus product and service design; Loyalty marketing initiatives; Retail agency management; Contract acquisition; Complaint management; Invoicing; Credit management; Whistleblowing
- Monitoring and definition of corrective actions in case of claims/complaints
- Conciliation (in its various forms)

## Who we work for

	2022	2021	2020
Electricity sale customers (retail)	1,183,620	1,048,648	970,663
Gas sale customers (retail) <sup>(1)</sup>	1,032,589	954,419	906,152
Electricity distribution customers	729,252	724,658	724,306
Gas distribution customers	738,427	741,536	743,864
Residents served by the district heating service	613,709	595,772	585,594
Integrated water service residents	2,930,662	2,748,268	2,765,363
Integrated water service municipalities	239	238	241
Urban waste management services residents	3,804,201	2,978,164	3,061,547
Urban waste management services municipalities	418	300	307

<sup>(1)</sup> Customer number growth in 2022 is also due to the acquisition of Alegas.

## Relations with customers

Iren Group dedicates great attention to the relationship with its customers and to the communication of the products and services offered, promoting timely and transparent information through a plurality of contact channels.

With this in mind, in 2022 the Group carried out a rich customer care and customer satisfaction activity, aimed at increasing the value of the relationship with the customer and creating a direct line, with the aim of planning actions aimed at specific customer groups, with commercial proposals and communications modulated according to needs. A focus that also translates into initiatives aimed at the inclusion of all customers [» SEE PAGE 82](#).

In relations with customers, in fact, the Group has transformed its role from a simple supplier to an expert in energy-related services, innovative products for the home, solutions for electric mobility and energy efficiency, adopting a relationship model that evolves over time and adapts to different lifestyles, offering personalised experiences and services.

Equally important for the Group is communication relating to its development plans; for this reason, in 2022, the communication strategy was developed with the aim of narrating the Group's growth and objectives starting from the guidelines outlined in its mission, vision, values and Business Plan: the Group as a guide for the green transition and as an essential partner for the local areas, alongside administrations in responding to citizens' needs.

To this end, through a communication campaign also published on the Group's main social media, we worked on the integrated disclosure of the economic, environmental and social information contained in the Sustainability Report and the 2022 Financial Statements. In order to meet the interests of all categories of stakeholders and their information needs, an ad hoc website was set up, with different levels of in-depth information, which recorded, at the end of the year, almost 10 thousand unique visitors and over 24 thousand page views.

Transparent and continuous communication and the creation of a climate of open dialogue and discussion was the model chosen by Iren, which, in confirming its closeness to the communities, showed itself willing to create moments of discussion, exchange and concrete solutions to support requests and find shared solutions with its stakeholders, particularly in a year strongly conditioned by the effects of the geopolitical and economic crisis on commodity prices. This is the reason of the intensification of communication activities on issues related to the high cost of energy, in order to provide customers with both clarity on the service provided and the knowledge tools needed to understand the international market dynamics that have affected electricity and gas price trends.

## CUSTOMER INITIATIVES AGAINST HIGH ENERGY PRICES

Extraordinary increases in price levels on the international gas and electricity markets, intense and prolonged summer heat, droughts, and fears of winter gas shortages are among the contributing factors that have led to rising prices, triggering a real emergency in the energy sector for both gas and electricity in 2022. Regarding Italy - a country almost totally dependent on imports - we have observed how the increase in the price of gas has also pushed up the price of electricity, given the significant

percentage of electricity produced from methane gas. In this context, the government also intervened by allocating resources and enacting plans aimed at containing both costs and consumption.

In order to support its customers in coping with the difficulties resulting from the energy crisis, Iren Group, in agreement with numerous stakeholders, including Consumer Associations, adopted several initiatives in 2022 aimed at containing consumption, developing energy from renewable sources and defining useful tools to support households in managing their energy expenditure.

The various initiatives include:

- **#energiaquotidiana campaign** aimed at raising awareness on the issue of saving energy by setting the example of small, concrete and effective gestures;
- push and widespread awareness, particularly in the world of condominiums, of the **heating consumption containment measures** introduced by the government (Cingolani Decree);
- active role in the promotion and development of **energy communities**;
- **social bonus for district heating service** as an invoice discount paid at the company's expense to its customers;
- **instalments and instalment plans without interest and without charges**;
- opening of **new counters** in the area and **extension of call centre hours** to improve service and listening skills;
- **systematic involvement of Iren Local Committees** to investigate and monitor the energy scenario, the actions put in place by the Group and behaviour to reduce energy consumption, a useful tool for containing expenses and a sustainable approach to the use of resources;
- **strengthening the dialogue with Consumer Associations** to ensure maximum effectiveness of actions against high energy prices and to identify possible proposals for regulatory interventions.

It is also estimated that, during 2022, Iren Group customers on the free market with a fixed-price offer were able to benefit from approximately 900 Euro less in electricity and natural gas costs compared to protection tariffs.

The Group's communication actions were developed in a synergic manner online and offline, so as to reach all stakeholders through the creation and management of institutional, advertising and commercial campaigns, the organisation of public and institutional events, conferences and workshops, the management of digital channels, the development and coordination of environmental education activities, and relations with the media, institutions, trade and voluntary associations.

At the same time, influencer marketing activities were increased thanks to a wide range of initiatives, including Iren Loves Energy - Turin, the presence at Euro Flora 2022 and participation as a partner in the Nitto ATP Finals, the world's largest indoor tennis tournament. During the event, various activities were organised open to citizens and customers participating in "Be Iren", the loyalty programme for all the Group's domestic customers holding a contract for the supply of electricity and/or gas on the free market.

The operation aims to bring customers closer to the Group’s values, including environmental sustainability, with an engagement path through gamification. Through the Be Iren App, some customers have been able to attend theatre performances and cultural events such as the Ballets of Nervi, a guided tour of the Rubens exhibition at the Palazzo Ducale in Genoa, or listening to the rehearsals of the orchestra of the Teatro Regio in Parma, on the occasion of the Verdi Festival. In 2022, digital and physical events were also organised, dedicated to the presentation of services and products related to electric mobility and energy savings. In addition, the communication campaign concerning the ‘District Heating Bonus’ [» SEE PAGE 265](#) was also important for foreign customers, for whom information materials translated into several languages (English, French, Arabic) were prepared to ensure understanding of the requirements for obtaining the bonus. The communication actions towards customers have acted in two directions: some have been addressed

to legacy regions, others, instead, have been carried out in order to commercially position Iren luce gas e servizi, expanding its brand awareness outside its reference local areas. In April and May 2022, Iren’s offer was promoted through a TV and digital campaign. A second major national campaign was launched between November and December 2022 to promote Iren and Europ Assistance’s new “Lumineia” range of insurance products. Measurements carried out after the communication campaigns showed a consolidation of brand awareness and a noticeable increase in the propensity to inquire about the offer after viewing the campaign. In addition, various printed and interactive materials were produced to support the sale and promotion of the new products, in compliance with the dictates of the Antitrust Authority in terms of transparency and correctness of the message.

## TOOLS AND CHANNELS FOR DIRECT AND TRANSPARENT RELATIONSHIPS

**60%**  
digital  
transactions  
in 2022

New lifestyles and purchasing behaviour, accelerated also by the Covid-19 pandemic, have brought more and more customers closer to digital channels. To respond to this evolution, Iren has strengthened its digital communication and contact channels. The new digital channels flank the classic communication and relationship tools available to customers and, in order to improve the management capacity and quality of the services offered through digital channels, training courses were launched for internal and external operators (522 participants and over 1,000 training hours provided). In 2022, the development of the digitisation path saw the percentage of digital transactions increase to 60% - mainly due to growth in web channel acquisitions, digital payments and transactions on the IrenYou App.

more than  
**3 million**  
people  
spoke to an Iren  
operator

**Single toll-free number for commercial services:** in order to ensure effectiveness and responsiveness to the growing number of calls recorded in the last quarter of 2021, determined by the energy scenario and its impact on electricity and gas prices, as well as the changes introduced by the “*Aiuti Bis*” Decree, a series of initiatives were introduced. In particular, the call centre service was extended by 2 hours to cover the 6 p.m. - 8 p.m. time slot and the number of people assigned to the service via WhatsApp was increased. Overall, calls increased by 8% compared to 2021 and more than 3,331,000 people spoke to an operator with an average waiting time of about 67 seconds.

**+30%**  
of telephone  
call handled  
compared  
to 2021

**Waste Management Services Customer Care:** the service provides information on waste collection and management services. All incoming contacts - telephone, e-mail and web - are tracked on a specific management system that allows subsequent calculation and statistical re-processing. Reports and requests are automatically transferred to the local waste management services. Telephone calls handled in 2022 were up by 30% compared to 2021, in connection with the expansion of the perimeter following the acquisition of the company Sei Toscana, and there were more than 121,000 e-mail and web contacts. The consistent growth in contacts highlights the importance of the service in directing citizens towards sorted waste collection, in collecting their requests and reports and giving answers quickly, with effective solutions, accompanying them even in difficult moments such as those of the pandemic emergency and the economic crisis. Despite the increase in incoming calls, over 643,200 customers who contacted the service by telephone spoke to an operator, with an average waiting time of 75 seconds.



**Integrated customer relationship management (CRM) system:** the new CRM system is integrated with many communication channels, allows all information relating to each customer interaction to be collected, recorded and managed. Provides for the sending of proactive multi-channel communications (e-mail, SMS, mail) that allow customers to receive notifications regarding their supplies and updates on the progress of their practices or requests, on an ongoing basis, until they are resolved. In April 2022, the water service was also integrated into CRM, thus completing the migration of the main services offered.

**Iren counters and spaces:** the plan to optimise the branch channel continued in 2022 with the aim of guaranteeing efficiency and commercial repositioning, transforming a simple reception and management channel into a tool for strengthening the brand, capable of seizing opportunities to promote products and services to the customer, maintaining the objective of continuous improvement of the quality of the service. The counter has consequently evolved into a place of consultancy which favours dialogue and closeness between customers and Iren Group, capitalising on the role of people as a vehicle of trust, support and specialised experience, customer care and loyalty, as well as promotion and sale of value-added products and services. During the year, work continued on setting up new stores and retail spaces in the local areas or completely renovating existing ones: two new stores were opened in Turin and two in Genoa. In the new exhibition areas, great space was given to communication in digital format, also with the aim of focusing attention on environmental issues. At the same time, the activity of setting up sales corners in shopping centres and new exhibition spaces continued, focused on the sale of e-mobility and energy efficiency products.

The network of Iren Spaces is growing: 96 physical points for managing requests and providing professional advice to customers



The counters are confirmed as the point of reference for customers and citizens: having overcome the Covid emergency, 2022 saw a further increase in the number of customer visits to Iren's Spaces.

Help desk activities	2022	2021	2020 <sup>(1)</sup>
Help desks (no.)	96	92	82
Customers served (no.)	693,525	541,513	386,090
Average waiting time (min.)	8.2	5.3	5.5

<sup>(1)</sup> The figures are affected by the closure of the help desks for two months due to the Covid-19 crisis and the reopening with access by appointment only.

**Direct contact channels:** consolidation work continued in 2022 to foster interaction with condominium administrators and Consumer Associations to handle requests from their members.

The Group also continued to promote meeting sessions, mainly with Consumer Associations, to discuss issues of particular importance such as, for example, the effects of the scenario on energy tariffs and the initiatives adopted in this regard by the Group, the new tariff of the water sector (TICS), the interpretation of the various regulations on hidden losses and the new resolution on arrears, in order to limit the economic and bureaucratic impact on final consumers.

**90.000**  
visitors per  
month on  
[www.gruppoiren.it](http://www.gruppoiren.it)

**Websites:** in 2022, the Group's main websites were updated, an open and integrated system that presents contact points for stakeholders and aims to provide information processed to meet criteria of usefulness, timeliness, clarity, accuracy, searchability and customisation. A digital ecosystem with a strong and recognisable visual identity aimed at inspiring, associating the Iren brand with a concrete commitment to changing the future. On average, the [gruppoiren.it](http://www.gruppoiren.it) website has around 90,000 visitors per month. In addition, optimisation of the [irenlucegas.it](http://www.irenlucegas.it) website continued to be carried out to make it more user-friendly through constant monitoring

of visits and the creation of dedicated texts for increasingly effective SEO (Search Engine Optimization) positioning. Thanks to these optimisations, in 2022 Iren was again awarded Energy Efficient Website, a project that aims to measure the environmental impact of websites and increase their energy efficiency by reducing CO<sub>2</sub> emissions. Iren Mercato confirmed the flanking of the advertising campaigns on the Google search engine (Google Ads) with SEO activities, intending to improve the positioning of the website in the search engine results.

**SmartPod:** the Group's web portal dedicated to electricity distribution that provides registered customers with information on their metering data and the possibility of sending self-readings. With the launch of the mass installation plan for second-generation meters, customers can view on SmartPod the details of the time slot scheduled for replacement, the company in charge, and the name and photo of the operator. Finally, SmartPod offers a series of reports to MV (medium voltage) customers and the plan of power supply interruptions for the application of the Electricity System Security Emergency Plan.

more than  
**400**  
requests per  
day on socials

**Social network:** social channels (Facebook, Instagram, Twitter, LinkedIn) allow customers to make caring enquiries, as well as obtain commercial information and, together with WhatsApp, represent a valuable support in the management of requests for information, offer changes, switches, as demonstrated by the number of customers who turned to these channels in 2022, reaching peaks of even 400 requests per day. The Group, thanks to a friendly and more informal approach, uses social channels also to spread messages about the world of energy, services, regulations and environmental sustainability. The language used is simple and encourages interaction with customers. On these channels, the Group tells its story in a more immediate way, including through videos and photographs. Thanks to the collaboration with content creators, Iren landed in 2022 on the social TikTok with a digital campaign dedicated to energy saving.

more than  
**1.4**  
million  
downloads of  
the Apps

**Mobile Apps:** thanks to the development of digital channels, it has been measured that those customers using the Group's Apps use the other channels to a much lesser extent than other customers. These services have been appreciated by customers, who in 2022 recorded more than 1.4 million downloads of the Group's Apps (Iren You, Junker, Luce in Città), an increase of 62% compared to 2021.

**+54%**  
of downloads of  
IrenYou

**IrenYou:** in 2022, work continued on enriching and improving the App functionalities with the aim of giving customers a useful and immediate tool for managing their contracts and associated requests. The new IrenOpen service was implemented, which, through IrenYou, offers the possibility of aggregating the movements of customers' online bank accounts in a single platform. Additional functionalities, such as instalment and deferred bills for IrenOpen members, have been positively received both in terms of access and transactions carried out. The increase in downloads of IrenYou was 54% over the previous year, reaching more than 1.3 million users.

**22,000**  
recharging  
points in Italy

**IrenGO:** the App, available on Apple App Store and Google Play Store, allows users to search for a recharging station, among IrenGO stations and those of other operators with which interoperability agreements exist (more than 22,000 recharging points on Italian territory), to plan routes to understand where and how many times to recharge their car to get to their destination, to check if the recharging station is available and to make the payment, record recharges and payments made. In 2022, it was integrated into the IrenYou App.

**Ecolren:** is the App that provides useful information on waste management services and on Acquapubblica distributors in the area; the App features a photo-signalling system through which photos of abandoned waste, damaged bins and other anomalous situations can be taken and sent to Iren Group, accompanied by text and geographical coordinates.

**IrenCollabora.it platform:** this is a tool that was created within the context of the Iren Local Committees [» SEE PAGE 117](#) to establish an innovative channel of dialogue, discussion and participatory planning between Iren Group and the local community stakeholders. The platform collects project ideas to support and initiate environmental and social sustainability actions.

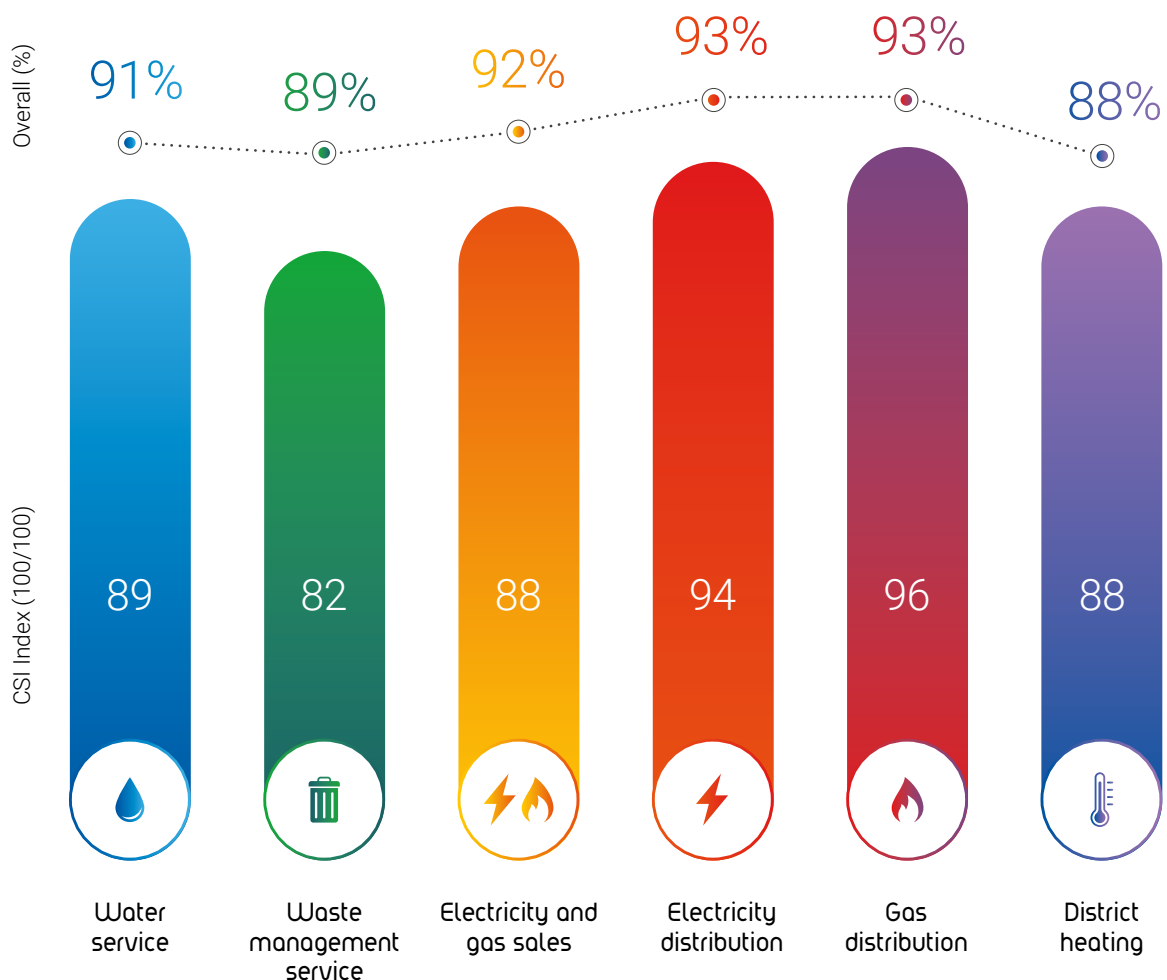
## Customer satisfaction

Iren Group has structured an annual monitoring system to evaluate the quality of the services supplied in order to identify actions for communication and operational interventions for continuous improvement.

Customer satisfaction surveys are assigned to the Corporate Social Responsibility and Local Committees Department, which deal with various Business Units for the definition of the survey areas and sharing the results achieved. The customer satisfaction survey provides the following for the various sectors:

- an overall indicator (CSI index) that shows customer satisfaction in terms of the difference between perceived service value and expectations in regards various technical and relational aspects, which are weighted together. Here, evaluations are made on a complex of more than 160 factors relating to the intrinsic characteristics of the service, its continuity and reliability, its efficiency and effectiveness, its cost/quality ratio and payment methods, the management of the relationship with the customer through the various channels, including the management of complaints and feedback, and the ability to listen to needs;
- a synthetic overall satisfaction indicator that is monitored by directly asking the customer to highlight the overall perceived satisfaction level. Overall satisfaction shows the aggregate of those who rate the service provided "equal to expectations" and "better than expected".

The 2022 survey shows positive results and substantially in line with past surveys.



## JOINT CONCILIATION

Conciliation is a procedure that allows the customer and the Group to resolve any disputes through dialogue and with certain formalities and timeframes.

Iren signed, already in 2017, with 19 National Consumer Associations, the **Joint Conciliation** protocol on behalf of Iren Mercato, Ireti, Iren Acqua, Iren Acqua Tigullio. The Iren Joint Conciliation Body was recognised in 2018 by ARERA as an ADR (Alternative Dispute Resolution) Body, and was extended to the customers of Atena Trading and Acam Acque.

As regards the **ARERA conciliation service** by Acquirente Unico, which is mandatory for Ireti and Acam Acque, the willingness of the Group's other water operators (Iren Acqua, Iren Acqua Tigullio and Amter) to adhere to all conciliation requests received was confirmed in 2022. Lastly, the activities of the service, activated by Iren Mercato, dedicated to reports from Consumer Associations continued, structured through a dedicated e-mail box, a dedicated number and the possibility of setting up meetings at the counters for specific practices; in particular, periodic meetings were held with the territorial offices of the Associations for the analysis of the reports received.

In 2022 the number of conciliations is up 12% compared to 2021: conciliations relating to energy services are up 22%, while those relating to the integrated water service are down 16%.

## COMPLAINTS AND BREACHES

The monitoring of complaints is not only an obligation in respect of the Regulatory Bodies but is also a fundamental management tool for identifying critical issues and defining and implementing corrective actions.

The number and type of complaints is, therefore, a key focal point for the Group and, at the same time, attests to the heightened awareness of customers and the growing level of their expectations.

On the websites of the Group companies that manage environmental hygiene services, the integrated water service and the sale of electricity, gas and heat, the procedures for filing a complaint are explained and there are forms to simplify filing and sending them. The channels and methods for making a complaint are also set out in the information contained in the bills, where all the information for its proper handling is indicated, as well as in the current service charters published online.

In 2022, Iren Group received a total of 49,897 complaints - of which 27,569 for energy services (gas, electricity and district heating), 15,536 relating to waste management services, and 6,792 for the integrated water service - with an overall growing trend compared to 2021. In particular, the number of complaints relating to the sale of electricity and gas received in 2022 is increasing (by about 41%) compared to those received in 2021. This increase can be attributed to several factors that characterised the year 2022: the increase in energy prices, which resulted in requests for bill recalculations and requests regarding the economic conditions of new contracts, and the introduction of the "*Aiuti Bis*" Decree regarding unilateral changes to contracts, in the second half of the year, which resulted in the entry of approximately 3,000 files. Other important topics include requests for electricity and gas consumption prescriptions, double billing or billing adjustments, and requests for issues related to arrears and allegedly unsolicited contracts. With regard to district heating, the recurring issue was tariffs and billing, in connection with the sharp increase in raw material prices caused by the international energy crisis and the fact that the district heating service did not benefit from the government subsidies adopted for electricity and gas in 2022.

As far as the water service is concerned, the increase in the number of complaints recorded compared to the previous year sees among the most recurring topics those related to billing, payments, refunds, arrears as well as consumption prescriptions.

The trend in the environmental hygiene service is positive, with a decrease of almost 12% in complaints compared to 2021.

In 2022, Iren Group did not record any violations regarding discriminatory practices towards customers or instances of non-compliance regarding the health and safety of products and services, marketing communications and promotion and sponsorship activities. Following on from the appeal submitted by Iren Mercato, the decision concerning the proceedings instigated by the Antitrust Authority in 2016 for alleged unfair sales practices regarding the acquisition of some electricity and gas customers is still pending. In 2022, the AGCM (*Autorità Garante della Concorrenza e del Mercato*, the Antitrust Authority) notified Iren Mercato of the initiation of the preliminary investigation procedure for alleged violation of the temporary ban on new unilateral changes, introduced by article 3 of the so-called "*Aiuti Bis*" Decree. The Council of State has suspended the contested measures insofar as they impose an obligation to suspend price changes even in cases of price updates for the renewal of an expired contract.

The proceedings are still ongoing.



# Quality, efficiency and safety in services

[GRI 2-6, 2-23, 2-24, 2-25, 3-3, 303-1, 416-1, G4-EU4, EU12, EU27, EU28, EU29]

Efficiency, reliability and safety are relevant both for the quality of services and to ensure proper use of resources and reduction of impacts. Iren Group invests to guarantee security, continuity, health and business sustainability, aware of the responsibility that energy and waste management service management entails, for the present and for the future of people and the environment.

## Efficient, reliable and safe management of processes and infrastructure



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Malfunctions or business interruption of plants, networks and services
- Disruption of continuity and quality of service, including due to emergency or crisis events
- Chronic or extreme natural phenomena from climate change that may cause impacts on assets/performance
- Loss of certifications affecting business continuity
- Damage to third parties (persons and/or property) resulting from activities carried out by the Group, interruption of managed services or reduced reliability of managed infrastructures
- Environmental and social impacts (e.g. accidental spills, odour emissions, noise pollution, electromagnetic fields)
- Cyber risk or inadequacy of the ICT system
- Non-compliance in the processing of personal data
- Legal proceedings brought by consumers



### Opportunities

- Improving the environmental impact of services and infrastructure
- Protection of water resources (e.g. reuse of purified wastewater, reduction of water leaks)
- Support to for Public Administration projects aimed at mitigating the impacts of hydrogeological instability



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Code of Ethics
- Organisational Model 231 and information flows to the Supervisory Bodies
- ERM system (Operational Risk Policy, Climate Change Risk Policy and Cyber Risk Policy)
- Investment plans and planned maintenance
- Business Continuity Management (BCM) model: organisational and technological safeguards for the continuity of business processes
- Procedures: Management of emergencies
- Service and plant monitoring, remote control for the safety of networks and plants
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- Adoption of best available technologies
- Environmental authorisations
- Local Committees
- Insurance plans
- Personal data processing management system

## Sale of energy services and innovative products

Iren Group presents its customers with a complete offer portfolio which, starting from historically managed activities, incorporates new solutions and technologies to meet management needs, energy saving and the well-being of residents, companies and Public Administrations.

Commercial initiatives aimed at **retail customers** are aimed at building loyalty and developing new territorial areas. Sales activities are managed through various channels: teleselling and physical agencies where the utmost attention is paid to monitoring and controlling sales partners, through quality call, confirmation call and courtesy call processes carried out on 100% of contractual proposals, in order to guarantee a correct commercial approach that complies with current codes of conduct, procedures and company regulations. In 2022, the sharp rise in the price of raw materials due to the energy crisis allowed Iren Group to promote fixed-price tariffs during the first half of the year with ad hoc campaigns, offering its customers the possibility of paying in instalments. In addition, the development of the web channel for selling the increased range of offers concerning sustainable mobility products, home and personal services continued. The growth of the web channel is mainly due to the assistance and sales service through chat, thanks to the activation of robots with artificial intelligence, among the most performing in the energy field, which are able to identify the most frequent topics and direct the customer towards the most appropriate information or towards human support, collecting at the same time the information to offer a higher quality service.

In 2022, the Group offered to retail customers light supplies **100% from renewable sources**, at no additional cost. Thanks also to its production assets, Iren Group, in fact, can offer certified "100% green" energy with a guarantee of origin, confirming its sustainability policies.

The supply of energy from 100% renewable sources is in line with the Group's strategy, which has set itself the target of selling 3,500 GWh of green electricity in 2030. In addition, the offer of **offsetting CO<sub>2</sub> emissions from gas supplies** remained active in 2022, allowing customers to promote their environmental commitment. In addition, the Group maintained its presence in the **large energy customer** segment through an effective portfolio of dedicated offers.

## INNOVATIVE PRODUCTS

The innovative products made available in the Iren Plus and IrenGO offers generate positive impacts, both in terms of customer safety and protection of the quality of the urban environment.

### IREN PLUS

Iren Plus is the line that provides customers with all the tools to make their homes smarter, optimising domestic consumption and minimising waste.

In 2022, the Group further expanded the range of **Iren Plus** offers - in the four areas of energy efficiency, home automation, home services and internet connection - through a sales network that doubled compared to the previous year. The development of products continued with the aim of offering high quality solutions, with a strong focus on energy efficiency, the rationalisation of energy consumption and environmental sustainability.

The offer of **energy efficiency** products, such as photovoltaic systems, condensing boilers, air conditioners, window frames and thermal coats - the environmental benefits of which are illustrated on page 170 - was also driven by the superbonus and ecobonus incentives introduced by the Relaunch Decree and the energy scenario, with the consequent 'high bills', which drew greater attention from customers to the purchase of products for reducing consumption and self-producing energy.

In the field of **home automation**, the attention has been focused on the integration of the latest technological devices (Iren Smart Kit) for the remote monitoring of the house: thanks to a dedicated App that allows customers to manage lighting, reducing costs for inefficiencies, check for gas or water leaks and verify external intrusions.

In the area of **home services**, the following were launched:

- **Lumineia**, range, home insurance assistance packages from Europ Assistance in the event of unforeseen domestic incidents, with professionals on hand, repair cover for major household appliances, and home protection against direct damage to the building and damage caused to third parties by the property;
- supply of **100% electricity from renewable sources** at a monthly variable one-off energy component price, including grid losses as defined by ARERA. Included in the Iren Revolution Luce Verde Variabile offer is a 30 Euro bonus on the supply of electricity and an assistance policy for minor faults in the home. With the Iren Extra Large Luce Verde Variabile offer, the customer has the opportunity to buy an IrenGo e-bike and save, thanks to the billing bonus, 288 Euro in 48 months on the electricity supply. With the Iren Smart Control Luce Verde Variabile offer, the customer receives a free smart thermostatic head for remote heating control;
- **gas supply** at a monthly indexed raw material price with a free **smart thermostatic head** for remote heating control and a 15% discount on the purchase of subsequent spare parts.

For **internet connectivity**, the Iren Fibra Futura offer was developed for fibre optic connectivity provided by Open Fiber, in addition to Iren casa online, in partnership with Linkem, through which Iren Group proposes itself as a single supplier for internet connectivity and electricity.

All products and offers are explained in detail on [irenlucegas.it](http://irenlucegas.it).

## IREN GO

In 2022, consolidation continued of the business line dedicated to electric mobility IrenGO, which offers not only products and services, but also a complete consultancy to all customers (consumer, business and Public Administration).

Thanks to partnerships throughout the country, a wide range of recharging infrastructures for private customers (wall boxes and columns) has been set up, and the Group has also started the installation of public **recharging infrastructures**, which will form an important part of the network of recharging stations in our country.

The most significant projects in this area concern the main target areas: Parma and Vercelli, where the project has been completed, Reggio Emilia and other minor centres, in the design phase, while in the cities of Turin, Genoa and La Spezia work has begun. In addition, a management software platform has been created, through which it is possible to interact with the recharging systems and the IrenGO App for the provision of the service to end customers on the recharging stations and columns of the main operators on the Italian market.

The Group also offers **electric cars for rent, and light mobility means** such as pedal-assisted bicycles and electric scooters for the sustainable mobility of customers. In 2022, a partnership with Dott was consolidated for sharing scooters and pedal-assisted bicycles in Turin, Reggio Emilia and other Italian cities.

The energy that powers the electric vehicles and recharging systems is 100% certified from renewable sources through supply contracts that include Guarantees of Origin. To promote this sustainable choice, formulas have been developed for the supply of electricity from renewable sources that the customer can combine directly with the electric mobility offers with a discount in the invoice.

Finally, in 2022, the Group created a new offer of turnkey charging solutions for local public transport companies, dedicated to **full electric buses**. The offer includes charging infrastructures, supervision and control systems, storage options and self-production of electricity from depots.

## BUSINESS CONDUCT

Communications to customers comply with the principles of **clarity** and **transparency** provided by the Code of Ethics and Code of Consumption, with the objective of placing the customer in a position to be able to make an informed choice.

Moreover, Iren Group fully complies with the guidelines of the Code of Business Conduct for the sale of electricity and natural gas to end customers, formulated by ARERA, the Italian Regulatory Authority for Energy, Networks and Environment, which regulates sales outside of the commercial premises, i.e. activities of physical door-to-door companies and at commercial stands and teleselling and webselling to promote energy contracts.

As part of the contractual relationship, the Group requires external promotion companies (door-to-door companies, telesellers and websellers) to comply with the regulations and procedures of the sector and, more specifically, requires compliance with ARERA's Code of Business Conduct, the Consumer Code, as well as Iren Group's Code of Ethics, Model 231 and Quality Policy. In addition, it implements **control systems** on contract promotion that are also stricter compared to sector regulations.

The agency **selection process** takes place on the basis of a rigorous examination of the requirements, which must include:

- the possession of all permits, licences and registrations for conducting commercial agency activities (including registration in the National Register of Commercial Agents);
- the availability of a back office to monitor and train agents, conduct the preliminary verification of contracts acquired and verify customer awareness via check-calls;
- the knowledge of the local market and technical and organisational expertise.

It is only once the formal and technical verifications have had a positive outcome that an agency contract or a commercial collaboration contract is signed.

All agency collaborators receive adequate training on the regulations governing the sector and the codes of conduct to adopt. This **training** is divided into different sections (gas market, electricity market, offer type, Code of Business Conduct) and the first session is held in the presence of Group sales staff.

The activity of the agencies is **monitored and controlled** at various levels and in different ways depending on the type of activity performed, the method of signing and acceptance of the contract. In order to verify the correct operation of suppliers, as provided for in the mandate, the Group carries out controls through quality calls on the activity carried out by door-to-door companies to confirm that contact has been made with the agent and that the contractual proposal has been accepted. Alternatively, in 2018 instant calls were introduced, a quality call carried out on average within 2 hours of the contract being signed, for more timely and effective control of the sales activity. With regard to telesellers and activities deriving from webselling, a third party is appointed to make calls to check customer awareness concerning the proposal accepted (welcome calls, courtesy calls and confirmation calls).

Pursuing a policy of transparency and protection of the customer's true wishes, Iren Group offers customers with telephone contracts the option of listening to their telephone recording by accessing a dedicated section on the company website using personal login details.

Lastly, to verify that the companies work in compliance with contractual obligations and, specifically, in compliance with the Company's self-regulatory documentation (Code of Ethics, Model 231, operational procedures), visits are made periodically to the sales offices, the results of which are presented and discussed at the process committee. The company organisation provides for a specific structure dedicated to **analysing complaints** of customers concerning external channels of sales.

These complaints can result in the application of penalties and, in more serious cases, the dismissal of the agent, with a ban on working for the Group, even through other companies, up to the possible resolution of the agency mandate.



Commercial and marketing activities are conducted in accordance with principles of fairness and transparency, in full compliance with all regulations on **privacy** and **personal data protection** (EU Regulation 2016/679 - GDPR, Legislative Decree 196/2003):

- the processing of customers' personal data in accordance with freely given and collected consents is guaranteed;
- the processing of personal data on behalf of the Group's sales company is permitted exclusively to persons appointed, in writing, as external data processors;
- commercial or promotional actions are carried out exclusively towards subjects who have expressed informed consent following having read the specific privacy policy.

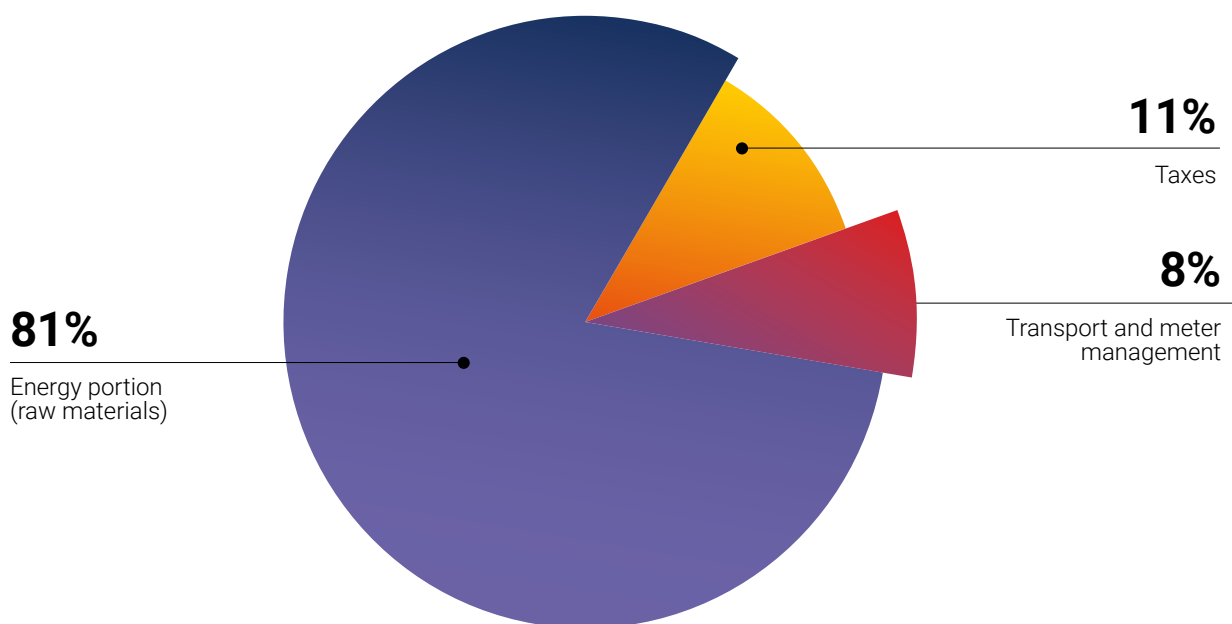
Moreover, in order to guarantee the exercise of the rights provided for by the GDPR, the Group makes available communication channels and facilities dedicated to the reception and management of requests regarding access, rectification, cancellation, restriction of processing, portability and opposition to the processing of personal data.

In compliance with the principles of **anti-competitive behaviour**, the Group companies do not conduct any commercial or promotional action towards customers who are part of the protected market, limiting their activities to their customers in the free market or prospective contacts acquired under regulations.

## ELECTRICITY TARIFF

Electricity tariffs are made up of the costs associated with the energy raw material and the commercial activities of the distribution companies (procurement and commercialization), the charges associated with transporting electricity on national and local distribution networks, the costs of managing metering activities, general system charges and national taxes. In the free market, the seller expresses its offer by differentiating itself from competitors in the share of supply and commercialisation costs, as the other components are subject to single national standards and tariffs established by ARERA and the State.

### 2022 AVERAGE COMPOSITION OF ELECTRICITY TARIFF FOR PROTECTED MARKET



The average composition of the 2022 energy tariff takes into account government interventions on curbing 'high bills' (D.L. 130/2021), which reduced general system charges to zero.

In 2022, the annual expenditure per typical family (3 kW meter and annual consumption of 2,700 kWh) served in the protected market amounted to 1,116 Euro (source: ARERA), an increase of about 77% compared to 2021.

In 2022, Iren Group, thanks also to the strengthening of the fruitful longstanding dialogue started with the Consumer Associations, activated concrete initiatives to support its customers in relation to the increase in electricity prices, such as the possibility of resorting, even before the government intervention, to installments on more favourable terms, for bills that make payments difficult and the strengthening of direct contact channels with customers through local counters.

In addition, the Group's customers on the free market with a fixed-price offer were able to benefit from higher electricity savings than customers under the higher protection regime.

## ELECTRICITY SOCIAL BONUS

ARERA defines criteria for the recognition of the social bonus on the domestic supply of electricity to citizens/families in conditions of economic hardship. Since 2021 (D.L. 124/19) social bonuses are automatically recognised: it is necessary for those entitled to present an annual Single Substitute Statement (Dichiarazione Sostitutiva Unica - DSU) for access to a subsidised service (e.g. maternity allowance, school canteen, etc.) and obtain an ISEE indicator within the access threshold, or be holders of a citizenship income/pension. The bonus is also provided for in cases in which a serious disease entails the use of indispensable electrical medical equipment to keep them alive (physical problems).

The values of the bonus, which also in 2022 allowed a 30% reduction on the bill, with an average increase of 59%, were:

- 275 Euro for a family of 1 or 2 members;
- 330 Euro for a family of 3 or 4 members;
- 387 Euro for a family of more than 4 members.

Electricity social bonus	2022	2021
Number of bonuses awarded	172,767	96,098
Amount (Euro)	88,095,526	13,630,730

In 2022, about 80% more social electricity bonuses were paid out than in 2021 to further help people in financial distress to combat the 'high electricity bill'.

## ELECTRICITY SALES SERVICE QUALITY

The commercial quality standards are dictated by ARERA (Res. 413/2016, and subsequent amendments, Amalgamated Law on the Quality of Sales Services – TIQV) refer to how promptly the seller provides some services requested by customers (replies to written complaints and requests for information, correction of bills, etc.).

The seller must comply with specific standards (beyond which, customers are entitled to automatic compensation) and general standards (for which a certain percentage of performance is required and no automatic compensation is paid). Data relevant to the individual companies are published in order to allow customers to compare the service levels offered.

In 2022, the number of electricity sales service complaints increased substantially, as did written requests for information and double billing corrections, compared to the previous year. The reason for this increase was the rise in raw material prices and the introduction of the "Aiuti Bis" Decree, which led to numerous recalculation and reimbursement requests. The increase in the number of files was reflected in the average response time to written complaints.

Response to written complaints (days)	2022	2021	2020	ARERA max time
Average time	33.7	19.8	27.9	30

To constantly monitor its commercial quality, the Group considers it strategic to monitor customer satisfaction  
 >> SEE PAGE243.

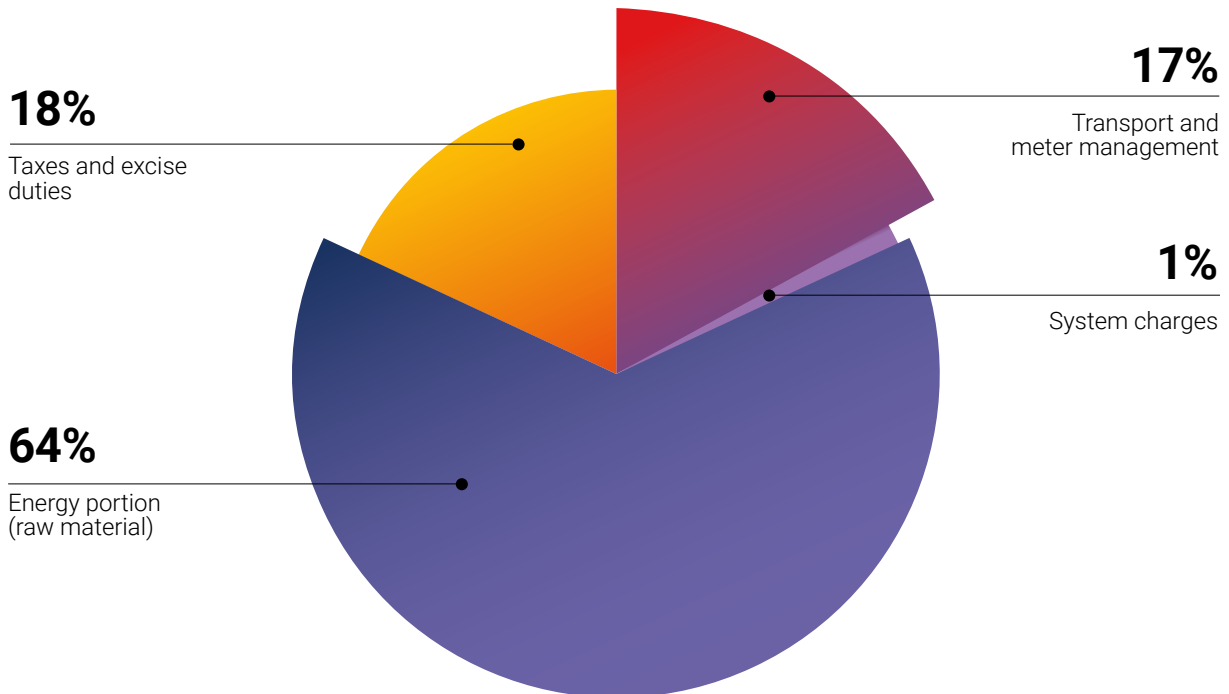
## GAS TARIFF

Gas tariffs comply with ARERA regulations (Amalgamated Gas Sale Law – TIVG and the Consolidated Law – TUDG/RTDG), State laws concerning Gas Excise Duties and VAT and Regional laws concerning the additional regional tax (ARISGAM) applied to natural gas.

Gas tariffs are made up of the costs related to the energy raw material and commercial activities managed by the sales company (procurement and commercialisation) and the component related to costs for gas transport into national and local distribution networks, which cover the costs of the national transporter and the local network operator. In addition to these, there are national taxes and regional additional taxes as well as general system charges.

