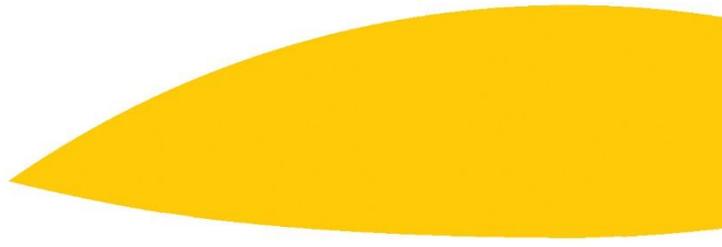


Sustainability Report 2019



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



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LETTER TO STAKEHOLDERS

This year's Sustainability Report contains two changes that enable us to more effectively report our annual and half-yearly results delivered through our sustainable development strategy.

The first new development is that the data and information about our environmental, social and economic performance are reported in terms of their progression towards the objectives set out in the Business Plan to 2024.

The second new addition regards our history, our roots. In fact, the first section of the document summarises the main results achieved during the first ten years of Iren Group's operation (2010-2019). This focus shows how our dimensional growth has made us stronger: we have consistently improved the sustainability of the local area, balancing the legitimate expectations of a multitude of stakeholders.

These new additions reinforce the dual purpose of the Sustainability Report: a strategic monitoring tool and method of transparency towards stakeholders designed to provide a clear and comprehensive vision of our ability to create value now and in the future.

The path established by our 2024 Business Plan confirms our strategic pillars for sustainable development: **growth, customers/residents, people, the sustainable use of resources** to which are crosswise added efficiency and digitalisation. Each of these is broken down into goals, which align with the UN 2030 Agenda and are described in this Report to demonstrate the results achieved.

Growth and creation of value

In 2019, we concluded operations which led to the further growth of our Group: this is evident from the 1,421 Euro million added value generated and distributed (+4% compared to 2018), confirming the trend of the last ten years with the Group's value distribution constantly on the rise, for a total value of approximately 11 billion Euro.

Our operating investments are further evidence of this, totalling over 3.6 billion Euro in the last 10 years and 524 million Euro in 2019, up 17% on 2018.

Innovation is another driver for the creation of value. One example in this direction is the Iren Up programme, launched with the aim of supporting Italian start-ups with high potential and enabling us to acquire know-how, to integrate innovative technologies and services into our business and to drive innovation in the local area.

Customers/Residents

Our priority is to enhance our services with innovative content and offering new ones to improve quality of life, with significant results achieved in 2019: overall customer satisfaction came in at 90% and our customer base grew, confirming the trust that, over 10 years of the Group's life, has led to a 30% rise in the number of families and businesses choosing Iren as their energy services provider.

Our constant focus on communities that has always characterised us has a significant impact on the region, starting with the supply chain with over 876 million Euro in orders issued (+21% compared to 2018), for a total cumulative value in 2010-2019 of over 6.1 billion Euro, of which more than 45% stems from local suppliers.

In order to consolidate this link with local communities each year we support several cultural, entertainment, sports and regional sustainability projects: in 2019, 273 such projects were carried out, in addition to the 21 projects implemented through participatory planning activities with our stakeholders as part of Iren's Local Committees, with a total investment of around 11.5 million Euro.

People

For the 8,102 men and women who work for Iren Group, 2019 was a year of many firsts: the roll-out of smart working to 950 employees; the actions developed downstream of the survey into conduct and organisational policies which involved the entire workforce; the Iren4Digital digitalisation project, which mapped the skills of all our employees to outline improvement plans; the addition of 745 new hires, most of them young people; the incorporation of new companies that introduced over 840 people to the Group; and, finally, the intensification of training activities, particularly with regards to health and safety.

But the most important challenge for our women and men is, and continues to be, guaranteeing greater flexibility, commitment and collaboration at all levels in order to overcome —collectively and with determination—major obstacles such as: the cyber-attack that struck the Group in late 2019 and the critical health crisis caused by the spread of the coronavirus currently sweeping across the entire country, requiring us to guarantee continuous services which are now more critical than ever. More than anything else, it is the spirit that our employees dedicate to their work each day that emphasises the strength of our relationship with the community.

Sustainable use of resources

Our focus on resources, their use and the reduction of the associated environmental impacts is part of our DNA and can be seen in the Group's operating results.

Our commitment to **decarbonisation** is expressed through our use of renewable energy sources (+66% in 10 years) and similar sources—accounting for 76% of our entire energy production, compared to the national average of around 40%—as well as services to improve customers' energy efficiency and our focus on all of our production processes. The results recorded are significant: 2.8 million tonnes of CO₂ emissions avoided (an average of more than 2.2 million tonnes/year since 2010) and 674,000 tonnes of oil equivalent saved (average of 590,900 TOE/year since 2010).

The **circular economy** approach to waste management is evident in several results: the separated waste collection that, in the area served by the Group, averages 67.3% (56.4% in 2010), against a national average of 58.1%, with regions recording some of the best figures in Italy; the extension of "pay-as-you-throw" system to around 200,000 residents, for a total of approximately 513,000 people with impacts on the reduction of non-separated waste (-7% per resident per year compared to 2018); the major investment programme aimed at optimising our production plants for the recovery of waste material (+145,000 tonnes processed compared to 2018), with the aim of closing the cycle in a virtuous manner and soon becoming a leading player in this field in Italy.

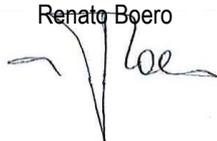
To promote the sustainable use of **water resources**, Iren Group is committed to improving the management of water networks, thanks to their progressive division into districts in traditional areas, which account for over 52% of the managed grid (46% in 2018), with positive impacts in terms of reducing water withdrawals from the environment (-1% compared to 2018) and water leaks (-1.4 compared to 2018). To improve our water treatment capacity we are continuing to invest to optimise and renew our plants, comprising 1,341 large and small-scale treatment plants.

Finally, for our "**resilient cities**" we are continuing with the roll-out of district heating (+44% volume served in 10 years), helping to improve air quality and promote the energy upgrading of buildings and public street lighting. We have optimised our focus on sustainable mobility with e-mobility services offered to customers and progressively integrated in our vehicle fleet (+47% electric vehicles compared to 2018).

In conclusion, we can confirm that, through our results in 2019, we have put our mission into practice, reaffirming this commitment with the path we have laid out for 2024.

As we conclude this Report, we would like to express our hope to all of our stakeholders that the difficulties we are facing in these first few months of 2020 will bring us closer together as we look towards the recovery of our local areas and communities.

Chairman
Renato Boero



Deputy Chairman
Moris Ferretti



Chief Executive Officer
Massimiliano Bianco

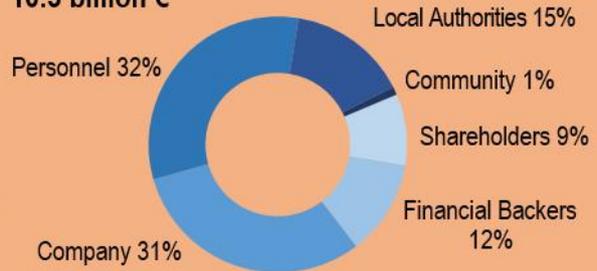


10 Years of Sustainability

Added value (€ million)



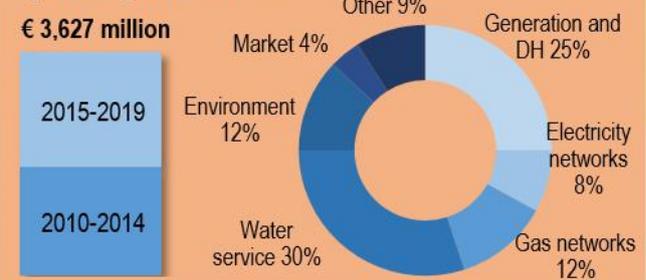
Distributed added value 2010-2019:
10.3 billion €



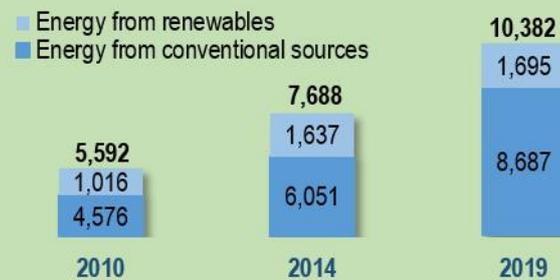
Dividends distributed during the year (€ million)



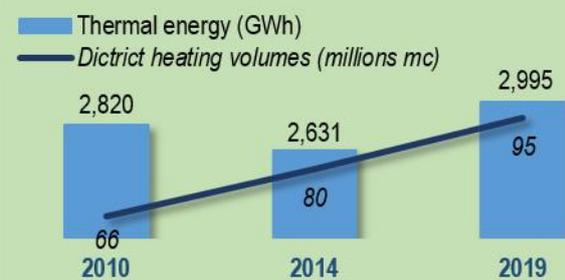
Operating investments



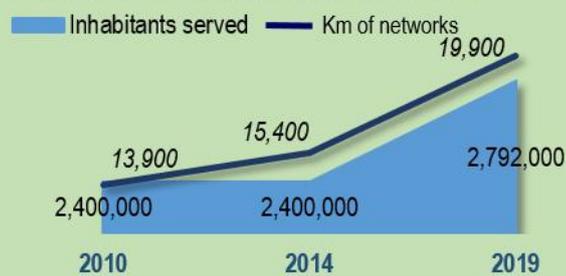
Energy generated (GWh)



Thermal energy and district heating



Water network and inhabitants served



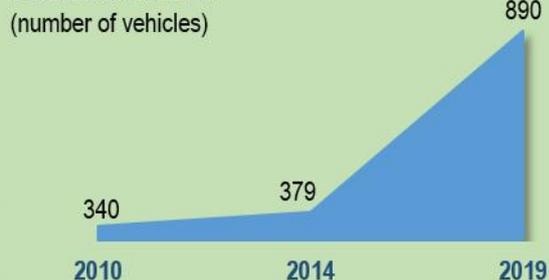
Wastewater control and treatment plants

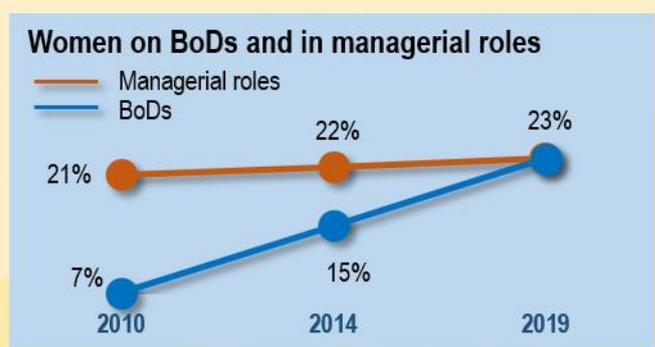
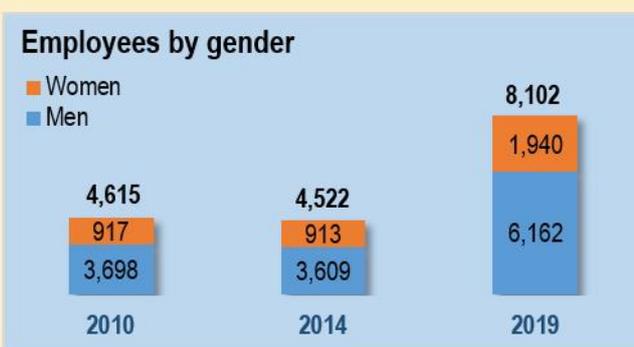
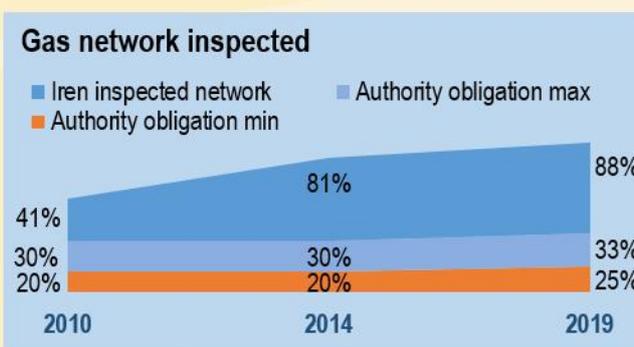
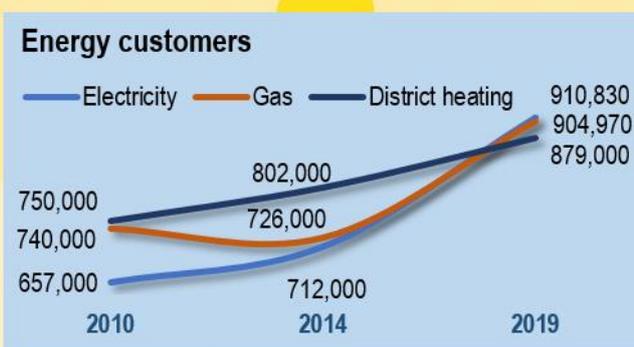
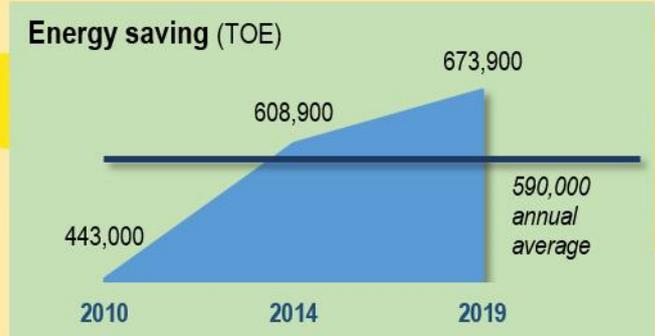
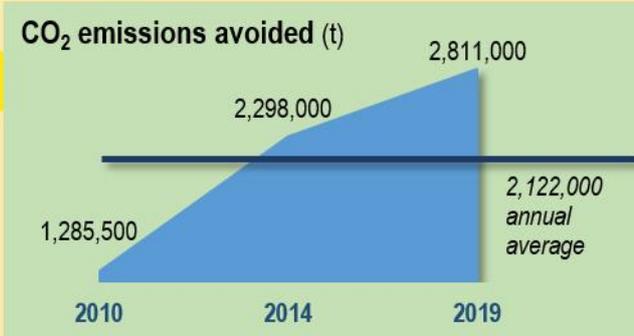


Urban waste and separate collection



Sustainable fleet





2019 Highlights

VALUE	SUSTAINABLE RESOURCES	IREN PEOPLE
4,275 million Euro in revenues	2.8 million tonnes of CO ₂ avoided	99% of employees have a permanent contract or an apprenticeship contract
524 million Euro in investments	674,000 TOE saved	745 new hires
1,421 million Euro in added valued distributed	76% of electricity produced from renewable sources or similar	85% of employees involved in training activities
0,0925 Euro in dividends per share proposed +197% share price increase in the last 5 years	67.3% in separated waste collection (national average: 58.1%)	950 employees involved in smart working programmes
3 Green Bonds for 1,500 million Euro invested in 40 environmental sustainability projects	33.4% water network leaks (national average: 41.4%)	1,940 women work within the Group and account for 40% of the BoD
8.3 million Euro invested in research and innovation projects	4.2% electricity grid losses (national average: 6.4%)	+11% hours of employee training on health and safety



CUSTOMERS AND RESIDENTS

+2% energy customers
+32% environmental services residents

65 branches with
607,000 customers served and **2.6** million call centre inquiries answered

90% of customers satisfied

+10% of customers registered for online services

88% of the gas network inspected, **91%** of the district heating network, **42%** of electricity substations

over **778,000** parameters analysed of drinking water and waste water

876 million Euro in orders issued to suppliers

+25% order value to local suppliers

38 social cooperatives work with Iren

1,500 hours of training for third-party companies

889 supplier involved in the survey on environmental and corporate responsibility

14 memberships in national and international associations and networks

80,144 people and **529** schools involved in Edu.Iren educational programmes

110 plants opened to students and citizens

273 projects supported benefiting communities

64 projects by the Iren Local Committees for sustainability

100 companies participated in the Iren Start-up Awards

20 million Euro in three years for the Iren Up corporate venture capital programme

NOTE ON METHODOLOGY

The Iren S.p.A 2019 Sustainability Report, referring to the period 1 January – 31 December 2019, also constitutes a consolidated non-financial statement (NFS), pursuant to Italian Legislative Decree no. 254/2016.

The document was prepared under the coordination of the Corporate Social Responsibility Department and Local Committees, in compliance with the Global Reporting Initiative (GRI) standard: comprehensive option and the Utility supplement of the electricity sector – G4 Sector Disclosure.

The data are reported through the “Sustainability Report – NFS” application, which facilitates the tracking, verification and approval of all required data.

The Sustainability Report/NFS is prepared annually by Iren Group under the coordination of the Corporate Social Responsibility Department and Local Committees (the 2018 report was published in April 2019) and approved by the Board of Directors together with the draft of the Statutory Financial Statements and the Consolidated Financial Statements.

The 2019 Sustainability Report/NFS was approved by the Board of Directors’ Meeting held on 25 March 2020.

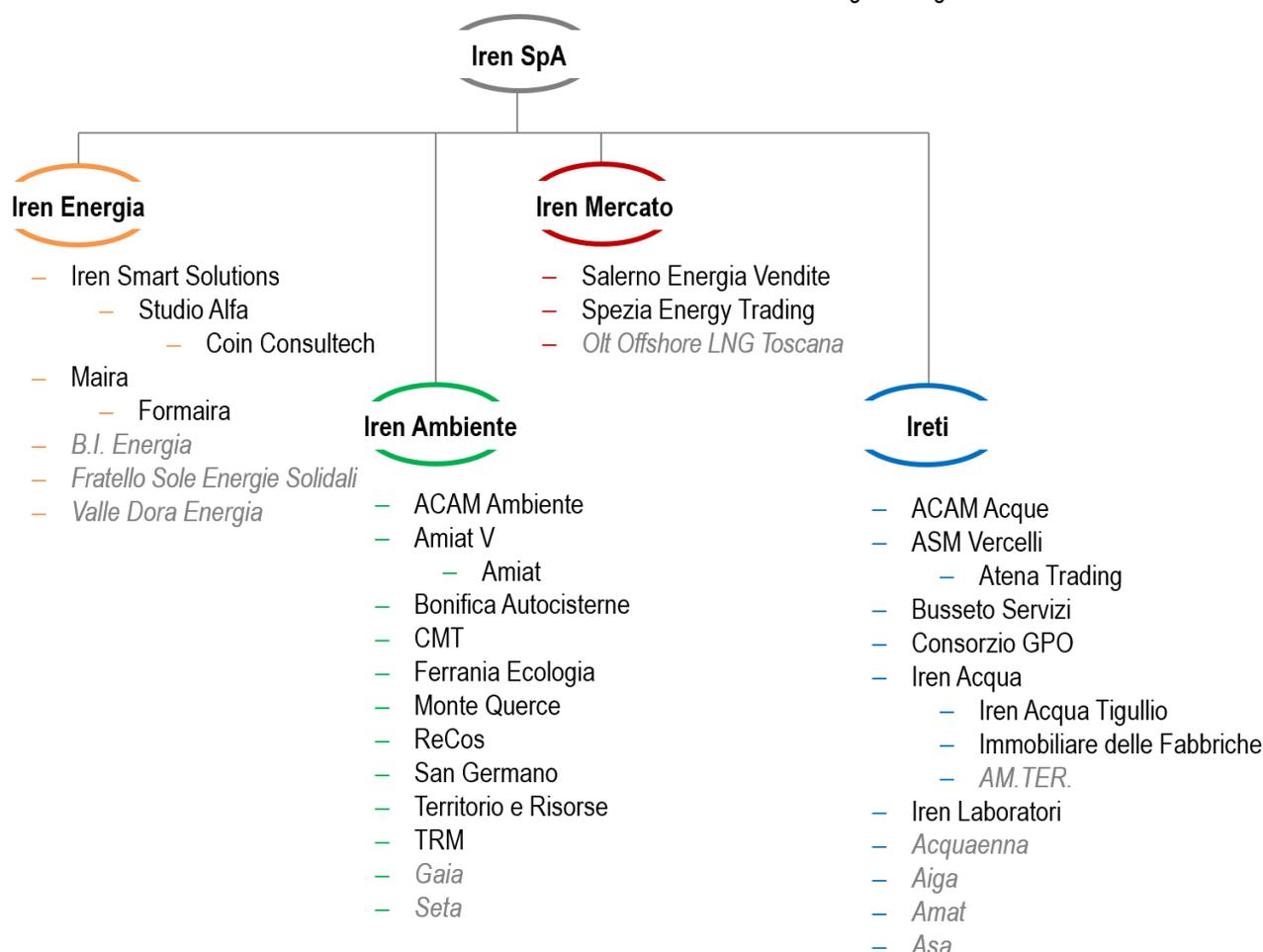
The document was subject to review by the appointed auditor PricewaterhouseCoopers S.p.A. pursuant to Italian Legislative Decree 254/2016 based on the principles and indications contained within ISAE3000 (International Standard on Assurance Engagements 3000 - Revised) of the International Auditing and Assurance Standard Board (IAASB).

PricewaterhouseCoopers S.p.A. is also the company appointed to perform the legal audit of the Consolidated Financial Statements of the Group.

SCOPE OF REPORTING

The scope of reporting for the preparation of the Sustainability Report/NFS is indicated in the table below and takes into consideration:

- all of the fully consolidated companies of the Iren Group, with the exception of those in liquidation as at 31/12/2019, sold or destined to be transferred;
- the qualitative and quantitative information for certain companies not fully consolidated —(indicated in grey italics in the table below),- are given separately in the “Companies Outside the Scope” section (see page 21). They are considered significant due to the equity interest held, the business managed and governance.



Legend: in gray and italics the companies not fully consolidated. considered relevant for sustainability

Compared to 2018, changes to the scope of reporting concern:

- the **incorporation** into the Group of the companies Busseto Servizi, San Germano and CMT (consolidated on 1 January 2019), Ferrania Ecologica (consolidated on 1 July 2019) and Territorio e Risorse (consolidated on 1 October 2019);
- the **merger by incorporation** of Greensource, Enia Solaris and Varsi Fotovoltaico into Iren Energia and of R.E.I. into Iren Ambiente on 1 January 2019;
- the **name change** of Iren Rinnovabili to Iren Smart Solutions on 1 August 2019;
- the **transfer of the management** of the integrated water service in the municipalities of San Pietro Mosezzo, Affi and Torri del Benaco;
- the **exit** of Acque Potabili which ceased to operate on 28 December 2018.

Any limitations in regard to the scope of the Sustainability Report/NFS are duly indicated, as well as any restatements of the data related to the previous two-year period. It should be noted that, generally, the data referring to certain companies reported in this document for 2019 refer to the consolidation period of these companies by Iren Group, and in particular:

- Ferrania Ecologia from 1 July to 31 December 2019;
- Territorio e Risorse from 1 October to 31 December 2019.

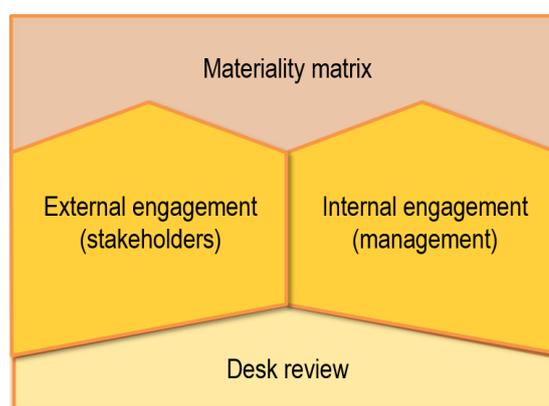
In order to guarantee the reliability of the information provided, the report includes directly measurable quantities, thus limiting the use of estimates as much as possible. Estimated quantities are indicated as such. The calculations are based on the best information available or on sample surveys.

RELEVANT TOPICS

Through the materiality analysis, the Iren Group and its stakeholders assess the significance of the topics reported in this Sustainability Report. This underlines the connection of the relevant topics with the Group strategy and ensures that requests for information of the various stakeholders are taken into consideration. The materiality analyses conducted annually by Iren Group is a dynamic process carried out in various stages:

- **desk review:** identification of the spectrum of potentially significant topics through the analysis of Italian Legislative Decree 254/2016, the GRI standard and other publications, domestic and international sustainable development targets, the Mission, the Memorandum and the Group's Strategic Plan and related sustainability objectives, the financial and sustainability reporting of the Group, previous materiality analyses, customer satisfaction surveys, the Group risk map, media analysis and peer and competitor sustainability topics;
- **internal engagement:** sharing and assessing potentially significant topics by the first line of the Group management in order to identify relevant topics for Iren;

- **external engagement:** sharing and assessing potentially significant topics by Iren Local Committees in order to focus interests and identify economic, social and/or environmental topics relevant to stakeholders. The 97 Associations/Institutions which participate in the Local Committees represent the main categories of stakeholders of Iren Group: consumers/customers, employees, suppliers, institutions, shareholders, environment, local communities, NGOs, world of research and University, future generations;
- developing the **materiality matrix** that defines the topics reported in this document;
- **approval of the results** of the materiality analysis by the Board of Directors on 23 January 2020.



The materiality analysis conducted in 2019 confirmed the relevance of the topics identified in 2018, in collaboration with stakeholders, for the development of Iren Group.

In 2019, some of the topics identified recorded a different assessment linked to the trend in domestic and global scenarios, the policies adopted by the Group and its development plans. In particular:

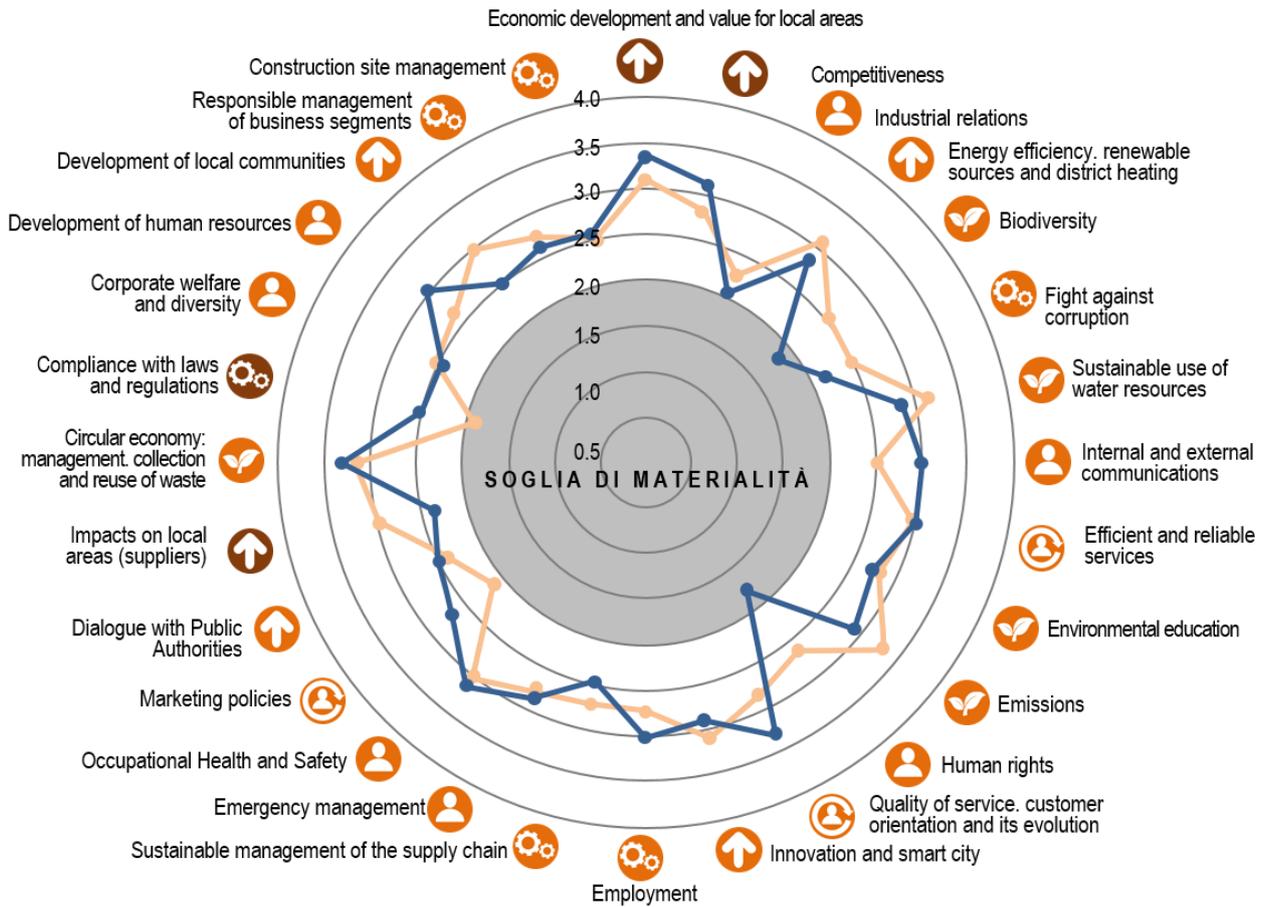
- the stakeholders have submitted a partial revision of the assessments of the topics of “environmental education”, “anti-corruption”, “dialogue with Public Authorities”, “management of emergencies”, “management of construction sites” and “compliance with laws and regulations”;
- considering the policies adopted and the projects carried out, the Group has revised the previous assessments of “biodiversity” and “human rights”.

All 28 topics identified received assessments above the materiality threshold (2.0) from both or at least one of the two parties involved in the analysis: management and stakeholders.

The materiality matrix provided below, highlights the significant topics and establishes them in relation to the strategic pillars of Iren Group, intersecting them with the topics indicated in Italian Legislative Decree 254/2016 and additional topics deemed relevant by the Group and its stakeholders.



MATERIALITY MATRIX



Pillars of the Iren Business Plan

- customers
- development
- efficiency
- Environmental sustainability
- people
- Topics of Legislative Decree 254/2016
- Other relevant topics
- Importance for Iren Group
- Importance for Stakeholder

The relevant topics are developed within the chapters of the Sustainability Report/NFS. To facilitate the interpretation of the document, the material topics covered are indicated at the beginning of each chapter.

The materiality connotations of each material topic for Iren Group and its stakeholders are highlighted below.

Furthermore, the material topics are influenced by the Sustainable Development Goals (SDGs) set by the UN for 2030.

For certain SDGs, the Group has defined specific objectives and targets in its 2024 Business Plan, which are described in more detail on pages 34-35.



Energy efficiency, renewable sources and district heating



Iren Group has set out important goals in its development plan aimed at preserving natural resources, particularly energy resources, and reducing emissions, thanks to the extension of district heating systems and electricity generation from renewable or similar sources. Furthermore, Iren guarantees high levels of energy efficiency in the management of its activities and proposes energy efficiency solutions to customers.

	Sustainable use of water resources		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 and the quality of waste returned to the environment, representing key factors for sustainable management.
	Emissions		Within its strategic guidelines, Iren Group has emphasised its commitment to consistently reducing its atmospheric emissions, specifically, it has defined objectives to reduce CO ₂ emissions and increase the amount of CO ₂ avoided by using renewable sources, district heating and obtaining energy from waste.
	Circular economy: management, separated waste collection and reuse		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 is essential, as is the training provided in collaboration with schools and universities.
	Biodiversity		To protect biodiversity and habitats, as well as entering into partnerships with Bodies, Institutions and Associations, Iren Group works to ensure that the activities that take place in protected areas are compatible and sustainable for the environment and maintain its natural balance.
	Environmental education		Iren Group believes that education is the most effective and strategic way to foster a culture of sustainability and innovation. Informed residents contribute significantly to improving the social and environmental impact of services, directing them towards new strategies. This is why Iren invests in its relationships with schools and universities to prepare for the future.
	Innovation and smart cities		The aim of the 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 strongly focused on the local areas in which the Group works, collaborating with local communities to develop smart cities.
	Development of local communities		The Iren Group identifies the focus for progress and the creation of shared value in the current and future 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.
	Dialogue with Public authorities		Relations and dialogue with Public Authorities, and more generally, with local politicians, play a critical role for the activities of the Group and for addressing and outlining governance strategies in relation to energy and the environment, producing impacts for local areas and for the entire country that are increasingly efficient and sustainable. Dialogue is therefore constant, in line with respective roles.
	Employment		Employment — a matter of extreme social importance — represents a crucial factor for Iren Group that recognises its human resources as fundamental capital for growth. Maintaining adequate employment levels, skill coverage and development and the quality of employment are essential for pursuing corporate strategies.
	Industrial relations		The topic contributes 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. Therefore, industrial relations must be developed in accordance with a participatory, non-confrontational model, while respecting the various roles.
	Occupational health and safety		Consolidating a culture of risk prevention and assessment is a top priority for Iren Group which aims to ensure the health and safety of its workers and to improve the working environment, also with a view to increasing employees' motivation and engagement and guarantee the continuity of production processes.
	Development of human resources		Professional growth is essential in order to anticipate and successfully address the complexities and changes of the market, regulations and technologies. Iren's investment to develop internal skills and optimise its human resources is a fundamental part of the agreement between the company and the individual.
	Corporate welfare and diversity		One of Iren Group's commitments is the reconciliation of life needs with work needs, improving the quality of the work environment and promoting diversity. 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.
	Human rights		Iren Group considers the UN's Universal Declaration of Human Rights, the International Labour Conventions and Recommendations of the International Labour Organisation and the Earth Charter to be fundamental points in the definition of its values. 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.



 <p>Internal and external communication</p>		<p>The knowledge of the mission, values, policies and sustainable growth objectives of Iren Group, together with the capacity to listen, are crucial for the true involvement of human resources in developmental challenges. External communication is the primary vehicle for relations and transparency with stakeholders in order to provide information on the economic, environmental and social impacts of the Group, in a prompt and timely manner.</p>
 <p>Efficiency and reliable services</p>	 	<p>Improving the efficiency of all services is important both in terms of the quality offered to residents and to ensure the proper use of resources, the reduction of environmental impacts, as well as reducing the Group's operating expenses. Continuity and reliability of service are constantly strived for to comply with legislation and also on a voluntary basis.</p>
 <p>Service levels offered, customer focus and changes in customer expectations</p>	   	<p>For Iren, the ability to deliver high quality levels and innovative services in order to respond to new and emerging customer demands represents a guarantee for long-term development. The Group's mission is to offer its customers and areas the best integrated management of energy, water and environmental resources, with innovative and sustainable solutions in order to produce value over time.</p>
 <p>Marketing policies</p>		<p>Innovative offers are changing Iren's role, shifting it from a simple energy supplier to an expert in services with high added value. Simultaneously, innovative offers and services increase customer satisfaction levels and reinforce loyalty. Innovation, agility and smartness are the Group's objectives for improving its relationship with its customers.</p>
 <p>Responsible management of business segments</p>	  	<p>Iren Group invests to guarantee security, continuity, health and business sustainability, aware of the responsibility that energy and environmental service management entails, for the present and for the future of communities and local areas. The commitment is aimed at developing initiatives and the ability to use the available time, money and resources appropriately, taking the social and environmental impact of business actions into consideration.</p>
 <p>Anti-corruption</p>		<p>In order to prevent and fight corruption, Iren Group has adopted an organisational model and a Code of Ethics with guidelines, procedures and rules of conduct. Training and raising the awareness of personnel are the keys to consolidating an ethical culture of business relationships that can tangibly influence the Group's development opportunities.</p>
 <p>Management of emergencies</p>	 	<p>The prompt and proper management of critical situations or natural disasters is fundamental for guaranteeing safety and support to communities, also during events that fall outside the operational context of Iren Group. In line with this principle, Iren provides its support during natural disasters all over Italy.</p>
 <p>Management of construction sites</p>	 	<p>Construction sites have social and safety implications for stakeholders: workers, residents and Local Bodies. Guaranteeing the safety of workers and communities lies at the heart of the Group's operating strategies, as does the commitment to minimising the impact of its construction sites.</p>
 <p>Sustainable management of the supply chain</p>		<p>Iren Group aims to build proper and transparent relationships with suppliers, which are based on clear rules and shared values that are key to maintaining the quality of service levels, environmental protection and safety of workers and communities. The Group considers enhancing categories of suppliers that guarantee jobs for disadvantaged people to be important and consistent with its mission.</p>
 <p>Economic development and value for local areas</p>	 	<p>This is a cornerstone of Iren's strategy, which aims to create value for shareholders and stakeholders. The economic development of the Group is crucial for growth and competitiveness, as well as for the significant economic, social and environmental impacts that it generates for communities in terms of the distributed added value, job creation, investments in the local area, returns and resource generation for Local Administrations.</p>
 <p>Competitiveness on the market</p>		<p>The Group's growth strategy is heavily focused on customers and the development of new integrated services in order to anticipate responses to market trends, with great attention to personnel skills and process efficiency. Technological innovation, the sustainability of resources, energy transition and digitisation are the main drivers that Iren Group uses to compete on the market and increase its market share.</p>
 <p>Impacts on local areas (suppliers)</p>		<p>The economic, social and environmental impacts that Iren Group has on the region stem from our employees and the engagement of other stakeholders: customers, suppliers, shareholders and local communities. The contribution of all participants in the processes—employees as well as suppliers—is essential to guarantee positive outcomes that contribute to growth and local development.</p>
 <p>Compliance with laws and regulations</p>		<p>Proactive management of compliance, through monitoring and debate with Regulatory Authorities, is essential for Iren Group to anticipate scenarios and regulatory changes, as well as to carry out an effective assessment of risks. Through a proactive approach, the Group helps to improve the regulatory framework of the energy and environment sectors.</p>

Iren Group



*The Group operates across several regions with over 8,000 employees,
a portfolio of almost 1.9 million customers in the energy sector,
2.8 million residents served with integrated water services
and more than 3 million residents served with environmental services*



IREN: BUSINESS MODEL

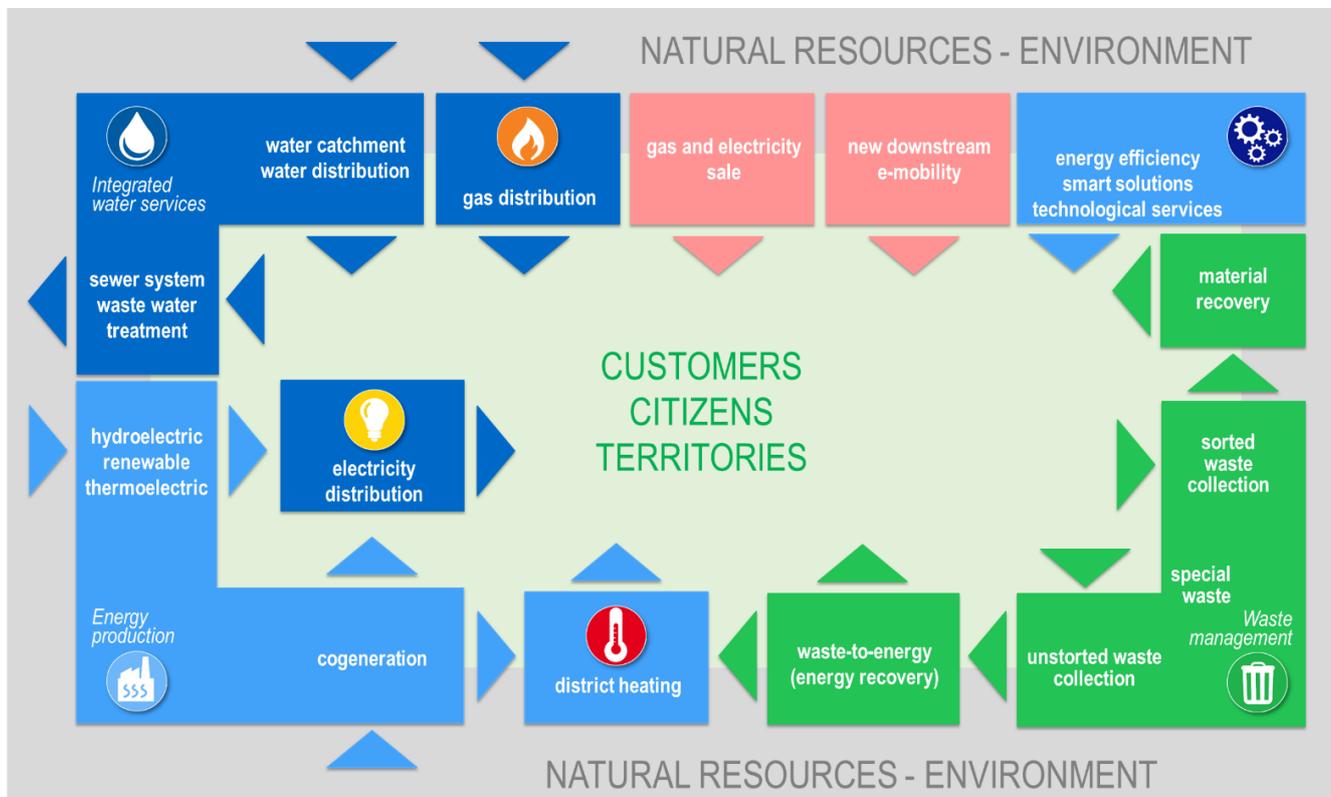
Iren, a multi-utility company listed on the Italian Stock Exchange, operates in the following business areas: electricity (production, distribution and sale), district heating (production, distribution and sale), gas (distribution and sale), integrated water service management, environmental services (waste collection and disposal) and services for the Local Authorities.

Boasting over a hundred years of experience in providing services to the community, Iren is structured according to an industrial holding model that extends to all of the Group's corporate staff activities, and four businesses units that oversee activities by business sector according to a scalable model, with the immediate integration of all acquired companies:

- **Networks**, operating in the integrated water services, gas distribution and electricity distribution sectors.
- **Environment**, dealing with waste collection, urban hygiene, the design and management of waste treatment and disposal plants;
- **Energy**, operating in the production of electricity and thermal energy and the management of district heating systems, public street lighting and traffic light networks;
- **Market**, operating in the field of procurement and sale of electricity, gas and heat for district heating.

Iren focuses on providing services and creating infrastructure to improve and enhance local territories, in full respect of natural resources, the environment and its customers.

The Group's structure aims to consolidate Iren's local presence and its integration in the various supply chains.



■ Business Unit Networks
 ■ Business Unit Energy
 ■ Business Unit Environment
 ■ Business Unit Market

The business model is designed to promote the sustainable development of the Iren Group, with the aim of creating shared value over time for the business and its stakeholders.

The business model is underscored by the Group's mission and vision, which are approved by the BoD.

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. For everyone, every day.

Vision: to improve people's quality of life. To make companies more competitive. To look at territorial growth with a focus on

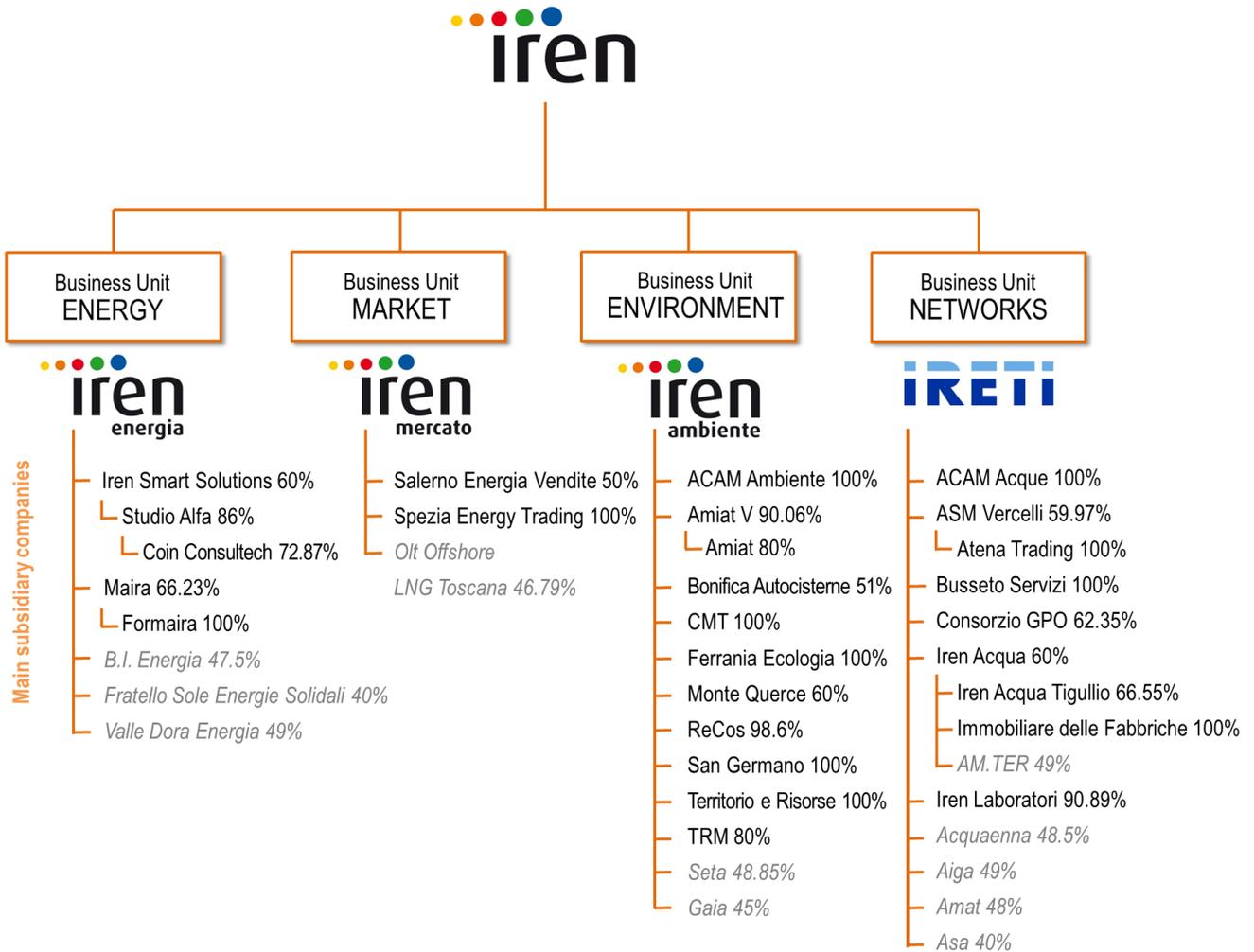
change. To merge development and sustainability into a unique value. We are the multi-utility company that wants to build this future through innovative choices. For everyone, every day.

To consolidate its vision and mission, Iren has defined a system of values, strategies, policies and operating tools to guide the sustainable management of its businesses. With this in mind, the Group has produced a strategic plan (see page 32) to optimise the use and transformation of resources, defining objectives and targets for sustainable development.

The **values** on which Iren Group bases its strategy are: responsibility, belonging, customer satisfaction, growth and enhancement of employees, teamwork, transparency, change, flexibility and sustainability.

The mission, vision and values are integral parts of the Group's Code of Ethics and are at the core of the Group's initiative to share its values with its personnel, developed in late 2018 and 2019.

IREN GROUP STRUCTURE (31.12.2019)



Unconsolidated companies considered to be relevant in regard to sustainability are indicated in grey and italics and are reported separately within this Sustainability Report, with reference to the impacts that most affect them.



MAIN AREAS SERVED



IMPORTANT EVENTS IN 2019

Acquisition of Busseto Servizi

On 08 January 2019, following the public auction sponsored by the municipality, Ireti and the Municipality of Busseto (Province of Parma), signed the contract for the transferral of all shares in Busseto Servizi S.r.l., the company responsible for methane gas distribution in the municipality, with over 3,000 return points. The transaction is particularly significant from an industrial perspective as the Busseto Servizi gas distribution infrastructure is located in one of the Group's main MTAs (Minimum Territorial Area), 77% of which will be owned by Ireti after the acquisition.

Acquisition of the San Germano Group

On 30 January 2019, Iren Ambiente finalised the acquisition of 100% of San Germano and its subsidiary CMT, owned by the Derichebourg Group. San Germano provides waste collection and transportation services in Piedmont, Sardinia, Lombardy and Emilia Romagna. CMT processes separated waste and paper, cardboard and plastic recycling at six sites located in Piedmont and Sardinia, for an authorised capacity of approximately 100,000 tonnes/year. The operation contributes to the achievement of the business growth targets thanks to the increased competitive capacity in collection activities and the development of waste recycling activities.

Amendments to the articles of association and purchase of treasury shares

On 05 April 2019, the Iren Extraordinary Shareholders' Meeting approved the amendments of articles 5.4; 18.1; 19.2; 19.3; 19.4; 19.6; 25.5; 27.1; 28.1; 28.2 and 28.3 of the articles of association. The main amendments regarded: (i) the transfer of powers to the BoD for capital increases reserved for public entities; (ii) the increase in the number of directors from 13 to 15, to guarantee the representation of public shareholders in the La Spezia area and the shareholder FCT following the demerger of FSU; (iii) the qualified majority of certain BoD resolutions; (iv) the increase, from 11 to 13, of the number of directors taken from the majority list; (v) the increase, from 3 to 5, of the number of standing members of the Board of Statutory Auditors. Furthermore, the Ordinary Shareholders' Meeting authorised the BoD to purchase and distribute Iren treasury shares, also fractional, defining, pursuant to the proposals of the BoD, the purposes, terms and conditions of the exercise of said authorisation, and conferred wider powers to the BoD so that it may proceed with implementing the purchases in full compliance with current legislation. This operation aimed to give the Group a supply of shares available for external growth operations.

Share repurchase plan

On 05 April 2019 the Board of Directors, having acknowledged the relative resolution of the Shareholders' Meeting, authorised the Chief Executive Officer to implement the share repurchase plan, for a maximum of 26,000,000 shares, and in any case not exceeding 2% of total share capital, determining the criteria and conditions related to the actions for the sale, disposal and/or use of the treasury shares, considering the methods of implementation effectively used, the trend of the share prices in the period prior to the operation and the best interests of the Company. In this context, Iren authorised Goldman Sachs International to coordinate and implement the first tranche of the repurchase plan, for a total amount of 20,000,000 Euro, to be completed within 6 months of 14 May 2019. In the period between 14 May and 15 November 2019, 3,950,587 treasury shares were purchased, equal to 0.3% of the share capital, and remained in the company's possession as at 31 December 2019.

Compliance with the recommendations of the Corporate Governance Code and Guidance to Shareholders regarding the composition of the Board of Directors

On 05 April 2019, the Board of Directors resolved to comply with the recommendations of the Corporate Governance Code for Listed Companies, July 2018 edition, and to revise the document that reports the governance solutions adopted by the Company to make reference to the provisions of the Code. In implementing the recommendations of the Code, taking into account the mandate due to expire with the approval of the Financial Statements as at 31 December 2018, the Board also approved the guidelines to Shareholders regarding the qualitative and quantitative composition of the administrative board to be appointed for 2019-2021.

Appointment of the new BoD and the Independent Auditors

The Ordinary Shareholders' Meeting of 22 May 2019 appointed the new Board of Directors, in office for the years 2019, 2020 and 2021.

Thirteen members of the new BoD were appointed from the list presented by Finanziaria Sviluppo Utilities, Finanziaria Città di Torino Holding, the Municipality of Reggio Emilia (on its own behalf and as the representative of public shareholders in the Reggio Emilia area), the Municipality of La Spezia (on its own behalf and as the representative of public shareholders in the La Spezia area) voted for by majority shareholders, in addition to two directors appointed from the list presented by Amundi Asset Management SGR, voted for by the minority shareholders. The Meeting thus appointed Renato Boero as Chairman of the Board of Directors, approved the first section of the Remuneration Report, established the annual remuneration to be paid to individual members of the Board of Directors and the maximum total amount, and appointed KPMG as the Independent Auditors for the nine-year period of 2021-2029.

Conferment of mandates and powers to members of the BoD, verification of independence requirements and appointment of the Internal Committees of the BoD

On 22 May 2019, the new Board of Directors appointed the Deputy Chairman, in the person of Moris Ferretti, and the Chief Executive Officer, in the person of Massimiliano Bianco, and conferred the mandates and powers pursuant to the articles of association. The BoD also verified the existence of the independence requirements called for by current legislation among its members, acknowledging the opinion of the Board of Statutory Auditors. Considering the outcome of these verifications, the BoD defined the composition of the Internal Committees of the BoD: Control, Risk and Sustainability Committee, Remuneration and Appointments Committee, Committee for Related-Party Transactions, appointed at the meeting of 30 May 2019.

Sustainable finance operations

At the end of June 2019, Iren signed two Sustainability-linked revolving credit facilities (RCF), as committed facilities, for a total of 150 million Euro and with a term of three years, which include a bonus/penalty mechanism linked to the achievement of specific environmental sustainability targets. On 29 July 2019, Iren signed a "Climate Action and Circular Economy" loan agreement with the European Investment Bank (EIB) for 120 million Euro, aimed at supporting the Group's development programme for the 2018-2023 period, identifying investments for a total of 210 million Euro aimed at the circular economy, decarbonisation and climate change targets. Finally, on 07 October 2019 and for the third consecutive year, Iren successfully concluded the issue of a Green Bond for a total amount of 500 million Euro, with minimum denominations of 100,000 Euro and maturing on 14 October 2029, aimed principally at refinancing environmental sustainability projects (for more information, see p. 59).

Acquisition of Ferrania Ecologia

On 02 July 2019, the acquisition of 100% of the share capital of Ferrania Ecologia S.r.l., jointly owned at 50% each by FG Riciclaggi and Liguria Ecologia, was completed for a total fee of 6 million Euro, subject to the transfer within the company of the waste management business unit of FG Riciclaggi, which operates in the generation of energy from separated waste and includes three processing plants at Cairo Montenotte, Savona and Albenga. Ferrania Ecologia manages the biodigester in Cairo Montenotte,



which processes 45,000 tonnes/year (30,000 tonnes of OFMSW and 15,000 green waste) and is authorised to double this capacity. The transaction will create synergies through the optimisation of the volumes processed by the newly acquired plants and the full use of the capacity of the biodigestion plant once capacity doubles.

Appointment of the Iren General Manager and the administrative bodies of the Top-Tier Companies

On 02 July 2019, the Iren Board of Directors resolved to establish the position of General Manager, assigning the role to Massimiliano Bianco (Chief Executive Officer), granting him specific operating powers and approving the financial and contractual conditions for the establishment of the new fixed term contract. Furthermore, in the course of the meetings held on 28 June and 1 July 2019, the Shareholders' Meetings of Iren Ambiente, Ireti, Iren Energia and Iren Mercato appointed the new members of the Boards of Directors and Boards of Statutory Auditors for 2019, 2020 and 2021.