In the free market, the seller expresses its offer by differentiating itself from competitors in the share of supply and commercialisation costs since the other components are subject to single national standards and tariffs established by ARERA and the State.

### 2022 AVERAGE COMPOSITION OF GAS TARIFF FOR PROTECTED MARKET



The average composition of the 2022 gas tariff takes into account government interventions on curbing 'high bills' (D.L. 130/2021) that reduced the general system charges and the VAT rate by 5%.

In 2022, the annual expenditure per typical family (annual consumption of 1,400 sm<sup>3</sup>) served with a protection tariff stood at 1,702 Euro (source: ARERA), an increase of about 51% compared to 2021.

Also in gas sales, to mitigate the effects of price increases due to sharp rises in the cost of raw materials and higher consumption during the winter season, the Group offered instalment payments, at more favourable conditions, for bills that made it difficult for households to pay.

The Group strengthened direct contact channels with customers through local counters and further enhanced gas self-reading channels to facilitate the timely recording of actual consumption. In addition, the Group's customers on the free market with a fixed-price offer were able to benefit from savings on their gas supply compared to customers under the protection regime.

## GAS SOCIAL BONUS

ARERA defines criteria for the recognition of the social bonus on the domestic supply of gas to citizens/families in conditions of economic hardship. In order to activate automatic recognition of social bonuses, it is necessary for those entitled to present an annual Single Substitute Statement (*Dichiarazione Sostitutiva Unica - DSU*) for access to a subsidised service (e.g. maternity allowance, school canteen, etc.) and obtain an ISEE indicator within the access threshold, or be holders of a citizenship income/pension. The process for the automatic recognition of social gas bonuses was initiated, first for direct supplies and, later, for households using condominium supplies (the system excludes the presence of direct supply already in the name of one of the members of the household).

The gas bonus applies only to methane gas distributed to the network for home-of-residence consumption and not cylinder gas or LPG.

Gas social bonus	2022	2021
Number of bonuses awarded	113,618	67,223
Amount (Euro)	67,859,557	6,581,016

In 2022, 69% more social gas bonuses were paid than in 2021 to further help people in economic hardship to combat 'high bills'.

## GAS SALES SERVICE QUALITY

As for electricity, the quality standards for gas sales are dictated by ARERA (Res. 413/2016, and subsequent amendments, Amalgamated Law on the Quality of Sales Services – TIQV) and provide for compliance by the seller with specific standards and general standards in the performance of certain services required by the customer.

In 2022, the increase in the number of gas complaints received and a significant increase in the number of written requests can be attributed to price increases and the introduction of the "*Aiuti Bis*" Decree regarding unilateral changes to contracts. This increase had an impact on the lengthening of response times.

Response to written complaints (days)	2022	2021	2020	ARERA max time
Average time	35.0	20.2	27.0	30

## Electricity distribution



Iren Group manages the electricity distribution network plants in the municipality of Parma, the City of Turin and the municipality of Vercelli.

Electricity distribution is carried out by the Group in compliance with the rules of functional separation for companies vertically integrated into the sector, in compliance with the principles of cost-effectiveness, profitability and confidentiality of company data with the aim of promoting competition, efficiency and adequate service levels.

The size of plants owned by the Group at 31 December 2022 is summarised in the table below.

Distribution network plants	u.m.	Parma	Turin	Vercelli
HV/MV stations	no.	5	10	1
MV/MV primary substations	no.	-	21	1
MV/LV secondary substations	no.	1,201	3,351	187
HV/MV transformers	no.	13	24	2
MV/LV secondary substation transformers	no.	1,434	3,142	303
HV power lines (overhead and non-overhead)	km	-	22	11
MV power lines (overhead and non-overhead)	km	921	2,080	206
LV power lines (overhead and non-overhead)	km	1,649	2,650	332
Electronic meters	no.	144,138	621,997	31,975

## QUALITY OF ELECTRICAL DISTRIBUTION

The technical quality of electricity distribution and metering services is defined by ARERA in the "Integrated text of the output-based regulation of electricity distribution and metering services (TIQE)" (Res. 566/2019/R/eel) for the 2020-2023 period and governs the continuity of service, specific and general levels of commercial quality and the selective promotion of investments in distribution networks.

Indicators measuring the service levels of Iren Group, which are considered relevant due to the impacts they may have on end customers and the environment, are analysed below.

ARERA conventionally sets standard leaks for the electricity grid, defining a percentage amount of the energy withdrawn in function of voltage, with the aim of encouraging the reduction of network leaks, comparing standard leaks with actual leaks.

The Group's **grid losses** are estimated to increase compared to 2021, although they remain below the national average of 6.8% (source: Terna data). It should be noted that this is an estimated figure that does not include adjustments for 2022, due to a switch between information systems during the year.



The Group's grid losses are below the national average of 6.8%

Electricity network leaks	2022	2021	2020
Iren Group	4.20%	2.75%	2.91%

The **mean number of interruptions per LV (low voltage) customer (N1)** is the indicator relevant to unexpected long (more than 3 minutes) or short-term interruptions (less than 3 minutes but more than 1 second) attributable to the distributor. The cumulative downtime (D1) measures the average number of minutes of interruption, per LV customer, of long interruptions without notice, attributable to the distributor. ARERA sets target values for these indicators concerning the size of the areas served: high concentration (municipalities with more than 50,000 inhabitants), medium concentration (municipalities with more than 5,000 inhabitants) and low concentration (municipalities with less than 5,000 inhabitants).

If the distributor delivers improvements in the levels of the indicators compared to its targets, it receives a bonus from ARERA; otherwise it receives a fine.

ARERA raised the level of the objectives of duration and number of interruptions if the distributor also considers external causes, i.e., service disruption events caused by third parties (e.g., damage to cables as a result of excavation work by third parties who do not operate on behalf of the distributor; service disruptions caused by failures occurring on private systems underlying the network).

Average no. of interruptions per LV customer - N1 <sup>(1)</sup>	2022	2021	ARERA Obj. 2022
Turin high-concentration <sup>(2)</sup>	2.65	2.10	1.23
Parma high-concentration	1.07	1.47	1.20
Parma low-concentration	3.83	4.19	4.30
Vercelli medium-concentration	0.44	0.62	2.25

<sup>(1)</sup> 2022 data are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2023 for the 2022 financial year. The 2021 and 2020 data have been restated, the final data reported to ARERA are shown.

<sup>(2)</sup> The 2022 figure is also estimated with regard to the effect of disrupted periods (PCP), particular periods of the year that ARERA regulations recognise as resulting from exceptional meteorological events and therefore to be separated in the final reporting that will be completed by 31/03/2023.

Cumulative downtime - D1 (min./user) <sup>(1)</sup>	2022	2021	ARERA Obj. 2022
Turin high-concentration <sup>(2)</sup>	57.40	40.45	28.00
Parma high-concentration	26.60	35.82	28.00
Parma low-concentration	71.87	80.88	68.00
Vercelli medium-concentration	7.77	11.24	45.00

<sup>(1)</sup> 2022 data are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2023 for the 2022 financial year. The 2021 and 2020 data have been restated, the final data reported to ARERA are shown.

<sup>(2)</sup> The 2022 figure is also estimated with regard to the effect of disrupted periods (PCP), particular periods of the year that ARERA regulations recognise as resulting from exceptional meteorological events and therefore to be separated in the final reporting that will be completed by 31/03/2023.

In 2022, there was an increase in the average duration of interruptions for the Turin area due to an increase in cable faults and transformer failures in the primary substation and the complexity of the events that led to longer resolution times; conversely, in Parma there was a reduction in the duration of interruptions and in Vercelli an overall improvement in both number and duration. To improve the quality of electricity distribution service and the resulting negative impacts, the Group has set a target of reducing the frequency of interruptions by 40% by 2030 compared to 2022.

Iren Group, in the context of credit control procedures, monitors the network disconnections of customers due to non-payment of bills, but does not consider it appropriate to report it, considering it as being sensitive data.

## SAFETY OF ELECTRICITY DISTRIBUTION

The annual maintenance plan, on the secondary electricity distribution networks, provides for the inspection of medium voltage (MV) substations and overhead power lines with different articulation depending on the areas:

- inspection of electrical substations every two years for Parma, Turin and Vercelli. In 2022, 2,024 out of a total of 4,761 substations were inspected (primary MV/MV substations, secondary MV/LV substations), equal to 43%;
- visual inspection of medium voltage (MV) overhead lines every three years for Parma, every six months for Turin and once a year for Vercelli. The overhead MV electricity network is approximately 320 km and, in 2022, around 53% was inspected.

The inspection plan, fully carried out in 2022, provides for the general inspection of each system, with six-monthly controls, thermographic control of the active parts of the systems, yearly control of electrical equipment containing oil with PCB > 50 ppm and of the state of the asbestos manufactured articles.

### ELECTROMAGNETIC FIELDS

Initiatives are implemented to safeguard the health of customers to ensure compliance with the limits of electromagnetic fields at power generation and distribution plants. Electromagnetic field measurements involve:

- primary electricity power plants and stations;
- overhead and underground HV power lines;
- MV/MV and MV/LV electricity substations installed in schools, hospitals, parks, or with specific load characteristics;
- MV/LV electricity substations with a higher capacity.

In the case of building a new electrical substation (MV/MV and MV/LV), a series of technical and environmental factors are assessed in advance to identify the location of the substation itself and the electrical machinery to be installed in it. The necessary actions are also implemented to limit the environmental impact, both in terms of landscape and acoustics and/or emissions. In 2022, the design and construction of new MV/LV substations continued to reduce the population's exposure to emissions from electromagnetic fields.

### ACOUSTIC IMPACT

In the electrical energy transformation plants (substations), we proceed with measurements of the acoustic emissions towards the outside in order to verify the absence of situations of noise pollution towards the population.

In 2022, a number of critical situations emerged in which noise emission limits were exceeded, making it necessary to implement noise mitigation systems, such as the replacement of an obsolete transformer and the installation of a soundproof barrier on a transformer, at the primary electricity transformation plants.

## Gas distribution



### QUALITY OF GAS DISTRIBUTION

The distribution service consists of the withdrawal of natural gas from Snam Rete Gas pipelines, by means of first-stage withdrawal points, and its distribution through local gas networks for delivery to end users. A gas distribution system is typically composed of:

- high-pressure natural gas distribution networks (pressure greater than 5 bar), medium-pressure networks (greater than 0.04 bar up to 5 bar) and low-pressure networks (up to 0.04 bar);
- RE.MI. substations (acronym for Regulation and Measurement) or first-stage substations, where a first reduction in the pressure of the gas taken from the Snam Rete Gas high-pressure pipelines is made. The RE.MI. plant consists of the complex of equipment where the gas undergoes filtration, pre-heating, pressure reduction, measurement and odourisation;
- second-stage reduction units where the last gas pressure reduction takes place before reaching the end users;
- user-derived systems, i.e. the complex of pipes and accessory devices that constitute the installations necessary to supply the gas to the end customer. The user-derived system starts from the gripper (the part of the system used to withdraw the gas from the main pipe by conveying it, through a pipe with a smaller diameter, towards the meter) and extends to the measurement group (meter).

Gas distribution is carried out by the Group in compliance with the rules of functional separation for companies vertically integrated into the sector, in compliance with the principles of cost-effectiveness, profitability and confidentiality of company data with the aim of promoting competition, efficiency and adequate service levels.

The use of innovative technologies for laying and maintaining the networks means that necessary activities can be performed while reducing time frames and costs and keeping disruption to residents to a minimum. Security and continuity are guaranteed via remote control systems of plants, a 24-hour emergency service, the cathodic protection of the steel networks, the use of odourised gas and regular and scheduled inspection of the network.

The Group also manages the distribution of LPG, in particular in the province of Reggio Emilia (14 storage units) and in the province of Genoa (7 storage units), in places not yet reached by the natural gas network. Suppliers deliver the pre-odourised LPG in tanks, the Group distributes it to customers at a maximum pressure of 30 mbar and ensures safety through remote control of the plants. The LPG distribution activity is closely connected to the gradual "methanisation" of the area.

The Group is continuing with the progressive installation of electronic meters which, as well as providing real-time data for billing the relative amounts due and speeding up certain activities (activation or deactivation of a supply, consent, etc.), help to raise residents' awareness about their energy usage, promoting behaviour aimed at reducing and improving gas consumption with subsequent benefits for the environment.

Installed gas meters (no.)	2022	2021	2020
Total gas meters	813,397	812,940	811,606
- of which electronic	726,491	712,096	675,041
% electronic meters	89.3%	87.6%	83.1%



In relation to the commercial quality parameters for gas distribution, ARERA has defined standards which provide for the automatic compensation to customers in the case of non-compliance.

Commercial quality levels (business days)	2022	2021	ARERA max time
Cost estimate for simple jobs	8.5	9.9	15
Cost estimate for complex jobs	9.3	13.1	30
Execution of simple jobs	6.7	6.4	10
Activating supply	4.3	4.1	10
Deactivating supply	4.0	4.1	5
Reactivation following deactivation due to non-payment	1.3	1.2	2 working days

#### LEAKS IN THE GAS NETWORK AND INTERRUPTION OF SERVICE

Gas interruptions occur mainly during network renovation works when the user connections are switched from old to new pipelines.

The interruptions are divided into **scheduled outages**, if the works are planned and it is possible to promptly communicate the interruption to the citizen, and **unscheduled outages**, that is, those for which it is not possible to notify all the customers involved, since they are generally caused by a local failure in a part of the network or damage caused by a third party.

In the case of scheduled outages, to limit the inconvenience to the end customer, the work is carried out with the help of "plugging with by-pass" systems that allow the work to be carried out without suspending the flow of gas.

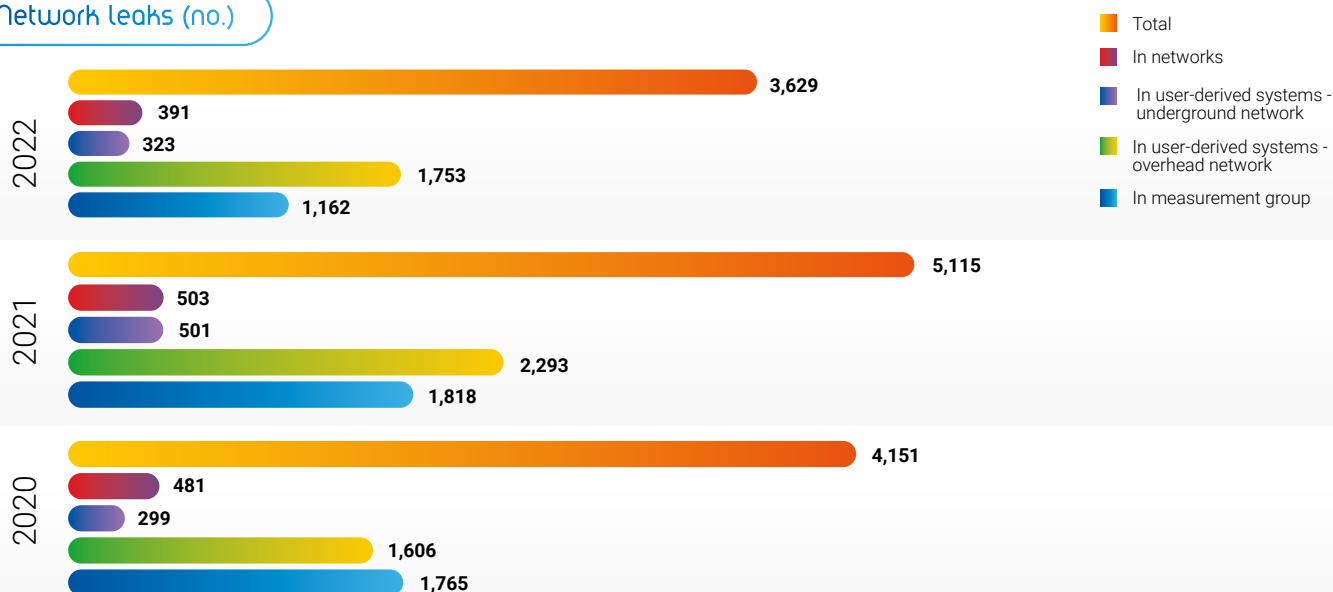
In 2022, the increase in planned gas distribution interruptions is mainly due to the numerous requests for suspension by third parties resulting from the implementation of upgrades under Superbonus 110%.

Gas distribution interruptions (no.)	2022	2021	2020
Unscheduled outages	1,151	781	662
Scheduled outages	1,118	970	1,023
<b>TOTAL</b>	<b>2,269</b>	<b>1,751</b>	<b>1,685</b>

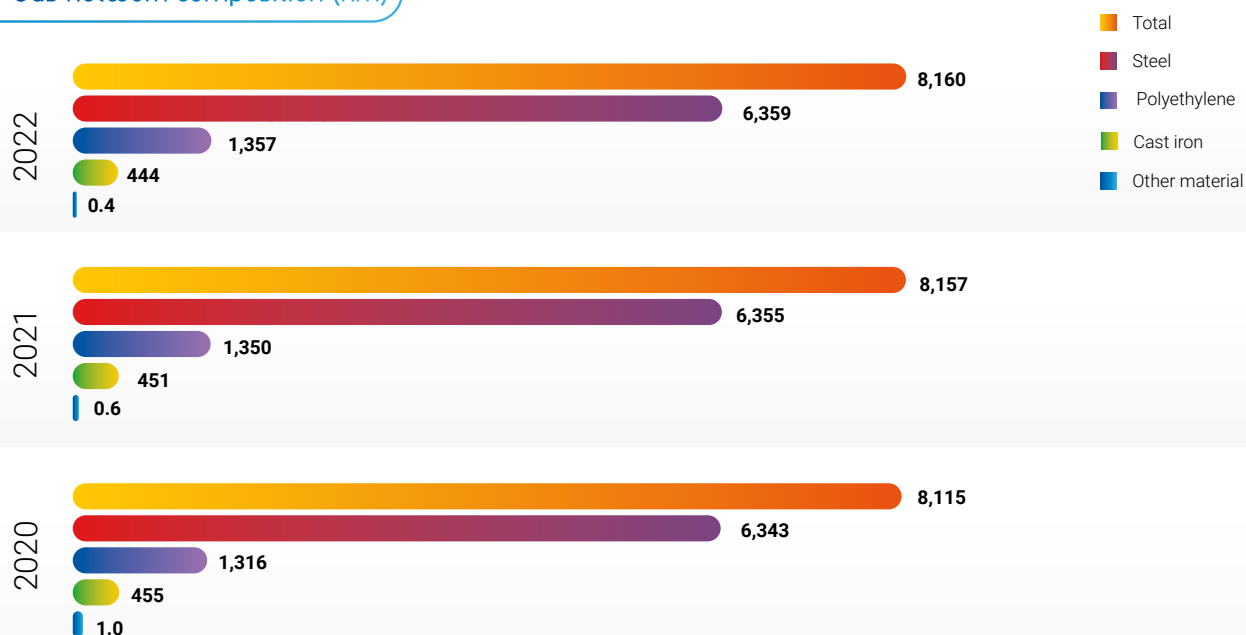
The main initiatives to reduce **leaks in the gas network**, in accordance with the provisions of ARERA, envisage the gradual cathodic protection of the unprotected steel network and the replacement of grey cast iron pipelines with hemp and lead joints. In addition to the search for leaks on the underground network established by ARERA, the systematic search for leaks also continued in 2022 at the measurement groups as well.

In 2022, network losses decreased (-29% compared to 2021), and the numerically most significant ones come from overhead shunt installations.

### Network leaks (no.)



### Gas network composition (km)



The project to replace the gas network with new steel and polyethylene pipes also continued in 2022.

Gas network replaced (km)	2022	2021	2020
Steel pipes	20	9	15
Polyethylene pipes	5	28	0
Cast iron pipes	5	5	3
<b>TOTAL</b>	<b>30</b>	<b>42</b>	<b>18</b>

## SAFETY OF THE GAS NETWORK

Personal safety is dominant in gas distribution service. The use of competent and adequately trained resources, together with a continuous monitoring of the network, are factors that contribute decisively to the prevention of accidents and are subject to continuous analysis and improvement, in order to increase their effectiveness with respect to efficiency and to prevent potential negative impacts on customers.

Network inspection, an effective emergency service and an adequate odorant concentration are fundamentally important in the proper operation of a distribution system and for a positive impact on customer service, together with a continuous modernisation of the network.

In compliance with the provisions of the Italian Gas Committee guidelines and ARERA resolutions, inspections are carried out on the high, medium and low-pressure networks with instruments suitable for identifying any dispersions that cannot be perceived by smell, so that they can be rapidly eliminated. The inspection can be carried out:

- using a vehicle equipped with suction probes and suitable instrumentation to detect the presence of gas while driving over the pipeline (in the case of a driveway);
- using a manually moved suction mat (in case of pedestrian streets, mule tracks or historical cobblestones and bricks).

ARERA sets out the obligations for the inspection of gas networks. In 2022, Iren Group inspected 100% of the 8,160 km of the gas network managed. The scheduled inspection has also led to a greater control of leaks.

Gas network inspected	2022	2021	2020	ARERA requirement
Low pressure network	100%	97.3%	97.6%	≥ 25%
Medium and high pressure network	100%	99.2%	100%	≥ 33%
<b>Total network inspected</b>	<b>100%</b>	<b>98.4%</b>	<b>98.8%</b>	

In 2022, 100% of gas networks were inspected: more than triple the number of inspections required by ARERA



The distribution company ensures the odourisation of gas in accordance with the relevant regulations in force and ARERA defines the minimum number of annual odour checks per thousand end customers for service safety and the protection of people and things. In 2022, Iren Group fed over 43 mg of odorants (tetrahydrothiophene) into the network for every cubic metre of gas distributed, in order for it to be noticed easier and any gas leaks identified quickly.

The emergency service is also essential to ensure the safety of citizens and places and to collect customer information/reports. The Group's performance in this context are significantly above the minimum levels established by ARERA. In 2022, the gas Emergency Service handled 7,734 calls, with an average arrival time at the call site that varies in the range shown in the table below, depending on the regions served.

Emergency service	2022	2021	ARERA requirement
Average arrival time at the call site (min.)	30.9-35.8	30.4-37.9	60
Compliance with average arrival time at the call site (%)	99.1%	97.7%	90.0%

## ACOUSTIC IMPACT

Campaigns to measure the effects of noise produced on the surrounding environment within gas distribution plants in 2022 did not find any criticalities.



# Integrated water service

## INTEGRATED WATER SERVICE TARIFF

The current tariff method, consistent with European directives, is aimed at determining, for each individual territorial area, tariffs that ensure full coverage of efficient investment and operating costs. In general, the water service tariff consists of:

- a **fixed component of service**, due regardless of consumption;
- a **variable component**, based on the consumption of water and wastewater treatment services.

The tariff structure is determined, at an area level, by the Area Government Body on the basis of the principles of modulation by tariff bands, in order to disincentivise inefficient consumption, and adoption of pro-capita criteria for resident households. Different types of utilities are provided by regulation: a) domestic, b) industrial, c) artisan and commercial, d) agricultural and livestock, e) public non-disconnectable, f) public disconnectable, g) other uses (residual category).

The following table shows the average tariffs by area, as approved by the competent Area Governing Body, in relation to the integrated water service managed by the Group (drinking water distribution, sewerage and treatment). The provinces of Savona and Imperia are not reported, where Iren Group only manages the distribution of drinking water.

Average tariff for IWS (Euro/m <sup>3</sup> ) <sup>(1)</sup>	2022	2021
Province of Asti	2.55	2.60
Province of Genoa	2.49	2.34
Province of La Spezia	2.23	2.14
Province of Parma <sup>(2)</sup>	2.14 - 2.54	1.90 - 2.45
Province of Piacenza <sup>(2)</sup>	1.89 - 2.45	1.83 - 2.37
Province of Reggio Emilia	2.17	2.13
Province of Vercelli <sup>(2)</sup>	1.82 - 1.93	1.76 - 1.86

<sup>(1)</sup> The average tariff is calculated by adding the basic domestic use tariff for the water service, the sewerage tariff and the treatment tariff. In the provinces of Parma, Piacenza, Reggio Emilia and Vercelli the ARERA 2021-2022 tariffs have been approved. In the remaining provinces, tariffs are provisional. With respect to 2021, data for the provinces of Cuneo and Mantua, where the Group has ceased service management, are no longer reported.

<sup>(2)</sup> Minimum and maximum values of the different tariffs in place across the country.

### UNIVERSAL RIGHT TO WATER

Iren Group is committed to guaranteeing **universal access to water**, recognising that all surface water and groundwater, even if not extracted from the subsoil, is public.

For the Group, water is a resource that must be protected and used according to criteria of solidarity; any use is carried out safeguarding the expectations and rights of future generations to enjoy an intact environmental heritage.

For resident domestic users a subsidised tariff is in place, at least on the amounts necessary for basic needs; resident domestic users in economically and socially disadvantaged conditions are ensured the supply of water necessary for basic needs.

## WATER BONUS

With Resolution 897/2017 ARERA has introduced the social water bonus for customers in financial difficulty. Users with an ISEE indicator of less than 8,265 Euro (or less than 20,000 Euro if there are more than three dependent children) and other specific categories are entitled to apply for the bonus. The bonus covers the consumption of 50 litres of integrated water service per person per day. To support the cost of the bonus, a specific tariff component (UI3) equal to 0.0179 Euro/m<sup>3</sup> supplied was introduced for the year 2022, which is applied to all Italian users.

In addition to the bonus provided by ARERA, the Area Governing Bodies can add an additional bonus financed by the tariff of the Area and disbursed according to methods established by the Body itself. ATERSIR (Territorial Agency of Emilia-Romagna for Water and Waste Services) has resolved for 2022 the supplementary social bonus for users in conditions of economic hardship: 240,000 Euro for Parma area, 160,000 Euro for the province of Piacenza and 350,000 Euro for the province of Reggio Emilia. The Governing Bodies of the Genoa and La Spezia Areas have approved an amount for the two provinces of 1,432,000 Euro and 220,000 Euro, respectively. The Governing Body of the Asti Area approved an amount for the province of 14,138 Euro.

Water social bonus <sup>(1)</sup>	2022 <sup>(2)</sup>	2021
Number of bonuses awarded	36,998	25,316
Amount (Euro)	2,015,958	1,315,921

<sup>(1)</sup> Calculations and amounts include ARERA bonuses and supplementary bonuses from Area Governing Bodies.

<sup>(2)</sup> The figures for 2022 refer to the amounts disbursed in the calendar year 2022. The final data will be sent to ARERA by 31/03/2023 for the financial year 2022.

## QUALITY OF THE INTEGRATED WATER SERVICE

The Service Charters of Iren Group's integrated water service include the indicators and time frames defined by ARERA (Resolution 655/15). In 2022, the figures for 2021 were reported, confirming a very high level of compliance with the established time frames, with an average of 90%.

In order to constantly monitor the quality of services, Iren Group also regards customer satisfaction monitoring to be of fundamental importance. The periodic collection of these surveys was included as an integral and essential part of the operators' quality system [» SEE PAGE 243](#).

## SERVICE EFFICIENCY

At the end of 2022, the Group manages 941,223 water meters serving the various types of users, 17% of which are electronic. These are new-generation meters that, in addition to providing real-time data for billing amounts due, help make residents more aware of their consumption, encouraging behaviour aimed at reducing and improving the use of water, with subsequent environmental benefits.

The water taken from the different sources is introduced in the distribution network that reaches all the users, after having carried out the necessary controls and verifications of the potability requirements. Control, extension and maintenance activities are carried out on the networks with a view to minimising negative impacts for the public as far as possible. A priority, in fact, is the attention to the protection of the urban environment and the sustainability of everyday life, in particular with regard to the impact on city streets.

**17,883 km**  
of water  
networks  
checked

In 2022, out of 20,358 km of managed water network, 17,883 km (nearly 88% of the total) were checked for leaks: 4,938 km (24%) through the acoustic research technique carried out on-site and 12,944 km (more than 63%) employing night-time flow monitoring, a structural activity that makes it possible to analyse distribution districts and check for any anomalies that may indicate dispersions of water resources.

In the case of programmed service interruptions, i.e. suspensions of the water supply necessary for the execution of planned works, the methods (traceable and documentable)

of notifying the population are adopted within the time limits required by the regulation and chosen as the most effective on a case-by-case basis (e.g. notices in the press and on local television, signs posted in the area concerned). In 2022, there were, in total, 616 planned outages in the managed territories.

For emergency interventions, e.g. to repair a burst pipe, all of the necessary measures are implemented in order to restore the water supply in the shortest possible time, in accordance with the provisions of the regulation in force. In 2022, there were a total of 9,811 outages in the network, subject to repairs carried out following the search for leaks or reports received.

The average arrival time at the place of the emergency call for the Group is 75 minutes.

## WATER SAFETY

In the supply of water for drinking use, the health and safety of the customer are an absolute priority, guaranteed by Iren Group and pursued through constant verification, even beyond legal obligations, of the quality of the water throughout the supply cycle: capture, treatment, disinfection, distribution.

The Group has adopted the implementation of **Water Safety Management Plans** (WSP), defined by the World Health Organisation (WHO) and European Directive 2020/2184 to systematically ensure the safety of a drinking water system, the quality of the water supplied and the protection of consumer health

» SEE PAGE 179.

In the treatment sector, analytical tests are carried out on the wastewater flowing into and out of the plants, and on the intermediate treatment steps, the sludge produced and the drains from the production user plants into the sewer. The number of samples and the relative analysed parameters derive from sampling plans prepared for all the areas managed. The internal controls, aimed at preventing possible negative impacts, are more numerous than those envisaged by the regulations in force and by the protocols signed with the Local Sector Authorities, ARPA and the Provinces.

Controls on drinking water and wastewater (no.)	2022		2021		2020	
	Samples	Parameters	Samples	Parameters	Samples	Parameters
Emilia-Romagna	38,072	455,605	37,365	467,067	36,769	435,516
Piedmont <sup>(1)</sup>	5,027	52,940	5,087	57,503	5,371	63,865
Liguria	14,807	387,321	13,162	324,700	13,512	287,345
Lombardy <sup>(2)</sup>	-	-	517	8,823	473	7,947
<b>TOTAL</b>	<b>57,906</b>	<b>895,866</b>	<b>56,131</b>	<b>858,093</b>	<b>56,125</b>	<b>794,673</b>

<sup>(1)</sup> As from 2022, the Group will only operate the service in the Asti area.

<sup>(2)</sup> As of 2022, the Lombardy area is no longer included, in which the Group has ceased to manage the service.



Over 57,000 samples and 895,000 parameters analysed on drinking and wastewater to ensure residents' safety

## ACOUSTIC IMPACT

The subject of reducing the acoustic impact is normally not particularly relevant for the integrated water service. Despite this, machinery and equipment (compressors, grills, etc.) are replaced during the unscheduled maintenance interventions with models producing lower levels of acoustic impact or greater degree of soundproofing.

# Waste management services



## TARIFF SYSTEM

The TARI tax is composed of:

- a **fixed part**, determined by the cost of sweeping, general costs, part of the cost of personnel and other essential components of the cost of the service, relating in particular to depreciation and administrative costs;
- a **variable part** related to the quantity of waste conferred, the service provided, and the management costs.

The TARI is applied to utilities, taking account of the surface area occupied and, for domestic utilities, also of the number of family members. With the TARI, Iren Group invoices its service to the municipality and the municipality issues payment notices to the users. In calculating the TARI, the Municipal Authority takes account of the VAT that it has to pay, which is why, in the tax applied to users, the VAT is not expressed but included in the tax itself.

Social tariffs are not provided for by the general legislation of the TARI. At a regulatory level, every municipality may include favourable conditions or reduction clauses in favour of certain groups or users. The average tariff for waste collection and environmental health services in Turin, La Spezia, Vercelli, Parma, Piacenza and Reggio Emilia is in line with previous years. As of 2022, the average tariff for the Southern Tuscany area will be added, which includes the provinces of Arezzo, Grosseto, Livorno and Siena where the Group started operating with the acquisition of Sei Toscana. The table below provides the average TARI for 2022 for the main municipalities served.

Year 2022	Average TARI by provincial capital					
Type of domestic users	La Spezia	Parma	Piacenza	Reggio Emilia	Turin	Toscana Sud
	Euro/year	Euro/year	Euro/year	Euro/year	Euro/year	Euro/year
1 member families	150.64	132.27	121.95	169.36	131.51	121.50
2 member families	195.30	215.16	216.17	261.68	246.59	208.30
3 member families	207.91	247.57	270.49	338.14	294.90	259.06
4 member families	219.59	288.69	298.54	388.38	326.23	299.76
5 member families	231.27	338.13	358.06	435.15	381.59	387.20
≥ 6 member families	242.76	376.15	405.58	461.64	433.85	448.09

## QUALITY OF WASTE MANAGEMENT SERVICES

ARERA, with Resolution 15/22, adopted the Consolidated Text for the regulation of the quality of the urban waste management service (TQRIF), in force as of 1 January 2023, launching a regulatory path aimed at leading the sector towards a generalised improvement in quality - both commercial and technical - within a framework of common rules but differentiated according to the starting level.

The adoption of the TQRIF has committed the operators and the Local Sector Authorities as early as 2022 to the identification of the regulatory scheme for management and the costs associated with compliance with the obligations in the 2022-2025 Economic and Financial Plan.

For waste management services, the Iren Group has adopted and disseminated Service Quality Charters, according to the regulations in force, which contain the main commercial and technical quality profiles. In this area too, the Iren Group considers periodic customer satisfaction surveys to be strategic » SEE PAGE 243.

## SAFETY OF WASTE MANAGEMENT SERVICES

The Group has developed performance monitoring tools such as environmental impact assessment, analytical controls, internal audits and legislative compliance checks, aimed at monitoring performance also in terms of sustainability and environmental protection. 100% of products and services in the environment sector undergo health and safety impact assessments.

### ACOUSTIC IMPACT

In all the areas managed, sound level checks are periodically carried out on waste collection, street sweeping and collection centres. In particular, in the waste collection sector, the Group is adopting new methods with vehicles with low acoustic impacts, such as electric vehicles. For waste-to-energy plants, periodic acoustic monitoring campaigns are carried out. To date, the results of the investigations conducted show that the limits have been respected.

## District heating



Iren Group's district heating service produces and supplies the thermal energy required by customers for heating rooms and producing hot water.

ARERA has defined (Res. 526/2021/R/tlr) the regulation of the commercial quality of district heating and cooling, valid for the period 2022-2025, with respect to which the Group has adapted the technical-administrative processes and updated the Service Charter, which constitutes the commitment to satisfy the customer's needs and to guarantee the reliability of the service, safety in the use of the service, fairness and equity in contractual relations. The parameters contained in it allow for objective assessments of compliance with the standards envisaged.

Iren Group constantly monitors the quality and efficiency levels of its services, including district heating, with the aim of adapting strategic choices to customer expectations in a logic of continuous improvement » SEE PAGE 243.

## DISTRICT HEATING TARIFFS

According to the regulations in force, district heating tariffs are not regulated by ARERA and are historically constituted according to the "avoided cost" principle, i.e. on the construction of a price, expressed in Euro/MWh, which corresponds to the price the customer would have paid for the unit of heat produced with a methane gas-fired plant.

The tariffs are updated on the basis of the increases applied quarterly by ARERA to the sum of the tariff components relating to the supply and sale of the gas for the protected market and the updates of the tax components.



## DISTRICT HEATING BONUS

In 2022, the Group has confirmed the “District Heating Bonus”, introduced in the 2021/2022 heating season, to provide concrete support to customers in economic hardship to cope with the international energy crisis that has resulted in high commodity prices with repercussions also on district heating.

Such measure, paid in full by the Group, is a discount recognised to customers directly in their bills. The discount amounts to 487.27 Euro (excl. VAT) and reaches 679.09 Euro (excl. VAT) for families with more than four members.

The bonus is dedicated to customers with the following requirements:

- **domestic utility** for heating service or mixed heating with an individual district heating contract or centralised district heating with split service or centralised district heating;
- **residence** in one of the municipalities where the Group provides district heating service (Beinasco, Collegno, Genoa, Grugliasco, Moncalieri, Nichelino, Parma, Piacenza, Reggio Emilia, Rivoli, Turin);
- **ISEE** within defined thresholds: in the 2021/2022 heating season, household with an ISEE indicator of no more than 12,000 Euro or an ISEE indicator of no more than 20,000 Euro if there are at least four dependent children (same rules as provided by the ARERA gas bonus); in the 2022/2023 heating season the ISEE threshold has increased to 25,000 Euro, reaching a wider number of families.

The Group took an active role in facilitating families to submit applications, with numerous initiatives to support them, such as an itinerant counter present in the territories served for 2 months during 2022, information in the press, dissemination of digital content (information video), leaflets and assistance at all counters. These measures made it possible, in the 2022/2023 heating season, to reach a significant share of the eligible population.



## DISTRICT HEATING SAFETY

The Department of Environmental, Territorial and Infrastructure Engineering (DIATI) of the Polytechnic University of Turin has carried out, since 2017, some studies on the consequences of the possible environmental benefits, in terms of air quality, of district heating systems in the cities of Turin, Reggio Emilia, Parma and Piacenza.

Analyses were conducted by comparing the environmental impacts of a scenario with a district heating system to a past scenario with a heating system based on decentralised stand-alone systems. The results showed a substantial reduction in the environmental impacts on the atmosphere through

the extension of district heating networks powered by co-generation plants. The magnitude of this reduction and the average concentrations of pollutants in the atmosphere were also calculated in economic terms, i.e. by estimating the social costs avoided due to the reduction of adverse health effects.

The district heating network managed by Iren Group in the municipalities of Turin, Nichelino, Beinasco, Grugliasco, Collegno, Rivoli, Moncalieri, Dogliani, Genoa, Reggio Emilia, Piacenza and Parma is about 1,110 km long and 94% of its extension was inspected in 2022.

## Smart solutions



The Group offers integrated energy efficiency solutions for condominiums, businesses, public administrations, non-profits and charities.

In addition, it provides products and services that meet the needs of safety and well-being of customers, such as: energy, building, anti-seismic upgrades, implementation and management of public lighting systems that increase the safety of urban areas, lighting upgrades (LED relamping) to improve efficiency and visual comfort, optimised management of thermal systems that make indoor environments more efficient and comfortable, improving heat distribution, design, development and installation of photovoltaic systems. These activities are carried out by providing a complete package and, for energy requalification interventions of buildings-plants, the customer has the possibility to receive the discount on the invoice or to opt for the transfer of the credit corresponding to the tax deduction, as provided by the current legislation, and to use the tax bonuses and the 110% superbonus.

The proposed solutions are “turnkey”, including consulting services, design, implementation and monitoring, with the possibility of using incentives and customised financial and contractual solutions.

Thanks to the collaboration with professionals and companies qualified in the Supplier Register, the Group, through Iren Smart Solutions, acts as the only interlocutor towards the customer.

In order to give greater impetus to **Renewable Energy Communities (REC)** » SEE PAGE 170 as a tool to reduce environmental impacts and contain energy costs, in 2022, the Group created the “Energy Community Project” organisational unit with the aim of implementing virtuous models based on sharing and broadening the target audience of beneficiaries, i.e. companies and public administration.

In 2022, the Group launched several initiatives to raise awareness of the importance of urban redevelopment and energy efficiency as levers to improve the sustainability of cities. Moreover, several territorial roadshows were organised, dedicated to professionals and companies, in order to spread the culture of tax bonuses, provide clarifications on regulatory requirements and support external professionals in the complex processes they are involved in alongside Iren Smart Solutions. A convention was also organised in Tuscany for professionals, partners and customers aimed at strengthening the Group’s network and disseminating innovative technical content such as Energy Communities and new solar photovoltaic applications.

## 800 BUILDINGS FOR ENERGY UPGRADING

In 2022, the Group presented its plan for the energy-efficient upgrading of 800 buildings in the City of Turin, including 500 schools, offices, sports facilities, cultural and religious buildings.

A set of interventions (thermal coats, insulation systems, thermal solar and photovoltaic systems, renovation of windows and doors, and replacement of existing technological heating equipment) that will be completed in 2029 with a forecast of energy savings of 33% with respect to the historical consumption of electricity and heat, and an annual saving of approximately 7 million Euro, compared to the costs in 2020, for the City of Turin.

The project envisages an investment of 110 million Euro, supported by Iren and recovered through the energy savings achieved, and will also have important implications in terms of allied industries and the local economy.

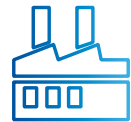
## SMART SOLUTIONS SAFETY

In managing smart solutions activities, the Group works to minimise impacts on the health and safety of customers and communities. For example, in technology services managed for public administrations, work is done to reduce light pollution from public lighting installations (➤ [SEE PAGE 231](#)). Furthermore, for the public lighting and traffic lights service, apps are available through which citizens can report any faults or malfunctions in real time.

For construction sites, constant checks and verifications of potential environmental impacts are foreseen, through the Minimum Environmental Criteria (CAM), i.e. the guidelines to reduce the environmental impact, from design to construction, acting on aspects such as consumption of non-renewable raw materials, land consumption and degradation, energy and water consumption, and waste production.

For the technological global service (management of thermal and electrical systems) of public buildings, a detailed process is envisaged for reporting faults and malfunctions, managing calls and solving the problem, with response times defined for each type of request, as well as the analysis and evaluation of the level of service. A 24-hour contact line is provided to manage domestic heating systems, with repairs within 3 hours of the report.

## Energy production



The management model adopted by Iren Group takes into account the health and safety of people, also evaluating the environmental aspects, risk analysis and measurement, in all phases: from design to maintenance of the plants, up to the choice, storage and disposal of materials and products, for which specific certifications are required.

## ACOUSTIC IMPACT

The Group takes steps to monitor, evaluate and mitigate noise emissions throughout the life cycle of its plants and infrastructure, supported by specialist technicians, and dedicates time and resources to limit the acoustic impact of its activities, including through mitigation measures (e.g. soundproofing panels and silencers).

To verify compliance with the limit values established by legislation, specific Acoustic Impact Assessments are carried out at each energy production site, which certify the level of noise generated and perceivable outside, either as a preventive measure or on already existing situations in the case of:

- construction, alteration or extension of a building work;
- starting a new business;
- submission of an application for the issuance of permits for the construction of new plants, the infrastructure of productive activities or commercial services;
- request by a public body.

In cases where the prescribed limit values are exceeded, special procedures are used that define the operating methods to be adopted to manage noise emissions, in a manner that complies with the provisions of the regulations and authorisation acts, such as the execution of acoustic remediation interventions on the most significant sources to reduce emissions within the legal limits. Periodic phonometric tests are also carried out at the perimeters of the sites or in proximity of the sensitive receptors; moreover, upon receiving reports or complaints from citizens, we implement appropriate measurements to assess the need for specific mitigation measures.

## Emergency management

---

Iren Group has formalised and implemented a Group **Business Continuity Management (BCM)** model that allows the valorisation and protection of company assets guaranteeing business continuity, minimising external and internal impacts.

The main objective of the BCM is to ensure business resilience in the face of unforeseen events by ensuring the continuity of business processes deemed critical. To properly manage business continuity processes and ensure the implementation of appropriate organisational and technological measures, the Group has defined a **Business Continuity Plan (BCP)** Procedure. The BCP defines continuity strategies to ensure the rapid resumption of processes in the event of an interruption, procedures for maintaining the BCM model and staff training.

In addition, the Group has adopted a **Crisis Management Plan or Crisis Plan** with the aim, should an emergency or critical event occur, of providing a structured response that supports the corporate figures involved, containing the damage caused, ensuring business continuity is maintained and defining an action plan that identifies further measures and strategies.

In order to respond to potential accidents and alarm situations, which could occur after a natural disaster, explosions or fires and to prevent and mitigate the consequent damage to people and the environment, the companies of Iren Group have procedures and practices that define:

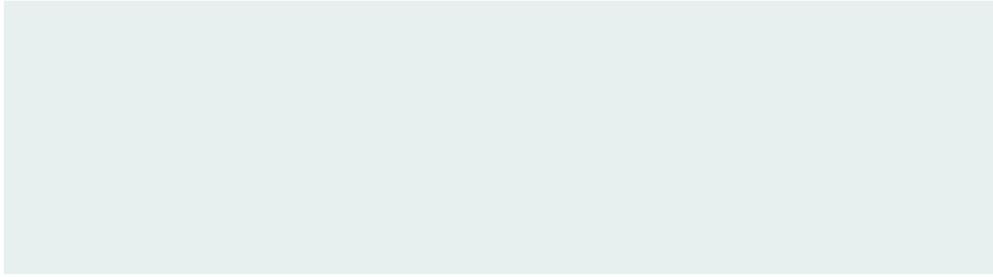
- the organisation and coordination centres set up to address the emergency situations that could arise within the activities carried out;
- the management of information and relationships with the Prefectures, Civil Defence, Authorities, Regions, Provinces and municipalities, including their relative operation rooms.