OLT transfer agreement between Iren and SNAM

On 20 September 2019, the Iren Group signed an agreement with SNAM, one of the leading European utility companies in the natural gas storage and distribution sector, regarding the transfer to the latter of 49.07% (including the share held by the subsidiary ASA) of OLT Offshore LNG Toscana. The net amount at the closing of the transaction is set at 345 million Euro, plus any adjustments following the verification of certain conditions. The completion of the transaction, and thus its effectiveness, is subject to the prior approval of the Antitrust authority and the go-ahead of the Government (so-called "Golden Power") regarding assets of strategic relevance in the energy sector. The agreement with SNAM is the result of the assessment and activities undertaken for the sale of the share to OLT, no longer considered strategic in the context of the Iren Group's assets portfolio, and took place in accordance with the agreements signed between the shareholders (Iren Mercato, ASA and First State Investments) on 22 March 2019 in relation to the governance and circulation of shareholdings in OLT. The resources resulting from the sale of the holding will determine a significant consolidation of the Group's financial structure and will enable the Group to accelerate investments in the development initiatives outlined in the business plan.

Business Plan to 2024

On 25 September 2019, the Board of Directors approved the 2019-2024 Business Plan which confirmed the strategic framework of the previous edition, with a further increase in the investments and margins that will continue the growth recorded in recent years (for more details see page 32).

Acquisition of Territorio e Risorse

On 09 October 2019, Iren Ambiente concluded the acquisition of 100% of the share capital of Territorio e Risorse S.r.l., a company that has constructed and managed a composting and aerobic

digestion plant in the Municipality of Santhià (VC). The Province of Vercelli has authorised the expansion of the existing plant, which, starting from the current capacity of 36,000 tonnes per year and following an investment of approximately 10 million Euro, will reach a potential of 50,000 tonnes per year (40,000 tonnes of OFMSW and 10,000 tonnes of plant waste), with a production of approximately 2.6 million cubic metres of biogas.

Acquisition of electricity customers on the protected market in Liguria

On 21 November 2019, Iren Mercato came top in the rankings, with an offer of 6.2 million Euro, in the public invitation to tender for the sale of the business unit for the operation of the protected market service known as "SanremoLuce", made available for sale by Amaie S.p.A., which manages the electricity distribution network in western Liguria. The acquisition of 23,000 new electricity customers on the protected market will enable the Group to increase the electricity sold, with a predicted annual turnover of 13.6 million Euro in 2020. Furthermore, Iren Mercato will offer its entire range of services to the new region, including a broad selection of smart home, energy efficiency and e-mobility products.

Increase in the EMTN Programme limit

On 29 November 2019 the Iren Board of Directors resolved to increase the limit of the Euro Medium Term Notes (EMTN) Programme up to a maximum value of 4 billion Euro. The EMTN Programme increase will provide access to the benefits offered by the flexibility typical of this instrument in any future bond issues.

Award of the concession for the construction and management of the Scarpino MBT

On 19 December 2019, Iren Ambiente was awarded the open tender launched by Amiu Genova for the concession, under project financing, for the construction and management of a plant for the mechanical and biological treatment of urban waste, with the production of SSF (secondary solid fuel), to be implemented in Scarpino (GE). The plant, which will have a treatment capacity of 100,000 tonnes per year, was outlined in the Waste Management Plan of the Liguria Region and is a fundamental step in closing the environmental cycle within the Metropolitan City of Genoa and the entire Region. The investment totals 42 million Euro and, at the end of the construction phase, Iren Ambiente will manage the plant for 25 years.

Corporate rationalisation

In 2019, a number of corporate rationalisation operations were launched, in line with the Business Plan, with the aim of implementing, from 1 January 2020, the merger by incorporation of Spezia Energy Trading into Iren Mercato, of Busseto Servizi into Ireti, of Immobiliare delle Fabbriche into Iren Acqua and of CMY into Iren Ambiente.

BUSINESS SECTORS

	Energy Services	Water cycle systems	Environmental Services
	<i>Production of electrical and thermal energy, distribution and sale of electricity, gas and heat (district heating)</i>	<i>Civil and industrial water mains, sewage and treatment works</i>	<i>Urban and special waste collection, recovery, treatment and disposal</i>
Retail and business customers	1,853,349 (electricity and gas)	857,481	
Citizens served	879,070 (district heating)	2,791,927	3,057,857
Volumes	<p>Electricity</p> <ul style="list-style-type: none"> • produced: 10,382 GWh • sold: 18,382 GWh • distributed: 3,819 GWh <p>Gas</p> <ul style="list-style-type: none"> • sold: 3,014 million cubic metres • distributed: 1,274 million cubic metres <p>Heat</p> <ul style="list-style-type: none"> • produced: 2,994 GWh • sold: 2,400 GWh • volume served: 95 million cubic metres 	Water sold: 181 million cubic metres	Waste treated: 2,835,309 t
Networks and plants	<p>30 hydroelectric plants 7 thermoelectric cogeneration plants 1 thermoelectric plant 3 waste-to-energy plants 3 landfills (post operation) 4 biogas plants (3 treatment plants and 1 biodigester) 100 photovoltaic systems</p> <p>Distribution networks</p> <ul style="list-style-type: none"> • Electricity: 7,742 km • Gas: 8,099 km • District heating: 1,041 km 	<p>1,341 treatment plants</p> <p>Water mains network: 19,870 km Sewage systems: 11,107 km</p>	<p>3 waste-to-energy plants 2 operating landfills 36 treatment, selection, storage and recovery plants</p> <p>197 collection centres (of which 34 in San Germano)</p>

PRODUCTION OF ELECTRICITY AND THERMAL ENERGY

Main Indicators	Volumes
total installed electrical power (electricity set-up)	2,852 MWe
of which installed photovoltaic power	18.6 MWe
installed thermal power	2,605 MWt
electricity produced	10,382 GWh
thermal energy (heat) produced	2,994 GWh

Electricity produced by plants fuelled by environmentally friendly sources (renewable or similar), which represent about 70% of the Group's plants, is approximately 76% of all production, compared to the national average, which stands at 39.8%.

Iren has 100 photovoltaic plants, which produced 21,293 MWh of electricity in 2019.

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 of customers in the central-northern areas. The main sources available are the Group's production plants.

SALE OF NATURAL GAS

Main Indicators	Volumes
gas procured	3,014 million cubic metres
gas sold to end customers	1,061 million m ³
gas consumption by the Group	1,764 million m ³
gas in storage as at 31/12	189 million m ³
retail customers	904,971
protected	322,479
free market	582,492



SALE OF ELECTRICITY

Main Indicators	Volumes
electricity sold	18,382 GWh
to end customers and wholesalers listed	9,451 GWh
	8,931 GWh
retail customers	910,830
protected market	210,320
free market	700,510

Volumes sold to protected market customers, mainly distributed in Turin, Parma and Vercelli where the Group also acts as the protected market service operator, came to 414 GWh.

SALE OF HEAT FOR DISTRICT HEATING

Main Indicators	Volumes
heat sold	2,400 GWh
thermal energy purchased from third parties	15 GWh
customers served	51,737

Through its own co-generation and transport networks, the Group offers the service of district heating to Turin, Nichelino, Moncalieri, Beinasco, Reggio Emilia, Parma, Piacenza and Genoa. Furthermore, due to the leasing of a business unit from the company SEI Energia, it produces and distributes heat in the municipalities of Collegno, Grugliasco and Rivoli. With district heating, customers help to protect the environment with low running costs and greater reliability and safety compared to traditional heating plants.

MARKETING OF ENVIRONMENTAL CERTIFICATES

In 2019, just over 3.2 million CO₂ allowances (EUA) were purchased in order to meet the obligations provided for in the Emissions Trading Scheme (ETS) legislation related to emissions generated by Iren Group plants. Over 42,000 Energy Efficiency Bonds (EEB) were also purchased at the average price of 258.71 Euro/EEB in order to meet the annulment obligations provided annually for the distributor Ireti.

GAS DISTRIBUTION

The distribution service, managed in 103 Municipalities, guarantees the withdrawal of natural gas from Snam Rete Gas pipelines and its transportation through local gas pipeline 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 various towns within the Municipalities that are still not reached by the natural gas network. The LPG distribution activity is closely connected to the gradual "methanisation" of the area.

Local Area	km of network	End customers	Distributed gas (million m ³)
Emilia-Romagna	6,083	399,694	883
Liguria	1,681	317,247	342
Piedmont	335	27,789	49
Total	8,099	744,730	1,274

ELECTRICITY DISTRIBUTION

City	km of network	End customers	Electricity distributed (GWh)
Parma	2,530	128,078	906
Turin	4,676	564,508	2,730
Vercelli	536	28,904	183
Total	7,742	721,490	3,819

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

DISTRICT HEATING

Area	km of network	Volume (million m ³)	Residents served ⁽¹⁾
Turin and surroundings	679	69.9	646,837
Reggio Emilia	220	13.6	125,414
Parma	103	6.1	56,178
Piacenza	29	1.8	16,881
Genoa	10	3.6	33,760
Total	1,041	95.0	879,070

⁽¹⁾ Estimated data

The Turin district heating network is the most extensive in Italy. In 2019, the development projects outlined in the Business Plan continued (for more information, see page 79).

INTEGRATED WATER SERVICE

Main Indicators	Volumes
Water networks	19,870 km
Sewage systems	11,107 km
Residents served	2,791,927
Municipalities served	242
Water sold	181 million m ³

The integrated water service, which includes the procurement and distribution of drinking water, management of the sewage systems and water treatment activities, is managed in the following provinces (in some areas only water network management): La Spezia, Genoa, Imperia, Savona, Parma, Piacenza, Reggio Emilia, Asti, Cuneo, Novara, Vercelli and Mantua.

ENVIRONMENTAL SERVICES

Main Indicators	Iren Group	of which San Germano
Waste handled	2,835,309 t	317,524 t
Urban waste treated	2,059,490 t	317,524 t
Separated waste collection	67.3%	-
Residents served	3,057,857	738,649
Municipalities served	297	133

The Group manages environmental health services in the provinces of Piacenza, Parma, Reggio Emilia, La Spezia, Vercelli and in the city of Turin. In 2019, Iren acquired San Germano which, in its capacity as contractor, provides the waste collection services in various areas of Piedmont, Lombardy and Sardinia.

The environmental services include the collection and 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, bolstered by its technological expertise, operates through Iren Smart Solutions in the following sectors:

- energy efficiency of public and private buildings;
- consultancy and monitoring of energy saving;
- global service (integrated management of the electrical and technological plants of complex property assets). Within the City of Turin it manages heating (about 800 buildings) and electricity services in municipal buildings and the global technological service for buildings of public interest. In Genoa, it manages the district heating, air conditioning and technology plants of public and private complexes;
- photovoltaic and thermal energy production systems;
- artistic and public street lighting. The management concerns the cities of Turin, Alba (within a temporary association of companies with Egea Alba), Asti (through its subsidiary Asti Energie e Calore), Fidenza, Fiorenzuola and 16 municipalities in the Biella area that belong to the Consorzio Enerbit. In this area, the Group has outlined a structured plan to replace the traditional bulbs with new LED devices that guarantee a reduction in electricity consumption and urban light pollution of over 50%.

In Turin, the Group also manages the city's traffic lights.

Furthermore, Smart Solutions (ESCO, UNI 11352, CEI EN ISO 50001 and F-gas certified) plans, funds, installs and provides a full management service for systems and plants which enable a reduction in energy consumption and generate concrete and long-lasting economic advantages, proposing innovative technological and contractual solutions to maximise the advantages to the customer.

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 almost 200 km and connects over 400 customer sites, including the Group's main sites where it is used, specifically, to monitor and remotely control the electricity distribution, district heating, water and public street lighting networks, and for the data collection system for electricity meters and apartment buildings with district heating. Various passage points for restricted traffic areas (ZTL) and traffic light regulators are also managed through the Group's network. The network reaches Genoa, Parma, Piacenza and Reggio Emilia, through a redundant 10 Gbps infrastructure dedicated to the Group.

COMPANIES OUTSIDE THE REPORTING BOUNDARY

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 on the river Secchia, in San Michele dei Mucchietti (Modena), which uses the drop of an existing barrier to produce electricity. The 1.8 MW plant became operational in August 2017 and will benefit from the all-inclusive tariff for 20 years, pursuant to the Italian Ministerial Decree of 06/07/2012.

Main indicators	u.m.	2019	2018
Production of electricity	MWh	3,590	4,523

FRATELLO SOLE ENERGIE SOLIDALI

Fratello Sole Energie Solidali is a social non-profit enterprise founded in 2018 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. Fratello Sole Energie Solidali provides management and energy efficiency services to the real estate complexes of its founding members, comprising over 1,000 buildings (300 in 2018), which, in 2019, grew with the introduction of new shareholders, including the entire Diocese of Reggio Emilia. Fratello Sole Energie Solidali is responsible for planning and implementing energy efficiency initiatives through its technological partner Iren Smart Solutions. Furthermore, the company can develop e-mobility project for its clients.

In 2019, savings of 46.5 MWh were achieved through the revamping to two thermal plants in 2018 which serve a building complex in San Mauro Torinese (TO) and new works were launched that will lead to total energy savings of over 550 MWh/year.

VALLE DORA ENERGIA

Valle Dora Energia S.r.l., a subsidiary of the Municipalities of Chiomonte, Salbertrand, Exilles and Susa and an investee of Iren Energia (49%), was established to develop the redevelopment projects for the hydroelectric plants at Chiomonte and Susa which, in 2016, were admitted to the rankings by the GSE (Electricity Services Provider) for incentives on the energy produced. Keeping these plants in operation also ensures important functions of public



utility for the local area (protecting irrigation easements, hydro-geological protection and fire prevention service). The total output of the plants is 27.4 MWe (12.5 MWe for the Susa plant and 14.9 MWe for the Chiomonte plant). The reduction in energy produced in 2019 is due to the commencement of the plant revamping works due to be completed in 2020.

Main indicators	u.m.	2019	2018
Total electricity production	MWh	903	57,263
Susa plant	MWh	903	20,040
Chiomonte plant	MWh	0	37,223

ACQUAENNA

Acquaenna S.C.p.A. is the investee of Ireti (48.5%) which manages the integrated water service in the optimal territorial area of Enna (excluding the municipality of Barrafranca). The company operates across all stages of the water technological cycle (catchments, supply, distribution, sewage and treatment), implementing the Area Plan approved by the Mayors' Assembly, planning and making investments and experimenting with new technological solutions.

Acquaenna implements a Quality System certified in accordance with ISO 9001.

Main indicators	u.m.	2019	2018
Residents served	no.	151,988	156,570
Municipalities served	no.	19	19
Water sold	m ³	6,300,000	6,500,000
Water networks	km	821	821
Sewage systems	km	522	522
Waste water treatment plants	no.	18	20
Employees as at 31/12	no.	108	102

AIGA

AIGA S.p.A. is the subsidiary of the Municipality of Ventimiglia (51%) and investee of Ireti (49%) that manages the integrated water service in Ventimiglia, while awaiting the takeover by the area's market operator.

Main indicators	u.m.	2019	2018
Residents served	no.	27,000	27,000
Municipalities served	no.	1	1
Water sold	m ³	2,000,000	2,000,000
Water networks	km	150	150
Sewage systems	km	90	90
Waste water treatment plants	no.	1	1
Employees as at 31/12	no.	10	10

AMAT

AMAT S.p.A. is the company owned by the Municipality of Imperia (52%) and an investee of Ireti (48%) which manages the integrated water service in Imperia and in other municipalities nearby. The company is particularly focused on monitoring environmental

impacts via the systematic verification of discharges, assessment of losses and surveying the network for its correct sizing.

Main indicators	u.m.	2019	2018
Residents served	no.	47,000	46,505
Municipalities served	no.	4	4
Water sold	m ³	4,400,000	4,109,000
Water networks	km	326	326
Sewage systems	km	240	240
Waste water treatment plants	no.	1	1
Employees as at 31/12	no.	47	51

AM.TER.

AM.TER. S.p.A., established by the Municipalities of Campo Ligure, Cogoleto, Masone, Mele and Rossiglione together with Iren Acqua (49%), is the company which manages the integrated water service in the area of Ponente in the province of Genoa and in 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 sewage systems of the Municipalities of Campo Ligure and Masone. AM.TER has adopted an integrated Quality, Safety and Environment management system in accordance with ISO 9001, OHSAS 18001 and ISO 14001 standards.

Main indicators	u.m.	2019	2018
Residents served	no.	45,660	46,069
Municipalities served	no.	7	7
Water sold	m ³	2,210,100	2,148,627
Water networks	km	290	290
Sewage systems (including connections)	km	127	127
Waste water treatment plants	no.	14	14
Employees as at 31/12	no.	15	14

ASA

ASA S.p.A. is an investee of the Municipalities of the provinces of Livorno, Pisa and Siena and of Ireti (40%) that manages the integrated water service in five local sub-districts known as the North-West (main municipality Livorno), Alta Val di Cecina (main municipality Volterra), Bassa Val di Cecina (main municipalities Cecina and Rosignano Marittimo), Val di Cornia (main municipality Piombino) and Isola d'Elba, over a territorial area of more than 2,400 square km. The company also manages the gas distribution service in the municipalities of Livorno, Collesalveti, Rosignano Marittimo, Castagneto Carducci and San Vincenzo. ASA implements a Quality System certified in accordance with ISO 9001.

Main Indicators	unit of measure	2019	2018
Residents served (IWS)	no.	417,977	419,226
Municipalities served (IWS)	no.	32	32
Water sold	m ³	25,908,949	25,109,303

Main Indicators	unit of measure	2019	2018
Water networks	km	3,515	3,506
Sewage systems	km	1,234	1,231
Waste water treatment plants	no.	74	76
Residents served by natural gas distribution	no.	221,145	222,799
Gas distribution customers	no.	98,909	98,822
Municipalities served by natural gas distribution	no.	5	5
Natural gas distributed	m ³	86,864,724	91,032,956
Employees as at 31/12	no.	476	480

GAIA

GAIA S.p.A. is the investee of Iren Ambiente (45%) that manages the waste treatment, recovery and disposal plants in the province of Asti. GAIA's activities are spread across the entire province of Asti, in a catchment area of approximately 212,000 residents, with a structured plant system: 12 collection points for citizens to dispose of separated waste collection, a separated waste reclamation plant, a plant for the mechanical treatment of non-separated waste (Asti), a compost plant (San Damiano d'Asti) for the recovery of organic waste and a landfill for non-hazardous waste (Cerro Tanaro). In recent years, with the new collaborations in Piedmont, Valle d'Aosta, Liguria and Emilia Romagna, the volume of waste to be treated has exceeded the capacity of the plants. To achieve economically sustainable development, GAIA has worked to adopt a transparent policy and to gradually integrate its Management System, improving it with quality, environment, safety and social responsibility certifications. All of the sites managed by the company are EMAS certified.

Main indicators	u.m.	2019	2018
Waste collected in Eco-stations	t	9,394	9,244
Waste treated at the plants	t	181,703	147,786
separated waste reclamation	t	39,607	39,159
mechanical biological treatment	t	46,115	46,388
transfer station	t	13,985	10,032
composting	t	6,940	4,790
non-hazardous waste landfill	t	75,056	47,417
Employees as at 31/12	no.	143	141

SETA

SETA S.p.A. is the contractor of the integrated urban waste collection service for Catchment Area 16 in the province of Turin. Operating in the waste collection and disposal sector, 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 also manages the controlled landfill called Chivasso 0 for the disposal of non-hazardous waste and 10 collection points spread across the territory, where users can dispose of the separated waste sent for recovery. SETA has adopted an Environmental and Quality Management System, in accordance with ISO 14001 and ISO 9001 certification.

Main indicators	u.m.	2019	2018
Residents served	no.	227,044	227,466
Municipalities served	no.	31	31
Collected urban waste - separated	t	58,836	54,840
Collected urban waste - non-separated	t	41,000	42,390
Percentage of separated waste collection	%	59.0	56.6
Employees as at 31/12	no.	218	225

OLT OFFSHORE LNG TOSCANA

OLT Offshore LNG Toscana has planned, constructed and manages the floating regasification terminal "FSRU Toscana", which is located off the Tuscan coast between Livorno and Pisa. The plant has an annual regasification capacity of 3.75 million cubic metres of gas (with a daily capacity of 15,000 million cubic metres) and has been defined by the Italian Ministry of Economic Development as an essential and indispensable infrastructure for the security of the Italian National Gas System. The regasification process takes place through the following steps:

- unloading liquid natural gas (LNG) off the LNG carriers and storing it in four regasification tanks;
- regasifying LNG to return it to the gaseous state by means of an increase in temperature;
- compressing the gas to the national grid.

The introduction of the new regasification capacity allocation mechanism through auctions has led the plant to be used more intensively; the plant operated at full capacity throughout 2019 without any change in environmental and safety performance.

Main indicators	u.m.	2019	2018
CO ₂ emissions produced	t	73,106	72,289
Use of seawater	m ³	110,529,589	106,736,577
Production of electricity	MWh	70,079	49,440
Electricity consumption	MWh	70,079	49,440
Waste produced (non-hazardous)	t	921	2,087
Waste produced (hazardous)	t	1,608	1,527
Employees as at 31/12	no.	24	21

OLT has developed an Integrated Management System in accordance with the ISO 9001 (Quality), ISO 14001 (Environment), OHSAS 18001 (Health and Safety), SA 8000 (Social Responsibility) and EMAS standards. The terminal operates in compliance with the IEA Decree (no. 93 of 15/03/2013), that provides for the continuous monitoring of the emissions coming from the two boilers needed for electricity production, as well as the discharge of sea water necessary for regasification.

OLT implements a "Marine Environment Monitoring Plan" through four chemical-physical, biological and eco-toxicological control campaigns per year. The campaigns carried out so far have not shown any impact on biodiversity or the marine ecosystems. In September 2019, an agreement was signed with SNAM for the sale of the Iren Group's stake in OLT (see page 18).

AWARDS AND RECOGNITION

In 2019, Iren Group received various recognitions relevant to corporate and environmental responsibility. Below is a summary of the main acknowledgements received.



For the second consecutive year, Iren has received the Top Employer Institute certification awarded to the best companies in human resources that offer excellent working conditions, train and develop talent at all levels and seek to improve and optimise their best practices in the field of human resources.



Iren was ranked in fifth place, the best medium-sized company, in the Top 10 ranking of the 2019 Integrated Governance Index, an analysis model of the degree of integration of ESG (Environmental, Social and Governance) factors within business strategies.



Iren received recognition for the "Best Training and Welfare Plan" as part of the awards of Italian excellence in the field of welfare and organisational well-being organised by Easy Welfare.

Talent Awards
LinkedIn

The Group also received the Best Talent Acquisition Team award for the leading Italian players in the recruiting sector in 2019 at the LinkedIn Talent Awards Italia.



At the Intranet Italia Champions awards, Iren received a "contents and initiatives" commendation for the project aimed at company values carried out directly by employees.



Iren was a finalist at the Grand Prix FEIEA 2019, the European awards dedicated to internal communication, in the Best Internal Communication Strategy category for the project that involved all employees and created a shared corporate culture and sense of belonging.



Amiat was awarded a special commendation from Consorzio Ricrea for its performance in Turin with regard to the sorted collection of steel packaging, where it recorded a figure per inhabitant almost twice that of the national.



Iren received a special mention for "gender equality and diversity", as part of the Responsible Innovators' Award, organised by the Emilia Romagna Region, for the "La Tribù" project, supported by the Iren Local Committee in Piacenza and proposed by the Bet She Can Foundation, aimed at girls aged between 8 and 10, on the theme of gender equality.



Paolo Peveraro, who was Iren Chairman until 22 May 2019, was recognised at the Le Fonti Award in the M&A Environment category for the acquisition of the company San Germano, while the Iren Human Resources Department was named the HR department of the year in the electricity production and distribution sector at the Fonti Employment Awards.



Iren won the "Business International Finance Award" in the "Corporate Finance" category as excellence among the companies which have implemented new projects and strategies in the Administration, Finance and Control area over the last two years.



Iren was named among the top 43 companies in Emilia Romagna as part of "Industria Felix - l'Italia che compete" which ranks companies' competitiveness and performance. Iren Energia and Iren Mercato received similar recognitions in Piedmont, Liguria and Valle d'Aosta.



Antonio Andreotti, Head of HR, Organisation and Systems at the Iren Group, was named Human Resources Manager of the Year by Top Legal as part of the contest aimed at recognised the work carried out in the legal affairs, tax and HR sectors.



The Credit Management Award in the Experience category was given to Luca Ottolini, Credit Management Manager at Iren Group.



Iren received the "Grande Cena di Borea 2019" award for the solidarity and support shown over the years to social initiatives supporting humanitarian projects in Italy and the world.



Iren was recognised for its commitment to support the values of social and environmental sustainability at the "The New Business Economy for the Common Good" convention organised by the Business Strategies Association, the Christian Union of Entrepreneurs and Business Executives and the University of Genoa.

Governance, Strategies and Policies for Sustainability



RELEVANT TOPICS



Economic development and value for local areas



Fight against corruption



Human rights



Compliance with laws and regulations





SUSTAINABILITY GOVERNANCE

The strategies of the Iren Group and its business objectives, with particular regard to sustainability, are defined by the Board of Directors of the parent company, which examines the risks and opportunities connected to the socio-environmental and economic context when approving the Business and Financial Plan, the Annual Budget and the Sustainability Report.

In 2019 the Board of Directors updated its strategic plan to 2024, which includes sustainability objectives and targets (see page 34-35), also in relation to climate change and the Group's commitment to transparent reporting in this regard, with particular focus on the four areas outlined in 2017 by the Task Force on Climate-related Financial Disclosures (TCFD) of the Financial Stability Board:

- **governance** - description of the role of the Iren corporate governance system in relation to climate change issues (see page 27);
- **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 (see page 32-35);
- **risks** - description of the identification, assessment and management process for the risks and opportunities related to climate change adopted by the Group (see page 35-39);
- **metrics and targets** - main metrics related to climate change used by the Group (see page 68-84), as well as the main objectives set to promote a low carbon business model (see page 34-35).

The BoD is updated on the status of the sustainability projects and stakeholder engagement activities by the Deputy Chair, who is appointed for the purpose.

Through Local Committees, of which the Deputy Chair is an *ex officio* member, stakeholders can also draw the Group's attention to issues concerning services and environmental and social sustainability topics. The consultations concerning sustainability between the interested parties are carried out by the Deputy Chair who, through the Corporate Social Responsibility Department and Local Committees, is responsible for maintaining an open dialogue with the internal and external stakeholders on these topics. The results of this dialogue generate project ideas for the improvement of environmental and social performance and are reported annually in the Sustainability Report.

The Board of Directors analyses and approves the Sustainability Report which serves as a non-financial statement (NFS) pursuant to Italian Legislative Decree 254/2016, which is prepared annually to provide information relevant to performance in the environmental, social and economic context, to transparently communicate compliance with the commitments undertaken, future commitments and the ability to meet stakeholder expectations. The Sustainability Report is prepared by the Corporate Social

Responsibility department and Local Committees, reporting directly to the Deputy Chair of Iren Group, which hold the relevant powers.

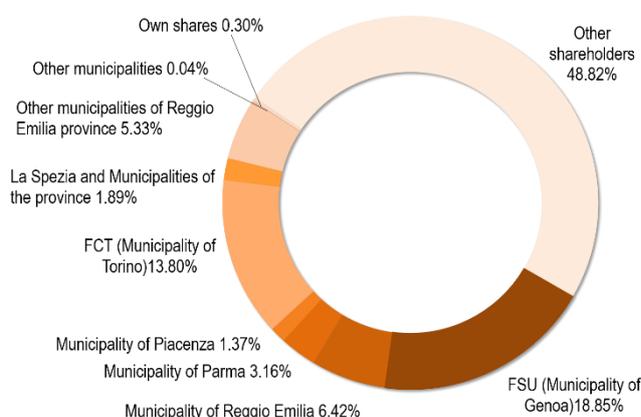
Risks and economic, environmental and social performance are assessed with the support of the Control, Risk and Sustainability Committee, which also evaluates the correct usage of the standards for preparing the Sustainability Report adopted by the Group.

The 2019 Sustainability Report was approved by the Board of Directors' Meeting on 25 March 2020, during which completeness and consistency with the topics reported in the materiality matrix were also evaluated.

SHAREHOLDERS

At 31/12/2019, the most significant Group shareholders that hold a stake, directly or indirectly, in the company are represented in the graph below.

IREN SHAREHOLDING STRUCTURE (% OF SHARE CAPITAL)



As at 31 December 2019, Iren's share capital is represented by 1,300,931,377 ordinary shares, of which:

- 626,615,712 ordinary shares with increased voting rights, conferring 1,253,231,424 voting rights exclusively on the Shareholders' resolutions subject to increased voting rights;
- 674,315,665 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.

As at 31 December 2019 there are 633,367,088 ordinary shares held by the parties in the Shareholders' Agreement between Iren Public Shareholders (Finanziaria Sviluppo Utilities, Finanziaria Città di Torino Holding, Soci Emiliani and Soci Spezzini) and bound by a Voting Block which represent, in total, 1,212,509,366 voting rights on the Shareholders' resolutions subject to increased voting rights. There are 455,329,436 ordinary shares bound by the Voting Block established by the Agreement, amounting to 35% of Iren's share capital. These shares may not be transferred for the duration of the Agreement.

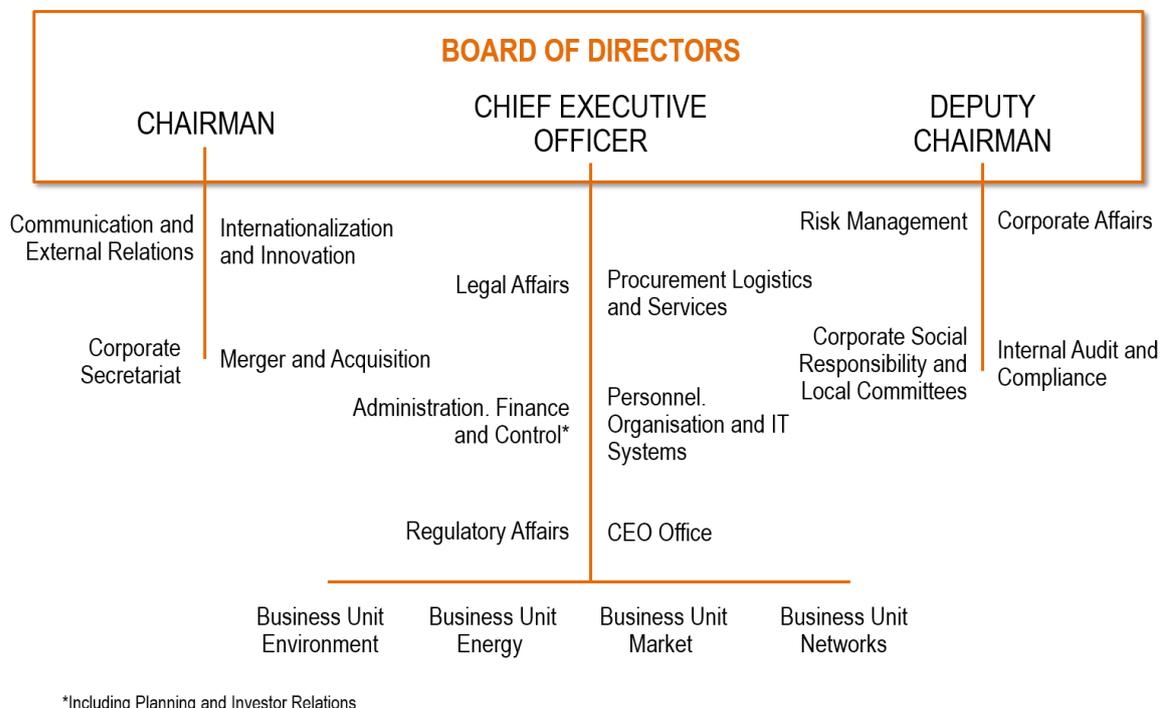
In 2019 the sale of share capital holdings by public shareholders impacted the composition of the Iren shareholding structure (0.25% Municipality of Reggio Emilia, 0.15% Municipality of Piacenza,

0.11% Municipalities of the Province of Reggio Emilia and 0.01% Municipalities of the Province of La Spezia).

As regards floating capital, retail shareholders hold more than 5% of the share capital, while the remainder is held by over 250

institutional investors. In 2019, as part of the share repurchase plan resolved upon by the Shareholders' Meeting, Iren purchased treasury shares amounting to 0.3% of the share capital.

CORPORATE GOVERNANCE



Iren has a traditional governance system, in line with the principles contained in the Corporate Governance Code for Listed Companies. The governance structure reflects the intention to integrate sustainability into the business model adopted by the Iren Group. The BoD plays a central role in defining of the sustainability strategies, policies and objectives, including in relation to climate change, and monitoring the results. In this regard, Iren's corporate governance model defines specific tasks and responsibilities, guaranteeing that the risks and opportunities relating to climate change are duly taken into consideration during the relevant corporate decision-making processes.

BOARD OF DIRECTORS

The Board of Directors 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 BoD assesses 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 documents and the Group's annual budget. The assessment of risks and social and environmental performance is carried out with the support of the Control, Risk and Sustainability Committee (see page 30). The BoD approves the

Sustainability Report, which reports on the Group's social and environmental performance, on an annual basis.

The Iren Board of Directors in office as at 31 December 2019 was appointed by the Shareholders' Meeting of 22 May 2019 and is composed of 15 Members. The Board of Directors is appointed through the submission of lists to ensure the adequate presence of the less-represented gender (a minimum of six members), as well as directors selected by minority shareholders.

Under the terms of the Articles of Association, the BoD delegates its powers to one or more of its members and can also assign powers to the Chair, Deputy Chair and CEO, provided they do not conflict with each other. The Appointed 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 Appointed Bodies are responsible for assessing whether the delegated persons possess 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 also specify which contexts may be sub-delegated, informing the relevant Appointed Body of the same. In this case, the delegating party is responsible for assessing the skills and personal characteristics of the delegated persons. Delegated persons are generally senior or middle managers, but in certain contexts (e.g. security) may reach blue-collar workers.



The Board of Directors has resolved that the Corporate Social Responsibility department, among others, reports to the Deputy Chair. A Senior Manager has been appointed the Director of this Department.

The assessment of the **existence of the requirements for independence** of the Directors is carried out by the BoD after appointment and annually thereafter. Evaluation is also made 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 the outcome of the audit to the market 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 Report on Operations. The Board of Statutory Auditors oversees compliance with the adopted rules and refers to them in its report to the Shareholders' Meeting. Stakeholders can view any conflicts of interest within the Board of Directors in the annual Report on Corporate Governance and Ownership Structure.

Iren's Board of Directors held 22 meetings in 2019. In addition to these, some meetings were organised in which the Chief Executive Officer, Business Unit Directors or Senior Managers illustrated, also in several stages, the long-term strategic planning process, 2024 Business Plan, with a specific focus on sustainability objectives and targets, as well as some of the Group's main initiatives. During each meeting of the Board of Directors, a constant data stream by the Board's Committees towards all Directors was ensured, guaranteeing the prompt notification of any critical areas identified. Furthermore, a number of analysis seminars were organised, which

were also open to persons external to the Group, and during which the contributions to the creation of value for the local areas in which Iren Group operates were analysed.

In 2019 the administrative bodies of the Group's main companies were renewed: as part of the training activities aimed at the appointed Directors and Auditors, presentations on the activities carried out by the various Group companies were given. Furthermore, participation in courses and conferences for Directors and the members of the Board of Statutory Auditors were promoted and encouraged. Such initiatives represented important opportunities to provide training and information on economic, social and environmental aspects.

In line with the provisions of the Corporate Governance Code, at least once a year, the BoD performs a **self-assessment** of its own performance, dimension and composition and those of its committees (so-called board evaluation), also in order to evaluate the efficacy of any correction and improvement measures implemented.

The Board of Directors that concluded its mandate with the approval of the 2018 Financial Statements formulated, on the basis of an enquiry conducted by the Remuneration and Appointments Committee and in line with the recommendations of the Corporate Governance Code, a training programme aimed at Shareholders regarding the composition of the new Board, providing indications for its dimension and that of its internal committees. As regards the qualitative profile of the figures whose presence in the administrative board was deemed opportune, the BoD set the objective of bringing together diverse professional and managerial profiles, recognising the value of complementary experiences and skills as well as age and gender diversity for the correct functioning of the Board. The document is available to view on the Iren website.

COMPOSITION OF THE BOARD OF DIRECTORS AND INTERNAL COMMITTEES AS AT 31/12/2019

Name and surname	Office	Executive	TUF independence	Code Independence	Remuneration & Appointments Committee (RAC)	Control, Risk & Sustainability Committee (CRSC)	Committee for Transactions w/ Related Parties (CTRP)
Renato Boero	Chair	•					
Morsi Ferretti	Deputy Chair	•					
Vito Massimiliano Bianco	Chief Executive Officer / General Manager	•					
Sonia Maria Margherita Cantoni	Director		•	•		M	
Pietro Paolo Giampellegrini	Director		•	•	C		
Enrica Maria Ghia	Director		•	•		M	
Alessandro Giglio	Director		•	•			M
Francesca Grasselli	Director		•	•	M		
Maurizio Irrera	Director				M		
Cristiano Lavaggi	Director		•			M	
Ginevra Virginia Lombardi	Director		•	•			M
Giacomo Malmesi	Director		•	•		C	M
Gianluca Micconi	Director		•	•			
Tiziana Merlino	Director		•				
Licia Soncini	Director		•	•			C

C = Chair; M = Member

The Board of Directors has three internal committees, the current configurations of which were appointed by the Board of Directors on 30 May 2019 for the 2019-2021 three-year period.

REMUNERATION AND APPOINTMENTS COMMITTEE

The Remuneration and Appointments Committee (RAC) is composed of three non-executive Directors, the majority of whom—including the Chair—are independent. At least one member of the Committee has appropriate experience in financial and remuneration policies which is assessed by the Board of Directors at the time of appointment. The RAC:

- periodically assesses the suitability, overall consistency and actual application of the remuneration policy of Directors and Senior Managers 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;
- deals with the preliminary activities concerned with preparing the remuneration policy for Executive Directors and Senior Managers with strategic responsibilities of the Group, functional to the adoption of the provisions under the competence of the BoD;
- formulates opinions to the BoD in respect of its own size and composition, and makes recommendations on the professional figures whose presence in the Committee 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 in regulated markets (even foreign), in financial, banking, insurance or relatively large companies, compatible with the efficient performance of the office of company Director, bearing in mind the participation of Directors in the Committees established within the Board, as well as the exceptions to the bans on competition provided for by Article 2390 of the Italian 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 evaluation of the Board and its Committees pursuant to the Corporate Governance Code;

- conducts the preliminary assessment – regarding the decisions of the Board of Directors – of the annual Remuneration Report, to be made available to the public before the annual Shareholders' Meeting called to approve the Financial Statements.

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.

REMUNERATION OF MEMBERS OF THE BOD OF THE PARENT COMPANY AND OF SENIOR MANAGERS WITH STRATEGIC RESPONSIBILITIES

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.

The BoD decides, on the suggestion of the Remuneration and Appointments Committee and considering the opinion of the Board of Statutory Auditors, the framework and remuneration of the directors holding specific office (Chair, Deputy Chair and Chief Executive Officer) and the remuneration for the participation of the Directors in the Committees established within the Board. The BoD also defines the objectives that determine the variable annual short-term component of the remuneration of the Chief Executive Officer and General Manager. The Chief Executive Officer determines, considering the provisions of the remuneration policy, the remuneration of Senior Managers with Strategic Responsibilities and defines the goals that determine the variable annual short-term component of the remuneration, with the support of the Remuneration and Appointments Committee.

The remuneration of non-executive Directors is not related to the economic results achieved, but 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.

For the Chair and Deputy Chair, a fixed remuneration has been established, and no performance bonus is envisaged. The Chief Executive Officer participates in the short and long-term incentives system as described in the Remuneration report approved by the Shareholders' Meeting.

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, compensation is envisaged in the event that the mandate is withdrawn or not renewed and, in view of the fixed-term management contract held with Iren, the treatment and severance indemnity established by law and the national collective labour agreement of reference apply.

For the Chief Executive Officer and Senior Managers with strategic responsibilities, the variable part of their remuneration is divided into two parts; short-term and long-term. 7

The **short-term variable remuneration component**, which upon the achievement of all targets set averages around 34% of fixed



remuneration, is based on an MbO (management by objectives) system that considers the Group's main objectives with regard to economic, financial and operating performance, the main strategic projects and the corporate social responsibilities targets, through the introduction - for all Senior Managers with Strategic Responsibilities - of a performance indicator regarding relations with stakeholders or the topic of sustainability with reference to environmental issues, the reduction of accident frequency rates and gender diversity. The incentives scheme aims to prevent unsatisfactory results through the application of a "gate" condition related to the maintenance of the investment grade rating attributed by a leading rating agency. To make the incentives scheme more stimulating in the short term, for each performance indicator there is a fixed threshold of 70% of the objective with a target of 100% of the objective.

The objectives for senior managers, which are always defined in line with horizontal and vertical consistency at a Group level and within individual business units, also form the foundation of the management by objectives (MbO) system used for Senior and Junior managers, assigned via cascading objectives.

The **long-term variable remuneration component** (introduced in 2015) is monetary, with annual amounts of up to 25% of the fixed remuneration awarded upon the achievement of all of the objectives established in the Group's Business Plan for the 2019-2024 period, with the sums disbursed at the end of the period. The new Long-Term Incentives Plan (LTI) envisages an incremental mechanism in the case that the operating cash flow target established in the Industrial Plan is vastly exceeded, as well as decremental mechanisms in the case of failure to meet objectives on sustainability (waste recovery at Group plants, reduction in water leaks, extension of district heating systems) and gender diversity. Finally, the maintenance of the investment grade attributed by one of the three major rating agencies is provided for as a gate condition.

Malus and clawback clauses are provided for in the regulations of both systems (MbO and LTI). No entry bonuses or specific incentives at the moment of appointment/taking office are adopted.

Iren prepares an annual report on remuneration and fees (the Remuneration report, to which reference should be made for more information) which illustrates, *inter alia*, the remuneration policy for members of the Board of Directors, the Board of Statutory Auditors and Senior Managers with Strategic Responsibilities. The Report aims to increase the knowledge and awareness of shareholders and, in general, of investors, stakeholders and the market. The First Section of the Report is voted on by the Shareholders' Meeting which from 2020 will be binding. Also from 2020, the Second Section of the Report shall be put to non-binding vote at the Shareholders' Meeting. The Chair of the Remuneration and Appointments Committee or another member of the Committee must be present at the annual Shareholders' Meeting called to approve the Financial Statements in order to inform shareholders of the methods by which the Committee performs its assigned duties. After the Meeting, the Remuneration and Appointments Committee analyses the results of voting on the annual Remuneration report, examines any concerns arising at the

Shareholders' Meeting and commences its assessments for reviewing the Remuneration Policy adopted by the Group.

The Shareholders' Meeting held on 22 May 2019 resolved to express a favourable opinion on the First Section of the Remuneration Report for 2018. The results of the votes are published on the Iren website.

■ CONTROL, RISK AND SUSTAINABILITY COMMITTEE

The Control, Risk and Sustainability Committee (CRSC) is composed of four non-executive Directors, the majority of whom - including the Chairperson, are independent. At least one member has appropriate experience in accounting and finance or risk management (deemed adequate by the Board of Directors upon their appointment).

In line with the provisions of the Code of Conduct, the BoD defines the nature and the level of risk compatible with the Company's strategic objectives, evaluating the suitability of the organisational structure with particular reference to the internal control and risk evaluation system. In performing this role, the BoD is assisted by the Control, Risk and Sustainability Committee, which provides a preliminary opinion on the fulfilment of the duties assigned to the latter concerning internal control, risk management and sustainability. The Board of Statutory Auditors also monitors the effectiveness of the internal control and risk management system. The CRSC is also called upon to:

- express preliminary opinions with respect to resolutions of the BoD on a series of issues, including the appointment/revocation and remuneration of the Manager of the Internal Audit Unit;
- assess, together with the 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);
- 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 Chair of the Board of Statutory Auditors;
- report to the BoD, at least every six months, upon approval of the annual and interim Financial Report, on its activity and on the adequacy of the internal control and risk management system;

- 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;
- monitor sustainability policies and compliance with the conduct principles adopted by the Company and its subsidiaries;
- examine the guidelines in the sustainability plan and monitors the means of implementation;
- assess, together with the competent Group 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;
- monitor the evaluation and improvement system for environmental, economic and social impacts that arose from 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.

In supporting the activities of the BoD, the CRSC meets with the Risk Management Manager and other Risk Management departments at least once every six months, to report on the situation and the risk monitoring activities within the Group. The Risk Management Manager presents a risk map with the main risks in terms of impact and probability and any mitigating actions, in addition to providing the results of specific analyses. The Group's other control bodies are also summoned to the same meetings. Furthermore, the Group's risk policies are subject to annual update; the body responsible for approving substantial changes is the BoD. The Committee often requests further details on certain specific topics and commissions detailed analyses of certain risks; in 2019 it instructed the Risk Management Department to conduct a risk assessment of the 2024 Business Plan. Merger & Acquisition transactions evaluated during the year were also subject to detailed analysis.

The Risk Management and Corporate Social Responsibility Departments and the Local Committees are convened at least twice a year by the CRSC, 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

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 (resolution no. 17221 of 2010).

The Procedure for transactions with related parties of the Iren Group, approved by the Board of Directors and revised in 2019, 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.

Iren has also established the Evaluation Commission for Transactions with Related Parties (composed of the Managers of the Administration, Finance and Control, Legal and Corporate Affairs, Risk Management and Corporate Responsibility departments and, depending on the transaction in question, the First-Level Managers involved), with the function of permanently monitoring the process of evaluating transactions and filtering between management and the parties responsible for investigating transactions (typically, the CTRP).

The procedure attributes a central role to the CTRP and, in order to guarantee the double requirement of independence and non-relation in the individual transaction to be investigated of the members of the CTRP, 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 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 produces a document to be disclosed to the market 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.

In the case of transactions involving the remuneration of directors and Senior Managers with Strategic Responsibilities, the Remuneration and Appointments Committee 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.

BOARD OF STATUTORY AUDITORS

The Board of Statutory Auditors in office as at 31 December 2019 was appointed by the Shareholders' Meeting of 19 April 2018 (for three years until approval of the Company's Financial Statements as at 31 December 2020) and is composed of 3 Standing Auditors and 2 Alternate Auditors.

Composition as at 31/12/2019	
Michele Rutigliano	(Chair)
Simone Caprari	(Standing Auditor)
Cristina Chiantia	(Standing Auditor)
Donatella Busso	(Supplementary Auditor)
Marco Rossi	(Supplementary Auditor)

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 risks to levels considered acceptable by the BoD when defining the business strategy. More specifically, the Board of Statutory Auditors verifies:

- 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;
- 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 in this regard.

GOVERNANCE SYSTEM OF GROUP COMPANIES

Iren Ambiente, Iren Energia, Iren Mercato and Ireti (top-tier companies) have a traditional corporate governance system (Board of Directors with administrative roles and a Board of Statutory Auditors with administrative control, both appointed by the Shareholders' Meeting), with a Board of Directors composed 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.

The Chief Executive Officer of Iren appoints the CEOs of the aforementioned Companies, while the Chair, Directors and members of the Boards of Statutory Auditors are proposed by the Iren BoD. The appointed persons are primarily and predominantly 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 company Boards of Statutory Auditors. At the meeting of 19 June 2019, the Iren Board of Directors appointed the Boards of Directors and Boards of Statutory Auditors of top-tier companies for 2019-2021. In regard to the other companies reported in this Sustainability Report, the traditional 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 the Group within the governing bodies are disciplined by the Articles of Associations and Shareholders' Agreements in force for each Company.

Iren's management and coordination of 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 or resolved upon by the administrative bodies, derives from the organisational structure whereby the Business Departments are appointed by the parent company and report to its Chief Executive Officer.

The drafting of sustainability policies and conduct principles to be adopted at a Group level are the responsibility of the Board of Directors, in order to ensure the creation of value over time for shareholders and all other stakeholders, in addition to the definition of a sustainability plan (strategic priorities, commitments and objectives) for the development of the economic, environmental and social responsibility of the Group.

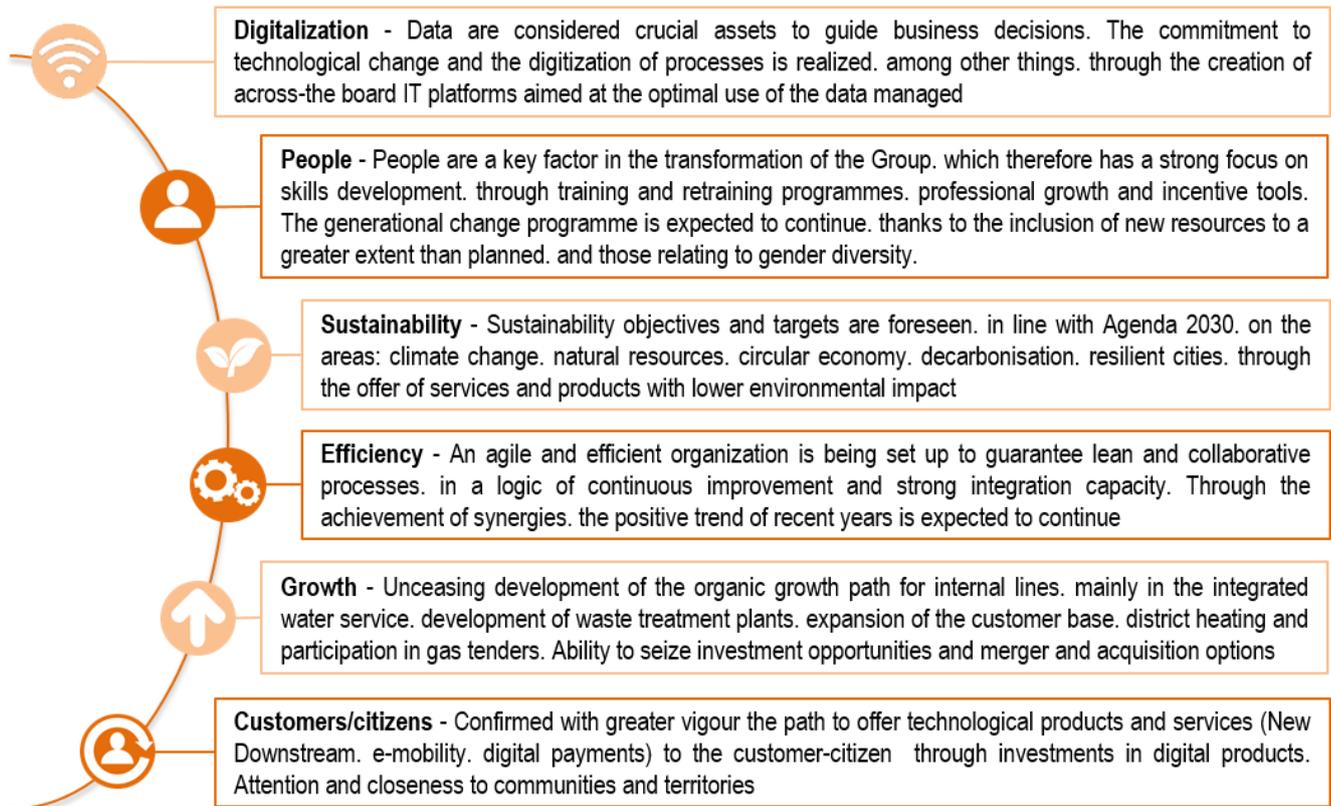
SUSTAINABILITY STRATEGY

In line with the previous plan and the company vision and mission, strategic decisions are based on the analysis of the main trends for 2030, determined by the achievement of the growth and sustainable development objectives established in the 2024 Strategic Plan:

- **energy transition:** growing competition will accelerate the consolidation process already in motion. Technological progress will produce smarter networks, generating new business models, while the expansion of renewable sources will drive greater thermoelectric flexibility;
- **sustainable resources:** the circular economy will become increasingly dominant, creating new scenarios in the waste treatment sector. Water resource management will entail technological innovation and high investments. The gap to be bridged in energy efficiency will open up new opportunities, while district heating will become increasingly characterised by the convergence between renewable sources and digitisation;
- **technological revolution:** machine learning algorithms will change the way we face operative costs and credit management, while digitisation will create new ways of relating with customers and suppliers;
- **the central role of the customer:** it will change the paradigm from passive user to active prosumer, completely digital, thanks to the development of distributed generation; e-mobility, shared mobility and autonomous driving will change the way in which we move and how distances are perceived.

STRATEGIC PILLARS

Based on these macro-trends, the 2024 Business Plan, approved by the Board of Directors in September 2019, outlines six strategic pillars.



At the centre of the long-term (2030) and medium-term (2024) strategies of the Iren Group is the National Energy Scenario (Scenario Energetico Nazionale - SEN) 2017 which set a number of important environmental targets based on the COP 21 and the RoadMap 2050, aimed at keeping global warming to well below 2°C as envisaged by the Paris Climate Agreement in December 2015. Furthermore, the SEN refers explicitly to the World Energy Outlook and the 17 United Nations 2030 Sustainable Development Goals.

To define Iren's long-term strategy, the scenarios of various industries and sectors were analysed and studied, triangulating multiple inputs from different public sources with bottom-up theories based on the historic trends specific to Italy and the previous development of similar countries which are now in a more advanced stage (e.g. Germany, the Netherlands, Scandinavia). The analysis provides a broad overview of the trends and changes of the global market, many of which are associated with climate-related scenarios, such as the transition to renewable energy, the increasing importance of the circular economy and the scarcity of raw materials. In particular, the most relevant sources on which the Iren Group has based its assumptions for the long term (2030) are:

- for the energy consumption analysis: Terna and ISTAT data for previous trends from 2007 to 2016. Primes 2016 and EUCO30 for the trends to 2030;
- for the trends to 2030 of the energy generation market: SEN 2017, EUCO30, ENTSO-E, McKinsey Power Model, Platts

PowerVision, GME, BNEF, Danish Energy Agency, HIS, World Energy Outlook, World Energy Council and Irena;

- for smart networks: OFGEM;
- for urban waste production: Ispra, FAO, Eurostat, Istat, European Commission;
- for the circular economy: Ellen MacArthur Foundation, McKinsey Center for Business and Environment, Stiftungsfonds für Umweltökonomie und Nachhaltigkeit (SUN), Braungart & McDonough, Cradle to Cradle (C2C);
- for district heating: AIRU;
- for the e-mobility market: McKinsey "Automotive Revolution 2030".

Furthermore, the Iren Group analysed the "Italian Electricity Market Study - 2019-2040" to assess its future evolution. In addition, analyses regarding risk management (e.g. analysis of physical climate-related risks), changes to laws and regulations, energy management (e.g. development of energy demand and price of CO₂ emissions) were considered.

Based on these scenarios and analyses, the Business Plan defines explicit **environmental, social, economic and financial objectives and targets** related to the strategic pillars.