All monitored sites and facilities have specific emergency plans covering the most likely emergency scenarios, including those with possible environmental impacts. Emergency personnel have been identified at each site and plant, who are trained and updated periodically. Evacuation tests are carried out annually involving all persons present, including visitors, customers and suppliers; depending on the site, simulations are also carried out regarding the management of additional emergency scenarios (illness, spillage, etc.). The contingency plans of the main corporate districts identify an emergency manager and coordinator for each site. Upon entering the site, visitors are given a specific informative note containing the behavioural procedures to be followed. The company emergency plans are constantly updated in accordance with the guidelines shared by all Group companies.

Emergency situations connected to possible environmental pollution during the operation of plants, or due to mechanical failure of instruments of control or measurement of chemical physical operating parameters, are managed in accordance with criteria of immediate intervention on the fault, by specialised personnel, 24/7 (on some complex plants, such as waste-to-energy plants), via request and call of on-call technicians. The action aimed at fixing the failures occurs in the minimum time needed to carry out works.

To facilitate access to information relative to any weather alerts, the company smartphones – which are provided to all employees – are loaded with an App that provides a direct link to the official weather alert sites in the regions where the Group operates.

For employees who operate mainly in the outdoors, specific procedures have been established to define the operating guidelines to be observed in relation to the presence or otherwise of weather alerts.





# Enabling resources

## IN THIS CHAPTER WE TALK ABOUT

our  
people



our  
suppliers



innovation  
and digital





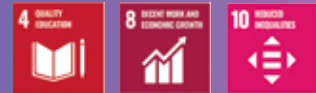
# Our people

[GRI 2-7, 2-23, 3-3, 201-3, 202-2, 401-1, 404-2, 405-1, G4-EU15]

Maintaining adequate employment levels, skill coverage and development, workers health and safety, and the quality of employment are essential for pursuing Group’s strategies, which, also in terms of jobs, support the Global Compact principles. Investment in developing internal skills and enhancing the value of human resources is a fundamental element of the pact between the company and the individual, along with efforts to reconcile life and work needs, improve working conditions and foster a stimulating and constructive work environment.

The aim is to become a team, add value to the outcome of individual work and increase a feeling of belonging, creating a shared social, cultural, professional and intellectual terrain.

## Employment, development of human resources and welfare



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Loss of key skills/inadequate job profiles
- Loss of talent
- Slowdown/interruption of operations and/or impairment of service quality level due to lack of personnel
- Outsourcing policies not adequately managed with respect to business needs
- Labour disputes
- Sanctions and fines for non-compliance with labour laws
- Lack of attention to employees’ well-being
- Poor work-life balance



### Opportunities

- Improving the internal climate
- Favourable legislative framework for better corporate welfare
- Smart working arrangements for compatible activities



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Code of Ethics
- Organisational model 231 and information flows to the Supervisory Bodies
- MbO and LTI system with ESG objectives
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- Talent acquisition initiatives
- Compensation & benefits policies
- Performance appraisal system
- Retention programmes
- Company welfare system
- Monitoring of labour law developments and specific audits on regulatory compliance
- Procedures: Personnel recruitment and selection; Training and education; Internal communication; Whistleblowing
- Guidelines: Definition of key resources; Management by objectives; Economic and professional development
- Internal communication



The growth and enhancement of employees, including with a view to diversity and inclusion and together with health and safety, are fundamental values for Iren Group: pillars that are transposed into the mission and vision of the Strategic Plan [» SEE PAGE 106](#) and in the actions of personnel.

Through actions aimed at increasing professional skills and improving the level of education, not only of its employees but also of the workers in the supply chain [» SEE PAGE 325](#), the Group contributes, in a broader way, to the quality of employment in its related industries and in the reference areas.

**In the current economic context, employment is of extreme social importance and is a crucial factor for the Group that sees fundamental capital for growth in its human resources.**

The general objective is to manage individual skills and expertise, within a model that aims to maintain the high quality of human resources, through policies that aim to increase professionalism and guarantee the necessary involvement.

Investments in training and development, meticulous career planning, targeted strategies to enhance talents, tailored benefits, personalised remuneration policies and an innovative corporate culture are some of the elements the Group continues to be focused on.

In 2022, Iren Group was awarded for the fifth consecutive year, the **Top Employer Italia** certification, destined for the best companies in the world in the field of human resources: those that offer excellent working conditions, that train and develop talents at all company level and that constantly strive to improve and optimise their best practices in the field of human resources.

At 31 December 2022, the employees working for Iren Group totalled 10,583, up compared to the 9,055 employees at 31 December 2021.

**10,583**  
employees of Iren Group



People are a fundamental capital for the Group, as shown by its 2022 Top Employer certification

Personnel as at 31/12 by position (no.)	2022	2021	2020
Managers	117	104	92
Junior managers	372	345	305
White collars	4,474	3,915	3,618
Blue collars	5,620	4,691	4,450
<b>TOTAL</b>	<b>10,583</b>	<b>9,055</b>	<b>8,465</b>

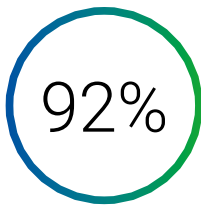
The main personnel changes are due to:

- changes in the scope, mainly due to the inclusion of SEI Toscana (1,042 resources), Società dell'Acqua Potabile (30 resources), Ekovision (18 resources), Alegas (11 resources) and CRCM (10 resources);
- the characteristics of the annual workforce trend of the company San Germano due to the launch/conclusion of contracted services, including those of a seasonal nature;
- continuation of the generational turnover plan;
- substantial number of recruitments related to the Group's development and expansion needs, also aimed at acquiring new skills.

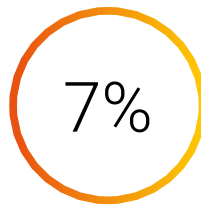
More than 98% of the Group's employees are employed on permanent or apprenticeship contracts



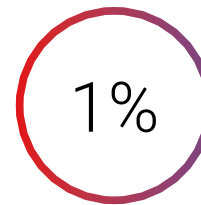
PERSONNEL BY CONTRACT TYPE



Permanent contract



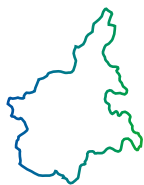
Apprenticeship contract



Fixed-terms contract

More than 98% of personnel are employed on permanent or, in the case of young people, apprenticeship contracts. This figure confirms that the Group favours long-term working relationships, also offering opportunities for internships to give young people, in particular, substantial professional experience. In 2022, 111 people were given internships and 10 students took part in School-Work programmes. 40% of the employees fall within the 30 and 50 age group, while the average age is 47.3.

AVERAGE PERSONNEL BY AREA



39%  
Piedmont



26%  
Emilia



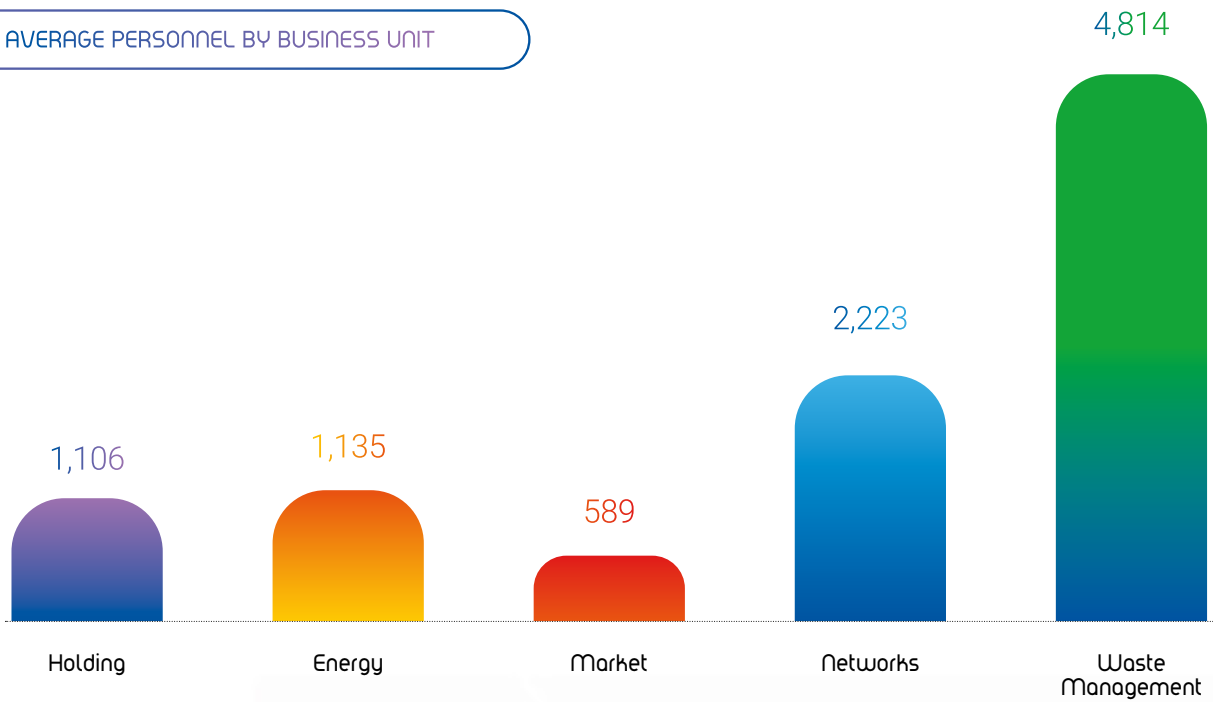
21%  
Liguria



6%  
Tuscany

8%  
Other

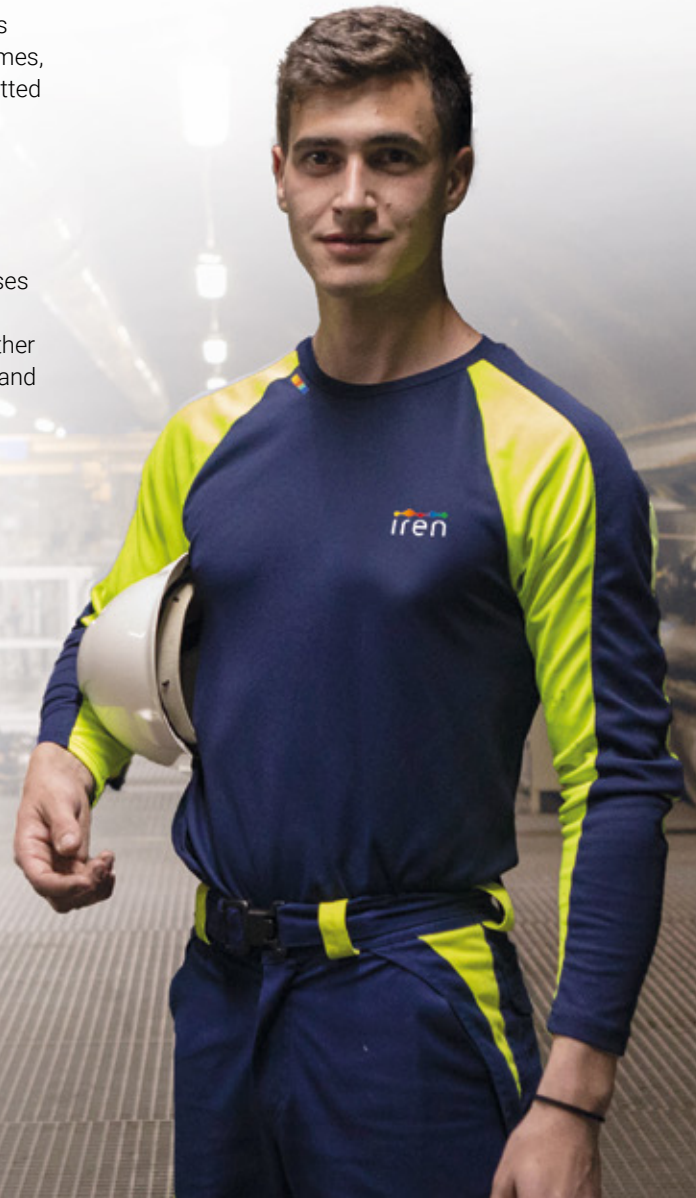
AVERAGE PERSONNEL BY BUSINESS UNIT



The Group believes that maintaining long-term relations with its own employees, in combination with lifelong learning programmes, is an essential part of its corporate responsibility and is committed to avoiding any form of collective or unfair dismissal, always in compliance with legal and contractual provisions, in the case of positive economic results or otherwise those in line with Shareholders’ expectations.

The management of redundancies, should these occur, prioritises rewarding voluntary redundancy for those eligible to access pension funds, and the reassignment of excess personnel to other activities within or promoted by the Group, with due retraining, and the use of the available social safety nets, promoting forms of internal solidarity and, where necessary, insourcing activities which had previously been outsourced.

The Group is committed to protecting, in line with legal and contractual provisions, people belonging to protected categories and/or suffering from long-term illness, avoiding any form of discrimination in their regard.

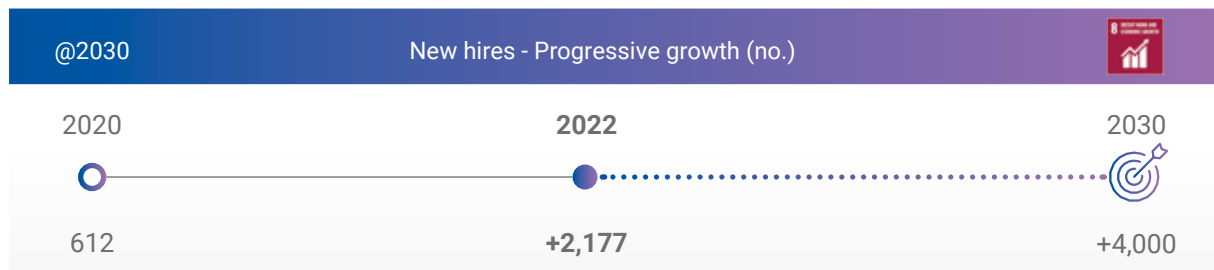


## NEW HIRES AND CONTRACT TERMINATIONS

During the year the Group carried out an important recruitment plan, offering employment to a large number of young people.

**1,291**  
new hires  
in 2022

While having no specific local recruitment policy, given the specific features of the Italian labour market, a high percentage of Group employees reside in the province where their place of work is located. Furthermore, considering the type of business, the geographical areas in which the Group operates and the procedures adopted to ensure compliance with current legislation, no risk of child labour or forced labour exists for Iren Group. In 2022, there were 1,291 hires, up from 2021, in line with the 2030 Business Plan targets.



Hires by type of contract (no.)	2022	2021	2020
Permanent contract	634	350	177
Fixed-term contract	284	268	238
Apprenticeship contract	373	268	197
<b>TOTAL</b>	<b>1,291</b>	<b>886</b>	<b>612</b>

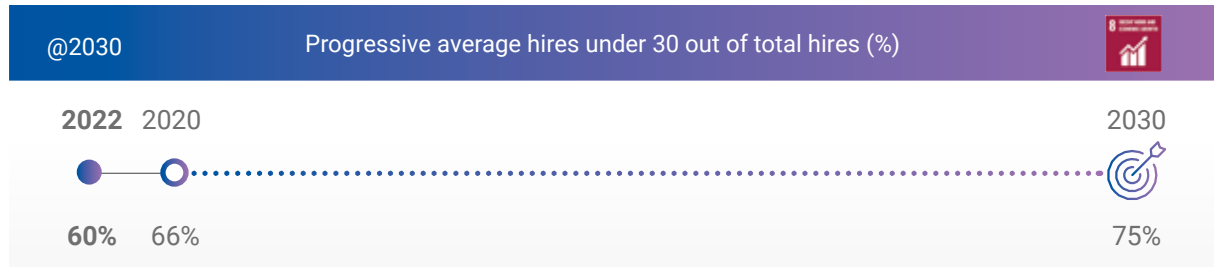
The figure of contractual types is influenced by the characteristics of the San Germano company, which makes use of hiring under fixed-term contracts (235 in 2022) to cope with the start-up of contracted services, including those of a seasonal nature. For the remaining companies, 95% of new hires are on permanent or apprenticeship contracts, while the remaining hires on fixed-term are due to seasonal or replacement needs.

Hires by age and gender (no.)	2022	2021	2020
under 30 years old	558	388	308
from 30 to 50 years old	562	373	199
over 50 years	171	125	105
<b>TOTAL</b>	<b>1,291</b>	<b>886</b>	<b>612</b>
Men	994	717	515
Women	297	169	97
<b>TOTAL</b>	<b>1,291</b>	<b>886</b>	<b>612</b>

**new hires  
in 2022  
23%  
women**

Hires under 30 represent 43% of total hires in 2022. In its development plan, Iren has made a commitment to increase the presence of young people in the company, with the aim of gradually reaching, starting in 2020, 75% of new employees under 30 by 2030, considering permanent hires and independent of takeovers in tenders and internalisations, which involve the acquisition of an already established workforce.

By the end of 2022, the progressive recruitment of under-30s stands at 60%, consistent with the target set in the Business Plan. Among new hires, the proportion of women is also growing, accounting for 23% of the total (19% in 2021).



**100%  
confirmed  
apprenticeship  
contracts**

In line with Group policies, among contracts subject to expiration during the year, 100% of apprenticeship contracts were confirmed; fixed-term contracts were renewed within the limits of replacement needs and seasonal operations.

Employees with contracts expiring during the year (no.)	2022	2021	2020
Fixed-term/apprenticeship contracts up for expiry	386	334	176
of which confirmed on a permanent basis	312	256	132

The main causes of termination are resignations and consensual terminations/retirements. If the latter are the driving force behind the demographic rebalancing plan, the former are to be correlated with the great resignation, a global phenomenon characterised by the progressive increase in the number of workers resigning from their jobs, albeit on a smaller scale than the national trend. Almost all terminations due to the expiry of fixed-term contracts (131 in 2022) relate to the seasonality of the related employment relationships of the company San Germano.

Outbound employees by reason (no.) and turnover	2022	2021	2020
Resignations	282	197	145
Voluntary termination/retirement	256	278	145
Death	11	14	12
Dismissals	62	36	22
Inability to work	1	5	5
Expiry of fixed-term contract	146	133	140
<b>TOTAL</b>	<b>758</b>	<b>663</b>	<b>469</b>
<b>TURNOVER <sup>(1)</sup></b>	<b>7.2%</b>	<b>7.3%</b>	<b>5.5%</b>

<sup>(1)</sup> Turnover was calculated as ratio of outbound employees to the number of total employees at 31/12.

The regulatory provisions provide, at 2022, for the possibility of encouraging the advancement of the pension with the so-called "quota 100" (Decree Law 4/2019, converted with amendments by Law 26/2019) for those who have reached at least 62 years of age and a minimum contribution period of 38 years.

Under the Agreement signed in 2019 with the Trade Unions in applying these regulatory provisions, 40 employees left in 2022.

Turnover is in line with the 2021 figure, due to both the increase in the number of resignations and the generational turnover process and related replacement plans.

In the preparation of the Business Plan, studies and simulations were carried out on the potential redundancies of Group personnel due to achievement of the right over the plan. Consequently, the Group is making preparations to handle these potential redundancies, taking into account possible organisational changes to work and the new skills needed. In the Group there are no specific pension plans, however, all legal and contractual obligations are respected.

## HOURS WORKED AND HOURS OF ABSENCE

Over 94% of hours worked are normal working hours.

Hours worked (no.)	2022	2021	2020
Normal working hours	15,159,248	13,917,526	12,778,051
Overtime	879,497	722,756	617,038
<b>TOTAL</b>	<b>16,038,745</b>	<b>14,640,282</b>	<b>13,395,089</b>

In 2022, there was a significant decrease in the number of hours of absence due to strikes, determined both by the achievement of trade union balances at Group level (above all, at a general level, the agreements on smart working and the 2022-2024 Results Bonus, as well as other trade union agreements at a territorial and Business Unit level), and by the positive conclusion of the renewals of the main National Collective Labour Agreements applied to Group employees (Environmental, Gas Water and Electricity sector). There was also a decrease in the number of hours of absence for maternity, paternity and parental leave during the year, partly as a result of less recourse to the institutions provided by Inps for childcare during the Covid emergency period.

Hours of absence by type (%)	2022	2021	2020
Sick leave	65	56	60
Maternity, paternity and parental leave <sup>(1)</sup>	5	7	4
Injury	7	6	6
Strike	0	2	0
Trade Union meetings and leave	4	4	4
Other absences (paid and unpaid)	19	25	26
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>

<sup>(1)</sup> 25% of the hours are used by male employees.

The sickness rate <sup>(1)</sup> is 6%, an increase compared to 2021 (5%), consequently the absenteeism rate of 6% also shows an increase compared to 2021 (5%) <sup>(2)</sup>.

<sup>(1)</sup> The sickness rate is calculated as the ratio of sick leave hours to hours worked.

<sup>(2)</sup> The absenteeism rate is calculated as the ratio of days away from work due to illness, injuries, strikes and certain other types of absence to working days in the year per employee, excluding Saturdays, Sundays and public holidays, multiplied by the average number of employees.

# Human resources management

[GRI 2-21, 2-24, 2-30, 3-3, 202-1, 401-2, 403-5, 404-1, 404-2, 404-3]

## SELECTION SYSTEM

Personnel constitute a fundamental resource both for the quality and efficient management of services and for the growth of the Group: ensuring the necessary personnel to meet service requirements, both quantitatively and qualitatively, in terms of skills, is the objective underlying the management and planning of the Group's human resources.

At Iren Group, the personnel search and selection process is based on the principles of equity and transparency, which are also declared in the Code of Ethics, and is structured in compliance with the Model 231. Candidates are recruited outside the Group only after it has been verified that there are no potential internal candidates with profiles that are consistent with the position to be filled.

Applications for open positions can be made via the channels on which the active searches are published: the "IrenFutura" portal, the "job" page of the Group's LinkedIn profile, specialist recruitment websites, social media pages and specialised channels using recruiting agencies appointed by Iren following specific tenders. Applicants can select the advertisement that best meets their skills and interests or submit their application, without attaching it to a specific advertisement.

Other candidates may come from the main universities and schools in the reference areas, with which the Group has built up solid partnerships over time, from employment centres, temporary employment agencies and training institutions. As far as high schools and technical institutes are concerned, mutual acquaintance between the Group and candidates can also take place through "*Percorsi per le Competenze Trasversali e l'Orientamento*" (PCTO, formerly School-Work programs), which allow young girls and boys to experiment closely with forms of daily working life within the various Group companies.

All candidates are assessed by professionals with experience in the sector, based on well-defined and transparent criteria, which are shared between the

Company Departments involved, taking the Group's system of roles and competences as a reference. Every CV is assessed on the basis of how well it matches the requirements of the vacant position. If the profile meets these requirements, it is included in the selection process; otherwise, it may be taken into consideration for other relevant positions.

The selection processes may include various types of tests (technical, practical, etc.), as well as interviews, so as to gain in-depth knowledge of applicants and to guarantee fairness and transparency. The standard selection process involves a number of pre-defined steps: identifying the most suitable profiles from the submitted CVs; initial interview to find out the candidate's reasons for applying and discuss the experience indicated on the CV in more detail; second interview with representatives from the HR Department and organisational departments where the candidate is to be placed. At the end of the selection process, the applicants always receive feedback on the outcome of the interviews, even in the event of a negative outcome. In the event of a positive outcome, the new employee is integrated into the Company according to a process defined on the basis of the position to be covered.

The Group has joined the national Garanzia Giovani (Youth Guarantee) programme, activating the planned internships as the preferred search and contact tool with the world of work, and the Valore D (D Value) programme, committing itself to creating more equal conditions to promote diversity and employment for women >> SEE PAGE 296.

With the aim of diversifying the selection processes, the "Iren Renewables Contest @POLITO - Your talent is different" was launched in April 2022, in collaboration with the Polytechnic University of Turin, to identify young talents, among university graduates and undergraduates, to be included in the Group's Renewables Department. The contest involved young engineers, challenging them to come up with innovative renewable energy solutions through various individual and group tests. This way, 9 engineers were identified and recruited.

## PERSONNEL DEVELOPMENT

In order to implement its strategy, successfully anticipating and facing the complexity and changes of the market, regulations and technologies, Iren Group invests in order to increase the wealth of internal skills and enhance its human resources, adopting specific policies, means and tools.

Discovering, developing and promoting personnel skills is a fundamental commitment of the agreement between the Company and the individual.

In order to govern all the processes connected to personnel management and development in a unified and systematic way, faced with the dual necessity of addressing the new challenges of the future and preparing consistent policies, the Group has put in place its own **performance management model**, the Group Job System, which is subject to constant update and refinement.

The Job System is a model to analyse and understand the professional skills present within the Group, transversally across the companies, businesses and departments in which they are found. Their main elements consist of professional areas, professional groups, the sub-groups, standard jobs and organisational roles. It is the logical infrastructure on which the main human resource management processes, including training and skills development, are based. Specifically, each standard job within the Job System is weighed, in relation to the contribution that each organisational role provides in the creation of value, with a shared platform for internal comparison, as well as with the market. Management bands (groupings) are identified on the basis of the weight of the positions, which were then divided into sections, into which each of the roles present are characterised by the same complexities and responsibilities, managerial skills and management policies. The managerial skills

that must be put into effect in order to achieve results in accordance with the means and values that characterise the Group, and which constitute supportive elements in evaluating individual performance, are defined alongside the band system adopted. The expected professional knowledge and skills are also defined for each standard job, being those which are fundamental not only for the performance management system, but also for other human resources management processes (first and foremost, training and internal mobility).

In 2022, **skills monitoring** activities continued, through dedicated tools differentiated by bands and professional groups. In particular, the implementation of the two-year training and development plan continued, created on the basis of the areas for improvement identified through both the technical skills assessment process, which occurs every two years, and the annual **performance management** process.

The latter, aimed mainly at managers, junior managers and white-collar workers, is among the central tools of the human resources development system and is integrated with the individual incentive system (MbO). On an annual basis, the performance appraisal system focuses on both technical and result-related aspects as well as on value and behavioural aspects, orienting individual performance towards shared values and results.

During the year, the Group launched 16 training initiatives in blended mode, virtual classroom and e-learning, aimed at increasing the level of awareness of the performance management process, which enabled 600 new participants to be reached and trained.

2022 was a year of great evolution and transformation for the Group. The major challenges outlined in the Business Plan to 2030, the finalisation of important acquisitions and the numerous recruitments, required the introduction of new skills and, at the same time, fostered the dissemination and contamination of existing ones. In addition to these factors, a set of projects and actions were launched to improve the effectiveness and efficiency of operational processes, making investments in technology and digitalisation, in order to lead and anticipate the rapid changes underway and meet the new challenges imposed by the market.

In this context, the need has emerged to implement upskilling and reskilling programmes to support people in the various stages of their professional career, supporting the transfer of know-how between generations and enabling everyone to count on the set of skills needed to best cover their organisational role and thus effectively contribute to the achievement of company results, fostering the expansion of digital, technological and soft skills



that are fundamental to support the processes of adaptation to the new organisational and production models and promoting professional development.

The many initiatives organised for this purpose were often realised by making use of internal resources that collaborated both in terms of planning and teaching.

## PERSONNEL TRAINING

For the Group, training is a fundamental instrument for the professional growth and development of individuals, in disseminating corporate strategies, values, and principles and, therefore, for the growth of the Group. It focuses on the maintenance and development of competencies, with particular reference to the “core” competencies of the various professional figures, promoting lifelong learning opportunities for all.

The transformation of the businesses managed and the continuous need to evolve the technical and professional profiles of the Group’s resources, have focused the 2022 training strategy on four pillars:

- sharing and dissemination of basic knowledge for all sections of the corporate population, with particular attention to operational staff;
- continuous updating of resources (life-long learning);
- implementation of reskilling programmes, aimed at learning new skills to fill positions or roles different from previous ones;
- development of upskilling initiatives to optimise performance in the face of new requirements.

Continuous learning is one of the main levers for building professional development and, in a context of continuous evolution, is the essential tool for maintaining professional profiles aligned to needs.

Staff development is supported by the creation of experiences and opportunities in which everyone can learn and train their skills and increase their awareness of their role within the Group.

This path to growth begins immediately, with the **On boarding** programme dedicated to new hires.

The welcome starts from the moment the contract is signed, through the ReadyTolren App which, through various tools, provides information about the Group to new colleagues and allows them to get to know each other through a structured survey that guides their individual storytelling.

The process continues with participation in the Welcome Webinar, a key networking and information-sharing stage to facilitate inclusion. This is followed by e-learning, so that learning can continue on an individual level, through access to training content available in the training portal on the intranet or on external self-development platforms.

### 26 editions of Welcome Webinars for new hires

In 2022, 26 editions of Welcome Webinars (about 4,000 total training hours, including live training and e-learning content) were organised to welcome new employees.

The training sessions extended to all are followed by customised courses based on the level of responsibility and seniority: the **induction courses** dedicated to new managers and professionals, which are useful for introducing new recruits individually to key people for the performance of their activities (in 2022, there were 42 for a total of 172 hours).

For all of them, the onboarding process ends, about a year after their induction, with participation in *Il tuo primo anno in Iren (Your first year at Iren)*, a listening and individual discussion initiative, through which to take stock of the past 12 months and strengthen the foundations for outlining the future path.

Learning continues at an individual level, through a specific welcome area made available on the Intranet, where it is possible to find informative and disclosure materials, slides and videos of the courses followed, videos of management and new recruits from previous years, as well as the online training library, virtual tours of the main plants, videos on the Group's values and interviews from the Iren People project: tales of the human and professional stories of those who, every day, in the Group perform a useful service to the community with enthusiasm and passion.

Investments in reskilling and upskilling of personnel have grown over the years in order to carry out training interventions dedicated both to new skills, and on skills already possessed, to improve certain areas of competence, with particular focus on new processes and new technologies.

## Training supports development and professional growth, and meets the needs of innovation and change



The training process starts from an understanding of the reference context (global macro trends, Business Plan, personnel management strategy) and takes shape, after listening to company management, in the outline of strategic training objectives for the current year.

The launch of the **training process**, as regards the core competencies of personnel, is carried out through the

analysis of competency gaps, at the level of role, organisational function and professional family, detected through the competency assessment process [\(SEE PAGE 279\)](#).

The results of the analysis are shared with the Directors/Managers through specific meetings during which the gaps identified are prioritised for action. At the end of the phase of detection and analysis of needs, possible harmonisations between common needs and between homogeneous professional families are implemented. The needs come together within a two-year **training and development plan** - with periodic updates on the basis of modification or integration requests received during the year - relating to managerial, specialist technical, behavioural skills, mandatory training and training on strategic projects.

The **management of training** is through a dedicated management application (Training Portal), which is updated continuously with employees' personal data and is connected to a platform of e-learning courses. Participation is tracked and helps to enhance employees' training qualifications, which can be consulted by employees, their managers, the Personnel Department and the Prevention and Protection Service Manager. The portal is continuously enriched with training features and content, in particular in online training there are 'free use' courses and 'suggested' courses of a mainly compulsory nature, all accessible to employees through their own equipment (PCs, tablets and smartphones).

All the training provided is subject to effectiveness evaluation, through the analysis of the satisfaction and learning of the participants and the monitoring of indicators that provide useful elements for improving the training offer; the assessments are also enriched by the results deriving from the biennial assessment of skills.

With the development of new technologies and the digital evolution, training in Iren Group has changed its paradigm, moving from traditional classroom training to the use of new methods that are able to offer a greater degree of flexibility, usability and personalisation, also reaching and engaging people who work remotely, such as virtual classrooms and live webinars, which have been added to the asynchronous e-learning method already in use.

With regard to **managerial training**, of particular note is the continuation of leadership development initiatives with the creation of a new course ("*Melagioco di più*") involving over 170 managers for a total of over 2,000 hours of training, consisting of a series of live webinars focused on the themes of communication development and sharing, followed by a plenary meeting. In the concluding meeting, the results of a leadership style survey questionnaire were shared, administered to all participants to give them the opportunity to reflect individually on the potentials and risks associated with their own style and to provide them with useful tools to face new challenges.

At the same time, a path dedicated to newly appointed managers ("From Leader to Coach: leading people in a changing world") was launched with the aim of disseminating a leadership style aimed at bringing out people's potential, improving listening skills and motivation management, combining operational and personal management, and pushing towards a growth-oriented managerial approach. The course involved 139 Group managers, for more than 1,500 hours of training.

The culture of diversity and inclusion has also been the subject of intense awareness-raising and training activities: the Group has, in fact, continued to invest in specific programmes to raise the level of awareness on these issues, including through an initiative dedicated to all managers (around 400 people), which was activated in November 2022 and will continue in the first months of 2023.

The aim is to make managers more aware of the actions and behaviours to be taken to **foster inclusion and value the differences and uniqueness of people**. At the end of the course, a shared system of actions will be developed.

During 2022, training efforts continued to support the development of **soft skills** and promote working methods such as smart working, which has now become an established reality in Iren Group. As part of the New Skills Fund project<sup>(3)</sup>, a course on the subject was included with the aim of updating all employees on the path of smart working in the Group, company regulations and the basics of working effectively. The focus was on four transversal competences: results orientation, proactivity, flexibility and resilience, as well as on everyday actions that can be implemented effectively when carrying out work activities. The initiative already involved 1,300 smart workers in 2022 for more than 2,500 hours in total.

In order to spread the **digital culture** at all levels of the organisation, an initiative aimed at all operational staff ("Digital Culture") was set up, with the aim of familiarising them with the activities and tools implemented by the Group in recent years in the area of digitalisation in order to promote their use. During the last months of the year, 49 training sessions involving more than 2,220 resources were carried out.

**5,750**  
employees  
involved in  
the "security  
awareness"  
project

Consistent with the policies adopted by the Group for **cybersecurity**, ([» SEE PAGE 340](#)) the Security Awareness project was developed, which provided for the periodic provision of a series of e-learning training modules to all employees to increase their awareness and knowledge of cybersecurity issues.

Five in-depth modules were distributed in 2022, involving some 5,750 employees for a total of 1,675 hours of training, the use of which oriented more responsible behaviour, aimed at recognising threats early and reporting them to the in-house cybersecurity team.

## LEAN PROGRAMME

Iren has adopted a method of company organisation and management, the **Lean programme**, based on the promotion of a culture of continuous improvement, the simplification and streamlining of company processes to eliminate waste, and the adoption of performance measurement and analysis tools.

The Lean Academy was set up in 2022, with the aim of involving all levels of the Group in specific coaching and training courses aimed at providing the tools to apply this organisational method, ensure its effectiveness, disseminate its culture internally, encourage the sharing of successful experiences and manage the certification of the resources involved in the projects. The people involved, in fact, depending on their level of involvement and organisational role, are identified with specific roles ('Project leader', 'Ambassador' and 'Champion'), for each of which a training path is developed that ends with the achievement of a certification (Green and Yellow Belt). In 2022, 16 selected resources within the different company areas were certified.

<sup>(3)</sup> The New Skills Fund (FNC, Fondo Nuove Competenze) is an Active Policy instrument set up by the Government as part of the so-called "Rilancio" Decree. The FNC, managed by ANPAL (Agenzia Nazionale Politiche Attive Lavoro - National Agency for Active Employment Policies), is a public fund co-financed by the European Social Fund, created to counter the economic effects of the Covid-19 epidemic. Remuneration for hours spent on training is borne by the fund.

Significant, also for 2022, is the Group's commitment to training on issues related to **anti-corruption**: interventions to disseminate and update knowledge of Model 231 continued systematically throughout the year in favour of all personnel who progressively joined the Group (new recruits and personnel belonging to companies acquired within the Group perimeter).

A total of 520 employees were involved in over 2,000 hours of training.

With reference to **technical and vocational training**, the initiatives were particularly important, in terms of resources involved and training hours provided:

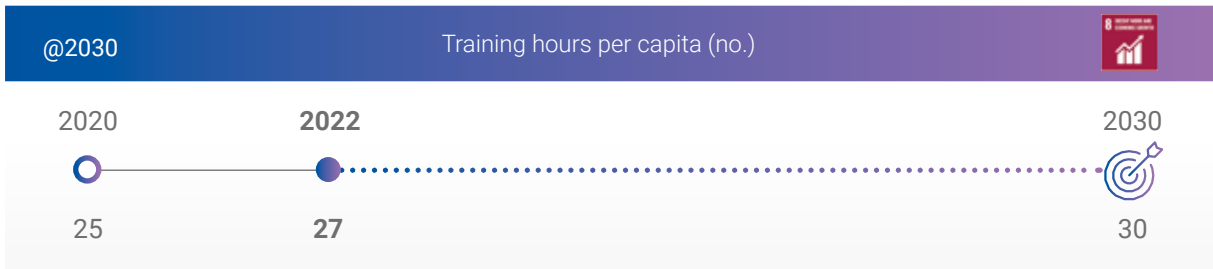
- "DepurAtion: how to integrate day-to-day operations in a complex business system", a course aimed at consolidating and expanding the wastewater treatment plant operation and maintenance skills of the staff of the Networks Business Unit (over 130 resources) for about 1,900 hours;
- "Maintenance specialist" course, aimed at qualifying the maintenance personnel of the Iren Waste Management Business Unit (20 resources) for a total of 128 hours;
- updating of personnel qualifications on the supervision of natural gas distribution systems (142 resources), to whom a total of 1,825 hours of training were provided;
- updating of professional driving licences required for waste collectors (233 resources), amounting to more than 8,000 hours;
- training course for the operation and maintenance of steam generators, for the acquisition of 1st and 2nd grade licences (19 resources) for more than 2,790 hours.

For employees with professional apprenticeship contracts (744 people as at 31 December 2022), 42 compulsory training courses were activated, provided by regional accredited bodies, for a total of about 11,200 hours, plus a further 40,800 hours of technical and vocational training (on-the-job/coaching by company tutors, in-person courses, webinars or e-learning).

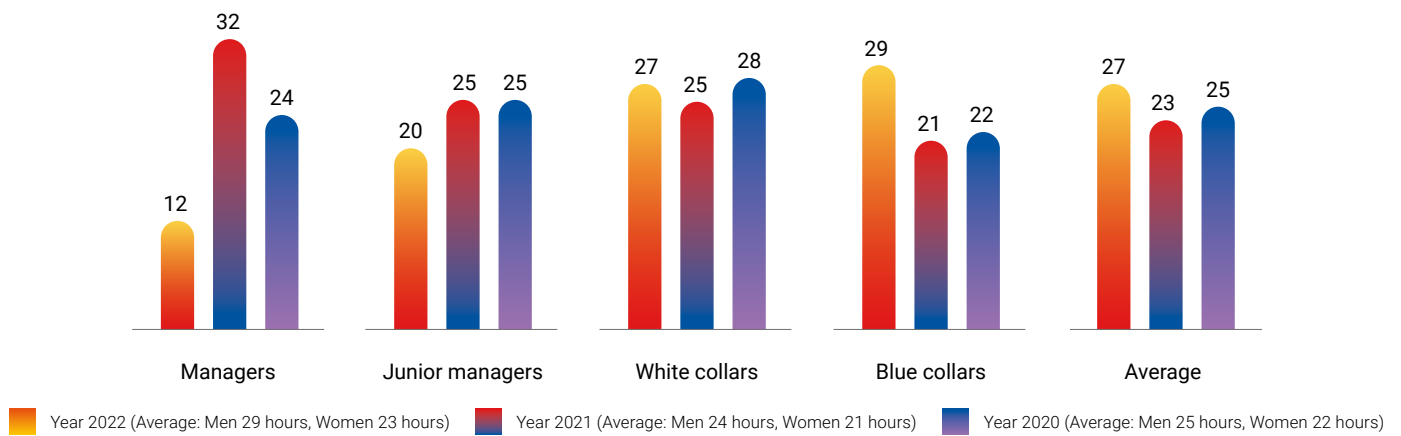
Total training hours by qualification	2022	2021	2020
Managers	1,364	3,272	2,172
Junior managers	7,497	8,477	7,846
White collars	111,334	95,929	98,455
Blue collars	149,267	95,468	93,616
<b>TOTAL</b>	<b>269,462</b>	<b>203,146</b>	<b>202,089</b>

The total number of training hours provided by the Group in 2022 - more than 269,400 hours, including apprentices and workers on staff leasing contracts - is up sharply from the previous year (+33%) and the historical trend. This is the result, on the one hand, of the need to cover safety training needs and, on the other hand, of the activation of technical and managerial initiatives linked to the New Skills Fund training project. The project, which will end in 2023, envisages 19 training initiatives, of which 15 were implemented in 2022 for a total of about 13,900 hours involving about 5,535 employees.

The average number of training hours per capita also increased, amounting to 27.3 (+19% compared to 2021), influenced by the gradual application of Group policies to the companies acquired during the year, which produced a significant increase in the average number of employees against lower training hours compared to the Group average. A contribution to the growth in training hours - in line with the objectives of the Strategic Plan to 2030 - is also to be attributed to the technology platforms that have made it possible to ensure continuity, enrichment and greater dissemination of the training offer, making it more scalable and effective, building evolved learning experiences and contributing to the consolidation of digital skills at all levels of the organisation, with particular reference to operational staff.



TRAINING HOURS PER CAPITA BY POSITION AND GENDER



**10,194**  
employees  
involved in  
training

The per capita average number of training hours for female staff also increased: 23.4 hours (+12% compared to the previous year), accounting for 21% of the total number of hours provided. There were numerous initiatives specifically dedicated to female staff, such as webinars organised by Valore D, mentoring and coaching activities.

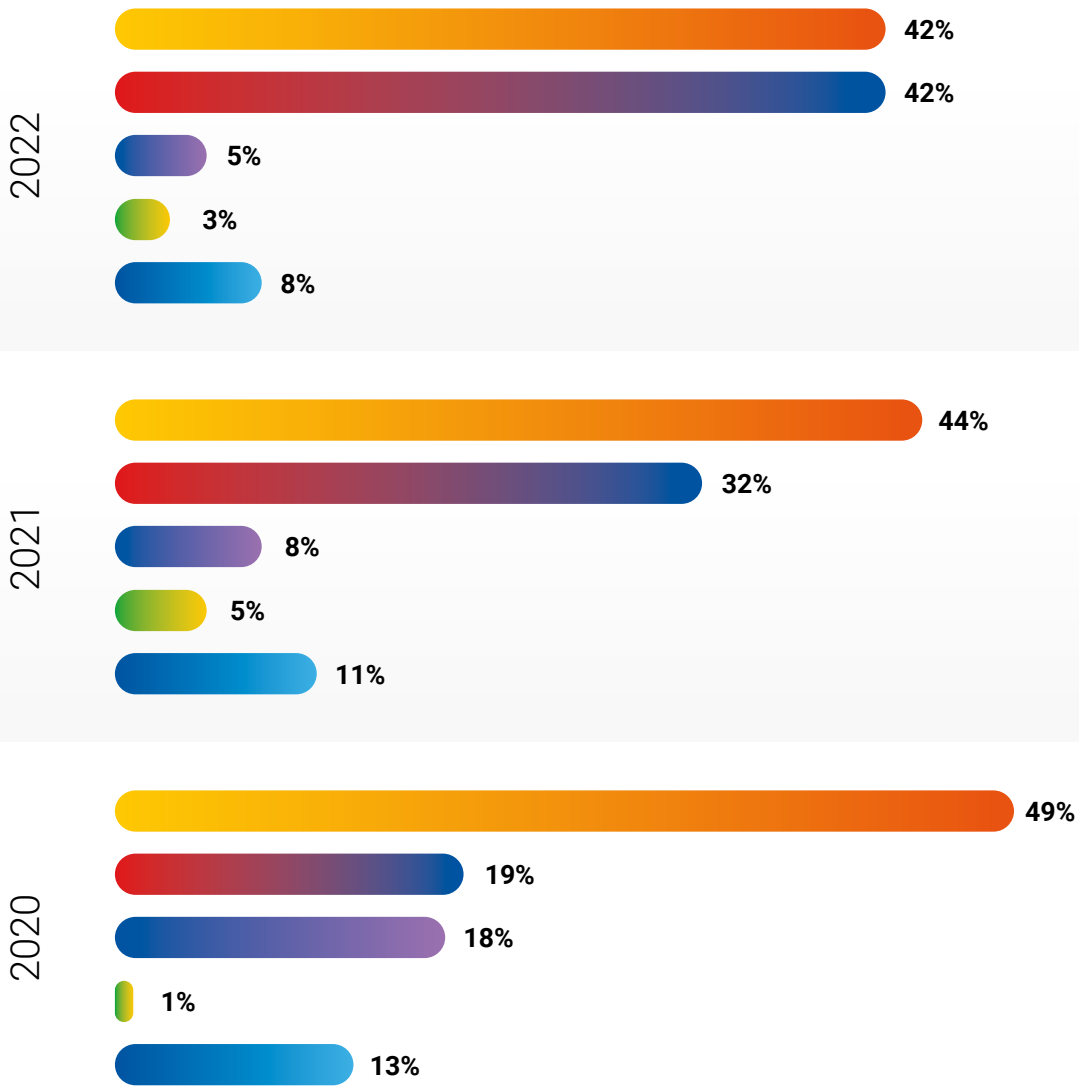
A total of 10,194 employees participated in at least one training initiative, consistent with the Group’s strategy.