BUSINESS PLAN OBJECTIVES AND TARGETS

PILLARS	MAIN INITIATIVES	MAIN TARGETS @2024				SDGs
DIGITALISATION 	<ul style="list-style-type: none"> Strong acceleration of digitalisation on a large scale, implementation of new IT model and advanced platforms 	€350 million invested		+75% compared to previous Plan		
PEOPLE 	<ul style="list-style-type: none"> Skills development and reskilling Implementation of new career paths and generational exchange Development of women's skills to offer equal development opportunities 	+14% direct and indirect occupation		+27% training hours per capita		
SUSTAINABILITY  Water resources	<ul style="list-style-type: none"> Division of networks into districts Increased efficiency of waste water treatment plants Digitalisation to improve predictive maintenance, service levels and operating efficiency 	-5% network leaks	-5% water withdrawals	76% network divided into districts	+16% wastewater plants capacity	  
Circular economy	<ul style="list-style-type: none"> Acquisition and construction of new waste recovery plants Extension of door-to-door waste collection systems Justren for the digitalisation of the waste management cycle 	+8% sorted waste collection (kg/inh/y)	-24% unsorted waste collection (kg/inh/y)	1.2 Mt waste recovered	+3% MWh/t from WTE	 
Decarbonisation	<ul style="list-style-type: none"> Expansion of electric and thermal storage Development of renewables Smart Solutions: energy efficiency projects 	-3% power generation carbon intensity	+20% energy saving	+56% CO ₂ avoided from waste recovery	~75% renewable or similar energy production	 
Resilient cities	<ul style="list-style-type: none"> Extension of district heating networks Smart metering Eco-mobility Distributed solar energy generation 	+12% district heating volumes	35% eco-vehicles on total vehicle fleet	95% gas smart meters	~2,000 distributed solar plants	  
CUSTOMERS/RESIDENTS 	<ul style="list-style-type: none"> Expansion of customer base outside key areas Maintenance of one of the lowest churn rates in the industry Major investments in infrastructure and services 	+25% customer base		+39% investments per resident		
EFFICIENCY 	<ul style="list-style-type: none"> Transformation into a lean organisation with an agile management model Further performance improvements 	€60 million of synergies		100 performance improvement projects		

PILLARS	MAIN INITIATIVES	MAIN TARGETS @2024		SDGs
GROWTH  Investments	<ul style="list-style-type: none"> Approximately €2 billion of investments in sustainability projects: over €800 million in the water sector and €600 million in the waste sector €350 million in digitalisation projects 	€3.3 billion in 6 years	+10% compared to previous Plan	
	<ul style="list-style-type: none"> Approximately €1,070 million by the end of the Plan Over 100 performance improvement projects Net financial position/EBITDA ratio by 2024 of 2.4x 	+€200 million by the end of the Plan	+3.6% annual growth rate compared to 2018	
	<ul style="list-style-type: none"> 2018 dividend policy confirmed Pay-out ratio of 50% by 2019 and 60% by 2022 	~ €300 million of profit by the end of the Plan	+10% annual dividend growth	

As well as communicating objectives, actions and results to stakeholders, the Sustainability Report is also a management tool that makes it possible to monitor compliance of operations with the Iren Group's sustainability strategy. To this end, this document reports on the progress achieved in relation to the 2024 targets (shown in boxes which provide a graphic representation of the previous table).

CORPORATE SOCIAL RESPONSIBILITY TOOLS

Corporate Social Responsibility governance is managed through a structured and coordinated system of instruments which ensure consistency with the mission, values and objectives defined by Iren.



The methods of implementation of the various instruments are analysed in the following pages.

INTERNAL CONTROL AND RISK MANAGEMENT SYSTEMS

The Iren Group has an Internal Control and Risk Management System, configured as a transversal process that involves, with different roles and within the context of their respective roles, 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 management of risks and sustainability, the Internal Audit Manager, the Risk Management Manager, the Board of Statutory Auditors and the Financial Reporting Manager, as well as all personnel of Iren Group companies. In particular, in compliance with the Corporate Governance Code of Listed Companies, 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 so that the main risks relevant to the Group result as correctly identified, as well as adequately measured, managed and monitored, also 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 department and submitted by the competent Appointed Body, subject to the opinion of the Board of Statutory Auditors and the Director appointed by the internal control and risk management system;



- describes, in the corporate governance report, the main characteristics of the Internal Control and Risk Management System and the coordination methods between parties involved in the system, expressing its opinion on the adequacy of the same;
- assesses the results presented by the statutory auditor, subject to the opinion of the Board of Statutory Auditors, in the letter of suggestions and in the report of the crucial issues arising during the legal audit;
- 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 sustainability plan (strategic priorities, commitments and objectives) for the development of the economic, environmental and social responsibility of the Group;
- appoints and dismisses, upon proposal of the Deputy Chair (competent Appointed Body), in agreement with the Chair, subject to the approval of the Control, Risk and Sustainability Committee and subject to the opinion of the Board of Statutory Auditors, the Internal Audit manager ensuring that they are provided with the adequate resources for the fulfilment of their responsibilities and defines their remuneration in line with company policies.

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 Internal Audit Manager’s Report presented, usually once every six months, to the Control, Risk and Sustainability Committee, pursuant to the Corporate Governance Code of Listed Companies. In turn the Committee, on the basis of the information received, reports every six months to the BoD pointing out the critical areas identified and expressing its opinion of the Internal Control System.

RISK MANAGEMENT

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



Each phase of the process is performed in accordance with standards and references defined at Group level.

*Integrated risk management
is a key tool
of Sustainability governance*

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 and envisages specific Committees that are responsible for the management of each type of risk.

Specific policies have been defined for each type of risk with the primary goal of meeting strategic guidelines, the organisational/managerial principles, the macro processes and techniques necessary for active management.

The Enterprise Risk Management system focuses in particular on the management of:

- financial risks (liquidity, interest rate, exchange rate);
- credit risks;
- IT risks;
- 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;
- 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;
- social and environmental risks integrated within the governance of the Enterprise Risk Management model. The analysis of these risks refers to the Environmental, Social and Governance (ESG) standards and lies at the foundation of the risk matrix prepared with specific reference to the risk assessment.

The Enterprise Risk Management (ERM) model also considers climate change and the risks and opportunities, also strategically speaking, that these entail. Among the effects of climate change there have been extreme critical atmospheric phenomena such as droughts and floods; these events determine the impacts on the systems and services, together with the associated economic implications, and require organisational attention in relation to the consequences for Group assets, service management and production and maintenance scheduling.

The assessment of environmental and social risks analyses the main risks that derive from the Group’s activities and identifies the management measures to mitigate them, in relation to the organisational-management model and the policies adopted, as provided for by Italian Legislative Decree 254/2016, Article 3, and illustrated in the tables below.

ENVIRONMENTAL SECTOR

Important topics	Risk factors	Management methods
Group policies: QSE policies, Code of Ethics, Mission, Vision and Values, Strategic Memorandum@2030, the Business Plan in line with the SDGs		
Energy efficiency, renewable sources and district heating Sustainable use of water resources Use of energy resources (produced from renewable and non-renewable sources) Emissions (greenhouse gases and atmospheric emissions) Impact on the environment, health and safety Biodiversity Circular economy: management, separated waste collection and reuse of waste Innovation and smart cities Responsible management of business segments Sustainable management of the supply chain Efficiency and reliable services	<ul style="list-style-type: none"> • Failure to achieve the environmental targets provided by the Business Plan (BP) and subsequent negative operational, economic and reputational impacts and in terms of the Group's access to funding sources, such as Green Bonds (GBs) • The Group's environmental footprint that is not in line with the objectives of the BP and national and international commitments for reducing the environmental impact • Accidentally exceeding the emission thresholds provided by the IEAs due to the malfunctioning of plant components and/or control systems or in the event of unsuitable waste that has not been identified by the control systems being disposed of in waste-to-energy plants • Loss of the 14001, EMAS and 18001 certifications with the subsequent loss of the Environmental Authorisations and a reduction in insurance guarantees • The incorrect treatment of waste by employees or suppliers of Iren Group Companies with subsequent possible sanctions • Negative environmental impacts on the environment, health and safety and subsequent negative reputational and economic impacts 	<ul style="list-style-type: none"> • Planning and control of actions and investments necessary to achieve the targets of the BP and the GBs • Certified Management System: risk assessment and the relative containment measure plan, third-party checks (audits by certification and control bodies) • Internal control and ERM system (policy and risk map) • Model 231 • Procedures for Environmental Analysis of the environmental aspects/impacts and related actions • Procedures/instructions: management and control of water withdrawals and discharges; management of emissions of the waste-to-energy plants and thermoelectric plants; emergency management aimed at returning to the set emission thresholds within specific time frames; special waste management; management of accidental spills of hazardous and/or pollutant substances; management and maintenance of vehicle fleet • Water resource monitoring plans • Continuous emission monitoring systems • Maintenance plans, including predictive plans • Environmental Authorisations (IEA and SEA) • Emergency management planning • Iren Group Consolidated Text on Procurement • Requirements in the specifications regarding the tracing of waste and timely checks • Supplier qualification profiles • Supplier monitoring via questionnaires • Audit system for the most significant and potentially sensitive contracts concerning environmental protection and health and safety • Green bond framework • MbO including environmental targets

SOCIAL SECTOR

Important topics	Risk factors	Management methods
Group policies: QSE Policies, Code of Ethics, Mission, Vision and Values, Local Committees, Job System		
Relations with local communities Development of local communities Dialogue with Public Authorities Internal and external communication Environmental education Dialogue with social partners Industrial relations Internal and external communication	<ul style="list-style-type: none"> • Ineffective communication with local communities and institutions • Disruption of relations with local representatives • Subsequent negative reputational impact • Insufficient attention to sustainability on the part of local communities • Incorrect perception of the activities managed • Disruption of relations with trade unions and the subsequent negative operational and reputational impact 	<ul style="list-style-type: none"> • Organisational and managerial oversight • Establishment of Local Committees • Management procedures for sponsorship and media relations • Media plans for local initiatives • Edu.Iren educational programme • Sustainability awareness programmes • Plants open to visitors • Certified Management System: risk assessment and the relative containment measure plan, third-party checks (audits by certification and control bodies) • Model 231 • Protocol on Group industrial relations • Structured relationships with employer organisations and representative entities • Constant update on legal and contractual regulations • Structured methods for staff acquisition, management and development • Continuous personnel training with human resources management responsibilities



Important topics	Risk factors	Management methods
Group policies: QSE Policies, Code of Ethics, Mission, Vision and Values, Local Committees, Job System		
Relations with consumers Customer satisfaction Efficiency and reliable services Service levels offered, customer focus and changes in customer expectations Marketing policies Internal and external communication	<ul style="list-style-type: none"> • Loss of customers • Errors in service charges and credit management • Fraudulent acquisition of customer data by third parties, also following on from cyber attacks • Non-compliance with customer protection protocols and regulations • Non-compliance with the Service Charters • Disputes with Consumer Associations/Class action suits • Conflicts with Local Authority customers • Loss of ISO 9001 certification and the subsequent inability to participate in tenders • Subsequent negative economic and reputational impact 	<ul style="list-style-type: none"> • Certified Management System: risk assessment and the relative containment measure plan, third-party checks (audits by certification and control bodies) • Structured, multi-channel CRM and caring initiatives • Customer database protection • Specific agreements with consumer organisations and constant monitoring of relations • Implementation of protocols and regulations concerning customer protection via specific processes and procedures • Annual customer satisfaction survey and the identification of improvement actions • Service charters and service specifications • Joint conciliation • Implementation of EU Regulation 679/16 (GDPR) • Risk map • MbO including customer satisfaction targets
Impact on health and safety of consumers Management of emergencies Management of construction sites	<ul style="list-style-type: none"> • Damage to persons or property deriving from: circulation of service vehicles, plant malfunctioning, incorrect supply of services, plants and equipment that interface with or power customer machinery (gas, electricity, water and district heating service) • Subsequent negative operational, economic and reputational impact • Legal proceedings brought by consumers 	<ul style="list-style-type: none"> • Internal control and ERM system (policy and risk map) • Service and plant monitoring tools, remotely controlled systems to promptly identify malfunctions and return plants to safe conditions • Procedures/instructions: management and control of water withdrawals and discharges; management of emissions of the waste-to-energy plants and thermoelectric plants; network and plant management of the gas and integrated water service; special waste management; management of accidental spills of hazardous and/or pollutant substances • Emergency management planning/procedures • Group's Consolidated Text on Procurement • Supplier qualification profiles • Supplier monitoring via questionnaires
Personnel management, including actions to ensure gender equality Employment Development of human resources Corporate welfare and diversity	<ul style="list-style-type: none"> • Loss of talent • Loss of key resources • Depletion of human capital • Strikes • Legal proceedings with workers • Non-compliance with labour legislation • Subsequent negative reputational and economic impacts 	<ul style="list-style-type: none"> • Certified Management System: risk assessment and the relative containment measure plan • Model 231 • National Collective Labour Agreements • Procedures: personnel recruitment and selection; training and education • Guidelines: definition of key resources; management by objectives; economic and professional development • Internal communication • Career planning and merit enhancement systems • Gender equality promotion • Welfare plan
Measures aimed at implementing international and supranational personnel conventions Employment Corporate welfare and diversity	<ul style="list-style-type: none"> • Legal actions and/or disputes due to non-compliance with regulations • Sanctions and fines for non-compliance with regulations 	<ul style="list-style-type: none"> • Organisation and activities of the Personnel and Organisation Department, in relation to the Regulatory Affairs Department • Group's Industrial Relations Department responsible for constant regulatory compliance • Verification of the concrete implementation of regulations, supporting any specific corrective actions required • Regulatory training/education procedure • Specific audits on regulatory compliance
Anti-corruption	<ul style="list-style-type: none"> • Company's administrative responsibility • Criminal liability of management • Subsequent negative operational, economic and reputational impact 	<ul style="list-style-type: none"> • Model 231 • Sponsorship management procedure • Internal Audit • Supervisory Bodies • Whistleblowing procedures

Important topics	Risk factors	Management methods
Group policies: QSE Policies, Code of Ethics, Mission, Vision and Values, Local Committees, Job System		
Occupational health and safety Management of emergencies	<ul style="list-style-type: none"> Internal and external workers' accidents Company's administrative responsibility Criminal liability of management Loss of ISO 18001 certification and the subsequent loss of the INAIL award Non-compliance with suppliers' health and safety legislation Subsequent negative reputational impact 	<ul style="list-style-type: none"> Internal regulations and organisation in application of the Consolidated Law on Occupational Health and Safety Organisation of the prevention and protection service Internal control and ERM system (policy and risk map) Iren Group's Risk Assessment Documents Certified Management System: risk assessment and the relative containment measure plan, third-party checks (audits by certification and control bodies) Procedures/instructions: management of occupational health and safety aspects; PPE management; management of accidents and injuries; protection of the health and safety of pregnant workers, those who have recently given birth and those who are breastfeeding Emergency management planning/procedures Health monitoring plans Insurance plans Model 231 Information flows of the Supervisory Bodies on health and safety Suitable audit structure Personnel training and awareness raising "Near misses" analysis and subsequent actions Group's Consolidated Text on Procurement Supplier qualification profiles Supplier monitoring via questionnaires Audit system for the most significant and potentially sensitive contracts concerning occupational safety
Human rights: measures adopted to prevent violations and actions taken to prevent discriminatory attitudes and actions	<ul style="list-style-type: none"> Incorrect conduct by employees Incorrect conduct by suppliers Violation of the rights of people with disabilities Violation of workers' rights Violation of workers' rights by suppliers Discriminatory actions against customers and employees Subsequent negative operational, economic and reputational impacts 	<ul style="list-style-type: none"> Dissemination of the Code of Ethics and monitoring of breach reports with the application of the relative sanctions System for reporting to the Supervisory Bodies Application of National Collective Labour Agreements Service charters Hiring of disadvantaged personnel Contracts that enhance the work of disadvantaged personnel Supply chain monitoring on workers' rights Removal of architectural barriers in Group buildings Accessibility of services to disabled residents with the monitoring of any inaccessibility reports Supplier qualification profiles Contractual clauses with suppliers Supplier monitoring via questionnaires Audit system for the most significant and potentially sensitive contracts concerning human rights

The Group Risk Management Department, which reports to the Deputy Chair, is responsible, *inter alia*, for the audit of the ERM integrated management system, the methodological approach, the definition of policies, system monitoring and, in collaboration with the Chief Executive Officer, the assessment of insurance requirements and the stipulation and management of policies. A periodic assessment process is also in place with regard to adverse events in the various sectors and across all 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.

LEGAL COMPLIANCE

The objective to develop the business in close contact with the local communities and area is placed at the heart of Iren Group's

commitment to protecting the environment and promoting the protection of natural resources based on principles of sustainable development. In order to identify and implement the most appropriate action plan, the Regulatory Affairs Department draws up a quarterly regulatory framework. The document analyses the impact of the regulatory variables on the Group's results. The Italian and international regulatory framework is constantly supervised and monitored through the following activities:

- reporting and analysis concerning the transposition of updates and the interpretation and application of relevant legislation;
- the coordination and direction of company departments assigned, either directly or indirectly, to comply with information obligations by sector Authorities;
- the coordination and support of the company departments in managing the "antitrust risk" and the "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** - market reform/updating (capacity market, MSD revision and extension, adjustment on imbalances), district heating regulation, reform of the Energy Efficiency Bonds mechanism, hydroelectric concessions for large-scale diversions;
- **market business** - reform of protected market, revision of sale components (electricity and gas), reform of gas balancing, transport and settlement, regasification (combined capacity and storage auctions, tariffs for the actual recognition of costs incurred and revenue coverage factor);
- **environment business** - urban waste collection tariff regulation, transparency regulation, provisions on urban waste collection service levels, support for incentives for renewable sources and biomethane, monitoring of the legislative framework of reference (Italian Ministerial Decree on sewage sludge, Italian Ministerial Decree on biomethane, implementation of EU Directive on the circular economy with particular reference to the waste assimilation criteria, shared responsibility of the producer, the reform of consortium system and the restructuring of skills), service tenders;
- **network business** - tariff regulation to cover operating costs of electricity/gas distributors and regulate electricity/gas service levels, smart meters and their technological evolutions, smart grids, network code, resilience, non-payment, safety obligations, gas tenders of national equalisation and type agreements.

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 and the procedures of the Antitrust Authority (AGCM). Furthermore, the Legal Affairs department studies provisions related to the sectors in which the Group operates, provides support and legal advice to all the structures of the Parent Company and Business Units and participates in working groups on the topics that involve the Parent Company or Business Units.

CODE OF ETHICS

The Iren Group strives to disseminate and promote awareness of the Code of Ethics to its employees and everyone who works for the Group, monitoring compliance and providing adequate information and control tools.

The Code of Ethics, which transposes the mission, vision and values of Iren Group into conduct standards for all employees in internal and external relationships, is also the cornerstone of the

organisational model that aims to prevent the crimes laid down by Italian Legislative Decree 231/2001, including the crime of corruption. Observation of the content of the Code of Ethics by all who operate on behalf of Iren is of fundamental importance for the smooth operation, reliability and reputation of the Group. 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. Mandatory 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 the 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. Therefore, all employees must notify their superior and the Personnel Department in writing of any interest, direct or indirect, in the business of the supplier and make known any past or present relationship of a financial, business, professional, family or social nature such as to influence the impartiality of their conduct in regard to the supplier.

Employees who become aware of omissions, falsifications or negligence in accounting records or supporting documents must immediately inform their superior who will report to the Financial Reporting Manager.

Every director, auditor, employee or collaborator of the Iren Group must actively contribute to implementing the Code of Ethics and to reporting any breaches and non-compliance, insofar as they are competent.

Breaches of the Code of Ethics must be reported, even anonymously, to direct superiors, the Internal Audit and Compliance Department and the Supervisory Body pursuant to Italian Legislative Decree 231/01 that, in collaboration with the Corporate Social Responsibility Department and Local Committees, will assess the validity.

Senior Managers and Managers of company bodies and departments are committed to encouraging and protecting the reports of possible breaches of the Code of Ethics from employees, to prevent any kind of reprisal and to promptly refer any reports received, adopting the immediate and crucial corrective measures required by the situation, as well as to ensure that employees comply with the provisions of the Code of Ethics.

Iren ensures the verification of each notice of breach of the Code of Ethics, received pursuant to the methods and through the channels specified by the Code, the assessment of the facts and the application of appropriate sanctions in case of breaches. Specifically, it is the responsibility of the Supervisory Body to formulate their own observations concerning the alleged breaches of the Code of Ethics of which they are made aware, reporting any violations found to the competent company bodies.

Iren's Corporate Social Responsibility Department and Local Committees have the task of promoting the understanding,

dissemination and updating of the provisions of the Code of Ethics and to ensure their interpretation. The Code of Ethics is also available on the Group's website in order to achieve maximum dissemination and understanding. Furthermore, to support ethical conduct and compliance with the law and Code of Ethics, the Iren Group 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 website and Intranet.

In 2019 the Group did not receive any notifications of breaches to the Code of Ethics.

ORGANISATIONAL MODEL 231

Iren and the main Group companies have adopted organisational, management and control models pursuant to Italian Legislative Decree 231/2001 (Model 231) with the aim of configuring 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 Italian Legislative Decree 231/2001, which also include crimes related to corruption.

In 2019, the project to review and update the Model 231 of the parent company and the main Group Companies continued. This project began after significant organisational changes and the extension, by the legislator, of administrative liability pursuant to Italian Legislative Decree 231/2001 to new crimes, so that the Models 231 maintain their effective capacity to prevent the commission of 231-related crimes over time. The revision of the Models was implemented in accordance with a risk self-assessment methodology consisting of the identification and self-assessment being conducted by management ("risk owners") in processes, sub-processes or activities at risk of 231-related crimes, also assessing potential risk, the control level and the remaining risk of each sensitive activity.

The review and update project requires that the updated Model be presented to the Supervisory Bodies of each individual Company and then submitted to the Board of Directors for approval. Thereafter, all employees are informed of the approval of the new Model 231 via a service order, which reminds them that they must consult it and adopt conduct that complies with the provisions contained therein. The updated Model 231 is published, in its entirety, on the company Intranet for online consultation.

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). To ensure the effectiveness of the whistleblowing system, the Group has adopted a specific procedure for the management of reports to the Supervisory Body, which regulates the methods of communication of the reports and governs the responsibilities and verification activities carried out by the person who receives the report, in order to ensure that the validity of the report is verified, that all suitable actions are taken, including sanctions, and all measures aimed at preventing its repetition are put into effect. Reports are managed electronically in the case of certain

companies and in any case in a way that protects the identity of the whistleblower and principles and provisions of the Organisational Model 231. The Company and the Supervisory Body acts to ensure the protection of the whistleblower from any form of retaliation or discriminatory behaviour, direct or indirect, relating to the report. The Group promotes the whistleblowing procedures through specific training, also with a view to developing a positive corporate culture.

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 2019 four reports were sent to three Supervisory Bodies of Group companies. 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.

SUPERVISORY BODIES

Iren and the main Group companies established, with a resolution of the BoD, a Supervisory Body (SB) pursuant to Italian Legislative Decree 231/2001, tasked with monitoring the functioning and compliance of the Model and updating it. In order to meet the requirements of autonomy, independence, professionalism and continuity of action, the choice was made to form the SB with a collegiate structure. The necessary initiative and controls are conferred to the Supervisory Body in order to ensure effective and efficient monitoring of the functioning and compliance of the Model, in accordance with the provisions of Article 6 of Italian Legislative Decree 231/01. With the assistance of the competent company departments, the Supervisory Body monitors the areas of activities found to be at risk pursuant to Italian Legislative Decree 231/2001 and reports to the Board of Directors twice a year on the activities carried out and the results obtained. 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, are fundamental prerequisites for the exemption from liability provided for by Italian Legislative Decree 231/01.

CORRUPTION PREVENTION

In the performance of its activities, Iren Group companies manage relations with Local Authorities 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. 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.

In 2019, updates were made to the Model 231 of the parent company which contains, *inter alia*, the map of processes through



which the business areas susceptible to the potential risk of the offences indicated by the Decree were identified. In particular, sensitive activities at risk of corruption were identified, for which suitable internal rules were provided to supplement the Code of Ethics (general control principles and specific conduct and control protocols), such as, but not limited to:

- the selection and formation of contractual relations with suppliers;
- consulting selection and management (public and private parties);
- HR selection, recruitment and management, management of the bonus system;
- management of sponsorships, events, gifts and donations;
- management of relationships with public parties to attain or renew authorisations, licences and concessions for carrying out corporate activities;
- management of public grants, payments and contributions.

The process mapping, risk self-assessment, the preparation of the Model of Organisation, Management and Control, the 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 systems of processes with a view to preventing the most significant risks. Within the context of the conducted audits, and with reference to the processes being investigated, the adequacy of the internal control system is evaluated with reference to the most significant risks, (by way of example, in 2019, audits were carried out on the following processes: sponsorship management, purchases, meter reading, salaries).

Training on the offences outlined by Italian Legislative Decree 231, which also considers anti-corruption policies and procedures, was

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 activities of the parent company involve the members of the Board of Directors, Senior Executives and Directives of the Business Units in specific classroom sessions. In 2019 the Iren Supervisory Body organised and managed a training session aimed at members of the Board of Directors, the Board of Statutory Auditors and all Department and Business Unit Managers.

The training for senior managers, junior managers and office workers is delivered through e-learning sessions that are updated and renewed periodically following changes to legislation. This enables all personnel to be reached quickly, with the possibility of target-based profiling and the attribution of the entire course or individual training modules depending on the previous training level of the individual person. 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.

As outlined in the adopted policy, a capillary training programme for employees has been scheduled to begin in 2020.

Reports on training are regularly sent to the Supervisory Bodies.

Employees may also consult the Model 231 of their relevant company and the Group's Code of Ethics on the company intranet. 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 2019, no confirmed instances of corruption were reported within Group Companies.

Training on anti-corruption policies and procedures	2019		2018		2017	
	no.	%	no.	%	no.	%
Trained employees	22	0.28	362	5.2	3,186	50.9
of which Senior managers	16	16.7	4	4.4	94	100.0
of which Junior managers	1	0.33	38	13.0	256	97.7
of which White collar workers	5	0.15	305	9.3	2,817	97.3

QSE CERTIFIED SYSTEM

The 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 System (Quality, Safety and Environment - QSE), 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 can quickly adapt to changes in customer expectations and needs, as well as organisational changes within the Group, thereby ensuring continuous monitoring of the effectiveness and efficiency of the processes at the same time.

The values of the Iren Group are applied and expressed in the QSE Policy, which is acknowledged and shared by all personnel, in the following basic principles of the certified system: satisfaction of all relevant parties, protection of the environment and rational use of resources, health and safety of personnel, sustainable development, responsibility and cooperation with communities, efficiency of services, risk management and

governance, respect and optimisation of personnel, innovation and change, quality of supplies and contracts, continuous improvement.

Monitoring of the Quality, Safety and Environment systems are guaranteed for each top-tier company by the Personnel, Organisation and IT Systems Department of Iren.

MAIN CERTIFICATIONS

	ISO 9001 (Quality)	BS OHSAS 18001 (Safety)	ISO 14001 (Environment)	EMAS	UNI 11352 (ESCO)	ISO 17025 (Laboratories)
Iren	•	•	•			
Iren Ambiente	•	•	•	• (3 sites)		
Iren Energia	•	•	•	• (4 sites)		
IRETI	•	•	•			
Iren Mercato	•	•				
Acam Acque	•	•	•			
AMIAT	•	•	•			•
ASM Vercelli	•	•	•			
Atena Trading	•	•				
Bonifica Autocisterne	•					
CMT	•		•			
Ferrania Ecologia	•		•			
Iren Acqua	•	•	•			
Iren Acqua Tigullio	•	•	•			
Iren Laboratori	•	•	•			•
Iren Smart Solutions	•	•	•		•	
Salerno Energia Vendite	•					
San Germano	•	•	•			
Studio Alfa	•					•
Territorio e Risorse	•		•			
TRM	•	•	•			

In 2019, all the audits conducted by the Certifying Bodies at Group companies passed, confirming the maintenance of the Certifications already possessed, and the actions planned to achieve the defined objectives were carried out:

- maintenance of the QSE Certifications held by all Group companies;
- extension of the QSE Certifications to former ACAM S.p.A. personnel and sites;
- maintenance of the Multi-site Accreditation for Iren Laboratori;
- maintenance of EMAS registrations for Iren Ambiente;
- maintenance of the certification for the sale of electricity produced solely from renewable sources, in compliance with the Certiquality Technical Document no. 66, by Iren Mercato;

- maintenance of the Energy Efficiency Certifications (ISO 50001), ESCO (UNI 11352) and F-Gas of Iren Smart Solutions;
- acquisition of the ISO 9001 and ISO 14001 certifications of TRM, as well as the maintenance of the OHSAS 18001 certification.

The achievement and maintenance of voluntary certificates evidence the commitment of the Iren Group to protecting the environment, the rational use of natural resources, 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:



- the development of the production of energy from renewable sources or similar and district heating, together with the adoption of the best technologies to guarantee a reduced environmental impact;
- the improvement of the use of water resources, in terms of both its withdrawal and its discharge;
- the renovation of the urban waste water treatment systems and search for the best technologies in order to improve the quality of effluents and minimising odorous emissions;
- the correct management of obligations concerning special waste in the production, storage, transport and disposal and/or final recovery stages;
- the spread of information on the impacts on the external environment through specific publications, such as the Sustainability Report and Environmental Declarations.

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

- completion of the implementation of the new development method of the environmental analysis of sites, plants and processes at all Group companies with ISO 14001 certification;
- monitoring environmental performance through the use of 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;
- conducting 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;
- involving company personnel through participation in specific training courses on environmental issues and best plant management practices.

PROTECTION OF HUMAN RIGHTS

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

The Group mainly works in Italy where a complex system of laws contributes to preventing the risk of violating human rights; nevertheless, the Group considers the UN's Universal Declaration of Human Rights, the International Labour Conventions and Recommendations issued by the ILO (International Labour Organization) and the Earth Charter drafted by the Earth Council to be fundamental points in the definition of its values.

Recognising the absolute value of the fundamental principles of the Constitution of the Italian Republic, respect for people's dignity and

the condemnation of all forms of discrimination are fundamental for the Iren Group.

These principles translate into a refusal to enter into negotiations or assign tasks that might violate or contradict the fundamental principles that underlie respect for human dignity and in our commitment to not collaborate with partners that violate these principles, with particular reference to the use of child labour and the protection of the primary guarantees of all workers.

At the Iren Group, respect for human rights is always a fundamental prerequisite for correct business activity, which is reflected in our scrupulous compliance with the law and contract regulations, with the provisions of the Organisational and Management Model 231 and the Code of Ethics, as well as in our constant discussion with Trade Unions and stakeholders (via Local Committees) and in the suppliers' management system.

This issue is so integral to the company culture that all action areas and tools mentioned above are subject to constant update and improvement.

The Group constantly works to ensure fair and impartial treatment for all citizens, in accordance with the principles established in the service charters, and condemns any type of discrimination on the grounds of age, gender, sexuality, race, health status, nationality, political opinions or religious beliefs and has adopted tools to promote accessibility and use of services, with particular regard to the disabled, the most vulnerable and foreign-speaking citizens.

In the non-recurring operations aimed at acquiring companies/shares, the Group carries out the appropriate due diligence to verify the application of the labour and occupational safety laws provided by Italian law.

In 2019, supplier analysis was conducted via a questionnaire for the third time, which aimed to ascertain the human rights policies adopted by the companies that hold active contracts with the Group. Of the 889 supplier companies that responded (25% of qualified suppliers), 58% (55% in the previous analysis) have adopted human rights policies that fall into the following areas (in order of priority):

- equal opportunities and equal treatment irrespective of race, 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;
- measures to integrate employees;
- formal control systems to ensure that the company does not request that its employees deposit money, identity documents or credit cards during the hiring process.

Furthermore, 18% of those who responded to the questionnaire stated that there is an employee within their organisation who is

officially responsible for human rights issues. Finally, a single case of complaint or legal action for discriminatory practices was detected among the responding suppliers.

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

CODES OF CONDUCT

In 2019, the Iren Board of Directors resolved to formally adopt the 2018 edition of the recommendations of the Corporate Governance Code for Listed Companies, produced by the Corporate Governance Committee of the Italian Stock Exchange, and simultaneously approved a document that outlines the specific governance solutions adopted.

The 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 issued by ARERA (The Italian Regulatory Authority for Energy, Networks and Environment) for the management of sales activities and the integrated water services.

Furthermore, in the management of services, the Service Charters regulate the action 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

In 2019, the Alternative Dispute Resolution protocol for joint conciliation, adopted by Iren in 2017 with 19 National Consumers' Associations and valid for "consumer" clients of Iren Mercato, Ireti, Iren Acqua, Iren Acqua Tigullio, was extended to Atena Trading and Acam Acque.

The ARERA arbitration service for the Single Buyer, obligatory from July 2019 for Ireti, has been adopted on a voluntary basis by Iren Acqua, Iren Acqua Tigullio, Acam Acque and AM.TER.

Furthermore, in the last quarter of 2019, Iren Mercato accepted the request forwarded by the Consumer Associations, through their representatives at the Joint Conciliation Body, and established a special service dedicated to reports made by the Associations, including a specific email address and telephone number and the possibility of arranging in-branch meetings for specific practices.

CSR DEPARTMENT AND LOCAL COMMITTEES

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

- define the sustainability impacts, targets and objectives for the Group's strategic plans, budgets and finance, in coordination with Strategic Planning, Finance and BUs;
- participation in the Sustainable Financing Committee set up to identify the investments with positive environmental impacts within Group investments;
- definition of guidelines, oversight and management of activities for the Group's non-financial report pursuant to Italian Legislative Decree 254/2016 and the presentation to stakeholders;
- definition of the 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 Local Committees;
- creation of Group customer satisfaction surveys;
- participation in working tables and initiatives on corporate social responsibility and non-financial reporting;
- processing of data and information for sustainability ratings.

RELATIONS WITH STAKEHOLDERS

The Iren Group is committed to creating, strengthening and expanding its relationships with its stakeholders to guarantee them ample space for discussion and dialogue. The criteria for stakeholder engagement are aimed at inclusion, transparency, fairness, focus on ethical, environmental and social issues and consistency with the activities of the Group. Dialogue is based upon the principles of inclusiveness, materiality and compliance laid down in the AccountAbility 1000 standard. 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, a tool designed to promote dialogue, debate and participatory planning between the Iren Group and its stakeholders concerning the company's services and the social and environmental sustainability topics.

MAIN STAKEHOLDER CATEGORIES OF THE IREN GROUP





Stakeholder engagement activities and the management of the Local Committees are the responsibility of the Deputy Chairperson, who collaborates with the Corporate Social Responsibility and Local Committees Department which reports directly to the office of the Deputy Chairperson.

Iren has consolidated a stakeholder engagement project present in the Local Committees in the materiality analysis (see page 10) to share and assess important topics for drafting the Sustainability Report. The analysis made it possible to compare the vision of the Group with that of the different categories of stakeholders, in order to receive their input and develop a report that was increasingly relevant and focused on their real interests, thus providing a clear framework of strategies, policies and results achieved.

Iren Local Committees: established to promote dialogue, discussion and participatory planning with stakeholders

To deepen the discussion concerning sustainability issues, in 2019 Iren held in-depth meetings with the Local Committees, participated in seminars and conferences, produced specific publications and organised the forum “Looking to the future 2. Strategies for developing and enhancing the local area”. The forum was also an opportunity to present the study entrusted to The European House Ambrosetti on the role of Iren as a driver of innovation and sustainable growth in Italy and to discuss environmental and social performance with institutions and stakeholders.

Every year, the Sustainability Report is published on the Group’s website and specific information brochures are produced. In 2019, Iren posted short videos on the company intranet and organised a local media campaign to increase the Group’s commitment to guaranteeing environmental, social and financial sustainability for its stakeholders.

IREN LOCAL COMMITTEES

To strengthen and expand dialogue with stakeholders, Iren has created Local Committees which are designed to ensure a deeper-rooted presence in the local community, thanks to the participatory planning and times of consultation on issues such as environmental and social sustainability, innovation and the quality of services provided. In order to guarantee and broaden the widespread involvement, the Committees use the www.irencollabora.it on-line platform, the first of its kind on a national level, where citizens can make proposals and suggestions directly on the issues dealt with by the Committees, with the aim of generating concrete and tangible projects. The information flow produced by the platform is also a valuable source that inspires Iren to adopt innovative service strategies and anticipate the needs of the local areas. Specific working groups are established within the individual Committees aimed at the development of the projects presented within the Committee or on the irencollabora.it platform. In 2019, 93 Committee and working group meetings were held and, in December 2019, there were 1,519 profiles registered on the platform, 75 projects and 60 proposals.

Through Local Committees, stakeholders can also draw the Group’s attention to issues concerning the company’s services, as well as environmental and social sustainability topics. The Deputy Chair of Iren, who is a member of the Local Committees, reports regularly to the Control, Risk and Sustainability Committee and the Board of Directors, on the trend of the activities and the discussion and planning activities carried out within the Committees.

The table below identifies the stakeholders, key topics, critical situations for each category of stakeholders and the projects and initiatives for the involvement of the same.

ACTIVITIES AND TOPICS FOR STAKEHOLDER ENGAGEMENT

Stakeholders	Main categories	Key topics	Projects and initiatives aimed at the stakeholders
Personnel	<ul style="list-style-type: none"> • Employees • External staff (other than employees) • Trade Unions 	<ul style="list-style-type: none"> • Health and Safety • Enhancement of skills • Remuneration • Training • Internal communication • Welfare • Equal opportunities • Environmental, corporate and economic responsibility 	<ul style="list-style-type: none"> • Training and assessment initiatives • Work Life Balance • 7 projects to increase motivation and improve the working environment • “Iren4Digital” project • Internal mobility • Code of Ethics • Industrial relations and trade union agreements • “Irenfuturo” Portal • “Iren Welfare” Portal • Incentivised termination of employment • Reward & Performance Management • “New graduate-hires” “Welcome Day”, “On-Boarding” projects • “Health at the heart” (“Al cuore della salute”) project • “Sustainable canteen” (“Mensa sostenibile”) project • Smart Working • Initiatives to promote gender diversity • Initiatives to support employees’ children • Materiality analysis • Local Committees

Stakeholders	Main categories	Key topics	Projects and initiatives aimed at the stakeholders
Suppliers	<ul style="list-style-type: none"> • Suppliers of goods, services and works • Certified suppliers • Local suppliers • Trade associations 	<ul style="list-style-type: none"> • Supply chain management • Transparent communications • Contractual conditions • Payments • Environmental, corporate and economic responsibility 	<ul style="list-style-type: none"> • Procurement portal and supplier register • Code of Ethics • Training/information for third party companies • CSR survey for suppliers • Materiality analysis • Local Committees
Customers	<ul style="list-style-type: none"> • Users of retail and business services • Local Authorities • Consumer associations 	<ul style="list-style-type: none"> • Service levels • Online and mobile services • Transparent communications • Tariffs • Credit management • Service reliability and safety • Environmental, corporate and economic responsibility 	<ul style="list-style-type: none"> • Front offices and call centres • Transparent utility bills • Website, app, social media • Customer satisfaction surveys • Customer safety initiatives • Initiatives to improve service quality • Code of Ethics • Meetings and framework agreements with Associations • Credit management protocols • Social tariffs • Joint conciliation protocols • Training meetings on social bonuses • Guides on how to interpret utility bills • Materiality analysis • Local Committees
Shareholders and Financial Backers	<ul style="list-style-type: none"> • Retail investors • Public shareholders • Institutional investors • Financial community • Ethical funds • Banking institutions 	<ul style="list-style-type: none"> • Corporate Governance • Transparent Communications • Share performance • Green Bond Issue • Economic/financial results • Rating • Environmental, corporate and economic responsibility 	<ul style="list-style-type: none"> • Roadshows • Webcasting service • Communication of results and possible future risks • Adoption of disclosure policies • Inclusion in ethical indexes • Participation in Carbon Disclosure Project • Sustainable Financing Committee • Business Plan to 2024 • Shareholders' Meeting • Calendar of corporate events • Materiality analysis • Local Committees
Institutions, local areas and the Community	<ul style="list-style-type: none"> • Local Authorities • Regulatory Authorities • State • Non-Governmental Organisations (NGOs) • Associations • Media • Local citizens 	<ul style="list-style-type: none"> • Attention to the local area • Dialogue and involvement • Creation of opportunities for local area growth • Transparent Communications • Investments and support for initiatives in local areas • Environmental, corporate and economic responsibility 	<ul style="list-style-type: none"> • Notification of opinions and documents • Participation in meetings with Institutions • Surveys and questionnaires • Conferences, seminars and workshops • Collaboration in projects by institutions • Plant visits • Local Committees and "Irencollabora.it" platform • Materiality analysis • Subsidy plans for Communities affected by environmental emergencies
Environment	<ul style="list-style-type: none"> • Trade associations • Technicians and sector experts • Representatives of authorities and institutions 	<ul style="list-style-type: none"> • Water network leaks • Management of water treatment plants • Efficiency of the gas distribution network • Production of energy and atmospheric emissions • Energy saving • Sustainable mobility • Waste management • Environmental, corporate and economic responsibility 	<ul style="list-style-type: none"> • Development of renewables • Energy savings and efficiency projects • District heating development • Increase in the capacity to dispose of special waste • Systems to increase separated waste collection • Reduction of water network leaks • Containment of atmospheric emissions • IrenGo • Awareness raising on environmental issues • Materiality analysis • Local Committees
Future Generations	<ul style="list-style-type: none"> • Schools • Universities • Research centres • Trade associations • Incubators 	<ul style="list-style-type: none"> • Environmental protection • Smart City • Demand Side Management Programmes • Innovative services • Reduction of impacts • Climate change • Sustainable behaviours • Environmental, corporate and economic responsibility 	<ul style="list-style-type: none"> • Educational programmes in schools (EduIren) and universities • Guided tours • Projects and investments in research and innovation • Iren Start Up Award • Iren Up • Partnerships for research and innovation • Framework agreements with Universities and research centres • Materiality analysis • Local Committees



IMPROVEMENT PLANS

The Improvement Plans outlined below establish the actions and objectives required to achieve the results envisaged in the Iren

Group's Business Plan to 2024, indicating the strategic pillars upon which the Plan is based.

SUSTAINABLE USE OF RESOURCES

Topic area	Actions carried out in 2019	Future Objectives
Decarbonisation Emissions Energy efficiency, renewable sources and district heating Resilient cities	<p>Reduction of emissions:</p> <ul style="list-style-type: none"> -1% direct CO₂ emissions from energy production plants compared to 2018 +31% CO₂ emissions avoided through waste recovery compared to 2018 20,500 tCO₂ avoided through improving the efficiency of public street lighting 12,744 t CO₂ avoided through heat storage systems 76% of energy produced from renewable sources or similar prosecution of redevelopment works on the hydroelectric plants of Chiomonte and Susa investments in renewable resources <p>Increase in district heating volume</p> <ul style="list-style-type: none"> +1.3% volumes connected compared to 2018 prosecution of works to connect the Piacenza waste-to-energy plant to the district heating network interventions on the district heating network and on the Turin waste-to-energy plant to connect it with the Grugliasco network 15,000 cubic metres of heat accumulation capacity and launch of authorisation procedure for new accumulation systems <p>Energy efficiency:</p> <ul style="list-style-type: none"> -7% of tonnes of equivalent oil (TOE) compared to 2018 5,689 TOE saved by LED lighting systems 12 energy redevelopment projects launched for public and private buildings high energy efficiency pumps in the main sewage pumping stations with estimated energy savings of over 36% completion of the "alternating cycle" process trial on the water treatment plants (estimated energy saving of around 40%) opening of the first biomethane from purification sludge fuel station in Reggio Emilia and monitoring of biomethane-powered vehicles 	<p>Reduction of emissions:</p> <ul style="list-style-type: none"> -3% direct CO₂ emissions from energy production plants by 2024 compared to 2018 56% CO₂ emissions avoided through waste recovery by 2024 compared to 2018 18,350 tCO₂ avoided by 2024 through improving the efficiency of public street lighting 29,800 tCO₂ avoided by 2024 through heat storage system maintenance of at least 75% of energy production from renewable or similar sources by 2024 investments in the hydroelectric sector with reduction in emissions of around 5,400 tCO₂ by 2024 <p>Increase in district heating volume</p> <ul style="list-style-type: none"> +12% volumes connected compared to 2018 investments in new connections to the district heating network in all areas 23,600 cubic metres of heat accumulation capacity by 2024 additional investments for the flexibility of heating systems to guarantee the greater efficiency and respond to the future challenges of the electricity market <p>Energy efficiency:</p> <ul style="list-style-type: none"> -20% of tonnes of oil equivalent (TOE) by 2024 compared to 2018 7,200 TOE saved by LED lighting systems by 2024 40 additional energy redevelopment projects launched for public and private buildings by 2020 cost-benefit analysis of the replacement of pumps at minor sewage pumping stations and relative installation and operation implementation of alternate cycle process on two water treatment plants
	<p>Expansion of sorted waste collection and reduction of waste:</p> <ul style="list-style-type: none"> +8% sorted waste collection (kg/inh/y) compared to 2018 -6% unsorted waste collection (kg/inh/y) compared to 2018 <p>Extension of "pay-as-you-throw" systems for waste management services to 212,000 residents (Reggio Emilia, Correggio, Carpaneto and Rubiera)</p> <p>Increase in waste recovery:</p> <ul style="list-style-type: none"> +145,000 tons of waste treated compared to 2018 thanks to the acquisition and development of new plants authorisation of three new plants for the treatment of organic waste with biomethane production authorisation of two new paper and plastic treatment and recovery plants <p>Increase in waste-to-energy production: +2.6% MWh per ton of waste treated compared to 2018</p>	<p>Expansion of sorted waste collection and reduction of waste:</p> <ul style="list-style-type: none"> +8% sorted waste collection (kg/inh/y) by 2024 compared to 2018 -24% unsorted waste collection (kg/inh/y) by 2024 compared to 2018 <p>Extension of "pay-as-you-throw" systems to a further 85,000 residents</p> <p>Increase in waste recovery: +1.2 million tons of waste treated in Group plants by 2024 compared to 2018</p> <p>Increase in waste-to-energy production: +3% MWh per ton of waste treated by 2024 compared to 2018</p>

Topic area	Actions carried out in 2019	Future Objectives
Sustainable use of water resources	Reduction in water withdrawals from the environment for drinking water distribution: <ul style="list-style-type: none"> • 1.4% fewer water network leaks in traditional areas compared to 2018 • -1% of water withdrawals per resident/day in traditional areas compared to 2018 • 52.1% of water network divided into districts 	Reduction in water withdrawals from the environment for drinking water distribution: <ul style="list-style-type: none"> • 5% reduction in network leaks by 2024 • -5% water withdrawals per resident/day in traditional areas by 2024 compared to 2018 • division into districts of 76% (56% by 2020) of the water network
	Qualitative and quantitative improvement of the waste water treatment capacity: <ul style="list-style-type: none"> • 0.3% increase in waste water treatment capacity of the plants (PE) compared to 2018 • pollutant reduction in treated water: 94.4% BOD, 91.6% COD and 93.4% SST 	Qualitative and quantitative improvement of the waste water treatment capacity: <ul style="list-style-type: none"> • 16% increase in waste water treatment capacity of the plants (PE) by 2024 compared to 2018 • pollutant reduction in treated water: 94% BOD, 90% COD and 93% SST by 2024
Innovation and Smart Cities	Resilient cities: definition of areas of intervention of the Just Iren project (data collection, transfer and processing, movement of waste, programming, logistics, invoicing, etc.), selection of sensors for the waste collection services (containers and vehicles), assessment of sensor integration for plants	Resilient cities: launch of Just Iren project in Turin in 2020 with the progressive extension of the management system to all area of intervention defined to reduce the impacts of the collection service, logistics, administrative processes, control of services in the local area and the extension of the exact pricing method
	Resilient cities	76% of gas smart meters installed to improve the billing systems of the sales companies and monitoring by the customer
Efficient and reliable services	16% eco-vehicles on the total Group fleet	35% eco-vehicles on the total Group fleet by 2024
	151 distributed solar generation plants	2,000 distributed solar generation plants by 2024
Resilient cities	Improvement of the security level of the gas network: <ul style="list-style-type: none"> • gas network inspected: 95% of the high and medium pressure network, 84% of the low pressure network • installation and entry into service of 10 km of network • leak searching linked to the replacement of electronic meters • systematic leak detection in cast iron pipelines with hemp and lead joints • replacement of 44 earth electrodes for cathodic protection of the steel network • upgrading of 35 rising mains • 97.6% of emergency calls with on-site arrival times within 60 minutes 	Improvement of the security level of the gas network: <ul style="list-style-type: none"> • gas network inspected: 100% of the network under management • upgrading of the gas network to replace the most obsolete sections (cast iron and steel pipelines) • continuation of searches for leaks linked to the replacement of electronic meters • 99% of emergency calls with on-site arrival times within 60 minutes in the Emilia area • 97% of emergency calls with on-site arrival times within 60 minutes in the Liguria area
	Reduction of impacts of electricity substations: <ul style="list-style-type: none"> • electromagnetic field (EMF) safety checks on new or reconditioned substations • implementation of EMF safety measures at electricity distribution plants • installation of 52 new substations and reconditioning of 61 existing substations • decommissioning and disposal of 12 pieces of equipment containing oil contaminated with PCB 	Reduction of impacts of electricity substations: <ul style="list-style-type: none"> • prosecution of the design and construction of the new MV/LV substations and safety checks • decommissioning and disposal of pieces of equipment containing oil contaminated with PCB/PCT
Responsible management of business segments	Launch of authorisation procedure to send waste water from the Parma Integrated Environmental Centre (IEC) for chemical and physical treatment, reducing the production of liquid waste at external plants	Implementation of the waste water channelling system at the Parma IEC treatment plant
	Implementation of the QSE (Quality, Safety and Environment) Certified System: <ul style="list-style-type: none"> • design of the QSE Certified System and launch of procedure to formalise processes for ACAM Acque, ACAM Ambiente and ReCos • renewal of the QSE certifications for Iren Ambiente • certification verification of the former REI landfill site • Quality and Safety certifications and maintenance of the Environment Certification for the TRM plant • ISO 50001 certification for Iren Energia • extension of Iren Laboratori's QSE certifications to the Vercelli and La Spezia sites and activities 	Implementation of the QSE (Quality, Safety and Environment) Certified System: <ul style="list-style-type: none"> • certification in line with standards ISO 9001, ISO 14001 and ISO for ACAM Acque, ACAM Ambiente and ReCos • ISO 45001 certification for the Group's main companies • extension of ISO 9001 and 45001 certifications of Iren Mercato to the former Spezia Energy Trading • extension of ISO 9001, 14001 and 45001 certifications of Iren Ambiente to the former CMT and Ferrania Ecologia • extension of the ISO 9001 certification of Iren Energia to the Turbigio plants and Tusciano complex



GROWTH AND CREATION OF VALUE

Topic area	Actions carried out in 2019	Future Objectives
	524 million euro of investments 237 million euro in profits +10.1% dividend growth compared to 2018 Intensification of contacts with institutional investors and financial analysts (17 roadshows), also in new financial markets (Vienna), with first meeting dedicated to ESG investors	3.3 million euro of investments by 2024 ~300 million euro in profits by 2024 +10% annual dividend growth Further increase in contacts with institutional investors in new financial markets and with ESG investors
Value and economic development for local areas	Continuous improvement of financial communications: redesign of the Green Bond section of the Group website	Continuous improvement of financial communications: redesign of the Green Investors section of the Group website
Competitiveness on the market	Sustainable finance: <ul style="list-style-type: none"> 531 million euro in new medium to long-term loans, of which 500 million euro through the 10-year Green Bond new "Climate Action & Circular Economy" EIB credit facility for 120 million euro new "committed" Sustainability linked revolving credit facility (RCF) for 150 million euro liability management operations to reduce the cost of debt: including the early repayment of loans amounting to 370 million euro positive annual audit of Green Bond issues by the appointed agency DNV GL <p>Confirmation from the Fitch rating agency of the public Investment Grade rating of BBB for Iren and its bond issues</p>	Sustainable finance: <ul style="list-style-type: none"> coverage of financial requirements to support the investments with a balanced relationship between short and medium/long term funds and focus on principles of sustainable finance optimisation of the debt portfolio with liability management activities aimed at reducing the cost of debt respect of the commitments undertaken to benefit investors and defined in the Iren Sustainable Financing Framework <p>Maintenance of the Investment Grade rating</p>

CUSTOMERS AND CITIZENS

Topic area	Actions carried out in 2019	Future Objectives
	Investment per inhabitant confirmed in 2018 with a growth of 18% of the inhabitants served Additional growth in participatory planning with stakeholders for the sustainability of the local areas: 21 sustainability projects "incubated" by 5 Iren Local Committees	+39% investments per inhabitant in 2019-2024 compared to 2013-2018 Additional qualitative and quantitative growth in participatory planning with stakeholders for the sustainability of the local areas
Development of local communities	Dissemination of the Irencollabora.it platform: 1,519 profiles registered on Irencollabora.it, +26% compared to 2018, thanks to the initiatives carried out in 2019	Restructuring of IrenCollabora.it platform to facilitate participatory planning with local communities
Dialogue with Public Authorities	Integration of sustainability objectives and targets in the Business Plan to 2024 presented in 2019	Updating of the integrated strategic plan
Internal and external communication	Implementation of environmental, social and cultural projects and events 2 new public water dispensers and participation in over 40 local events with mobile water dispensers Informative/awareness raising campaigns aimed at residents: <ul style="list-style-type: none"> correct waste collection and flight against fly tipping waste collection services saving water and energy 	Continuation and consolidation of communication and information channels aimed at residents on waste collection, saving water and energy, and sustainable behaviours
Sustainable management of the supply chain	Implementation of the Procurement Portal: <ul style="list-style-type: none"> full integration of the Procurement Portal with the procurement system management system 	Implementation of the Procurement Portal: <ul style="list-style-type: none"> homogenisation of the product categories of the Supplier Register to enable the comparison of operators with similar technical/financial characteristics re-engineering of the Supplier Register
Impacts on local areas (suppliers)	Supplier monitoring: <ul style="list-style-type: none"> online compilation of supplier performance evaluation forms acquisition of supplier balance sheet indices via webservice 	Supplier monitoring: <ul style="list-style-type: none"> assessment of supplier suitability with regard to Group standards (balance sheet indices, quality of tender proposals, performance ratings) and possible exclusion of suppliers that do not meet the required standards

Topic area	Actions carried out in 2019	Future Objectives
<p>Service levels, customer focus and changes in customer expectations</p> <p>Marketing policies</p> <p>Internal and external communication</p>	<p>Optimisation of market position: +2% retail customers compared to 2018</p> <ul style="list-style-type: none"> • televised campaigns in traditional areas and on new e-mobility and home automation products • marketing activities at local events organised by cultural institutions/associations • events for the customers of the "Iren con Te" programme, in collaboration with leading cultural bodies and theatres • team for the continuous training of operators and to monitor service levels • customer satisfaction surveys regarding the "Iren casa On line" and "Boiler Maintenance" projects to identify areas for improvement <p>Expansion of channels:</p> <ul style="list-style-type: none"> • new downstream product display areas and new formats for commercial e-mobility product retail spaces • restyling of Iren retail spaces in Savona and Ponte Taro • new, free of charge "call back" number to avoid waiting times, with the option for a call back or appointment <p>Digital evolution of the customer experience:</p> <ul style="list-style-type: none"> • data lake marketing project, with advanced analytics models to support marketing and business analysis activities • social project to consolidate the caring channel and increase customer engagement and sales • increase in number of hits of the irenlucegas.it site, thanks to online advertising campaigns and search engine optimisation activities • partnerships with tariff comparison sites, promoting offers and new services • self-care area to enable customers to monitor the status of their enquiry via the website/app <p>Loyalty programmes:</p> <ul style="list-style-type: none"> • enhancement of the portfolio of discounts, advantages and rewards for customers of the "Iren con Te" project, with new participation and engagement mechanisms • incentives to use the digital channels, promotion of services and implementation of the "Iren con Te" platform for specific target customers <p>Development of the range of products and services:</p> <ul style="list-style-type: none"> • "Iren casa On line" and home automation product offer • "Iren Aria" (Light + Clair treatment system) offer • "Iren Tado Gas" (Gas + Tado thermostat) offer • new network of sales agents for solar panels and boilers • updating of e-commerce section of irenlucegas.it • sale of e-bikes • long-term lease of electric vehicles for domestic and corporate customers <p>Consolidation of e-mobility services</p> <ul style="list-style-type: none"> • partnerships to install and maintain new charging points in Turin • first fast-charge unit installed in Genoa, continuation of the authorisation procedure for the installation and management of charge points in Turin, Genoa and Parma (replacement) 	<p>Optimisation of market position:</p> <ul style="list-style-type: none"> • +25% retail customers by 2024 compared to 2018 thank to acquisitions in areas of commercial development • minimise churn rate, increase the sale of extra-commodity and e-mobility products and services • create and consolidate brand awareness in the commodity and new downstream sectors • promote the brand and range through events and communication campaigns • establish teams and develop systems to support the business <p>Expansion of channels:</p> <ul style="list-style-type: none"> • development of new sales channels • restyling and modernisation of Iren spaces • new stores for e-mobility and home automation products • optimisation of contact strategy to reduce customer stress • improvement of contact management performance • improvement of waiting times <p>Digital evolution of the customer experience:</p> <ul style="list-style-type: none"> • improvement of data lake marketing for better service and optimisation of management costs • consolidation of social media channels for a more immediate and friendly customer service approach • new app for customers with new features for interaction and to complete device transactions independently <p>Loyalty programmes:</p> <ul style="list-style-type: none"> • new loyalty programmes with mobile interface <p>Development of the range of products and services:</p> <ul style="list-style-type: none"> • expansion of range with new products/services offered through partnerships • combined light/gas and extra-commodity product offers, including e-mobility products (e-bikes and scooters) • ad hoc offers for new regions • boiler offers with debt transfer (eco-bonus) • solar offer with new panels and related products • launch of air conditioning products
<p>Environmental and sustainability education</p>	<p>Optimisation of the Group's plants for educational purposes: launch of new educational projects at the Reggio Emilia Water Treatment Plant</p> <p>Plant visits for students and residents</p> <p>New educational programmes aimed at children in the last two years of pre-school (aged 5-6)</p> <p>"Plastic-free" project: involvement of over 6,000 students in Reggio Emilia</p> <p>Participatory planning with teachers and students for waste collection in schools</p>	<p>Optimisation of the Group's plants for educational purposes: Rapallo (GE) water treatment plant and Cabina Arbarello (TO) plant</p> <p>Regional extension of the "Plastic free" project to reduce the use of plastic</p>



Development of educational programmes in collaboration with communities/associations for foreign residents

Consolidation of the network of partnerships developed over the years with regional organisations for educational purposes

Transfer of educational models as part of EU sustainability projects aimed at other countries

PEOPLE

Topic area	Actions carried out in 2019	Future Objectives
Occupational health and safety	<p>Unification of related topics through the publication of Group procedures on:</p> <ul style="list-style-type: none"> • update of the safety process sheet and the organisation of process committees • unified management of health checks (organisation, health protocols, Gamma platform) 	<p>Development of the existing synergies between the Safety department and certified systems</p> <ul style="list-style-type: none"> • establishment of work groups to monitor related topics (PPE, development of Gamma platform, monitoring) • unified procedures for the management of operational controls
	<p>Unified management of emergency, evacuation and first aid plans</p> <p>Unified management of PPE procedures</p>	<p>Computerisation of the Safety System through the development of the Gamma platform for the management of the health and safety of every Group employee through the implementation of the “training requirements” section</p>
Employment	+3% occupation compared to 2018	+14% direct occupation by 2024
	+4% hours of training per capita within the traditional boundary compared to 2018	+27% hours of training per capita within the traditional boundary by 2024 compared to 2018
	Continuation of demographic balancing: new retirements for employees eligible for a pension in 2019-2021 and new recruitment of young people (mainly under 35s)	<p>Doubling of the under 30 population by 2020</p> <p>Application of the “Pensione quota 100” trade union agreement in 2020</p>
	Gender diversity: 32 resources involved in training and development programmes to increase management experience and soft skills with a view to managing inclusive teams	Gender diversity: same amount of training delivered to male and female employees in 2020
Development of human resources	Trial of smart working programme and roll-out to around 1,000 employees	Extension of smart-working programme
Industrial Relations	Employee survey to identify strengths and areas for improvement in working practices	Identification of improvement actions based on results of the 2019 survey
Corporate welfare and diversity	Roll-out of attendance recording and robotic messaging system, compatible with the app on the company smartphone	Full roll-out of the attendance recording system to all Group personnel, accessible via the app on the company smartphone
	<p>Implementation of the Group's supplementary agreements in newly acquired companies</p> <p>Launch of the new system to assess employees' organisational positions, skills and performance</p>	<p>Full implementation of the new system to assess employees' organisational positions, skills and performance</p> <p>Integrated platform for all HR processes, including organisation and administration, assessment procedures (performance, skills), and employee selection, development and remuneration</p>

Growing and Creating Value



RELEVANT TOPICS



Economic development and value for local areas



Competitiveness



Innovation and smart city





CREATING AND DISTRIBUTING VALUE

Iren Group aims to create value for its stakeholders, beginning with its shareholders, through sustainable growth strategies and appropriate management policies. This is complemented by the Group's constant commitment to ensuring the transparent, complete and timely disclosure of the results achieved.