The percentage of trained workers is positive, rising from 86% in 2021 to 90% in 2022, also thanks to the gradual involvement in distance learning initiatives that produce significant results in terms of participation and learning, with high approval ratings.

Employees involved in training activities (%) <sup>(1)</sup>	2022	2021	2020
Managers	100	100	100
Junior managers	100	100	100
White collars	100	100	100
Blue collars	90	86	73
<b>TOTAL</b>	<b>98</b>	<b>94</b>	<b>88</b>

<sup>(1)</sup> Ratio between number of people involved in at least one training event and the average annual number of employees.

% DISTRIBUTION OF TRAINING HOURS BY TOPIC



- Specialist training and education (including IT specialist)
- Certified system, safety and environment
- Management training
- Basic information technology
- Other

In 2022, specialist training (including specialist information technology) is confirmed to be relevant with a per capita average of 11.6 hours, up by 15% compared to 2021.

This includes on-the-job training and support for more than 700 apprentices, partnerships with entities specialised in technical refresher courses to maintain training credits for engineers, biologists, chemists and experts, with business schools and higher education institutions for participation in master's degrees and specialised courses, as well as with professional training entities (e.g., for qualification to operate steam generators and for mandatory transversal training for apprentices).

## 107,500 hours of safety training

Safety training sees strong growth compared to 2021: over 107,500 hours provided (+70%) and 10.9 hours per capita (+51%).

Internal training, characterised by the ad hoc design of content and realised with both internal trainers and external consultants, continues to represent the Group's distinctive feature, with 1,255 courses realised in 4,640 editions (more than 79% of the total number of hours, +10% compared to 2021). External training - which covers 21% of the hours provided - is purchased by catalogue with participation in inter-company initiatives.

The increase in the number of training hours is also accompanied by a growth in satisfaction, as measured by the feedback provided by participants at the end of the courses, which reaches 85%, up from 81% in 2021, and in the learning index, as measured by tests and/or verifications/clearance tests, which is 89%, in line with 2021.

## 1,456,000 Euro invested in training in 2022

In addition to the design of training initiatives based on the needs of internal clients, constant mentoring during delivery, especially during distance learning sessions, also contributes to improvement.

The investment in training in 2022 of approximately 1,456,000 Euro (+42% compared to 2021), reflects the significant interventions made in the area of specialised and safety training.

The Group has also made its expertise available to schools and universities in the areas in which it operates to create work orientation initiatives for students, advanced training courses and for Pathways for Transversal Competencies and Orientation (PCTO, formerly School-Work programmes).

Implementing agreements have been stipulated with the Universities, mainly present in the reference areas, aimed at activating collaborations for higher education initiatives, first level masters and research doctorates and for the recruitment of recent graduates and undergraduates. In this area, in 2022, the Group:

- realised 3 in-depth webinars for university students (one on job orientation, one on social recruiting and one on introduction to renewable energy);
- participated in 5 career days with universities in the reference areas, during which more than 100 students from engineering, economics and science courses were met by Iren recruiters;
- organised 15 multi-year projects and as many job orientation/recruitment days for students of secondary technical schools;
- activated 14 scholarships for first-level master degrees;
- launched 42 curricular traineeships, 30 extra-curricular traineeships, 33 internships in the framework of PCTO projects and 3 doctoral pathways in higher education apprenticeships;
- involved all Italian universities in the Iren ESG Challenge project that led to the awarding of prizes to 10 degree and PhD theses on ESG issues ( [» SEE PAGE 121](#) ).

## REMUNERATION SYSTEM

The Group adopts national collective labour agreements for all its employees (the main national collective labour agreements applied include: “electricity sector employees”, “gas and water sector employees”, “waste management services employees”), which guarantee everyone the application of the contractual salaries and the provisions thereof. Generally, workers with leasing contracts receive the same remuneration as provided for in contracts of Group employees. Furthermore, no differences in benefits for full-time employees, employees with fixed-term contracts or part-time employees exist. The Remuneration Policy, within the context of defined budget guidelines, is always based on evaluation of performance and skills acquired, taking into account, however, the remuneration package of the people holding the evaluated positions. In any case, any form of discrimination based on gender, age and/or health shall be avoided, and retraining initiatives are performed in the event that personnel are unfit for previous responsibilities. Variable remuneration linked to performance (for example, on call) and the achievement of Company and individual targets is added to fixed remuneration. In 2022, the ratio of the highest annual salary to the median salary of all other employees is 19.6, while the ratio of the increase in the highest salary to the median salary increase of all other employees is 0. The Group’s average basic salary by gender is 1.06 compared to the average local salary by gender (Source: Istat 31/12/2018). The remuneration and merit policy of the Group aims to reward employees that achieve high levels of results in line with Company values, the Group Job System (» SEE PAGE 280) and in accordance with adequate levels of quality and productivity. Personnel are required to be flexible in adapting to new working methods and to demonstrate remarkable professional commitment in terms of versatility.



Group employees receive national collective labour agreements and incentive tools in line with Company values

**Performance bonuses.** In order to involve staff more and direct them towards the achievement of the Group’s objectives, a collective performance bonus is envisaged, according to logic consistent with the strategic and management objectives, which enhances the correlation between remuneration and results obtained. Several factors are taken into account to determine the compensation, which are connected to rewarding productivity, service levels and the achievement of specific profitability objectives. Once again for 2022, specific agreements were signed on the subject with Trade Unions based on which bonuses may be paid in the form of one-off compensation or via welfare instruments to non-management personnel.

**One-off compensation.** Across all Group companies a one-off incentive can be paid to employees that have achieved particularly positive results through remarkable work commitment, mainly through projects or innovative activities. Individuals to be rewarded are identified following a thorough analysis of individual performance results, carried out by the various managers.

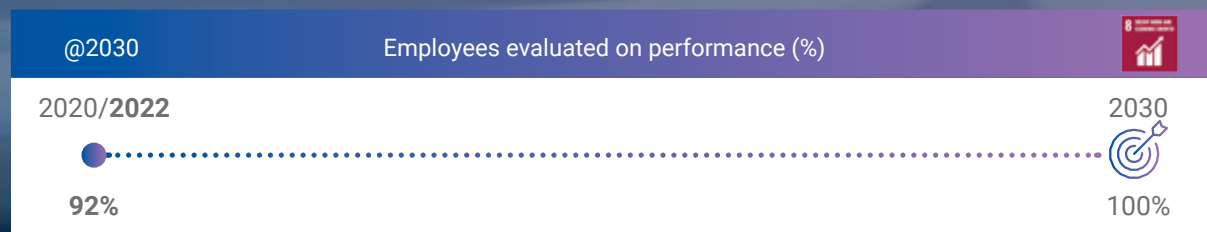
**Management by objectives system (MbO).** In most Group companies, all managers, junior managers and employees holding important positions are included in the incentive system (pay for results) under which individual targets are assigned that, when achieved, trigger the payment of the amounts that were defined at the time of assignment. The “objective-based system” is based on the measurable indicators (economic-financial, operative, sustainability or relevant to strategic projects), in line with the Business Plan and the Company mission.

The amounts for variable remuneration are shown in the table below.

Variable remuneration (Euro/000)	2022	2021	2020
Performance bonuses	10,777	12,464	9,581
MbO <sup>(1)</sup>	5,693	4,687	4,148
One-off compensation <sup>(1)</sup>	2,923	1,645	4,468

<sup>(1)</sup> Amounts allocated.

In 2022, 92% of employees received a **formal appraisal of results and behaviour** under the performance management system, taking into account the perimeter of the eligible population (managers, junior managers and white-collar employees in service for more than six months in the year).





## Internal communication

Internal communication is an essential tool to accelerate the development of processes, assist and support organisational changes and business strategies, and develop a common corporate culture, directing efforts towards the achievement of Group objectives, which become shared and pursuable through each individual's contribution.

NOI IREN  
**6,8**  
 million  
 pages  
 consulted  
  
**400**  
 news

The main tool for internal communication, information and sharing was confirmed to be the **Noi Iren corporate intranet**: over 6.8 million pages consulted and 400 news items, to stay connected and up-to-date, published directly or through the Iren Informa magazine, a space that can also be reached by staff working on the move, via the company smartphone.

Noi Iren is the 'common house', the digital reference point where you can find all the information on the Group: news, documentation, company services, publications of a strategic nature (Business Plan, economic-financial and sustainability results), organisational (communiqués, organisational charts, documentation of certified systems), regulatory (service orders, Model 231) and corporate (acquisitions, extraordinary operations).

The intranet also disseminates cultural, sporting, artistic, theatrical and musical events and initiatives supported by the Group and conveys opportunities for free gifts and offers for staff.

In 2022, the design of the new corporate intranet was started, to be brought online in 2023. An in-depth analysis was carried out, based on the study of the current situation and navigation data, listening to the corporate population through surveys, direct interviews of managers and focus groups with about 60 colleagues (heterogeneous by professional activity, corporate role, territory and company). A total of 1,837 employees responded to the survey: the large number of responses and more than 600 suggestions received confirmed great interest and attention to the topic. The design of the new intranet involved a cross-departmental working group (Communication and External Relations, Personnel and Organisation and Technology and Information Systems), which started the development and creation of the content, which will continue in 2023.

The **Iren Informa web magazine** was, also in 2022, the tool through which to share, with around 230 articles, the Group's activities in the various sectors in the reference areas.

Video storytelling activities continued, first-person accounts of expectations, paths, personal and corporate goals, through three different sections, which, with different styles and contents, accompany workers and allow them to feel close, share a vision, ensure teamwork:

- **Iren people** is the column dedicated to the professions, aimed at sharing the many activities and getting to know the colleagues who deal with them. 13 videos were made, published on YouTube and available on the intranet, promoted on Iren Informa and through the various publications on social channels;
- **Il tempo di un caffè (Coffee time)** is a column of interviews with business managers and Directors to engage the corporate population on long-term strategies and goals;
- **Everyday** is the column designed to highlight new activities undertaken, changes in the company and progress towards the goals set out in the Business Plan.

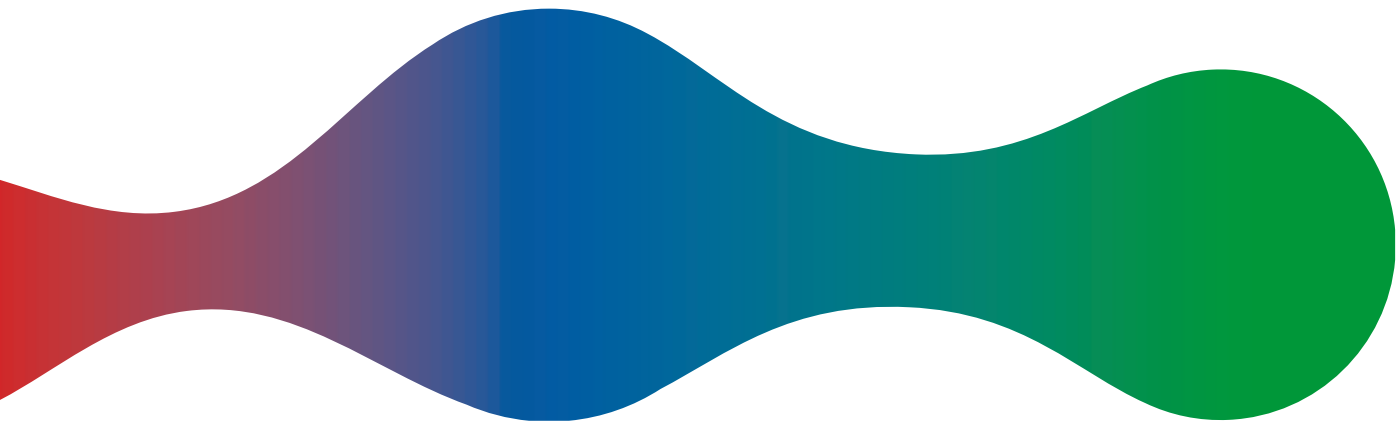
Central, also for 2022, is the welcome for new employees managed both through dedicated meetings and through the Welcome section of the intranet, aimed at facilitating the integration of new people through the collection of information and services that are fundamental for moving around the company. In the same section, newly recruited employees can also find the main training materials and recordings of the onboarding meetings.

**800**  
people have  
participated to  
"FAMIGLIE IN  
IMPIANTO"

After the period marked by the Covid emergency, the *Famiglie in impianto* initiative resumed in 2022. The event, which took place on Saturday to enable all Group employees to participate, was attended by around 800 people and was highly appreciated by participants. The visits were combined with cultural and recreational activities, highlighting the theatrical and cultural realities already collaborating with the Group. The Turin North power plant, the waste-to-energy plant in Turin, the Vercelli wastewater treatment plant, the waste-to-energy plant in Parma and the new paper and plastic recovery plant (ReCaP), the Piacenza plant hub, the Reggio Emilia cogeneration plant, the Camisano wastewater treatment plant (La Spezia), the Genoa site, the Olevano sul Tusciano hydroelectric power plant (Salerno): these are the plants that will open their doors to families in 2022.

In October, as is customary, the Iren management met with top management, for a discussion on the economic and energy situation, aimed at exploring the elements of the scenario and sharing the Group's strategic guidelines. A moment that involved more than 300 people, partly present in Reggio Emilia and partly connected from the various company offices.

In 2022, Iren chose to support the Ukrainian population, involving employees in a fund-raising campaign; thanks to the contribution of colleagues, about 33,000 Euro was collected, to which Iren added a contribution of the same amount, allowing about 66,000 Euro to be donated to Sermig. Help for Ukrainian families also took the form of the purchase of medical equipment and four ambulances.



## Corporate welfare

[GRI 2-7, 3-3, 401-2, 403-6]

The Group is realising a coherent and well-structured welfare system to meet the needs of the different personnel segments and to extend the best practices to the whole Group and is also involving the Trade Unions. The programmes that have already begun are implemented through a series of initiatives focused on the needs of the individual and household.

### QUALITY OF LIFE FOR QUALITY OF WORK

Improving the quality of life and promoting work-life balance are among the fundamental objectives of corporate welfare activities: initiatives, actions and services made available to employees and their families for the well-being of people, not only in the workplace but also in private life.

The corporate welfare system offers programmes aimed at increasing people’s awareness of nutrition, exercise, health and prevention, emotional, cognitive and relational well-being. In particular, to support relational well-being, the Group works to create a positive and inclusive working environment, where people are motivated, and which becomes a place where the interests of those who work there converge.

The Group’s management policy supports the correct balance between professional life and private life by providing employees with working methods that allow them to reconcile work commitments and personal needs: flexible working hours, teleworking, smart working, part time, ultra-daily flexibility, additional leave for a maximum of 2 days to be used, even by the hour, within the year of accrual deriving from the replacement of part of the performance bonus, short leave and short paid leave, integration of compulsory maternity benefits.



**Smart working:** as at 31/12/2022, 3,518 (1,515 women and 2,003 men) Group employees were smart working enabled. In 2022, 3,436 people took advantage of smart working days, totalling more than 197,800 days, with an individual average of about 5 days per month. In July 2022, the new company agreement on smart working came into force, which provides for the possibility of working in this way for up to 8 days per month (extended to 10 for some special cases).



**Teleworking:** Group employees can take advantage, on a voluntary basis, of part-time remote working, which was introduced to the Company with specific agreements. The Group prioritises requests motivated by work-life balance needs (caring for children and the elderly, personal or family member health problems, excessive distance between their home and place of work, etc.). In 2022, 205 employees (145 women and 60 men) teleworked.



**Part time:** all employees can request part-time hours (horizontally, vertically, or mixed), on a voluntary and always reversible basis, without the exclusion of the benefits provided for employees with full-time contracts.

Part-time contracts (no.)	2022	2021	2020
Women	333	284	250
Men	166	141	90
<b>TOTAL</b>	<b>499</b>	<b>425</b>	<b>340</b>

## INITIATIVES FOR EMPLOYEE WELFARE

To promote well-being, the Group has chosen to satisfy the needs of its employees with a view to health and conscious consumption in the nine operational company canteens. The renewal of the contract for the management of company canteens, which took place in 2022 through a special tender, was an opportunity to dedicate even more attention to the well-being of people, with particular reference to the variety of menus, breadth of choice and quality of the products used, guaranteeing uniformity of service in all company locations. It is planned to gradually implement new proposals such as lighter, low-calorie dishes (wellness line) to promote a healthy lifestyle and a balanced diet. As a result of the Covid-19 emergency and the methods adopted to prevent contagion, the use of disposable plastic materials, which had been completely eliminated with the "Sustainable Canteen" project, was maintained in the company restaurants. In order to reduce waste production, however, metal cutlery in paper bags continues to be made available, which has been evaluated as a more environmentally friendly solution.

Additionally, the Group has implemented a benefit scheme to improve the **quality of life of its employees**: meal vouchers and discounted catering in the local areas, Company cafés offering regulated prices, indoor parking for private cars, and subsidised tariffs or contributions for buying subscriptions to the local public transport network.

All employees are offered, voluntarily and following an agreement with the Trade Unions, the possibility of allocating part of the Performance Bonus to corporate welfare initiatives, benefiting, in this case, from a surcharge.

Through the **Iren Welfare portal**, employees can obtain, within the limits of the amounts allocated, reimbursements and/or goods and/or services, in the following areas: family (including the possibility of requesting reimbursement of expenses incurred for the assistance of family members that are not self-sufficient), health insurance, mortgages, supplementary pensions, sport, culture, leisure and travel. A live webinar open to all employees - a recording of which was made available - provided updates on the services on the portal, and information briefs were produced to facilitate employee access through the available digital tools (application on the intranet and on company smartphones). There are also several communities that facilitate the exchange of information between colleagues on company issues of common interest. About 7,340 employees are already registered on the Portal, which managed around 2,456,000 Euro in 2022.

The portal also allows for access to a discount area to which over 2,880 employees are enrolled.

**Iren Welfare**  
**7,340**  
**registered**  
**employees**

**2,456,000**  
**Euro managed**

Following a specific agreement with the trade unions, also in 2022 an amount to be allocated to supplementary pension funds or supplementary health care funds was paid to all those who converted at least 30% of their bonuses into welfare benefits. In addition, a functionality was activated to enable the claim for reimbursement of household expenses for the year 2022 only, as required by law. Similar interventions were carried out to implement D.L. 21/2022, which provided that the value of fuel vouchers, up to an additional 200 Euro per worker, does not count towards taxable income.

The Group activated, in affiliation with a wellness provider, a path geared towards **improving the health** of employees by encouraging physical activity and availability of a platform, which has more than 2,100 sports facilities nationwide (yoga, swimming, pilates and more), which can be attended with a single monthly subscription. The agreement guarantees the employees discounted rates and subscription plans of up to 60% off the market cost.

Two live webinars on the topic of mental health and emotional well-being were also organised in 2022.

As part of **mobility management** activities, in 2022, the Group launched a new drafting of the Home-to-Work Travel Plans (PSCL), required by law, relating to the main company offices in Genoa, La Spezia, Parma, Piacenza, Reggio Emilia, Turin and Vercelli. The calculations, prepared on the basis of the results of a questionnaire submitted to employees, constitute the Group's "Home-work mobility plan", a tool for analysing and developing useful measures for rationalising staff home-work travel in order to improve mobility. In order to facilitate the daily

sustainable mobility of employees, in the main company offices, special covered racks have been installed for the shelter and parking of bicycles and motorcycles.

Employees can, through a specific IT tool, search, book or purchase travel tickets in real-time, in complete autonomy and compliance with Company policies, doing a comparative search between the various travel services customarily required to manage a trip (flights, trains, hotels and car rentals).

Furthermore, they have the possibility of purchasing, at advantageous conditions, part of the telephone tools that make up their endowment, in the event of their replacement due to obsolescence or in the event of termination of service. Finally, specific union agreements for certain areas provide for the awarding of 'loyalty bonuses' in recognition of length of service in the Group.

## PREVENTION PROGRAMMES

**1,340**  
participants to  
the project  
"AL CUORE  
DELLA SALUTE"

Iren Group promotes the health of its employees by facilitating access to a series of services and specific initiatives as part of a broader health and prevention programme.

In this context, the Group has consolidated a **telemedicine project**, in collaboration with *Generali Welion*, which offers all employees a 24-hour family doctor and paediatric teleconsultation support.

The initiative aims to provide additional health coverage for all Group personnel. The service also offers access to a vast network of affiliated healthcare facilities in Italy at discounted rates, without the need to take out an insurance policy.

Thanks to its adhesion to the "**Al cuore della salute**" project, the Group offers employees in Genoa, Savona, Turin, Parma, Piacenza and Reggio Emilia the opportunity to undergo an optional preventive two-year health check-up, through a number of laboratory tests that are assessed by the Occupational Health Physician. A total of around 1,340 Group employees took part in the initiative, whose individual contribution, equal to 10 Euro, in 2022 was totally donated to local health facilities.

## SUPPLEMENTARY PENSION COVERAGE

**8,569**  
employees  
joined  
contractual  
supplementary  
pension funds

Since the legislation reforming the supplementary pension system came into force, employees have been able to decide how to use their post-employment benefits.

They can either leave it with the company or put it in one of the pension funds provided for by law, which that another pension supplements the compulsory government-managed pension and thus ensures a higher coverage.

Due to the number of participants, the ones that stand out are the pension funds established by collective bargaining, which can be joined by workers applicable for certain collective agreements. The main funds for Iren Group employees are as follows: Pegaso (CCNL electricity or gas-water), Previambiente (CCNL environment), Fon.Te (CCNL Commerce and Services), Fondo Gomma Plastica (CCNL Plastic Rubber) and Previndai for managers. As part of the process of unification and harmonisation of economic-regulatory treatments, in order to develop the value of complementary pensions also among young people and to encourage registration in the related funds, paid annually to personnel hired on permanent contracts or in apprenticeship, is an additional payment to the supplementary pension to which they are registered.

As at 31 December 2022, 8,569 employees had joined the contractual supplementary pension funds. In 2022, the Group paid a total of about 4.4 million Euro, as a contribution of its own, to contractual supplementary pension funds. Employees can also make use of a pension support and advice service.

INSURANCE COVERAGE FOR PERSONNEL

Almost all employees in junior management, white collar and blue collar positions are insured by a policy stipulated by the Group for death or total or partial permanent invalidity due to work-related injuries and injuries outside of work. Furthermore, special insurance policies are taken out in the event of death and/or total permanent invalidity resulting from non-occupational illness for electricity and gas-water sector employees, in accordance with the provisions of the respective National Collective Labour Agreements. Insurance coverage in the case of injuries (even ones which occurred outside of work and in the case of occupational illness) and life insurance are provided for all managers, as per the provisions of the Confservizi National Collective Labour Agreements for managers. A policy is

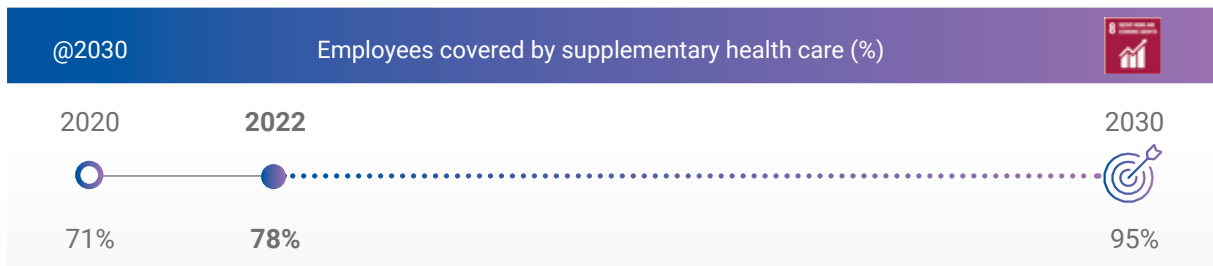
also taken out to cover damages involuntarily caused to third parties by the manager or his/her family members in the performance of activities relating to private life (insurance cover for "head of household" liability). In 2022, the Group signed an agreement with 4Care Italia to offer all employees and family members, during the course of the year and for a defined period of time, the opportunity to take out a Long Term Care policy at favourable conditions, aimed at protecting employees and their families from the high costs arising from the possible occurrence of a condition of non-self-sufficiency. A total of 235 employees and family members joined the initiative and took out the policy, which provides a monthly life annuity in the event of non-self-sufficiency.

SUPPLEMENTARY HEALTHCARE

Through membership of supplementary health care funds, employees are provided with health coverage in relation to the national collective labour contract to which they belong (FASIE for personnel with gas-water contracts, FASDA for personnel with environmental contracts, Utilitalia and Fise Assoambiente, Metasalute for metalworkers' contracts, EST for trade contracts and FAS G&P for plastic rubber contracts). The National Collective Labour Agreement for the electricity sector provides for the payment of contributions to CRAL associations for healthcare activities. Specially constituted funds manage the payment of healthcare

benefits that ordinary members (employees) and their dependants can benefit from. On the other hand, the FISDE fund is envisaged for the workers of Atena Trading and ASM Vercelli with CCNL Electricity. In Parma, members of the Cral Arta can join a prevention programme that includes specific health checks.

All managers, for whom primary healthcare coverage is provided by their membership to Fasi, are provided with supplementary health insurance (ASSIDAI) which refunds additional healthcare costs that are not reimbursed by Fasi.



ADVANCE ON EMPLOYEE SEVERANCE PAY

Employees may benefit from better conditions than those provided by the legislation in force by applying for an advance of their post-employment benefits (TFR) more than once to pay for healthcare, to buy their first house, renovate a property, restructure or modify buildings in order to remove architectural barriers and in other specific cases.

## PENSION BENEFITS

Retired employees, and their dependants, can remain members of Group leisure, cultural and sports associations and thus take advantage of a significant part of the offered services. Retired managers, whose last working relationship elapsed while holding the position of manager, which lasted not less than one year, can keep their subscription to the ASSIDAI supplementary healthcare fund and make use of the benefits provided. The healthcare also covers dependants and, in the case of their death, those who hold survivors' pensions.

The electricity sector National Collective Labour Agreement provides for additional monthly payments to the post-employment benefits for employees who leave service with 40 years of contributions or are 60 years of age.

In 2022, the multi-year project for the demographic and professional rebalancing of the Group's workforce continued, against the backdrop of a plan to bring in young people, allowing eligible employees to retire early, also benefiting from a company incentive.

## LEISURE, CULTURAL AND SPORTING ACTIVITIES

Company recreational clubs offer employees recreational, leisure, sports and cultural activities. Aiming to increase sociability, the following are available: the Employees' Recreational and Cultural Club in Genoa, Adaem and CRAL AMIAT in Turin, the Quercioli Club in Reggio Emilia, CRAL AMPS and CRAL ARTA in Parma, CRAL ENÌA in Piacenza, the CRAL ADAM in Vercelli and the CRAL ACAM in La Spezia. Some associations contribute to the educational expenses of employees' children, as well as allowing school books and stationary to be purchased at discounted prices. The clubs also enter into commercial agreements in the area to allow employees to purchase products and services at discounted prices.



The clubs are almost entirely funded by the Group, which also makes the spaces and equipment required to carry out the activities available to them through a special free loan. In regard to the regulations of the CRAL, discussions are under way with Trade Unions in order to harmonise the various economic and regulatory treatments.

Contribution paid (Euro)	2022	2021	2020
Leisure activities	927,504	900,153	927,495
Healthcare activities	2,631,324	2,394,082	2,346,442
<b>TOTAL</b>	<b>3,558,828</b>	<b>3,294,235</b>	<b>3,273,937</b>


## Diversity and inclusion

[GRI 2-23, 3-3, 401-3, 405-1, 405-2, 406-1]

Diversity and inclusion are among the key objectives to support the Group’s growth strategy. The diversity of people, together with a culture of inclusion, brings a wealth of contributions and ideas that can strengthen decision-making processes, efficiency and collaboration. Diversity and inclusion are an integral part of the Group’s Code of Ethics and a determining factor for its growth model.





## Diversity and inclusion




### Risks

- Failure to meet the targets set out in the Business Plan and consequent negative impacts (operational, economic and reputational)
- Collective/individual policies/behaviours that disregard the values of diversity and inclusion
- Advertising content perceived as discriminatory



### Opportunities

- Technological and process innovations that make operations safer
- Equal professional and salary opportunities for less represented categories



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- MbO and LTI system with ESG objectives
- Code of Ethics
- Organisational model 231 and information flows to the Supervisory Bodies
- Policy on Diversity and Inclusion
- Diversity management programmes and initiatives
- “Futuro D” Project
- Hiring of disadvantaged personnel
- Procedures: Personnel recruitment and selection; Training and education; Internal communication; Whistleblowing



Iren Group is committed, as evidenced by the corporate mission and values and the Business Plan, to enhancing and including the diversity present within the Company, providing a healthy work-life balance and improving the quality of the working environment.

The Group guarantees the absence of discrimination in selection, hiring, training, management, development and remuneration policies, as provided by the Corporate Code of Ethics. In fact, the values and rules defined in the Code of Ethics, together with the policies pursued and the codes of conduct adopted, guarantee the Group's careful and punctual protection against discriminatory practices. In 2022, there was a case of discrimination by an employee, formally reported, for which the Personnel Department promptly intervened to verify the facts and to proceed with the activation of the disciplinary procedure, in compliance with the law and the CCNL. This disciplinary action led to the dismissal of the employee.

For years, the Group has activated a series of articulated diversity programmes for the organic oversight of which the **Welfare and Diversity** organisational unit was established.

It is a path of application of inclusion policies that recognises and values differences, actively managing them and leveraging them to increase the competitiveness of the Group. The main issues of focus are gender, age, disability and nationality differences, all areas in which the Group has implemented various programmes and initiatives.

The Chief Human Resources Officer, who reports directly to the CEO, is responsible for the implementation of all diversity and inclusion initiatives and programmes with the support of the manager of the specific Welfare and Diversity function.

In confirmation of the importance attributed by the Group to the enhancement of diversity and the inclusion of all the resources present in the company, Iren adopted the **Policy on Diversity and Inclusion in Iren Group** and the **Policy on the management of violence, harassment and bullying in the workplace** (published on the website [www.gruppoiren.it](http://www.gruppoiren.it) to which reference should be made for further details).

The two Policies ( >> [SEE PAGE 79](#)) are directly linked to the principles of the Code of Ethics and formalise the Group's commitments to the development of an inclusive working environment, respectful of all forms of diversity, inspired by the principles of fairness and dignity in professional relations.

Diversity and inclusion policies address non-discriminatory culture and behaviour in selection, skills enhancement, promotion of managerial skills, and training through specific programmes aimed at raising

the level of awareness on diversity issues, and also take the form of adopting flexible working arrangements to reconcile life and work.

In order to enable the dissemination of the pillars of the corporate culture on diversity and inclusion issues and to implement the commitments made in the corporate policies, a training course on inclusive culture entitled **Diversity as an accelerator of development** was launched in 2022 for all personnel holding positions of responsibility within the Group.

Within the framework of diversity and inclusion policies and initiatives, the Group's commitment is confirmed by its adhesion to the UN **Global Compact**, with its support for the seven WEP (**Women's Empowerment Principles**) for women's empowerment, and the **Utilitalia Pact - Diversity makes the difference**, a programme of principles to be translated into concrete actions through seven commitments to be included in the Group's organisation.

The commitment to implementing policies on **gender diversity** is demonstrated by an important recognition: for the third year, Iren Group has been included in the **Bloomberg Gender-Equality Index (GEI)**, which guarantees transparency in the gender practices and policies implemented by companies listed on the stock exchange, exploring and expanding the environmental, social and governance (ESG) data available to investors and the financial community. The index measures gender equality based on five pillars: female leadership and talent pipeline, equal pay and gender pay equity, inclusive culture, anti-harassment policies and advocacy towards women. The inclusion in the GEI reflects a high level of transparency and overall performance consistent with the five pillars of the framework.

To compare with best practices, also in terms of monitoring the actions undertaken in the field of diversity and inclusion, in 2022, Iren participated in other dedicated indexes: the **Inclusion Impact Index of Valore D**, the **questionnaire "Diversity makes the Difference" of Utilitalia** and the **Equileap Gender Equality Evaluation**.

Aware of the fact that the path to achieving **gender equality** also passes through an adequate presence of women in all sectors that will offer the most outstanding professional and career opportunities in the future, the Group participates in different collaboration programmes with external actors. Significant in this context is the continuous collaboration, already started in 2018, with **Valore D** – an association of companies that promotes diversity, talent and female leadership for the growth

of companies and the country –, which has prepared a “manifesto” for female employment, signed by Iren Group. The document consists of nine points through which the Company undertakes, gradually and compatibly with its sector and size specificities, to adopt clear and measurable objectives, with performance indicators monitored periodically, to be shared internally.

Awareness-raising activities, mentorship and training courses to develop inclusive leadership, inter-company workshops to facilitate the sharing of best practices, and cross-company mentoring to enhance and engage people in order to increase their level of motivation and sense of belonging to the company were implemented throughout the year.

Finally, participation was promoted in the **Valore D Talks**, a series of appointments open to all employees, included in the online training available on the company intranet, which encourage discussion and reflection with experts on diversity and inclusion issues.

The Group also continued its collaboration with **Fondazione Libellula** - an organisation that raises awareness about all forms of violence and discrimination and supports the development of an inclusive culture in organisations - with which it organised the event as part of its participation, for the second year running, in **4 Weeks 4 Inclusion**, the initiative dedicated to inclusion and valuing diversity that involved more than 300 companies in its 2022 edition. The event explored the theme of women's participation in the world of work, with particular reference to STEM disciplines (Science, Technology, Engineering and Mathematics), through a round table that was an opportunity to illustrate the Group's experience and good practices, dedicated to fostering the entry of women into technical-managerial positions, in line with the goals defined in the 2030 Agenda.

In collaboration with **ELIS** - a non-profit educational organisation targeting young people, professionals and businesses to respond to the school-to-work gap, youth unemployment and contribute to the sustainable development of organisations - the two-year **Role Model Project** continued, which aims to guide middle and high school students to follow their aspirations. The project is based on Role Model testimony, with a focus on raising girls' awareness of STEM subjects. In 2022, webinars on study orientation were also held for employees and their children in middle and high school. Iren contributed to the realisation of the **2nd level University Master “HumanAlze: the humanities and social sciences for artificial intelligence”**, set up by the Turin Polytechnic and the University of Turin, at the

initiative of STEM by Women. The aim of the Master, aimed at female humanities graduates, is to train hybrid professional figures, the result of combining humanities and digital skills, and is designed to help overcome the gender gap and foster equal opportunities in STEM professional roles.

Reforms in labour laws and pension systems, which prolong people's tenure, have had a significant effect: for the first time, there are at least four generations working side by side, bringing with them a different perception of work, roles and relationships.

### **The diversity and coexistence of different generations**

offer opportunities for enrichment and openness to change, to address technological revolutions and drive innovation, leveraging the breadth of experience and knowledge.

Facilitating cooperation and integration between seniors and juniors requires understanding each generation's strengths, limitations, and values toward their work and creating a company culture that actively demonstrates respect and inclusion. The Group's initiatives in support of generational integration and training are the tool par excellence for promoting communication and the exchange of experiences between generations, stimulating productive confrontation and the transfer of knowledge and skills to ensure that differences are recognised and valued.

In order to deepen knowledge of the issue of disability at work, in 2022 Iren joined the **Disability Lab**, network of companies promoted by Wise Growth, which provides for periodic inter-company meetings to stimulate dialogue on experiences and best practices. Participation in these opportunities for discussion was preparatory to the planning of an initiative on disability management within the Group, which will be aimed at enhancing the capabilities of each individual and preventing any discrimination, including involuntary discrimination, through activities to raise awareness and actively listen to the needs of people in distress and caregivers, in order to promote their real inclusion and improve their work situation. Iren Group guarantees the conditions for the best job placement for personnel with disabilities, operating in compliance with current legislation on the subject.

Personnel belonging to protected categories	2022	2021	2020
Number of employees	430	379	370

## FEMALE PERSONNEL

The average 2,461 women in the Group during the year represents 25% of the average number of employees, in line with 2021 (25%).

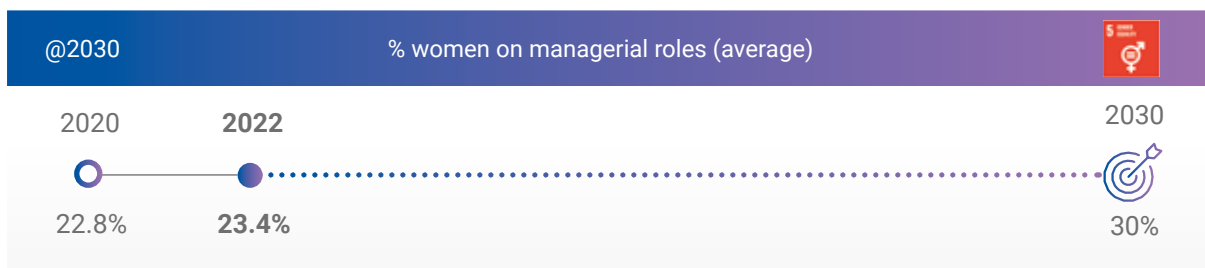
Average personnel by position and gender	2022		
	Total no.	No. of women	% Women
Managers	112	20	18%
Junior managers	367	92	25%
White collars	4,192	1,622	39%
Blue collars	5,196	727	14%
<b>TOTAL AVERAGE</b>	<b>9,867</b>	<b>2,461</b>	<b>25%</b>

The policies implemented in the selection phase and in the enhancement of skills, the drive towards female management and the development of work-life balance tools have increased the Group's attractiveness for female personnel, even within professional families characterised by a strong technical component historically "reserved" for a purely male population. The recent hires of young female graduates, even into strictly technical sectors such as waste or site & network engineering, is evidence of this.

**70%**  
of women are  
managers,  
junior  
managers and  
white-collars

The majority of female personnel (70%) are managers, junior managers and white-collar workers (overall constituting 47% of total employees, compared to the 53% of blue-collar workers). The analysis, also in consideration of the mainly technical characteristics of the managed activities, revealed a non-discriminatory situation for the average female component, who represent around 38% in the group of managers, junior managers and white-collar workers.

In Iren Group, a total of 950 people hold STEM degrees, 37% of whom are women. The issue of female presence is taken up among the objectives of the Business Plan to 2030 in which it is foreseen to increase the number of women in managerial positions in the Group.



Equal remuneration between men and women is ensured by the application of the National Collective Labour Agreements in which minimum salaries for each employment category are defined.

The average basic salary per the qualification of women (details in the section "Iren People in numbers" page 310) is, however, slightly lower than that of men, due to three types of factors: a higher percentage of women working part-time (13% of women compared to 2% of men), the lower average working seniority of women compared to that of men, high incidence of qualified technical roles that historically come from the world of education predominantly male.

Through selection policies relating to the topic and the introduction of a reward system with homogeneous policies for the entire company population, the Group has set itself the objective of rebalancing this situation as far as possible, in view of the reference labour market, also through specific interventions on selection policies, in order to increase the presence of women and develop a pool of female talent, also in technical-operational roles. The gender pay gap in 2022 is 0.20.

In 2022, Iren Group completed the Pay Equity & ILM@ Maps project. After analysing the three-year period 2019 - 2021, it emerged that: the talent & acquisition policies adopted have fostered a progressive gender balance in the workforce and an internal growth strategy towards senior roles. In recent years, a style of career development has also been implemented where women have been promoted in higher rates than men, showing excellent equity in promotion and growth policies. The year 2022 saw the strengthening of these trends consistent with the challenges of the Business Plan to 2030, which may require new skills and trades, and with resource planning that preserves their sustainability. In line with the provisions of the Articles of Association and regulations on equal access to the administration and control bodies of listed companies, a gender balance

is ensured with a female presence of at least 40% of the members: in the Iren Board of Directors, the majority of the members are currently female (8 out of 15) and in the Board of Statutory Auditors, the female component represents 40%.

On the whole, on the Boards of Directors for Group companies there are 57 women, amounting to approximately 27% of total members (212 people of which 38% in the 30 to 50 age group and 62% over 50).

In 2022, 349 employees (156 women and 193 men) took mandatory and optional maternity, parental, paternity and breastfeeding leave. Employees were also able to take advantage of the various forms of flexible working that the Group makes available, above all smart working, which was granted, where possible, by recognising additional remote working days on a monthly basis to employees who are parents of children under three years of age and to pregnant employees regularly on duty. In addition to these possibilities are the specific training provided and the services described under Corporate Welfare. Upon their return to work, all employees were able to resume the job they had filled before their period of absence or a job with equal professional content in cases where organisational changes occurred in the meantime that meant they could not return to the same position.



# Occupational health and safety

[GRI 2-23, 3-3, 403-1, 403-2, 403-3, 403-4, 403-5, 403-7, 403-8, 403-9, 403-10]

The Group considers the dedication of human, professional, organisational, technological and economic resources to occupational health and safety as an investment, as it believes it to be fundamentally important to protect workers and includes among its objectives not only compliance with the provisions laid down by the law, but also measures taken with a view to continuously improving working conditions. A stringent conception of safety entails total engagement on the behalf of employees who, according to the activity performed and the respective skills and responsibilities, are required to play an active role in prevention. As such, particular attention is given to providing training and information to employees and conducting continuous monitoring, including the analysis of individual injuries, near-misses, and planned supervisory surveys.

## Occupational health and safety



### Risks

- Failure to meet the targets set out in the Business Plan and consequent negative impacts (operational, economic and reputational)
- Injuries and occupational illnesses of employees and third-party workers
- Epidemic events affecting workers' health
- Civil and/or criminal liability of persons covered by Legislative Decree 81/08
- Loss of ISO 45001 certification and the subsequent loss of the INAIL award
- Non-compliance with health and safety standards
- Negative operational, economic and reputational impact related to the failure to protect the health and safety of workers



### Opportunities

- Technological innovations that make operations safer



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- MbO and LTI system with ESG objectives
- Code of Ethics
- Organisational model 231 and information flows to the Supervisory Bodies
- Prevention and protection service
- Specific personnel training
- ERM system integrated with ESG topics
- Integrated Certified Management System (risk assessment, containment measures and third-party audits)
- Guidelines for Risk Assessment and drafting of Risk Assessment Documents
- Procedures: Management of occupational health and safety controls; PPE management; Injury management, near-miss accidents, company accidents; Management of tender safety obligations; Protection of the health and safety of pregnant workers, women who have recently given birth and who are breastfeeding; Whistleblowing
- Health monitoring plans
- Emergency management planning
- "Near miss" analysis and subsequent actions
- Insurance plans

The main companies of Iren Group have certified systems according to the UNI ISO 45001 international standard to guarantee the systematic control of the aspects relating to the safety and health of workers, which cover 100% of the personnel employed in the certified companies (equal to 97% of the overall Group personnel, that is 10,265 employees). Health and safety requirements are managed by the Group with the support of the GAMMA application, certified to manage the requirements of UNI ISO 45001.

In 2022, the Group's policy for the management of the Covid-19 emergency followed the regulatory provisions resulting from the pandemic evolution, maintaining a constant focus on the subject. Internal regulations were progressively adapted with the preparation of a new General Group Protocol of measures to combat and contain the spread of the virus in the workplace.

## SAFETY MANAGEMENT

The Group's safety management system is supervised by a single Safety Service within the Parent Company, which guarantees the standardisation of risk assessment methods, the identification of organisational, procedural and technical measures, and the training needs of personnel in the field. Specific codified and systematic audit procedures allow for the monitoring and the continuous improvement of this system to be pursued.

Responsibility for occupational health and safety lies with the hierarchical line employers, managers, supervisors, on the basis of the specific company organisation as well as of the delegations conferred, and is reflected in the company organisation charts and safety organisation charts, published on the company intranet. Workers, according to their activity and their respective competencies and responsibilities, are involved and called upon to play an active role in prevention.

In order to prevent or mitigate potential negative impacts, actions are envisaged, including the prevention and protection measures set out in the risk assessment documents prepared pursuant to Legislative Decree 81/2008; the actions can essentially be classified as information and training, health surveillance, use of Personal Protective Equipment (PPE) and application of safe work instructions. Monitoring and control activities contribute as preventive actions, including:

- checks by the Supervisors on employees and by the Works Management in the case of third-party activities;
- establishment of specific corporate committees on the subject of health and safety management;
- audits (e.g. in the area of Certified Management Systems, Internal Audit and Procurement Audit);
- supervisory inspections of the Prevention and Protection Service (PPS) planned annually;
- visits by Occupational Health Physicians to workplaces;
- discussions with Workers' Health and Safety Representatives (HSR);
- management of reports received (e.g. of near misses);
- simulation of emergency situations.

Operational control activities are regulated by a specific Group procedure. In the case of actual negative impacts, such as in the case of injuries and real emergency situations, a systematic analysis is planned, with the aim of defining causes and treatment. In proactive terms, in the case of potential and actual negative impacts, if critical issues are detected, corrective actions are defined to ensure improvement action. To monitor the effectiveness of actions, data on the following indicators relating to the Security process are usually analysed:

- rates of frequency, severity, injury incidence;
- number of company accidents;
- number of near-misses;
- number of PPS inspections planned/performed;
- number of Occupational Health Physician inspections planned/performed;
- number of medical examinations planned/performed

for which the following Group targets are also defined:

Indicator	Target
Severity rate	< previous year
Frequency rate	< previous year
Number of annual PPS inspections performed/planned	>90%
Number of annual Occupational Health Physician inspections performed/planned	>90%
Number of annual emergency simulations performed/planned	>90%
Number of annual medical examinations performed/planned	100%

There are also general welfare and prevention initiatives and programmes, both at the level of the national collective labour agreements applied and through the company welfare system ( >> SEE PAGE 291 ). Specific improvement objectives concern the progressive computerisation of the management of the Security System (through the GAMMA application, which guarantees the uniformity of the approach and the related monitoring), the unification of the management of transversal issues (also through the issue of Group procedures on the subject of PPE, health surveillance, emergencies, injuries), the containment of the injury incidence rate and the progressive integration of the companies which, following acquisitions, become part of the Group.

Each Group Company organises at least one annual meeting on corporate security (art. 35 of Legislative Decree 81/2008), and, as a rule, one or two other meetings per year for discussion and updating attended by the Workers' Health and Safety Representatives (HSR). Surveys and specific meetings are also carried out at the request of the HSRs and/or workers. The HSRs are also invited to take part in the visits to the workplace with the Occupational Health Physician (art. 25 of Legislative Decree 81/2008) and are involved in audits of certified systems.

The **reporting and management of injuries and near-misses** takes place through hierarchical channels and subject to supervision by the Prevention and Protection Service according to specific procedures regulating the process, which may be computerised and are accessible to all workers. A detailed analysis of the event is carried out, aimed at identifying the causes of unwanted events, and the necessary actions and skills to prevent them. A specific app (Safety App) on the Company smartphones provided to all employees enables near-misses to be reported, promoting employee participation and facilitating the introduction of any corrective actions.

The Safety System documentation (procedures,

emergency plans, operating instructions, guidelines for safe working, etc.) establishes the cases and situations where workers are required to distance themselves from potentially hazardous or unexpected situations, and/or to avoid certain activities requiring specific training for which they are not qualified. In this regard, the Group companies adopted procedures to regulate particular situations and risks (works in confined spaces or in case of suspected pollution, sites in the outdoors in the case of weather alerts or employees operating alone, etc.).

The **risk identification and assessment process** is regulated by procedures and by software that guarantees a standardised approach. For each working activity, the risks and the appropriate prevention and protection measures, personal protective equipment (PPE) necessary to conduct said activities, proper conduct and any organisational measures or other requirements are identified and evaluated. Furthermore, workplaces are analysed to identify and evaluate the risks present, taking instrumental measurements where necessary. The assignment to each employee, directly or through groups (safety certifications) of the results of the assessments conducted on working activities and workplaces completes the risk profile of each worker, identifying the consequent general protection measures that include, for example, the provision of necessary PPE, the need or otherwise for health checks, and the results of these, where applicable. These structured evaluation process is conducted and coordinated by the Prevention and Protection Service (PPS) of each Company, with the indispensable involvement of the operating units. The PPS also carries out periodic controls to check the correct implementation of the provisions.

For Group companies with ISO 45001 certification, periodic audits are also planned by certified external independent auditors to verify the correct management of occupational health and safety. The results of these audits are brought to the attention of the Management to enable the relative action to be taken.

A specific section is dedicated to occupational health and safety in the Group's Industrial Relations Protocol and specific agreements have been signed that regulate special content (for example, business trips).

Attention to the injury phenomenon is also demonstrated by the provision, in the Business Plan and in the MbO system, of specific objectives, assigned to the managers of the operating structures most exposed to these risks.



#### MAIN INDICATORS OF SAFETY

Injuries and frequency rate <sup>(1)</sup>	u.m.	2022
Total number of injuries	no.	468
of which high-consequence injuries – non-fatal <sup>(2)</sup>	no.	2
of which high-consequence injuries – fatal	no.	0
Hours worked	no.	16,038,744
Frequency rate		
(total number of injuries/hours worked x 1,000,000)		29.18
(total number of injuries/hours worked x 200,000)		5.84
Days away from work due to injury	no.	14,343
Severity rate (days away from work due to injuries/hours worked x 1,000)		0.89
Average injury duration (days away from work due to injuries/total no. injuries)	days	30.65

<sup>(1)</sup> Commuting injuries and those not recognised by INAIL are excluded.

<sup>(2)</sup> Injuries lasting longer than 6 months.

Near-misses <sup>(1)</sup> by region and gender (no.)	2022
Piedmont	199
Emilia-Romagna	22
Liguria	16
Tuscany	24
Other areas	19
<b>TOTAL</b>	<b>280</b>
Women	67
Men	213
<b>TOTAL</b>	<b>280</b>

<sup>(1)</sup> Near-misses pursuant to standard ISO 45001:2018.



In 2022, the work-related injury frequency and incidence rates increased by 11% and 9%, respectively, compared to 2021; the severity rate also increased slightly (+2%). The increase in these rates is due to new companies joining the Group in the second half of 2022, in particular Sei Toscana, which operates in waste collection, a sector with a high injury rate. On the other hand, the average duration shows a decrease (-8%) compared to 2021.

The “Iren people in numbers” section shows the breakdown of the work-related injury rates for the last three years.

INJURIES BY GEOGRAPHICAL AREA (NO.)



223

Piedmont



62

Emilia-Romagna



60

Liguria



66

Tuscany

57

Other areas

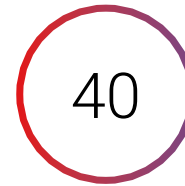
INJURIES BY TYPE <sup>(1)</sup> (NO.)



Professional injuries



Incidental injuries



Road injuries

<sup>(1)</sup> The internal classification distinguishes between:

- professional injuries: occurring as a result of activities closely related to the work task;
- road injuries: occurring during work-related travel in company vehicles;
- incidental injuries: occurring as a result of activities not strictly related to the work task.

## HEALTH CHECKS

The health surveillance of Iren Group employees, according to the tasks assigned, is organised centrally by the Safety Services function which avails itself of a specialised external company for the planning and execution of diagnostic tests. Pursuant to current law, the medical examinations are carried out (over 8,000 in 2022) by external Occupational Health Physicians, appointed by the Employers of each Group company.

A specific Group procedure defines the shared approach, including the standardisation of health protocols. The correct planning and monitoring of health checks for all workers is guaranteed by the GAMMA app, where data is uploaded which includes workers’ risk profiles according to the possible professional exposure level indicated in the risk assessment documents, the obligatory nature of the health checks, the date of any assessments, the fit-to-work certificate and any provisions/limitations. To respect personal privacy, information contained on the GAMMA app is made available to employees, managers, supervisors, medical professionals and the PPS only when relevant. Newly acquired companies are gradually being integrated into management.

As far as **occupational illnesses** are concerned, the risk assessment document (DVR), which is constantly updated, objectively establishes the presence of a potential occupational risk. This probability is minimal both upstream and downstream of the control chain implemented by the Group. Upstream, the results of the risk assessment documents of Group companies are drawn up in collaboration with the RSPP and the Occupational Health Physicians and meetings are called to discuss the outcome of the various surveys of working environments, during which, where necessary, any critical situations may be reported by the competent parties within their area of expertise, providing indications or suggestions aimed at improving working conditions. Downstream, the Occupational Health Physicians identify the residual risks and draw up a health check protocol shared at Group level, which aims to protect the mental and physical health of workers and to identify any potentially or effectively hypersensitive persons, correlating the working risk with specific diagnostic checks and enable the correct identification of any personal limitations or provisions. The Occupational Health Physician is however required by law to report any suspected occupational ill-health to the competent bodies. In 2022, there were 11 cases of occupational illness recognised as such by INAIL that did not result in death during the period of employment. The main type of occupational illness is herniated discs and/or lumbago (7 cases out of a total of 11).

As part of the Call4Ideas project ([SEE PAGE 330](#)), launched in 2022, a hypothesis was presented on the use of industrial exoskeletons to balance physical exertion in waste collection and bin handling activities, reducing the occurrence of work-related illnesses.

A comprehensive reassessment of **work-related stress risk assessments** was undertaken in 2022. The evaluations, carried out using the methodology proposed by the Joint Committee 'Rubes Triva', generally showed a low level of associated risk.

## HEALTH AND SAFETY TRAINING

Among the primary objectives of the Group's training action are the improvement of behaviours and the strengthening of the culture regarding health and safety in the workplace, which continue to have a predominant role in initiatives aimed at employees.

In 2022, there was a significant increase in the number of hours of health and safety training provided, with 7,106 people involved in at least one initiative, equivalent to 72% of the average number of employees (70% in 2021), for more than 107,500 hours. Workers accounted for 65% of the total number of hours.

The main initiatives were:

- **basic training and updates** for managers, supervisors and workers, emergency and first aid officers, on specific risks (confined environments, electrical environment, asbestos, isolated work, biological risk from legionella), on the use of personal protective equipment (work at height, respiratory system, confined environments);
- **qualification and refresher courses for safety officers** (RSPP/ASPP, HSR, site safety coordinators, fire prevention officers, managers and staff responsible for asbestos removal, disposal and remediation);
- **training and refresher courses on the use of equipment** (fork lifts, earth-moving machinery, lifting platforms, cranes, tractors, etc.);
- **equipment training** (cranes, mobile generators, portable ladders, trolleys for the transport of goods and people and/or lifts/cable cars, waste collection machinery and compactors, environmental health equipment, manholes);
- **specific internal procedures** (production of advanced works plans covering electricity risk, management of work permits, emergency management, etc.).

Among the training and awareness-raising initiatives on safety issues is the one included in the New Skills Fund Project called "Digital Culture", within which the use of the applications GAMMA Safety (containing the risk profile and medical examinations of each employee) and Safety App (for reporting injuries) was also promoted through an illustration of the objectives and main functions.

The Training Portal is integrated with the GAMMA app for safety management, in order to allow for training needs to be constantly updated in relation to the risks to employees and the security responsibilities assigned to them, as well as to monitor the expiry dates of the relative updates.

The effectiveness of the safety training is assessed through tests or, as provided for by law, practical assessments.



# Trade union and industrial relations

[GRI 2-23, 2-27, 3-3, 402-1]

Trade union and industrial relations contribute to create the best conditions for guaranteeing Iren Group the development of a business model that aims to involve and enhance human resources, in order to increase efficiency, quality of services and capacity to address market challenges with innovative solutions.

8  
SOCIAL VALUE AND  
ECONOMIC GROWTH

## Industrial relations

### Risks

- Disruption of relations with trade unions and the subsequent negative operational and reputational impact
- Slowdown/interruption of operations due to workers' strikes (e.g. on the occasion of renewal of the collective agreement, business transformation, organizational changes, etc.)

### Opportunities

- Collaborative business context oriented towards common development goals
- Clear and shared system of rules

### Management methods

- Code of Ethics
- Protocol of industrial relations
- Organisational model 231 and information flows to the Supervisory Bodies
- Studies for the renewal of the reference National Collective Labour Agreements and participation in their work at national level

Iren Group has always focused heavily on proper industrial relations, based on legislation and company and national collective labour bargaining, in compliance with the National Collective Labour Agreements of reference and the principles of the Code of Ethics, with particular reference to the ILO conventions (» SEE NOTE PAGE 78).

Iren and the Trade Unions have signed a Group **Industrial Relations Protocol**, which dictates the rules that govern relations between the Parties. This has led to a model being put in place based on the sharing of business decisions, which aims to optimise individual workers who, in order to enable healthy development, must be involved and grow in step with the entire organisation. The shared decisions lead to a sense of belonging and, at the same time, place the employee centre stage. The Protocol sets

out the methods for approaching industrial relations based on three pillars: bargaining, participation and rules.

Industrial relations are divided into three levels:

- *Group level*, on topics of general interest and/or transversal to businesses and areas and the trend and development of business sectors, or industrial policies, guidelines on organisational structures, the economic results of the Group and the business segments, the harmonisation processes for company agreements and the coordination of reference National Collective Labour Agreements and company integration;
- *company level*, on topics regarding individual companies or a cluster of companies, for which a Unitary Union Representative Body (RSU) is established;

- *regional level*, on topics regarding the single production unit, downstream of the company level, or on topics that concern several companies located in the same area.

Furthermore, procedures are defined for developing relations based on information sent to the Trade Unions, discussion and consultation (exchange of information and evaluations, acquisition of opinions, requests or indications from Trade Unions, verification of phenomena on matters specifically identified to seek possible points of convergence), and negotiation (discussion between the Parties aimed at reaching agreements that are binding on them).

The Group's Industrial Relations Protocol also establishes two participatory bodies: the RSU National Coordination and the RSU Executive Committees, while bilateral Committees (environment and safety, training and development, equal opportunities and welfare) are envisaged for analysing specific issues.

On 27 June 2022, a trade union agreement was signed with the trade unions to regulate agile/smart working in the Group as of 1 July 2022, which states that it can be performed by all employees - with permanent, apprenticeship, part-time and fixed-term contracts - whose role and related activities are not incompatible with working outside the workplace. The agreement provides for the establishment of an Observatory (consisting of 8 members for the signatory trade unions and a maximum of 5 for the company), which has the purpose of meeting, at the request of one of the parties, in the presence of problems relating to effectiveness and to verify the good progress of the initiative. In any case, at least once a year, the Company and the trade unions will meet to monitor the progress of the programme and to jointly verify the advisability of implementing changes to the way smart working is carried out.

Furthermore, at Group level, the agreement relating to the 2022-2024 Performance Bonus was signed with the trade unions on 3 October 2022, a fundamental tool for the redistribution of company profitability and one of the main levers for stimulating involvement of workers on the progress and improvement of the Group's performance.

In 2022, the Group continued to focus on how the processes of flexibilisation and digitalisation define and determine new forms of work organisation, placing people training as a central element, also involving

the trade unions in this process. In this framework, a trade union agreement on training was signed on 22 December 2022, which envisages the activation of individual and collective managerial initiatives aimed at managers, coordinators and various professional figures in the Group, and technical-professional courses aimed at obtaining professional training credits for the various company figures, as well as initiatives to develop technical skills.

In addition, in 2022, the Gas/Water, Electricity and Environment National Collective Labour Agreements (which regulate labour relations in the Group's main business areas) were renewed, which place worker participation at the heart of the new texts, in the sense that a more effective and participatory industrial relations system is needed to qualify and implement processes of transformation and digitalisation of work activities and innovative, technological and business support services.

Consolidated practices provide that, in the event of significant organisational changes (establishment of new business units or changes to the organisation of work), Company management informs the Trade Unions in order to seek shared solutions, where possible. Therefore, employees are notified of these changes through service orders or notifications issued and distributed via the Group Intranet and/or e-mail and posted to Company notice boards. For changes to working hours, the National Collective Labour Agreements require that Management inform the Trade Unions and convene a consultation meeting for the purposes of a joint review. The time frames for the conclusion of discussions on the topic may vary from 10 to 30 days, after which the Parties can take the action they deem most appropriate. The contracts also cover transfers, providing for at least 30 days' notice in the event of an employee being transferred to another municipality, with the Trade Unions being informed with adequate notice in the event of collective transfers, which are usually followed by a meeting between the Group and the Trade Unions.

The membership rate of Group employees in trade unions in 2022 is 42.7%.

With regard to the year 2022, the Group definitively lost 2 lawsuits concerning employees and former employees, only one of which amounted to more than 10,000 Euro (significance threshold set by the Group). In addition, 7 penalties were paid (of which 1 related to previous years) for health and safety violations, none of which exceeded 10,000 Euro individually.

## Iren People in figures

[GRI 2-7, 2-8, 401-1, 403-9, 405-1, 405-2]

Unless otherwise specified, data refer to the number of employees as at 31/12 of each year.

Personnel by qualification	2022		2021		2020	
	Total	%	Total	%	Total	%
Managers	117	1.1%	104	1.2%	92	1.1%
Junior managers	372	3.5%	345	3.8%	305	3.6%
White collars	4,474	42.3%	3,915	43.2%	3,618	42.7%
Blue collars	5,620	53.1%	4,691	51.8%	4,450	52.6%
<b>TOTAL</b>	<b>10,583</b>	<b>100%</b>	<b>9,055</b>	<b>100%</b>	<b>8,465</b>	<b>100%</b>

Personnel by position and gender	2022			2021			2020		
	Total	Women	%	Total	Women	%	Total	Women	%
Managers	117	22	18.8%	104	20	19.2%	92	18	19.6%
Junior managers	372	98	26.3%	345	80	23.2%	305	71	23.3%
White collars	4,474	1,753	39.2%	3,915	1,518	38.8%	3,618	1,343	37.1%
Blue collars	5,620	796	14.2%	4,691	651	13.9%	4,450	657	14.8%
<b>TOTAL</b>	<b>10,583</b>	<b>2,669</b>	<b>25.2%</b>	<b>9,055</b>	<b>2,269</b>	<b>25.1%</b>	<b>8,465</b>	<b>2,089</b>	<b>24.7%</b>

Average personnel	Total	Women	%	Total	Women	%	Total	Women	%
Managers	112	20	17.9%	102	20	19.6%	92	17	18.5%
Junior managers	367	92	25.04%	337	78	23.1%	311	75	24.1%
White collars	4,192	1,622	38.7%	3,825	1,448	37.9%	3,549	1,300	36.6%
Blue collars	5,196	727	14.0%	4,580	649	14.2%	4,313	620	14.4%
<b>TOTAL AVERAGE</b>	<b>9,867</b>	<b>2,461</b>	<b>24.9%</b>	<b>8,844</b>	<b>2,195</b>	<b>24.8%</b>	<b>8,265</b>	<b>2,012</b>	<b>24.3%</b>

Non-employees (no.)	2022	2021	2020
Temporary workers	17	41	39

Personnel by geographical area	2022		2021		2020	
Province of Genoa	1,226	11.6%	1,089	12.0%	1,066	12.6%
Province of Parma	794	7.5%	762	8.4%	726	8.6%
Province of Piacenza	578	5.5%	557	6.2%	553	6.5%
Province of Reggio Emilia	1,219	11.5%	1,117	12.3%	992	11.7%
Province of La Spezia	759	7.2%	738	8.1%	720	8.5%
Province of Turin	3,439	32.5%	3,204	35.4%	3,145	37.2%
Province of Vercelli	297	2.8%	234	2.6%	242	2.9%
Provinces of Tuscany	1,147	10.8%	n.a.	n.a.	n.a.	n.a.
Other provinces	1,124	10.6%	1,354	15.0%	1,021	12.0%
<b>TOTAL</b>	<b>10,583</b>	<b>100%</b>	<b>9,055</b>	<b>100%</b>	<b>8,465</b>	<b>100%</b>

Personnel by contract and geographical area <sup>(1) (2)</sup>	2022				2021		2020	
	Women	Men	Total	%	Total	%	Total	%
<b>Employees with permanent contracts</b>	<b>2,434</b>	<b>7,255</b>	<b>9,689</b>	<b>91.6%</b>	<b>8,254</b>	<b>91.1%</b>	<b>7,760</b>	<b>91.7%</b>
Province of Genoa	268	880	1,148					
Province of Parma	203	524	727					
Province of Piacenza	117	414	531					
Province of Reggio Emilia	350	769	1,119					
Province of La Spezia	151	564	715					
Province of Turin	906	2,081	2,987					
Province of Vercelli	53	226	279					
Provinces of Tuscany	224	900	1,124					
Other provinces	162	897	1,059					
<b>Employees with fixed-term contracts</b>	<b>29</b>	<b>121</b>	<b>150</b>	<b>1.4%</b>	<b>150</b>	<b>1.7%</b>	<b>95</b>	<b>1.1%</b>
Province of Genoa	3	3	6					
Province of Parma	1	11	12					
Province of Piacenza	-	3	3					
Province of Reggio Emilia	3	26	29					
Province of La Spezia	3	15	18					
Province of Turin	12	26	38					
Province of Vercelli	-	11	11					
Provinces of Tuscany	2	4	6					
Other provinces	5	22	27					
<b>Apprenticeship/in-house training contract</b>	<b>206</b>	<b>538</b>	<b>744</b>	<b>7.0%</b>	<b>651</b>	<b>7.2%</b>	<b>610</b>	<b>7.2%</b>
Province of Genoa	18	54	72					
Province of Parma	16	39	55					
Province of Piacenza	10	34	44					
Province of Reggio Emilia	31	40	71					
Province of La Spezia	4	22	26					
Province of Turin	118	296	414					
Province of Vercelli	3	4	7					
Provinces of Tuscany	3	14	17					
Other provinces	3	35	38					
<b>TOTAL</b>	<b>2,669</b>	<b>7,914</b>	<b>10,583</b>	<b>100%</b>	<b>9,055</b>	<b>100%</b>	<b>8,465</b>	<b>100%</b>

<sup>(1)</sup> There are no employees with non-guaranteed hours.

<sup>(2)</sup> As of 2022, the breakdown of employees by geographical area required by the new GRI standard has been adopted; therefore, a comparison with the previous two years is not possible.

Personnel by full-time and part-time contract by gender and geographical area <sup>(1)</sup>	2022			2021	2020
	Women	Men	Total	Total	Total
<b>Workers with full-time contract</b>	<b>2,336</b>	<b>7,748</b>	<b>10,084</b>	<b>8,630</b>	<b>8,125</b>
Province of Genoa	248	930	1,178		
Province of Parma	189	548	737		
Province of Piacenza	99	447	546		
Province of Reggio Emilia	304	828	1,132		
Province of La Spezia	126	550	676		
Province of Turin	974	2,363	3,337		
Province of Vercelli	53	239	292		
Provinces of Tuscany	203	906	1,109		
Other provinces	140	937	1,077		
<b>Workers with part-time contract</b>	<b>333</b>	<b>166</b>	<b>499</b>	<b>425</b>	<b>340</b>
Province of Genoa	41	7	48		
Province of Parma	31	26	57		
Province of Piacenza	28	4	32		
Province of Reggio Emilia	80	7	87		
Province of La Spezia	32	51	83		
Province of Turin	62	40	102		
Province of Vercelli	3	2	5		
Provinces of Tuscany	26	12	38		
Other provinces	30	17	47		
<b>TOTAL</b>	<b>2,669</b>	<b>7,914</b>	<b>10,583</b>	<b>9,055</b>	<b>8,465</b>

<sup>(1)</sup> As of 2022, the breakdown of employees by geographical area required by the new GRI standard has been adopted; therefore, a comparison with the previous two years is not possible.

Average personnel age by position (years)	2022	2021	2020
Managers	54	54	53
Junior managers	52	52	52
White collars	47	48	48
Blue collars	47	47	48
<b>OVERALL AVERAGE</b>	<b>47</b>	<b>48</b>	<b>48</b>



Personnel by age	2022		2021		2020	
	Total	%	Total	%	Total	%
<b>under 30 years old</b>	1,136	11%	922	10%	747	9%
Managers	0		0		0	
Junior managers	0		0		0	
White collars	459		355		291	
Blue collars	677		567		456	
<b>from 30 to 50 years old</b>	4,230	40%	3,561	39%	3,250	38%
Managers	36		32		27	
Junior managers	140		126		105	
White collars	1,890		1,556		1,383	
Blue collars	2,164		1,847		1,735	
<b>over 50 years</b>	5,217	49%	4,572	51%	4,468	53%
Managers	81		72		65	
Junior managers	232		219		200	
White collars	2,125		2,004		1,944	
Blue collars	2,779		2,277		2,259	
<b>TOTAL</b>	<b>10,583</b>	<b>100%</b>	<b>9,055</b>	<b>100%</b>	<b>8,465</b>	<b>100%</b>

Personnel by qualification (%)	2022	2021	2020
Compulsory education	37	37	38
Professional institutions	8	8	9
Diploma	37	37	36
Degree	18	18	17
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>

Average personnel by Business Unit	2022		2021		2020	
Holding	1,106	11%	1,065	12%	1,058	13%
Energy	1,135	11%	918	10%	874	11%
Market	589	6%	543	6%	513	6%
Networks	2,223	23%	2,166	25%	2,161	26%
Waste Management	4,814	49%	4,152	47%	3,659	44%
<b>OVERALL AVERAGE</b>	<b>9,867</b>	<b>100%</b>	<b>8,844</b>	<b>100%</b>	<b>8,265</b>	<b>100%</b>

Average Company service of departing personnel by age and gender (years)	2022	2021	2020
<b>Age</b>			
under 30 years old	1	1	1
from 30 to 50 years old	4	4	5
over 50 years	22	23	22
<b>Gender</b>			
Men	13	15	15
Women	17	19	16
<b>OVERALL AVERAGE</b>	<b>14</b>	<b>15</b>	<b>15</b>

Personnel turnover by gender, province and age <sup>(1)</sup>	2022	2021	2020
<b>Gender</b>			
Men	8.1%	8.3%	6.7%
Women	4.3%	4.5%	1.9%
<b>Province</b>			
Province of Genoa	4.1%	4.1%	3.1%
Province of Parma	7.1%	7.3%	3.9%
Province of Piacenza	6.7%	5.6%	3.3%
Province of Reggio Emilia	7.0%	6.2%	4.4%
Province of La Spezia	8.0%	4.6%	3.6%
Province of Turin	5.8%	6.4%	4.4%
Province of Vercelli	7.7%	9.4%	5.0%
Provinces of Tuscany	2.4%	n.a.	n.a.
Other provinces	19.4%	14.9%	16.6%
<b>Age</b>			
Under 30 years old	10.9%	8.8%	8.7%
From 30 to 50 years old	5.4%	4.8%	3.4%
Over 50 years	7.8%	9.0%	6.5%
<b>TOTAL</b>	<b>7.2%</b>	<b>7.3%</b>	<b>5.5%</b>

<sup>(1)</sup> Turnover was calculated as ratio of outbound employees to the number of total employees at 31/12.

Hires during the year by gender, province and position (no.)	2022	2021	2020
<b>Gender</b>			
Men	994	717	515
Women	297	169	97
<b>Province</b>			
Province of Genoa	163	74	55
Province of Parma	89	71	41
Province of Piacenza	55	34	15
Province of Reggio Emilia	191	119	62
Province of La Spezia	81	50	23
Province of Turin	429	263	197
Province of Vercelli	84	14	14
Provinces of Tuscany	23	n.a.	n.a.
Other provinces	176	261	205
<b>Position</b>			
Managers	5	4	5
Junior managers	13	9	9
White collars	507	248	178
Blue collars	766	625	420
<b>TOTAL</b>	<b>1,291</b>	<b>886</b>	<b>612</b>

Ratio of basic average salary by gender and position (%)	2022	2021	2020
	% Women/Men		
Managers	92.7	90.1	89.3
Junior managers	98.4	98.3	98.3
White collars	91.9	91.2	91.4
Blue collars	94.6	95.1	94.7

Ratio of basic average salary by gender and geographical area (%)	2022			
	% Women/Men			
	Managers	Junior managers	White collars	Blue collars
Piedmont	105.8	100.6	93.2	98.4
Emilia-Romagna	84.0	101.0	93.8	78.3
Liguria	80.0	98.5	91.2	94.0
Tuscany	n.a.	95.4	87.7	96.4
Other areas	n.a.	84.3	83.0	80.4

Injuries and work-related injury rates <sup>(1)</sup>	u.m.	2022	2021	2020
<b>Total number of injuries</b>	no.	468	385	334
of which high-consequence work-related injuries – non-fatal <sup>(2)</sup>	no.	2	3	0
of which high-consequence work-related injuries – fatal	no.	0	0	2
<b>Injuries by type <sup>(3)</sup></b>	no.	468	385	334
of which professional inj.	no.	361	203	240
of which road inj.	no.	40	38	31
of which incidental inj.	no.	67	144	63
<b>Frequency rate</b>				
(total number of injuries/hours worked x 1,000,000)	-	29.18	26.30	24.93
(total number of injuries/hours worked x 200,000)	-	5.84	5.26	4.99
<b>Frequency rate of high-consequence work-related injuries – non-fatal</b>				
(no. of non-fatal high-consequence work-related injuries/hours worked x 1,000,000)	-	0.13	0.21	-
<b>Frequency rate of high-consequence work-related injuries – fatal</b>				
(no. of fatal high-consequence work-related injuries/hours worked x 1,000,000)	-	-	-	0.15
<b>Days away from work due to injury</b>	days	14,343	12,836	11,033
<b>Severity rate</b>				
(days away from work due to injuries/hours worked x 1,000)	-	0.89	0.88	0.82
<b>Incidence rate <sup>(4)</sup></b>				
(total no. injuries/total no. employees x 1,000)	-	47.43	43.53	40.41
<b>Average injury duration</b>				
(days away from work due to injuries/total no. injuries)	days	30.65	33.34	33.03
<b>Medical treatments</b>	no.	24	18	24
<b>Commuting injuries</b>	no.	76	47	38
of which non-fatal	no.	76	47	38
of which fatal	no.	0	0	0

<sup>(1)</sup> Commuting injuries and those not recognised by INAIL are excluded from the work-related injury rates calculation.

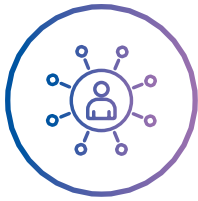
<sup>(2)</sup> Injuries lasting longer than 6 months.

<sup>(3)</sup> The internal classification distinguishes between:

- professional injuries: occurring as a result of activities closely related to the work task;
- road injuries: occurring during work-related travel in company vehicles;
- incidental injuries: occurring as a result of activities not strictly related to the work task.

<sup>(4)</sup> The incidence rate is calculated considering the average number of employees.

Injuries by gender (no.)	2022	2021	2020
Men	349	297	255
Women	119	88	79
<b>TOTAL</b>	<b>468</b>	<b>385</b>	<b>334</b>



# Our suppliers

[GRI 2-6, 2-23, 2-24, 3-3, 204-1, 308-1, 308-2, 403-1, 403-2, 403-3, 403-5, 403-7, 403-8, 403-9, 407-1, 408-1, 409-1, 414-1, 414-2, G4-EU17, EU18]

The Group’s strategy is also expressed through sustainable supply chain management, with the aim of creating value over time for the company and its stakeholders. By managing and improving its environmental, social and economic impacts and ensuring good supply chain governance, the Group acts not only to achieve its strategic objectives and to generate a positive reflection on its resilience and competitiveness, but also in the interest of stakeholders and society at large.

## Sustainable management of the supply chain



### Risks

- Qualification in the Register of a supplier not complying with the Group’s quality/sustainability standards
- Professional injuries and work-related illness of employees of third party companies
- Non-compliance with health and safety regulations by suppliers
- Violation of the Code of Ethics and current regulations by suppliers with relative reputational impacts
- Behaviour of suppliers that does not comply with human rights standards and the values of diversity and inclusion
- Supplier behaviours that do not comply with the Group’s environmental regulations and policies



### Opportunities

- Integration of ESG factors in the supplier qualification process
- Contribution to the improvement of ESG profiles of SME suppliers



### Management methods

- Vendor management system with ESG criteria
- Code of Ethics
- Organisational model 231 and information flows to the Supervisory Bodies
- Compliance with social standards for the supply chain
- Monitoring of potentially sensitive contracts concerning environmental protection and health and safety at work
- Supply chain monitoring on workers’ rights and human rights
- Procurement audits
- Contracts that enhance the work of disadvantaged personnel
- Legality protocols with the Prefectures for the prevention of attempts by organised crime to infiltrate public works contracts and concessions
- Procedures: Group Procurement Consolidation Act; Management of procurement safety obligations; Management of injuries, near misses, company accidents; Methods for implementing suspension and/or exclusion from the Supplier Register; Whistleblowing

Iren Group recognises the importance and value of governing the environmental, social and economic dimensions along its supply chain, in line with national, European and international guidelines to foster a sustainable economy.

The focus on identifying and managing the positive and negative impacts produced by business activities and the supply chain on the environmental, social and governance levels is central to the Group's attention. In this direction, in 2022, the Group launched a project to assess the maturity of its sustainable supply chain management and drew up an action plan with the intention of going beyond the commitments already made and taking a leading role with respect to its supply chain with a view to sustainable and resilient development, accompanying its suppliers along the way and enhancing the capacity of the area and local companies.

Management of the supply chain is the responsibility of the Procurement structure, within the Procurement, Logistics and Services Department, which operates for all Group companies. The Business Units that predominantly contribute to the order volumes are Networks, Energy and Waste Management, and most of the order volume is attributable to a small part of the supplier base, among which there is a high incidence of small companies and social cooperatives.

To pursue its growth strategy, based on the values of the Code of Ethics and committed to achieving the Sustainable Development Goals of the UN 2030 Agenda, the Group adopts a structured procurement process consistent with the principles of free competition, equal treatment, non-discrimination, transparency, proportionality and publicity, in the cases envisaged by the law, as well as inspired by respect for human and workers' rights, health and safety, and environmental protection, to which utmost importance is given.

The process is also based on the traceability of information, by means of IT systems, on the rotation of suppliers, in order to guarantee the best competitive dynamics aimed at effectiveness and efficiency, and on the segregation of duties. The procurement process refers to the following steps:

- vendor management: aimed at the qualification and management of suppliers to support the procurement process, through a Supplier Register system;

- analysis and planning developed, as a rule, at the strategic planning and budget stages;
- purchasing through private and public procedures, carried out through the Group's Procurement Portal, in the manner set out in the Public Contracts Code (Legislative Decree 50/2016);
- post-allocation contract management through support and possible training to the contract manager in the application phase, where required or necessary;
- vendor rating for the evaluation of supplier performance.

The Group's online Procurement Portal, through which public procedures and procedures for invitation to tender are managed, and the Supplier Register, divided into product categories which are functional to business needs, allow for better monitoring of the supply chain, which is a strategic aspect in the management of Group's business activities.

**The Group has adopted various tools to broaden supplier involvement in the sustainable development approach**

The Procurement Portal constitutes an important opportunity for economic operators interested in becoming suppliers of the Group, increasing opportunities for involvement.

To guarantee absolute transparency and disclosure concerning engagement rules, the rules for admission to the Supplier Register, the participation rules for managed negotiation events and the general conditions of use for the platform are published on the Portal. A technical assistance service for the use of the portal is also provided for economic operators who request it.

All parties involved in any capacity in the procurement process are required, each within the scope of their jurisdiction, to scrupulously comply with the provisions of the law, the Group's Code of Ethics and Model

231, as well as company procedures, particularly concerning the transparency and traceability of transactions and the confidentiality of any information they become aware.

## Qualification, selection and monitoring of suppliers

The supplier qualification system of the Group aims to guarantee that products, services and works are able to ensure quality and reliability.

The supplier selection and management process is based on the principles of transparency, clarity, integrity and non-discrimination. The qualification process considers qualitative aspects and those related to sustainability, with particular emphasis on social and environmental issues and compliance with the principles and values contained in the Code of Ethics, which must be accepted by all bidders, without the possibility of making exceptions or changes.

Within the scope of contracts subject to the Public Contracts Code, art. 30 "Principles for the award and execution of contracts and concessions" requires economic operators to comply, when executing them, with environmental, social and labour obligations established by European and national legislation, collective agreements or international provisions listed in Annex X, including: ILO Conventions 87 (freedom of association and protection of the right to organise), ILO 98 (right to organise and collective bargaining), ILO 100 (equal pay), ILO 111 (discrimination in the field of labour and employment) ILO 29 (forced labour), ILO 105 (abolition of forced labour), ILO 138 (minimum age) and ILO 182 (worst forms of child labour), the Vienna Convention (protection of the ozone layer) and the Montreal Protocol (ozone-depleting substances). Explicit declaration of compliance may be requested in tender documents.

All Group contracts require that suppliers certify that they meet the general requirements and that, consequently, they have not been convicted of, among other things, offences involving the exploitation of

child labour and other forms of human trafficking as defined in Legislative Decree 24/2014. In the case of public tenders, any finding of non-compliance is grounds for contract termination and reporting to ANAC (National Anti-Corruption Authority).

Within public contracts for amounts of community interest, supplier selection is carried out, for each tender, by indicating the requirements of economic-financial and technical capacity in the calls, which are directly linked to the activity to which the call refers. These requirements must be proportional and such as to ensure competitiveness, according to the regulations in force. Furthermore, it is also possible to establish qualification systems for the tender notice by publishing a community notice. After the selection has been made using the qualification systems, negotiated procedures can be carried out, in accordance with the protocol defined by the founding regulations of the system.

In the context of public procurement procedures, the lack of criminal convictions is also verified (by indirectly consulting their Criminal Record and Record of offence related administrative sanctions) which, by nature and severity, entail the exclusion from contracts and sub-contracts (including offences related to safety, the use of child labour, etc.).

Together with the Prefectures of Reggio Emilia, Parma, Piacenza, Genoa and Turin, Iren Group has also executed "Legality Protocols" that aim to expand monitoring of enterprises in terms of the anti-Mafia laws, even beyond the cases envisaged by regulations. Based on these Protocols, contractors and subcontractors are monitored and, if they do not comply with the prefectural notices, they are excluded from contracts.

## For more extensive monitoring of supplier companies, the Group has signed Legality Protocols with the Prefectures



With reference to assignments attributable to excluded contracts (so-called “below the threshold”) or unrelated to the procurement and concession code, Iren Group uses supplier qualification procedures that provide for the compilation of a specific questionnaire divided into chapters relating to the company profile (with attestation of information relating to turnover, certifications, etc.), information on economic-financial capacity (financial statements ratios), information on operational-organisational capacity and insights into environmental, health and safety and corporate social responsibility aspects. More specifically, for this last section, the supplier is required to declare:

- if, in line with UNI ISO 26000 guidelines on corporate responsibility, company initiatives to develop a socially responsible approach to business planning and management have been identified and, if so, to describe the initiatives adopted;
- if the supplier publishes its Sustainability Report and, if so, to indicate where it can be found, or to attach a copy or excerpt of the significant sections;
- if the supplier is willing to carry out a CSR Audit, in the instance it were to sign one or more contracts with the Group, and if it is willing to take part in Iren’s annual CSR survey (➤ [SEE PAGE 321](#)).

Also required is a declaration of lack of serious violations, definitively ascertained, with respect to obligations relating to the payment of taxes, or social security contributions, according to Italian law or that of the State of establishment and serious violations, duly established, to the rules on health and safety at work.

## Supplier social and environmental responsibility profiles are evaluated through the certification process



To be qualified for the Supplier Register, the verification of being in possession of valid certifications, issued by independent bodies (i.e.: ISO certifications, SOA certifications, etc.), as well as the possession of economic eligibility requirements of the tender, is required.

Furthermore, certain budgetary indicators are acquired via companies specialising in commercial information (both for corporations and partnerships), which contribute to determining the supplier’s score for qualification purposes. The current provisions provide for the invitation of at least 5 suppliers among those included in the Supplier Register for “below the thresholds”, in order to guarantee competitiveness.

From the point of view of environmental protection, during qualification all potential suppliers of the Group are required to provide evidence of:

- possession of ISO 14001 certification (issued by a recognised accreditation body);
- possession of Emas Certification;
- possession of an Environmental Product Declaration – EPD;
- possession of energy management systems in compliance with the ISO 50001 standard;
- possession of one or more environmental labels (EU Ecolabel, FSC, PEFC, Plastica Seconda Vita, ANAB– ICEA, Natureplus® Certification, CIC Compostability);
- the use of products from one or more of the labels mentioned above in the production process or service rendered, or of another label that highlights a focus on lowering the environmental impact;
- the use of suppliers holding ISO 14001 and/or Emas Certification in the production process or service rendered;
- the use of work instructions that govern the management of waste, including hazardous waste, packaging and packaging waste in the production process or service rendered, from their temporary storage to their disposal within the contract;
- the use, with reference to the categories of products indicated by the supplier, of recycled or recyclable material, with low emissions and low energy consumption;



- the adoption, with reference to the categories of products indicated by the supplier, of specific procedures for the storage and collection of recyclable materials in order to guarantee recycling;
- the availability, with reference to the categories of products indicated by the supplier, to recover or retain packaging after delivery to be reused and to decommission products to be replaced with proof of their disposal through the recovery of the material;
- evidence of enrolment in the National Register of Environmental Managers.

From the 1,124 qualified suppliers in 2022, 74% (836 suppliers) reported possession of at least one of the above environmental profiles.

In addition, specific questionnaires were administered to suppliers in the product categories for which compliance with minimum environmental criteria, defined by the Ministry of the Environment and Energy Security, is required. During 2022, 75 suppliers were analysed under these environmental profiles.

## CSR SUPPLIER SURVEY (2022 EDITION)

Iren Group directly involves its suppliers in sustainability management processes to achieve mutual growth, intending to improve performance.

In 2022, the Group carried out the fifth corporate social responsibility survey of 4,124 suppliers, through a questionnaire that explores how environmental, social and governance (ESG) policies are managed. In this new edition, the questionnaire has been expanded in order to capture in a more timely manner the results produced by the ESG policies adopted by the supply chain.

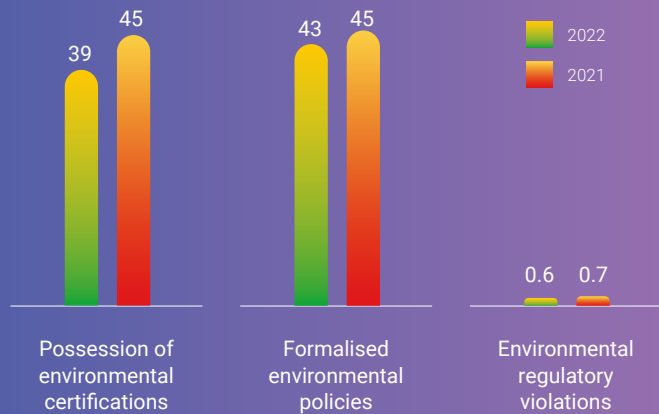
Furthermore, the survey saw a greater involvement of suppliers belonging to the category of micro-enterprises with fewer than 15 employees (50% of the total respondents) and a turnover of less than 1 million Euro (35% of the total respondents). The different composition of the responding company base and the new features introduced by the questionnaire are reflected in the results summarised in the following graphs.

Of the **1,188 suppliers** that took part in the survey (29% of the total, up from 26% in 2021), **23% defined priority ESG topics**, of which the five most recurring were worker **health and safety**, human resources **training and development**, **energy efficiency**, **decarbonization** and **diversity and inclusion**.



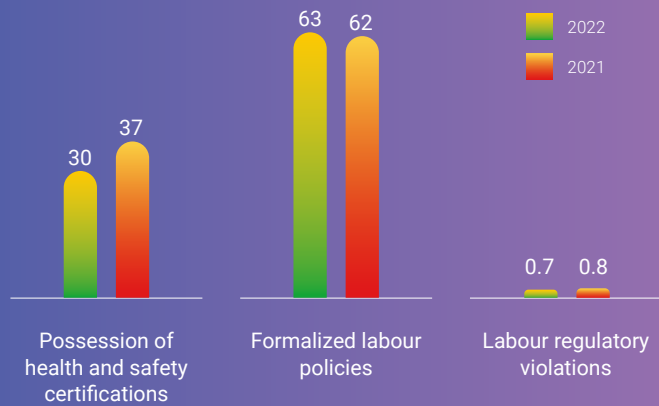
ENVIRONMENTAL ASPECTS (% ON TOTAL)

43% of respondents have a **formalised environmental policy** with commitments regarding: **waste management** (31%), **energy consumption** (28%), **water management** (20%) and **emissions** (14%). Moreover, 27% of respondents have a policy that engages their suppliers on environmental sustainability issues.