The economic results of Iren Group show a 5.8% increase in revenue compared to the previous year. EBITDA fell by 5.2% and profit attributable to the Group decreased by 2.1%. This downturn is mainly due to the non-recurring elements that characterised 2018 (for more details, refer to the Consolidated Financial Statements).

Economic indicators	unit of measure	2019	2018
Revenue	€/mln	4,275	4,041
Gross Operating Profit (EBITDA)	€/mln	917	967
Operating Result	€/mln	452	530
Profit attributable to the Group	€/mln	237	242
Total capitalisation	€/mln	3,582	2,727
Dividend per share	€	0.0925 ⁽¹⁾	0.084

⁽¹⁾Proposal by the Board of Directors

Net financial indebtedness, as at 31/12/2019 was 2,706 million Euro, up on the 2,453 million Euro recorded as at 31/12/2018, mainly due to the application of IFRS 16 and the consolidation of new companies acquired by the Group, as specified in the Consolidated Financial Statements.

Over the year, the Group made investments of almost 524 million Euro (+17.2% compared to 2018) for development works in the various business sectors, guaranteeing an important contribution for local communities.

Investments (millions of Euro)	2019	2018
Generation and district heating	66.4	79.6
Networks (electricity, gas, water cycle)	288.8	267.6
Market	40.0	31.0
Environmental Services	72.4	31.2
Others	56.3	37.6
TOTAL	523.9	447.0

The economic-financial performance shows - via a business portfolio with mainly regulated activities and a significant increase in investments - the Group's strong leaning towards the development of infrastructure to serve the growing economic systems of the areas served, and confirm its particular attention to the sustainable use of resources, digital transformation and innovation, in synergy with the businesses and institutions of the areas of reference, as defined prospectively in the Business Plan. Through the hiring of 745 new employees, the Group has also

begun a major generational exchange initiative. Beginning in 2018 and scheduled to conclude in 2020, the project focuses on the acquisition of skills necessary to ensure the digital transformation and development of the Group, including in new business areas.

The focus of the strategic guidelines on sustainability profiles influences the planning of future multi-year investments. These same profiles form part of the principles of the Code of Ethics that Group companies are required to comply with when making investments. 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. The analysis of the scenarios occurs through the continuous monitoring of the industrial, economic and financial dynamics.

When planning developments with regards to production capacity, the Group considers the medium-term scenarios of the electricity and gas markets, also taking into account investments to develop the district heating networks and the regulatory scenarios that reward the increased use of renewable sources. The maintenance plans, aimed at ensuring high levels of efficiency and prevent faults and designed to minimise the impact of unavailabilities on the Group's results, have a multi-year scope and are defined in consideration of the provisions in place for each type of plant.

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. In order to guarantee the maintenance of adequate production standards and reliability, the Group implements advanced management and maintenance policies (predictive and preventive). Furthermore, the Group focuses on innovation, increasing the efficiency and flexibility of the plants and 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 and the design of mini hydro plants). In this context an electricity storage system is being studied at the Turin North plant which would enable reserve power and energy output to be increased. As regards planned production capacity, 75% is supplied by co-generation and thermoelectric plants, 22% from hydroelectric plants and 3% from other plants (waste-to-energy plants, photovoltaic, treatment plants).

Gas availability in the medium and long term is planned and ensured through the combined management of several sources: multi-year foreign procurement contracts, availability of foreign transport capacity that can be used on an event-basis, the annual availability of storage capacity and wholesale supply 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 sewage 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.

In regard to waste management, at a plant level the production capacity and any revamping needs are assessed and planned. As regards the waste-to-energy plants, periodic acoustic monitoring activities are carried out, the results of which have demonstrated compliance with legal limits.

The Group has adopted a planning tool 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 "Strategic Plan for the Medium Voltage Distribution Network". 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. In order to guarantee service levels and the reliability of plants, 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 are assessed with the maintenance and/or improvement of service level indicators established by ARERA.

In gas distribution, the plan aims to contain leaks, which is the main objective for the safety, quality, efficiency and continuity of service. 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.

In the analysis of the scenarios at the planning stage, the Group also considers the impact produced by climate change trends: variations in the distribution of temperatures - that impact the consumer dynamics of heat and district heating, gas, water and electricity - and extremes of weather phenomena, such as droughts and floods. These determine, in particular, effects on the hydrology of the hydroelectric plants and water distribution systems, with the associated economic implications, and also constitute factors of attention given the consequences that these may have on the Group's assets and on the planning of the availability and maintenance scheduled for thermoelectric power plants. For these reasons, the risks associated with climate change and natural and catastrophe phenomena occupy a significant position in the map of

the Group's risks. The Risk Management Department considers these risks in its insurance programme.

The financial implications that the Group constantly monitors are also those arising from the costs associated with the ETS (Emission Trading System) and from its regulatory evolution.

■ CREATION OF ADDED VALUE

Iren Group produces value through the effective use of production factors and generates added value compared to the external resources used. Furthermore, the business conducted contributes to the economic growth of the social and environmental context in which the Group operates and produce significant indirect effects in the local areas, in particular in consideration of the investments undertaken and of employment.

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

In addition to the economic effects regarding the development of basic local infrastructure (electricity, gas, sewage and aqueduct networks, treatment plants) and essential services (waste collection and disposal), the Group's activities also have significant environmental impacts. 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 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 however, given the specific features of the Italian labour market, nearly all new recruits reside in the province where their place of work is located, while almost 82% of senior managers reside in the same region where their place of work is located. Furthermore, considering the types of business, the geographical areas in which the Group operates and compliance with current legislation, no risk of child labour or forced labour exists for Iren Group.

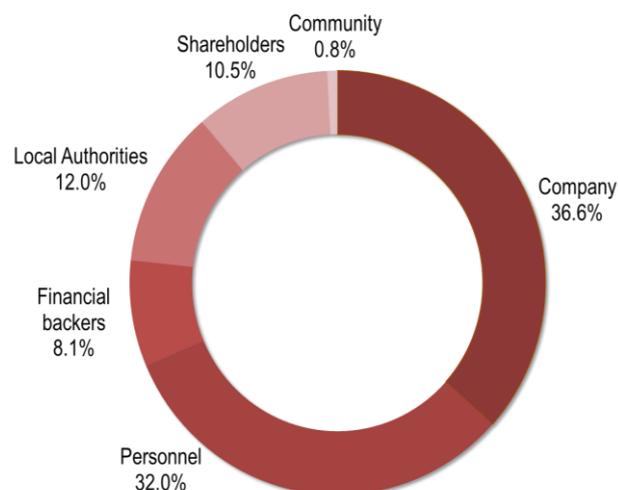
Iren Group generates opportunities for the development of innovative technologies and processes and for the growth of territorial expertise

The indicator that highlights the Group's ability to produce value within the area and, at the same time, satisfy the economic interests of its main stakeholders is represented by Added Value. This parameter measures both the economic performance of management and the ability of the Group to generate the conditions necessary to distribute wealth to the stakeholders of reference.



In 2019, Iren Group generated a total gross Added Value of over 1,421 million Euro, up by 4.3% compared with 2018.

DISTRIBUTION OF TOTAL GROSS ADDED VALUE TO STAKEHOLDERS IN 2019



The Added Value generated by the Group was allocated as follows:

- **36.6% to the Company** (approximately 520 million Euro). This is the share of wealth kept within the Group, inclusive of depreciation and undistributed profits;
- **32.0% to Personnel** (around 455 million Euro). This is the share made up of salaries and wages, expenses and other personnel costs;
- **12.0% to Local Authorities** (around 171 million Euro). This is the share distributed in the form of direct and indirect taxes, net of the grants received for the year;
- **8.1% to Financial Backers** (around 114 million Euro). This share includes all the financial charges due by the Group to its creditors;
- **10.5% to Shareholders** (over 149 million Euro). This is the share allocated to shareholders in the form of dividends;
- **0.8% to the Community** (more than 11 million Euro). This is the share allocated to local communities through the participation in the development of social, environmental, cultural and sporting events.

Determination of Added Value (thousands of Euro)	2019	2018
Revenue from goods and services	4,044,715	3,697,607
Change in work in progress, semi-finished products, finished products and goods	-2,436	10,187
Other income	152,816	191,085
Production revenue	4,195,095	3,898,879
Raw materials, consumables, supplies and goods	-1,408,379	-1,387,337
Cost for services	-1,411,904	-1,228,888
Other expenses	-29,765	-20,219
Capitalised expenses for internal work	33,445	33,198
Provisions for risks	-61,850	-81,150
Intermediate production costs	-2,878,453	-2,684,396
Gross added value from core business	1,316,642	1,214,483
Non-core and non-recurring items	104,673	148,192
Net profit from discontinued operations	0	0
Total gross added value	1,421,315	1,362,675

TAXES AND DUTIES

Regarding the share of Added Value distributed to Local Authorities, a significant item is represented by the taxes and duties paid by Iren Group.

The income taxes for FY 2019 amount to almost 112 million Euro, (down 4.0% compared to 2018). The effective tax rate is 29.59%.

In 2019, the Group received around 16.5 million Euro in benefits and grants from Local Authorities, of which 5.2 million Euro in capital investments.

Taxes and duties paid (millions of Euro)	2019	2018
Government and Region	111.64	116.29
Total direct taxes and duties	111.64	116.29
ATO concession fees	2.75	2.83
Other concession fees	24.88	23.90
Derivation, taxes and licences (derivation fees and surtaxes)	18.64	16.50
Taxes and duties	25.14	23.04
Total indirect taxes and duties	71.41	66.27
TOTAL	183.05	182.56

RELATIONS WITH INVESTORS AND FINANCIAL BACKERS

Iren Group has always carried out an intense activity aimed at reinforcing the relationship of trust between the company and the shareholders and at increasing the interest 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 the analysts themselves, also following on from the particularly positive performance of the Group supported by the efficiency improvement process carried out in the last few years and by the presentation of the Business Plan to 2024. A positive effect is added to this, created by the optimisation of Iren's financial profile, through greater recourse to the bond market than to the banking channel, confirmed by the issue of the Group's third Green Bond for 500 million Euro in 2019. This instrument contributes to reinforcing the strategic vision, which has always looked to sustainability, the circular economy and energy saving.

In 2019, 8 brokers covering the bond were confirmed with periodic reports: Banca Akros, Banca IMI, Equita, Fidentis, Intermonte, KeplerCheuvreux, Main First and Mediobanca.

Relationships with investors have continued as in previous years. The increased interest shown by investors towards the Group has required greater communication. As with previous years, the roadshow, organised from time to time by different brokers, remained the main tool for introducing Iren to Italian and foreign institutional investors, both in terms of equity and credit. In 2019, 17 roadshows were held in the world's main financial markets (London, Paris, Geneva, Brussels, Luxembourg, Vienna and Sydney). The Vienna roadshow was new this year. During the year, meetings were held with 123 investment funds, for a total of 151 fund managers or analysts. The direct day-to-day contact with the managers of institutional funds and financial analysts that oversee the bond is of particular significance.

In 2019 Iren participated in the Italian Sustainability Day organised by the Italian Stock Exchange for the first time, creating the opportunity for direct interaction with ESG investors and paving the way for transparent and timely dialogue about ESG topics.

In addition to the roadshows, the Group constantly communicates with the market using different channels, including quarterly conference calls for the presentation of the results for the period. Furthermore, on 26 September 2019 an investor day was organised in order to present the Business Plan to 2024 to the financial community. The issue of the third Green Bond on 07 October 2019 represented an additional opportunity for dialogue with the financial community.

Institutional investors are showing increasing interest in environmental, social and governance topics (ESG). A corporate

governance approach able to make the Group efficient, dynamic and stable is a decisive factor in the investment choices of the main players in financial markets. Any economic or financial performance, in fact, must be assessed based on its repeatability or potential for improvement in the following years and this can only happen thanks to rules of corporate governance in line with best practices. In this sense the appointment of the Board and the confirmation of the CEO represented a measure of security for the financial markets, given the trend of consistent growth that has characterised the last 5 years of the Iren stock, generating an increase in value of 197%.

The Company's focus on the growing number of investors that are particularly attentive to considering non-financial factors in their long-term investment choices is demonstrated by the creation of the Control, Risk and Sustainability Committee and the Sustainable Financing Committee, established to evaluate the financial instruments to support investments for sustainable development.

IREN SHARE PERFORMANCE

In 2019 the FTSE Italia All Share (the main index of the Italian Stock Exchange) reported an increase of 27.2%, mainly due to the easing of tensions between China and the USA and the monetary policies that led to the reduction of the BTP - Bund spread. In this context, multi-utility firms with a significant share of regulated activities were particularly favoured by the market thanks to their stable cash flows which, in a scenario where bonds offer returns of around zero, make the stock more attractive to investors in search of consistent returns. Despite the exposure to the energy markets, during the year Iren bonds performed better than the index, recording growth of 31.8%. The price of the Iren bond as at 30 December 2019, the final trading day of the year, stood at 2.762 Euro per share, with average volumes traded during the year of around 2.12 million units per day. The average price was 2.396 Euro per share, which reached the highest level since Iren was established (2.834 Euro per share) on 12 December and its minimum level (2.054 Euro per share) on 9 May. The bond is listed on the Italian Stock Exchange in Milan and is included in the following financial indexes:

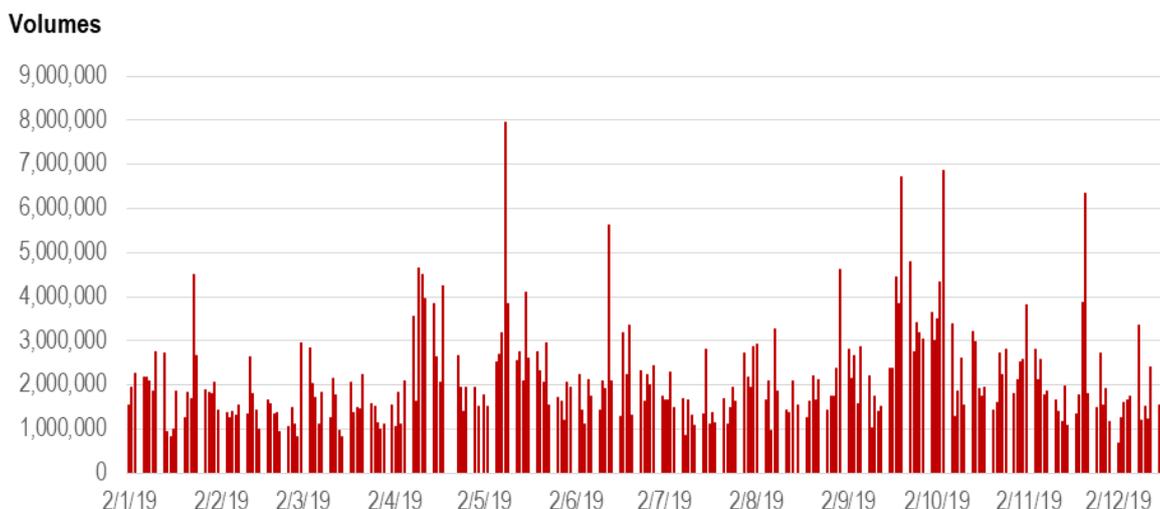
- FTSE Italia All Share, the index that includes all the shares listed on the electronic market of the Italian Stock Exchange, with the exception of micro-capitalised companies;
- FTSE Italia Mid Cap, part of the FTSE Italia All Share that includes the shares of medium-capitalised companies;
- FTSE Italia All Share Capped, which includes all of the companies included on the FTSE MIB, FTSE Italia Mid Cap and FTSE Italia Small Cap indices, the shares of which are weighted;
- FTSE Italia Servizi Pubblici, the sector index that includes the shares of companies that operate within public services.

The Group is also present on various stock indices defined as "sustainable" (see page 61).

There were no instances of fines or penalties for failure to comply with the obligatory regulations and laws for shareholders.



VOLUMES AND PRICE TREND OF IREN STOCK



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 one of the key strategic elements for the Group. In October 2019 and most recently in February 2020, the Fitch agency confirmed a BBB rating, with a stable outlook, for Iren and its senior unsecured emissions. The rating was based mainly on the Business Plan to 2024 which, in line with previous years, confirms the predominance of regulated and semi-regulated activities (over 70% of Gross Operating Profit at the end of the Plan) and the focus on customers, energy efficiency and increased investments, particularly in the networks, district heating and environment sector. Fitch also issued a positive rating of the consolidation of the financial indices and the liquidity profile of the Group thanks to two “committed sustainability-linked” credit lines for 150 million Euro and the new EIB credit line of 120 million Euro signed in July 2019.

In particular, the new loans were granted to support investment plans and, confirming the trust held by the financial system in relation to the Group’s development projects, allow for the suitable balance between financial exposure in the short and long term to be maintained. In particular, with the European Investment Bank (EIB) activities to streamline and consolidate loans to support the Group’s investment plan continued, with the finalisation of a new “Climate action & Circular economy” credit line. On 29 July 2019 Iren S.p.A. and the EIB signed a loan agreement for 120 million Euro to support the Group’s development plan for the 2018-2023 period in relation to the circular economy, decarbonisation and in the objective of “adaptation to climate change”. The new loan is the first of its kind in Italy and represented an important step towards the reinforcement of Iren’s financial structure and the consolidation of the multi-year collaboration with the European Investment Bank.

Regarding the transactions on the capital market as part of the Euro Medium Term Notes (EMTN) Programme, a third Green Bond was successfully issued on 07 October 2019 for a benchmark amount of 500 million Euro.

There were no instances of fines or penalties for failure to comply with the obligatory regulations and laws for financial backers.

IREN BONDS IN CIRCULATION AT 31/12/2019

Bond	ISIN	Bond amount (€/000)	Amount in circulation (€/000)	Ann. coupon (%)	Bond duration (Years)	Expiry	Price Emission (%)	Rating
Green Bond 2029	XS2065601937	500,000	500,000	0.88%	10	14/10/2029	99.345	BBB
Green Bond 2025	XS1881533563	500,000	500,000	1.95%	7	19/09/2025	99.129	BBB
Green Bond 2027	XS1704789590	500,000	500,000	1.50%	10	24/10/2027	98.356	BBB
Eurobond 2024	XS1511781467	500,000	500,000	0.88%	8	04/11/2024	98.974	BBB
Eurobond 2022	XS1314238459	500,000	359,634	2.75%	7	02/11/2022	99.398	BBB
Eurobond 2021	XS1086104681	300,000	181,836	3.00%	7	14/07/2021	99.225	BBB
Private Placement	XS0979548954	260,000	167,870	4.37%	7	14/10/2020	100.783	n.a.
Private Placement	XS1030889411	100,000	0	3.00%	5	11/02/2019	98.728	n.a.
TOTAL		3,160,000	2,709,340					

SUSTAINABLE FINANCE

On 07 October 2019 Iren issued its third Green Bond (Fitch rating BBB) with a duration of **10 years and for the total amount of 500 million Euro**. The transaction consolidates the direction taken by Iren with regard to sustainable finance, the first Italian utility company to have issued three Green Bonds for a total value of 1.5 billion Euro, representing over 55% of the Group's bond portfolio. The transaction, which complements the Green Bonds placed in 2017 and 2018, recorded an extremely positive response from investors with **subscriptions over 4 times higher than the offer** and with a high quality and wide geographical diversification of the Socially Responsible Investors (SRI), allowing the Group to further diversify its investor base. The success of the transaction testifies to investors' strong appreciation for the credit and the Sustainable Financing framework of Iren: green investors have been estimated at about 50% of the amount allocated. The third Iren Green Bond was allocated to the **refinancing of 21 projects** within six categories: **energy efficiency, renewable sources, waste management, recycling and waste water treatment efficiency, e-mobility and water service efficiency**.

The Green Bonds issued in October 2019 have a minimum denomination of 100,000 Euro and expire on 14 October 2029, pay a gross annual coupon of 0.88% and were placed at an issue price of 99.345. The effective rate of return at maturity is 0.944%, corresponding to a yield of 110 basis points above the 10-year mid-swap rate. The bonds were listed on the regulated market of the Irish Stock Exchange and on the ExtraMOT PRO market of the Italian Stock Exchange in the green instruments segment. This new issue confirmed the strategy adopted previously, conveying the focus on sustainability through an increasingly structured approach, also through the establishment of specific committees and the implementation of procedures dedicated to "green" financial instruments in order to ensure the necessary transparency for investors.

In 2019 the Sustainable Financing Committee, established with the aim of managing and monitoring the procedures for green financial instruments, updated the Group's Sustainable Financing Framework, outlining in more detail the sustainability strategy and

commitments adopted by the Group in line with the goals of the UN Agenda for 2030 (Sustainable Development Goals).

Iren has also identified additional innovative instruments of sustainable finance such as:

- guarantees. Subscription with BBVA of a credit line for 10 million Euro aimed at the Group's green initiatives and projects;
- committed credit facilities. Subscription with Banca IMI/Intesa Sanpaolo and UniCredit of two Sustainability linked revolving credit facilities (RCF), for a total amount of 150 million Euro and a duration of three years, aimed at consolidating Iren's liquidity profile to support its current rating;
- sustainable loans. Conclusion of a technical and credit-related due diligence process with the Council of Europe Development Bank (CEB) for a loan agreement of 80 million Euro to support investments in water services in Genoa and Parma in 2019-2021, aimed at mitigating or preventing the impact of natural disasters and developing public infrastructure.

For the Green Bond issued on 07 October 2019 (GB3), the funds were allocated to 21 individual projects. The list of projects was defined by Iren and its compliance with exact environmental criteria was ensured by an external body. Starting from the date the Green Bond was issued and until the complete allocation of the net amount of 496,725,000 Euro (excluding 3,275,000 Euro of discount), within the maximum period of 24 months, the use of liquid funds allocated to the refinancing/financing of the selected projects is monitored. An amount of 64% (317,740,611.00 Euro) was used for refinancing and/or financing investments covered by previous bank lines and bonds, while the remaining 36% (178,984,389 Euro) will be allocated by 31 December 2021 and corresponds to the liquidity balance as at 31 December 2019, with an allocation constraint to the refunding/funding of the Eligible Projects.

For the Green Bond issued on 12 September 2018 (GB2), the amount to be allocated in 2019, totalling 122,524,814 Euro, was allocated on 30 June 2019.

Investments concerning the Green Bond issued in 2017 (GB1) were confirmed on 31 December 2019



ALLOCATION OF INCOME FROM GREEN BONDS AS AT 31/12/2019 ⁽¹⁾

Project categories	Green Bond 2029 (GB3)		Green Bond 2025 (GB2)		Green Bond 2027 (GB1)	
	Investments (Euro)	Financed projects (no.)	Investments (Euro)	Financed projects (no.)	Investments (Euro)	Financed projects (no.)
Energy efficiency	401,705,375	11	247,991,764	4	232,587,446	6
Renewable sources	5,000,000	1	134,658,410	5	161,002,995	7
Efficiency in waste management and recycling	42,617,124	3	7,265,347	1	42,123,504	1
Waste water treatment	40,163,699	4	100,438,533	1	56,066,055	4
Water service efficiency	4,677,908	1	-	-	-	-
E-mobility	2,560,894	1	5,290,946	1	-	-
TOTAL ALLOCATED	496,725,000	21	495,645,000	12	491,780,000	18
Issue discount	3,275,000		4,355,000		8,220,000	
TOTAL ISSUE	500,000,000	21	500,000,000	12	500,000,000	18

⁽¹⁾ The 51 projects indicated in the table include projects common to all three Green Bonds for various years (40 projects not including common projects).

The positive environmental impacts generated by the projects funded by the three Green Bonds are outlined by the main indicators shown in the table below.

More information on the Green Bonds and funded projects is available in the relevant section of the gruppoiren.it website.

Project category and main indicators	unit of measure	2019	2018	2017
Energy efficiency				
Electricity produced	MWh	3,833,955	3,887,199	3,884,511
Electricity produced from renewables	MWh	848	75	45
Primary energy saved	MWh	1,808,508	2,200,496	2,281,239
CO ₂ emissions avoided by non-fossil sources	t	616,258	636,478	724,744
Thermal energy produced	MWh	1,672,602	1,777,454	1,857,633
Electricity input to the grid	MWh	3,987,352	4,002,396	4,420,350
Network leaks (electricity)	MWh	168,581	166,866	172,820
Electricity and gas smart meters installed	N	1,330,716	1,188,480	966,569
Renewable sources				
Primary energy saved	MWh	2,827,848	3,254,066	3,663,699
Electricity produced from renewables	MWh	777,269	904,438	761,335
Thermal energy distributed	MWh	2,779,773	2,816,307	2,956,143
CO ₂ emissions avoided by non-fossil sources	t	1,320,889	1,371,073	1,581,848
Waste management and recycling efficiency				
Refuse Derived Fuel (RDF)	t	16,523	2,585	7,886
Separated waste collected	t	813,804	788,313	711,910
Non-separated waste treated	t	415,905	445,411	464,837
Door-to-door collection services - residents served	N	1,590,536	1,473,268	1,391,087
Waste water treatment				
Equivalent residents served (potential)	N	526,528	510,650	290,650
Volumes of water for reuse / Volumes of treated water	%	32%	30%	30%
Waste water treatment plants	N	1,293	1,278	1,122
Sewage system	km	10,662	10,606	9,924
Water service efficiency				
Smart meters installed	N	51,742	-	-
E-mobility				
CO ₂ emissions avoided by non-fossil sources	t	789	52	-

ESG INDICES AND RATINGS

Iren's decision to place sustainability at the heart of its development is conveyed through the Group's mission and vision and confirmed in the Business Plan to 2024: water resources, the circular

economy, decarbonisation, resilient cities and people shall be the crux of the Group's agenda, with planned investments in sustainability of around 2 billion Euro aimed at fulfilling the commitments adopted in line with the Sustainable Development

Goals issued by the UN 2030 Agenda. 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.

INDICES

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. The main indices that list Iren Group are shown below.

MSCI

MSCI is one of the leading and most highly accredited providers of non-financial indices in the world. Among the MSCI indices, Iren is present in: MSCI Europe Small ex Controv Weapons, MSCI ACWI IMI Low Carbon Leaders, MSCI ACWI ex USA IMI Low Carbon Leaders, MSCI World Small Cap ex Coal and MSCI Europe ESG Universal Small Cap.

STOXX

Iren is included in the following STOXX indices: EURO STOXX Total Market ESG-X, STOXX Developed Markets Total Market ESG-X, STOXX Europe Total Market ESG-X STOXX Italy 45 ESG-X.

BLOOMBERG

Iren is present on the Bloomberg ESG Data Index which measures the performance of over 11,500 companies from 83 different countries.

RATING

The 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.

CDP

CDP Climate Change 2019 which analyses performance data regarding the reduction of emissions, climate change mitigation and the development of solutions to promote decarbonisation. Iren was awarded a B rating in 2019, against the average rating for the industry of C (the highest rating is A). Furthermore, this year Iren was awarded a CDP Supplier Engagement Rating (SER) of A-.

OEKOM

The Oekom Corporate Responsibility Rating comprehensively assesses businesses' sustainability performance and future profitability and identifies the most successful businesses. In the most recent Corporate Responsibility Rating (April 2018) Iren Group was awarded Prime status.

MSCI

MSCI ESG Ratings gave Iren an A rating, against a maximum of AAA.

SUSTAINALITYTICS

In the Sustainalytics ESG Risk Rating, which analyses how environmental, social and governance topics affect a business and how that business manages the associated risks, Iren Group received a score of 31.4.

Furthermore, Iren was included in the ESG Rating of Vigeo Eiris, the leading social, environmental and governance rating agency in Europe, and the Equileap rating for gender equality.

RESEARCH AND INNOVATION

Technological innovation is central to Iren Group's strategic decisions and the definition of the products and services offered. This commitment was confirmed in the Business Plan to 2024 which provides for investments of approximately 350 million Euro aimed at process digitalisation as part of the digital transformation of operating activities, customer management, reskilling and the launch of new services.

The main research, development and innovation areas in which Iren Group is investing include:

- energy efficiency, applied across multiple levels and assets;
- study of new systems for the recovery of energy losses and an increase in the efficiency of the plants;
- advanced systems for remote management, remote reading, smart metering and multi metering;
- solutions for the production of renewable hydrogen and syngas combined with carbon dioxide capturing;
- thermal energy and electricity storage systems;
- processes for maximising energy and waste material recovery, both separated and non-separated;
- Internet of Things (IoT) and home automation;
- data intelligence ICT tools;
- optimised management of the integrated water cycle (division of areas into districts, identification and a reduction in network leaks) and tools to support sensors in the field;
- systems for reducing quantity and the recovery of material and/or energy from purification sludge;
- innovative e-mobility solutions;
- "industry 4.0" solutions to support personnel involved in plant operational and maintenance activities, for predictive maintenance and in-the-field monitoring.

Iren manages innovation processes through an open innovation model, and in line with that model, has launched profitable collaborations with Universities, Research Centres, innovation Hubs and start-ups. Furthermore, it actively participates in working groups and associations on specific research and development



topics and promotes events such as conferences, workshops and hackathons.

2019 was characterised by the continuation of technical activities related to the Group's various co-financed projects and by the development, also 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.

Iren Up: over 20 million Euro in three years to support Italian start-ups in the cleantech sector

The activities of "Iren Up", the **Corporate Venture Capital programme** launched by the Group in 2018, continued, with the aim of supporting high-potential Italian start-ups in the cleantech sector, from green technologies to the circular economy, through the provision of a unique service package that may include trials, technical support, legal consultancy, market tests and commercial and/or business agreements. The programme, which involves investments of over 20 million Euro for the first three years with investment tickets ranging from 100,000 to 2 million Euro, depending on the development phase and requirements of the start-up, saw investments in three different start-ups in 2019 in the energy efficiency, phase change heat storage and sustainable mobility sectors. The Group's aim is twofold: to acquire know-how

by integrating innovative technologies and services into the business, and to drive innovation in the regions in which it operates.

2019 also marked the third edition of the **Iren Startup Award**. Over 100 start-ups took part in this year's competition, with Isaac - a start-up specialising in the development of seismic monitoring and protection solutions for buildings and infrastructure - triumphing in the "seed" category and Newlisi - which has developed a process to treat civil and industrial purification sludge - taking first place in the "growth" category. As well as financial support, both start-ups received a personalised business acceleration plan funded by Iren.

RESEARCH AND INNOVATION PROJECTS

In 2019, Iren actively took part in 16 research and innovation projects for a total multi-year commitment of around 8.3 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 2020, MUIR, MATTM, POR FESR, etc.). Over the year these projects involved investments of around 900,000 Euro, of which approximately 523,000 Euro was funded through tenders. These projects actively involve around 113 Group employees from different business areas, and guarantee collaborations with numerous businesses and academic institutions located in almost 200 European cities.

Project	Description
Pump-Heat (European Horizon 2020 programme)	This is an example of international collaboration with 14 partners from 8 different European countries and it aims to introduce innovative solutions for increasing the flexibility of major electricity plants in favour of renewable sources. At the Moncalieri Power Plant (Turin), a pilot project will be carried out to test the technologies studied and developed during the project.
Planet (European Horizon 2020 programme)	This project aims at developing technologies and analysing the regulatory constraints for taking synergistic advantage of the distribution networks (electricity, gas and heat). Also, in this case, Iren Group is involved in the development of a physical pilot project, where storage and energy conversion systems will be tested.
Chester (European Horizon 2020 programme)	This project aims to develop and integrate an innovative Power-to-Heat-to-Power solution that will enable the maximisation of the exploitation of non-programmable electricity RESs and thermal RESs already combined with district heating systems.
Esacom (Piedmont Region - innovation hubs tender)	Another topic of major interest is the optimised management of consumption. In this regard the project aims to develop a technological platform able to provide stakeholders with a scalable management tool for energy data and existing objective and subjective measurements in the field, optimised regulation of plant parameters and implementation methods able to deliver measurable energy savings.
SmartWaterTech (MIUR tender)	The programme covers the optimised, synergistic and innovative management of Group assets and has trialled ICT architectures that enable a system of multi-service metering, at both end users and asset level, for the optimised management of the integrated water cycle and the study of innovative technologies for waste water treatment.
Biometh-ER (Life+ programme)	The trial of innovative plant design solutions lies at the basis of this project, concluded in 2019, to produce and use the biomethane produced by purification sludge through a prototypical biogas upgrading system.
Waterspy	The project aims to define a methodology to detect the presence of heterotrophic bacteria (E.coli, pseudomonas aeruginosa and salmonella) in aqueous matrices. This instrument, which is to be developed as a prototype for use in the field on sources of procurement for the water service (artificial lakes) and on the distribution network, includes a pre-concentration phase that allows a biosensor to bind the bacteria on a surface, which will then be analysed with laser technology. The development of an instrument which works in the range indicated could open up many possibilities in pervasive water quality monitoring.
Store&Go (European Horizon 2020 programme)	Iren Group is also very attentive to the issue of electricity storage. This project has led to the installation of three innovative Power to Gas (PtG) systems in Germany, Switzerland and Italy, aimed at identifying and overcoming the technical, economic, social and legal barriers. The project aims to evaluate the possibility of integrating the PtG storage system within cutting-edge energy production and distribution systems.

Project	Description
Everywh2ere (European Horizon 2020 programme)	In this project, Iren, as a third party, will test a hydrogen skid for electricity production during events/trade fairs (uninterrupted power supply/mobile generator mode).
Saturno	This project aims develop an industrial platform to validate the conversion of organic waste and CO ₂ emissions from cars and industrial processes into biofuel and biochemicals. Through the project, the separation of organic urban waste, which is usually converted into thermal energy, electricity, biomethane and compost, is optimised through the extraction of substances with high added value such as hydrogen, carboxylic acids, biofertiliser and biostimulants.
NeMo (European Horizon 2020 programme)	This project, which was concluded in September 2019, involved the development of an e-roaming platform applied to different e-mobility system (charging infrastructure and vehicles) with the aim of creating an ICT system able to homogenise data from various stakeholders and generate innovative services and applications for the various vertical markets.
eVolution2G (EMEUurope Call 2016)	The project aims to conduct studies and on-site tests of the Vehicle to Grid (V2G) concept, a system in which electric vehicles have a balancing role on electricity networks.
Otempo (Piedmont Region tender innovation hubs)	This project aims to study and test fibre-optic and wireless distribution methods at precise times, with micro-second precision, with a view to their application in systems designed for the real-time monitoring of the electricity and water distribution networks.
WEEE recovery	The main goal of this project is the development of technologies, which can be easily replicated and transferred to the business world, aimed at optimising the management of waste electrical and electronic equipment (WEEE), with particular reference to polyurethane (PUR) from fridges (WEEE R1) as a secondary raw material, and optimising the separation of concrete from old washing machines WEEE R2).
5G-Solutions	Iren Group has set itself the aim of testing the functionalities, potential and limits of the 5G network in various field tests, focusing in particular on evaluating the performance indicators defined by the competent standardisation bodies. Iren will participate in activities in the Energy sector, evaluating the benefits of the integration and use of the 5G network in industrial Demand Side Management and e-vehicle smart charging systems.
Energy shield	Launched in the second half of 2019, the project aims to develop an integrated IT security platform available for use by all operators in the energy supply chain (transmission grid operators, distributors, aggregators, producers). Iren Group is taking part in the project as a distributor (through Ireti), supporting the other partners in the definition of specific cyber security tools, carrying out feasibility tests and, where necessary, conducting "offline" field tests on one of more network subsystems (remote control, SCADA, smart meters, etc.).

In addition to those mentioned above, Iren will be involved in a new project that successfully passed the evaluation stage in 2019 and which will begin in 2020.

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 the 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 scientific results obtained by the Foundation from projects and collaborations are a valid reference in the water resources, energy and environmental management sectors. In 2019 AMGA has undertaken such activities, by coordinating research projects and promoting wide-ranging cultural and educational activities. The institutional activities carried out by the Foundation also include support for initiatives launched by other organisations aimed at the management of network services and sustainability.

2019 ACTIVITIES

A summary of the activities promoted by the Foundation is provided below.

Areas	Projects
Research	<p>Reuse of waste water. Hygiene and sanitation impact analysis: monitoring hygiene and sanitation levels through studies of the microbiological and ecotoxicological characteristics of waste water from treatment plants, characterised by various disinfection treatments, aimed at its possible reuse for agronomic/industrial purposes. The hygienic and sanitary impact of the waste water on the receiving bodies of water (surface freshwater and/or sea water) is also evaluated.</p> <p>Optimal management of urban drainage systems based on innovative rainfall monitoring using IoT technology: study and trial of a new tool for the more efficient management of sewage systems during extreme weather events, through the development and testing in Genoa of an advanced processing method to produce two-dimensional rainfall intensity maps updated in real time. Rainfall is calculated according to the Smart Rainfall System (SRS), composed of IoT sensors compatible with traditional telecommunications thanks to Low Power Wide-Area Network technology. The results will provide operators with a system that can be repeated in different contexts and refined based on the project data of the monitored sewage systems.</p> <p>MYRAEE – Myco Recovery of Waste Electronic and Electrical Equipment: research aimed at selecting (with tests) new strains of fungus able to selectively absorb precious and/or rare earth metals from electronic waste, identifying the most efficient working conditions and any pre-treatments (sieving, grinding etc.), optimising the end product (a highly concentrated solution of one or</p>



more metals with a high market value), conducting preliminary feasibility studies into scaling up the process, and raising awareness of the importance of recycling among stakeholders.

Energy markets and switching by consumers: the application of behavioural and experimental economics to analyse the reasons behind the apparent lack of consumer proactivity with regard to switching between different energy tariffs. Consumers' unwillingness to change energy provider may depend on price, personal preferences and the ease of transition between operators (switching costs). On the other hand, studies offer various possible explanations: difficulty in understanding the difference between the various offers, tendency to maintain the status quo, or lack of interest when energy costs represent a small proportion of living expenses.

Markets in need of regulation. Concessions for gas distribution contracts: theoretic analysis of multi-unit tenders and econometric analysis of economies of scale with regard to gas distribution, aimed at estimating a benchmark distribution cost and ranking the businesses participating in each tender according to said benchmark, in order to assess the total possible savings offered by the leading operators in individual tenders.

National sustainability guidelines for third sector bodies, with particular reference to energy and water: development of guidelines aimed at structuring pathways towards environmental sustainability and the efficient use of resources for non-profit organisations, with particular reference to the energy and water sectors and identifying and developing content in collaboration with the relevant stakeholders. The guidelines will be shared with at least two third-sector organisations to verify the applicability, and will be distributed in collaboration with the AMGA Foundation.

Comparative analysis of biogas cleaning and upgrading processes: development of a tool to support industrial process operators and biogas producers in activities to plan, operate or revamp biogas plants. The study analyses biogas production processes, conducts critical analysis of biogas cleaning processes, and identifies the supply chain in use for each specific case in relation to the operating parameters of the production process and the intended use of the biogas.

Regulation of water and environmental services, analysis of factors that determine operating and capital costs, and possible impacts on price recognition models: study of the possible regulatory synergies between the water and environmental sectors and the specific characteristics of each sector, feasibility studies of alternative regulatory models based on the recognition of standard/parametric costs, considering if such parametric benchmarks can be used to support pricing limits, regulatory guidelines and/or bonus/penalty systems according to an output-based approach. The survey will be supported by a study aimed at measuring the perceived value of service levels, using the choice experiment method to evaluate the priorities of residents and service users.

Applicability of landfill mining to the 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 through the treatment of mined waste. The main outputs expected to be delivered by the project are the publication of guidelines outlining a method of analysing the technical and economic feasibility of landfill mining, and its application in a particularly relevant case study.

The economic, environmental and organisational performance of the Italian water sector: measuring the performance of water service operators through data analysis of physical losses of drinking water in the distribution networks. The project aims to underline the relationships between businesses' economic and environmental performance and their ownership structure (public or private entity), as well as the effect of other environmental or operational variables which may impact said performance. During the integrated economic and environmental performance measurement phase, a non-parametric efficiency method is used which enables the operators with the most significant leaks to be penalised.

Sustainable energy from nanocatalyst manganese oxide (Mn4Energy): the development of a set of highly active heterogeneous catalysts based on manganese oxide to be used to produce energy through water splitting and reduce CO₂.

Proposed measures to remove emerging pollutants and micropollutants at water treatment plants: the study of various emerging micropollutants, selected for their consistent presence in bodies of water and potential but incompletely defined toxic effects, to provide a comprehensive and up-to-date framework of measures that may be adopted at water treatment plants to remove them. Through critical analysis of specialist literature and by processing of the data contained therein, the study will present the effectiveness of the various treatment methods currently available through the careful management of operational and process parameters, and the potential effectiveness offered by innovative biological, physico-chemical and hybrid processes.

Sei Eco-logico? [Are you Eco-logical?]: a sustainability programme focusing on water, energy and the environment, delivered through fun puzzles and stickers. The three topics are illustrated in 47 activity sheets available in two languages. The content was developed into a web app by students at the Italo Calvino Institute in Genoa. The project was published on the MUIR website as part of its national achievements and can be viewed online at eduiren.it/seiecologico. Furthermore, a second app was developed in collaboration with Liguria Digitale, featuring a virtual playground with 36 interactive games designed to promote environmentally sustainable behaviour in a fun and engaging way. The two apps can be accessed in the children's area of the *Città dei Bambini e dei Ragazzi* educational amusement centre in Genoa.

Cacche Spaziali. Il Musical! [Space Poo - The Musical!] Produced in collaboration with the Teatro dell'Ortica in Genoa, the play tells the story of a fantastical journey through space and time, leading to the magic world of treatment plants. The characters explore the city's foetid streets of the 1800s, witness the construction of the new sewage systems and the first water treatment methods, are catapulted into the future where they discover astonishing facts about shooting stars and what astronauts eat, before returning to the present day to learn about the benefits of water treatment.

Eco-games at school and in the square: crosswords, rebus puzzles and puzzle books about sustainability, designed to be used in classroom sessions or at events to raise awareness about environmental issues and promote environmentally sustainable behaviour.

Collaboration in cataloguing the Group's historical archives: in 2019 the project to catalogue the Group's historical archives stored at its various offices was continued. Using the skills acquired during the construction and management of the Water and Gas Museum in Gavette, the AMGA Foundation has assisted with the collection and processing of data and has helped to catalogue the finds and existing historical documents.

Sustainable Resources



RELEVANT TOPICS	
 Emissions	
 Sustainable use of water resources	 
 Biodiversity	 
 Energy efficiency, renewable sources and district heating	  
 Circular economy: waste management, collection and reuse	 



POLICIES FOR THE ENVIRONMENT

Environmental protection, the rational use of natural resources and sustainable development have always been central to Iren Group, due to the nature of its business and the focus of its mission. This commitment is made clear in the Integrated System Policy, which is distributed and shared with all Group personnel and companies.

The protection of the environment, the responsible use of water resources, efficiency and a reduction in energy consumption, the development of renewable sources and the proper management of the integrated waste cycle are fundamental elements that direct the Group's strategic choices, as shown by the guidelines and the Business Plan to 2024, which underline the Sustainable Use of Resources as one of the Group's strategic pillars.

To pursue its environmental mission, the Group has developed management systems, such as the ISO 14001, ISO 50001 and UNI CEI 11352 certifications, F-GAS certification and EMAS registration.

In addition to raising the awareness among its personnel via special training, the Group has also developed tools to monitor performance, such as the environmental impact/aspects assessment, analytical checks, internal audits and controls to check legislative compliance, which also aim to monitor performance in terms of sustainability and environmental protection.

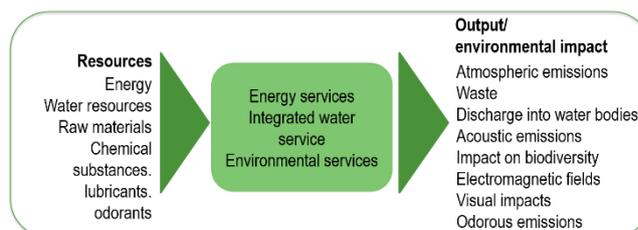
PRODUCTION PROCESSES AND ENVIRONMENTAL IMPACTS

Iren Group activities that lead to environmental impacts include:

- **production of hydroelectric and thermoelectric energy** (co-generation and traditional plants, supplementary and reserve plants) and solar energy;

- management of **electricity distribution** networks (high, medium and low voltage and transformer substations), and **natural gas** distribution networks;
- management of the **integrated water service**;
- **waste collection, management and disposal** services;
- **other customer services** (including electric mobility, energy efficiency and the new downstream project);
- **environmental practices** of contractors, subcontractors and other suppliers of the Group.

Resources are used in these operating areas for the management of operating activities and outputs and impacts are generated, as illustrated in the following diagram.



DIRECT AND INDIRECT ENERGY CONSUMPTION

The **direct energy consumption** of the Group concerns the use of fuels for the production of electricity and heat at the plants (co-generation plants, thermal plants, boilers, waste-to-energy plants and landfills), as well as the non-renewable primary energy flows not directly associated with the production of energy (i.e. Site heating, fuel for the Group's vehicle fleet, etc.), used in carrying out its activities. In 2019 direct energy consumption increased, partly as a result of the extension of the corporate perimeter and partly due to the significant increase in the production of thermoelectric energy.

Indirect energy consumption (electricity purchased and consumed by the Group) refers to the sites and production plants. The electricity used by the energy production plants is partially self-produced and the relevant figures are included in the direct fuel consumptions. If the electricity used exceeds the amount self-produced, electricity is purchased from third parties and accounted for under the indirect energy consumption of the Group, which, in 2019, amounted to 334 GWh, equal to 62,481 TOE (2,615,448 GJ).

Direct energy consumption by energy source ⁽¹⁾	u.m.	2019	2018	2017
Total direct energy consumption	TOE	1,511,821	1,268,232	1,304,134
Total direct energy consumption	GJ	63,284,847	53,088,188	54,591,046
Natural gas	m ³ /000	1,781,760	1,496,769	1,541,325
	TOE	1,489,551	1,251,299	1,288,317
Diesel	t	36	76	107
	TOE	37	78	109
Biogas from landfills, treatment plants and biodigesters	m ³ /000	28,399	27,792	26,595
	TOE	10,475	10,047	9,880
Fuel for motor vehicles	t	11,481	6,681	5,744
	TOE	11,759	6,808	5,828

⁽¹⁾The increase in consumption in 2019 is partly due to the extension of the corporate perimeter and partly due to the increased production of thermoelectric energy.

WATER WITHDRAWAL

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.

In 2019 the amount of water withdrawn was higher than previous years, mainly due to the significant increase in energy production from thermoelectric plants and changes to the corporate perimeter.

Water withdrawal by source (m³)⁽¹⁾

Withdrawal source	2019	2018	2017
Water mains	2,842,846	2,212,067	2,563,946
Surface water	558,066,695	496,641,590	509,190,893
Seawater	10,872,000	N/A	N/A
Groundwater	6,441,255	5,829,269	6,013,571
TOTAL	578,222,796	504,682,926	517,768,410

⁽¹⁾ In 2019 the new source classification established by GRI 2018 was adopted: sea water withdrawal in 2018 and 2017 is included in surface water. The data for 2018 were restated. All withdrawal sources (except seawater) are composed of freshwater (≤1,000 mg/L of total dissolved solids).

The main production sites of the Group have implemented a certified environmental management system (ISO 14001) and are in possession of EMAS registrations; therefore, they have adopted various 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.

Iren Group pays particular attention to the implementation of initiatives to reduce water withdrawal for industrial and civil use in all of its activities.

In **waste-to-energy plants**, priority is given to the recovery and recycling of water for combustion slag shut-down and plant cooling.

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.

The Torino Nord co-generation plant is equipped with recovery systems for rainwater and condensation produced by the turbine's air input refrigeration system. 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.

Within the **integrated water service**, the supply of drinking water is organised on the basis of effectiveness and efficiency criteria and in compliance with the law and resulting concessions. The criteria for the use of the resources take account of: authorised quantities, the size of the reserves in the main reservoirs, the quality of the surface water available, the hydrological features of the basins, the data relating to the previous year and data relating to the current year. The supply plan can be modified, reviewed or updated on a monthly basis following an analysis of the data collected during the measurement and monitoring activities in the phases of the process.

WATER DISCHARGES

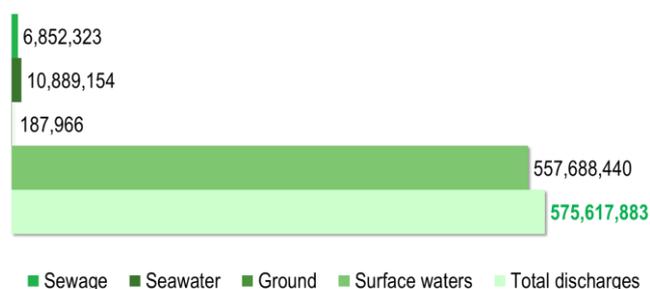
The activities carried out by Iren Group generate water discharges, whose management is regulated by the Integrated Environmental Authorisations, the Consolidated Environmental Authorisations and existing legislation:

- industrial discharges (including water used for the cooling of plants);
- integrated water service (in addition to the waste water treated in the purification service, includes process water from production and purification systems, which 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).

Compared to 2018, water discharges increased by 14%, reflecting the increase in water withdrawal.

WATER DISCHARGES (m³)⁽¹⁾



⁽¹⁾ In 2019 the new breakdown of water discharges established by GRI 2018 was adopted: it is therefore not possible to provide comparative data for the three-year period. All discharges (except seawater) are composed of freshwater (≤1,000 mg/L of total dissolved solids). It should be noted that volumes of passing water for hydroelectric production are not included, while for treatment plants only water used and discharged for the treatment process is considered, excluding treated waste water (see page 76).



Water withdrawn for all processes is almost entirely returned to the environment. Approximately 0.5% of water withdrawn, equal to 2.6 million cubic metres, is consumed in industrial processes: predominantly water evaporated during production processes (WTE and thermoelectric plants) and used for the district heating networks.

WASTE PRODUCTION

Environmental protection is also achieved through the responsible management of waste produced by the Group during its activities. The figures of waste produced are communicated on a yearly basis to the Chamber of Commerce through the environmental declaration form. The data of the waste produced mainly refers to the management of:

- energy and heat production plants;
- waste-to-energy plants, wastewater treatment plants and other waste treatment plants;
- electricity, gas and water distribution networks.

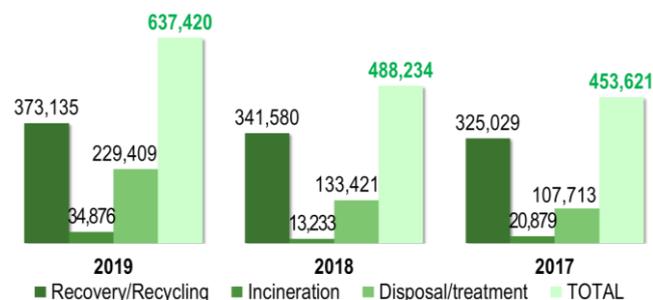
Systems of separated waste collection, aiming to increase material recycling, have been installed in all Group sites. Policies limiting the use of paper have also been drawn up and implemented through dematerialisation projects and computerisation of processes. Waste management and disposal occurs in compliance with the laws in force. At the point of incineration and disposal, where possible priority is given to the recycling and recovery of waste (recycling, reuse, composting, waste recovery). The increase in waste produced by the Group in 2019 was due to the extension of the corporate perimeter. During the year, approximately 59% of waste produced by the Group was sent for recycling/recovery.

WASTE PRODUCED (t) ⁽¹⁾



⁽¹⁾ The increase in waste produced in 2019 was due to the extension of the corporate perimeter.

WASTE DISPOSED OF (t) ⁽¹⁾



⁽¹⁾ The difference between waste produced and disposed of is due to temporary storage.



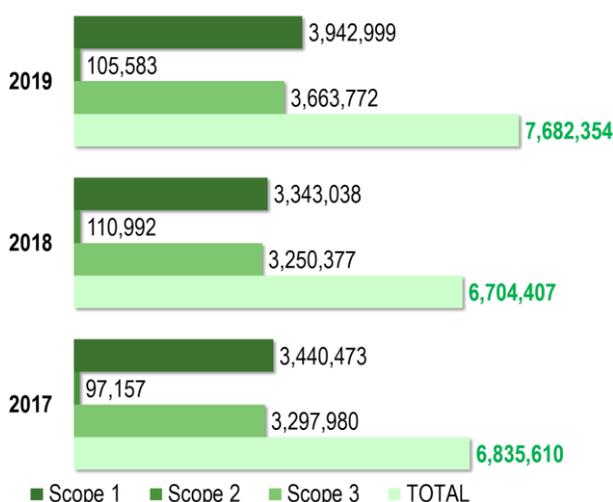
ATMOSPHERIC EMISSIONS

The activities of Iren Group generate atmospheric emissions both directly, from production, and indirectly, from the supply of electricity from third parties.

Reporting will therefore consider:

- **scope 1:** all direct emissions from sources owned by the Group; i.e. CO₂ emissions generated from fuels burned at the plants for the production of energy and heat, those originating from the company fleet and those deriving from natural gas consumption to produce heat for the heating systems of the various office buildings and/or other activities that support production;
- **scope 2:** CO₂ emissions from indirect consumption of the Group; i.e. emissions generated from the purchase of electricity consumed in the Group's plants and offices from third party suppliers;
- **scope 3:** all emissions that are not directly controlled by the Group, albeit connected to the specific activity and business.

TOTAL EMISSIONS OF CO₂ (t) ⁽¹⁾





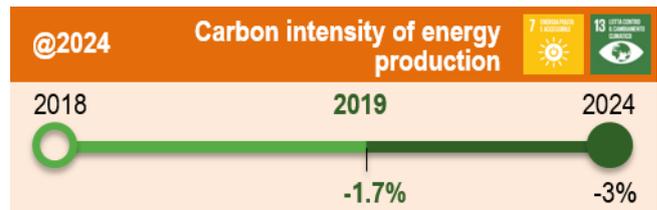
SCOPE 1 EMISSIONS

Direct CO ₂ emissions – Scope 1 (t)	2019	2018	2017
Direct emissions from production plants	3,917,267	3,325,895	3,418,217
- of which from cogeneration, thermal and thermoelectric power plants	3,484,516	2,911,546	3,017,290
- of which from waste-to-energy plants (non-biogenic portion)	432,720	414,305	400,846
- of which other combustion reactions for process uses or services	31	44	81
Other direct emissions⁽¹⁾	5,215	5,938	8,265
Emissions from company vehicles	20,517	11,205	13,991
TOTAL	3,942,999	3,343,038	3,440,473

⁽¹⁾ The data for 2018 has been restated.

Direct biogenic CO ₂ emissions (t)	2019	2018	2017
Direct emissions from production plants			
- of which from waste-to-energy plants (biogenic portion)	450,383	431,216	417,207
- of which from landfills and treatment plants	21,444	22,224	26,493
TOTAL	471,827	453,440	443,700

Direct emissions from production plants, while increasing in absolute values, showed a positive trend compared to 2018 with regard to the ratio of carbon intensity to volumes of electricity and thermal energy produced. The reduction in carbon intensity reflects the commitments undertaken in the Business Plan to 2024.



SCOPE 2 EMISSIONS

CO ₂ emissions – Scope 2 (t) ⁽¹⁾	2019	2018	2017
Emissions from electricity purchased for process activities	99,016	103,977	92,416
Emissions for electricity purchased for office activities ⁽²⁾	6,567	7,015	4,741
TOTAL	105,583	110,992	97,157

⁽¹⁾ The emissions are calculated by multiplying the electricity purchased from third parties by the emission factor of the national electricity mix, which was 316 g CO₂/kWh in 2019 (Source: NIR2019_ITALY). This factor accounts for the mix of various production sources for the electricity purchased.

⁽²⁾ The data for 2018 has been restated.

SCOPE 3 EMISSIONS

The Group is indirectly responsible for emissions produced by its suppliers and customers and by the entire value chain. In view of

this, each year the Group aims to extend its emissions reporting boundary, analysing an increasing number of the categories proposed by the GHG Protocol method.



CO ₂ – emissions - Scope 3 (t) ⁽¹⁾	2019	2018	2017
Goods and services purchased ⁽²⁾	549,970	466,814	505,889
Capital assets (plants and machinery)	38	773	N/A
Use of fuel and energy (not included in Scope 1 and 2 emissions) ⁽³⁾	499,719	422,142	512,406
Upstream transport and distribution services	636	550	N/A
Transport of waste produced ⁽⁴⁾	1,492	1,367	1,300
Business trips ⁽⁵⁾	52	428	288
Employee commutes ⁽⁶⁾	12,750	12,750	12,750
Use of products sold ⁽⁷⁾	2,519,909	2,297,380	2,227,176
Downstream leased assets ⁽⁸⁾	7,806	8,700	6,886
Investments ⁽⁹⁾	41,400	39,473	31,285
TOTAL	3,633,772	3,250,377	3,297,980

⁽¹⁾ Where possible, emissions for the new categories introduced in 2019 have been recalculated for previous years for the purposes of data comparison.

⁽²⁾ All supplier orders have been analysed and the emissions deriving from the production of each type of product or service purchased have been estimated. The 2018 data was recalculated in order to separate the items in the "capital assets" and "transport services" categories.

⁽³⁾ All direct and indirect consumption (natural gas, diesel, electricity and vehicle fuel) was calculated and the Well-to-Tank (WTT) emission factors were used in order to quantify total emissions due to the extraction, processing and transport of the fuels used.

⁽⁴⁾ The weight of the waste produced and sent to third-party plants was multiplied by the emission factor 4 kg CO₂/t of waste.

⁽⁵⁾ The emissions were calculated by analysing orders placed in 2019 for trains, planes, hotels, etc.

⁽⁶⁾ Data estimated on the basis of the average number of employees (between 5,000 and 10,000).

⁽⁷⁾ Gas sold to end customers, which was not produced by the Group and therefore not relevant to Scope 1 emissions, was considered and multiplied by the emission factor (m³/CO₂).

⁽⁸⁾ Data calculated on the basis of revenues from active leases and rental agreements.

⁽⁹⁾ Direct and indirect emissions of certain non-fully consolidated companies (Gaia and OLT) multiplied by the percentage of equity held by the Group.

Other atmospheric emissions from production plants concern sulphur oxides (SO_x), nitrogen oxides (NO_x), particulates and methane (CH₄):

Atmospheric emissions (t)	2019	2018	2017
SO _x	25.36	9.80	6.31
NO _x	996.11	809.65	765.62
Particulates	9.96	17.70	12.57
CH ₄	5,763.08	5,867.79	6,824.01

EMISSIONS OF OZONE DEPLETING SUBSTANCES (ODS)

Substances harmful to the ozone layer are normally present in the coolants used in air conditioning systems. The only harmful substance used by Iren Group is R22 (chlorofluoromethane), which is present in plants either owned by the Group or managed for third parties (e.g. air-conditioner cooling circuits). Emissions of this substance are monitored on the basis of the quantities of coolant added following periodic maintenance checks (topping up). To prevent the emissions from the Group's air-conditioning systems, all the measures laid down by Italian Presidential Decree no. 147/06 have been implemented. All equipment was registered, indicating the gases they contain and the respective quantities, and subjected to periodic checks to ensure that there are no leaks, as well as to check its correct functioning and cleanliness. In 2020 all R22 split-system air conditioner units will be replaced.

Ozone depleting substances are periodically monitored by specialised technicians of the Group

PCB MANAGEMENT

Polychlorinated biphenyls (PCBs) are aromatic compounds consisting of toxic chlorinated molecules that are persistent organic pollutants with bio-accumulative properties. They are found within 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 data on PCBs are constantly updated and all devices that contain them are currently being decommissioned

The environmental performance improvement programme in the field 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 2019, 12 devices containing oil contaminated with PCBs at a concentration between 50 and 500 ppm were sent for disposal.

Oil containing PCB disposed of (kg) ⁽¹⁾	2019	2018	2017
with PCB content of over 0.05%	0	0	0
with PCB content between 0.005% and 0.05%	3,043	2,197	5,019
TOTAL	3,043	2,197	5,019

⁽¹⁾ The total amount of oil containing PCB in the transformers and other equipment as at 31/12/2019 is equal to about 55,206 kg.

SIGNIFICANT SPILLS

There were no significant accidental spills in 2019.

NOISE AND MEASURES TAKEN TO REDUCE THE ACOUSTIC IMPACT

Iren 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. To check that the limits laid down by current legislation are respected, specific Acoustic Impact Assessments were carried out on the local population at each **production site**. In cases where the specified limits were exceeded, acoustic decontamination measures were taken on the most significant sources to bring the noise emitted below the legal limit. 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.

In certain **gas distribution** plants, soundproofed cabinets were installed to reduce acoustic emissions, although in 2019 the campaign to measure the impact of noise produced on the surrounding environment did not detect any critical issues.

Also, in the **distribution of electricity**, there were no critical situations in which the allowed noise limits were exceeded.

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.

Lastly, regarding **environmental services**, phonometric tests are periodically carried out on waste collection, street sweeping and collection centres. In the waste collection sector in particular, the Group is trialling and assessing 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.

ELECTROMAGNETIC FIELDS

For several years now Iren Group has been measuring electromagnetic fields, which 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;
- office buildings of Group Companies.

During the inspections, the location of the substation is checked, as well as the electrical equipment it contains with respect to any sensitive adjacent buildings and any potentially hazardous situations found in the substation that are environmental, electrical, etc. in nature. In 2019 over a hundred safety checks were carried out on 52 new substations and 61 renovated substations.

MATERIALS USED

The Group's production and service activities involve the use of 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 2019, the Group used 231,973 tonnes of process materials in total, with a marginal proportion of renewable materials, considering the type of processes managed.

As part of the Group's supplier certification process, certain qualitative 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.





REDUCTION OF EMISSIONS AND ENVIRONMENTAL IMPACTS

INVESTMENTS FOR THE ENVIRONMENT

Iren Group has a responsible commitment to reduce its impacts and protect the environment, which it undertakes through the use of human and financial resources. The expenses and investments incurred in 2019 for environmental protection amount to approximately 483 million Euro, allocated as follows:

- 56% to improve and increase the efficiency of electricity and gas distribution networks and water treatment and purification plants and obtaining hydroelectric green certificates and other improvement projects (e.g. smart cities);
- 40% to optimise separated waste collection systems in order to pursue the waste recovery objectives defined in the local area plans;
- 3% to raise the efficiency of the electricity and thermal energy production plants via heat storage, interventions to increase flexibility, and revamping and developing production from renewable sources, extraordinary maintenance;
- 1% to implement services and products with positive environmental impacts for customers (e.g. the e-mobility project).



REDUCTION OF EMISSIONS

The Group carefully monitors atmospheric emissions (measurements on chimneys, indirect calculations, number of leaks, etc.) in order to identify specific measures to reduce them and verify the results achieved on a regular basis.

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 in different cities) of the Group's thermoelectric plants significantly contributes to containing specific greenhouse gas emissions.

Eco-friendly energy production, separated waste collection and waste-to-energy have made it possible to avoid emissions of over 2.8 million tonnes of CO₂ in 2019

In order to reduce pollution, only natural gas is used to supply the energy production plants and both low emission combustion systems and pollutant reduction systems are installed (catalysts for the reduction of CO and NO_x).

Continuous emission monitoring systems make it possible to detect in real time the main pollutants and the improvement of the efficiency of the combustion process of cogeneration plants, larger thermal plants and 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.

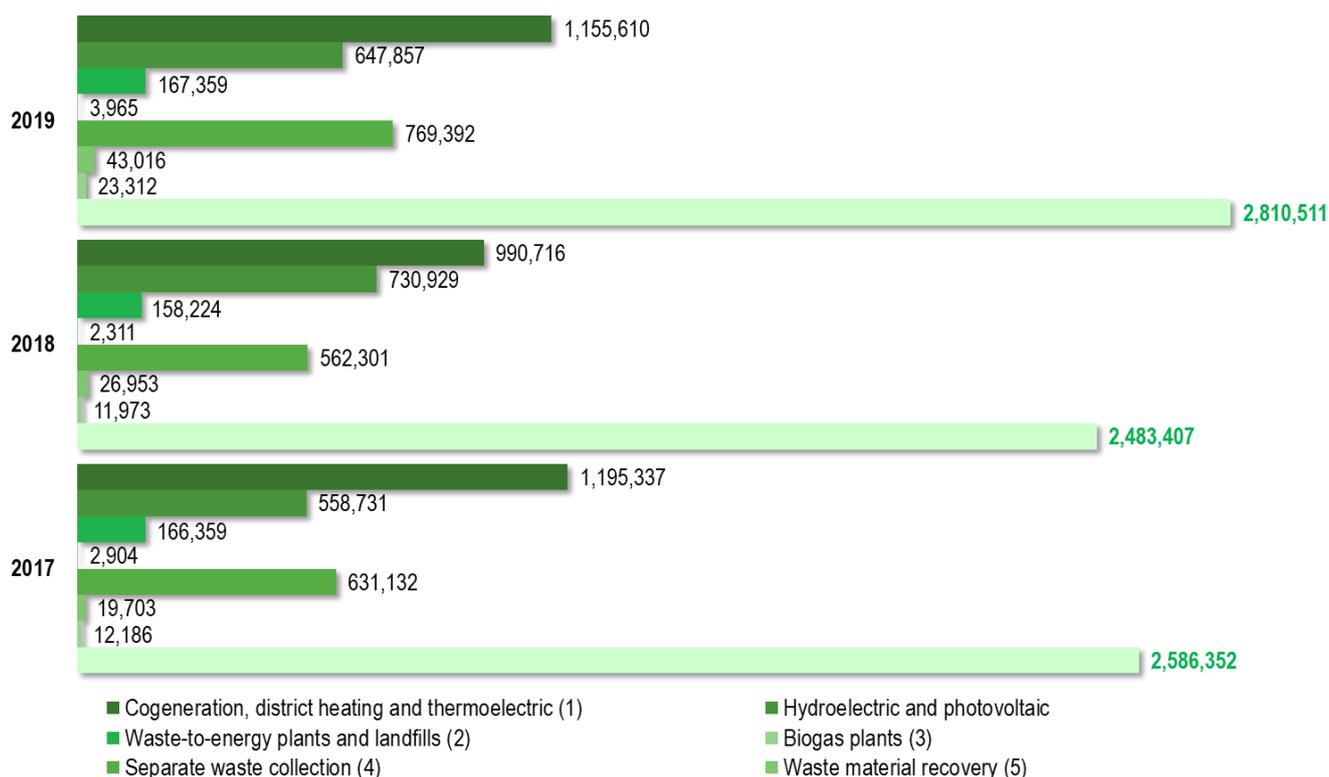
Pursuant to the IPPC environmental legislation and relevant IEAs, it is mandatory for power plants with a capacity exceeding 50 MW to continually improve environmental services, by updating to the best available technology in order to continually reduce the pollution for the different environmental compartments, including atmospheric emissions.

Moreover, ozone depleting substances are being progressively replaced at corporate sites with substances that have a lesser impact.

The combustion of the biogas produced in landfills produces the maximum reduction of methane and other greenhouse gas emissions, although its conversion into CO₂ has a potential greenhouse effect 21 times lower than natural gas (Source: UNI ISO 14064).

The CO₂ emissions avoided thanks to energy production and separated waste collection are given in the table below and amounted to over 2.8 million tonnes of CO₂ in 2019.

EMISSIONS OF CO₂ AVOIDED (t)



(1) The calculation of CO₂ avoided considers as a parameter of reference the emissions of the thermoelectric system equal to 479.01 kg CO₂/MWh in 2019, 478.224 kg CO₂/MWh in 2018 and 491.789 kg CO₂/MWh in 2017 (Terna and PNA data). The data for 2017 and 2018 were restated.

(2) The calculation considers the quota of production of electricity from renewable sources, for 51% of total production (Source: GSE - Electricity Services Provider), multiplied by the conversion factor of 479.01 kg CO₂/MWh (national energy mix data). In the case of thermal energy production, the emissions of CO₂ avoided are calculated by converting thermal energy into electricity (for IEC=1/6.88) and applying the above-mentioned formula.

(3) From 2019, the new Cairo Montenotte biodigester is included among plants that produce energy from biogas.

(4) The calculation is based on the correlation between the tonnes of waste recycled for the most important categories (paper and cardboard, plastic, organic and green, wood, iron, glass) and the tonnes of CO₂ equivalent saved (Source: Waste management options and climate change EC-AEA 2001).

(5) The amount of waste recovered in the Group's waste recovery plants is multiplied by the emission factor for CO₂ per tonne of waste disposed of in WTE plants.

(6) Specific projects included LED street lighting, public water dispensers, IrenGO and other sustainable mobility initiatives.

Emissions of NO _x and SO _x avoided ⁽¹⁾ (t)	2019	2018	2017
Nitrogen oxides (NO _x)	690	812	914
Sulphur oxides (SO _x)	435	489	507

(1) 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. The figures for 2017 and 2018 were restated as the conversion factor was modified (source: "SINANET-ISPRA").

INITIATIVES TO MITIGATE ENVIRONMENTAL IMPACTS

The Group has undertaken many initiatives to reduce the environmental impacts of its main activities.

ENVIRONMENTAL SERVICES

All Group **waste-to-energy plants** are equipped with emission monitoring systems that check emissions from the energy and heat production plants and the waste combustion process. The monitoring system is guaranteed by continuous measurements and checks on compliance with legislation and the Integrated Environmental Authorisation with the control of the indicated substances.

In order to regulate the combustion parameters more efficiently and to optimise the reduction of mercury, in 2019 activities were continued at the Turin waste-to-energy plant to install an activated carbon dosage back-up system on three lines.

In regard to 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 2019, ten new devices were purchased which contribute to the reduction of atmospheric and acoustic emissions.

	2019	2018	2017
Compactors substituted (%)	85.3	81.7	68



INTEGRATED WATER SERVICE

The initiatives aimed at reducing the environmental impacts mainly concern:

- the reduction of energy consumption by adapting waste water treatment processes and replacing old machinery with the latest generation equipment that consumes less energy;
- the replacement of submersed electric pumps of the pumping stations with new pumps fitted with inverters;
- the reduction of water procurement through the reduction of water mains leaks;
- the improvement of the quality of the water that leaves the treatment plants and the connection of stretches of untreated sewage to final treatment systems;
- the abatement and containment of odorous emissions from treatment plants by confining them to secure rooms during the treatment process in order to allow the air to be aspirated and treated.

The waste water treatment plant at Mancasale (Reggio Emilia) is the first advanced tertiary treatment plant in Emilia Romagna for waste water destined for agricultural use. It is a strategic hub for the region that not only improves the quality of surface water but also enables the recovery and reuse of waste water to benefit the environment and local agricultural companies.

The public water dispensers for the free distribution of drinking water (chilled and sparkling) to residents has considerably reduced the use of plastic bottles (approximately 21 million 1.5 litre bottles in 2019) and, therefore, the production of waste (740 t of PET avoided). Savings of 1,927 tonnes of CO₂ are estimated for 2019, thanks to the non-consumption of 1,406 tonnes of oil equivalent for the production of the bottles.

Public water dispensers have allowed approximately 1,930 tonnes of CO₂ to be avoided, equal to 1,400 TOE

GAS DISTRIBUTION

The main environmental impact from the gas distribution network is the leakage of methane gas into the atmosphere. To guarantee the safety, quality and continuity of service levels, the Group has adopted distribution monitoring systems (for example, remote control) and intrusion detection systems, as well as ongoing scheduled research and ordinary and extraordinary maintenance of networks and substations.

OTHER INITIATIVES

LED lighting: this involves the installation of new public street lighting fixtures and traffic lights with LED technology. In 2019, the initiative led to savings of approximately 20,500 tonnes of CO₂ (see page 81).

Reduction of plastic: the Group has launched projects aimed specifically at reducing the generation of plastic waste:

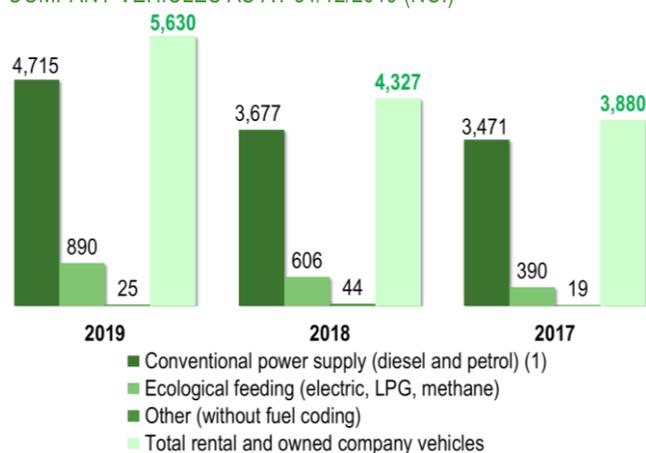
- sustainable canteen (see page 129);

- replacement of plastic bottles with glass carafes and gradual elimination of single-use plastic at company meetings and events;
- Porto Antico Plastic Free (see page 106);
- school initiatives promoted by Eduiren (see page 108);
- participation in the “Plastic Free” project promoted by the Italian Ministry of the Environment.

MOBILITY MANAGEMENT

The Group is committed to reducing the atmospheric emissions from the use of vehicles through the systematic renewal of the vehicle fleet and the promotion of initiatives for employees.

COMPANY VEHICLES AS AT 31/12/2019 (NO.)



(1) Over 56% of diesel and petrol vehicles belong to Euro 5 and 6 categories.

ATMOSPHERIC EMISSIONS OF COMPANY VEHICLES (t)

Types of emissions (1)	2019	2018	2017
NO _x	91.8	45.01	66.13
VOC	4.72	1.78	2.08
CO	33.34	13.95	25.87
PM10	5.13	2.58	3.80
CO ₂	20,516.89	11,204.85	13,991.34

(1) 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 Lombardia 2018). Travel distance data were taken from the management software in use. The distances are measured using the final data of the files of the companies supplying the fuel with relevant controls on evident anomalies.

In 2019 there was an increase in atmospheric emissions from company vehicles due to the extension of the corporate perimeter, which led to increases to the company fleet of approximately 30% compared to 2018. In particular, the San Germano fleet, composed mainly of heavy goods vehicles, accumulated significant mileage and emitted over 6,000 tonnes of CO₂ in 2019.

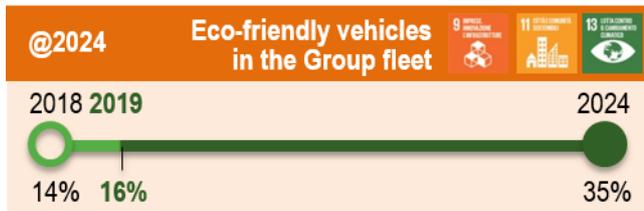
During the year, the replacement of obsolete vehicles and those below Euro 4 with Euro 6 category diesel vehicles was continued and vehicles with lower emissions and less power and engine capacity than the previous ones were selected.

The management of vehicles is performed pursuant to the corporate guidelines that define levels of safety, maximum

distances travelled and levels of replacement in relation to total distances travelled, the age of the vehicle and level of wear and tear, together with the changing operating needs or the management synergies between the different areas of operation.

The Business Plan to 2024 confirmed the transition towards sustainable mobility through the adoption of fully electric vehicles: the IrenGo project calls for the purchase of over 1,000 electric vehicles including cars, vans, differentiated waste collection vehicles and heavy goods vehicles, as well as the installation of around 380 charging stations (columns and wall boxes) at company sites.

At the end of 2019, almost 480 vehicles were already on the road (cars, vans and waste collection quadricycles) and there were 93 operational recharging points.



Furthermore, 10 electric city cars and 14 e-bikes were available at the Group's main sites, to be used by employees for business trips and personal use at weekends. The new vehicles help to improve the air quality in the urban environments in which they work every day. Since the project's launch at the end of 2019, IrenGo has enabled around 790 t of CO₂ to be avoided.

The Group also promotes initiatives aimed at encouraging employees to use public transport and alternative transport methods to arrive at the workplace:

- purchase of public transport subscriptions at discounted prices and payable in instalments for employees in Genoa, while in Turin it is possible to purchase the subscription in instalments with a charge on salary;
- the "Ecoviaggio Smart" project offers employees the possibility of organising transfers and business trips through car sharing ("I like sharing"), using an app available on both the company Intranet and smartphone. In 2019 the project allowed savings of around 16 t of CO₂, equivalent to approximately 8 TOE;
- smart working and remote working have enabled almost 150 t of CO₂ to be avoided, equivalent to approximately 70 TOE, thanks to the reduction of work commutes.

With a view to reducing the number of business trips as much as possible, the Group is increasingly focusing on the use of tools like online training courses that can be accessed from personal computers, as well as meetings and events organised through virtual rooms and/or video conferences.

In 2019, the Ecoviaggio project, smart working and IrenGO led to over 900 t of CO₂ emissions being avoided

INTEGRATED WATER SERVICE

WATER PRODUCTION AND DISTRIBUTION

The procurement of water for the distribution of drinking water is carried out in accordance with effectiveness and efficiency criteria, as well as in compliance with regulations and concessions.

The criteria for the use of the resources take account of a complex series of factors (authorised quantities, the size of the reserves in the main reservoirs, the quality of the surface water, the hydrological features of the basins, the data relating to the previous year and data relating to the current year).

Modern automation and remote control devices optimise the operation of the water capture, treatment and pumping systems.

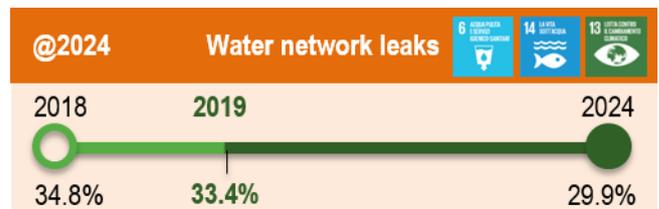
The total volume of water fed into the network in 2019 decreased compared to the previous year.

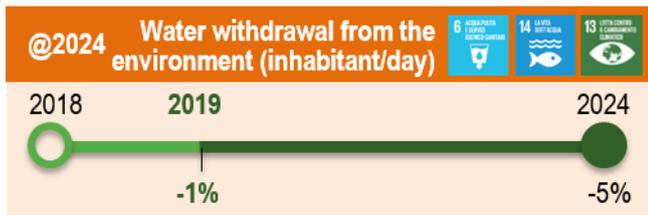
Water fed into the network (thousands of m ³)	2019	2018	2017
Piacenza	32,239	32,122	32,857
Parma	38,156	38,024	40,178
Reggio Emilia	46,159	44,982	44,827
Vercelli	8,744	8,819	8,446
Genoa	95,719	99,045	102,231
Savona	19,057	19,752	20,093
Imperia	3,462	3,515	3,927
La Spezia ⁽¹⁾	40,296	30,865	911
Other provinces ⁽²⁾	6,638	15,826	N/A
TOTAL	290,470	292,950	253,470

⁽¹⁾ In 2018, ACAM Acque was considered only for its period of consolidation (from 1 April).

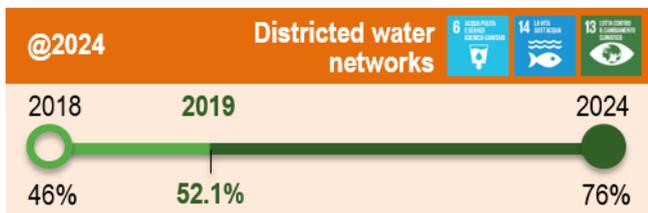
⁽²⁾ The significant reduction compared to 2018 is the result of the cessation of the service in the provinces of Alessandria, Aosta, Novara, Brescia, Pavia and Verona. The provinces of Asti, Cuneo and Mantua are still included.

The percentage of network leaks stands at 33.4% compared to the national average of 41.4% (source: ISTAT 2019), an improvement on 2018 (34.8%). The reduction in network leaks has a positive impact on the reduction of water withdrawal from the environment for drinking water, in line with the reduction targets laid out in the Business Plan to 2024.





The Group's initiatives to reduce leaks in the mains water networks include the district division project. This is a technique that involves dividing the networks into small, equal areas - or districts - which allow daily monitoring and constant analysis of hydraulic parameters. In this way, the instrumental campaigns that search for leaks are accurate and targeted only at the districts where monitoring has revealed hidden leaks. Currently 52.1% of the managed network is divided into districts, in progression with the targets set for 2024. The division into districts also produces benefits in terms of energy consumption reduction: in 2019, it allowed savings of approximately 521 TOE.

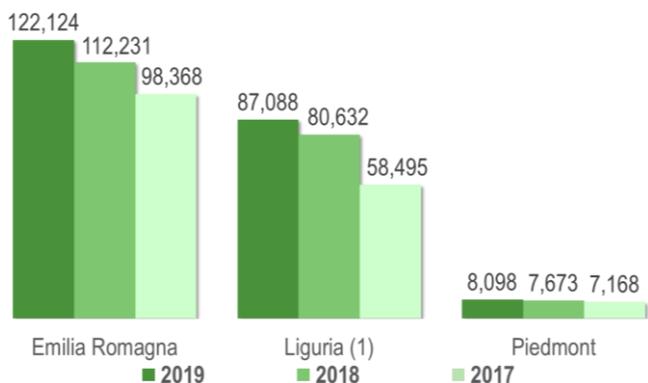


SEWERAGE AND THE QUALITY OF WATER TREATMENT

Urban wastewater from public sewers is treated at 1,341 treatment plants of various types and capacities. Pre-treatment to remove large particles, sand and oils, and primary treatment to remove sedimentation solids is carried out in the main plants, as are traditional secondary and tertiary treatments to remove nitrogen.

The Group also manages some phyto-treatment plants which exploit the plants' ability to absorb contaminants and these systems are used both to treat sewage (subsurface flow system) and to purify water treated in traditional treatment plants (surface-flow systems).

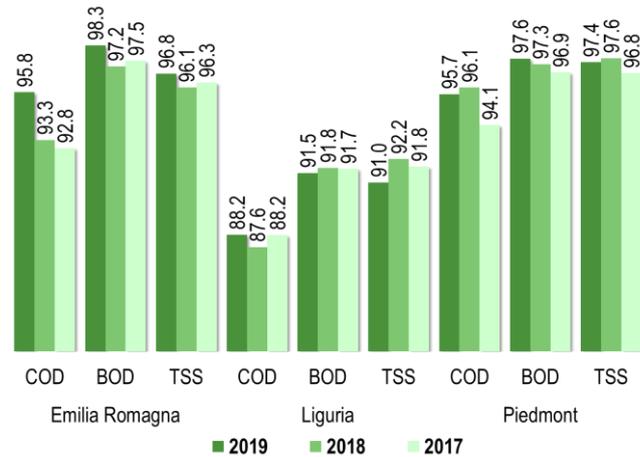
WASTE WATER TREATED (thousands of m³)



(1) For Liguria, the Group does not handle the sewage and treatment service in the Savona and Imperia areas.

All Group treatment plants with a capacity of over 2,000 equivalent residents were considered for volumes of water treated and for calculating the pollutant reduction.

POLLUTANT REDUCTION BY GEOGRAPHIC AREA (%)



1,341 treatment plants managed by the Group contribute to improving the conditions of rivers, streams and seas

One of the Group's aims is to increase its treatment capacity, increasing the potential of plants in order to provide a more efficient service and improve the environmental impact of its wastewater management.

The investment made in this regard in 2019 contribute to the achievement of the Group's targets.



WATER BODIES RECEIVING TREATED WASTE WATER

All the water bodies receiving waste water treated by the Group in the Emilia and Piedmont areas lie in the basin of the Po River. The land lies in an area deemed as sensitive and so the plants, depending on their size, are subject to the application of the strictest nitrogen and phosphorus limits.

The waste water treated by the treatment plants situated in the areas served in Liguria is drained into the Ligurian sea from the coast (mainly the Gulf of Genoa, Gulf of Tigullio and the Gulf of La Spezia).

ENVIRONMENTAL SERVICES

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, based on long-term service contracts in the provinces of La Spezia (Acam Ambiente), Parma, Piacenza, Reggio Emilia (Iren Ambiente), Vercelli (ASM Vercelli) and the city of Turin (Amiat). In these contexts, the Group collaborates with the Regulatory bodies to define targets and plan the collection systems;
- as a contractor, with operational support from local authorities or other operators, in other regions. This is the case of San Germano, a company acquired at the start of 2019 with a dynamic business model characterised by constant participation in new tenders, regional heterogeneity and, as a result, seasonal workforce management.

In 2019 the Group managed the urban waste collection service in 297 municipalities, of which 133 were served by San Germano, for a total catchment area of over three million residents (approximately 740,000 in the municipalities served by San Germano) and over 1.7 million tonnes of urban waste managed (over 317,500 t collected by San Germano).

Of the 1,386,660 tonnes of urban waste collected in the regions in which the Group acts as operator, 932,585 tonnes referred to separated waste, thanks to the continuous extension of door-to-door collection services. The municipalities served by San Germano also achieved positive results with around 214,000 tonnes of separated waste collected. As regards the methods offered to residents to increase results from separated waste collection, the presence of 163 Waste Collection Points (plus 34 in the areas served by San Germano) is particularly important, enabling residents to freely deposit waste in large containers. The range of services is completed by the domestic collection of bulk waste and the services for companies operating in this field.

The waste, once it has been separated and collected, is sent for recovery through specialised platforms and industry sectors on the basis of agreements made between the Group and the members of Conai (National Packaging Consortium), or private operators if the materials are different from those managed by the members of the consortium.

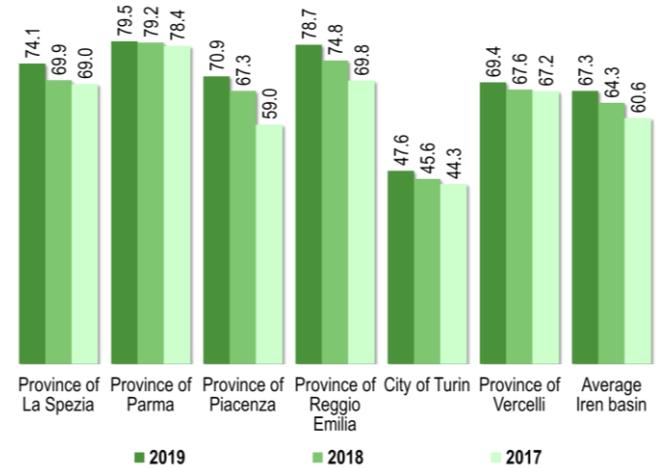
The separated fraction of waste is treated in several different ways in order to make the most of it as a resource and to reduce the amounts destined for waste-to-energy conversion and disposal in landfills.

*In 2019,
932,585 tonnes of separated waste were collected*

The percentages of separated waste collection achieved in 2019 show an extremely positive trend across all areas. The average across the area traditionally served by the Group was up compared

to the previous year, reaching 67.3%, against the national average of 58.1%, exceeding the target of 65% set for 2035 by the European Union's Circular Economy Package.

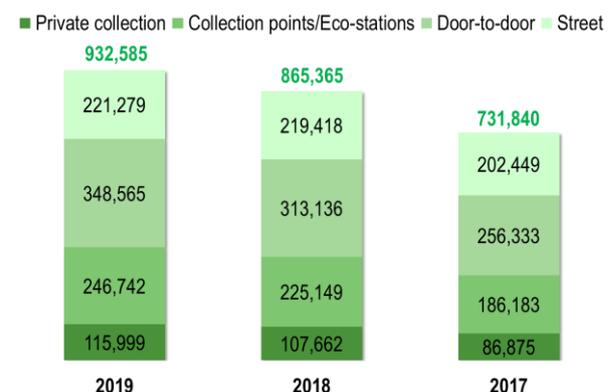
SEPARATED WASTE COLLECTION BY REGION (%)



In line with the directives of the sector and the local programmes, Iren has confirmed in its Business Plan its commitment to achieving a further increase in the percentage of separated waste collection, through the continuous development of the home collection services and the “pay-as-you-throw” systems, aiming at an even greater promotion of environmental awareness among citizens, and sending 100% of urban waste collected to be recovered as material or energy. These objectives are transposed into the reduction of urban waste and the increase compared to 2018 in the amount of separated waste collection per resident per year.



WASTE FROM SEPARATED WASTE COLLECTION BY METHOD (t)





WASTE TREATMENT AND DISPOSAL

In order to guarantee an effective management of the entire cycle, Iren Group is also committed to the treatment and disposal of waste, 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 2019, thank to corporate acquisitions nine waste recovery plants and two biodigesters were added to the Group's facilities.

The types of plant owned by Iren Group are shown in the table below.

Plants	Number
Waste-to-energy plants	3
Operating landfills	2
Storage and transfer	18
Liquid waste treatment	4
Waste recovery	10
Organic waste treatment and recovery	3
Mechanical biological treatment with SSF production	1

The increase in waste treatment capacity at the Group's plants is one of the targets established in the Business Plan to 2024 as part of a circular economy approach.

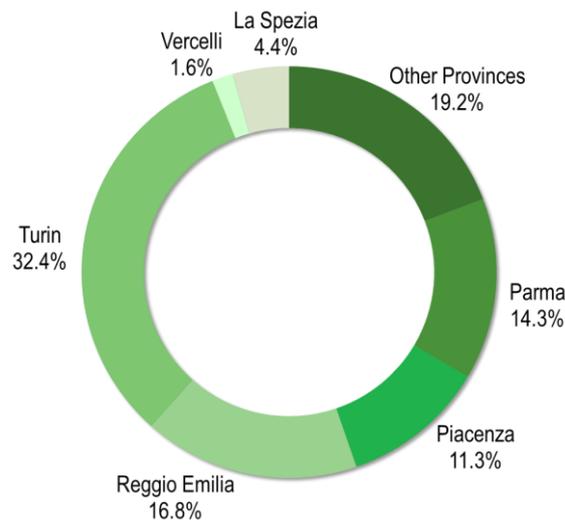


WASTE MANAGED (t)



In 2019 a total of 2,517,785 tonnes of waste was processed, along with 317,524 tonnes collected by San Germano.

WASTE MANAGED BY AREA (%)

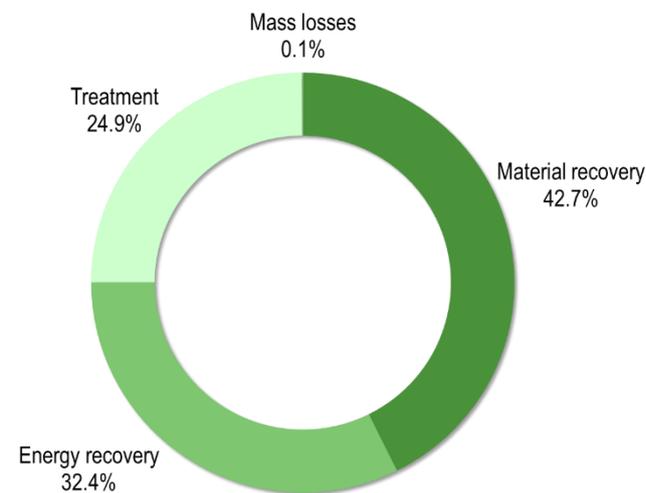


The separated waste can be sent directly for recovery or via the Group's storage plants or points where it is sorted and/or treated before reaching its final destination.

The non-separated waste collected is disposed of in several different ways in order to make the most of the waste as a resource, with the waste-to-energy process seen as the most environmentally effective solution for energy recovery.

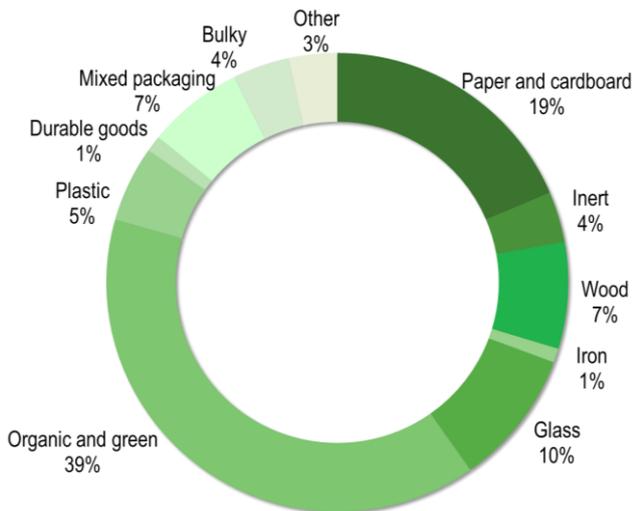
The Group has also structured some plants for the preventive mechanical sorting process with the goal of intercepting a wet fraction of waste that is rich in organic material and which can be stabilised biologically.

WASTE MANAGED BY TREATMENT METHOD (%)

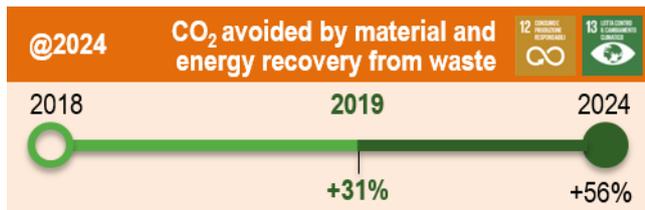


In 2019, 42.7% of waste managed was sent to recovery chains, depending on their type.

WASTE SENT FOR RECOVERY BY TYPE (%)

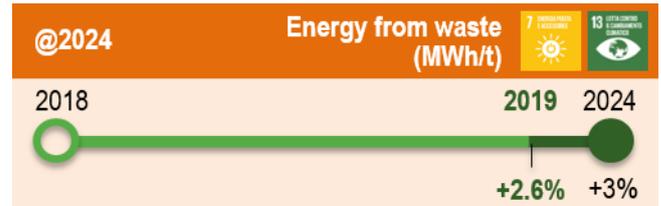


The environmental benefits of waste recovery are twofold, reducing emissions and the consumption of resources. In this regard, the Group has defined targets for CO₂ emissions avoided through waste recovery and waste-to-energy.



generation thermoelectric plants that produce energy via combined cycles, which are some of the most efficient technologies currently available on the market. Furthermore, co-generation is connected to the urban district heating network, which, compared to traditional heating systems, allows for reductions in energy consumption and improves environmental performance. In 2019 Iren produced over 10,382 GWh of electricity, of which more than 76% was from renewable sources (water or solar) or similar (cogeneration and waste-to-energy), compared to a national average of 39.8%.

Energy production from waste also uses resources similar to renewables. Compared to 2018, in 2019 the waste-to-energy plants generated greater quantities of energy per tonne of waste, in line with the sustainable development goals defined by the Group for 2024.



To increase hydroelectric production, amounting over 1,330 GWh in 2019, the projects to reactivate the Noasca (TO) and Giffoni (SA) plants continued, as did the installation of the San Mauro (TO) weir generator unit and the construction of the upstream ladder for fish.

Iren Group's virtuous production processes result in significant energy savings and, subsequently, avoided CO₂ emissions, which amounted to over 2.8 million tonnes in 2019.

ENERGY PRODUCTION AND SERVICES

RENEWABLE AND SIMILAR SOURCES

The Group's power production plants mainly consist of hydroelectric and photovoltaic plants that use renewable sources and co-

Producing energy from hydroelectric, photovoltaic and co-generation plants reduces environmental impact

In 2019 the Group also developed various important projects to increase the sustainability of its energy services.

Project	Description
Saturation of the Turin network	The connection of 8 million cubic metres by 2022, which will take the Turin area to a total volume of 64 million cubic metres and lead to the saturation of district heating system capacity. In 2019, a total volume of around 900,000 cubic metres was connected and 4.6 km of network was laid, leading to a progressive value of 7.6 million cubic metres.
Torino Nord extension phase 1	The connection of approximately 5 million cubic meters of district heating volume. Phase 1 (2017-2020) will lead to the saturation of the residual capacity of the district heating system, through the optimisation of the storage systems. In 2019, 80,000 cubic metres were connected and 1.2 km of network was laid.
Torino San Salvario	Extension of the district heating network and installation of a new heat storage system. In 2019, a total of 1.7 km of network was laid.
Turin waste-to-energy plant for district heating	The connection of the Turin waste-to-energy plant to the district heating networks of Grugliasco and Beinasco. In 2019, works continued and 2.8 km of network was laid. The hydraulic connection between the waste-to-energy plant and the Beinasco network was completed, while the Grugliasco connection is in construction. The plant is partially operational on a provisional basis.
Beinasco district heating	The supply of the Beinasco district heating network via the connection to the Turin waste-to-energy plant and the interconnection with the Turin network, without the need for new production plants. In 2019 the distribution network was laid and the first buildings were connected, for a total volume of 80,000 cubic metres.
Piacenza waste-to-energy plant for district heating	The connection of the Piacenza district heating network with the waste-to-energy plant. There will be an increase in connected volumes of approximately 1 million cubic metres. In 2019 the installation of the connecting backbone and the distribution network were completed.



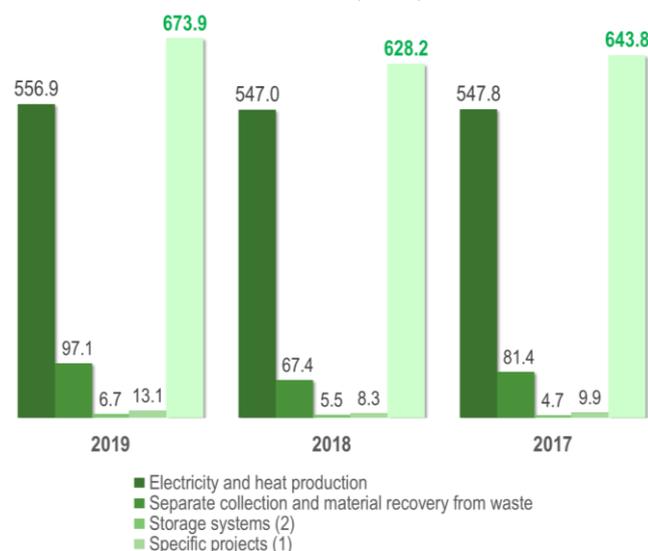
EFFICIENCY AND ENERGY SAVINGS

The efficient use of energy and energy savings are some of the main objectives of Iren Group Business Plan to 2024, which are pursued across all the Business Units, with increasing efficiency in processes and services, and through solutions to guarantee stakeholders a reduction in energy consumption, by using technological systems, monitoring and advising on proper consumption behaviour. The Energy business unit carries out a similar activity within the Group to manage consumption along the production chain and monitor the targets set out in the Energy Budget.

Total energy savings generated by the Group in 2019 stood at 673,854 TOE, up on 2018, with contributions from various areas of operation. The results achieved are in line with the objectives established in the Business Plan to 2024.



TOTAL ENERGY SAVINGS IN 2019 (KTOE)



(1) As well as the energy savings projects described on page 81, the savings obtained through the division of the networks into districts, the public water dispensers, the projects to reduce the impacts of employee mobility (IrenGo, Ecoviaggio, smart working and remote working) and the energy efficiency certificates obtained through the implementation of certain projects have been included.

(2) The data for 2018 has been restated.

ENERGY SAVINGS FROM PRODUCTION

Energy production and saving ^{(1) (2)}	u.m.	2019	2018	2017
Production from hydroelectric and photovoltaic plants				
Electricity produced	GWh	1,352	1,528	1,136
Energy saved	TOE/000	235	264	200
Energy saved	GJ	9,822,759	11,068,510	8,370,190
Production from co-generation plants, boilers and thermoelectric plants				
Electricity produced	GWh	8,392	6,875	7,287
Thermal energy produced	GWh	2,853	2,799	2,865
Energy saved	TOE/000	255	220	283
Energy saved	GJ	10,676,558	9,195,890	11,860,704
Production from waste-to-energy plants and landfills				
Electricity produced	GWh	634	599	610
Thermal energy produced	GWh	142	133	131
Energy saved	TOE/000	65	62	63
Energy saved	GJ	2,734,936	2,589,899	2,647,945
Biogas plant production				
Electricity produced	GWh	4.02	0.03	0.25
Energy saved	TOE/000	1.7	0.9	1.24
Energy saved	GJ	70,357	41,002	51,741

(1) The figures are calculated according to the following criteria:

- hydroelectric and photovoltaic energy production: 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;
 - co-generation, boilers and thermoelectric plants: the comparison between gross production and actual fuel consumption of the Group with the consumption that the national electricity grid and the "national average" heat production system would have recorded to produce the same quantities of electricity and heat;
 - waste-to-energy plants and landfills: the amount of electricity and thermal energy production (for the Parma IEC the conversion coefficient for thermal energy to electricity is 6.88) multiplied by the electricity coefficient (187 TOE/GWh);
 - biogas plants: by multiplying the cubic metres of natural gas produced (60% of biogas) by the SCM/TOE conversion factor 0.836.
- 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.

(2) Energy saved is also expressed in GJ by using a conversion factor of 1 TOE = 41.86 GJ.

ENERGY EFFICIENCY PROJECTS

In terms of **energy savings**, the Group has developed projects that generate positive external impacts, via the savings obtained by residents and customers, and others that affect the energy savings of plants and company sites. The projects are described in the table below.

Through projects launched in 2019, Iren Group achieved an energy savings of over 10,700 TOE/year

Project	Description	Savings obtained
External impacts		
Smart thermostat	The sale of thermostats for energy efficiency that ensure the boiler is only on for the minimum time required to maintain the desired temperature. Energy savings are calculated by estimating average gas consumption per household and applying a 22% reduction in consumption deriving from the smart thermostat.	110 TOE
Condensing boilers	Sale of latest generation condensing boilers, offering savings of up to 25% compare to current consumption. By recovering some of the heat from steam and, consequently, using less fuel, the boilers save energy and cause less environmental pollution.	29 TOE
Photovoltaic plants	Design, construction and installation of turnkey solar panels for customers. The energy produced is clean and sustainable and can be stored in storage systems until needed. Energy savings are calculated estimating the kWh produced by the photovoltaic plants sold.	39 TOE
Heating systems in municipal buildings	"Revamping 2 and 3": redevelopment works on heating systems of buildings in the Municipality of Turin. In winter 2018/2019, these projects led to energy savings of approximately 1,150 TOE.	1,150 TOE
LED public street lighting	Torino LED - Phase 2: the continuation of the project launched in 2015 with the City of Turin involving the replacement of approximately 53,000 traditional public street lights with LED devices throughout 2019, with plans to install a further 900 high-output lighting systems and 6,000 devices in the city's underpasses. In 2019 the public lighting systems in Vercelli, Fidenza, Alba, Biella and 14 other municipalities in the province of Biella were reconditioned with LED devices.	5,689 TOE
Thermostatic valves and heat allocators	The installation in 2019 of around 520 thermostatic valves and heat allocators in apartment buildings, which reduce consumption in the individual apartments. The savings are calculated on the basis of the historical data of the apartment buildings, compared with pre and post-intervention consumption.	9 TOE
Domestic heat management	The replacement of traditional and diesel boilers with high-efficiency condensing boilers in residential heating systems. The savings are calculated using the rating of the obsolete boiler compared to the high-efficiency boiler, as well as measurements taken before and after installation, under the same conditions of use and weather. In 2019 a total of 297 reconditioning works were carried out.	1,505 TOE
Energy upgrading in buildings	Energy upgrading works on building exteriors (exterior insulation, cavity wall, insulation). In 2019 a total of 52 works were contracted, of which 5 had been completed and 7 were in progress at the end of 2019, with the remaining 40 to be commenced in 2020.	3 TOE
Internal impacts		
Energy efficiency of production plants	Implementation of energy efficiency works on certain Group plants (e.g. water treatment plants, transformer substations, voltage stabilisers), with a saving of 125 TOE in 2019. Works were also carried out on the waste-to-energy plants. In particular, the new compressed-air drying system at the Piacenza waste-to-energy plant to reduce waste and subsequently lower the electrical consumption of the compressor units offers total savings of approximately 325,600 kWh/year; in 2019, around 30 TOE were saved. The improvement of the boiler regulation system and of the heat exchangers at the Parma waste-to-energy plant to optimise the heat flows of the district heating system and the consumption of fuel led to savings of 1,088,653 cubic metres of natural gas in 2019, equal to around 1,327 TOE.	1,482 TOE
UNI EN ISO 50001 Certification	Energy efficiency projects as part of the ISO 50001 certification for energy production plants: in 2019, savings totalled 740 TOE. In this context, savings of 3,000 TOE/year are estimated by 2021.	740 TOE

ENERGY EFFICIENCY CERTIFICATES (EECS)

Thanks to the high-efficiency co-generation plant of Torino Nord, 106,148 energy efficiency certificates (EECs) were obtained in 2019 (equivalent to an equal amount of TOE of energy savings).