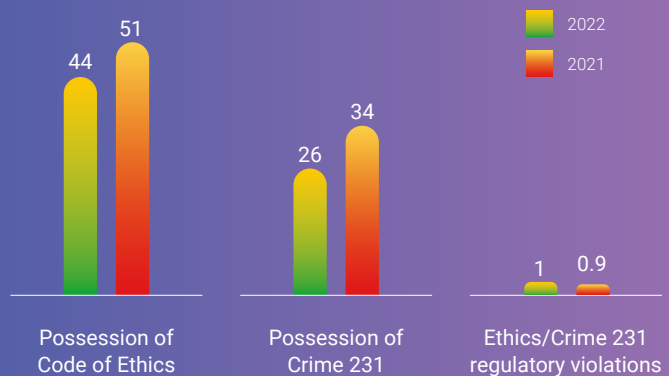
SOCIAL ASPECTS (% ON TOTAL)

63% of respondents have **formalised human resources management policies** related in particular to: **employee health and safety** (59%), **working conditions** (32%), **recruitment management, training and career development** (27%), and **diversity and inclusion** (14%). 33% adopt formalised **human rights** policies and 21% state that they have identified a person officially responsible for human rights issues (➤ FOR MORE DETAILS SEE PAGE 80).



GOVERNANCE ASPECTS (% ON TOTAL)

44% of the respondents have adopted a **Code of Ethics** and/or conduct, which in 27% of cases is referred to in the contracts concluded by the company, while 26% adopt an **organisational model in accordance with Legislative Decree 231/2001**. 16% are included in the list of companies with a **legality rating** published by the Antitrust Authority.



Finally, responding suppliers report the adoption of formalised policies on: **customer privacy** (44%), **information security** (33%), **anti-bribery and corruption** (28%), **conflict of interest** (20%) and **anti-money laundering** (19%).

Among the most significant activities carried out in 2022 to improve supply chain management is the implementation of automated systems for the acquisition, during qualification, of general and tax data, chamber of commerce reports, invoices and the number of employees of potential suppliers.

Being part of Iren Group's Supplier Register means sharing the reputational and sustainability values that are the founding elements of the Group's policy, sharing for which the willingness of suppliers to report on CSR profiles is required, with a view to rewarding the willingness shown, and which entails the development of a partnership path that may envisage, over time, the identification of binding qualification profiles, with a view to continuous improvement.

## Being part of the Supplier Register means starting a path of partnership with Iren Group



Many contracts envisage the allocation of technical scores awarded on the basis of environmental impact when carrying out the job, such as rewarding the adoption of impact mitigation measures at sites (dust, noise, traffic) or during the provision of the service (using low-emissions vehicles).

Compliance with the provisions related to the environment from contractors and subcontractors is required in the specifications. Furthermore, in regards products, the Group promotes the selection of recyclable, renewable materials that minimise waste production and favour production systems with a low environmental impact. Some technical specifications also provide for the purchase of fair trade products. Goods are tracked when the specifications require that they are sourced from a specific location.

If, in carrying out the activities that are the object of the contract, the contractor should generate situations of pollution, Iren Group asks to implement all the necessary interventions for the safety, reclamation and environmental restoration of the area. In case of non-compliance with the environmental obligations, Iren can order the immediate suspension of the activities until the safeguard measures have been adjusted, without this resulting in requests for compensation for the interruption of the services (site stoppage, lack of profit and any other charge connected directly or indirectly) nor constituting grounds for any extension of the contractual terms. This is without prejudice to Iren's right to terminate the contract, without prejudice to the right to bring the consequent actions for compensation and damages.

The contractual documentation expressly prescribes that the supplies and services subject to the contract are carried out in compliance with the **minimum social standards in terms of human rights** and working conditions along the supply chain as defined by the fundamental Conventions of the International Labour Organisation and the United Nations General Assembly - on health and safety in the workplace, definition of minimum wage, working hours, social security, human rights, child labour, forced labour, discrimination, trade union freedom and the right to collective bargaining - and by the national legislation in force in the countries where the stages of the supply chain are carried out (➤ [SEE PAGE 80](#)). Said contractual commitment, already undertaken during the tender through the signing of a special declaration, involves, in case of violations, the application of a penalty, without prejudice to the right to terminate the contract.

The monitoring and verification of compliance with the provisions of the contracts, in terms of both environmental and social and safety aspects, during the execution of the works, are under the control of the Group's Works Management. Control occurs on two levels:

- the first is documentary and involves checking the consistency and existence of all the documents declared in the contract;
- the second is, on the other hand, the monitoring directly on the site of execution of the work, by the Directors of Works of the Business Units and by the site assistants, of the compliance with the contractual conditions and rules in force by the contract workers operating within the site.

Qualified suppliers that have been awarded a tender are assessed by the internal departments that manage contracts and directly monitor the conduct of the supplier when carrying out the contracted works. This assessment generates a score, which is added to the qualification score. Any continuous negative outcome or serious failure in the execution of the work, which the Procurement, Logistics and Services Department is notified, will lead to the suspension and subsequent exclusion from the Supplier Register for a set period.

During 2022, a total of 1,223 suppliers were evaluated, of which 1,124 successfully qualified.

## Employment in supplier companies

Iren Group, aware of the importance of work to ensure the social development of the context in which it operates, contributes to maintaining the employment level not only for its employees, as illustrated above, but also by promoting the development of the companies to which services, interventions and works are contracted, requiring adequate guarantees from them in terms of personnel and safety policies, through the application of some of its own standards; moreover, the Group often offers employees of supplier companies the opportunity to use certain company services and to participate in training/information initiatives managed by the Group.

Particular attention is paid during the assessment stage to compliance with the regulations relevant to the correct application of the employment contracts and the payment of the relevant mandatory insurance and social security contributions; the specifications provide for the obligation of the supplier to comply with the laws concerning the protection of the workers and the National Collective Labour Agreements in force and applicable to the sector of reference. These obligations are controlled through the regular acquisition of DURC (statement of correct fulfilment of welfare contribution obligations) and the documents provided by occupational safety legislation (OSP – Operational Safety Plan, and DUVRI – Interference Risk Assessment Document).

In the case of non-compliance with remuneration and social security contributions, the laws of alternative means are applied, meaning employees and social security funds are paid directly and these amounts are deducted from the amount paid to the contractors. Subcontracts are also authorised and monitored in compliance with the law. As well as fully implementing the regulations for employee health and safety, in many contracts the score attributed by the Group focuses on the commitment of the contractor to ensure, in line with the provisions established by the

collective labour agreement (social clause) and with the organisation it intends to implement, occupational safety through the hiring of the personnel of the outgoing contractor (the latter may be scored for the maintenance of the resources used). Furthermore, in regard to Contact Centre services, the awarding tenders state that the personnel costs cannot be lowered.

In order to participate in the public tenders of Iren Group, companies must comply with the obligations provided by Law 68/1999 on the recruitment of disabled workers. All the Group's specifications include clauses designed to control the problem of undeclared employment, with regard to tendering and subcontracting.

During qualification procedures for the Register, and concerning information on operational and organisational capacity, companies are requested to indicate the number of employees on permanent and fixed-term contracts and to specify the ratio of permanent employees to the total number of employees, a ratio that increases the score in a directly proportional manner.

For tenders, Group contracts state that the contractor is responsible for complying with current sector legislation. As the contract is characterised by the assumption of the responsibility to achieve a result, the contractor is entrusted to organise the means and workforce needed to attain said result. In the context of public tenders, the bidder is required to specify the applicable National Collective Labour Agreement and the number of hours estimated for the performance of the contract. If an obvious anomaly were to become apparent when verifying the sustainability, the cost of the workforce employed to carry out the tender would also be investigated.

## TRAINING AND INFORMATION ACTIVITIES

**452**  
hours of  
training to  
third-party  
companies

In 2022, the Group provided a total of 452 hours of training to third-party companies, including on occupational health and safety, with the involvement of 103 employees of the companies themselves. The main initiatives concerned the illustration of operational procedures and techniques related to the types of electricity and water distribution plants.

## Supplier health and safety

Attention to occupational health and safety aspects is extended to contractors and self-employed workers through prior qualification of suppliers, contractual provisions, safety documentation and on-site monitoring. During qualification in the Supplier Register, the following aspects are investigated through the evaluation questionnaire:

- the existence of a Prevention and Protection Service, either within or outside of the company;
- the appointment of a Safety Contact that deals with individual contracts/orders;
- monitoring of data relating to the number of injuries that the company has recorded in the last three years and any criminal proceedings for breach of health and safety regulations;
- benefit, at least once in the last 3 years, of the INAIL rate reduction (ref. OT24 FORM);
- availability of an Occupational Health and Safety Management System certified pursuant to art. 30 of Legislative Decree 81/08 (of the 1,124 new suppliers that qualified during 2022, 204 declared to have such a tool; the total number of suppliers with a health and safety management system thus amounts to 2,069 out of a total of 8,310 qualified suppliers);
- existence of a training programme on the subject and systematic verification of the degree of learning achieved by each worker after each training event;
- the integration of Italian language courses within foreign workers' training.

In day-to-day management, specific measures for the protection of health, safety and hygiene at work are required in contracts.

In fact, tender and contractual documentation must include the Safety and Coordination Plan (SCP) and the Interference Risk Assessment Document (DUVRI). Further obligations of occupational health and safety to be implemented in the operational management phase of the contracts are defined by specific procedures.

In contract situations or, more generally, where third parties operate at Group sites, the relevant documentation required to identify and communicate information on workplace risks and prevention measures, as well as any interference risks relating to the performance of activities by third-parties in those sites, is prepared.

This documentation is prepared according to procedures specific to each Business Unit, in order to make the process as appropriate as possible to the characteristics of the individual contracted activities. The ISO 45001 certified systems adopted by the Group companies are defined, documented and implemented in order to guarantee systematic control of aspects relating to the health and safety of both employees and workers of third-party companies operating on behalf of the Group, also thanks to procedures for controlling the operating methods adopted by contract workers in relation to compliance with safety requirements.

Furthermore, the Group carries out monitoring and control inspections on the activity carried out by the personnel of third-party companies working on construction sites and in plants, related to aspects of safety and hygiene at work. The monitoring of activities is guaranteed by internal supervisory inspections by the Works Management (pursuant to art. 26 of Legislative Decree 81/2008) or by the Coordinator during the execution phase (on temporary and mobile construction sites pursuant to Title IV of Legislative Decree 81/2008).

The Group procedure for the management of injuries provides for a specific injury reporting form for the personnel of third-party companies, through which these companies are required to inform the Group of any injuries occurring as part of the activities carried out on behalf of and /or in environments of which the Group has legal availability.

The compilation of the form requires the involvement of the supplier company and the Works Management; information regarding the situations resulting in injury are collected in a database and subjected to in-depth analysis by the Prevention and Protection Service, also in collaboration with the Works Management.

In 2022, 73 third-party injuries were recorded, up from 2021, as a result of both the expansion of the Group's perimeter, which entailed a greater number of contracted activities, and the constant outreach to contractors to report all injuries of their workers. It should be noted that a fatal injury occurred during the year involving a worker from an outside company at the construction site for the expansion of a waste treatment plant, which is currently being investigated by the competent authorities.

Third-party injuries <sup>(1)</sup>	u.m.	2022	2021	2020
Total number of injuries	no.	73	47	33
of which high-consequence injuries – non-fatal <sup>(2)</sup>	no.	0	0	0
of which high-consequence injuries – fatal	no.	1	0	1

<sup>(1)</sup> Commuting injuries and those not recognised by INAIL are excluded.

<sup>(2)</sup> Injuries lasting longer than 6 months.

## Supplier portfolio and purchase volumes

**5,226**  
suppliers

In 2022, purchase orders were issued to 5,226 suppliers for more than 1,760 million Euro (44% of purchase volumes related to services, 39% to works and 17% to supplies).

**1,760**  
million Euro  
purchase  
orders

Orders have a continuous evolution from year to year, justified by various aspects such as, for example, changes in requirements determined by changes in the company perimeter, the incidence of investments and multi-year contracts and the strategic choices of the purchasing functions.

## IMPACTS ON THE LOCAL AREAS

Sourcing of suppliers in the local areas of reference is well-established, both in terms of the number of active suppliers (54%), as well as the economic value of the orders (56%).

This data highlights the importance of the effects of Iren Group on the territorial areas of reference. Within the context of public tender procedures, in compliance with current legislation and Community principles

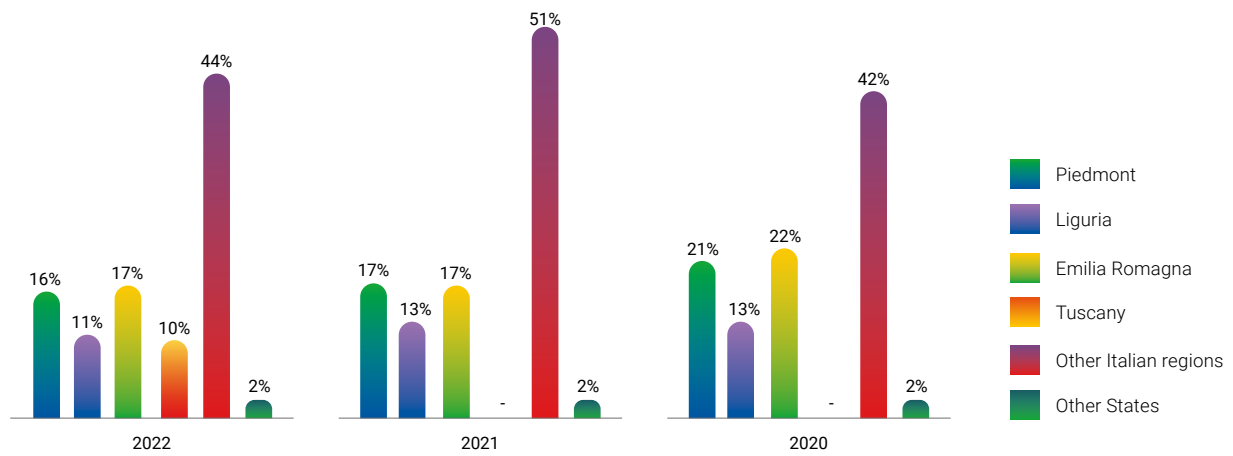
which require that all companies can compete, no matter their location, the Group does not select suppliers by geographical origin, but on quality and economic criteria, favouring the best value for money as the determining factor.

In order to guarantee an adequate level of competition, where feasible, the Group arranges the tender into functional lots, so as to allow separate awards and greater participation by economic operators, including those that are small and medium enterprises. Nonetheless, with reference to the instrumental tenders, which are carried out via invitation, or irrelevant to the Contracts and Concessions Law, Iren Group reserves a 50% share for local economic operators with suitable qualifications that are present in the Register when identifying the panel of qualified suppliers to invite to the tender. This measure aims to favour local development and, consequently, social cohesion.

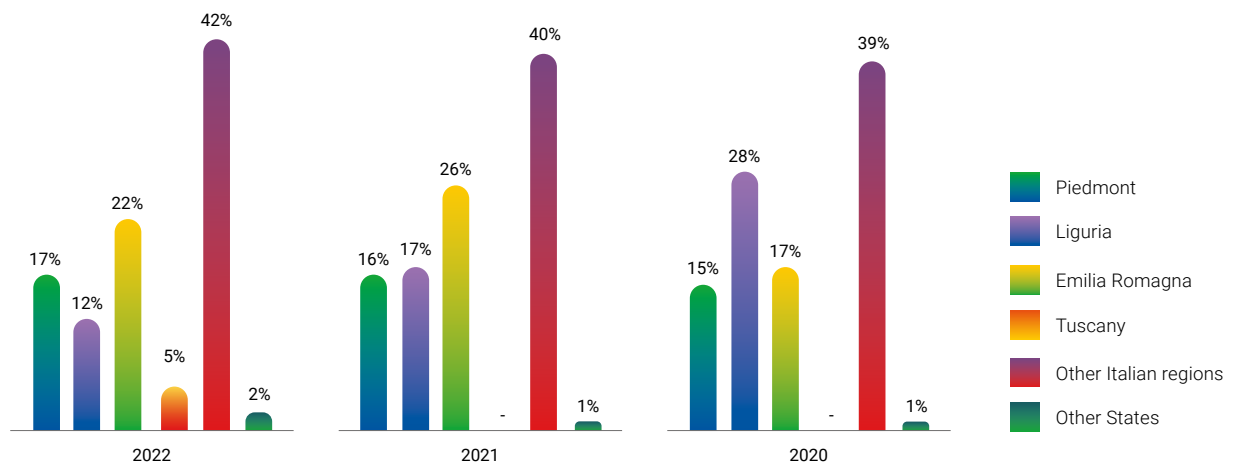
The local economic impacts generally occur due to subcontracting to local companies – within the limits allowed by law – that are able to work on a portion of the activities and apply more competitive prices given that they are already present in loco and guarantee efficient services due to their knowledge of the area.

The large number of suppliers by geographical area and the relevant volumes ordered are shown below and refer to all purchases with exclusion of contracts for the supply of raw materials.

SUPPLIERS BY GEOGRAPHICAL AREA (% OF NUMBER)



SUPPLIERS BY GEOGRAPHICAL AREA (% OF EURO)



## SOCIAL COOPERATIVES

The Group supports social cooperatives whose main aim is to ensure the incorporation of disadvantaged people within the world of work.

Social cooperatives are active in particular in waste collection and environmental hygiene services. Within the general qualification questionnaire, suppliers are asked if the company's main purpose is the social and professional integration of disadvantaged people or those with disabilities (pursuant to art. 4, subsection 1, Law 381/1999 "Social Cooperatives Regulation").

In the Procurement Portal, the number of social cooperatives for 2022 amounts to 71; of these, 32 worked with Group companies during the year.

The overall order amount to social cooperatives was over 40 million Euro, double compared to 2021 and represents 2.3% of the total value of Group orders.

The order trends can vary significantly from one year to the next in relation to the signing of multi-year contracts, including ones for significant sums.

Social Coop.	2022	2021	2020
Suppliers (no.)	32	35	24
Orders (Euro)	40,443,440	20,944,620	22,209,800

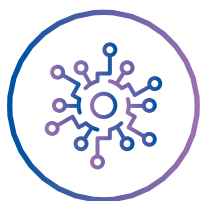
## DISPUTES

In 2022, 4 lawsuits were definitively closed. They were brought by employees of former suppliers/contractors of the Group against their employer for non-payment of wages, and in which Iren Group was held liable according to and for the effects of joint and several liabilities.

In these cases, since the plaintiffs' employer failed to execute the judgement, the Group was forced to pay the amounts owed to the employees directly and subsequently implemented all suitable measures for the recovery of the amounts paid.







# Innovation and digitalisation

[GRI 2-23, 3-3]

The aim of Iren Group’s approach to innovation is to improve service quality, building relationships between material infrastructures and human capital, both intellectual and social, thanks to the use of new technologies, in order to improve quality of life and meet the needs of residents, companies and institutions. All actions are focused on the local areas in which the Group works, collaborating with local communities to develop smart cities.

## Innovation e smart cities



### Risks

- Failure to achieve the objectives and targets (economic-financial and ESG) set out in the Business Plan and consequent negative impacts (operating, economic, financial and reputational)
- Delay in technological change with effects on performance and competitive ability
- Loss of business opportunities



### Opportunities

- Accelerating digital transformation
- Business opportunities related to technological evolution in the field of green transition
- Partnerships with innovative start-ups
- Participation in territorial systems for smart cities
- Reducing environmental impacts on the local area



### Management methods

- Planning and monitoring of business plan objectives and targets (economic/financial and ESG)
- Code of Ethics
- Group innovation plan and related investments
- Iren UP Cleantech Venture programme
- Iren Innovation Lab

## Iren innovation model

Innovation in Iren Group is central to the strategic choices and the definition of the products and services offered. The Business Plan envisages significant investments in new technologies and for digitalisation, which will be implemented in the development of all operating sectors, with the aim of making the Group an example of excellence in the multi-utility sector.

In line with the pillars of the Business Plan, the main innovation activities are aimed at **researching and adopting technologies and processes to support the sustainable development** of the businesses managed.

Iren Group manages innovation processes through an **open innovation** model and, consistently, has launched profitable collaborations with Universities, research centres, innovation hubs and start-ups. It also actively participates in working groups and associations on specific research and development topics and promotes events such as workshops, hackathons and conferences, recognising the importance of stakeholder involvement and participation in innovation processes.

In 2022, **Iren Innovation Lab** was activated, a project born from the collaboration between the Innovation, Communication and Personnel and Organisation Departments, which hosts all the Group's open innovation initiatives, making it possible to further strengthen the culture of innovation at all levels of the organisation and to extend the innovation ecosystem beyond the territorial boundaries of reference. During the year, Iren Innovation Lab saw the launch of numerous initiatives, both internal and external. As part of the **internal initiatives**, the [innovationlab.gruppouren.it](https://innovationlab.gruppouren.it) platform was developed and put online, the operational tool supporting open innovation, where challenges can be launched and applications and material collected from Group employees. The first experience developed on the platform was a **Call4Need** addressed to around 900 managers and key structures of the Business Units, with the aim of gathering the needs for innovation to be conveyed on the Wazoku Crowd platform, the largest crowdsourcing innovation platform, or to be addressed on other tools. The call saw the application of approximately 70 needs, a part of which will be placed on the Wazoku platform. In June 2022, the first **Call4Ideas** was launched, which gave employees the opportunity to submit their own innovation ideas, concerning new solutions to strengthen the Group's positioning, launch new businesses and improve existing processes or ways of working. The initiative collected 150 spontaneous applications from which the 20 most relevant to the

objectives of the Call4Ideas were selected and included in a development and pre-acceleration programme with dedicated teams in a training course lasting several months.

In addition, **Ideas Workshops** were launched: work groups, on a voluntary basis, made up of employees with transversal skills to work on frontier macro-themes, in order to identify solutions to business problems and needs. In November 2022, the first Ideas Workshop on the subject of CO<sub>2</sub> capture, storage and use was launched, for which 80 employees spontaneously applied and 16 were selected. Finally, also on the internal initiatives front, a thematic newsletter on innovation was launched in 2022 and addressed to 870 key managers and structures of the Business Units.

As far as **external initiatives** are concerned, the Group has activated a collaboration with Wazoku, an international reality made up of over 600,000 innovators (students, researchers, experts and technology enthusiasts, scientists, startups and SMEs) ready to receive the challenges launched by the most important companies worldwide. As part of the collaboration, **challenges** have been and will be launched regularly defined in synergy with the Business Units, to which a cash prize is associated, which will only be paid to those who will be able to propose a solution deemed valid and significant by Iren Group. The start of the collaboration saw the simultaneous training of Group managers and employees and the launch of the first challenges, following the Call4Need described above, which focused on the issue of energy transition, with particular attention to the reduction of emissions and energy consumption in sludge treatment and new ways of installing photovoltaic panels in complex terrains, such as landfills.

The platform supporting open innovation was also used to collect more than 230 applications for degree and doctoral theses for the **Iren ESG Challenge** prize, which awarded 10 deserving papers (» [SEE PAGE 121](#)).

2022 was also characterised by the continuation of technical activities related to the Group's various co-financed projects and by the development, in partnership with innovative companies and Start-ups, of internal technological projects on the basis of planning which, starting from an analysis of the long-term scenario, is aimed at giving the Group the tools needed to seize the

opportunities and mitigate the risks deriving from the evolution of the markets in which it operates.

The activities of **Iren Up, the Corporate Venture Capital programme**, launched in 2018 with the aim of supporting the highest potential Italian start-ups in the cleantech sector, from clean technologies to the circular economy, continued. The programme provides for direct and indirect investments with different tickets depending on the life phase of the start-up and needs. In line with the Business Plan, the programme was enriched by the collaboration with CDP Venture Capital Sgr; in particular, Iren invested in Tech4Planet, the National Technological Pole dedicated to sustainability, which was created from the collaboration with Cassa Depositi e Prestiti (CDP). This operation will enable the Group to make investments in university-based start-ups in a fast and structured manner, multiplying opportunities for innovation. In addition, the management of the existing portfolio continued in 2022, with the support of start-ups already participated in by the Group.

After a two-year hiatus, due to the Covid-19 emergency, a new edition of the **Iren Startup Award** was launched in 2022, the competition conceived by the Group to support the development of start-ups with the highest innovation potential. The 2022 edition, promoted in cooperation with Circular Economy Lab - a project of Intesa Sanpaolo Innovation Center and Cariplo Factory - is dedicated to cleantech innovation for the circular economy ("Call4Circular | Circular products and materials"). After the initial scouting phase of the applications received, suitable projects will be selected for the development of a use case in collaboration with the Group, which will offer dialogue sessions with businesses - to prepare start-ups for entering the market, enabling them to engage directly with players in the innovation ecosystem - and collaboration in the field. Scouting activities were carried out also through collaboration with local and international accelerators, trade associations and investment funds.

As part of its networking activities and participation in the external innovation ecosystem, Iren has taken part in initiatives such as SMAU, Elis, Startup Intelligence of the Milan Polytechnic, the House of Emerging Technologies, acceleration programmes (Techstars and Digital Magics) and regional competitions dedicated to start-ups in Emilia-Romagna and Liguria.

Among the initiatives in which Iren has participated, bringing its contribution in terms of process innovation and applied research, there are also the collaborations with the Competence Centres (promoted by the Ministries of Economic Development and Economy) in Turin and Genoa.

Lastly, Iren received the **Smau 2022 Innovation Award**, for the project for the treatment of old monitors and TVs carried out at the plant in Volpiano (TO), in collaboration with the start-up Hiro Robotics.

## RESEARCH AND INNOVATION PROJECTS

In 2022, the Group actively took part in **20 research and innovation projects for a total multi-year commitment of around 8.8 million Euro**, of which half was financed by research and innovation tenders managed by institutions such as the European Union, the Italian State and its bodies and Regions (for example, Horizon Europe, MIUR, MATTM, POR FESR, etc.).

Over the year, these projects involved for Iren investments of around **1,900,000 Euro**, of which **approximately 910,000 Euro was funded through tenders**. These projects actively involve around 120 Group employees from different business areas, and guarantee collaborations with numerous businesses and academic institutions located in over 100 European cities. All research projects are aimed at sustainable development and work on actions in line with the Group's objectives, including, for example: studies of tools and technologies to support the decarbonization of energy production and district heating networks, solutions for CO<sub>2</sub> capture, hydrogen-fuelled technologies, development of electric vehicle charging infrastructures, flexibility analysis and demand-side management also in relation to the issue of energy communities.

The evaluation of impacts and the monitoring of results are fundamental elements of the funded project and constitute one of the contents of the reporting of each individual project. In the medium and long term, Iren continues its monitoring and evaluation activities in order to increase the effectiveness of the design results.

## Project

## Description

### Prelude

(European Horizon 2020 programme)

Testing of innovative solutions in building and plant management, maximising the interaction with users to optimise consumption. Iren Group, under the co-ordination of Iren Smart Solutions, is in charge of the development of the Italian pilot, which focuses on a residential building in Turin and, in particular, on the tenants of 8 flats that have been equipped with different levels of sensing, implementation and direct feedback on the inhabitants (via App or similar).

### CaLby2030

(European programme Horizon Europe)

Demonstration of CO<sub>2</sub> capture systems based on Calcium Looping (CaL) circulating fluidised bed (CFB), starting with three pilot plants in Europe operating under industrially relevant conditions and projecting this technology towards large-scale commercial implementation in major high-emission sectors by 2030 (target sectors: steel, cement, WTE).

### Data Cellar

(European programme Horizon Europe)

Development of a platform (Data Space) capable of collecting data from different sources operating in the energy community sector, in order to enable new business models related to data interchange. Iren is in charge of providing the use cases of the Italian pilot represented by two energy communities, one in a rural and one in an urban environment.

### flexCHESS

(European programme Horizon Europe)

Study of the integration of demand flexibility sources within electricity grids characterised by intermittent and unpredictable sources such as renewables. The project will investigate the use of energy storage system (ESS) combinations of different kinds (e.g. batteries, flywheels, electric vehicles) for balancing networks both at a local level (energy community or DSO level) and at a systemic level (TSO level). The group will work mainly on the Italian pilot, coordinated by Algowatt, that has been preliminarily identified in Turin, evaluating the flexibility offered by a reversible heat pump for heating and cooling in a multifunctional building and by smart charging of electric vehicles.

### Chester

(European Horizon 2020 programme)

Development and integration of an innovative Power-to-Heat-to-Power solution to maximise the exploitation of non-programmable electricity Renewable Energy Sources (RES) and thermal RES already combined with district heating systems. The system is the subject of an in-depth technical-economic and market potential analysis.

### RES-DHC

(European Horizon 2020 programme)

Development of support tools for regulators and stakeholders for the increase of renewables in district heating and cooling systems, including programmatic and technical-economic assessment tools, actions to improve policy and regulatory frameworks, innovative dissemination and communication means in six European pilot areas.

### Marilia

(European Horizon 2020 programme)

Development of a new low-cost, high-sensitivity, expeditious test for detecting pathogens in water samples, potentially applicable in other sectors such as food, healthcare, and agriculture. The aim is to validate the test – developed to identify a set of bacteria, to be followed by a deployment- in the laboratory, with significant efficiency gains in terms of speed and cost compared to current analytical practices.

## Project

## Description

### WaterTech

(MIUR tender)

Concluded in December 2022, the project concerned the optimised, synergistic and innovative management of Group's assets with trialled ICT architectures enabling a multi-service smart metering system, at both end users and asset level, for the optimised management of the integrated water cycle and the study of innovative technologies for wastewater treatment and the management of water losses.

### Everywh2ere

(European Horizon 2020 programme)

Development of gensets with hydrogen-fuelled, easy-to-transport fuel cells for temporary power supply in various sectors. Iren, as a third party, aims to test one of the 25 kW gensets during events/fairs (uninterruptible power supply/mobile generator) linked to the target areas.

### INCIT-EV

(European Horizon 2020 programme)

Development and on-site testing of a set of electric vehicle charging infrastructure, hardware and software technologies and business models to promote large-scale adoption of electric mobility. The Group is actively collaborating in the development of the Turin test area (Caio Mario interchange car park) and 2022 saw the finalisation of the executive plans and the ordering of the materials needed to create the infrastructure in the area.

### Saturno

(Bioeconomy Technological Platform – Piedmont Region Call for Tenders)

Concluded in November 2022, the project concerned the validation, on an industrial platform, of the conversion of the organic waste and CO<sub>2</sub> emissions from cars and industrial processes into biofuel and biochemicals. The project conceived the enhancement of the organic fraction of municipal waste by extracting high added value substances such as hydrogen, carboxylic acids, biofertilizers and biostimulants.

### OnlyPlastic

(RFCS – 2019)

Substitution of fossil carbon sources (coal, coke, petroleum coke) in the electric arc furnaces of a steel plant in northern Italy with densified polymers derived from residues from the treatment of plastic waste.

### PolynSPIRE

(European programme Horizon 2020)

Demonstration of a range of sustainable, innovative and cost-effective solutions for the energy and material recovery of post-consumer plastics and industrial waste.

### 5G-Solutions

(European programme Horizon 2020)

Experimentation – in different on-site, functionalities, potentialities and limits tests – of the 5G network, actively participating to the activities of the "Energy" vertical in the evaluation of the benefits related to the integration and use of the 5G network for the Demand Side Management at the level of regulation of thermal loads and the recharge of electrical vehicles. The Group is in charge of the Italian pilots concerning the management of a heat pump central heating system and the charging of electric vehicles.

Project	Description
<p><b>Energy Shield</b> (European programme Horizon 2020)</p>	<p>Concluded in June 2022, the project envisaged the development of an integrated cyber security platform that can be used by all actors of the energy chain (system operators, distributors, aggregators, producers). The Group participated as a distributor, through Ireti, supporting the other partners in the definition of specific cyber security tools, by carrying out a feasibility test, a field test on a primary substation of Ireti and by evaluating employee performance (250 employees chosen as a sample).</p>
<p><b>BestSafe4Iren</b> (Call for Tenders PRIA4.0 – Competence centre CIM4.0)</p>	<p>Concluded in February 2022, the project concerned the increased levels of redundancy, security and interoperability of workers’ safety equipment by integrating it with a LoRa (Long Range) wireless infrastructure and a next-generation DLT (Distributed Ledger Technology) patent capable of certifying data from field sensors in a standardised and anonymised manner on blockchain networks to ensure the appropriate level of neutrality needed for operational, regulatory, insurance and legal use. The project developed a solution that was successfully tested on a portion of the TRM plant and a pilot was carried out with AMIAT vehicles in a hilly area (collection vehicles) and in a city area (sweeping vehicles).</p>
<p><b>MULTIPLIERS</b> (European Horizon 2020 programme)</p>	<p>Facilitation of the introduction of new scientific ideas, practices and approaches in schools, which can offer to the communities a space for open innovation on scientific issues that have an impact on citizens’ lives. Multi-player partnerships (Open Science Communities, OSC) were established at three institutes in the province of Reggio Emilia. Italian educational experiments are coordinated and implemented by Eduiren on the topics of water, circular economy and efficient energy use and production.</p>
<p><b>RUN</b> (POR-FESR 2020 Liguria Region)</p>	<p>Development and demonstration of a now-casting service of the risk of flooding in urban areas in the presence of heavy rainfall, using IoT technologies and big data analysis tools, designed for smart cities and urban drainage network managers, allowing faster actions to protect people, properties and those in charge of the maintenance of the drains, who will be able to plan interventions for optimal operation of the system.</p>



## PNRR-CO-FUNDED PROJECTS

In 2022, Iren responded in the public notice of the Ministry of Universities and Research on the PNRR measure "Partnerships Extended to Universities, Research Centres and Companies" for the funding of research programmes organised through university-coordinated consortia (Hub&Spoke governance model), with the participation of research bodies and private entities, through which the companies involved can direct, and thus benefit from, the research and project lines developed directly by academic partners and research bodies on the thematic areas covered by the project proposals. Iren is partner in two funded projects:

- **NEST - Network 4 Energy Sustainable Transition**, coordinated by the Bari Polytechnic University. Iren is involved in two research areas: the hydrogen value chain and energy storage with a focus on technical and technological development of innovative solutions and regulatory and market analyses;
- **RETURN - multi-Risk sciEnce for resilienT commUnities undeR a changiNg climate**, coordinated by the University of Naples Federico II. Iren participates in research activities in the area of weather-climate modelling and hydrogeological risk assessment related to the assets and activities managed by the Group.

## AMGA Foundation

The AMGA Foundation was established in 2003 with the aim of promoting and organising scientific, educational and cultural initiatives for protecting the environment and water resources and the optimal management of network services.

In particular, it looks to increase and disseminate knowledge and understanding about the water cycle and its interactions with the environment, within research and training projects orientated at allowing sustainable management of water resources and promoting economic growth and development of the local areas in which it operates.

Furthermore, it is committed to research activities on organisational models of water services and, more generally, public services, in order to assess the possible management options within the various regional scenarios. The skills acquired are made available by the organisation of training courses and seminars and the publication of technical and educational volumes.

The Foundation's scientific results from projects and collaborations are a valid reference in the water resources, energy and environmental management sectors. In 2022, AMGA undertook such activities by coordinating research projects and promoting wide-ranging cultural and educational activities.

Among other things, the Foundation is also responsible for the management of the Water Thematic Library and the Water and Gas Museum in Genoa. A summary of the activities realised by the Foundation in 2022 is provided below.

## RESEARCH PROJECTS

### Project

### Description

Markets seeking regulation, an empirical analysis of natural gas distribution

Analysis of the theoretical literature on multi-unit auctions and econometric analysis of economies of scale in gas distribution to estimate a distribution cost function and evaluate the amount of cost savings achievable by the main operators in a sample of individual tenders.

Indicators of resilience in water distribution systems concerning climate and socio-economic changes

Analysis of state of the art to define a methodology for quantifying water distribution systems' resilience and measuring its variation for climate and socio-economic change scenarios. The analysis is also extended to assess possible incremental impacts on distributed water quality.

Degradation of emerging pollutants with unconventional photocatalysts

Testing a new technology for treating water contaminated with emerging pollutants based on heterogeneous photocatalysis. The materials are nanoparticles of titanium dioxide (TiO<sub>2</sub>) supported on persistent luminescence materials that enable the photocatalytic action of TiO<sub>2</sub> even in turbid water and in the absence of light, and magnetic materials from industrial waste that allow easy recovery at the end of a treatment. The best photocatalysts will be tested in a pilot treatment plant built to evaluate a possible industrial scale-up.

Applicability of landfill mining to old landfill sites

Landfill mining can help to offset the post-management costs of landfill sites, remove potential sources of groundwater contamination and recover material and/or energy from the treatment of mined waste, through an analysis of the situation and management in the long term. With this in mind, guidelines will be established with a proposed method for evaluating the feasibility of landfill mining.

Evaluation and reduction of residual risk in effluent and sewage sludge for the presence of emerging micropollutants

Assessment of the risk associated with possible micropollutants present in effluent and sludge discharge from sewage treatment plants and identification of the most appropriate technologies to be used for removal. Utilities are involved in collecting the data necessary to obtain a picture of critical cost-effectiveness issues in order to achieve the goals. Project results will be a tool to support regulatory compliance to ensure protection of the aquatic ecosystem and human health.

Evaluation of the presence of viral indicators in sludge by molecular biology methods

Identify, by molecular biology analysis, the viral component present in sludge samples from wastewater treatment and organic waste treatment. Development of a protocol to identify, by electron microscopy, some viruses particularly significant for their impact on human health or for their role as indicators of contamination by enteric pathogens.



## Project

## Description

Multifunctional nanostructures as catalysts for clean energy production and water purification

Fabrication of innovative nanostructured electrocatalysts with high activity, stability and low cost, for the production of hydrogen from water and simultaneous purification of contaminated aqueous solutions. The activities will be focused on the design and engineering of catalysts controlling their composition, structure and morphology at the nanoscale, with the aim of identifying the most suitable combinations of materials in relation to their final use in watersplitting and reforming processes. The catalysts will also be able to be activated by sunlight, a clean and renewable energy source.

Sewage treatment plants, possible hot-spots in the spread of antibiotic resistance?

Water is a prime route for the propagation of bacteria that play an important role in the spread of antibiotic resistance, and sewage treatment plants can act as a reservoir and source of release of antibiotic-resistant bacteria into the environment. The project aims to assess the spread of antibiotic resistance throughout the wastewater treatment supply chain and investigate the steps that can lead to a reduction and/or selection of antibiotic-resistant bacteria. In parallel, the possible role of antibiotics and heavy metals in the induction of resistance mechanisms in the wastewater treatment context is analysed.

Water quality and exposome

Innovative strategies to identify emerging micro-contaminants and their metabolites in wastewater. Passive samplers are used to selectively accumulate substances in situ. The pilot study is part of a broader multidisciplinary research known as "exposome", a strategy that can be used in various types of aqueous matrices even when environmental concentrations are very low.

Stabilisation of PFAS in landfill leachate

Identification and development of a technology able to remove, through a combined chemical-physical and thermal action, the fraction of PFAS (Poly- and Per-Fluoro Alkyl Substances), emerging contaminants present in landfill leachate. PFASs are used in a wide range of industrial applications because of their waterproofing properties and ability to withstand extreme environmental conditions. Although PFASs have hydrophobic properties, their functional groups make them hydrophilic and, therefore, extremely soluble and persistent in water. The lack of effectiveness of traditional treatment methods requires the application of innovative removal technologies prior to their re-entry into the water cycle.

Integrated asset management in a context of geo-hydrological risk and climate change

Propose solutions for an efficient and resilient management of multi-utility assets for the mitigation of geomorphological hazards in contexts where there are strategic infrastructures, contributing to greater safety of urban and peri-urban areas and citizens who live there. In particular, the most functional nature-based solutions to an area and its issues are considered, drawing on specific case studies. The research aims to strengthen the behaviour of the users towards a minimisation of the production of unsorted waste and transfer from academia to industry the skills of analysing, monitoring and mitigating instability processes, with a focus on the innovation component, both technological and methodological.

Tariff regulation to stimulate user engagement and awareness in sustainable waste management

Assessing the ways in which the various players in waste cycle management (municipalities, businesses, users) interact, providing responses that encourage the achievement of desired environmental and economic results. Through the punctual Tari and the corresponding tariff, and the relative arrangements that foresee incentives/premiums, it is possible to orientate the behaviour of the users towards a minimisation of the production of unsorted waste and an increase in the quality of the sorted waste collections. These tools are enabled by technologies for the recognition of users and to calibrate the tariffs on the basis of behaviours that can also allow to use the lever of flexibility (services on demand) as an incentive, in order to offer a service that is increasingly close to the needs of citizens.

## CULTURAL AND EDUCATIONAL PROJECTS

Project	Description
<p>Il canto dell'albero - L'ecomusical (The song of the tree - The Ecomusical)</p>	<p>The show is set in a post-apocalyptic future, disrupted by climate change; Pingo, a friendly penguin, embarks with Rama, the last of the tigers, on a journey across continents to track down Prometheus, a legendary tree that can return the world as it was and solve the planet's problems. It was offered to children and families as part of various events, such as the Science Festival, the Aqueduct Festival and the theatre review Fuori Tutto di Cultura.</p>
<p>Il canto dell'albero - L'ecolibretto (The song of the tree - The Eco show booklet)</p>	<p>The show's booklet, illustrated with amusing cartoons, provides insights and educational hints on the consequences of climate change and pollution and on virtuous behaviour and good technologies for environmental protection.</p>
<p>Il canto dell'albero (The song of the tree) - Green Game</p>	<p>The creation of the green game, a video game designed to raise children's awareness of sustainable development issues, was completed.</p>
<p>Collaboration in cataloguing the Group's historical archives</p>	<p>In 2022, the collaboration with Iren continued, aimed at reorganizing the historical archive of the Brugnato aqueduct, located at the Prato purification plant.</p>
<p>Summer school "Sustainability and ESG criteria between the public and private sectors"</p>	<p>The initiative was promoted by the Department of Political and International Sciences of the University of Genoa, with the support of the AMGA Foundation, to provide insights into ESG criteria, which are increasingly guiding the choices of companies and administrations.</p>
<p>Exhibition "Historical Aqueducts: Waterways in Genoa"</p>	<p>The exhibition was held at Palazzo Tursi, in cooperation with the Genoa City Council, Confservizi Liguria, the Federation of Historical Aqueduct Associations and the Museu de Agua in Lisbon.</p>

In 2022, the AMGA Foundation launched the Project 4.0 call for proposals aimed at identifying and financing project proposals in the water, environmental, energy and regulatory areas. The Board of Directors of the Foundation, considering the ranking list drawn up by the Scientific Committee, has decided to finance the following 4 projects that will be contracted and carried out in 2023:

- **joint valorisation of organic fraction of waste from sorted waste collection and superfluous sludge for the production of biogas and volatile fatty acids (VFA)** to test, on a laboratory scale, a two-stage treatment of organic waste and superfluous sludge with the production of VFA and biogas that can be used for the optimisation of the biological nutrient removal process from municipal wastewater;
- **characterisation and automatic sorting of electronic boards using intelligence and computer vision algorithms** for use in waste electrical and electronic equipment (WEEE) disposal plants;
- **design, realisation and testing of innovative solutions for the resilience of water and energy networks** to develop technologies for the energy autonomy of monitoring stations of infrastructures that transport fluids (natural gas and biogas, hydrocarbons, water);
- **technical efficiency in water and/or gas distribution in Italy** to measure the technical efficiency of both water and gas distribution companies.

## Digitalisation

---

Digitalisation is among the enabling levers that will allow the Group to grow in line with the objectives stated in the Business Plan to 2030, which envisages a significant increase in investments to support the Group's digital transformation and development process. In particular, investments will be dedicated to **technological initiatives** to:

- raise levels of cybersecurity;
- consolidate the transition to a data-driven approach by adopting a new organisational model that supports processes and effective data management;
- consolidate the business continuity strategy, through the implementation of new solutions of data centres, architecture and evolution in applications in order to improve resilience, reliability and performance.