Furthermore, Iren Group has implemented various projects which resulted in 197 EECs in 2019.

The requirement to produce (or purchase on the market) and supply energy efficient certificates to the GSE (Electricity Services Provider) is the sole responsibility of Ireti (distributor) and is valid for 2019 (with maturity 31 May 2020). To comply with the annulment

obligation, in 2019 around 42,000 energy efficiency certificates (EECs) were purchased at an average of 258.71 Euro/TEE.

In 2019, around 3.2 million CO₂ allowances (EUAs) were also purchased in order to meet the obligations provided for in the Emissions Trading Scheme (ETS) legislation related to emissions generated by Group plants.

In 2019, Iren Group obtained energy efficiency certificates equivalent to 106,345 TOE



ENERGY SAVINGS INCENTIVES

Green Certificates were replaced by equivalent incentives which, in 2019, Iren Group matured in the amounts indicated in the table below.

Incentives by plant (no.)	2019
Hydroelectric	334,030
Bardonetto	27,846
Pont Ventoux	26,105
Valsoera - Telesio - Eugio - Ceresole - Rosone	239,009
Brugneto	3,029
Tanagro	13,193
Canate	24,848
Waste-to-energy plants (TRMs)	222,636
Basse di Stura landfill	9,577
TOTAL	566,243



BIODIVERSITY

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 which attempts to ensure biodiversity through 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.

Protection of the "Natura 2000" sites is mandatory (Italian Presidential Decree 357/97 "Regulation implementing Directive 92/43/EEC on the conservation of natural and semi-natural habitats, as well as wild fauna and flora" and Italian Presidential Decree 120/2003).

The law states that the territorial planning and scheduling must take into account the naturalistic and environmental importance of the Sites of Community Importance (SCI) and the Special Protection Areas (SPA) and that any plan or project, internal or external to the

sites, which could in any way affect the conservation of habitats or species that have been identified as protected should be subjected to an appropriate impact assessment for the affected sites. Prior to the implementation stage of new measures, the development of new networks and 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 (Italian Presidential Decree 357/1997 art. 5) is the procedure implemented in cases where an intervention may significantly affect an SCI or an SPA in the "Natura 2000" network.

The Italian Ministry of the Environment and the Protection of the Land and Sea publishes decrees which list the Italian SCIs. As the construction of the "Natura 2000" Network is an ongoing process, the SCI lists are updated once a year on the basis of the databases submitted by Member States. For Italy, the SCIs become official upon the submission to the European Commission of national databases.

ACTIVITIES IN PROTECTED AREAS OR AREAS OF ENVIRONMENTAL INTEREST

Electricity production activities carried out by the Group in protected areas relate mainly to hydroelectric plants and their impact on water sources and on noise. Water withdrawals and releases are managed in accordance with the Concessions issued by the Competent Authorities and the legislation in force. For all managed reservoirs, Management Plans (pursuant to Italian Ministerial Decree 152) were prepared with the relative impact assessments for those that involve SCI areas. The main water sources involved in water withdrawals at the Group's production plants are the Ligurian Sea, the Po River, the Naviglio Grande canal and withdrawals from groundwater through wells for industrial use. The complete framework of withdrawn water (dams and weirs) for the production of hydroelectric energy concerns the Orco, Dora Riparia, Po, Maira, Brugneto, Secchia, Bussento, Tanagro, Tusciano, Calore, Picientino and Terza rivers. 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, authorised and in compliance with the law, are made up of cooling water from the plants or water from the treatment processes of the water used in production sites. The measures to improve efficiency of hydroelectric plants, carried out by the Group in the past, 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, 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 SO₂, CO₂, NO_x, particulate and natural gas emissions. In relation to the acoustic impact, all plants are soundproofed appropriately to minimise the impact on the surrounding area.

The development of the **electricity distribution network** in the city of Turin 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), Lama del Badiotto (SPA) and Garzaia della Brarola (SPA). The electricity distribution network of Parma does not affect SCIs or SPAs in the "Natura 2000" network.

Waste management and environmental health activities that the Group carries out do not affect protected areas in the Emilia area. 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. Every year, the impacts related to the activities carried out at the sites are examined with the aim of verifying the results of the measures carried out and having available all the elements necessary to confirm/modify the implemented system, so as to assess compliance with the regulations and authorisations required by environmental legislation and to verify the state of progress and define/update improvement plans for management systems, including those related to environmental performance. The **Parma Integrated Environmental Centre (IEC)** 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 that will lead to the creation of a surface 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 based at the IEC, in order to estimate the environmental benefits in terms of the atmospheric particulate matter removed. The area of the **Piacenza waste-to-energy plant** is not subject to any urban, landscape, hydro-geological, seismic or territorial restrictions and there are no protected parks, oases or other areas protected by law. 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 areas of special natural interest represented by Stupinigi Natural Park and System of Protected Areas of the Po area region.

Activities concerning the **gas distribution** service do not have particular impacts on biodiversity. For the activities regarding the construction, maintenance and operation of the infrastructure, we

rigorously comply with the regulatory framework relevant to environmental impact.

Regarding the **integrated water service**, all the water bodies receiving waste water treated by the Group in the Emilia and Piedmont regions are located in the basin of the Po River. 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 waste water 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). By nature, the activities conducted are aimed at maintaining optimal environmental conditions. Specifically, protecting the areas in which sources of water withdrawal are found is of the utmost importance for the management of the integrated water service. Likewise, the main objective of the treatment activity is to ensure that discharges are appropriately treated so that they are compatible with the natural habitats of the receiving bodies of water. The main interventions carried out in 2019 regarded the reconditioning of the waste water treatment plants and underwater pipelines in the Liguria area which were damaged by the coastal storm in 2018. Screening and environmental impact assessments are carried out as required by applicable law, for treatment plants and the withdrawal of water.

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.

■ MAIN 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.

The map shows the main Sites of Community Importance and Special Protection Areas where plants and/or networks managed by Iren Group are located. There are around 290 protected species in these areas which are listed on the national and international IUCN Red Lists (based to the documentation available online). Around 25% of these species fall under the following IUCN List categories: regional extinction (RE), vulnerable (VU), endangered (EN), critical risk (CR) and nearly threatened (NT).



COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS AND REPORTING MECHANISMS

Iren Group adopts an Environmental Management System in compliance with ISO 14001: all employees are required, as part of their duties, to participate in the process of risk prevention, protection of the environment and of their own, and that of their colleagues and third parties, health and safety.

All of the processes are carried out in full compliance with applicable environmental legislations, and the Group contributes to the research and development of advanced technologies aimed at protecting the resources and at reducing the environmental impact of the activities and their related risks. Furthermore, the activities of Iren Group are managed in compliance with the regulations relevant to the prevention and protection from accidents and occupational health and safety.

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 see to the appropriate checks, and, lastly, each stakeholder receives a response in relations to their reports.

During the qualification process, suppliers are required to hold an environmental certificate or, in any case, to have taken on substantial elements interlinked with the environmental system (see page 116).

The **production and distribution of electricity** services are certified by standards of quality and environmental management, and are, therefore, subject to internal and external audits with regard to the processes and obligations relevant to environmental legislation.

With regard to the **environmental 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, including those 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 carried out 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 control 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.

Regarding the **integrated water service**, the entire cycle is subject to the constant monitoring of operating parameters, including by means of remote control systems for important plants, and provides for the execution of tens of thousands of analytical laboratory calculations. The 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 agencies, including through specific operational protocols.

In 2019, the Group received and paid 42 fines and penalties, for a total value of around 208,061 Euro, for failure to comply with mandatory environmental laws and regulations. Breaches mainly related to the absence of discharge permits at certain waste water treatment plants, the exceeding of limits set out in the tables for waste water discharge, and non-compliance with permits in the execution of certain works.

Customers and Communities



RELEVANT TOPICS	
Efficient and reliable services	11 Sustainable Cities and Communities, 12 Responsible Consumption and Production
Responsible management of business segments	11 Sustainable Cities and Communities, 12 Responsible Consumption and Production, 10 Climate Action
Marketing policies	11 Sustainable Cities and Communities
Quality of service, customer orientation and its evolution	1 Poverty, 6 Clean Water and Sanitation, 7 Affordable and Clean Energy, 11 Sustainable Cities and Communities
Internal and external communications	16 Peace, Justice and Strong Institutions
Development of local communities	11 Sustainable Cities and Communities, 17 Partnerships for the Goals
Environmental education	4 Quality Education
Emergency management	3 Good Health and Well-being, 11 Sustainable Cities and Communities
Construction site management	3 Good Health and Well-being, 9 Industry, Innovation and Infrastructure
Dialogue with Public Authorities	16 Peace, Justice and Strong Institutions, 17 Partnerships for the Goals
Sustainable management of the supply chain	8 Decent Work and Economic Growth
Impacts on local areas (suppliers)	8 Decent Work and Economic Growth



RELATIONS WITH CUSTOMERS



BUSINESS CONDUCT

Communications to customers comply with the principles of clarity and transparency provided by the Code of Ethics and Code of Business Conduct, with the objective of placing the customer in a position to be able to make an informed choice.

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 commercial premises, i.e. activities of door-to-door companies and at commercial stands and *teleselling* and *webselling* to promote energy contracts.

Within the contractual relationship, the Group requires that external promotion companies (door-to-door companies, *telesellers* and *websellers*) comply with sector regulations and procedures or those identified and elaborated by the same and, more specifically, requires compliance with the Code of Business Conduct of ARERA, the Consumer Code, the Group's Code of Ethics, Iren Mercato's Model 231 and Iren Mercato's Quality Policy.

Promotion companies are selected according to rigorously applied criteria, which include:

- the possession of all permits, licences and registrations for conducting commercial agency activities (including registration on the National Register);
- 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/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 companies is monitored and controlled at various levels and in different ways depending on the type of activity performed.

The control systems relative to contract promotion are also stricter compared to sector regulations.

As provided for in the agreement, *quality calls* concerning the activity carried out by the door-to-door companies are conducted to confirm contact with the agent and the signing of the contractual agreement. 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 telephone proposal accepted (*welcome calls* and *confirmation calls*).

Furthermore, in accordance with the Group's transparency policy and to protect the effective wishes of the customer, customers with telephone contracts are given 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 organisation of Iren Mercato also provides for a specific structure dedicated to analysing customer complaints 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 Iren, even through other companies, up to the possible resolution of the agency mandate.

Sales and marketing activities are conducted in accordance with the principles of honesty and transparency and in full compliance with the provisions of EU Regulation 2016/679 (GDPR) and any applicable regulation concerning personal data protection. Specifically, in order to guarantee compliance with privacy regulations:

- the processing of the personal data of customers and potential customers is guaranteed in accordance with the consents freely given and collected from them;
- the processing of the personal data of customers and/or potential customers on behalf of Iren Mercato is permitted only to persons appointed in writing as external data controllers (Article 28 of the GDPR);
- commercial or promotional actions are carried out exclusively with regard to persons who have given informed consent after reading the specific privacy policy (Articles 13 and 14 of the GDPR).

Furthermore, to guarantee that data subjects can exercise their rights covered by the GDPR, communication channels and departments have been set up to receive and manage requests for

access, rectification, deletion, limit processing, portability and opposition to the processing of personal data.

In compliance with the principles of anti-competitive behaviour, Iren Mercato does not conduct any commercial or promotional action with regard to protected market customers, limiting its interventions to *prospective* contacts or its customers on the free market, which were acquired in accordance with the law.

HEALTH AND SAFETY OF CUSTOMERS

Iren Group implements actions to minimise the impacts that its activities have on the health and safety of customers and the community. Below is a summary by business segment.

Environment: the Group has developed tools to monitor performance, such as environmental impact assessments, analytical controls, internal audits and legislative compliance checks, which are set out in the Quality, Environment and Safety Policy.

Energy and smart solutions: the management model adopted considers the health and safety of customers, assessing environmental aspects, as well as the analysis and measurement of risks during all stages of the services supplied, from plant planning to maintenance, and the activation of new services and the selection, storage and disposal of materials and products that require specific certificates and targeted laboratory tests. Furthermore, the planning and management of emergencies is a level of service offered to customers to ensure their safety in the case of faults and repair works. In this regard, for the public street lighting and traffic light service in Turin there is an app that citizens can use to report any faults or malfunctions in real time. As regards the global service for the buildings in the city of Turin, there is a detailed process for reporting faults/malfunctions, call management and problem resolution, with response times for each type of event and analysis and evaluation of the service level. Finally, the operation and maintenance of domestic heating systems is provided through a 24-hour contact line with repairs carried out within three hours of the report.

Integrated water service: with regard to the supply of drinking water, the health and safety of customers is the main priority. This aim is pursued through the constant monitoring of the water quality along the entire supply cycle, also beyond legal obligations: catchment, treatment, disinfection and distribution.

Gas distribution: customer safety is the main issue concerning the management of the gas distribution service. Hiring competent and well-trained resources, together with continuous network monitoring, are elements that contribute significantly to accident prevention. These elements are subject to constant analysis and improvement measures in order to increase their effectiveness while respecting efficiency.

Electricity distribution: To safeguard customers' health, initiatives to guarantee compliance with electromagnetic field limits in production and distribution plants have been launched, with particular focus on electricity substations (see page 71). As regards public street lighting, the parameters monitored in terms of

residents' health and safety are light pollution and photo-biological risk (see page 110).

District Heating: in 2019, the Department of Environmental Engineering, the Territory and Infrastructures of the Polytechnic of Turin conducted a study to assess the consequences in terms of the air quality of the Parma and Piacenza district heating system. The analysis was conducted by comparing the environmental impacts of the district heating system at the completion of the current extension plan (2022) to a previous scenario in which there was no district heating.

The results showed a substantial reduction in the environmental impacts on the atmosphere resulting from the operation of district heating powered by co-generation plants. The extent of this reduction, in addition to average concentrations, was calculated in economic terms: social costs avoided as a result of negative health effects have been estimated, confirming the advantage provided by the district heating system, also from an economic perspective. Similar studies have been conducted in Turin and Reggio Emilia in previous years, with equally positive results.

Market: the entire range of products offered to customers is verified in terms of the impact on the health and safety of customers, before being launched on the market.



COMMUNICATION AND RELATIONS WITH CUSTOMERS

Iren Group devotes significant attention to communicating its development plans, products and services, aiming to provide timely and transparent information across a number of communications channels.

In 2019, the Group consolidated its internal and external communication through a growing and constant production of content distributed on various media: websites, the main social networks, printed and online media.

In general, social media is becoming an increasingly important channel of communication, with the number of followers up by 6.5% particularly on Facebook and LinkedIn, which are also used to promote awareness raising and information campaigns on important topics for the company and the public.

In terms of the environment, in the regions where new services have been launched (door-to-door sales, "pay-as-you-throw", computerised collection centres, etc.) dedicated communications plans have been drawn up aimed at launching the service, explaining the logics and rewarding good sustainability practices.

As regards the communications strategy, a direct channel has been opened for widespread communication with communities through



direct mailing, public meetings and an information service, including in their own homes.

Traditional communication tools (brochures, collection eco-calendar, waste separation brochure, multilingual leaflets, fliers and posters), featuring language accessible to a broad audience, were supported by more innovative ones such as social networks, videos and multimedia tools. Specific communication campaigns regarded the promotion of the free bulk waste home collection service, the transfer of waste containing mercury at collection centres and the correct collection of glass, using advertisements placed in major newspapers and informative material distributed to environment centres, PR offices and municipal buildings.

To support the district heating development plan, various communication materials and strategies were used. In particular, a conference focusing on the circular economy was organised in Turin, highlighting the important role of district heating in this regard.

In its relationships with its customers, Iren Group has transformed its role from mere supplier to expert in energy, innovative domestic products and e-mobility solutions, adopting a new customer relations model that is increasingly orientated towards dialogue and advice.

In its relations with customers, which evolve over time and change to adapt to different lifestyles, the Group offers a *customer experience* that is increasingly tailored to the market and carries out intensive *customer care* activities aimed at creating a direct line between customers and the Group, with the aim of planning targeted actions for different customer categories, with commercial products and communications tailored to suit their needs.

For this reason, the Group is pursuing the integration of physical and digital communication channels to guarantee a seamless customer experience that is continuous and coherent, both within and outside of company spaces, as well as via *web* and *mobile* tools, bringing products that help to simplify everyday life directly into customers' home.

In line with the previous year, in 2019 various initiatives aimed at improving the Group's communication channels were carried out.

Universal toll-free number for commercial services. In 2019 efforts were made to streamline the organisation and improve call response times, reducing waiting times by 30 seconds and achieving a service quality level (calls answered compared to calls received) of 94.3%.

The call-back mechanism was also introduced which, in the event of waiting times above a certain threshold, offers the customer the option to request a *call-back* from the operator at another time.

The improvements achieved are both quantitative, in terms of waiting times, and qualitative, with regard to customer satisfaction levels with call centres at the time of the call.

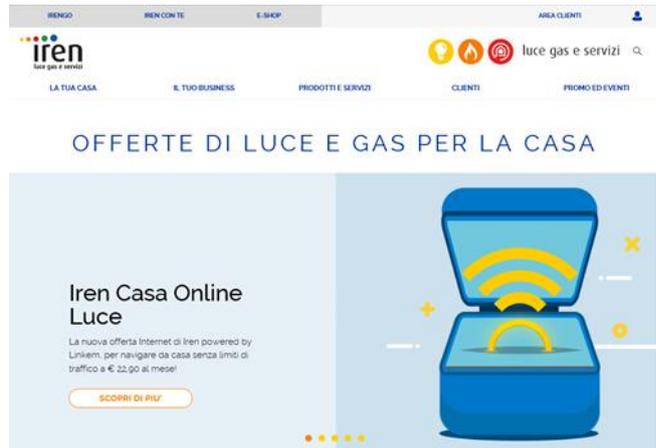
Environmental services contact centre. The Group offers a contact centre service designed to provide information to customers about waste collection and management services. In 2019 more than 467,000 phone calls and 80,846 email and website contacts were received. 87% of customers who called the service spoke to an operator, with average waiting times of around 53

seconds. Reports and service requests are automatically transferred to the local Environmental Services. The customer care service serves almost three million residents and since 2019 includes residents in municipalities in the province of Turin managed by SETA.

Integrated customer relationship management (CRM) system.

The new CRM system incorporates many communication channels, thus allowing the collection, registration and management of all information related to customer interactions within a single system. It also includes the sending of proactive multichannel communications (email, text, mail), allowing customers to receive continuous updates on the progress of procedures/requests until they have been resolved, and notifications regarding supplies.

In order to facilitate customer autonomy in managing their own contracts, the CRM system is integrated within the ClickIren portal, which displays self-care functions for obtaining information, resolving problems, sending readings and signing up to offers on the Internet and apps. In 2020 a new version of the app will be launched, with a completely new design and new features to simplify the interaction and increasingly meet customer needs.



Help desk: Iren space for customers. The plan to optimise the help desk channel continued, with the aim of guaranteeing efficiency and commercial repositioning, transforming it from a mere reception and management channel into a tool for strengthening the brand that is able to maximise opportunities for promoting products and services designed for the customer, while maintaining the objective of continuous improvement in service levels.

Thus, the help desk has evolved to become a space for advice which encourages dialogue and closeness to customers, capitalising on the human relationship as a vehicle for trust, support and specialised experience. In 2019 the Group opened a new helpdesk in Savona, the IrenGo store and a new space in Turin.

In 2019, Iren served 607,469 customers in 65 physical locations spread over the reference area and assisted customers in reading and correctly understanding bills and the impacts generated by legislation, as well as other requests.

The increase in branch visits (+4 compared to 2018) is particularly due to the intensification of the promotion and sale of New Downstream products and the caring activities aimed at developing

customer loyalty. Certain new regulations (e.g. electronic billing, new water bill calculation method) and the introduction of exact collection systems in certain provinces in the Emilia area have attracted an increasing number of customers who want specialised advice.

A network of 65 physical locations to manage requests and provide professional advice to customers

Moreover, a web desk is available with reserved areas for different types of customers to access data and carry out contractual transactions.

Help desk activity	2019	2018	2017
Help desks (no.)	65 ⁽¹⁾	73	77
Customers served (no.)	607,469	584,508	429,744
Average waiting time (min.)	12.0	13.9	17.5

⁽¹⁾ The number has reduced following the transfer of the water service in certain municipalities where help desks were located.

Direct communication channels. In 2019, communication channels were developed to promote interaction with apartment administrators, through their associations, and with consumers' Associations for requests submitted by their members.

The Group also promoted events, mainly with consumers' Associations, to discuss particularly important topics (e.g. new tariff adjustment in the water sector, the interpretation of regulations governing hidden leaks, and the new non-payment resolution).

Websites. To make the irenlucegas.it site more user-friendly, the menus and contents were revised, navigation was simplified and customers are now offered more information in a clear and orderly fashion. The *live chat* function was optimised to offer more effective assistance when searching for information or when purchasing services and products.

To achieve greater visibility on the internet, with good positioning on the main search engines, all pages of the site have been SEO optimised.

In 2019, several landing pages relating to business activities (Smart Solutions, IrenGo, Linkem partnership) were added to the Gruppoiren.it website and a special Green Bond page was launched.

Social networks. By focusing on the innovation of the customer care channels, since August 2018 Iren Group has activated a new way of interacting with customers through the "Iren Luce, Gas & Servizi" social media pages, consolidating the social media presence in 2019 on Instagram and Facebook.

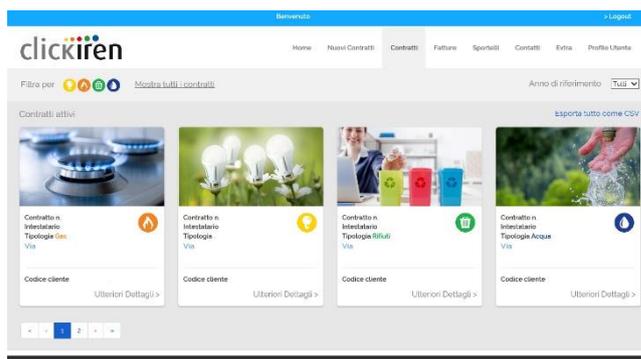
In particular, the Group uses Facebook to offer a rapid and easily accessible *customer service* and to post messages about energy and energy service while remaining attentive to aspects linked to changing legislation.

Mobile apps. Iren Group provides two mobile apps for its customers.

ClickIren offers many services and the possibility to view, in one place, all of the contractual relations in force with Group companies: electricity, gas, water, urban environmental services and district heating. ClickIren can be used to activate the digital bill service and cancel the paper copy at the same time. At the end of 2019, around 357,600 customers chose to use ClickIren (+10% compared to 2018), also with the aim of monitoring their own consumption profile, for a total of 308,700 bill views and 99,200 bill downloads per week.

Ecolren provides the public and customers with useful information relevant to environmental services and on the local Acquapubblica distributors. The app also provides a photo signalling system: photos of abandoned waste, damaged bins and other anomalous situations can be taken and sent, along with text and geographical coordinates.

IrenCollabora.it platform. This is a tool that was created within the context of the Iren Local Committees (in this regard see page 120), to establish an innovative channel of dialogue, discussion and participatory planning between Iren Group and the local community stakeholders. The platform gathers ideas, proposals, comments and observations to support and launch environmental and social sustainability projects.



COMMERCIAL ACTIVITIES

Iren Group presents its customers with a complete offer portfolio which, starting with the Group's traditional activities, incorporates new solutions and technologies to meet all energy management needs and the well-being of citizens, companies and local authorities.

The service is characterised by an efficient sales network assisting customers, consisting of a widespread network of help desks and call centres servicing families and small businesses, as well as specialists dedicated to large companies, which are also able to support energy supply with consultancy and assistance activities on tariffs and contracts. The Group also offers its customers certified clean electricity thanks to the procurement of renewable sources.

In the Environment sector, the Group operates according to transversal logic across the areas of interest, via a network that is useful for identifying and assessing business opportunities present on the market, also outside the areas of reference (tenders of national importance).



RETAIL CUSTOMERS

In the retail segment, commercial activities were aimed at developing customer loyalty and promoting development in prospective areas. In 2019, the activity conducted within the reference areas of newly acquired companies was particularly significant, with the progressive standardisation of the offer portfolio and customer services. In addition to launching new offers for the free market, in compliance with the ARERA directives the Placet offers were created.

Sales activities were consolidated via active *teleselling* channels and physical companies, with full attention on the monitoring and control of sales partners through quality calls and *confirmation calls* carried out on 100% of contractual proposals, to ensure a correct commercial approach that complies with applicable codes of conduct and company procedures and regulations.

In 2019, the web sales channel, which is available in self-navigated and chat-assisted mode, grew considerably, reaching a significant share of total contracts. Furthermore, Google advertising campaigns were accompanied by SEO (Search Engine Optimisation) with the aim of improving the positioning of the irenlucegas.it website in search engine results. At the end of 2019, the irenlucegas.it website was the top entry in search results for over 1,000 key words in the energy sector. This had a considerable impact on sales and brand awareness, with twice as many organic visits to the website. Furthermore, Iren Mercato strengthened its partnerships with the main energy price comparison sites, promoting its own offers and offering new services and commercial operations.

NEW DOWNSTREAM

In 2019, the marketing of extra-commodity products and services was consolidated with the *New Downstream* project, contributing to the Group's innovative, high-quality positioning and thus enabling the Group to achieve high sales figures. The development of the range of products continued with the aim of offering first-class solutions for the home that simplify people's lives, with a strong focus on energy efficiency, rationalisation of consumption and environmental sustainability.

The *New Downstream* products and services were offered via traditional sales channels (*teleselling* and physical companies), *e-commerce*, call centres and help desks, with dedicated spaces and a network of sales agents dedicated to products such as photovoltaic systems and boilers.

In 2019 the range of **energy efficiency, home automation and e-mobility** products offered by the Group increased, complementing its more established products.

Connectivity: the "Iren Casa On Line" offer involved various sales channels. Thanks to the Linkem supply, Iren represents a point of access for customers who wish to have a single provider for connection services and light, offering them privileged access to Linkem's *customer care* service and the opportunity to arrange modem installation at fixed times.

Live Control: a product composed of a set of four home automation devices, which can be extended on request, to remotely control the

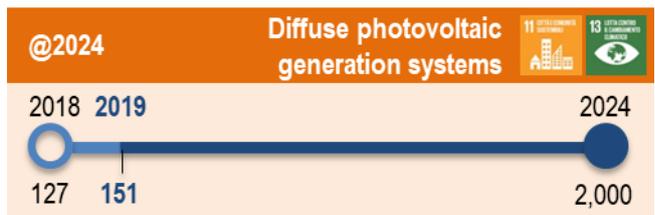
home. Thanks to a central hub that communicates with the window and door sensors, smart plugs, cameras, smoke detectors, the app enables users to control the safety of their homes in a simple and immediate manner. The remote devices and app are provided by our partner Live Protection, a major player in the home automation sector.

Una casa Smart: Thanks to a special app, customers can manage their home lighting autonomously and remotely, reducing costs due to inefficiencies and monitoring gas and water leaks. The devices, which are easily managed remotely, also enable users to monitor their homes to increase security against intrusions.

Each new product launch is underscored by an in-depth scouting phase (market research, supplier selection, logistics, definition of operating processes to ensure the traceability and transparency of each phase of the product's lifecycle) and a market test before commercialisation. This enables the distinctive elements of the offer to be defined, controls the quality of the product and any non-core services, and monitors the supplier chain from manufacturer to customer. During the *procurement* phase, qualitative and quantitative standards were applied to define supplier selection parameters, with a specific focus on the possession of environmental and product safety certifications and compliance with the main regulatory standards in the field of e-mobility. With regards to post-sales, a single assistance channel and a single network of technicians for installations, the supply of services and contractual support was chosen.

As well as launching new products, the Group has also consolidated its existing range: the Biasi boilers, the photovoltaic systems with Tecnoario solar panels, the Vitesy air filtration system (patent based on the air filtration properties of plant roots) and the Tado smart thermostat.

The *New Downstream* offers respond to the increasing need for residents to adopt sustainable behaviour in their own homes. In particular, solar panel installation offers significant results in terms of decarbonisation, in line with the objective defined by Iren Group in its development strategies.



IRENGO (E-MOBILITY)

In 2019 the Group extended its range of e-mobility products with new pedal assistance bicycles and new charging stations for electric vehicles, and began the development of a range of additional products due for completion in 2020.

The pedal assistance bicycles are produced by Gruppo Five and Armony under different commercial brands (including Italwin and Garelli).

The charging stations are built by Ensto, Circontrol and Alfen, leading European manufacturers in the sector. Furthermore, thanks to the partnership with the DOTT scooter operator, at the end of 2019 the Group launched a sharing scheme in Turin and invested in the RIDE start-up which in 2019 launched a hybrid sharing service with conventional bikes and assisted bikes in the city of Parma.

To consolidate the sustainable mobility project, renewable electricity offers have been developed that customers can combine with e-mobility products and services, such as the “Ricarica l’auto Luce Verde” [Charge car Green Light] formula.

DISTRICT HEATING

In 2019, in the metropolitan area of Turin, the commercial development of the customer base continued, both in new network extension areas (North Turin and San Salvario) and in the areas already served by the service. In the Emilia region the consolidation and increase in connected volumes continued together with the marketing campaign in Piacenza, where the first new users were served in winter 2019-2020.

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.



BUSINESS CUSTOMERS

Although the commodities market scene has been marked by extreme volatility, in 2019 Iren Group strengthened its presence in the large-scale gas and electricity customers segment through to the development of new dedicated offers and support for the promotion of “green offers” for the supply of electricity produced entirely from renewable sources that allow business customers to promote their environmental commitment.

In 2019, Iren reaffirmed its position as a leading supplier within the context of Consip for the Local Administrations of Piedmont and Val D’Aosta, offering them the possibility of obtaining both fixed and variable prices linked to the “spot” price of energy on the power exchange and, thanks to the Group’s production assets from renewable sources, giving strength and substance to its sustainability policies by purchasing “100% green” energy

certified through the use of the “Iren Verde” brand and the relative Origin Guarantee certification.

Demand-side Management

The active participation of dispatching demand, i.e. the series of end customer behaviours and interventions that aim to change consumption habits to optimise the load curve in accordance with the needs of the electricity network (**demand side management**), lie within a wider scenario of reviewing the network balancing methods that European Union member states are pushing forward in line with the European balancing code.

In 2019, tenders were launched for the forward procurement of resources for UVAM (Unità Virtuali Abilitate Miste - Virtual Mixed Enabled Units: an aggregate of consumption units, production units and accumulation systems that meet certain specific requirements, for example, being located within the same aggregation perimeter, having the withdrawal points not included in the dispatching contract of the Single Buyer, having a peripheral monitoring unit and at least an hourly meter and that are not qualified to participate in the Capacity Market), enabled according to the regulations for participation in the Dispatching Services Market, through which Terna ensures a certain amount of available capacity to provide dispatching services.

For 2019 a contingency of 1,000 MW was identified, divided into two areas: 800 MW for the North and Central-North areas and 200 MW for the South, Central-South, Sicily and Sardinia areas.

The aim of a UVAM is to bring its flexibility to the network through an aggregator. Having developed the relevant technological architecture, the Group put itself forward as UVAM aggregator for loads internal to the Group and for end customers and, thanks to the synergies between its own production plant and the flexibility offered by of Iren Mercato’s business customers, was awarded 1.2 MW of capacity for the fourth quarter of 2019.

In the **Environment sector**, the service offers are divided by customer type:

- small, medium and large producers of special waste in local areas in which the Group has storage and/or disposal plants;
- medium and large producers of special waste, located throughout the country, for which the Group operates mainly as an intermediary due to commercial agreements with third-party treatment plants.

The search for new customers is conducted using a consolidated strategy that includes constant territorial monitoring, a ranking of potential customers, a need analysis phase and then a phase in which an offer of specific services is constructed.

The small customer segment has various institutional channels for requesting occasional or continuous environmental health services. In the latter case, the Group offers scheduled withdrawals on a regular basis during the year against agreements and/or framework contracts negotiated also with the relevant trade associations.

The entire business cycle, from attracting new customers to implementing the service and sending the relative invoice, including the management of any complaints, is conducted in compliance



with the various company procedures in line with the regulations of the Quality, Environment and Safety system certifications.

In 2019, various **energy efficiency** projects were carried out for business customers: photovoltaic plants, co-generation plants and permanent monitoring systems, aimed at implementing the measures required for the energy audits envisaged by law (Italian Legislative Decree 102/2014). Energy audits are obligatory, must be carried out every four years by large or energy-intensive companies, and enable the identification of energy efficiency works to be implemented on the basis of a cost-benefit analysis.

2019 marked the development of **the e-mobility** business area which, through the IrenGo brand, enabled Iren Group to position itself in the market of these innovative services. IrenGo not only offers products and services but also a complete e-mobility advice service aimed at all target customers: consumers, businesses and local authorities.

Thanks to partnerships and agreements with leading suppliers operating on this market, IrenGo has built up an extensive network of charging infrastructure (wall boxes and columns) with various performance and power outputs, and turnkey design, installation and maintenance projects across the entire country. Furthermore, a special management platform and app are being adopted which will interface with the charging systems. Thanks to a collaboration with Arval, electric rental cars and pedal assisted bikes are also offered to various target customers, companies and local authorities and citizens. The Group has also partnered with MiMoto in the scooter-sharing service launched in Turin and extended to Genoa in 2019. IrenGo is also the brand that appears on the public charging infrastructure that the Group is installed in the major cities in which it operates and which will form an important part of the public charging station network, particularly in Turin, Genoa, Parma and La Spezia, where the infrastructure projects are currently being authorised, and in Vercelli where the charging stations have already been installed. The energy that powers the electric vehicles and charging systems is 100% certified renewable.

IrenGO is a project that is in line with the sustainability and innovation values expressed by the Group and is firmly in keeping with the New Downstream solutions.



MARKETING AND CARING CAMPAIGNS

In 2019 new communication campaigns were organised on the new e-mobility and home automation products. In particular, a television advertisement campaign was conducted and broadcast by local

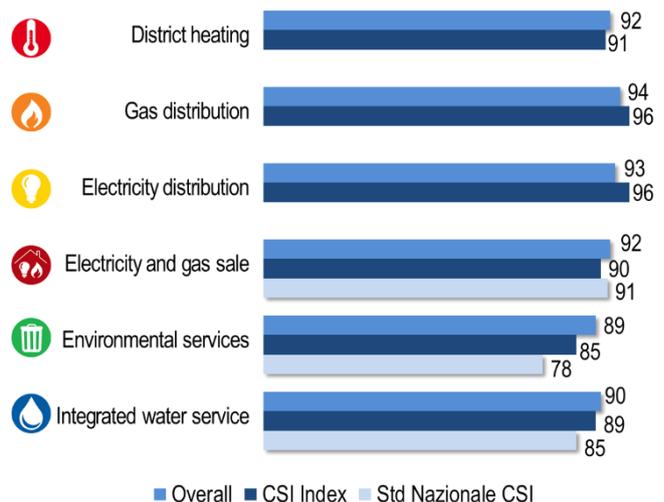
broadcasters across multiple channels in Liguria, Piedmont, Emilia Romagna and Lombardy. To promote the New Downstream range, activities at Iren retail spaces in Italy were consolidated with the creation of dedicated exhibition areas. Meanwhile, a new format for the layout of new retail spaces was designed, focusing on the sale of e-mobility and energy efficiency products, the first of which was opened in Turin in November 2019.

In 2019 the consolidation of the social media project continued, with the development of new activities aimed at *caring* initiatives, increasing the *fan base* through advertising and sponsored posts, developing customer engagement via live events and narrations, and increasing sales through product campaigns aimed at specific target markets.

Furthermore, *caring* campaigns and promotions were organised for specific services (update to digital billing and home banking, subscription to the loyalty programme and ClickIren customer area, data collection and consent). With regard to the caring campaigns, the “Solo con Iren” platform was implemented to provide direct access to the benefits reserved for certain customers (electronic giftcards, gift vouchers), also aimed at rewarding the use of digital channels and improving the customer experience. In 2019 the “Iren con Te” loyalty scheme was given a new creative concept, with the introduction of new features and the creation and implementation of a comprehensive new engagement plan.

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 department and Local Committees, 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 differences between perceived

service value and expectations in regards various technical and relational aspects, which are weighted between them;

- a synthetic overall satisfaction indicator that is monitored by directly asking the customer to highlight the overall perceived satisfaction level. Elements concerning the image and reputation of the company are crucial in this question;
- comparison of the CSI with national industry standards in the “Italian Barometer of Customer Satisfaction Index” (BICSI), the result of surveys conducted by the Cerved Group.

The 2019 survey showed extremely positive results overall, which remained substantially above the corresponding national benchmark standards.

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.

In 2019 Iren Group received a total of 29,107 complaints, of which 10,472 referred to environmental services, 14,228 to energy services (gas, electricity and district heating), and 4,407 to the integrated water service. In the energy services sector, the number of complaints increased compared to 2018, and the most frequent reasons related to billing and contracts. The number of complaints regarding the water service also increased, with the most frequent

topics relating to invoice amounts, payments, refunds, credit management, taking readings, service continuity and problems generated by technical work on plants or the network.

In environmental services the number of complaints fell sharply compared to 2018, despite the increase in the number of residents served, including with “pay-as-you-throw” systems.

With the entry into force of EU Regulation 2016/679 (GDPR), the term “complaint” must also include requests, from natural persons who are data subjects in the processing of personal data, sent to the Data Protection Authority concerning personal data protection in the event of a possible violation of the legislation on the matter. In 2019, a total of 11 complaints were submitted by external parties and recognised by the organisation, none of which regarded losses of thefts of customer data.

Iren Group did not record any breaches in 2019 in the scope of discriminatory practices against customers. Likewise, no cases of non-conformity were recorded, with relative sanctions, in regards to information, the supply of products and services, their relative safety and sponsorship activities. Following on from the appeal submitted by Iren Mercato, the decision concerning the proceedings instigated by the Competition Authority in 2016 for alleged unfair sales practices regarding the acquisition of some electricity and gas customers is still pending. Furthermore, in 2019, a competitor filed a complaint with the Civil Court regarding alleged anticompetitive practices. The case was heard and Iren Mercato lodged an appeal, which was rejected by the Court. The appellant thus brought a claim for damages against Iren Mercato. The hearing is scheduled for April 2020.

CUSTOMERS AND SERVICES

	2019	2018	2017
Retail electricity customers ⁽¹⁾	910,830	876,190	820,450
Retail gas customers	904,971	906,376	896,950
Citizens served by the district heating service	879,070	868,130	871,000
Integrated water service citizens	2,791,927	2,829,798	2,640,754
Integrated water service municipalities	242	265	242
Urban environmental services citizens ⁽²⁾	3,057,857	2,320,687	2,096,232
Urban environmental services municipalities ⁽²⁾	297	165	145

⁽¹⁾ The data for 2018 has been restated due to the exclusion of customers who are not directly managed.

⁽²⁾ The consistent variation of the 2019 data is the result of the acquisition of San Germano.

ELECTRICITY

ELECTRICITY TARIFF

Electricity tariffs consist of costs relative to the portion of energy (supply and commercialisation), network and measurement costs, general system charges and taxes. This composition is valid for all customer categories: the **free market**, the **protected market** and

safeguarded customers (customers that have not chosen a supplier and are not included in the protected market category).

In 2019, the average composition of the bill in the **protected market service** was made up 45% of energy, 19% by measurement and network costs, 23% by system charges (parafiscal component) and 13% by taxes (excise duties and VAT). On the **free market**, the difference between tariffs offered by competing suppliers is determined by procurement and sale costs



(energy), since the other cost items have to comply with the fixed national tariffs defined by ARERA and the Government. The overall cost for the fourth quarter of 2019 by customer type (3 kW meter and annual consumption of 2,700 kWh) was € 0.205/kWh (Source: ARERA).

ELECTRICITY SOCIAL BONUS

The electricity bonus was introduced by the Government and made operational by ARERA, in collaboration with Municipalities, in order to guarantee savings on electricity costs to financially burdened and/or large families. It is also provided for cases in which a serious disease entails the use of indispensable electrical medical equipment to keep them alive (physical problems). In order to access the bonus, families that fall within the income and/or social-health parameters must submit a request to their municipality. In 2019, the bonus allowed for a 30% reduction in the bill. The amounts were:

- 132 Euro for a family of 1 or 2 members;
- 161 Euro for a family of 3 or 4 members;
- 194 Euro for a family of more than 4 members.



ELECTRICITY SERVICE LEVELS

QUALITY STANDARDS FOR THE SALE OF ELECTRICITY

The commercial quality standards set out by ARERA (Resolution 413/2016 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 given percentage must be respected and for which there is no automatic compensation).

Data relevant to the individual companies are published in order to allow customers to compare the service levels offered. The data for Iren Group for 2019 shows considerable improvements compared to 2018:

Response to written complaints (days)	2019	2018	Max time (ARERA)
Average response time	16.7	25.8	30

95% of responses to written requests for information were delivered within the maximum period of 30 calendar days.

To constantly monitor its commercial quality, Iren Group considers it strategic to monitor customer satisfaction (see page 92).

QUALITY STANDARDS FOR DISTRIBUTION

Quality standards for the distribution of electricity are defined by ARERA (Res. 646/2015/R/EEL), which approved the "Amalgamated law on the output-based regulation of the electricity distribution and measurement services" for the 2016-2023 period, which governs the continuity of service and voltage quality, 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 or the environment, are reported below.

The level of **network leaks** within Iren Group is consistently below the national average. 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.

Electricity network leaks	2019	2018	2017
Iren Group	4.23%	4.17%	3.91%
National average ⁽¹⁾	6.40%	6.40%	6.50%

⁽¹⁾ Most recent data available from the GSE Energy Report dated 31 December 2018.

The **mean number of interruptions per LV customer (low voltage) (N1)** is the indicator relevant to unexpected long 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 low voltage customer, of long-lasting interruptions without notice, attributable to the distributor.

For these indicators, ARERA sets target figures in relation to the size of the area served (concentration): high concentration (municipalities with more than 50,000 residents), average concentration (municipalities with more than 5,000 residents) and low concentration (municipalities with fewer than 5,000 residents).

If the distributor delivers improvements in the indicators compared to the previous year, it receives a bonus from ARERA; otherwise it may receive a sanction and the relative fine.

Average number of outages per LV customer - N1 ⁽¹⁾	2019	2018	2017	ARERA target
Turin high-density	1.43	1.37	1.69	1.00
Parma high-density	0.98	1.80	1.04	1.00
Parma low-density	2.23	2.59	3.94	4.00
Vercelli medium-density	0.75	1.25	0.57	2.25

⁽¹⁾ 2019 figures are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2020 for the 2019 financial year.

Cumulative downtime - D1 (minutes/user) ⁽¹⁾	2019	2018	2017	ARERA target
Turin high-density	25.70	28.70	25.39	25.00
Parma high-density	23.00	34.21	17.89	25.00
Parma low-density	48.06	36.61	51.18	60.00
Vercelli medium-density	8.12	11.23	5.96	45.00

⁽¹⁾ 2019 figures are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2020 for the 2019 financial year.

Average time to arrival at the place of the call of the electricity emergency team is intended to mean the time lapse between the call made by the customer, or the alarm activation for remotely controlled plants, and the arrival of staff at the site where action is required.

Average time to arrival at the site (minutes) ⁽¹⁾	2019	2018	2017
Turin	72	68	75
Parma	70	69	74
Vercelli	60	42	40

⁽¹⁾ 2019 figures are estimated. They are subject to verification and are dependent on submission to ARERA on 31/03/2020 for the 2019 financial year.

Iren Group, in the context of credit control, 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.

ELECTRICITY DISTRIBUTION NETWORK

Iren Group manages the electricity distribution network plants in the Municipality of Parma, the City of Turin — as well as some sections of network in some municipalities in the metropolitan area, Valle Orco and Valle Dora — and the City of Vercelli.

The size of plants owned by the Group at 31 December 2019 is summarised up in the table below:

Distribution network plants	u.m.	Parma	Turin	Vercelli
HV/MV stations	no.	5	9	1
MV/MV primary substations	no.	-	21	1
MV/LV secondary substations	no.	1,173	3,203	187
HV/MV transformers	no.	13	21	2
MV/LV secondary substation transformers	no.	1,408	3,200	301
HV lines	km	-	22	11
MT Lines (overhead/ground)	km	911	2,034	194
BT Lines (overhead/ground)	km	1,618	2,621	330
Electronic meters	no.	137,983	589,562	31,496

The annual maintenance plan, on the secondary electricity distribution networks, provides for the inspection of medium voltage (MV) substations and overhead lines with different articulation for the areas of reference:

- for electricity substations, an inspection every three years for Parma, every two years for Turin and every year for Vercelli.

In 2019, 2,178 out of the total of 5,142 substations were inspected, amounting to 42%;

- for medium voltage (MV) overhead lines, a visual inspection every three years for Parma, every three months for Turin and once a year for Vercelli. The electricity network is approximately 1,381 km and, in 2019, around 16% was inspected.

The inspection plan, which was fully conducted in 2019, consists of controls of the compressed-air systems in the Turin area every quarter, the general inspection of every plant every four months, the thermographic control of active plant areas every six months, the control of electrical equipment containing oil with PCB>50 ppm every year and, also yearly, the control of the state of asbestos products.

GAS

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. The final gas price is made up of an energy and a commercial related component managed by the sales company and a component related to costs for gas transport into national and local distribution networks. The latter cover the costs of the national transporter and of the company that manages the local network. To these domestic taxes, additional regional taxes, as well as VAT, are added.

GAS SOCIAL BONUS

According to criteria and procedures laid out by ARERA, many families are eligible to receive a contribution mitigate the costs linked to gas use.. Access to the bonus is generated from a request submitted by the customer to the Municipality of residence, certifying their condition of financial difficulty. Subsequent to a positive assessment by the municipality, the distributor is notified, which credits the seller with a determined amount that the seller will pay to the end customer. The gas bonus is provided for financially burdened families (identified according to the EESI indicator) and applies only to methane gas distributed to the network for home-of-residence consumption and not cylinder gas or LPG.

GAS SERVICE LEVELS

QUALITY STANDARDS FOR THE SALE OF ELECTRICITY

As for electricity, the quality standards for the sale of gas set out by ARERA (Resolution 413/2016 Amalgamated Law on the Quality of Sales Services - TIQV) require the seller to comply with specific and general standards when performing certain customer services. The data for Iren Group for 2019 reaffirms the positive trend:

Response to written complaints (days)	2019	2018	Max time (ARERA)
Average response time	20.0	28.7	30



QUALITY STANDARDS FOR 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 transportation through local gas pipeline networks for delivery to end users. A gas distribution system is typically composed of:

- points of interconnection (RE.MI substations) with the national or regional network of transmission pipelines, through which the distribution network is powered, where delivery, filtration, preheating, pressure regulation, measurement and the addition of gas odourants are carried out;
- the gas distribution network;
- user connection plants for the delivery of gas to the end users and measurement via meters.

Gas distribution is carried out by Iren 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 is guaranteed via remote control systems, 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.

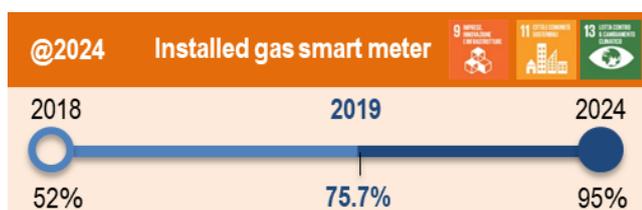
The gas distribution network of Iren Group is made up of:

- in Genoa, a single plant powered by 7 RE.MI. substations;
- in the Emilia Romagna area, by several plants, each one powered by one or more RE.MI. substations;
- in the Vercelli area, by a single interconnected plant, powered by 2 RE.MI substations, which also includes serves municipalities outside of the province.

In 2019 an area of the municipality of Caresanablot, in the province of Vercelli, was gasified.

The Group is also 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.

Gas meters installed (no.)	2019	2018	2017
Total gas meters	809,899	807,479	808,521
- of which electronic	613,303	476,869	261,191
% electronic meters	75.7%	59.0%	32.3%



Iren Group also manages the LPG distribution and sales service. Distribution is provided through 21 plants: 14 located in various mountain municipalities of the Province of Reggio Emilia and 7 located in three municipalities in the province of Genoa. The suppliers deliver pre-odourised LPG in tanks, and the Group distributes it to customers at a pressure of 30 mbar. Safety is ensured by means of remote control of the plants.

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)	2019	2018	Max time (ARERA)
Cost estimate for simple jobs	9.9	7.7	15
Cost estimate for complex jobs	10.4	12.5	30
Execution of simple jobs	6.5	6.2	10
Activating supply	5.4	3.7	10
Deactivating supply	4.4	3.0	5
Reactivation following on from deactivation due to non-payment	2.3	1.1	2 working days

SERVICE OUTAGES AND LEAKS ON THE GAS NETWORK

Gas interruptions occur mainly during network renovation works when the user connections are switched from old to new pipelines. The Group intervenes, whenever possible and to an ever-greater extent, using a device that allows switching without interrupting the gas supply.

Service interruptions are divided into **scheduled outages**, if works are planned and the customer can be informed promptly of the interruption, and **unscheduled outages**, that is, those that cannot be communicated at least one day beforehand to all customers.

Scheduled outages are limited, using systems which enable works to be implemented without suspending gas flow.

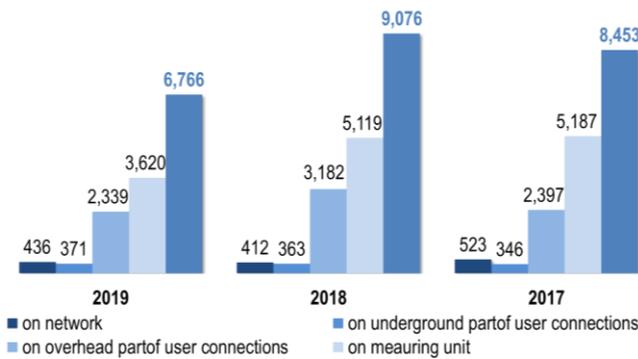
Gas outages (no.)	2019	2018	2017
Unscheduled outages	1,266	990	1,486
Scheduled outages	1,376	1,652	1,531
TOTAL	2,642	2,642	3,017

In compliance with the ARERA provisions, the main initiatives to reduce gas network leaks envisage the gradual application of cathodic protection of the unprotected steel network and the replacement of the cast iron pipelines with hemp and lead joints.

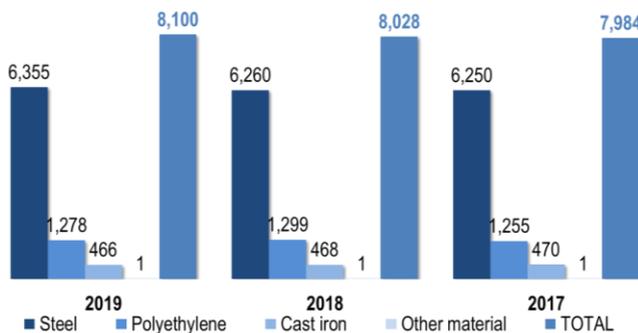
In 2019, in addition to the search for leaks on the underground network imposed by ARERA, the systematic search for leaks was extended to the measurement groups in the Emilia Romagna area, in line with the monitoring already in place in Liguria.

In reference to gas leaks, the table below highlights the consistent reduction in gas leaks compared to 2018 and that in 2019 numerically significant gas leaks came from the group of measurement.

NETWORK LEAKS (NO.)



GAS NETWORK COMPOSITION (km)



The project to replace the gas network with new steel and polyethylene pipes also continued in 2019.

Gas network replaced (km)	2019	2018	2017
Steel	16	16	19
Polyethylene	0	0	0
Cast iron	4	3	5
TOTAL	20	19	24

SAFETY OF THE GAS NETWORK

Network inspection, an effective emergency service and an adequate concentration of odourant are fundamentally important elements in the proper operation of a gas distribution system, together with a continuous modernisation of the network. ARERA establishes the safety service obligations, including network inspections. In 2019, Iren Group inspected 7,170 of the 8,099 km of the gas network managed. The scheduled inspection has also led to a greater control of leaks.

Gas network inspected	2019	2018	ARERA requirement
Low pressure network	84%	78%	at least 25%
Medium and high pressure network	95%	84%	at least 33%
Total network inspected	88%	81%	

In 2019 88% of the gas networks were inspected: more than twice the level requested by ARERA

ARERA also sets minimum levels of odourants for service safety and the protection of people and things. In 2019, Iren Group fed over 45 mg of odourants (tetrahydrothiophene) into the network for every cubic metre of gas distributed, a higher amount than that established by ARERA (32 mg/m³), which means that its presence in the air can be noticed easier and any gas leaks identified quickly.

The Emergency Service is essential to ensuring the safety of citizens and sites. The Group's performance in this context are significantly above the parameters established by ARERA.

Emergency service	2019	2018	ARERA requirement
Average arrival time at the site of the call (min)	26.8-35.0	27.7-38.0	60
Compliance with average arrival time at the site of the call	97.6%	96.0%	90.0%

In 2019 the Gas Emergency Service handled 9,632 calls, with an average arrival time at the call site that varied within the indicated range, depending on the regions served.



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 the district heating and district cooling commercial quality regulation (Res. 661/2018), which is valid until the end of 2021, in view of which the Group has adapted its technical and administrative procedures and has updated its District Heating Service Charter, available to view on the irenlucegas.it website along with the relative information pages. The Service Charter constitutes the commitment to satisfy customer needs and to guarantee the reliability of the service, safety when using the service, and fairness and equity in contractual relations. The parameters contained in it allow for an objective assessments of compliance with the guaranteed standards. Iren Group constantly monitors the quality and efficiency levels of its services with the aim of adapting strategic choices to the expectations of its customers, within a logic of continuous improvement (see page 92).