Technological **initiatives** will be joined by **functional initiatives** to:

- enable businesses through digital transformation programmes, use of sensors, IoT platforms, wearable devices, predictive maintenance, and creation of customisation programmes for customer offerings;
- digitalise processes through warehouse management software, systems for digitalising customer transactions, and integration of digital identity and electronic signature systems.

A number of actions in these areas to improve operational efficiency were realised in 2022:

- completion of the migration project on efficient management systems for company fleets and personnel processes;
- extension to ASM Vercelli of the project (**Iren Way**) for the review and standardisation of processes and information systems supporting technical-commercial activities for gas and electricity commodities;

- completion of the programme to redesign the entire management and customer relationship process (**Market Transformation**) also in the water service area;
- launch of two projects to implement ARERA indications for the monitoring and reporting of technical and contractual quality indicators planned from 2023;
- release of new applications in the field of Artificial Intelligence, Data & Digital.

In **telecommunications**, as in the previous year, there was a major increase in bandwidth usage for internet connections, especially to cloud providers. In 2022, a trial was launched to further increase the resilience of the Internet infrastructure and dedicated connections to the main Italian telecom operators were also implemented. New tools were tested and implemented to monitor traffic and to monitor the quality of service provided by increasing the overall security of the infrastructure.

## CYBERSECURITY

Cyber risks are defined as the set of internal and external threats which can compromise business continuity or cause civil liability damage to third parties in the event of loss or disclosure of sensitive data. From an internal point of view, the operational risks regarding information technology are closely related to the business of Iren Group, which operates network infrastructures and plants, including through remote control, accounting operational management and invoicing systems and energy commodity trading platforms. To mitigate such risks, specific measures have been adopted, such as redundancies, highly-reliable systems and appropriate emergency procedures, which are periodically subject to simulations, to ensure their effectiveness.

Iren Group is also exposed to the risk of cyber attacks aimed both at acquiring sensitive data and compromising service continuity. In this regard:

- the data network was further segregated according to functional usage, especially by isolating the OT (Operational technology) network;
- the Security Operation Center (SOC) is active with 24 hour monitoring of IT security events;
- policies were adopted to strengthen access to systems such as, in addition to the introduction of particularly complex passwords, the introduction of the second authentication factor and a platform for controlled and monitored access by system administrators. Adoption of systems with behavioural analytics capabilities and automated, remote response execution for workstations was completed;
- the Cyber Threat Intelligence (CTI) platform was fully integrated with the cyber security event monitoring and management systems, to capture evidence of attackers and threats potentially impacting corporate assets;
- a multi-year awareness project on IT security issues is active, addressed to all Group employees, based on phishing simulation campaigns, evaluation questionnaires and targeted online training modules;
- a new generation of security information and event management software has been adopted, through which potential threats can be recognised thanks to advanced artificial intelligence technologies (SIEM - Security Information and Event Management);
- a platform for monitoring the security configurations of the company's equipment has been adopted, which allows greater protection of data, applications, devices and systems connected to the network;
- technologies that increase the protection of corporate web applications (WAF - Web Application Firewall) are being tested.

Finally, it should be noted that the Group's Cyber Risk Policy is in force, which - like the other main risk policies - provides for the convening of specific Risk Committees, the monitoring of performance indicators and dedicated reporting [» SEE PAGE 58](#).



An aerial photograph of a large concrete dam and reservoir. The reservoir is filled with clear, turquoise water. The dam is a long, curved concrete structure. In the background, there are several buildings, including a large industrial-looking structure, and winding roads on a steep, forested hillside. The overall scene is a mix of natural beauty and industrial infrastructure.

Compliance



## IN THIS CHAPTER WE TALK ABOUT

methodology



GRI



taxonomy



glossary





# Note on methodology

[GRI 2-2, 2-3, 2-4, 2-5, 2-6, 2-14]

This Sustainability Report 2022 also takes on the value of a Consolidated non-financial statement (NFS), pursuant to Legislative Decree no. 254/2016, of Iren S.p.A. and its subsidiaries.

Iren S.p.A. prepared the report in accordance with the GRI (Global Reporting Initiative) Standards and the Electricity Sector Utility Supplement - G4 Sector Disclosure for the period 1 January 2022 - 31 December 2022, in alignment with the Group's Consolidated Financial Statements.

The definition of materiality topics subject to reporting was based on a structured materiality analysis process described in the section 'Materiality Analysis' involving the Group and its stakeholders [» SEE PAGE 97](#).

The Sustainability Report/NFS is drawn up annually, under the coordination of the Corporate Social Responsibility and Local Committees Department, submitted for approval to the Board of Directors - which is also responsible for approving the materiality analysis - and presented to the Shareholders' Meeting. The Control, Risk and Sustainability Committee assesses, together with the Corporate Social Responsibility and Local Committees Department, and in consultation with the auditor, the correct use of the GRI standards adopted by the Group. This document was approved by the Board of Directors, along with the draft of the Consolidated Financial Statements, on 23 March 2023, assessing its completeness and consistency with the material topics.

The Sustainability Report/NFS integrates the transparency information required by the **European Taxonomy** (EU Regulation 2020/852 and EU Delegated Regulation 2021/2178) regarding the eco-sustainable activities managed [» SEE PAGE 138](#) and reports the main indicators related to the projects financed by the Green Bonds issued by Iren Group [» SEE PAGE 145](#).

Since 2020, the Sustainability Report/NFS has also included, in line with the recommendations of the Financial Stability Board's **Task Force on Climate-related Financial Disclosures** (TCFD), information to report the

impacts of climate change on the Group [» SEE PAGE 362](#). Furthermore, the document aligns with the recommendations, relating to non-financial reporting, included in the "Public Statement - European common enforcement priorities for 2022 annual financial reports" published by ESMA (European Securities and Market Authority) on 28 October 2022.

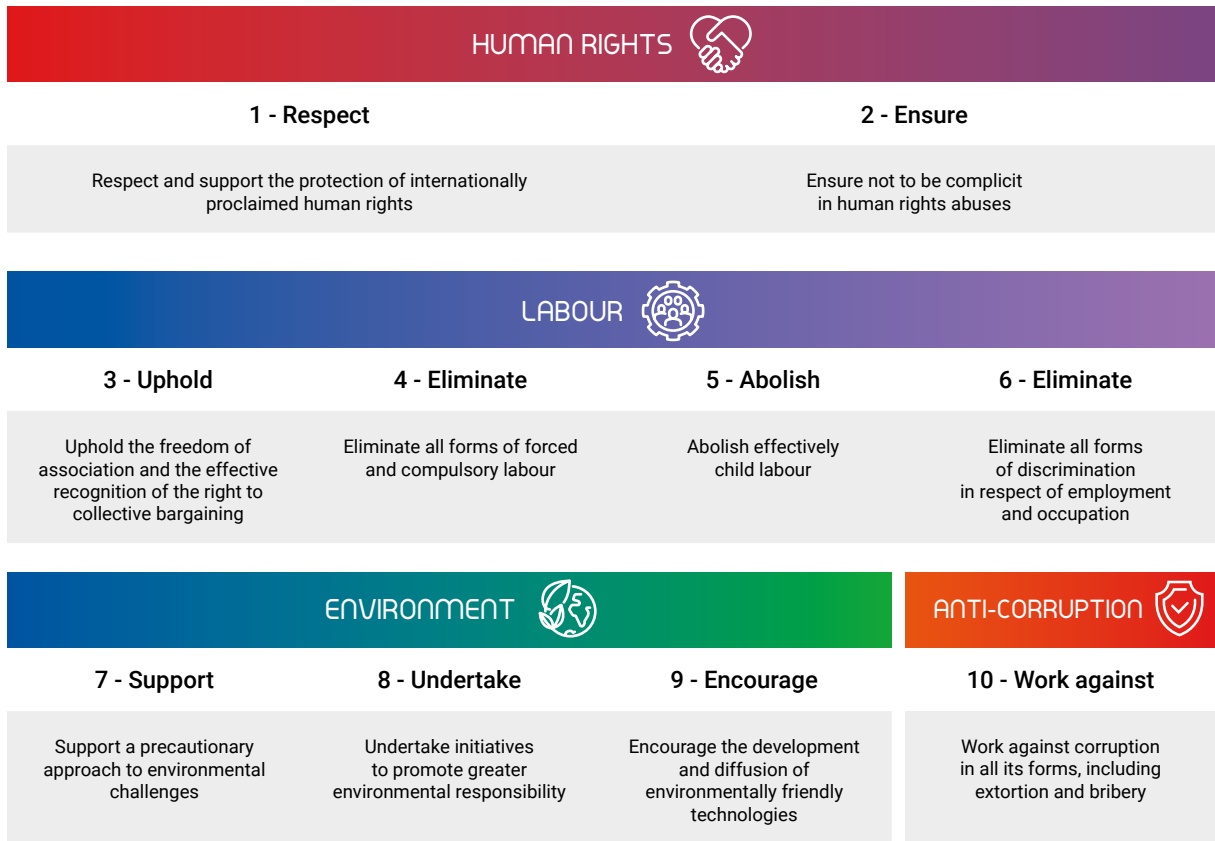
The Sustainability Report/NFS is prepared in accordance with the specific internal Group procedure issued in 2018 and updated in 2022, which describes the criteria, process, parties involved, responsibilities and tools for the realisation, approval and publication of the document. The data and information, communicated by the contact persons identified in accordance with the internal procedure, are collected through the "Sustainability Report - NFS" application, which allows them to be tracked, verified, approved by the persons in charge designated by the procedure and consolidated.

The sustainability objectives reported in this document are those set out in the Strategic Plan to 2030, which includes indicators and related targets.

The document was audited by the appointed auditor KPMG S.p.A. pursuant to Legislative Decree 254/2016 based on the principles and indications contained in ISAE3000 (International Standard on Assurance Engagements 3000 – Revised) of the International Auditing and Assurance Standards Board (IAASB). KPMG S.p.A. is also the company appointed to perform the legal audit of the Consolidated Financial Statements of Iren Group.

Since 2020, Iren has been a member of the United Nations Global Compact (UNGC), recognizing consistency between the ten principles supported by the United Nations with the "Global Pact", the UN Sustainable Development Goals, the Group's values and strategies. Iren Group's Sustainability Report represents a tool for reporting to stakeholders on the activities undertaken and the results achieved in the implementation of the ten principles of the Global Compact, summarised in the chart below.





The compliance schedule [SEE PAGE 352](#) shows the link between the GRI standards and the 10 Principles of the United Nation Global Compact and the 17 Goals of the UN 2030 Agenda (SDGs), allowing for an integrated reading of the information provided in this Report.

## Reporting scope

The reporting scope of the information and data reported in the Sustainability Report/NFS refers to Iren S.p.A. and all the companies included in the line-by-line consolidation, with the exception of those in liquidation, inactive, discontinued or destined to be sold as of 31/12/2022 (for further details, please refer to the Notes to the Consolidated Financial Statements, paragraph "Scope of consolidation").

In addition, in the section "Companies outside the scope of consolidation" [SEE PAGE 29](#), we provide separate qualitative and quantitative information on certain investee companies, not consolidated on a line-by-line basis, which are considered significant for the correct representation of the Group's business (indicated in *light blue italics* in the table below).

Companies consolidated on a line-by-line basis 2022/ Investee companies outside the scope of consolidation 2022	Period of consolidation/ ownership of the shareholding	Notes <sup>(1)</sup>
<b>IREN</b>	1/1 – 31/12/2022	
<b>Iren Energia</b>	1/1 – 31/12/2022	
• Asti Energia e Calore	1/1 – 31/12/2022	
• <i>B.I. Energia</i>	<i>1/1 – 31/12/2022</i>	<i>The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.</i>
• Dogliani Energia	1/5 – 31/12/2022	The company's purpose is to build an electric and thermal power plant and the associated district heating network in Dogliani (CN). The company figures reported for 2022 relate to the period of consolidation.
• <i>Fratello Sole Energie Solidali</i>	<i>1/1 – 31/12/2022</i>	<i>The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.</i>
• Iren Green Generation	1/1 – 31/12/2022	Formerly Puglia Holding (name changed to Iren Green Generation from 6/6/2022) aims to develop new green energy projects by reducing dependence on fossil fuels.
- Iren Green Generation Tech	1/1 – 31/12/2022	Formerly Asi Troia FV1 (name changed to Iren Green Generation Tech from 6/6/2022) has built and operates a 103 MWp photovoltaic park.
- Limes 1	30/9 – 31/12/2022	The companies hold the authorisations for the construction of two 38.87 MWp photovoltaic plants in the province of Viterbo.
- Limes 2	30/9 – 31/12/2022	The company figures reported for 2022 relate to the period of consolidation.
- Mara Solar	1/7 – 31/12/2022	The companies are the owners of projects for the construction of photovoltaic plants in the province of Matera (30 MWp in total).
- Omnia Power	1/11 – 31/12/2022	The company figures reported for 2022 relate to the period of consolidation.
- Palo Energia	1/1 – 31/12/2022	
- Piano Energia	1/1 – 31/12/2022	The companies, whose purpose is to build photovoltaic plants totalling 18.5 MWp, were merged by incorporation into Iren Green Generation Tech, effective 1/1/2023.
- Solleone Energia	1/1 – 31/12/2022	
- Traversa Energia	1/1 – 31/12/2022	
• Iren Smart Solutions	1/1 – 31/12/2022	
- Alfa Solutions	1/1 – 31/12/2022	
◊ Lab 231	1/1 – 31/12/2022	
• Maira	1/1 – 31/12/2022	
- Formaira	1/1 – 31/12/2022	
• Valle Dora Energia	1/6 – 31/12/2022	The company was already owned in 2021 by Iren Energia, which acquired control in 2022. The company figures reported for 2022 relate to the period of consolidation.
<b>Iren Ambiente</b>	1/1 – 31/12/2022	
• Acam Ambiente	1/1 – 31/12/2022	
• Amiat V	1/1 – 31/12/2022	

Companies consolidated on a line-by-line basis 2022/ Investee companies outside the scope of consolidation 2022	Period of consolidation/ ownership of the shareholding	Notes <sup>(1)</sup>
- Amiat	1/1 – 31/12/2022	
• A.S.A. (BO)	1/1 – 31/12/2022	The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.
• Bonifica Autocisterne	1/1 – 31/12/2022	
• Bonifiche Servizi Ambientali	1/1 – 31/12/2022	Formerly UHA (Unieco Holding Ambiente) (name changed to Bonifiche Servizi Ambientali as of 1/7/2022) following the partial demerger in favour of Iren Ambiente of the business units relating to the Ferrara Business Unit, the Planning Area and the equity investments held in Manduriambiente and Picena Depur.
• Gaia	1/1 – 31/12/2022	The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.
• I.Blu	1/1 – 31/12/2022	
• Iren Ambiente Toscana	1/1 – 31/12/2022	
- CSAI	1/1 – 31/12/2022	The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.
- Futura	1/1 – 31/12/2022	
- Scarlino Energia	1/1 – 31/12/2022	
- Sei Toscana	1/7 – 31/12/2022	The company was already owned by Iren Ambiente Toscana, which acquired control in 2022. The company figures reported for 2022 relate to the period of consolidation
◊ Ekovision	1/7 – 31/12/2022	The company is active in the management of information systems. The company figures reported for 2022 relate to the period of consolidation.
◊ Valdisieve	1/7 – 31/12/2022	The company was already owned in 2021 by Sei Toscana, which acquired control in 2022. The company figures reported for 2022 relate to the period of consolidation.
- Sienambiente	1/1 – 31/12/2022	The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.
- Valdarno Ambiente	30/4 – 31/12/2022	The company is active in the construction and operation of facilities for waste management and recovery. The company figures reported for 2022 relate to the period of consolidation.
◊ CRCM	30/4 – 31/12/2022	The company is active in the collection and operation of waste treatment plants. The company figures reported for 2022 relate to the period of consolidation.
◊ TB	1/1 – 31/12/2022	
• Manduriambiente	1/1 – 31/12/2022	
• ReCos	1/1 – 31/12/2022	
• Rigenera Materiali	1/1 – 31/12/2022	
• San Germano	1/1 – 31/12/2022	
• Seta	1/1 – 31/12/2022	The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.

Companies consolidated on a line-by-line basis 2022/ Investee companies outside the scope of consolidation 2022	Period of consolidation/ ownership of the shareholding	Notes <sup>(1)</sup>
• Territorio e Risorse	1/1 – 31/12/2022	
• TRM	1/1 – 31/12/2022	
- Uniproject	1/1 – 31/12/2022	
<b>Iren Mercato</b>	1/1 – 31/12/2022	
• Salerno Energia Vendite	1/1 – 31/12/2022	
• Alegas	1/4 – 31/12/2022	The company is active in the sale of gas and electricity. The company figures reported for 2022 relate to the period of consolidation.
<b>Ireti</b>	1/1 – 31/12/2022	
• <i>Acquaenna</i>	<i>1/1 – 31/12/2022</i>	<i>The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.</i>
• Acam Acque	1/1 – 31/12/2022	
• <i>ASA (LI)</i>	<i>1/1 – 31/12/2022</i>	<i>The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.</i>
• ASM Vercelli	1/1 – 31/12/2022	
• Minerva	15/12 – 31/12/2022	The company, established on 15/12/2022, was assigned the shareholding held by ASM Vercelli in Atena Trading. The company figures reported for 2022 relate to the period of consolidation.
- Atena Trading	1/1 – 31/12/2022	
• Consorzio GPO	1/1 – 31/12/2022	
• Iren Acqua	1/1 – 31/12/2022	
- Iren Acqua Tigullio	1/1 – 31/12/2022	
- <i>AM.TER.</i>	<i>1/1 – 31/12/2022</i>	<i>The data of the company are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.</i>
• Iren Laboratori	1/1 – 31/12/2022	
• Nord Ovest Servizi	1/1 – 31/12/2022	
• Società dell'Acqua Potabile	1/7 – 31/12/2022	The company manages the integrated water service in some municipalities in Liguria. The company figures reported for 2022 relate to the period of consolidation.
- <i>E.G.U.A.</i>	<i>1/7 – 31/12/2022</i>	<i>The figures of the company, which manages the integrated water service in a municipality in the Liguria region, are reported separately and not consolidated in the section 'Companies outside the scope of consolidation'.</i>

<sup>(1)</sup> With reference to companies consolidated on a line-by-line basis, annotations are made only on companies acquired, newly established, deleted from the Companies Register and on changes since 2021.

Compared to 2021, the following companies exit the scope of consolidation:









- Iren Energy Solutions (Formerly Bosch Energy and Building Solutions Italy, whose name had changed to Iren Energy Solutions as of 1/1/2022) merged by incorporation into Iren Smart Solutions, effective as of 1/3/2022, and removed from the Companies Register;
- Produrre pulito, merged by incorporation into Iren Ambiente, effective 1/6/2022, and deleted from the Companies Register;
- Scarlino Immobiliare, merged by incorporation into Iren Ambiente, effective 1/7/2022, following the partial demerger of Iren Ambiente Toscana, in favour of Iren Ambiente, of 100% of the share capital of Scarlino Immobiliare. Deleted from the Companies Register;
- Picena Depur, merged by incorporation into Uniproject, effective 1/7/2022, and deleted from the Companies Register;
- Sidiren, merged by incorporation into Salerno Energia Vendite, effective 1/2/2022, and deleted from the Companies Register.



The effects of changes in the scope of consolidation, adjustments to figures already published, as well as any significant changes or limitations in the scope or method of calculation of individual indicators with respect to 2022, are expressly stated in the text.

The figures are calculated accurately on the basis of Iren Group's accounting, non-accounting and other information systems and are validated by the most senior corporate officers. Figures determined by means of estimates are expressly indicated together with the relevant calculation method.

Finally, it should be noted that some deviations from the figures and information reported in the Sustainability Report/NFS 2021 result from changes in the Group's scope of consolidation.

## Material topics and related aspects

Area	Topic	Related aspects
<b>Governance</b>	Growth and value creation for the company and stakeholders	<ul style="list-style-type: none"> <li>• Iren Group strategic development plans</li> <li>• Economic value distributed to stakeholders</li> <li>• Investments in the local area and business sustainability</li> <li>• Indirect economic impacts on the local area generating new employment and investment for communities</li> <li>• Sustainable finance to support Group development</li> <li>• Supplies commissioned locally that generate economic and employment impacts</li> </ul>
	Solid, ethical and transparent governance for sustainable growth	<ul style="list-style-type: none"> <li>• Strategic integration and monitoring of sustainability factors with medium- and long-term objectives and targets, also in relation to climate change aspects</li> <li>• Integrated management of sustainability-related risks/opportunities with assessment of their financial implications</li> <li>• Management remuneration policies and performance management systems linked to sustainability factors</li> <li>• Code of Ethics and Organisational Model 231</li> <li>• Implementation of corruption prevention models</li> <li>• Proactive compliance management through monitoring and discussion with regulators to anticipate regulatory scenarios and developments, and non-compliance risk management</li> <li>• Dispute management</li> </ul>
	Innovation and smart cities 	<ul style="list-style-type: none"> <li>• Business evolution through open innovation for research and development of new technologies, environmentally friendly and customer-oriented processes</li> <li>• Smart and resilient networks through the application of new technologies</li> <li>• Digital innovation for interacting with customers and suppliers, improving work processes, data management and processing</li> <li>• Automation/robotics to streamline simple and repetitive operations with low added value (e.g. back-office, customer centre)</li> <li>• Promotion of public and private electric mobility services</li> </ul>
	Efficient, reliable and safe management of processes and infrastructure 	<ul style="list-style-type: none"> <li>• Initiatives to reduce impacts not considered in other topics from both an environmental and a social point of view</li> <li>• Improving the efficiency of services also in relation to their cost-effectiveness</li> <li>• Efficiency and reliability of distribution networks and reduction of losses</li> <li>• Efficiency, reliability and integrity of plants</li> <li>• Availability of services in the medium- and long-term (business continuity and disaster recovery plans)</li> <li>• Management of possible major accidents and natural disasters</li> <li>• Process and data cyber security</li> </ul>
	Effective and transparent dialogue and communication with stakeholders 	<ul style="list-style-type: none"> <li>• Communication of strategies, objectives and performance to stakeholders, with a focus on employees and their involvement</li> <li>• Communication to customers on services provided, understanding of bills, description of tariff components, with special attention to vulnerable customer categories and language differences</li> <li>• Initiatives for dialogue and involvement of local and national public authorities both in their capacity as shareholders and customers and in their regulatory and control role</li> <li>• Relation with shareholders and investors</li> </ul>
<b>Environmental - Climate change</b>	Energy production and saving to reduce environmental and economic impacts 	<ul style="list-style-type: none"> <li>• Development of energy production from renewable sources for energy transition and independence</li> <li>• Management, monitoring and initiatives to reduce corporate energy consumption</li> <li>• Promotion of services to reduce third-party energy consumption (e.g. energy communities, distributed energy production, building energy efficiency, domestic energy efficiency products/ services, etc.)</li> </ul>
	Decarbonization and reduction of emissions 	<ul style="list-style-type: none"> <li>• Medium- and long-term objectives and targets for reducing emissions</li> <li>• Managing and monitoring emissions, particularly greenhouse emissions, including through the adoption of new technological and process solutions</li> <li>• Emission reduction initiatives</li> <li>• Development of corporate e-mobility and mobility management projects for Group employees</li> </ul>
	Sustainable use of water resources 	<ul style="list-style-type: none"> <li>• Responsible water management in production processes</li> <li>• Reducing water withdrawals from the environment for drinking purposes (reducing network losses and raising public awareness of consumption reduction)</li> <li>• Prevention of pollution of surface and groundwater bodies</li> <li>• Management of discharges so as to guarantee the quality of returned water, with particular reference to discharges in areas/territories deemed sensitive</li> </ul>
	Circular waste management 	<ul style="list-style-type: none"> <li>• Waste management at different stages in the circular economy to reduce environmental impacts through production reduction, material recovery and reuse, and energy production from non-recoverable materials</li> </ul>
	Protection of biodiversity 	<ul style="list-style-type: none"> <li>• Management of production activities with a view to the conservation and protection of biodiversity in the areas of current and future operations</li> </ul>

Area	Topic	Related aspects
<b>Social</b>	Employment, development of human resources and welfare	<ul style="list-style-type: none"> <li>• Personnel management: recruitment and induction policies, remuneration, turnover management, resource retention</li> <li>• Enhancement and development of human resources and technical, professional and managerial skills (training paths, performance management systems, skills evaluation systems, career paths)</li> <li>• Initiatives that increase the sense of company cohesion and employee well-being</li> </ul>
	Industrial relations	<ul style="list-style-type: none"> <li>• Involvement and structured dialogue with trade unions</li> <li>• Responsible management of corporate development and restructuring</li> </ul>
	Occupational health and safety	<ul style="list-style-type: none"> <li>• Worker health and safety management: policies, certification, operational mechanisms, training, prevention initiatives</li> </ul>
	Diversity and inclusion	<ul style="list-style-type: none"> <li>• Policies and initiatives to develop a culture that values diversity - experiential, cultural, gender, age and other dimensions of diversity - and builds a collaborative, supportive and respectful environment, increasing the participation and contribution of people working in the Group</li> </ul>
	Protection of human rights	<ul style="list-style-type: none"> <li>• Monitoring of all company operations to ensure respect for human rights also in the choice of suppliers (compliance with social rules and standards provided for by law or voluntary)</li> <li>• Respect for the dignity of persons in the provision of services</li> </ul>
	Sustainable development of the local areas and communities	<ul style="list-style-type: none"> <li>• Managing relations with local communities for territorial development and quality of life</li> <li>• Development of projects in favour of the local area (culture, sport, social, environment) and activities of the Local Committees</li> <li>• Supporting employee volunteering initiatives</li> <li>• Sustainability education programmes for schools and local communities, particularly with regard to the protection of natural resources and issues related to the UN 2030 Agenda</li> </ul>
	Sustainable management of the supply chain 	<ul style="list-style-type: none"> <li>• Supplier management policies: selection, qualification, evaluation and monitoring also on the basis of social, environmental and health and safety criteria</li> <li>• Involvement of suppliers for the integration and improvement of sustainability profiles</li> <li>• Monitoring and comparing the quality of the supplier's products/services</li> </ul>
	Responsibility and quality in service delivery and customer orientation 	<ul style="list-style-type: none"> <li>• Customer satisfaction evaluation activities and complaint handling methods</li> <li>• Responsible management of business practices (transparent offers, fairness of customer contact, information on services)</li> <li>• Accessibility of services offered to customers regardless of social, age, cultural or physical factors</li> <li>• Measures for the affordability of services (social bonuses, instalment of bills, etc.) also in the face of emergencies/social crises</li> <li>• Efficiency in the way customers use services (digitisation, smart metering, punctual waste pricing, customer education/awareness)</li> <li>• Attention to the evolution of the customer from user to prosumer (digitalisation, customised solutions, new technologies, own energy generation with self-consumption)</li> <li>• Customisation of customer services and development of new integrated services (energy efficiency, home automation, sustainable mobility, security, etc.) to meet emerging and future needs</li> </ul>

 Climate change topics



# GRI content index

## Connection with legislative decree 254/2016, SDGs and principles of the Global Compact (UNGC)

Iren S.p.A. reports the information mentioned in this GRI content index for the period 1 January 2022 - 31 December 2022 with reference to the GRI Standards.

Reference notes:

- in the column “Legislative Decree 254/16” are the GRI standard indicators that provide information related to the provisions of the Italian regulations on Non-Financial Reporting;
- the “UNGC” column shows the link with the 10 principles of the United Nations Global Compact. The dark-background number indicates the UNGC principle [» SEE PAGE 344](#) directly related to the specific indicator; the number on a light background indicates the indirectly related principle;
- the “SDGs” column shows how the disclosures in the GRI Standards relate to the 17 Sustainable Development Goals of the 2030 Agenda (whose number is given, according to the framework developed by GRI in the document “Linking the SDGs and the GRI Standards”).

Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ notes on possible omissions
<b>GRI 1 - Foundation - version 2021</b>				
<b>GRI 2 – General Disclosures - version 2021</b>				
<b>The organisation and its reporting practices</b>				
2-1	Organisational details	•		Cover, 14, Back cover, 20-23, 34-35
2-2	Entities included in the organisation’s sustainability reporting	•		14
2-3	Reporting period, frequency and contact point	•		344, 381
2-4	Restatements of information	•		160, 177, 254
2-5	External assurance	•		344, 374-378
<b>Activities and workers</b>				
2-6	Activities, value chain and other business relationships	•		14-16, 18-28, 71, 134, 172, 177-182, 189, 198, 238, 243, 246-247, 256-261, 319-321, 324, 344, Consolidated Financial Statements
2-7	Employees	•	6	8, 10, 23, 273-276, 292, 299, 310-316
2-8	Workers who are not employees	•	6	310



Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions
<b>Governance</b>				
2-9	Governance structure and composition	•	5, 16	40, 44, 47-52, 54
2-10	Nomination and selection of the highest governance body	•	5, 16	44-46
2-11	Chair of the highest governance body		16	42
2-12	Role of the highest governance body in overseeing the management of impacts	•	16	40-44, 49-59, 117
2-13	Delegation of responsibility for managing impacts			44
2-14	Role of the highest governance body in sustainability reporting	•		45
2-15	Conflicts of interest		16	44, 51
2-16	Communication of critical concerns	•		57, 71-73, 114, 122
2-17	Collective knowledge of the highest governance body			45
2-18	Evaluation of the performance of the highest governance body	•		45-46
2-19	Remuneration policies			75
2-20	Process to determine remuneration		16	49, 75-77
2-21	Annual total compensation ratio			288
<b>Strategy, policies and practices</b>				
2-22	Statement on sustainable development strategy	•		9-11, 92-97, 106-110
2-23	Policy commitments		10	40, 59-61, 67-68, 78, 114, 130, 154, 165, 183, 203, 212, 236, 245, 272, 296, 301, 308, 317
2-24	Embedding policy commitments			42-46, 54-61, 69-77, 83, 248-250, 282-285, 319, 323-324
2-25	Processes to remediate negative impacts			69, 86, 117, 244, 255
2-26	Mechanisms for seeking advice and raising concerns		10	69-71
2-27	Compliance with laws and regulations	•	7 8 10 10	122-125, 209, 309, 328
2-28	Membership associations	•		125-128
<b>Stakeholder engagement</b>				
2-29	Approach to stakeholder engagement	•		114-116, 129
2-30	Collective bargaining agreements	•	3 6	288

Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions
<b>GRI 3 - Material Topics - version 2021</b>				
3-1	Process to determine material topics	•		97-100
3-2	List of material topics	•		101-105
	Management of material topics	•		14, 19, 57-58, 60-61, 102-105
	Growth and value creation for the company and stakeholders		2, 8	130-137
	Solid, ethical and transparent governance for sustainable growth	•	10	16, 17, 40-77, 83-89
	Efficient, reliable and safe management of processes and infrastructure	•	7 8 9	245, 255, 259, 262, 264-265, 267-268, 340
	Employment, development of human resources and welfare	•	3 6	272, 279-283, 288-293
	Energy production and saving to reduce environmental and economic impacts	•	7 8	7, 12, 13, 152, 165-172
	Innovation and smart cities	•	7 8 9	9, 11, 13, 329-339
	Circular waste management	•	7 8	12, 13, 152, 183-198
	Sustainable use of water resources	•	7 8	6, 14, 152, 173-182
3-3	Decarbonization and reduction of emissions	•	7 8	13, 152-164
	Sustainable development of the local areas and communities	•		4, 11, 17, 212-232
	Responsibility and quality in service delivery and customer orientation	•	6	1, 6, 7, 11, 234-242, 245-247, 250-251, 259, 262, 264-265, 267-268
	Occupational health and safety	•		3, 8, 301-307
	Industrial relations	•	3	8, 308-309
	Diversity and inclusion	•	6	5, 10, 296-300
	Protection of human rights	•	1 2 4 5	8, 10, 78-83
	Effective and transparent dialogue and communication with stakeholders	•		16, 17, 114-129
	Sustainable management of the supply chain	•	3 4 5 6 7	8, 10, 13, 317-321, 324-328
	Protection of biodiversity	•	7 8	14, 15, 203-207
<b>Specific standards – Economic area</b>				
<b>201 – Economic performance (2016 standard)</b>				
201-1	Direct economic value generated and distributed		7 8	8, 9, 19-20, 134-135
201-2	Financial implications and other risks and opportunities due to climate change		7 8	13, 62-66, 132-133
201-3	Defined benefit plan obligations and other retirement plans		7 8	278, Consolidated Financial Statements
201-4	Financial assistance received from government		7 8	137

Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions
<b>202 – Market presence (2016 standard)</b>				
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	⑥	1, 5, 8	288
202-2	Proportion of senior management hired from the local community	⑥	8	134, 276
<b>203 - Indirect economic impacts (2016 standard)</b>				
203-1	Infrastructure investments and services supported		5, 9, 11	19-20, 153, 223
203-2	Significant indirect economic impacts		1, 3, 8	134
<b>204 - Procurement practices (2016 standard)</b>				
204-1	Proportion of spending on local suppliers		8	18, 20, 326-327
<b>205 - Anti-Corruption (2016 standard)</b>				
205-1	Operations assessed for risks related to corruption	•	⑩ ⑩	16 73-74
205-2	Communication and training about anti-corruption policies and procedures	•	⑩ ⑩	16 73-74
205-3	Confirmed incidents of corruption and actions taken	•	⑩ ⑩	16 74
<b>206 - Anticompetitive behaviours (2016 standard)</b>				
206-1	Legal actions for anticompetitive behaviour, anti-trust, and monopoly practices		16	244
<b>207 - Taxes (2019 standard)</b>				
207-1	Approach to taxation		1, 10, 17	136-137
207-2	Tax governance, control and risk management		1, 10, 17	136-137
207-3	Stakeholder engagement and management of concerns related to tax		1, 10, 17	136-137
207-4	Country-by-country reporting		1, 10, 17	Single jurisdiction: Italy For items i, ii, iii, information in this Report. For items iv and vi to x, information in the Consolidated Financial Statements.
<b>Specific standards – Environmental area</b>				
<b>301 - Materials (2016 standard)</b>				
301-1	Materials used by weight or volume	•	⑦ ⑧ ⑨	6, 8, 12 208
301-2	Recycled input materials used	•	⑦ ⑧ ⑨	8, 12 208
301-3	Reclaimed products and their packaging materials	•	⑦ ⑧ ⑨	8, 12 Not pertinent in relation to Group activities

Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions	
<b>302 -Energy (2016 standard)</b>					
302-1	Energy consumption within the organisation	•	⑦ ⑧ ⑨	7, 8, 12, 13	22, 155-156, 200-201
302-2	Energy consumption outside of the organisation	•	⑦ ⑧ ⑨	7, 8, 12, 13	168-169, 199-202
302-3	Energy intensity	•	⑦ ⑧ ⑨	7, 8, 12, 13	Ratio between direct energy consumption and energy produced (TOE/MWh): 0.13
302-4	Reduction of energy consumption	•	⑦ ⑧ ⑨	7, 8, 12, 13	19, 21, 168-169
302-5	Reductions in energy requirements for products and services	•	⑦ ⑧ ⑨	7, 8, 12, 13	169-172
<b>303 - Water and effluents (2018 standard)</b>					
303-1	Interactions with water as a shared resource		⑦ ⑧ ⑨	6, 12	173-177, 260
303-2	Management of water discharge related impacts	•	⑦ ⑧ ⑨	6	177, 206
303-3	Water withdrawal	•	⑦ ⑧ ⑨	6	18, 22, 174-175    According to the World Resources Institute "Aqueduct Water Risk Atlas" analysis, withdrawals, discharge and consumption did not take place in water-stressed areas
303-4	Water discharge	•	⑦ ⑧ ⑨	6	176-177    According to the World Resources Institute "Aqueduct Water Risk Atlas" analysis, withdrawals, discharge and consumption did not take place in water-stressed areas
303-5	Water consumption	•	⑦ ⑧ ⑨	6	177    According to the World Resources Institute "Aqueduct Water Risk Atlas" analysis, withdrawals, discharge and consumption did not take place in water-stressed areas
<b>304 - Biodiversity (2016 standard)</b>					
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	•	⑦ ⑧	6, 14, 15	203-204    Qualitative reporting, subject managed in accordance with the regulations applicable to the Group's activities
304-2	Significant impacts of activities, products, and services on biodiversity	•	⑦ ⑧	6, 14, 15	203-206
304-3	Habitats protected or restored	•	⑦ ⑧	6, 14, 15	206
304-4	IUCN Red List species and national conservation lists species with habitats in areas affected by operations	•	⑦ ⑧	6, 14, 15	207
<b>305 - Emissions (2016 standard)</b>					
305-1	Direct (Scope 1) GHG emissions	•	⑦ ⑧ ⑨	3, 12, 13, 14, 15	22, 156-158, 201
305-2	Energy indirect (Scope 2) GHG emissions	•	⑦ ⑧ ⑨	3, 12, 13, 14, 15	22, 156-157, 159
305-3	Other indirect (Scope 3) GHG emissions	•	⑦ ⑧ ⑨	3, 12, 13, 14, 15	156-157, 160-161

Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions
305-4	GHG emissions intensity	•	⑦ ⑧ ⑨	13, 14, 15 19, 21, 109, 158
305-5	Reduction of GHG emissions	•	⑦ ⑧ ⑨	13, 14, 15 19, 163-164, 201-202
305-6	Emissions of ozone-depleting substances (ODS)	•	⑦ ⑧ ⑨	3, 12 156-158
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx) and other significant air emissions	•	⑦ ⑧ ⑨	3, 12, 14, 15 164, 201
<b>306 - Waste (2020 standard)</b>				
306-1	Waste production and significant waste-related impacts	•	⑦ ⑧	3, 6, 11, 12, 14 183-198
306-2	Management of significant waste-related impacts	•	⑦ ⑧	3, 6, 11, 12 183-198
306-3	Waste generated	•	⑦ ⑧	3, 6, 11, 12, 14 22, 183-186
306-4	Waste diverted from disposal	•	⑦ ⑧	3, 11, 12 183-198
306-5	Waste directed to disposal	•	⑦ ⑧	3, 6, 11, 12 183-198
<b>308 - Supplier environmental assessment (2016 standard)</b>				
308-1	New suppliers that were screened using environmental criteria	•	⑧	321
308-2	Negative environmental impacts in the supply chain and actions taken	•	⑧	321
<b>Specific standards – Social area</b>				
<b>401 - Employment (2016 standard)</b>				
401-1	New employee hires and employee turnover	•	⑥	5, 8, 10 19, 276-278, 315
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	•	⑥	3, 5, 8 288
401-3	Parental leave	•	⑥	5, 8 300
<b>402 - Labour/Management relations (2016 standard)</b>				
402-1	Minimum notice periods regarding operational changes	•	③	8 309
<b>403 - Occupational health and safety (2018 standard)</b>				
403-1	Occupational health and safety management system	•	③	8 301-302, 325-326
403-2	Hazard identification, risk assessment, and incident investigation	•	③	8 277-278, 303, 325-326
403-3	Occupational health services	•	③	8 302, 305-306
403-4	Worker participation, consultation, and communication on occupational health and safety	•	③	8, 16 303    Data related to Group employees

Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions	
403-5	Worker training on occupational health and safety	•	3	8	286-287, 306-307
403-6	Promotion of worker health	•	3	3	292-294    Data related to Group employees
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	•	3	8	301- 302, 325-326
403-8	Workers covered by an occupational health and safety management system	•	3	8	301-302, 325-326
403-9	Work-related injuries	•	3	3, 8, 16	19, 23, 304-305, 316, 326    Work-related injury rates related to Group employees
403-10	Work-related ill health	•	3	3, 8, 16	306    Data related to Group employees
<b>404 - Training and education (2016 standard)</b>					
404-1	Average hours of training per year per employee	•	6	4, 5, 8, 10	18, 23, 283-287
404-2	Upgrading employee skills and transition assistance programmes	•	6	8	281-282
404-3	Percentage of employees receiving regular performance and career development reviews	•	6	5, 8, 10	23, 281-282, 288
<b>405 - Diversity and equal opportunities (2016 standard)</b>					
405-1	Diversity of governance bodies and employees	•	6	5, 8	23, 274, 296-300, 312-313
405-2	Ratio of basic salary and remuneration of women to men	•	6	5, 8, 10	300, 315
<b>406 - Non-discrimination (2016 standard)</b>					
406-1	Incidents of discrimination and corrective actions taken	•	6	5, 8	297
<b>407 - Freedom of association and collective bargaining (2016 standard)</b>					
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	•	1 3	8	80-81, 324
<b>408 - Child labour (2016 standard)</b>					
408-1	Operations and suppliers at significant risk for incidents of child labour	•	1 5	8, 16	80-81, 319
<b>409 - Forced or compulsory labour (2016 standard)</b>					
409-1	Operations and suppliers at significant risk of incidents of forced or compulsory labour	•	1 4	8	80-81, 319
<b>410 - Safety practices (2016 standard)</b>					
410-1	Security personnel trained in human rights policies or procedures	•	1 2 3 4 5 6	16	Not pertinent in relation to Group activities

Indicator	It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions	
<b>411 - Rights of indigenous peoples (2016 standard)</b>					
411-1	Incidents of violations involving rights of indigenous peoples	•	①	2	Not pertinent given the location of the Group's activities
<b>413 - Local communities (2016 standard)</b>					
413-1	Operations with local community engagement, impact assessments, and development programmes	•	①		231-232
413-2	Operations with significant actual and potential negative impacts on local communities	•	①	1, 2	231-232
<b>414 - Supplier social assessment (2016 standard)</b>					
414-1	New suppliers screened using social criteria	•	① ② ⑥	5, 8, 16	328
414-2	Negative social impacts in the supply chain and actions taken	•	① ② ⑥	5, 8, 16	317-318
<b>415 - Public policy (2016 standard)</b>					
415-1	Political contributions	•		16	125
<b>416 - Customer health and safety (2016 standard)</b>					
416-1	Assessment of health and safety impacts by product and service categories	•			231-232, 237, 259, 264
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	•		16	244, 262
<b>417 - Marketing and labelling (2016 standard)</b>					
417-1	Requirements for product and service information and labelling	•		12	Not pertinent in relation to Group activities
417-2	Incidents of non-compliance concerning products and service information and labelling	•		16	244
417-3	Incidents of non-compliance concerning marketing communications	•		16	244
<b>418 - Customer privacy (2016 standard)</b>					
418-1	Substantiated complaints regarding breaches of customer privacy and losses of customer data	•		16	86-87
<b>Electric Utilities Supplement</b>					
EU-1	Installed capacity	•			18-19, 25, 165-167
EU-2	Net energy output	•			19-21, 25, 165-167
EU-3	Number of customers				18, 26, 238
EU-4	Length of transmission and distribution networks				18, 27, 253

Indicator		It. L.D. 254/16	UNGC	SDGs	Page reference/ Notes on possible omissions
EU-5	Compliance with the Kyoto Protocol	•			Level of compliance: 4 %
EU-10	Planned capacity				132
EU-11	Average output of heat production plants	•			Cogeneration, boilers and thermoelectric plants: 74 % Waste-to-energy plants: 77 %
EU-12	Transmission and distribution losses as a percentage of total energy	•			253
EU-13	Habitats restored (offsetting)	•			206
EU-15	Percentage of employees eligible to retire in the next 5 to 10 years				278
EU-17	Hours worked by contractor and subcontractor employees				324
EU-18	Health and safety training programmes carried out for contractor and subcontractor employees	•			324
EU-22	Number of people physically displaced following the construction of new plants and economical compensation	•			232
EU-25	Number of injuries and fatalities to the public involving company assets	•			232
EU-26	Percentage of population not served in the electricity distribution area				The Group serves the entire population of the local areas in which it manages the service
EU-27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime				254
EU-28	Power outages: average number of interruptions per LV customer (N1)				254
EU-29	Power outages: cumulative downtime (D1)				254
EU-30	Average plant availability factor	•			Cogeneration plants: 45 % Waste-to-energy plants: 90 %

## Material topics and GRI standards

Priority topics	Indicators
Growth and value creation for the company and stakeholders	2-6; 2-23; 3-3; 201-1; 201-2; 201-4; 202-2; 203-2; 207-1; 207-2; 207-3; 207-4
Solid, ethical and transparent governance for sustainable growth	2-9; 2-10; 2-11; 2-12; 2-13; 2-14; 2-15; 2-16; 2-17; 2-18; 2-19; 2-20; 2-23; 2-24; 2-25; 2-26; 3-3; 201-2; 205-1; 205-2; 205-3; 418-1
Efficient, reliable and safe management of processes and infrastructure	2-6; 2-23; 2-24; 2-25; 3-3; 303-1; 416-1



Priority topics	Indicators
Employment, development of human resources and welfare	2-7; 2-21; 2-23; 2-24; 2-30; 3-3; 201-3; 202-1; 202-2; 401-1; 401-2; 403-5; 403-6; 404-1; 404-2; 404-3; 405-1
Energy production and saving to reduce environmental and economic impacts	2-6; 2-23; 3-3; 302-2; 302-4; 302-5
Innovation and smart cities	2-23; 3-3
Circular waste management	2-6; 2-23; 3-3; 306-1; 306-2; 306-3; 306-4; 306-5
Sustainable use of water resources	2-6; 2-23; 3-3; 303-1; 303-2; 303-3; 303-4; 303-5
Decarbonization and reduction of emissions	2-23; 3-3; 302-1; 302-2; 305-1; 305-2; 305-3; 305-4; 305-5; 305-6; 305-7
Sustainable development of the local areas and communities	2-23; 2-27; 3-3; 203-1; 413-1; 413-2
Responsibility and quality in service delivery and customer orientation	2-6; 2-23; 2-25; 3-3; 206-1; 406-1; 416-2; 417-2; 417-3
Occupational health and safety	2-23; 3-3; 403-1; 403-2; 403-3; 403-4; 403-5; 403-7; 403-8; 403-9; 403-10
Industrial relations	2-23; 2-27; 3-3; 402-1
Diversity and inclusion	2-23; 3-3; 401-3; 405-1; 405-2; 406-1
Protection of human rights	2-23; 2-24; 3-3; 406-1; 407-1; 408-1; 409-1
Effective and transparent dialogue and communication with stakeholders	2-12; 2-14; 2-16; 2-23; 2-25; 2-27; 2-28; 2-29; 3-3; 415-1
Sustainable management of the supply chain	2-6; 2-23; 2-24; 3-3; 204-1; 308-1; 308-2; 403-1; 403-2; 403-3; 403-5; 403-7; 403-8; 403-9; 407-1; 408-1; 409-1; 414-1; 414-2
Protection of biodiversity	2-23; 3-3; 304-1; 304-2; 304-3; 304-4



# TCFD reconciliation table

	TCFD Recommendations	Reference
<b>GOVERNANCE</b>		
Organization's governance around climate related risks and opportunities	a) Describe the Board's oversight of climate change-related risks and opportunities	Sustainability governance, pag. 40-52
	b) Describe management's role in assessing and managing climate-related risks and opportunities	Sustainability governance, pag. 40-52
<b>STRATEGY</b>		
Actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning	a) Describe the climate-related risks and opportunities identified over the short-, medium-, and long-term	Risk management, pages 56-66
	b) Describe the impact of climate-related risks and opportunities on businesses, strategy, and financial planning	Risk management, pages 56-66
	c) Describe the resilience of the strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Strategy for sustainable development, pages 92-110
<b>RISK MANAGEMENT</b>		
Process for identifying, assessing, and managing climate-related risks	a) Describe the processes for identifying and assessing climate-related risks	Risk management, pages 56-66
	b) Describe processes for managing climate-related risks	Risk management, pages 56-66
	c) Describe how the processes for identifying, assessing, and managing climate-related risks are integrated into the overall risk management	Risk management, pages 56-66
<b>METRICS AND TARGETS</b>		
Metrics and targets used to assess and manage relevant climate-related risks and opportunities		Strategy for sustainable development, pages 106-108 (e.g. installed capacity from renewable sources)
	a) Disclose the metrics used to assess climate-related risks and opportunities in line with the strategy and risk management process	Risk management, pages 56-66 (e.g. Strategic Plan investments)
		Governance policies and tools, pages 75-77 (e.g. MbO system)
	b) Disclose Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) emissions, and related risks	Decarbonization and process efficiency, pages 156-164
	c) Describe the objectives used to manage climate change risks and opportunities and performance against the objectives	Strategy for sustainable development, pages 106-108



# EU Taxonomy statements

## Methodology of analysis

The identification of eligibility for the Taxonomy of activities managed by Iren Group is based on the analysis and assessment of the activities themselves.

### EVALUATION OF SUBSTANTIAL CONTRIBUTION

In order to identify, from among those eligible, the activities aligned to the Taxonomy, the technical screening criteria that determine the substantial contribution to climate objectives were analysed in depth for each activity carried out by Iren Group, with particular reference to the climate change mitigation objective, as it is considered, among those currently in force, to be the most significant for the businesses managed by the Group. No activities specifically aimed at making a substantial contribution to climate adaptation have been identified for the year 2022. The analysis was carried out on the following activities.

- **ENERGY PRODUCTION FROM RENEWABLE SOURCES AND STORAGE**

- **Hydroelectric power generation (4.5):** the Group's generation plants have a power density of more than 5W/m<sup>2</sup> or are run-of-river plants, and thus meet the technical screening criteria;

- **Solar photovoltaic power plants (4.1), electricity storage plants (4.10) and thermal energy storage plants (4.11):** there are no specific technical screening criteria, the activities in themselves contribute to climate change mitigation;

- **ENERGY PRODUCTION FROM NATURAL GAS**

- **High-efficiency cogeneration of heat and power (4.30), production of electricity from gas (4.29) and production of heat from gas in a district heating system (4.31):** these activities are eligible but not aligned as they do not meet the requirements for substantial contribution, provided for in the Supplementary Delegated Act on gas and nuclear power, related to carbon intensity and/or other characteristics related to the replacement of existing plants;

- **ENERGY NETWORKS**

- **Electricity distribution (4.9):** the network operated by Iren Group is part of the interconnected European system and, therefore, meets the technical screening criteria for contribution to climate change mitigation;

- **Gas distribution (4.14):** network upgrading activities to enable the integration of hydrogen and other low-carbon emission gases into the network are considered aligned, including activities to increase the mixture of hydrogen or other low-carbon gases in the gas system, as well as leakage detection and network repair activities to reduce methane leakage;

- **District heating (4.15):** the network operated by Iren Group makes a substantial contribution to climate change mitigation as it meets the definition of an efficient district heating system in the legislation;

- **INTEGRATED WATER SERVICE**

- **Water collection, treatment and supply (5.1):** energy consumption for extraction and treatment is equal to or less than 0.5 kWh per cubic metre of water ready to be supplied in all the territorial systems managed by Iren Group;

- **Wastewater collection and treatment (5.3):** the ratio between energy consumption and the population equivalent served by each plant managed by the Group was analysed; the activity is partially aligned, as some plants, particularly those built in orographically unfavourable contexts, require the adoption of more energy-intensive technologies to ensure maximum efficiency in terms of the quality of the water returned to the environment, and therefore have energy consumption above the thresholds envisaged by the technical screening criteria;

- **WASTE COLLECTION AND TREATMENT:**

- **Collection and transport of sorted non-hazardous waste (5.5):** no specific technical screening criteria, the activity in itself contributes to climate change mitigation;

- **Anaerobic digestion of organic waste (5.7) and composting of organic waste (5.8):** Iren Group's plants comply with all the technical screening criteria and thresholds required by the regulations;

- **Recovery of materials from non-hazardous waste (5.9):** the flows of all Iren Group's plants were analysed; the activity is partially aligned as only some plants comply with the technical screening criterion related to the percentage of conversion of sorted waste treated into secondary raw materials;

- **Capture and use of landfill gas (5.10):** the activity is partially aligned as Iren Group's landfills with capture and use of gas are mostly closed, with gas captured and used for the production of electricity from biogas and control and monitoring procedures for methane emissions and leaks aligned with the required regulations; one landfill, although meeting the other technical screening criteria, is still active;

- **E-MOBILITY AND ENERGY EFFICIENCY**

(Group internal services and activities with third parties): the activities managed by the Group concern electric mobility in terms of vehicles (6.5) and public (6.15) and own charging infrastructures (7.4), professional and technical activities (9.3), devices for improving and managing the energy efficiency of buildings (7.3) (7.5) and renewable energy technologies (7.6). These are activities for which there are no specific technical screening criteria and which in themselves contribute to climate change mitigation;

- **CONSTRUCTION OF NEW BUILDINGS (7.1) AND RENOVATION OF EXISTING BUILDINGS (7.2):**

the Group's building construction and renovation activities comply with the required technical screening criteria;

- **OTHER INTERNAL SERVICES**

acquisition and management of real estate (7.7) and data centre management (8.1): these activities are eligible in 2022 but not aligned with the technical screening criteria.

## CHECK DNSH (DO NO SIGNIFICANT HARM)

Do No Significant Harm (DNSH) was verified for activities considered eligible-aligned to find that they do not cause significant harm to the other environmental objectives identified by Taxonomy. The assessment of the DNSH criteria was carried out for each eligible-aligned activity in relation to the environmental objectives of Taxonomy:

- **climate change adaptation:** in 2022, Iren carried out an analysis specifically aimed at verifying the DNSH criterion for the climate change adaptation target, with the support of experts in the field. This criterion requires that an assessment of physical climatic risks (acute and chronic) is carried out for each activity and that an adaptation plan is implemented that presents possible solutions in the event of significant risk exposure. To this end, for the activities/assets managed by the Group, grouped into clusters on the basis of geographical and/or technological criteria, the relevant risk factors were identified, in the current and future scenarios with a time horizon of 2050, and an adaptation plan was defined, where necessary. The climate variables and qualitative

information used to assess the 2050 scenario were taken from literature sources and public databases (e.g. Copernicus, WRI Aqueduct);

- **sustainable use and protection of water and marine resources:** for all activities that interact with the water resource (energy generation, water distribution and treatment, anaerobic digestion plants for organic waste), an assessment of the risk of environmental degradation related to the preservation of water quality and the prevention of water stress is required, as required by the Water Directive and water management plans. The management procedures were then identified and checked for compliance with regulations, authorisations, any water management plans or other regional regulations and, where required, the presence of an environmental impact assessment >> [SEE PAGE 175](#);
- **transition to a circular economy:** where relevant, has been verified that a plan exists to manage waste generated by activities in accordance with the waste hierarchy, the EU waste management protocol and the requirements for purchased services or products >> [SEE PAGE 183](#);
- **pollution prevention and control:** compliance with the required criteria, specific to each activity, was verified;
- **protection and restoration of biodiversity and ecosystems:** for all activities carried out near or in the vicinity of sites located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and major biodiversity areas, as well as other protected areas), compliance with the criteria set out in any authorisation requirements and, where applicable, the presence of an environmental impact assessment was verified >> [SEE PAGE 203](#).

## COMPLIANCE WITH MINIMUM SAFEGUARDS

With regard to compliance with the social minimum safeguards, the Group has verified the adequacy of its management system and procedures in place with respect to the four core areas<sup>1</sup> provided for by European Taxonomy:

- human rights, including workers' and consumers' rights;
- bribery/corruption;
- taxation;
- fair competition.

The management system adopted covers the entire scope of the Group's activities and is fully aligned with the requirements of the Taxonomy. Further information on the Group's approach to respecting human rights can be found on page 78.

<sup>(1)</sup> In October 2022, a report by the Platform for Sustainable Finance dedicated to compliance with minimum safeguards was published and is being evaluated by the European Commission. Considering both the relevant international standards and ongoing regulatory developments at the EU level, four key issues were identified for which the implementation of an adequate due diligence system is necessary as a necessary safeguard to make violations in these four areas unlikely.

## Analytical tables

### METHODOLOGY FOR CALCULATING METRICS

The criteria adopted for the calculation of KPIs are as follows:

- **turnover (revenues)** – the share (%) is calculated as the ratio of the volume of net revenues associated with the economic activities aligned to Taxonomy (numerator) to total net revenues (in accordance with IAS 1, point 82, letter a) (denominator);
- **operating expenses (OpEx)** – the share (%) is calculated as the ratio between the portion of operating expenses related to activities aligned to the Taxonomy - including training and other human resources adaptation needs, as well as non-capitalised direct costs of research and development - (numerator) and non-capitalised direct costs related to research and development, non-capitalised leases, building renovation measures, short-term rental, maintenance and repair, as well as any other direct costs associated with the day-to-day maintenance of property, plant and equipment, either by the company or by third parties to whom these tasks are outsourced, that are necessary to ensure the continuous and effective operation of these assets (denominator);
- **capital expenditures (CapEx)** – the portion (%) is calculated as the ratio of the portion of capital expenditures related to assets aligned to the Taxonomy (numerator) and additions to tangible and intangible assets during the year considered before depreciation, amortisation, impairment, and any revaluation, including those resulting from restatements and reductions in value, for that year, and excluding changes in fair value (denominator). The denominator also includes increases to tangible and intangible assets resulting from business combinations. Specifically, capital expenditures include costs accounted for on the basis of international accounting standards: IAS 16 "Property, Plant and Equipment", point 73(e), sub-paragraphs i) and iii); IAS 38 "Intangible Assets", point 118(e), sub-paragraph i); IAS 40 "Investment Property", point 76(a) and point 79(d), sub-paragraphs i) and ii); IFRS 16 "Leases", point 53(h).

The values analysed refer only to items with third parties; therefore, items between Group companies are excluded, in order to avoid double counting in the calculation of KPIs. In addition, the effects of IFRIC 12 on revenues (amounting to 231,738,727 Euro) have been sterilised, in particular regarding the integrated water service concession.

## TURNOVER TABLE (REVENUE)

Economic activities (1)	Code (2)	Turnover (revenue)		Criteria for substantial contribution						DNSH criteria						Share of turnover aligned with taxonomy, year N (18)	Share of turnover aligned with taxonomy, year N-1 (19)	Category (qualifying activity) (20)	Category (transitional activities) (21)	
		Absolute turnover (revenue) (3)	Share of turnover (revenue) (4)	Climate change mitigation (5)	Adaptation to climate change (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Adaptation to climate change (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)					Safeguard minimum guarantees (17)
		Thousands (€)	%	%	%	%	%	%	%	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO					%
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES (A.1. + A.2.)</b>																				
<b>A.1. Environmentally sustainable activities (Taxonomy-aligned)</b>																				
Photovoltaic	4.1	59,976	0.8	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.8	-			
Hydroelectric	4.5	123,462	1.6	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	1.6	-			
Electricity distribution	4.9	130,974	1.7	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	1.7	-	A		
Low-carbon emission gas distribution <sup>(1)</sup>	4.14	34,228	0.4	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.4	-			
District heating	4.15	63,878	0.8	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.8	-			
Water distribution systems	5.1	273,661	3.6	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	3.6	-			
Wastewater collection and treatment systems	5.3	143,496	1.9	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	1.9	-			
Sorted waste collection <sup>(2)</sup>	5.5	274,198	3.6	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	3.6	-			
Anaerobic digesters of bio-waste	5.7	17,409	0.2	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.2	-			
Composting of bio-waste	5.8	2,576	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.0	-			
Material recovery from non-hazardous waste	5.9	41,608	0.5	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.5	-			
Closed landfills with biogas production	5.10	4,718	0.1	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.1	-			
Personal mobility devices	6.4	2,154	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.0	-		T	
Public electric charging columns	6.15	175	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.0	-			
Energy efficiency devices	7.3	344,646	4.5	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	4.5	-	A		
Electric charging columns at company premises	7.4	1,404	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.0	-	A		
Performance measurement, regulation and control devices	7.5	1,500	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.0	-	A		
Renewable energy technologies	7.6	42,604	0.6	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.6	-	A		
Professional services related to the energy performance of buildings	9.3	52,855	0.7	100	-	-	-	-	-	-	YES	YES	YES	YES	YES	0.7	-	A		
<b>Turnover (revenue) of environmentally sustainable activities (Taxonomy-aligned) (A.1)</b>		1,615,521	21.2	100	-	-	-	-	-	-						21.2				

Economic activities (1)	Code (2)			Criteria for substantial contribution						DNSH criteria										
		Absolute turnover (revenue) (3)	Share of turnover (revenue) (4)	Climate change mitigation (5)	Adaptation to climate change (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Adaptation to climate change (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Safeguard minimum guarantees (17)	Share of turnover aligned with taxonomy, year N (18)	Share of turnover aligned with taxonomy, year N-1 (19)	Category (qualifying activity) (20)	Category (transitional activities) (21)
		Thousands (€)	%	%	%	%	%	%	%	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	%	%	A	T	
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>																				
Thermoelectric	4.29	651,606	8.5																	
Cogeneration	4.30	1,549,242	20.3																	
District heating production boilers	4.31	47,915	0.6																	
Wastewater collection and treatment systems	5.3	64,745	0.8																	
Recovery of material from waste	5.9	57,778	0.8																	
<b>Turnover (revenue) of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities (A.2))</b>		2,371,286	31.0																	
<b>Total (A.1 + A.2) (A)</b>		3,986,807	52.2																	
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>																				
<b>Turnover (revenue) of Taxonomy-non-eligible activities (B)</b>		3,644,498	47.8																	
<b>Total (A+B)</b>		7,631,305	100																	

<sup>(1)</sup> In order to determine the revenues referring only to the activities of upgrading the portion (equal to approximately 4.3% of the total) of the managed distribution network to allow for the integration of hydrogen and other low-carbon gases and the detection and repair of network leaks to reduce methane losses, a criterion for parameterising the constraint on distribution revenues proportionate to the investments made was used.

<sup>(2)</sup> A criterion based on the direct costs of the activities has been used to determine revenues relating solely to the collection of non-hazardous waste in separate fractions.



## OPERATING EXPENSES TABLE (OPEX)

Economic activities (1)	Code (2)	Criteria for substantial contribution								DNSH Criteria							Share of operating expenditure aligned with taxonomy, year N (18)	Share of operating expenditure aligned with taxonomy, year N-1 (19)	Category (qualifying activity) (20)	Category (transitional activities) (21)
		Absolute operating expenses (3)	Share of operating expenses (4)	Climate change mitigation (5)	Adaptation to climate change (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Adaptation to climate change (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Safeguard minimum guarantees (17)				
		Thousands (€)	%	%	%	%	%	%	%	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	%				
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES (A.1. + A.2.)</b>																				
<b>A.1. Environmentally sustainable activities (Taxonomy-aligned)</b>																				
Photovoltaic	4.1	4,204	0.3	100	-	-	-	-	-	-	YES	YES	YES	YES	0.3	-				
Wind	4.3	35	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-				
Hydroelectric	4.5	13,213	1.0	100	-	-	-	-	-	-	YES	YES	YES	YES	1.0	-				
Electricity distribution	4.9	13,002	1.0	100	-	-	-	-	-	-	YES	YES	YES	YES	1.0	-		A		
Electricity storage	4.10	18	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-		A		
Thermal energy storage	4.11	1	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-		A		
Low-carbon emissions gas distribution	4.14	320	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-				
District heating	4.15	6,772	0.5	100	-	-	-	-	-	-	YES	YES	YES	YES	0.5	-				
Water distribution systems	5.1	65,691	5.0	100	-	-	-	-	-	-	YES	YES	YES	YES	5.0	-				
Wastewater collection and treatment systems	5.3	22,300	1.7	100	-	-	-	-	-	-	YES	YES	YES	YES	1.7	-				
Sorted waste collection	5.5	212,746	16.1	100	-	-	-	-	-	-	YES	YES	YES	YES	16.1	-				
Anaerobic digesters of bio-waste	5.7	10,482	0.8	100	-	-	-	-	-	-	YES	YES	YES	YES	0.8	-				
Composting of bio-waste	5.8	865	0.1	100	-	-	-	-	-	-	YES	YES	YES	YES	0.1	-				
Material recovery from non-hazardous waste	5.9	31,126	2.4	100	-	-	-	-	-	-	YES	YES	YES	YES	2.4	-				
Closed landfills with biogas production	5.10	899	0.1	100	-	-	-	-	-	-	YES	YES	YES	YES	0.1	-				
Personal mobility devices	6.4	1,577	0.1	100	-	-	-	-	-	-	YES	YES	YES	YES	0.1	-				
Company fleet vehicles	6.5	341	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-			T	
Public electric charging columns	6.15	103	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-				
Energy efficiency devices	7.3	278,557	21.0	100	-	-	-	-	-	-	YES	YES	YES	YES	21.0	-		A		
Electric charging columns at company premises	7.4	1,441	0.1	100	-	-	-	-	-	-	YES	YES	YES	YES	0.1	-		A		

Economic activities (1)	Code (2)	Criteria for substantial contribution								DNSH Criteria										
		Absolute operating expenses (3)	Share of operating expenses (4)	Climate change mitigation (5)	Adaptation to climate change (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Adaptation to climate change (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Safeguard minimum guarantees (17)	Share of operating expenditure aligned with taxonomy, year N (18)	Share of operating expenditure aligned with taxonomy, year N-1 (19)	Category (qualifying activity) (20)	Category (transitional activities) (21)
		Thousands (€)	%	%	%	%	%	%	%	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	%	%	A	T	
Performance measurement, regulation and control devices	7.5	2,261	0.2	100	-	-	-	-	-	-	YES				YES	0.2	-	A		
Renewable energy technologies	7.6	39,623	3.0	100	-	-	-	-	-	-	YES				YES	3.0	-	A		
Professional services related to the energy performance of buildings	9.3	10,156	0.8	100	-	-	-	-	-	-	YES				YES	0.8	-	A		
<b>Operating expenses of environmentally sustainable activities (Taxonomy-aligned) (A.1)</b>		715,735	54.1	100	-	-	-	-	-	-						54.1				
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>																				
Thermoelectric	4.29	5,933	0.4																	
Cogeneration	4.30	19,760	1.5																	
District heating production boilers	4.31	1,976	0.1																	
Wastewater collection and treatment systems	5.3	13,622	1.0																	
Recovery of material from waste	5.9	16,686	1.3																	
Company fleet vehicles	6.5	1,280	0.1																	
<b>Operating expenses of environmentally sustainable activities (not Taxonomy-aligned) (A.2)</b>		59,255	4.5																	
<b>Total (A.1 + A.2) (A)</b>		774,991	58.5																	
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>																				
<b>Operating expenses of Taxonomy-non-eligible- activities (B)</b>		549,193	41.5																	
<b>Total (A+B)</b>		1,324,184	100																	

## CAPITAL EXPENDITURE TABLE (CAPEX)

Economic activities (1)	Code (2)	Criteria for substantial contribution								DNSH Criteria							Share of capital expenditure aligned with taxonomy, year N (18)	Share of capital expenditure aligned with taxonomy, year N-1 (19)	Category (qualifying activity) (20)	Category (transitional activities) (21)
		Absolute capital expenditure (3)	Share of capital expenditure (4)	Climate change mitigation (5)	Adaptation to climate change (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Adaptation to climate change (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Safeguard minimum guarantees (17)				
		Thousands (€)	%	%	%	%	%	%	%	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	%				
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES (A.1. + A.2.)</b>																				
<b>A.1. Environmentally sustainable activities (Taxonomy-aligned)</b>																				
Photovoltaic	4.1	237,689	18.2	100	-	-	-	-	-	-	YES	YES	YES	YES	18.2	-				
Wind	4.3	152	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-				
Hydroelectric	4.5	42,888	3.3	100	-	-	-	-	-	-	YES	YES	YES	YES	3.3	-				
Electricity distribution	4.9	70,947	5.4	100	-	-	-	-	-	-	YES	YES	YES	YES	5.4	-			A	
Electricity storage	4.10	9,832	0.8	100	-	-	-	-	-	-	YES	YES	YES	YES	0.8	-			A	
Thermal energy storage	4.11	6,986	0.5	100	-	-	-	-	-	-	YES	YES	YES	YES	0.5	-			A	
Low-carbon emission gas distribution	4.14	15,252	1.2	100	-	-	-	-	-	-	YES	YES	YES	YES	1.2	-				
District heating	4.15	57,509	4.4	100	-	-	-	-	-	-	YES	YES	YES	YES	4.4	-				
Water distribution systems	5.1	104,014	8.0	100	-	-	-	-	-	-	YES	YES	YES	YES	8.0	-				
Wastewater collection and treatment systems	5.3	71,104	5.4	100	-	-	-	-	-	-	YES	YES	YES	YES	5.4	-				
Sorted waste collection	5.5	35,286	2.7	100	-	-	-	-	-	-	YES	YES	YES	YES	2.7	-				
Anaerobic digesters of bio-waste	5.7	121,527	9.3	100	-	-	-	-	-	-	YES	YES	YES	YES	9.3	-				
Material recovery from non-hazardous waste	5.9	48,338	3.7	100	-	-	-	-	-	-	YES	YES	YES	YES	3.7	-				
Closed landfills with biogas production	5.10	257	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-				
Personal mobility devices	6.4	20	0.0	100	-	-	-	-	-	-	YES	YES	YES	YES	0.0	-				
Company fleet vehicles	6.5	3,731	0.3	100	-	-	-	-	-	-	YES	YES	YES	YES	0.3	-				T
Construction of new buildings	7.1	2,654	0.2	100	-	-	-	-	-	-	YES	YES	YES	YES	0.2	-				
Renovation of existing buildings	7.2	10,630	0.8	100	-	-	-	-	-	-	YES	YES	YES	YES	0.8	-				
Energy efficiency devices	7.3	1,560	0.1	100	-	-	-	-	-	-	YES	YES	YES	YES	0.1	-			A	
Electric charging columns at company premises	7.4	897	0.1	100	-	-	-	-	-	-	YES	YES	YES	YES	0.1	-			A	

Economic activities (1)	Code (2)	Criteria for substantial contribution								DNSH Criteria										
		Absolute capital expenditure (3)	Share of capital expenditure (4)	Climate change mitigation (5)	Adaptation to climate change (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Adaptation to climate change (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Safeguard minimum guarantees (17)	Share of capital expenditure aligned with taxonomy, year N (18)	Share of capital expenditure aligned with taxonomy, year N-1 (19)	Category (qualifying activity) (20)	Category (transitional activities) (21)
		Thousands (€)	%	%	%	%	%	%	%	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	YES /NO	%	%	A	T	
Performance measurement, regulation and control devices	7.5	4,245	0.3	100	-	-	-	-	-	-	YES				YES	0.3	-	A		
Renewable energy technologies	7.6	17	0.0	100	-	-	-	-	-	-	YES				YES	0.0	-	A		
<b>Capital expenditures of environmentally sustainable activities (Taxonomy-aligned) (A.1)</b>		845,534	64.7	100	-	-	-	-	-	-						64.7				
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>																				
Thermoelectric	4.29	79,796	6.1																	
Cogeneration	4.30	19,413	1.5																	
District heating production boilers	4.31	4,394	0.3																	
Wastewater collection and treatment systems	5.3	40,114	3.1																	
Recovery of material from waste	5.9	13,807	1.1																	
Company fleet vehicles	6.5	659	0.1																	
Property management	7.7	4,028	0.3																	
Data centre	8.1	6,955	0.5																	
<b>Capital expenditures of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)</b>		169,166	13.0																	
<b>Total (A.1 + A.2) (A)</b>		1,014,701	77.7																	
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>																				
<b>Capital expenditures of Taxonomy-non-eligible- activities (B)</b>		291,162	22.3																	
<b>Total (A+B)</b>		1,305,863	100																	

## ACTIVITIES RELATED TO NUCLEAR ENERGY AND FOSSIL GAS

Row	Nuclear energy related activities	
1.	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
2.	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	NO
3.	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	NO
Row	Fossil gas related activities	
4.	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	YES
5.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	YES
6.	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	YES



# Report of the Independent Auditors

[GRI 2-5]



KPMG S.p.A.  
Revisione e organizzazione contabile  
Corso Vittorio Emanuele II, 48  
10123 TORINO TO  
Telefono +39 011 8395144  
Email [it-fmauditaly@kpmg.it](mailto:it-fmauditaly@kpmg.it)  
PEC [kpmgspa@pec.kpmg.it](mailto:kpmgspa@pec.kpmg.it)

(This independent auditors' report has been translated into English solely for the convenience of international readers. Accordingly, only the original Italian version is authoritative.)

## Independent auditors' report on the consolidated non-financial statement pursuant to article 3.10 of Legislative decree no. 254 of 30 December 2016 and article 5 of the Consob Regulation adopted with Resolution no. 20267 of 18 January 2018

To the board of directors of  
Iren S.p.A.

Pursuant to article 3.10 of Legislative decree no. 254 of 30 December 2016 (the "decree") and article 5 of the Consob (the Italian Commission for listed companies and the stock exchange) Regulation adopted with Resolution no. 20267 of 18 January 2018, we have been engaged to perform a limited assurance engagement on the 2022 consolidated non-financial statement of the Iren Group (the "group") prepared in accordance with article 4 of the decree and approved by the board of directors on 23 March 2023 (the "NFS").

Our procedures did not cover the information set out in the "EU taxonomy" and "EU taxonomy tables" sections of the NFS required by article 8 of Regulation (EU) 852 of 18 June 2020.

### Responsibilities of the directors and board of statutory auditors ("Collegio Sindacale") of Iren S.p.A. (the "parent") for the NFS

The directors are responsible for the preparation of an NFS in accordance with articles 3 and 4 of the decree, the "Global Reporting Initiative Sustainability Reporting Standards" issued by GRI - Global Reporting Initiative (the "GRI Standards") and the "G4 Sector Disclosure - Electric Utilities" (the "G4 Sector Disclosure"), which they have identified as the reporting standards.

The directors are also responsible, within the terms established by the Italian law, for such internal control as they determine is necessary to enable the preparation of an NFS that is free from material misstatement, whether due to fraud or error.

Moreover, the directors are responsible for the identification of the content of the NFS, considering the aspects indicated in article 3.1 of the decree and the group's business and characteristics, to the extent necessary to enable an understanding of the group's business, performance, results and the impacts it generates.

The directors' responsibility also includes the design of an internal model for the management and organisation of the group's activities, as well as, with reference to the aspects identified and disclosed in the NFS, the group's policies and the identification and management of the risks generated or borne.



**Iren Group**  
 Independent auditors' report  
 31 December 2022

The *Collegio Sindacale* is responsible for overseeing, within the terms established by the Italian law, compliance with the decree's provisions.

### **Auditors' independence and quality control**

We are independent in compliance with the independence and all other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards, the IESBA Code) 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 company applies International Standard on Quality Control 1 (ISQC Italia 1) and, accordingly, maintains a system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### **Auditors' responsibility**

Our responsibility is to express a conclusion, based on the procedures performed, about the compliance of the NFS with the requirements of the decree, the GRI Standards and the G4 Sector Disclosure. We carried out our work in accordance with the criteria established by "International Standard on Assurance Engagements 3000 (revised) - Assurance Engagements other than Audits or Reviews of Historical Financial Information" ("ISAE 3000 revised"), issued by the International Auditing and Assurance Standards Board applicable to limited assurance engagements. This standard requires that we plan and perform the engagement to obtain limited assurance about whether the NFS is free from material misstatement. A limited assurance engagement is less in scope than a reasonable assurance engagement carried out in accordance with ISAE 3000 revised, and consequently does 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 we performed on the NFS are based on our professional judgement and include inquiries, primarily of the parent's personnel responsible for the preparation of the information presented in the NFS, documental analyses, recalculations and other evidence gathering procedures, as appropriate.

Specifically, we performed the following procedures:

1. Analysing the material aspects based on the group's business and characteristics disclosed in the NFS, in order to assess the reasonableness of the identification process adopted on the basis of the provisions of article 3 of the decree and taking into account the reporting standards applied.
2. Analysing and assessing the identification criteria for the reporting scope, in order to check their compliance with the decree.
3. Comparing the financial disclosures presented in the NFS with those included in the group's consolidated financial statements.
4. Gaining an understanding of the following:
  - the group's business management and organisational model, with reference to the management of the aspects set out in article 3 of the decree;
  - the entity's policies in connection with the aspects set out in article 3 of the decree, the achieved results and the related key performance indicators;
  - the main risks generated or borne in connection with the aspects set out in article 3 of the decree.



**Iren Group**  
*Independent auditors' report*  
31 December 2022

Moreover, we checked the above against the disclosures presented in the NFS and carried out the procedures described in point 5.a).

5. Understanding the processes underlying the generation, recording and management of the significant qualitative and quantitative information disclosed in the NFS.

Specifically, we held interviews and discussions with the parent's management personnel and personnel of Iren Ambiente S.p.A., Ireti S.p.A. and Iren Energia S.p.A.. We also performed selected procedures on documentation to gather information on the processes and procedures used to gather, combine, process and transmit non-financial data and information to the office that prepares the NFS.

Furthermore, with respect to significant information, considering the group's business and characteristics:

- at parent level,
  - a) we held interviews and obtained supporting documentation to check the qualitative information presented in the NFS and, specifically, the business model, the policies applied and main risks for consistency with available evidence,
  - b) we carried out analytical and limited procedures to check, on a sample basis, the correct aggregation of data in the quantitative information;
- we held meetings and videoconferences with the management of Iren S.p.A., Iren Ambiente S.p.A., Ireti S.p.A., Iren Energia S.p.A. and the TRM cogeneration and waste-to-energy plants' Turin sites, which we have selected on the basis of their business, contribution to the key performance indicators at consolidated level and location, to obtain documentary evidence supporting the correct application of the procedures and methods used to calculate the indicators.





**Iren Group**  
*Independent auditors' report*  
31 December 2022

### **Conclusion**

Based on the procedures performed, nothing has come to our attention that causes us to believe that the 2022 consolidated non-financial statement of the Iren Group has not been prepared, in all material respects, in accordance with the requirements of articles 3 and 4 of the decree, the GRI Standards and the G4 Sector Disclosure.

Our conclusion does not extend to the information set out in the “EU taxonomy” and “EU taxonomy tables” sections of the NFS required by article 8 of Regulation (EU) 852 of 18 June 2020.

### **Other matters**

The NFS presents the corresponding figures included in the 2020 consolidated non-financial statement for comparative purposes, on which other auditors performed a limited assurance engagement and expressed their unqualified conclusion on 14 April 2021.

Turin, 12 April 2023

KPMG S.p.A.

(signed on the original)

Roberto Bianchi  
Director of Audit



## Glossary

### A

**ARERA** (formerly AEEGSI, Electricity, Gas and Water Authority): Regulatory Authority for Energy, Networks and Environment.

**ARPA**: Regional Environmental Protection Agency.

**ASPP**: Prevention and Protection Service Officer.

### B

**BEST AVAILABLE TECHNOLOGIES (BAT)**: best available technologies for pollution prevention and control.

**BIOGAS**: formation of gas, by anaerobic fermentation in the presence of microorganisms bacteria, of waste or sludge from urban water treatment; the methane contained in the biogas can be used for energy production.

**BOD**: the term BOD (biochemical oxygen demand) refers to the amount of oxygen consumed during a given time, at a given temperature, to decompose organic substances in water through the action of bacteria (cellular respiration). A high biochemical oxygen demand is the index of an intense bacterial activity for organic decomposition and highlights the presence of organic pollution. This is an indirect measure of pollutant load. Its value is expressed in %.

### C

**CLEANTECH**: any process, product or service that reduces negative environmental impacts through significant improvements in energy efficiency, sustainable use of resources or environmental protection activities.

**CO**: carbon monoxide.

**CO<sub>2</sub>**: carbon dioxide.

**COD**: the term COD (chemical oxygen demand) means the amount of oxygen necessary for the complete oxidation of organic and inorganic compounds present in a water sample. It is an index measuring the degree of pollution of water by oxidisable substances, mainly organic. Its value is expressed in %.

**CODE OF ETHICS**: in all company activities, a document defines the principles, behaviours, commitments, and ethical responsibilities that must be complied with by directors, employees, and collaborators.

**CO-GENERATION**: simultaneous production of electrical and thermal energy.

**CORPORATE GOVERNANCE**: set of rules according to which companies are managed and controlled.

**CSR**: Corporate Social Responsibility (CSR).

### D

**DISTRICT HEATING**: remote transmission of heat by circulating water in two pipes, one supplying hot water and one returning colder water.

### E

**EIB**: European Investment Bank, an institution of the European Union for financing investments in support of the Union's policy objectives.

**E-LEARNING**: learning through multimedia courses that can be used mainly remotely through online systems.

**ELECTRICITY SERVICES PROVIDER (GSE)**: Joint-Stock Company (art. 3 of Legislative Decree 79/99) whose shares are held by the Ministry of the Treasury, which provides incentives for the production of electricity from renewable and similar sources and is responsible for the qualification of renewable source plants and their production.

**EMAS (ENVIRONMENTAL MANAGEMENT AND AUDIT SCHEME)**: environmental management and audit scheme according to Community Regulation 761/2001.

**EMISSIONS TRADING SYSTEM (ETS)**: flexible mechanism, provided for in the Kyoto agreements, for trading emission rights between countries or companies in relation to their respective greenhouse gas emission reduction targets.

**END CUSTOMER**: natural or legal person who purchases electricity exclusively for his/her own use.

**ENERGY EFFICIENCY CERTIFICATES (EEC)** (also known as White Certificates): energy savings certificates for which electricity and gas distributors with a customer base of more than 50,000 are required. EECs are valid for five years and are issued by the GME (Decree of the Ministry of Productive Activities dated 20/7/04, in agreement with the Minister for the Environment and Protection of the Land).

**ENERGY SERVICE COMPANY (ESCO)**: companies that carry out interventions aimed at improving energy efficiency, assuming the risk of the initiative and freeing the final customer from any organisational and investment burden.

**ESG INDEXES**: indexes that monitor the performance of a basket of companies according to economic, ethical, environmental and social criteria.

### G

**GIGAJoule (GJ)**: unit of measurement of energy (of any kind) adopted in the international system (3.6 GJ corresponds to 1 GWh).

**GIGAWATT (GW)**: unit of measurement of power (of any nature) equal to one million kilowatts.

**GIGAWATT-HOUR (GWh):** unit of measurement of energy (of any kind) equal to one million kilowatt-hours.

**GREEN BOND:** bond instruments whose proceeds are used exclusively to finance or refinance all or part of projects/activities with a clear positive impact on the environment (Eligible Projects/Activities).

**GREEN CERTIFICATES:** annual certificates issued by the GSE certifying the production from renewable sources of 1 MWh of energy. Since 2002 (Decree 79/99) producers and importers have been obliged to feed energy from renewable sources into the grid in quantities equal to a percentage of the total electricity from conventional sources produced or imported in the previous year (net of exports, self-consumption by power stations and cogeneration).

**GREENHOUSE GASES:** gases that do not allow the dispersion of heat from the earth and therefore produce overheating of the atmosphere. In addition to those of natural origin, the main anthropogenic greenhouse gases are carbon dioxide, methane, chlorofluorocarbons and nitrogen oxides.

**GROSS PRODUCTION:** electrical energy produced during the period of time considered, measured at the terminals of the electric generator.

**GUARANTEE OF ORIGIN (GO):** electronic certification that attests to the renewable origin of the sources used by IGO-qualified plants (Plants with Guarantee of Origin). A GO title is issued for each MWh of renewable electricity fed into the grid by these facilities.

## H

**HSR:** Workers' Health and Safety Representative.

**HV:** high voltage, i.e. 132 kV, 220 kV and 380 kV.

**HYDROELECTRIC:** a system that transforms the potential energy of water into electrical energy. May be of the flowing water, basin and reservoir type.

## I

**IEA:** Integrated Environmental Authorisation.

## K

**KILOVOLT (kV):** unit of measurement of voltage equal to 1,000 Volts.

**KILOWATT (kW):** unit of measurement of power (of any kind) equal to 1,000 Watts.

**KILOWATT-HOUR (kWh):** unit of measurement of energy (of any kind) equal to 1,000 Watts for one hour.

## L

**LANDFILL MINING:** excavation of waste deposited in landfills and its subsequent treatment for the inertisation of hazardous fractions and the separation and selection of the different components (fine material, recoverable fractions and residues), intended for separate management.

**LV:** low voltage, i.e. 220/380 V.

## M

**MbO:** Management by Objectives.

**MEGAWATT (MW):** unit of measurement of power (of any kind) equal to one million Watts.

**MEGAWATT-HOUR (MWh):** unit of measurement of energy (of any kind) equal to one thousand kilowatt-hours.

**MSW:** Municipal Solid Waste.

**MV:** medium voltage, i.e. voltages between 1 and 30 kV.

## N

**NET PRODUCTION:** gross production minus consumption for services required to operate the generating group.

**NO<sub>x</sub>:** nitrogen oxides.

## O

**OPTIMAL TERRITORIAL AREA (ATO):** the Optimal Territorial Area (Law 36/94) determines the regional level of the organisation of the Integrated Water Service; the Regional Law defines its boundaries.

## P

**PAI:** Integrated Environmental Centre.

**PPE:** Personal Protective Equipment.

**PPS:** Prevention and Protection Service.

**PRODUCTION CAPACITY:** estimated energy that can be produced by each individual producer.

## R

**RAD:** Risk Assessment Document.

**RENEWABLE SOURCES:** non-fossil sources (wind, solar, geothermal, wave motion, tidal power, hydraulics, biomass, landfill gas, residual gas from treatment and biogas processes) pursuant to art. 2 of the RES Decree.

**REVAMPING:** renovation of obsolete industrial plants.

**RSP:** Prevention and Protection Service Manager.

**RSU:** Unitary Union Representative Body.

## S

**SBTi:** (Science Based Target initiative) collaboration between CDP, the United Nations Global Compact (UNGC), the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF) with the goal of promoting best practices for the definition and independent verification of science-based GHG emission reduction targets.

**SDGs:** (Sustainable Development Goals) 17 sustainable development goals to be achieved by 2030, defined by the UN.

**SERVICE CHARTER:** a document setting out the quality standards for company services.

**SMART METERING:** systems enabling remote reading and management of electricity, gas and water meters.

**SM<sup>3</sup>:** standard cubic meter.

**SOCIAL COOPERATIVES:** enterprises (Law 381/91) which have the aim of “pursuing the general interest of the community for human promotion and social integration of residents” through the carrying out of activities aimed at the employment of disadvantaged people.

**SOFT SKILLS:** cognitive, interpersonal and communication skills, which differ from the technical skills and abilities related to specific roles.

**SST:** the term SST (Solidi Sospesi Totali – Total Suspended Solids) means the sum of suspended solids and filterable solids. It represents the total substances present in a waste water sample after drying at 105°C. The value is expressed in %.

**STAKEHOLDERS:** parties who interact with the company and can influence or be influenced by the company’s activities.

**SUSTAINABLE DEVELOPMENT:** long-term economic development through low environmental impact and good relations with the social community.

## T

---

**TCFD** (Task Force on Climate-related Financial Disclosures): established in 2015 by the Financial Stability Board to improve, through its recommendations, the reporting of financial information related to climate change-related risks.

**TERAWATT-HOUR (TWh):** one billion kilowatt-hours.

**THERMOELECTRIC:** plant for the production of electrical energy from fossil fuels.

**TOE** (tonnes of oil equivalent): equivalent to the primary fossil energy replaced, i.e. the amount of fuel otherwise needed to produce the same amount of energy.

**TOTAL POWER:** sum of the electrical or thermal power of the various producers installed at the same plant.

## U

---

**UNI EN ISO 9001:** international technical standard for the certification of quality management systems.

**UNI EN ISO 14001:** international technical standard for the certification of environmental management systems.

**UNI EN ISO 45001:** international technical standard for the certification of occupational health and safety management systems.

## W

---

**WATT:** unit of measurement of electrical power.



# Sustainability Report 2022

Consolidated non-financial report pursuant to Legislative Decree 254/2016 Directive (2014/95/UE)

---

[Do you want to know more?](#)

<https://www.gruppoiren.it/it/sostenibilita.html>

[Would you like to evaluate our Sustainability Report?](#)

For any comments, advice or criticism please fill out the online questionnaire:

<https://www.gruppoiren.it/it/sostenibilita/bilanci-di-sostenibilita-dnf.html>

[Would you like to contact the Working Group?](#)

Write to us at:

[sostenibilita@gruppoiren.it](mailto:sostenibilita@gruppoiren.it)

**2022 Sustainability Report prepared by the Corporate Social Responsibility and Local Committees Department.**

Project group:

Emiliano Bussolo | Maria Paola Canneddu | Beatrice Cavedoni | Giulia Galante | Mara Gaudi | Angelo Guidi | Sophia Gugliuzza | Giulia Mancini | Laura Pellegrini | Felicita Saglia | Julia Winter | Selina Xerra

A special thanks to all the colleagues of Iren Group who contributed to the preparation of this Sustainability Report and to the members of the Local Committees for their commitment in the materiality analysis.





iren



**Iren S.p.A.**  
Via Nubi di Magellano, 30  
42123 Reggio Emilia - Italy  
[www.gruppoiren.it](http://www.gruppoiren.it)