DISTRICT HEATING TARIFFS

District heating tariffs are not currently governed by national regulations and are historically constituted by the principle of “avoided gas cost”, i.e. the cost that the customer would have paid using natural gas (expressed in Euro/m³). The tariffs are, therefore, related to the final cost of natural gas, which is updated depending on the regulations of ARERA, as regards the gas tariffs of the retail market, and the Government in regard to taxes and VAT.

NETWORK SUBJECT TO INSPECTION

The district heating network managed by Iren Group, in the municipalities of Turin, Nichelino, Grugliasco, Collegno, Rivoli, Genoa, Reggio Emilia, Piacenza and Parma, extends for almost 1,041 km and, in 2019, 947 km were inspected, representing around 91% of the total.

INTEGRATED WATER SERVICE

INTEGRATED WATER SERVICE TARIFF

The organisation of the Integrated Water Service in A.T.O.s (water and waste regulation areas) has led to new rules for setting tariffs, which must completely cover investment and operating costs. The tariffs are approved by ARERA and calculated for 2016-2019 (Resolution no. 664/2015/R/IDR). In general, the water service tariff consists of one **fixed component** of service, due irrespective of consumption, and a **variable component**, based on the consumption of water and waste water treatment services. To discourage waste, the tariff is divided into bands and increases as consumption rises. The types of use vary from area to area (for example: domestic resident, domestic non-resident, zootechnics, commercial, industrial, craft, other, non-drinking, temporary, building sites, agricultural and oil mills). The table below provides the average tariffs, defined by the Regulatory Authority, concerning the areas where the Group manages the entire integrated water service (the distribution of drinking water, sewerage and treatment).

Average tariff for IWS (Euro/m ³) ⁽¹⁾	2019
Province of Asti ⁽²⁾	2.55
Province of Cuneo ⁽³⁾	1.77 - 1.79
Province of Genoa	2.19
Province of La Spezia ⁽³⁾	2.09
Province of Parma ⁽³⁾	1.46 - 2.28
Province of Piacenza ⁽³⁾	1.71- 2.22
Province of Reggio Emilia	2.04
Province of Vercelli ⁽³⁾	0.48-1.73

⁽¹⁾ The average tariff is calculated by adding the basic domestic use tariff for the water service, the sewerage tariff and the treatment tariff.

⁽²⁾ The figure refers to the tariff applied to the Municipalities of Canelli and Nizza Monferrato.

⁽³⁾ Minimum and maximum values of the different tariffs in place across the country.

Iren Group only partly manages the areas served in the provinces of Savona, Imperia and Mantua, with activities mainly concerning the water service.

SOCIAL FUNDS FOR WATER

In 2018, with Resolution 897/2017 ARERA has introduced the social water bonus for customers in financial difficulty. A specific tariff component (IU3) of 0.005 Euro/cubic meter sold was introduced for 2019 to cover the cost of these products. Residents with an EESI indicator of less than 8,107.5 Euro (or less than 20,000 Euro if there are more than three dependent children) and other specific categories are entitled to claim the bonus. . The bonus covers the consumption of 50 litres of drinking water per person per day. The Regional Governing Bodies may add an additional bonus, financed by the tariff of the Area itself and disbursed according to modalities established by said Body. In Emilia, ATERSIR (Regional Agency of Emilia Romagna for Water and Waste Services) approved a social fund for families in situations of economic hardship. For 2019, the amount for Parma was 240,000 Euro, 160,000 Euro for the province of Piacenza and 350,000 Euro for the province of Reggio Emilia. An annual social fund was established in Genoa, resolved by the Mayors’ Assembly, and distributed by the Municipalities to families suffering economic hardship: the amount of 800,000 Euro was confirmed for 2019. In the municipality of Asti, the Regional Authorities set aside 12,053 for the fund.

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 2019 the data for 2018 was 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 94).

WATER QUALITY

Water quality control consists of analysing the main parameters laid down by Italian Legislative Decree 31/2001 at the various sampling points established by the Organisation responsible for the control (LHU) along the distribution network and at the outlet of the large purification plants. If the water withdrawn contains levels of harmful substances that exceed the limits specified by legislation, it will be subject to treatment prior to distribution.

The treatments most frequently used for deep water are normally designed to remove iron, manganese and ammonia, elements naturally present in the groundwater captured.

The quality of the water is guaranteed by a control on the entire water process: from water sources to the treatment, filtration and purification processes and the distribution network, up to actual delivery to customers. The samples taken are analysed at Iren Group Laboratories to determine their chemical and microbiological characteristics. In the treatment sector, analytical tests are carried out on the waste water 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 tests exceed the minimum number required by law and the protocols stipulated with ATO, ARPA and Provincial Authorities.

Controls on drinking water and wastewater (no.) ⁽¹⁾	2019		2018		2017	
	Samples	Parameters	Samples	Parameters	Samples	Parameters
Emilia Romagna	36,159	426,542	36,325	424,060	37,006	405,545
Piedmont/Valle D'Aosta	5,199	64,046	5,132	66,615	5,161	71,153
Liguria	14,216	279,693	12,883	275,437	13,474	236,652
Lombardy ⁽²⁾	485	7,925	994	21,078	953	21,064
TOTAL	56,059	778,206	55,516	791,662	56,758	738,440

⁽¹⁾ In 2019 the regions of Aosta, Alessandria, Novara, Brescia, Pavia and Verona, which are no longer served by the Group, were not included.

⁽²⁾ The figure regards the Province of Mantua and samples and parameters conducted on drinking water only, as the Group does not manage the waste water service.

Over 56,000 samples and 778,000 parameters analysed on drinking and waste water to ensure residents' safety



WATER DISTRIBUTION

Following the necessary tests to establish compliance with the requirements of drinking water, the water withdrawn at various sources is fed into the distribution network that reaches all points of use. Control, extension and maintenance activities are carried out on the networks with a view to minimising inconvenience 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.

In 2019, 807 planned interruptions in managed areas were conducted, indicating water supply suspensions that are necessary to perform previously planned works.

In these cases, notices about the length of the interruptions are disseminated via the press or local television channels, as they affect a significant part of the population. In other cases, notices are posted in the areas concerned to inform the public of the interruption date. For emergency interventions, e.g. to repair a burst pipe, all of the necessary measures are taken in order to restore the water supply in the shortest possible time, in accordance with the provisions of the laws in force. In 2019, a total of 7,950 network

breaks occurred, with repairs carried out after reports were received and the leaks detected. The mean arrival time at the place of the emergency call for Iren Group is 119.7 minutes. In 2019, about 2,486 km were controlled on a water network of 19,263 km, equal to 13%.

ENVIRONMENTAL SERVICES

TARIFF SYSTEM

The TARI tax consists of a **fixed part**, determined by costs of sweeping, general costs, part of the personnel costs and other essential components of the cost of service, referring in particular to depreciation and administration costs, and of a **variable part**, proportionate to the quantity of waste delivered, to the service supplied and the entity of management costs.

The TARI is applied to utilities, taking account of the surface area occupied and partly, for domestic utilities, accounting for 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.

In 2019 the Group issued the TARI in the name of and on behalf of some Municipalities served, applying the regulatory provisions in force to the utilities, including those relevant to any reductions or favourable conditions/social exemptions, if expressly approved by the individual Municipalities.

The average tariff for waste collection and environmental health services in La Spezia, Parma, Piacenza, Reggio Emilia, Turin and Vercelli is in line with previous years.

The table below provides the average TARI for 2019 for the main municipalities served.



Year 2019		Average TARI by provincial capital			
Type of domestic users	La Spezia	Parma	Piacenza	Reggio Emilia	Turin
	Euro/year	Euro/year	Euro/year	Euro/year	Euro/year
1 member families	173.48	131.03	123.79	176.58	132.25
2 member families	224.58	212.70	218.46	268.02	243.99
3 member families	239.37	244.59	271.00	345.46	291.47
4 member families	252.30	284.99	299.74	395.18	322.47
5 member families	265.24	333.32	359.15	446.60	376.10
≥ 6 member families	276.02	378.44	404.80	468.36	424.14



ENERGY EFFICIENCY

Iren Group carries out management and maintenance of heating, air conditioning and general technology plants and currently manages over 1,500 facilities in private apartment buildings, public buildings, sports centres, hospitals, shopping centres and the tertiary sector sites. The Group provides energy services to civil and industrial entities aimed at maximising efficiency and rationalising consumption with maximum environmental comfort. For this purpose the Group uses an advanced remote control

system that provides continuous supervision and monitoring of all functional plant parameters. For plants managed for third parties, Iren Group carried out various technical interventions aimed at the containment of costs. This also included the redevelopment of thermal power stations with the installation of condensing boilers (savings of 10% to 30% depending on the age of the previous plant) and the installation of thermostatic valves and heat allocators in centralised systems (savings from 10% to 20% compared to the previous situation).

TELECOMMUNICATIONS

In 2019, trials into data collection from IoT (Internet of Things) sensors across the country continued and a LoraWan test network was installed in the area of Turin, designed to collect data on smart parking and environmental sensors.

Furthermore, tests into the use of smart sensors installed on the Group's gas networks and to acquire water meter data are in progress, while activities to launch new FTTH (Fiber to the Home) and FTTC (Fiber to the Cabinet) connection services were continued, aimed at increasing the range of products offered to customers and the companies of Iren Group.



FOCUS ON COMMUNITIES AND THE LOCAL AREAS

The importance of local communities to Iren Group is evident in the Business Plan to 2024, which reserves a significant part of its investments for local development in the provinces in which it operates, generating an important wave of growth for the local economies, with positive social, economic and environmental impacts. Furthermore, over 60% of the investments envisaged in the Plan are for sustainability initiatives.

IREN LOCAL COMMITTEES

The Local Committees play a part in the Group strategies aimed at generating positive impacts for the local area. These are bodies which have been established to strengthen relationships with the local areas, analyse them and anticipate needs, encourage innovative environmental and social initiatives, increase widespread awareness of strategies and services offered, guaranteeing broad representation of the various realities of civil society and engaging Iren Group top management in dialogue with its stakeholders. The Committees are also a mean of collecting

ideas and proposals of citizens via the Irencollabora.it platform, the first national participatory planning system in Italy, in order to plan 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.

The Committees are made up of 15-18 members, the representatives of Local Bodies and Associations, who offer voluntary and free participation. In addition to the above, there are 5 ex-officio members: a representative of the Municipal capital, a representative of the provincial Municipalities, a representative of the local University, Iren Chairperson and Deputy Chairperson.

Working groups are established within each Committee to follow the activities to guarantee the best implementation of the projects proposed by the same members of the Committees or by citizens via Irencollabora.it.

In 2019, 21 projects regarding environmental, social and educational issues were incubated by the Committees of Piacenza, Parma, Reggio Emilia, Turin and Genoa. Two of these were carried out during the year, while the others are currently being developed. Currently, the Local Committees have implemented 41 projects that can be viewed at www.irencollabora.it.

PROJECTS CREATED IN 2019

Project (implementer)	Local Committee	Description
Protected accompanying service (Auser Genova)	Genoa	Purchase and fitting of an electric vehicle to offer a free accompanying service to people who are not able to move independently, in order to enable them to attend social and health facilities and centres, as well as maintain an acceptable level of socialisation and inclusion for people who would otherwise be forced to endure loneliness and isolation. The service combines environmental and social sustainability.
La Tribù (Bet She Can Foundation)	Piacenza	Empowerment of 20 girls between the ages of 8 and 10 to develop awareness of themselves and their potential, and to raise awareness among families, institutions and communities. The project develops in 12 stages with laboratories, workshops, local exploration, interactions with the community, meetings and testimonials from women with innovative professional or personal paths in settings that are commonly considered to be "male". The project earned a special mention in the GED - Gender Equality and Diversity category at the Er.Si Responsible Innovators Award of the Emilia Romagna Region.
Dilemma Project (Cibobertutti – Kuminda Network)	Parma	A training project aimed at children over 14, based on a game to encourage reflection about the relationship between competition and cooperation, both at a personal and social level, and to promote learning about social, environmental and economic topics thanks to meetings with regional organisations and networks. The topics in the game are in line with the UN's 2030 sustainable development goals. To promote the project, 30 tutors were trained and 215 students were involved in the pilot project. The project will be offered at high schools in Parma in collaboration with Edulren in 2020.
#conosceregestireilterritorio. The UNESCO MAB Reserves: platform for the sustainable development of communities (Engim Piemonte).	Turin	Initiatives were carried out to raise awareness and encourage the development of knowledge of residents in the area of MaBCollinaPo (Turin) about the value of the landscape, regional and ecological heritage of the local area: these actions included training courses aimed at the managers and employees of hospitality facilities in the area (involving 110 participants), four tours of the area and communication activities (brochures, website and Facebook page).
Chiomonte S.M.A.R.T. Regional home automations service (Municipality of Chiomonte - Chiomonte Imprend'Oc Association)	Turin	The project aims to ensure the effective and responsible management of cultural and environmental heritage, encourage the development of tourism and improve the quality of life in the area. After the creation of a GIS (Geographic Information System) to explore urban planning and management scenarios and validate the technical and economic feasibility of the most significant initiatives, the platform was integrated to make data available for four transformation scenarios: redevelopment and recovery of property, agricultural redevelopment and recovery of viticulture, sustainable energy and climate action plan, and integrated tourism development plan.



Project (implementer)	Local Committee	Description
L'Ultimo Diogene [The Last Diogenes] (Chiara Comunicazione)	Parma	Creation of a docufilm about Enzo "Màt" Sicuri, an eccentric figure who lived "beneath the stars" from the 1950s to the 1980s, collecting and recycling paper and other materials before the service even existed. The docufilm was also distributed through educational workshops, with the aim of stimulating reflection and collecting suggestions for sustainable lifestyles and consumption, energy use, transport, and separated waste collection. 500 primary and secondary school students participated in the workshops. The docufilm was screened at Cinema Astra to an audience of 900 people, and was selected to participate at various film conventions and festivals across Italy.
Uscire dalla povertà. Con dignità, con l'aiuto di tutti [Escaping poverty with dignity, with the help of us all] (Emporio Solidale Dora)	Reggio Emilia	Combating new forms of poverty through the provision of services and food products, expanding the range of fresh products at Emporio Dora food bank, helping to reduce commercial and corporate fresh food waste. The project has led to the creation of a network with other local businesses, enabling other food banks to donate any excess stock and redistributing fresh products to Caritas in Reggio Emilia and the other social organisations it collaborates with. In 2019, 249 people and 65 families were helped.
Circular economy education (Geona agri-food centre)	Genoa	The launch of a project to educate young children about the circular economy, with active demonstrations provided through a learning programme at Agri-Food Centre in Genoa which is followed up in primary schools, showing how unsold fruit and vegetables (the "waste") can be transformed in bioplastic. In 2019 the Fruit and Vegetable Market in Genoa celebrated its tenth year in the new Valpolcevera site with the open day "lanuensis ergo mercator - La città si ritrova al Mercato" [The City meets at the Market]. To mark the event the market was opened to adults and children, who were given the opportunity to learn about the circular economy and how unsold fruit and vegetables can be turned in bioplastic.
Chamber music with a view (Amici del Quartetto)	Reggio Emilia	Sharing the great repertoire of classical music through songs played by string quartet in sites of cultural and natural interest and promoting the cultural value of the region to international audiences via the internet. The "Variations on the theme of water" initiative/concert offers ideas on how to conduct environmental campaigns through music, thanks to the distribution to participants of a "Semi-serious glossary on water and music" in the form of a concert programme.
2008-2019 Resilience and the need for change (Consorzio 45)	Reggio Emilia	An initiative aimed at B-type social cooperatives with the aim of producing, through a shared and participatory process, a scenario analysis, conducting four workshops with guidelines to help orient the decisions that the individual cooperatives will need to take in the next few years, safeguarding the social and productive value of this type of company.
RicibiAMO 2.0 (Piace Cibo Sano) [Healthy Food is Good]	Parma Piacenza	RicibiAMO connects 60 restaurants in Parma and Piacenza that participate in the development of best practices to combat food waste at the point of purchase, storage, preparation, serving and consumption. In 2019, RicibiAMO 2.0 extended the number of restaurants that make up the network to 87, rewarding the use of "family bags" to encourage diners to take any leftover food home with them. The network also held the "Best Recipe RicibiAMO" competition for the second year and took part in the regional sustainable restaurant certification programme, the Mantua Food Festival and the Piacenza Gola Gola Festival.

PROJECTS IN DEVELOPMENT IN 2019

eXnovo fragole - frutti del lavoro dal carcere di Piacenza [the new strawberry: fruits of labour of Piacenza prison] (implementer: Piacenza Botanical Garden). A two-year social and sustainable agricultural programme aimed at growing strawberries at Piacenza prison. The project offers work opportunities, to prisoners nearing release, in order to help them learn a trade, obtain a source of income, find support through a social and moral rehabilitation programme, and learn about lawfulness and responsibility through work.

Un Chiosco per Orti Generali [A kiosk for general gardens] (implementer: Associazione Coefficiente Clorofilla). Created as part of the AmbientAzioni competition in Turin in 2019, the project aims to promote energy and architectural recovery for use in social and cultural initiatives of the municipal farmhouse in Parco Piemonte in the Mirafiori Sud district, creating a shared space to enhance the learning of volunteers and underprivileged people, and raise general awareness about sustainable development. The project is

a valid example of collaboration between associations, institutions and citizens to protect and improve shared assets.

Arcipelago Torino (implementer: Associazione Culturale Faust). A regional marketing project shared across three pilot districts in the city of Turin (Borgo Vittoria, Barca Bertollo and Aurora) which aims to reinforce the identity and relations with the local area, analyse and anticipate needs, and stimulate innovative environmental and social initiatives through data interpretation and social data management (identification of dynamics at work and their possible developments, acquisition of statistical data for mapped topics, comparison between residents' perceptions and the actual situation based on the data), to enable the City of Turin to produce a planning proposal.

Participation and creativity for community welfare (implementer: ACER Reggio Emilia). Aimed at the residents of the two ACER village in Reggio Emilia, the project represents a strategic tool to implement the redevelopment of publicly funded housing areas, not only in terms of urban development and construction but also to pursue better social quality thanks to

integration activities and caring for communal spaces. The events with teenagers and their families aim to explore topics such as: waste and separated waste collection, good civil cohabitation practices, the exchange or reuse of goods, and the domestic economy.



Theatre workshop – education (implementer: Associazione Ermo Colle di Parma). A two-year course aimed at young people in “vulnerable” situations under the care of social services, aimed at teaching active citizenship with a view to promoting social and cultural integration based on “working together”, delivered through the medium of theatre. The theatre workshops focus on topics that enable cultural and, more importantly, civil growth among young people (interculturalism, gender, equal relations, lawfulness, the environment).

La manna dal cielo [Manna from Heaven] (implementer: G. Raineri Institute, Piacenza). Selected by the AmbientAzioni competition in Piacenza, the project aims to recover rainwater from roofs to feed the irrigation systems of the G. Raineri Institute farm. The project was further developed in 2019 and combines circular economy reasoning with the social dimension of training and involvement of students and teachers. The expertise and techniques applied by the Institute will be disseminated and made available to local farms.

TooRNA® per famiglie a basso impatto [TooRNA® for low impact households] (implementer: Associazione tRiciclo Bimbi a Basso Impatto). A recreational and practical information and learning programme aimed at improving the lifestyles of parents and children, with particular attention on saving resources, environmental and social sustainability, health and family welfare. Through a communications campaign and the organisation of micro-events for parents and children, the project aims to promote good practices of use, saving, self-production and critical consumption.

Pensa che Mensa [What a canteen] (implementer: Slowfood Piacenza). The school canteen represents an important learning opportunity for topics such as good, sustainable and conscious consumption and the fight against food waste. With this in mind, a map of the school canteens in the province of Piacenza has been drawn up, aimed at establishing guidelines to assess sustainability criteria critical areas and areas for improvement. The map forms the basis of a “Vademecum per la mensa buona e giusta” [handbook for a good and fair canteen] which will be created in 2020 to those involved in school catering.

Il Sentiero dei Ducati. Camminando nella natura lungo la valle dell’Enza [Path of the Dukes: Nature walk in the Enza valley]

(implementer: CAI Reggio Emilia). An initiative to relaunch the Sentiero dei Ducati, aiming to transform it into a tool to promote sustainable development in the regions it crosses and helping to promote it at local, national and international level. The project aims to update the waymarking and maintenance of the site, integrate the Sentiero dei Ducati into the context of Italy’s historical and natural hikes of regional interest, and create a dedicated website complete with maps and digital guides.

Volo con te [I fly with you] (implementer: Bet She Can Foundation). The implementation in Turin of the “Volo con te” book project, offering a journey of self-awareness and self-discovery and stimulating discussions about labels and stereotypes aimed at 7-11 year olds. The story is about a quest to find a friend, exploring the concepts of friendship, beauty and the value of diversity, and showing how experiences and debate can remove “labels” and lead to the discovery of who someone really is and who they want to become. The programme is delivered through 10 educational workshops in communal spaces in Turin.



CertOSA in verde #coltiviamoci il futuro (implementer: Chanceeventi-Suggenova). As part of the “CertOSA Quartiere Condiviso” project, a series of workshops, educational activities and opportunities to share experiences has been launched for the citizens of Genoa and new residents from different countries of origin, aimed at promoting socialisation and good behavioural practices. The educational courses focus on the circular ecology and aim to establish an intergenerational and intercultural pact to promote a sustainable future.

Ciclo-riciclo. Uno strumento per amico [Recycling-cycle. A tool for life] (implementer: MUS-E, Reggio Emilia). The three-year project is aimed at primary schools with a high percentage of students from different countries and cultures and, more generally, socially challenging situations; it is also aimed at children with disabilities who, through art, learn to communicate through the universal language of music, where differences become strengths. The project involves the Banda Rulli Frulli musical group for the creation of musical instruments out of recycled material.

RileggiAmo (implementer: “San Lazzaro Alberoni” Primary School in Piacenza). Exchanging recycled materials (plastic and aluminium) for books helps to raise awareness on how any repeated act, constantly repeated, can improve the environment and quality of life. School pupils collect the recyclable materials at home and take them into school, where they receive an “environmental courtesy voucher” which entitles them to take a book, plant or seed bomb to sow flowers in the local area.



Green Generation (implementer: Human Sciences College - Polo Mattei di Fiorenzuola). Teachers and students of class 2A at the Human Sciences College have produced a calendar out of recycled paper covering energy saving topics, with photographs illustrating green behaviour to promote or non-green behaviour to combat. The project beneficiaries are mainly the students and their families which will be encouraged to make small changes to their everyday lives to become true pioneers of a Green Revolution; associations and bodies will support the project by distributing the calendar, promoting green awareness throughout the community.

Genova Cultura restaura [Genova Cultura restores] (implementer: Genova Cultura). The project aims to raise awareness about the restoration and enhancement of Genoa's artistic heritage through the conservative restoration of the marble Boccadasse Foundation, with particular attention on the restoring the functionality of the site and enhancing and protecting the water resources in a context of deep historical and cultural significance. The restoration works will be complemented by a communication campaign about the water cycle.



Un "ponte" tra Genova e l'Africa Sub Sahariana [A bridge between Genoa and Sub-Saharan Africa] (implementer: ConsorzioSPeRA). The project takes the form of a creative workshop which forms a bridge between Genoa and Sub-Saharan Africa based on cultural, social and gastronomical/food exchange between twinned schools in Africa and Genoa. Images, messages and the use of social media drive the narration of the food and cultural habits of the Italian and African students, creating a diagram which shows the typical day of a student in each country expressed through food.

Celocelo Food (implementer: San Salvario Local Development Agency - Non-Profit Organisation Celocelo Food is piloting a system to collect excess food through the celocelo.it digital platform, enabling the streamlined and efficient collection and redistribution of fresh and dry food donated by small businesses in the food sector. The food is redistributed through a broad and flexible network of non-profit organisations that provide support to those experiencing financial hardship: soup kitchens, night shelters, accommodation providers, etc. The project aims to raise awareness about food waste with the social objective of supporting more vulnerable parts of society.

Fatti i fatti tuoi - Rendi l'ambiente digitale più sostenibile [Get your own facts: make the digital environment more sustainable]

(implementer: Fact Checkers di Genova). An educational project that aims to familiarise young people with the principles of digital fact checking and analysing content accuracy. The project is delivered through a workshop aimed at eighth-grade students held at school, which uses an interactive guide to introduce students to digital fact checking and a series of other free tools available online.

Via Ferro Multi-purpose Centre (implementer: S. Egidio Community, Genoa). The Community of S. Egidio has been given a building by the Municipality of Genoa, which is to be used for activities that support the more vulnerable sections of the population (specifically, people in financial difficulty), such as soup kitchens, and the collection, storage and distribution of blankets, jackets and shoes. The project involves a partnership to carry out the structural works necessary to expand the services offered and launch new initiatives at the Multi-purpose Centre.

Villa Ronco City Garden (implementer: Arci Genova). The project aims to redevelop the Gardens of Villa Ronco in Genoa through the creation of an educational city garden, thanks to plots of land being placed in the care of citizens, and establish collaborations with the surrounding schools, the Central-West Family Service Centre and the services (nursery and daycare centre) present at Villa Ronco in order to design educational pathways and meetings for exchange and socialisation between young people, the elderly and the neighbourhood. The aim is to create a network that actively cares for and uses the Villa Ronco gardens, which are now barely used, thus ensuring that the space is maintained, the land is cultivated, and social activities, the promotion of "good practices" and sustainability education are nurtured.

Signs for children for the historical aqueduct in Genoa (implementer: Luzzati Foundation). The project aims to enhance Genoa's ancient aqueduct through a participatory planning process that sees children as the protagonists. The project aims to devise and create an itinerary suitable for children with signs, designed in collaboration with the Faculty of Architecture of the University of Genoa, made up of explanatory panels and game panels that can be used along the path. In 2019 panels were made by primary school children (drawings of points of interest, plants and wildlife), secondary school children designed the logo and texts, and students from the Department of Architecture and Design at Genoa University submitted graphic projects, of which three were selected and used. The route is due for completion in Spring 2020.

C = Come Borgo Campidoglio [C stands for Campidoglio Village] (implementer: S.&T. Cooperative Society). The project aims to relaunch the Borgo Vecchio Campidoglio – a historic area of Turin – by actively involving different local companies to promote craftsmanship, enhance its history and, consequently, enhance the entire hamlet. The courses of action up to 2020 envisage the creation of a communication campaign and the design of a participatory marketing plan. In 2019, the events identified during participatory planning meetings were organised: two days in which local residents were able to take part, free of charge, in creative workshops and numerous events, and a photography project where the human side of the district is shown through the stories of ten local residents, shopkeepers and craftsman.

Restoration of the Fornace Vecchia Forest. (implementer: Municipality of Podenzano). The forest is of particular natural interest due to its vicinity to the Nure stream (province of Piacenza) and the presence of rare and/or protected species, such as indigenous orchids and oaks in the dominant tree layer. The proposed intervention is to protect the wooded areas, pastures and dry bushes, restore the forests, paths, roads and recover the buildings in the area for educational and museum use. The recovered area will be made available to all residents and schools who would like to take advantage of its places and spend a few hours within a natural river area. A pedestrian and cycling path will connect Podenzano with the natural area, which has already been partly built. In 2019 Iren granted a free loan to enable the works to commence.

OTHER INITIATIVES OF LOCAL COMMITTEES

AmbientAzioni competition. There were two AmbientAzioni competitions held in 2019: Piacenza and Turin.

The competition in Piacenza, which ends in March 2020, is aimed at all local residents and students, while the Turin competition, which is being held for the first time, is aimed at young people aged between 18 and 26. In both regions the competition was aimed at designing instruments, actions and initiatives for saving water and

energy resources, reducing waste production, reducing CO2 in regards mobility and the mitigation of the climate change to which the area is exposed.

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 2019 the Iren Local Committees held meetings and events with stakeholders regarding: The Sustainability Report 2018, the updates to the Iren Business Plan, and the assessment of material topics following the Materiality Analysis conducted for the purpose of the Sustainability Report. Furthermore, various topics of interest for the different local areas were considered, including: the customer relations policy of Iren Group, the water scenario in the province of Parma, district heating, separated waste collection and TARI, the organic waste treatment and biogas and compost production plant in Reggio Emilia.

PROJECTS FOR THE LOCAL AREAS

In 2019, Iren created or contributed to the creation of important environmental, sports and cultural projects. Some of these had a significant impact on the local areas in which they were executed.

CULTURAL PROJECTS	
Luci d'artista (artistic lights)	A new art installation of three bridges over the River Po in Turin and the Mole Antonelliana opened during the Christmas holidays.
50 Years of Amiat	The multimedia exhibition of archive video footage, photos and artefacts was held in Piedmont Region conference room. The Italian Post Office created two special postcards with commemorative stamps to celebrate 50 years of Amiat and various educational and creative workshops were held for young visitors to the exhibition at the A come Ambiente Museum. As part of the celebrations the national seminar " Le aziende di igiene ambientale e il pubblico: il ruolo dei media e il servizio ai cittadini " [Environmental health companies and the public: the role of the media and citizens' service] was held, in collaboration with the Piedmont Order of Journalists and participation from Iren and Amiat senior management, industry leaders and well-known figures in the information sector. Finally the "Amiat is..." campaign was held, with activities carried out by the company through six illustrative icons.
Iren History	To promote the Group's archived and digitalised historical heritage, the www.irenstoria.it portal was complemented with the publication of the book "Iren, protagonista della storia italiana. Dal primo novecento ad oggi"
Innovation	The third edition of the Iren Start Up Award, the contest aimed at selecting the best Italian and international start-ups with the aim of establishing future partnerships. The Group also supported the National Innovation Prize 2019 , in the belief that to develop its business it is essential to draw benefits from interaction and collaboration with innovative start-ups supported by robust entrepreneurial projects, and the Regional Start Cups held in Emilia Romagna and Liguria
Photomathon	Iren supported the initiative in Genoa, La Spezia and Turin, proposing topics regarding the business that the company carries out in the various cities for the competition
Iren mecenate (Iren for culture)	Iren shares cultural values and their importance in the development of local areas. That is why Iren has been a Founding partner of the Royal Theatre Foundation in Turin , the Theatres Foundation in Reggio Emilia , the Carlo Felice Theatre in Genoa and the Theatres Foundation in Piacenza . It also supports Teatro Regio in Parma and, since 2019, the Impavidi Theatre in Sarzana and the Civic Theatre in La Spezia . The collaboration with the Palazzo Magnani Foundation in Reggio Emilia is also significant. Furthermore, the Group has collaborated in numerous cultural projects, including: the Correggio Rights Festival, Food and People of Emilia, "Reggio University Town" Committee, Osvaldo Piacentini Archive, Fotografia Europea, the 100th birthday of Federico Fellini (Reggiolo), new illumination at the Basilica della Ghiara di Reggio Emilia and participation in the tender held by the municipality of Genoa to use street art to redevelop buildings in the Certosa district, an area badly affected by the collapse of the Morandi Bridge. At the end of 2019 a rich calendar of initiatives was launched for Parma Italian Capital of Culture 2020 , where Iren is participating as official sponsor.



ENVIRONMENTAL PROJECTS

Sorted waste collection	<p>Iren has designed and promoted campaigns to raise awareness among citizens and businesses in the regions of Piacenza, Parma, Reggio Emilia, La Spezia, Genoa, Turin and Vercelli about the correct management and collection of waste, supporting the launch or extension of new ways of separated waste collection or the introduction of “pay-as-you-throw” systems. In collaboration with local authorities, various public information events aimed at different categories of citizens were organised. Throughout the Emilia region, as part of the computerisation of collection systems or the installation of mini-ecostations, communication initiatives were carried out to promote their use and reduce incorrect disposals. In Reggio Emilia, separated waste collection reached the target of 80% and a rewards campaign was launched in recognition of the commitment shown by citizens. In the province of La Spezia, in Parma and Turin, awareness-raising campaigns were launched regarding the collection of bulk waste and the use of collection centres, including through the Ecolren app. In collaboration with the City of Turin, Amiat concluded the “Progetto Organico Porta Palazzo”, aimed at the separated collection of organic waste and the collection and distribution of excess food, promoted the project “Sei di cocchio? Il vetro è un'altra cosa” [Are you thick? Glass is another matter] with Co.Re.Ve, designed to raise awareness about the correct disposal of glass, and launched pilot “eco-islands” with limited access, an alternative waste collection method in the Lingotto Filadelfia district which involved around 8,000 residents. In the Municipality of Vercelli, in 2019 the “Ecocassone Itinerante” (Travelling Eco-Truck) project continued, aimed at providing citizens with an alternative way of collecting bulky waste to prevent the practice of abandoning it on the street.</p>
Reduction of waste	<p>In collaboration with the Municipality of Genoa and Porto Antico, a project was implemented to progressively eliminate plastic in the tourist district around the port and to supply mains water to public buildings. With the support of Andrea Barbi, a well-known television presenter, and students from the Istituto Alberghiero Motti di Castelnuovo Monti (Reggio Emilia), Amiat participated in the Tele-Reggio Hello Barbi television programme which rewarded students for their creative ways of “cooking with leftovers”. As part of the initiative the “Leftovers Recipe Book”, a collection of recipes created with kitchen leftovers produced by Iren, was reprinted.</p>
Environmental quality	<p>Amiat participated in the Po d'Amare project, where floating dams were installed to intercept and collect waste in the Po River and deliver it to specialised plants to re-use the material, gaining considerable national recognition. The Un Po meno inquinato event in Turin also represented an opportunity to raise awareness about the quality of the environment. The support for events held in municipalities through the Emilia region was also of note, involving children and young people in local clean-up initiatives and ecological days organised with local residents and schools. Finally, as part of the Zanzara Tigre Day, the now traditional free distribution of larvicide continued in the province of Reggio Emilia.</p>
Sustainable Mobility	<p>Iren supported the VENTo Bici Tour 2019 project organised by Milan Polytechnic University, aimed at the construction of a cycle path that runs for over 700 km along the banks of the Po River, passing through the Group's historic regions. At the headquarters of the Turin Automobile Club, the new IrenGo space was opened, the first showroom dedicated to those who dream of travelling in a smart, innovative and emission-free way. The collaboration between Iren and MiMoto to launch the first electric scooter sharing scheme in Italy continued. In Turin, 150 scooters were made available to residents, while an electric scooter was provided to the Municipal Police on a free-loan basis for services in green and central areas. In Genoa, in agreement with the Municipality and the Fiera organisation, electric scooters were provided to enable environmentally friendly travel for exhibitors and visitors of the 2019 Boat Show.</p>
Water	<p>In the provinces of Piacenza, Parma and Reggio Emilia, the installation of fixed public water dispensers continued, with campaigns to raise awareness about the responsible use of water resources (see page 74). Furthermore, Iren provided mobile public water dispensers (“Caraffone” and “Fontanone”) at over 50 events held in the Emilia region.</p>
Energy saving	<p>The communication campaign organised by Fratello Sole Energie Solidali, the ESCO that carries out energy efficiency works in third sector buildings, continued. The “Vercelli a LED - Una nuova luce per la città” [LED Vercelli - A new light for the city] project was presented, an important step towards sustainability in the city.</p>
Plant open days	<p>In Mancasale in Reggio Emilia the Water Treatment Park was opened (see page 108), a route through an operating plant designed to demonstrate water treatment with visitor information provided in English and Italian. The Water Plant in Reggio Emilia was opened to the public on 26 June to mark the Notte Blu event which was attended by more than 2,000 people. It was a chance for many residents to gain a first-hand experience of how the public drinking water management system operates in the city and offered a clear opportunity to talk about sustainable water use. The Group also completed the redevelopment project of the Water Plant in Luzzara (Reggio Emilia), which opened in early June with the aim of becoming an open space for residents and schools, complete with lecture theatres/labs that support the educational programme at the River Secchia Hydroelectric Plant on the border between Castellarano and San Michele di Assuolo, welcoming numerous school pupils and citizens. At the Turin waste-to-energy plant, two open days were organised, which were attended by around 500 people who had the opportunity to see how the plant operates through direct experience and interaction with the operators who work there.</p>
Sustainable cities	<p>Along with other entrepreneurs and the Municipality of Genoa, the Group organised two events: Eurocities Environment Forum and Genoa Smart Week, focused on the topic of smart cities and sustainability. To mark the completion of the works to connect the Turin waste-to-energy plant to the district heating network, a conference on the circular economy and its applications was organised. In the summer period, Acam Ambiente supported numerous green events in the municipalities of the province of La Spezia.</p>

SPORTS PROJECTS

Marathons	The many sporting initiatives supported by Iren Group in local areas include Stratorino, a non-competitive race with a green outlook organised by La Stampa, with the presence of the mascot Taurino Netturbino, the Castelnovo Sotto (Reggio Emilia) half marathon, the Castelsport event, which for ten years has involved young athletes from five municipalities in Reggio Emilia and has adopted a plastic-free approach, the Vivicità competitive race, the Tricolore marathon, the fifth largest in Italy in terms of number of participants, and the “Sport for all” day in Sarzana.
Other sports	A number of environmental sustainability projects have been launched with Pallacanestro Reggiana (basketball) and Reggio Audace/Reggiana Calcio (football), involving local businesses, athletes and schools. Furthermore, the Group contributed to events and projects promoted by the Foundation for Sport of the Municipality of Reggio Emilia and the sports clubs GiSport, Reggiana Nuoto, CSI Nuoto, ASD Baseball, ASD Skating Club Albinea, Volley Tricolore, Memorial Marconi VVFF Volley.

SOCIAL PROJECTS

Santa Claus “in Forma”	Iren supported the now traditional Christmas event, promoted by the “Regina Margherita” Hospital Foundation in Turin, which unites thousands of people dressed as Santa Claus outside the children’s hospital.
Just the woman I am	Iren collaborated in the creation of the event by supplying electricity and taking part with its employees in the race, organised by CUS Torino for International Women’s Day, aimed at raising funds for university cancer research. The Iren team was one of the largest, with 280 runners.
Flags4Rights – 100 flags for rights	Iren supported the open-air event promoted by Unimore, Reggio Children Foundation, the Municipality of Reggio Emilia and the Yesterday Today Tomorrow Association, with 100 flags drawn by children and teenagers to mark the 60th anniversary of the UN Declaration of the Rights of the Child and the 30th anniversary of the UN Convention on the Rights of the Child.

GIFTS, DONATIONS AND SPONSORSHIPS

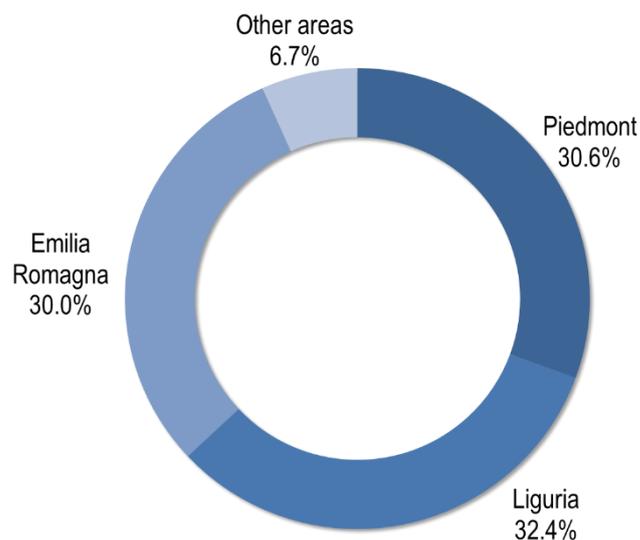
Iren Group focuses heavily on cultural, environmental and sports events with distinctive characteristics at a national level and which are rooted in the local tradition of the areas of reference. In 2019, Iren provided **273 sponsorships** and 74 donations, amounting to around 11,500,000 Euro in total.

The interventions concerned:

- **73 cultural and innovation projects (27%)**, including support for the Royal Theatre in Parma and membership to the Theatres Foundation of Reggio Emilia, the Royal Theatre Foundation of Turin, the Theatres Foundation of Piacenza and the Carlo Felice Foundation in Genoa, the National Innovation Award, the Emilia and Liguria Start Cups, the Science Festival in Genoa, the European Photography event in Reggio Emilia and the Festival Verdi in Parma, the illumination of the Basilica della Ghiara in Reggio Emilia, and the Gola Gola Festival in Piacenza;
- **68 entertainment projects in the local area (25%)**, including Christmas events in Turin (Luci d’Artista), Genoa (lighting, videomapping and New Year in the square), Reggio Emilia (Santa Claus’ House and New Year in the square), Vercelli (lighting) the Spezzina summer event and Piacentini Fridays;
- **89 projects in the environmental sector (33%)**, including support for environmental projects of many Emilia Romagna Municipalities, the 2019 VEnTO Bike Tour; CinemAmbiente in Turin, the Remida Centre in Reggio Emilia, Slow Fish in Genoa and Giocampus in Parma;
- **43 projects in the sports sector (15%)**, including support for the seasons of certain minor sports teams, such as hockey, sledge hockey, American football, men’s and women’s basketball, water polo and major national events like the European Master Games and the Figure Skating Grand Prix finals.

With regard to donations the Art Bonus, which offers significant tax benefits in the form of tax credits, was used to support cultural initiatives for a value of over 4,000,000 Euro.

DONATIONS AND SPONSORSHIPS BY AREA





SUSTAINABILITY EDUCATION

In 2019, the Eduiren project continued to transform from a traditional educational activity based on a programme of free training courses for schools to an inclusive, participatory and creative way of promoting services to all and building institutional relations with the region with a focus on sustainability. It is an educational approach composed of projects, actions, special initiatives, meetings, games and focus groups tailored to different targets and geographical areas. The programme was structured around the academic year to demonstrate how Eduiren is fully year-round.

For Iren, education means **maintaining constant dialogue and building networks** with different parties, transforming its plants into veritable exemplars of sustainability. In 2019 its plants joined the **Emilia Romagna Open** project promoted by the Emilia Romagna Region to illustrate the best production plants in the area. The plants were also the site of **Plant open days** for the launch of the book **“Greta e il Pianeta da salvare”** [Greta and the planet to save] by Christiana Ruggeri, like the one held at the waste-to-energy plant in Turin.. They are also welcoming spaces where it is possible to see FIAB cyclist groups exploring the historic **Marano Tunnels** or the **Parma waste-to-energy plant**, or 200 classic cars at the **Waste-to-Energy** in Mancasale in **Reggio Emilia**. Indeed, the official presentation of the WTE plant on **World Water Day** told the story of Eduiren's development. It is possible to transform a water treatment plant into a place to be visited calmly and safely, in the presence of technicians, to discover original films about the city's history, in collaboration with cultural institutions, and to plan new and increasingly accessible ways to learn about the technology. The format led to the inauguration of the **“Spazio Goccia”** [Drop Space] site in Luzzaro (Reggio Emilia), a multi-purpose centre within the water mains system, dedicated to the water cycle and capable of hosting regional initiatives about sustainability thanks to the different partners connected through the project: Iren, the Municipality, a Cultural Foundation and Institution that manages local schools.

For Iren, sustainability education means constant dialogue and the building of networks with many local players

Another characteristic of the new Eduiren is the many projects in and around the region, including **“Plastica si scrive con 3 R”** (Plastic is spelt with three Rs), which for one month mobilised the municipality of Castelnovo Monti (Reggio Emilia) and earned a spot on **Caterpillar Radio2** and the **Vito Scafidi award**, the projects with Coop Allenanza 3.0, evaluated and voted on by members of the Coops in Parma and Reggio Emilia, dedicated to young patients and their families, or the initiative at the **Bela Rosin Mausoleum** in Turin, in collaboration with the Science Centre non-profit organisation, offering the chance to talk about sustainability outside of traditional spaces.

The **Arbarello Plant** in Turin, the **Rapallo Water Treatment Plant** and the **Ceresole Dam** also opened their doors to the public.

In 2019 Eduiren was increasingly present in Summer Centres, Provisional Adult Education Centres, after-school programmes (including the ASAI in Turin), parishes and oratories, as well as in more institutional initiatives such as **Notte dei Ricercatori 2019** [Researchers' Night 2019] which, in collaboration with the Universities of Modena and Reggio Emilia, offered visitors in Reggio Emilia the chance to discover environmental professions and services at the Technology Centre, while residents in Turin boarded an old tram to talk about energy and the people of Chieti played games about the environment.

The game and unusual approach have continued to find new expressions such as the new **“Sei Eco-logico?”** [Are you Ecological] exhibit at the Città dei Bambini e dei Ragazzi educational amusement centre in Genoa. The centre is home to an information stand with 36 interactive ecological games created in collaboration with the Calvino Institute, the AMGA Foundation and Liguria Digitale, aimed at supporting a **School-Work Programme**.

Theatre used as a mouthpiece for sustainability is a tried-and-tested technique of Iren Group. In 2019 the project “Rifiutando di Piacenza” returned with a Manicomics show called **“Rifiutando lo Spreco”** [Refusing Waste], dedicated to the UN 2030 Agenda, while the **Andersen Festival** hosted **“Cacche Spaziali”** [Space Poo], the first show in Italy about water treatment and promoted by Eduiren in collaboration with the Teatro dell'Ortica in Genoa. Meanwhile, the Teatro Colosseo in Turin staged **“Riciclo e Riuso? AMBO”** [Recycle or Reuse? Both!], an event that encouraged young children to play with the periodic table through the collaboration of CentroScienza, the Department of Chemistry at the University of Turin and the A come Ambiente Museum. **“Yes, I can”** by Luca Pagliari was performed in schools in Scandiano (Reggio Emilia) and Turin, in partnership with Ricrea.

Over the years, **teachers' courses** have characterised Iren's research into the different ways of teaching sustainability (Teatro Ambiente and Centro Remida). In 2019 a course dedicated not only to climate change but other forms of change as well was organised for the second time, in collaboration with Arpae Emilia Romagna and the Italian Research and Innovation Centre of the University of Parma, divided into three days to address the main theoretical points and analyse the practical activities/experiences in the school environment. As well as teacher training courses, training programmes aimed at new Italian citizens, migrants and asylum seekers were consolidated to promote integration.

The Giocampus educational alliance developed the **Ecological Home**, an ideal place to teach children how to be sustainable through dedicated learning experiences. The summer edition of Giocampus is held in the public building of the Province of Parma and offers training modules aimed at all types of school.

Eduiren supported the projects implemented to reduce the production of plastic through the use of **aluminium flasks**. Of particular note was the project with the Parentucelli Institute of Sarzana (SP), the Castelsport initiative (Castelnovo Sotto in the province of Reggio Emilia), promoted by 30 sports clubs and involving a thousand people, and the project organised by the Municipality of Reggio Emilia which launched the widespread distribution of **8,000 flasks** in the region's primary schools. The

initiative also involved the Pallacanestro Reggiana basketball team which worked with Eduiren to implement the “**lo tifo pulito**” [I'm a fastidious fan] project, which involved the players bringing the values of sport and sustainability into schools.

Iren's commitment to provide support to schools continued with the **School-Work Programmes**, with work experiences which in 2019 were presented at the Careers Fair in Genoa.

A project was also put in place aimed at the city's youngest residents (5-6 years), with the Turin waste-to-energy plant programme and the workshops at “Drop Space”. The sticker book “**La mia prima raccolta differenziata**” [My first recycling experience] was republished, aimed at explaining the waste collection service, and the Eduiren staff adopted the **Taurino mascot** created to celebrate 50 years of AMIAT.

Eduiren: 80,144 people and 529 schools in 59 sustainability education projects

In 2019 the Edu.Iren project reached **80,144** people, supported **59** projects promoted by schools and Municipalities, and involved over **529** schools in the Emilia, Liguria, Piedmont and Campania regions.



REDUCING IMPACTS ON THE LOCAL AREAS AND COMMUNITIES

All of the Group's activities are planned and carried out with awareness of the corporate responsibility towards the communities and local areas: produce wealth while protecting the environment and respecting the expectations of the stakeholders. In fact, the 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. Moreover, before being launched on the market, the products offered are subjected to quality controls and checks. In the event of faults the Group has adopted specific procedures which allow prompt and effective communication, service outages and disruption caused to residents within the times provided by sector 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, Iren Group has developed voluntary codes and regulations (internal requirements and procedures) and adopted initiatives that mitigate impacts on the health and safety of the public arising from the activities carried out. The main activities of the Group that impact the community and local area are:

- **production of electrical and thermal energy.** Iren actively strives to develop renewable and other similar energy sources. The management of energy production activities are described in internal 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, both in compliance with environmental legislation (ISO, EMAS), as well as in accordance with the provisions of Control Authorities. Iren also intends to further extend its district heating system to exceed 100 million cubic metres of volume heated by 2024. In relation to the construction of new plants, all construction and management phases are evaluated, with particular attention dedicated 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 directives adopted in the context of the Integrated System (Quality, Environment, Safety);
- **waste collection and management.** Iren Group manages waste across all stages: collection, selection, transport, treatment and disposal, contributing to the recovery of material and energy production resulting from these resources, thus reducing the use of non-renewable natural resources. As highlighted in the Business Plan to 2024, the Group is committed to implementing particularly advanced separated waste collection systems and constructing new plants to increase material recovery;
- **water sector.** The Group constantly monitors network leaks that can cause significant water wastage: network control, extension and maintenance interventions are completed with the aim of minimising inconvenience for residents. The high quality of water supplied is ensured by the continuous analytical controls carried out, also in addition to legal obligations, over the entire route: from the capturing sources to treatment processes, from filtration and disinfection and from storage tanks to storage at various points of the distribution network. In its waste water treatment activities, the Group strives to maintain the high operational standards of its plants in compliance with authorisations and to constantly inform the local community concerning the functioning of the plants. As established in the Business Plan to 2024, the Group has set itself the target of reducing water withdrawal and network leaks;
- **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 in preventing potential impacts or accidents. These elements are subject to constant analysis and improvement measures to



continuously increase their effectiveness, while ensuring efficiency. Furthermore, in order to reduce disruption for local communities when sites are opened, residents, economic associations and Municipalities are involved in defining the schedules and times of the construction sites;

- **electricity distribution.** In relation to 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;
- **Public street lighting.** In public street lighting systems, the factors which most impact the health and safety of residents 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 introduction of stringent building criteria in the technical and purchase specifications for lighting devices (percentage of light flow emitted by the lighting device less than or equal to 1% and absence of photobiological risk $RG=0$).

In 2019, two events were recorded in the district of Savona: one caused by the extreme weather conditions of 23 and 24 November, and the other caused by the spontaneous combustion of a vehicle on the Genoa-Ventimiglia road. Moreover, a fault in the integrated water system resulted in disruption to residents. Furthermore, 7 lawsuits were lost to the local community or citizens, for the total monetary amount of 11,364 Euro.

CONSTRUCTION SITES MANAGEMENT

When managing construction sites of scheduled activities with the potential to create inconvenience for the public, the Group works to reduce the impact on the local area to a minimum. It comes to an agreement 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 citizens, especially in cases of work carried out on roadside sites. When planning and building public street lighting systems and traffic lights, 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.

The construction of new plants is an opportunity for growth for the local area in the medium-long term, in addition to being a necessity for the development of Iren Group; thus, dialogue between Iren Group and its stakeholders is necessary, based on transparency and correctness of information.

Before beginning the authorisation procedure for the construction of new plants or infrastructures, the Group believes it is crucial to conduct information meetings with the local communities, illustrating the usefulness, the impact on the local area and the

project in detail. The Conference of Services is an example of cooperation between public administrations, citizens, 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, permissions and the approval required by the law.

For the operation of certain types of production installations, which may generate significant environmental impacts, an IEA is necessary, an Integrated Environmental Authorisation, which verifies that the operation to be authorised has limited environmental impacts, in compliance with the conditions set by the European Union.

There were no transfers, not even temporary ones, of people following on from the construction of new plants.

EMERGENCIES MANAGEMENT

The companies of Iren Group have procedures and/or practices that define:

- the organisation and coordination centres set up to address the emergency situations that could arise within the activities carried out by the Group;
- the management of information and relationships with the Prefectures, Civil Defence, Authorities, Regions, Provinces and Municipalities, including their relative operation rooms.

This is 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/or the environment. 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 Iren 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.

For all monitored headquarters and plants, specific emergency plans are prepared that contemplate the most likely environmental and safety emergency scenarios. Emergency personnel have been identified at each site and plant, who have been trained and are regularly updated.

Evaluation drills are carried out every year with the involvement of all personnel present. The company emergency plans are constantly updated according to the guidelines issued to all Group Companies for the management of emergencies.

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 action on the fault, by specialised personnel, 24/7, via the request and call of on-call technicians.

The action aimed at fixing the failures occurs in the minimum time needed to carry out works.

COMMUNITY AID

The Group has always shown its closeness to communities affected by serious natural disasters by giving support to local authorities and aid and welfare institutions, also by way of making employees and vehicles available.

Following the collapse of the Morandi Bridge in Genoa, once the initial emergency phase to protect and house displaced families was completed, in 2019 the Group continued to collaborate with the Executive Committee of the Commissioner for the reconstruction, as well as the provision of anything necessary to ensure continuity of service and public safety during the demolition phase, managing all of the problems of interference with underground cables and systems during the construction of the new bridge.

In the district of Savona, the floods of 23 November 2019 caused extensive damage to the water network. Iren Group acted swiftly to restore the water service, constructing temporary external ducts and supporting the local authorities in the event of emergencies.



RELATIONS WITH INSTITUTIONS

As also 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.

RELATIONS WITH INDUSTRY AUTHORITIES

In 2019 our constant discussion with Local Authorities and Industry Authorities focused on the following issues:

- updating of treatment plants in the metropolitan area of Genoa (Central Area, Rapallo, Recco, Sestri Levante, Tigullio

Oriente and Arenzano) so that they fully comply with Directive 91/271 EEC on waste water treatment and the construction of the Ronco Scrivia and Torriglia treatment plants;

- activities to divide the water networks into districts and the implementation of the Genoa Market Operator's Plan, construction of the mountain aqueduct pipelines that connect the large Genoa reservoirs with all the Municipalities of Valle Scrivia and interventions on the aqueduct network of Paradise Gulf and the Gulf of Tigullio Orientale aimed at overcoming the water emergencies that have occurred in recent years;
- restoration measures and the updating of the plants and sewage and water networks severely damaged by the floods in 2014, 2016 and 2019 in the Genoa area;
- achieving the right balance between tariff increases and the need for local investment, in compliance with the requirements laid down by law of the second regulatory period 2016/2019, in relation to the tariff of the integrated water service;
- operation of the 70 public water dispensers that supply thousands of citizens with zero kilometre water from dispensers in the provinces of Parma, Piacenza and Reggio Emilia every year, reducing the use of plastic bottles and, consequently, waste production;
- institutional visits to the reuse plant for irrigation purposes using water from the Mancasale treatment plant in Reggio Emilia, a leading facility in Italy in the sector which enables the recovery of 4-5 million cubic metres of water resources during the irrigation season;
- works planned under the 2018 – 2019 Investment Plan of the Piedmont ATO 2 for the water service in the Vercelli area: updating and streamlining of the Vercelli water system, with the construction of the new well field and the division into districts of the water network, water interconnections between Vercelli and neighbouring municipalities, a new well in the municipality of Bianzè, the elimination of fibre cement pipelines and a reduction in network leaks, updating and streamlining of sewage systems, and updating and revamping of the Saluggia water treatment plant and the energy efficiency of sewage pumping stations.





TRADE ASSOCIATIONS OF WHICH THE GROUP IS A MEMBER

In order to create opportunities for discussion and collaboration with other companies and to facilitate regulatory and technological

compliance, Iren Group is a member of several national and international technical associations in the water, environmental and energy fields, as well as networks focused on sustainability issues, which are briefly described below.

Association	Description
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 (territorial branches of Genoa, La Spezia, Parma, Piacenza, Reggio Emilia, Turin, Vercelli Valesia)	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	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.
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.
RES4MED	Renewable Energy Solutions for the Mediterranean, a non-profit association founded as a network of utilities, industries, companies and suppliers of technical services, research institutes and academia involved in promoting clean energy solutions to the countries in the Southern and Eastern Mediterranean.
Federazione Italiana per l'uso Razionale dell'Energia (FIRE)	a non-profit organisation operating in the energy and environmental sector, focused in particular on: 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.
CSR Manager Network	sustainability promotion and test centre that contributes actively to the diffusion of the culture of sustainability at national and international level. The network promotes the development of CSR skills and compares Italian and foreign best practices and is the representative board in dealings with politicians and governments, entrepreneurial and environmental associations, trade unions, NGOs and the voluntary sector.
Kyoto Club	a non-profit organisation of businesses, bodies, associations and local authorities which aims to achieve the greenhouse gas emission reduction targets adopted with the Kyoto Protocol, with decisions at EU level and with the 2015 Paris Agreement. Acting on behalf of public, national and European decision makers and the UN framework agreement on climate change, Kyoto Club is committed to promoting targeted and decisive measures and policies in the energy and environment sector.
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	The leading business association in Italy, with 200 member companies to date, for a total of more than two million employees and an total turnover of over 500 billion Euro, which for ten years has strived for gender quality and an inclusive culture not only within organisations but within Italy as a whole.

CONTRIBUTIONS TO POLITICAL PARTIES AND INSTITUTIONS

As established by the Code of Ethics, "Iren does not pay contributions, either directly or indirectly nor in any form, to political parties, movements, committees and organisations or trade unions, or their representatives and candidates, except where owed in

accordance with specific legislation". 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 are always implemented on the basis of clear documentation for the use of resources.

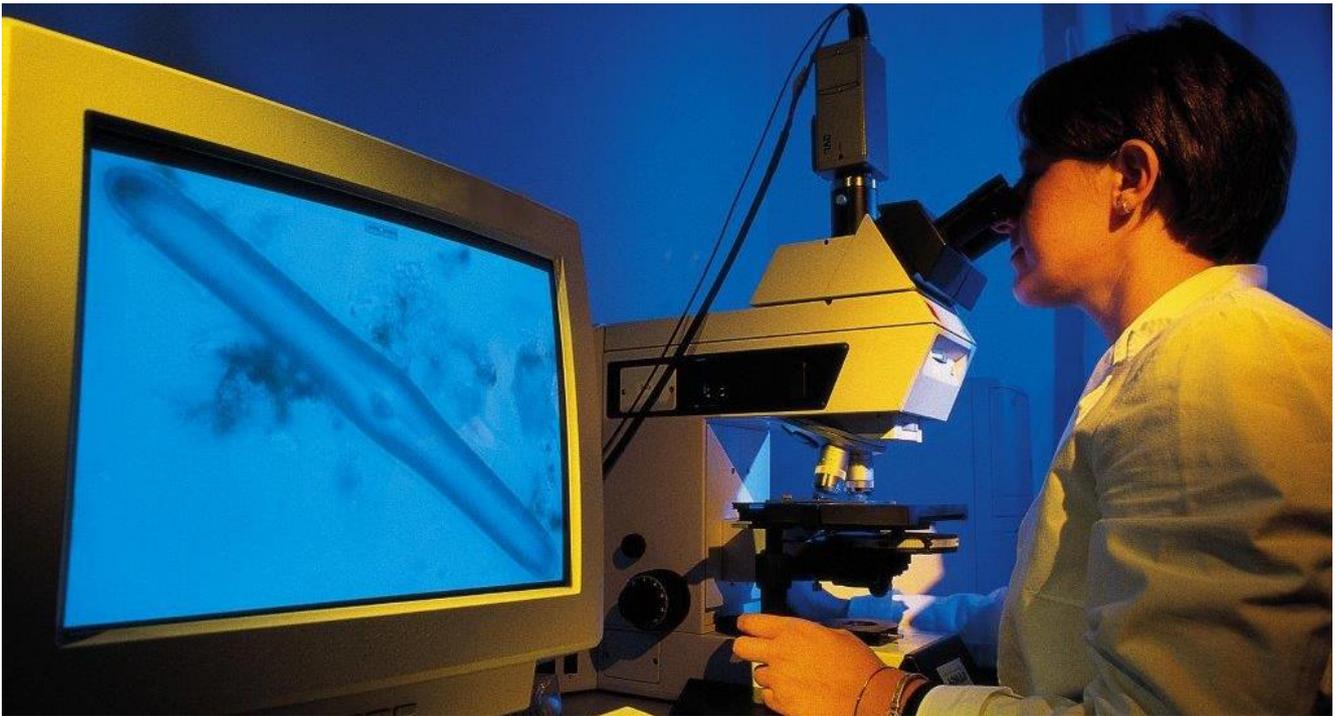
MEDIA RELATIONS

The Group manages national and regional media relations activities concerning corporate, economic-financial, institutional and service aspects, as well as other topics connected to sustainability. In 2019, it continued to play an important role for the local and national press as a major Italian player in the management of environmental, energy and water services and in innovation, due to the dimensional and business characteristics of the Group.

Presence is standardised across all areas; the topics of specific national interest were the events connected with the financial calendar, negotiations for the acquisition of other companies and the presentation of the 2024 Business Plan. At a local level, the

media has favoured topics concerned with environmental initiatives, customer relations, energy saving, water quality, water saving and the construction or presence of plants in the area.

Media relations help ensure a constant, timely and transparent flow of communication for all stakeholders and involves systematic relations with local and national journalists that are managed according to the principles of availability and transparency, with the awareness of the affinity of the Group to the local area and to the needs of the communities. The Group's press office monitors the media and social networks to guarantee constant awareness of public opinion and the views of the financial community and the local areas of reference for the Group.



POLICIES FOR SUPPLIERS

Iren Group considers its suppliers to be an integral part of the sustainability process. The goods and services purchased impact the quality of the services and the reputation of the Company.

The Group implements a structured procurement process that is in line with the principles of free competition, equal treatment, non-discrimination, transparency, proportionality and publicity in the instance provided by law, as well as inspired by the traceability of information, using suitably profiled IT systems, supplier rotation to ensure the best competition dynamics with a view to efficiency and efficacy, and the division of tasks. Furthermore, the Group procurement procedure has been prepared in line with the principles of the Organisational, Management and Control Model pursuant to Italian Legislative Decree 231/2001.

The Group's online Procurement Portal, through which public procedures and procedures for invitation to tender are managed,

and the Suppliers' Register, divided into product categories which are functional to business needs, are initiatives that allow for better monitoring of the supply chain, which is a strategic aspect in the management of Group business activities.

The Group Procurement Portal is an instrument that extends the involvement of suppliers

The adoption of 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 Suppliers' Register, the participation rules for managed negotiation events and the general conditions of use for the platform are published on the Portal.



QUALIFICATION, SELECTION AND MONITORING OF SUPPLIERS

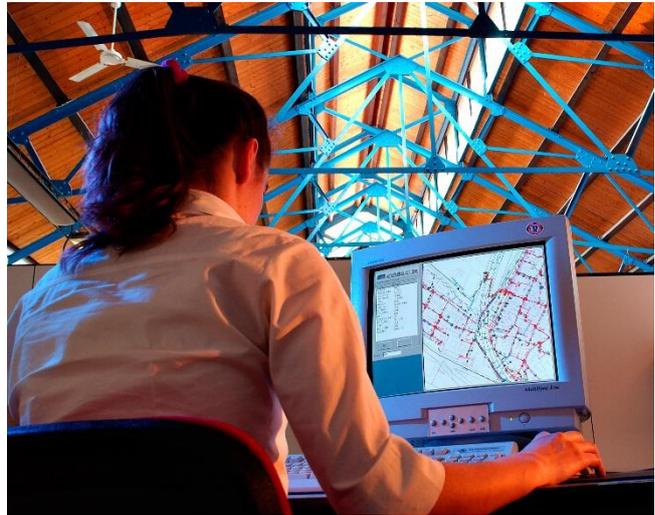
The supplier qualification system of the Group aims to guarantee that products, services and works are able to ensure quality and reliability. The supplier selection and management process is based on the principles of transparency, clarity, integrity and non-discrimination. In addition to qualitative aspects, those relevant to sustainability are also considered in the qualification process, with particular attention given to socio-environmental topics and the implications arising from the Code of Ethics of Iren Group. It is of primary interest to the Group that all suppliers conduct their activities in compliance with the principles and values contained in the Code of Ethics, which must be obligatorily accepted by all suppliers, without the possibility of exceptions or amendments.

Within the context of contracts that are subject to the Code for Public Procurement, Article 30, "Principles for awarding and executing contracts and concessions", requires economic operators to respect environmental, social and labour obligations when carrying out works, which are established by European and national legislation, by collective agreements or the international provisions listed in annex X, which include: ILO Convention no. 29 on forced labour, ILO Convention no. 105 on the abolition of forced labour, ILO Convention no. 138 on minimum age, ILO Convention no. 182 on the worst forms of child labour. Explicit declaration of compliance may be requested in tender documents. Based on the general requirements of the Contracts and Concessions Law concerning the exploitation of labour, Iren Group applies the regulations both for public tenders and tenders not covered by Law. Any incidences of non-compliance are grounds for the termination of the contract and a report will be made to the ANAC (Italian 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 are requirements that 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.

With reference to awards that are attributable to excluded contracts (so-called under-threshold), or irrelevant to the contracts and concessions law, Iren Group uses supplier qualification procedures that consist of a specific questionnaire subdivided into sections concerning the company profile (attesting to information on turnover, certificates, etc.), information on economic-financial capacity (balance sheet indices) and information on organisational-operational data. Current provisions require that at least 5 suppliers from those included in the Suppliers' Register are invited, the management of which is centralised in the Parent Group Iren.

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).



The qualification to be part of the Suppliers' Register requires the verification of being in possession of, or in the course of attaining, the certifications issued by independent bodies (i.e.: ISO certifications, the SOA certifications, etc.), as well as the possession of the economic eligibility requirements of the tender. During the qualification process suppliers are required to state:

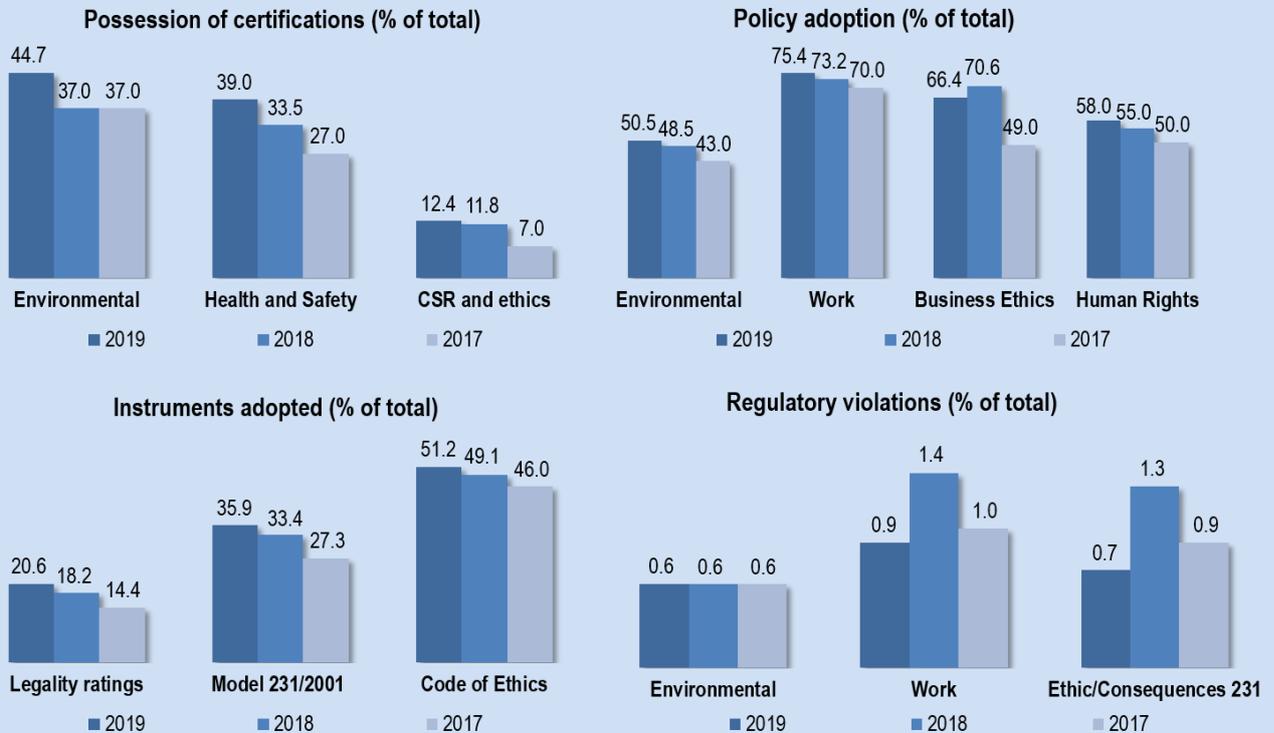
- if, in line with UNI ISO 26000 guidelines on corporate responsibility, company initiatives to develop a socially responsible approach to business planning and management have been identified and, if so, to describe the initiatives adopted;
- if the supplier publishes its Sustainability Report and, 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 117);
- not to have committed serious breaches, which have been definitively ascertained, against obligations concerning the payment of taxes and duties, or social security contributions, in accordance with Italian legislation or that of the State of establishment;
- not to have committed serious violations duly ascertained against occupational health and safety laws.

In regards to supplier top management, within the context of public 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.).

CSR SURVEY OF SUPPLIERS (2019 EDITION)

Iren Group launched its third Corporate Social Responsibility survey on 3,631 suppliers via a questionnaire aimed at analysing how environmental policy, labour practices, business ethics and respect for human rights were managed.

Overall, 889 suppliers responded to the questionnaire (25% of the total), an increase of 14% on 2018. The main results are shown in the following tables.



47.8% of suppliers who responded have adopted a policy that obligates their suppliers with regard to sustainability.

Furthermore, the companies that took part in the 2019 survey hired 1,476 employees (41.3% on permanent contracts, 37.4% under 30 and 40.6% women) and employed 4,858 workers for jobs carried out for Iren Group.

For more information on respect for human rights, see page 44.

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 law. 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.

To monitor its suppliers more broadly, the Group has signed Legality Protocols with Prefectures

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 outcomes or serious failures in executing the work, of which the Procurement,

Logistics and Services Department is notified, will lead to the suspension and subsequent exclusion from the Suppliers' Register for a set period.

In 2019, 1,940 suppliers were audited in total, 1,600 of which qualified. There are 477 qualified suppliers in the Environmental sector and 122 in the Safety sector.

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.

Supplier social and environmental responsibility profiles are evaluated through the certification process



The rules for admission to the Suppliers' Register also provide - related to the suppliers of goods and services with potential environmental impacts (suppliers of environmental services connected to the collection, transport, recovery and disposal of waste; remediation of soil and subsoil, etc.) - for the possibility of carrying out audits to verify compliance with applicable environmental laws, if any, conducted by qualified third parties. To this end, the following evidence is requested during qualification procedures:

- possession of ISO 14001 Certification (issued by Accredia or by another accreditation body that is a signatory of Mutual Recognition Agreements), or the acquisition of significant interrelated elements of the environmental system;
- 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/service process, 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/service process;
- the use of work instructions that govern the management of waste, including hazardous waste, packaging and packaging waste in the production/service process, from their temporary storage to their disposal within the contract;
- the use, with reference to the categories of products selected, of recycled or recyclable material, with low emissions and low energy consumption;
- the adoption, with reference to the categories of products selected, 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 selected, 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.

In 2019, 1,600 suppliers were qualified in total. Of these, 815 demonstrated the possession of at least one of the environmental profiles given above. Furthermore, more in-depth environmental profile assessments were conducted on 427 under category-specific questionnaires that require the compliance of the product/service with minimal environmental and rewarding criteria defined by the Ministry of the Environment.

Over the year, 38 new suppliers were selected on the basis of environmental criteria.

The most important activities carried out in 2019 to improve supply chain management include:

- integration between the ERP (Enterprise Resource Planning) and the Remote E-Procurement Portal;
- upgrading and improving the Vendor Rating system;

- upgrading and improving the supplier rotation system for tender invitations.

Thanks to the integration of company systems and special reporting tools, these activities have enabled the process to be further improved.

Membership to Iren Group Suppliers' Register means beginning a *partnership* that could, over time, provide for the identification of mandatory qualification profiles, with a view to improving the *supply chain* that Iren Group intends to use. It also means sharing the reputational and sustainability values that make up the fundamental elements of Group policy. These commonalities involve the willingness to report on the CSR profiles, with a view to rewarding the willingness shown and acted on.

EMPLOYMENT IN SUPPLIER COMPANIES

Iren Group is aware of the important role employment plays in ensuring the social development of the environment in which it operates. It contributes to maintaining employment levels not only through its own employees but also by promoting the development of the companies to which it commissions services and work, by requesting guarantees from them in terms of both personnel and safety policies through the application of some of its own standards, moreover, the Group often offers employees of supplier companies the possibility to use some of the company services and attend to information/training courses organised 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 - single document on the assessment of risk from interference). 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 bargaining 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 concerning the recruitment of disabled people. 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. The number of employees and the total number of hours worked by third-party companies is therefore not requested. 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.

SUPPLIER HEALTH AND SAFETY

Health and safety are the cornerstones of Iren Group's policies and, for this reason, specific measures to protect health, safety and hygiene at work are also required by tender contracts. In fact, tender and contractual documentation must include the Safety and Coordination Plan (SCP) and the Interference Risk Assessment Document (DUVRI). Further obligations regarding occupational health and safety to be implemented in the operational management phase of the contracts are defined by specific procedures.

The BS OHSAS 18001 certification systems adopted by the Group's major companies are defined, documented and implemented to guarantee the systematic control of the aspects relating to the health and safety of employees and contracted workers.

During the supplier evaluation phase, information on accidents that the company has recorded in the last three years is requested via the general questionnaire on the Procurement Portal. In addition to the CSR survey conducted on suppliers (see page 115), it emerges that, in relation to the activities carried out for Iren Group, in 2019 only 3.1% reported cases of illness. During qualification procedures for the Register, suppliers are also investigated on the following aspects:

- 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;
- whether it has benefited from an INAIL tax reduction (ref. MOD OT24) at least once in the last three years;
- the possession of an Occupational Health and Safety Management system certified in accordance with Article 30 of Italian Legislative Decree 81/08 and, if present, the requirement to specify whether it complies with the UNI-INAIL guidelines or the OHSAS 18001 standard (in 2019, 410 out of

1,600 suppliers certified throughout the year declared the possession of a management system, for a total of 1,398 out of 4,738 certified suppliers);

- systematic verification of the level of learning reached by each worker after every training event;
- the integration of Italian language courses within foreign workers' training.

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. Monitoring of the activities is guaranteed by internal supervisory inspections by the Works Management (contracts pursuant to Article 26 of Italian Legislative Decree 81/2008) or by the Coordinator during the execution phase (on temporary and mobile construction sites pursuant to Section IV of Italian Legislative Decree 81/2008). In contract/subcontract situations or, more generally, in situations where third parties operate at Group sites, the relevant documentation required to identify and communicate information on environmental 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 or subcontracted activities.

The Group procedure for the "management of accidents, near misses and occupational accidents" involves a "accident report form for employees of third-party companies", through which third parties are required to inform the Group of the occurrence of any accidents in the context of the activities carried out on behalf of the Group and/or at sites where the Group has legal responsibility. 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 of each Group company, in collaboration with the Works Management. In 2019 a total of 12 accidents were recorded by third party companies, not including commuting accidents, one of which was fatal.

TRAINING AND INFORMATION ACTIVITIES

During 2019, at a Group level a total of 1,500 hours of training/information activities were provided to third-party companies, of which 67% related to occupational health and safety, with the involvement of 165 members of staff from these companies. As well as specialist training on procedures regarding the introduction of new IT management systems (e.g. workforce management), extensive training also given on the specific characteristics of working environments in terms of occupational health and safety (e.g. working in confined spaces) and the prevention and emergency measures adopted.



SUPPLIER PORTFOLIO AND PURCHASE VOLUMES

In 2019, purchase orders were issued to 4,364 suppliers for over 876 million Euro.

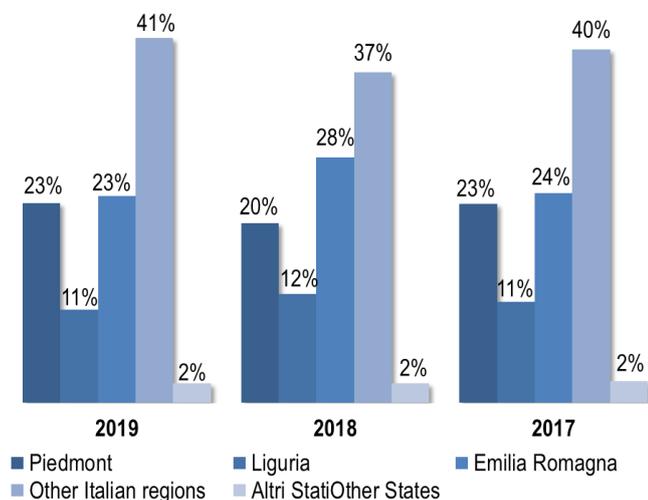
IMPACTS ON THE LOCAL AREAS

Sourcing of suppliers in the local areas of reference is well-established, both in terms of the number of active suppliers (57%), as well as the economic value of the orders, (51%). This data highlights the importance of the effects of Iren Group on the territorial areas of reference.

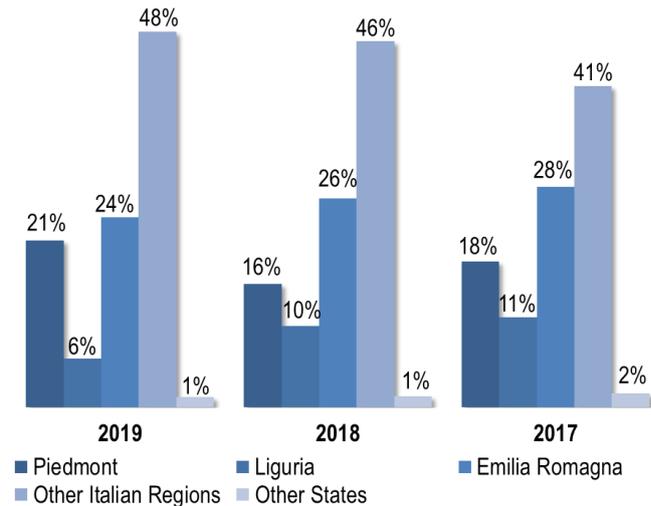
Within the context of public tender procedures, in compliance with current legislation and Community principles which require that all companies can compete, no matter their location, the Group does not select suppliers by geographical origin, but on quality and economic criteria, favouring the best value for money as the determining factor. In order to guarantee an adequate level of competition, where feasible, it 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 economic impacts on local business 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. In relation to the large number of suppliers by geographical area and the relevant volumes ordered, the composition is represented below and refers to all purchases with exclusion of contracts for the supply of raw materials.

SUPPLIERS BY GEOGRAPHICAL AREA (% OF NUMBER)



SUPPLIERS BY GEOGRAPHIC 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. These enterprises work in waste collection and environmental hygiene services in particular. 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 Article 4, subsection 1, Law 381/1999 "Social Cooperatives Regulation").

In 2019, five new social cooperatives were acquired, bringing the total of cooperatives in the Procurement Portal to 38, representing 2.38% of qualified suppliers. Of these, 17 have worked with Group companies in 2019.

The overall order amount to social cooperatives was over 95 million Euro, representing 11% 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 Coops	2019	2018	2017
Suppliers (no.)	38	28	28
Orders (Euro)	95,414,752	40,865,614	60,520,587

DISPUTES

In 2019, the Group lost two Regional Administrative Court lawsuits (which did not result in a financial pay-out) and six Employment Tribunal lawsuits brought by six employees of contractors for failure to pay the remuneration owed by their employer and which Iren Group was required to meet pursuant to and in effect of social responsibility. In one case there was no financial pay-out by the Group because the applicant's employer directly fulfilled the obligation to pay the amount established by the Judge, while in the other five cases, given the default of the principal, the Judge ruled that Group was required to pay the amount owed by the contractor. The total amount disbursed was 16,106 Euro.

Iren People



RELEVANT TOPICS

 Employment	
 Industrial relations	
 Development of human resources	 
 Corporate welfare and diversity	  
 Occupational health and safety	 
 Internal and external communications	



IREN'S HUMAN CAPITAL

The growth and enhancement of employees, including with a view to diversity and inclusion, are fundamental values for the Iren Group. These are pillars that are transposed into the mission and vision of the Strategic Plan and in the actions of personnel.

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. Maintaining adequate employment levels, skill coverage and development and the quality of employment are essential for pursuing corporate strategies. 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. The Group is also actively committed to improving working conditions and to the personal development of its employees, promoting a stimulating and productive work environment. 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 also focused on in 2019.

The involvement and engagement of collaborators is essential to create a team environment and develop a corporate culture consistent with the Group's development prospects, while also enabling areas for improvement and the relative action plans to be identified. In 2019 seven improvement projects were developed on the basis of the results of the **corporate conduct and policies survey** which, in the second half of 2018, was sent to the entire company workforce, with a participation rate of around 50%. The seven projects were brought to fruition by seven work groups composed of employees from different areas, departments and companies of the Group. More than 120 people, under the direction of a steering committee composed of the Chief Executive Officer and senior executives, developed solutions and initiatives to improve and/or optimise internal communication between employees ("Relay project"), develop skills relative to the performance management process, streamline processes, optimise agile working methods, and identify the criteria and methods for recognising merit, the development pathways for professional and managerial roles, and the processes for job posting and job rotation. The projects were implemented and presented to the entire company workforce which, at the end 2019, was involved in the second edition of the corporate conduct and policies survey which saw a sharp rise in participation rates (around 70% of employees). The results of the survey and the relative action plans will be subject to analysis and internal communication in 2020.

In 2019, the Iren Group reaffirmed the Top Employers Italia certification, awarded to the best companies in terms of human resources: those that offer excellent working conditions, that train and develop talents at all company levels and that constantly strive to improve and optimise their best practices in the field of human resources. This commitment was also confirmed by other recognitions obtained during the year: "Le Fonti HR Awards" for the HR Team of the Year and LinkedIn's "Best talent acquisition team".

*People are a fundamental capital for the Group,
as also shown by its 2019 Top Employers
certification*

The Group contributes to maintaining employment levels also by promoting the development of businesses from which it commissions services and work, by requesting guarantees from them in terms of both personnel and safety policies through the application of some of its own standards. Moreover, the Group offers employees of supplier companies the possibility to use some of the services and attend training courses organised by the Group itself.

The Group contributes to the quality of employment of the local inhabitants and its suppliers, also through actions aimed at increasing professional skills and improving of the level of education. While having no specific local recruitment policy, given the specific features of the Italian labour market, a high percentage of employees reside in the province where their place of work is located. Furthermore, considering the types 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 the Iren Group.

2019 OVERVIEW

At 31 December 2019, the employees working for the Iren Group totalled 8,102, up compared to the 7,042 employees at 31 December 2018. The main personnel changes are due to:

- changes to the corporate perimeter in the year, mainly relating to the acquisition of the companies San Germano, CMT, Ferrania Ecologia, Territorio e Risorse, Busseto Servizi and the FG Riciclaggi business unit (more than 840 employees in total);
- 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 exchange plan.

Personnel as at 31/12 by position (no.)	2019	2018	2017
Senior managers	94	93	89
Junior managers	314	296	265
White collar workers	3,495	3,304	2,918
Blue collar workers	4,199	3,349	3,013
TOTAL	8,102	7,042	6,285



(*) The percentage variation refers to the average number of employees calculated with a consistent corporate perimeter (data for 2018).

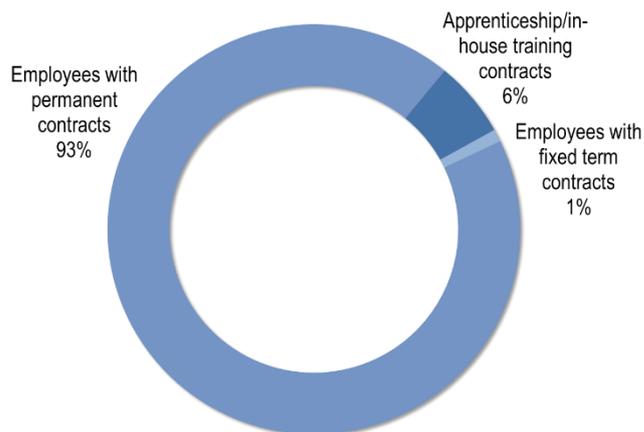
99% of personnel are employed on permanent contracts or - in the case of young people - apprenticeship contracts.

These figures confirm that the Group favours long-lasting working relationships with its employees. It also provides internship opportunities with the aim of offering a real professional experience particularly to young people. In 2019, 195 people were given internships and 36 students took part in School-Work programmes.

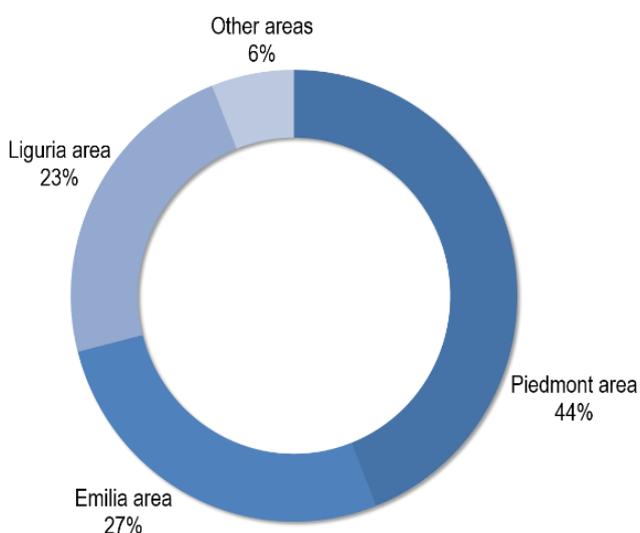
39% of employees fall within the 30 to 50 age group, while the average age is 49.

99% of the Group's personnel are employed on permanent or apprenticeship contracts

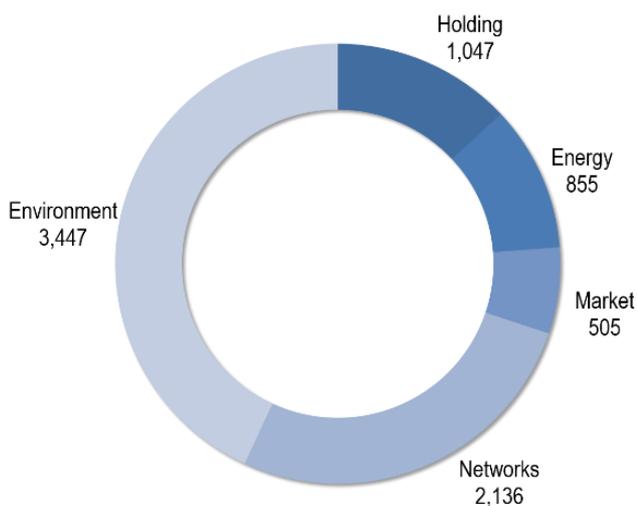
PERSONNEL BY CONTRACT TYPE



AVERAGE PERSONNEL BY AREA



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

In 2019, 745 new hires were made, with the majority (over 68%) employed on permanent or apprenticeship contracts.

The use of fixed term contracts increased compared to 2018 as a result of the entry within the corporate perimeter of San Germano, which recruited staff to carry out contracted works, also of a seasonal nature.

Net of this effect, in fact, the percentage of people hired on permanent or apprenticeship contracts was 93%, an increase on the figure for 2018 (82.4%).

Staff taken on by type of contract (no.)	2019	2018	2017
Permanent contract	202	84	47
Fixed term contracts	238	55	38
Apprenticeship contracts	305	174	67
TOTAL	745	313	152



Hires by type and age (no.)	2019	2018	2017
under 30 years old	360	225	79
from 30 to 50 years old	296	79	69
over 50 years	89	9	4
TOTAL	745	313	152

The entry of San Germano also reflects the percentage reduction in employees employed on fixed-term contracts, including those on permanent contracts or apprenticeships expiring in the year, which totalled 39% (of the 341 employees with contracts due to expire, 231 were employed by San Germano). Net of this company, the percentage was 75%.

Employees with contracts expiring in the year (no.)	2019	2018	2017
Fixed-term/apprenticeship contracts up for expiry	341	67	31
of which taken on during the year with a permanent contract	132	52	27

One of the main reasons for contract terminations was contract expiration, relative to the aforementioned characteristics of the San Germano workforce followed by those relative to the termination of working relationships relating to the demographic readjustment plan with retirement incentives, in line with 2018.

Outbound employees by reason (no.) and turnover	2019	2018	2017
Resignations	131	60	53
Voluntary termination/retirement	133	300	51
Death	14	11	13
Dismissals	26	29	19
Inability to work	15	19	14
Expiry of fixed-term contract	191	10	7
Transfer to other Group companies ⁽¹⁾	4	8	7
TOTAL	514	437	164
TURNOVER ⁽²⁾	6.3%	6.2%	2.6%

⁽¹⁾ Agreed transfer to companies which are not part of the analysed perimeter.

⁽²⁾ Turnover was calculated as a percentage between the number of outbound employees and the number of total employees at 31/12.

The turnover data is substantially in line with the 2018 figures as, despite the increased number of expiring fixed-term contracts (San Germano), the number of employees directed to the retirement incentive plan reduced and the balance between new hires and contract terminations was firmly positive.

Specific studies and simulations were carried out within the context of the Business Plan to assess the Group employees eligible to retire in the 2019-2030 period. Consequently, the Group is making preparations to handle employees that are eligible to retire in the next 5-10 years, accounting for possible organisational changes to work and the new skills needed.

In 2019, an agreement with Trade Unions was reached to reward early retirement through the so-called "quota 100" (Italian Legislative Decree no. 4 of 28/01/2019, transposed with amendments by Law 26/2019), which entitles employees aged 62

and over and with a minimum of 38 years of contributions to take early retirement. Of the employees who gained, or will gain, the right to the "quota 100" pension by 31/12/2021, around 300 showed interest.

Within 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 in 2019 were normal working hours.

Hours worked (no.)	2019	2018	2017
Normal working hours	12,354,017	10,571,908	9,370,018
Overtime	781,767	627,554	579,732
TOTAL	13,135,784	11,199,462	9,949,750

Sick leave (ratio between hours of absence due to illness and hours worked) was 5.1%, up slightly on 2018. The absenteeism rate came in at 5.2% (the ratio between days of absence due to illness, accident, strikes and other types of absence and working days in the year per employee, excluding Saturdays, Sundays and midweek holidays, multiplied by the average number of employees).

Hours of absence by type (%)	2019	2018	2017
Sick leave	57	54	59
Maternity leave	6	7	5
Accident	8	7	9
Strike	0	1	1
Trade union meetings and leave	5	5	4
Other absences (paid and unpaid)	24	26	22
TOTAL	100	100	100

REMUNERATION SYSTEM

The Group adopts National Collective Labour Agreements (CCNL); the main ones include: "electricity sector employees", "gas and water sector employees", "environmental services employees", which ensure contractual salaries are paid to all employees. All employees are covered by National Collective Labour Agreements. Generally, workers with leasing contracts receive the same remuneration as provided for in contracts of Group employees (including performance bonuses). Furthermore, no differences in benefits for full-time employees, employees with fixed-term contracts or part-time employees exist.

Group employees receive national collective labour agreements and incentive tools in line with company values

Variable remuneration linked to performance (for example, on call) and the achievement of company and individual targets is added to fixed remuneration. In 2019, the ratio between the highest annual remuneration and the average remuneration of all other employees was 4, while the ratio between the increase of the highest basic remuneration of the Group and that of the average remuneration of all other employees was -3.1. The negative difference is the result of the acquisition of San Germano, which has a high number of manual workers, with lower contractual levels compared to the Group's traditional workforce. The Group's average basic salary by gender is 1.08 compared to the average local salary by gender (source: Istat 31/12/2017).

BONUS SYSTEM

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 124) 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.

Performance bonuses. Collective performance bonuses are provided to increase personnel involvement and encourage the achievement of Group objectives, established according to strategic and management objectives and aimed at enhancing the correlation between compensation and attained results. 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 2019, specific agreements were approved on the subject and bonuses may be paid in the form of one-off compensation via welfare instruments to non-management personnel. Furthermore, during the year part of the Performance Bonus was consolidated for the current workforce, allocating an additional contribution towards the supplementary pension fund for new hires.

Management by objectives system (MbO). In most Group Companies, all senior managers, junior managers and employees that hold important positions are assigned individual targets which, when achieved, trigger the payment of the amounts that were defined at the time when the targets were given. 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.

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. The people to receive bonuses are identified after meticulous analysis of individual performance results, which is conducted by their various managers. In 2019, 55% of employees received a formal performance assessment, down on the percentage in previous years as a result the acquisition of San Germano and CMT, whose 792 employees have not yet been subject to the Group assessment system. Net of these companies, the percentage was 61%, in line with the previous

year, as the calculation criteria for the population has remained the same, in line with the defined policies. The performance assessment process involves the assignment of objectives, a mid-year assessment, an end-of-year assessment and, for certain employees (3,300 in 2019), the process is managed through a computer system.

Overall, the allocated amounts of variable remuneration are given in the table below.

Variable remuneration (thousands of Euro)	2019	2018	2017
Performance bonuses	9,626	12,232	12,133
MbO ⁽¹⁾	3,829	3,308	2,882
One-off compensation ⁽¹⁾	4,534	2,112	2,001

⁽¹⁾ Amounts allocated.

As part of the more complex standardisation of corporate agreements, from 2019 onwards part of the Performance bonus is converted into a fixed remuneration component for people employed by the Group as at 31 March 2018. This new approach determines the reduction in total value of the Performance bonuses shown in the table.

PERSONNEL SELECTION AND DEVELOPMENT

SELECTION SYSTEM

At the 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 (Italian Legislative Decree 231/2001). 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 the open positions at the Iren Group can be made via the channels on which the active searches are published: the "Irenfuturo" Portal, the "jobs" 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, on the basis of specific reference profiles (operational, technical, specialist and managerial). 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 be students at leading universities and schools in the areas where the Group operates, with which solid partnerships have been established. As regards high schools and technical institutes, candidates' knowledge of the Group and vice versa is also enabled through the School-Work and work experience programmes. At university level, contests are organised which, through structured assessments, enable the identification of high value candidates.



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. Every CV is assessed on the basis of how well it matches the requirements of the vacant position. If the profile meets the requirements, it is included in the selection process; if it does not meet the requirements of the position to be filled, the CV 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 typical selection process involves a number of predefined 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; interview with representatives from the HR department and organisational departments in which the resource will work.

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, along with over 160 nationally important companies, to creating more equal conditions to promote diversity and employment for women.

PERSONNEL DEVELOPMENT

The professional growth of human resources is essential for the Iren Group to anticipate and successfully address the complexities and changes of the market, regulations and technologies. Iren invests to increase its in-house skills portfolio and enhance its human resources using specific policies, methods and tools. Its commitment to discovering, developing and promoting personnel skills is a fundamental part 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 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 and standard jobs. Essentially, this constitutes the logical infrastructure on which the main human resources management processes stand, including skills training and development. Specifically, each standard job within the Job System is weighed, in relation to the contribution that each role within the organisation 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 business 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 personnel management processes (first and foremost, training and internal mobility).

In 2019, skill monitoring and evaluation activities continued via dedicated tools that are different for each band and group. A performance management system was also implemented, aimed at the full implementation of all Group resources, with a set of objectives for each professional band and group (connected to the MbO system for higher bands), referencing the economic-financial dimension, the customer and service dimension, sustainability, the effectiveness of internal processes and personnel; a project to extend the Group Job System to organisational positions was also launched, identifying for each one the specific skills required in the corporate organisational structure.

The remuneration policy, within the context of defined budget guidelines, is always based on performance evaluation, taking into account, however, the remuneration package of the people holding the evaluated positions. 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 or similar responsibilities.

The employability of personnel is pursued via ongoing training and change management programmes to support current and planned changes (also in the medium/long term); this topic has been the subject of specific studies implemented as part of defining the Business Plan, with particular focus on the implications of digital transformation, subject to a specific project (Iren4digital), for all company personnel.

Finally, voluntary redundancy incentive schemes were continued, as part of a general demographic readjustment plan, with the launch of pilot projects for the intergenerational transfer of skills and, more generally, to manage the different demographic populations present in the Group.

STAFF TRAINING

Training is a crucially important tool in growing and enhancing human resources, alongside the development strategies and values of the Group, and plays a fundamental role in meeting needs of innovation and change that the market dictates in order to be competitive. Training focuses on maintaining and developing skills, with particular reference to the "core" skills of certain professional

positions within the Group, with a view to promoting lifelong learning.

Training supports development and professional growth, and meets the needs of innovation and change

According to a logic of quality and efficiency, the phases of the training process follow a “plan-do-check-act” approach:

- identification of training needs, analysis of consistency with strategic guidelines, standardisation and systematisation of training needs;
- development of Group training plan and allocation of budget;
- planning and development of training programmes (internal and/or external);
- delivery and ongoing monitoring;
- ex-post training evaluation.

The training process is implemented through an approach guided by the identification of training needs, with a top-down approach through consultation with senior management regarding the strategic and organisational objectives to be achieved, and through meetings with the managers of the various departments with regard to the needs for the consolidation and development of skills, in line with the specific targets and the outcome of the skills assessment phase.

All training initiatives are managed through the use of a dedicated management application (Training Portal), which is updated continuously with employees’ personal data and is connected to an open-source platform for the creation and distribution 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 training provided is subject to an efficiency evaluation through participant satisfaction and learning analysis and the monitoring of a set of indicators that provide useful details on improving the offer.

The most relevant initiatives aimed at reinforcing technical, professional, managerial and transferable skills carried out in 2019 included:

- onboarding for **new hires** (welcome days, learning meetings, apprenticeship initiatives);
- the development of **management skills** (training modules on staff management, motivation and development, effective communication, project management, management workshops for the constant updating of the Ambrosetti study), and the consolidation of soft skills (online learning modules);
- teambuilding exercises **to support transformation projects** (e.g. JustIren, for the launch of an integrated, digital operating model for the management of environmental services and the thermoelectric production sector), with the aim of promoting team spirit, sense of belonging and responsibility, trust and communication;

- presentation of the **Business Plan to 2024** and the interdepartmental factors that enable its implementation (digitalisation, organisational efficiency and people);
- targeted consolidation of digital skills through the Iren4Digital project, on the basis of the skills mapping of all human resources which led to the issue of individual Digital Identity Cards, with the provision of targeted training courses: online courses and workshops dedicated to so-called “*TrasformAttori*”, facilitators of change and digital transformation (around 200 employees of different ages, regions and sectors, collecting ideas and suggesting to make the digitalisation process clearer, more efficient and effective. The online learning programmes were a significant step in the Group’s strategic and digital transformation, representing an investment to promote employees’ professional development;
- consolidation of the **culture of diversity and inclusion** (training initiatives on HR management, communication, leadership, inter-company storylines and coaching programmes in collaboration with the Valore D association);
- development of **specialist technical skills** on environmental topics, also aimed at providing professional training credits (engineers, architects, biologists, surveyors and chemists).

The **training initiatives on smart working** were also significant, developed in 2019 with the roll-out of the project to new company areas, reinforcing the agile work culture and consolidating results.

At Group level, the hours of training provided to employees (including apprenticeships and workers with supply contracts) amounted to 145,235 (+11% compared to 2018), with 6,825 employees participating in at least one training initiative (85.4% of average total employees) and a per capita average of 18.2 hours.

For better comparison with 2018, excluding the training carried out by the company San Germano to its 765 employees, the number of hours pro capita was 19.7 and around 90% of employees received training.

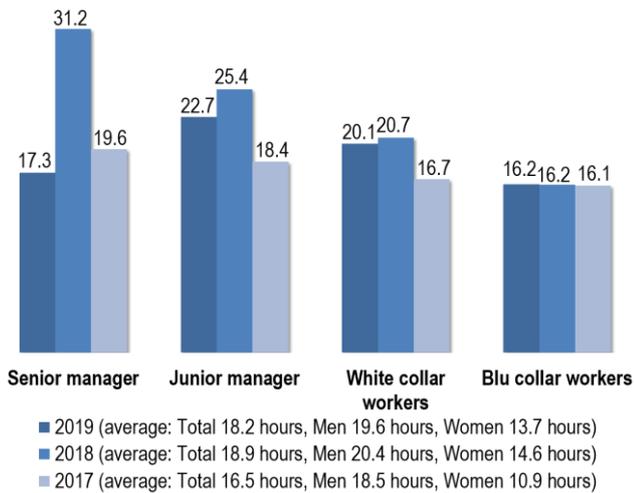


Employees involved in one training course (%) ⁽¹⁾	2019	2018	2017
Senior managers	100.0	100.0	100.0
Junior managers	100.0	100.0	100.0
White collar workers	95.9	100.0	100.0
Blue collar workers	75.0	79.7	75.0
TOTAL	85.4	94.8	88.2

⁽¹⁾ Ratio between number of people involved in at least one training event and the average annual number of employees.

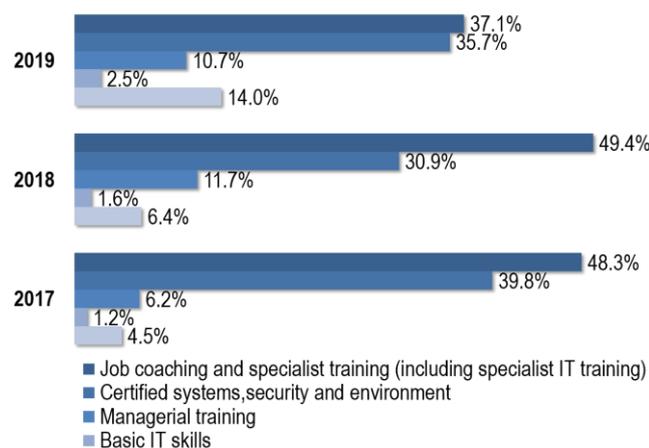


HOURS OF TRAINING PER CAPITA BY POSITION AND GENDER



Average hours of training by position	2019	2018	2017
Senior managers	1,665	2,838	1,786
Junior managers	6,975	7,417	4,827
White collar workers	69,342	67,573	48,478
Blue collar workers	67,253	52,984	48,542
TOTAL	145,235	130,812	103,633

% DISTRIBUTION OF TRAINING HOURS BY TOPIC



Compared to 2018, training on certified systems, safety and the environment rose by more than 28% in terms of total hours, with the average number of hours per capita increasing from 5.8 to 6.5 (+12%). The figures for basic IT training also increased owing to the higher number of initiatives aimed at the use of the Office applications. Specialist training also increased, reaching over 37%, the highest percentage out of total training hours delivered.

Internal training, carried out by internal trainers and external consultants, continues to represent one of the Iren Group's distinguishing characteristics (approximately 80% of total hours), with 252 courses carried out in over 2,000 sessions. The remaining 20% comprised external training delivered by third parties and attended by Group personnel. The online soft-skills courses and the programmes of the Iren4Digital project also fall into this category.

In 2019 the employee satisfaction rating with regard to training provided was positive at 84.0%, an increase on the rating in 2018 (78.2%), measured according to the feedback given by participants at the end of the courses; satisfaction with apprenticeship training also rose (87.4% compared to 86.6% in 2018).

The economic investment in training for 2019, net of internal personnel costs and excluding costs related to Companies that joined the Group during the year, was around 1,100,000 Euro (+13.3% compared to the previous year), of which 603,000 Euro was self-financed by the Fonservizi fund.

Moreover, the Group makes its skills available to the schools and universities within the areas that it operates to create study, research and combined school/work projects.

Ten agreements are in place with universities, mainly located in the areas of reference, aimed at establishing collaboration for advanced training and the recruitment of new graduates and undergraduates.

Furthermore, partnerships have been launched with the leading Italian business schools, aimed at providing scholarships for masters' students and/or advanced training courses on topics of specific interest to the Group (e.g. energy management, procurement management and HR management). Specifically, during 2019, Iren:

- participated in four university Career Days, meeting over 500 students interested in learning more about the Group or improving their understanding of the world of work;
- launched 33 curricular internships and 73 extra-curricular internships;
- launched scholarships for four postgraduate courses and welcomed six new work experience participants.

HEALTH AND SAFETY TRAINING

The main objectives of the Group's training activities include the improvement of conduct and the consolidation of a culture characterised by health and safety at all operational levels.

Occupational health and safety continues to play a prominent role in the Group's employee training initiatives. In 2019, over 49,000 hours of training were delivered on the topic of safety (Italian Legislative Decree 81/08 and subsequent State-Region Agreements), with an average of 6.1 hours per capita (5.5 hours in 2018).

The main initiatives carried out regarded:

- **basic training and refresher courses** for executives and workers (1,750 employees involved in training courses to prevent muscular-skeletal disorders), for emergency and first-aid officers (including training on how to use the automatic defibrillator), for personnel in charge of installing and removing street signage with vehicular traffic, for personnel responsible for cable access systems, on specific risks (confined spaces, electricity, advanced driving, asbestos, work in isolated and mountain environments, biological risks from Legionnaire's disease, exposure to radon, the use of machinery, tools and helicopter), the use of PPE (rope-access,

respirators, hearing, electricity risk, confined spaces, chemical and biological risk);

- **qualification and refresher courses for safety officers** (RSPP/ASPP, HSR, site safety coordinators, fire prevention officers, HSE trainers, executives 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, watercraft, trolleys for the transport of goods and people and/or lifts/cablecars, 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.).

The initiatives were delivered according to a schedule that considered the entry and/or insertion of staff into roles and/or the presence of new risks in the risk assessment document, and the training frequency deadlines envisaged by the regulations (every two years, three years or five years).

The Training Portal is integrated with the “Gamma” app for security 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 accurately monitor the expiry dates of the relative updates.

In 2019 the internal planning of training initiatives was once again one of the Group's strengths, with training provided by internal trainers and external providers selected through tenders.

The effectiveness of the safety training is assessed through tests or, as provided for by law, practical assessments.

EQUAL OPPORTUNITIES

The Iren Group is committing the enhancing the diversity present within the company, providing a healthy work-life balance and improving the quality of the working environment.

The aim is to become a team, to add value to the outcome of individual work and to increase a feeling of belonging, creating shared social, cultural, professional and intellectual terrain.

*There were
no breaches associated
with discrimination policies in 2019*

The Group guarantees the absence of discrimination when applying personnel selection, hiring, training, management, development and remuneration policies, as provided by the Code of Ethics. This commitment has guaranteed that no related breaches occurred in 2019, continuing the past trend.

The Group has been running a series of “diversity” programmes for several years which, starting from 2015, saw *commitment* and consistent structuring with the establishment of a body called Personnel Welfare and Services. Among other things, this focuses on diversity management and the application of inclusion policies that recognise and find value in differences, actively managing them and leveraging them to increase the company's competitiveness.

The main issues of focus are gender, age, disability and differences all areas in which the Group has implemented various programmes and initiatives.

The *diversity management* policies are implemented, for example, through the adoption of new flexible working methods to facilitate the work-life balance, non-discrimination during the selection phase, the enhancement of skills and the promotion of women's managerial skills.

In 2018, in collaboration the Valore D (a business association that promotes diversity, talent and female leadership to stimulate growth at company and national level), Iren launched the “Futuro D” project, aimed at supporting an awareness raising campaign within the Group on the subject of the inclusion of diversity and to promote women's career development. In 2019 awareness raising activities, focus groups and the collection of suggestions aimed at improving company performance through the enhancement and inclusion of diversity were carried out.

Together with another 26 public service providers associated with Utilitalia, in 2019 the Group signed the “Utilitalia Pact - Diversity makes the difference”, a shared programme of principles and commitments to increase *diversity management* activities within the member companies. The Pact establishes seven commitments to promote the inclusion and diversity of gender, age, cultures and abilities within company policies.

The Group underlines these commitments with its support in 2019 for the “Ragazze Digitali” project, organised by the European Women's Management Development association and aimed at young people who have graduated from 3rd and 4th grade at all high schools, with the aim of developing IT and programming skills, promoting a culture of proactivity and stimulating their digital creativity through a learn-by-doing approach.

To achieve *gender equality* there must be an adequate presence of women in all business sectors which in the future will offer better professional and career opportunities.

FEMALE PERSONNEL

The 1,940 women employed by the Group represent around 24% of the total workforce: this percentage is lower than in previous years due to the acquisition of the companies San Germano and CMT which, due to the nature of their activities, mainly employ male personnel.

Excluding these two companies, the percentage of women in the Group is 26%, in line with the previous year.



Personnel by position and gender	2019		
	Total no.	No. of women	% Women
Senior managers	94	17	18.1
Junior managers	314	76	24.2
White collar workers	3,495	1,261	36.1
Blue collar workers	4,199	586	14.0
TOTAL	8,102	1,940	23.9

With regard to skill development, the promotion of women's managerial skills and the development work-life conciliation tools, the anti-discrimination policies implemented during the selection stage have increased the attractiveness of the Group for women, also within professions that are typically characterised by a strong technical component traditionally "reserved" mainly for men. The recent hires of young female graduates, even into strictly technical sectors such as waste or site&network engineering, is evidence of this.

The majority of female personnel (approximately 69%) are junior managers and white collar workers (overall this constitutes around 47% of total personnel, compared to the 52% of blue collar workers). The analysis, also in consideration of the fact that mainly technical activities are carried out, revealed a non-discriminatory situation for women, who represent around 35% of senior managers, junior managers and white collar workers.

The presence of women amongst junior managers and white collar workers is higher than that in the overall Group population

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 remuneration per position held by women (details are available in the "Iren Personnel: the numbers" section at the end of this chapter) is slightly lower than that of men, due to three factors: a greater percentage of women working part time (approximately 14% of the female workforce), lower average length of service for women compared to men, the strong incidence of specialist technical roles that are linked to historically male education courses. Through careful selection policies and the introduction of a reward system aimed at defining consistent policies for all company personnel, the Group has set itself the objective, insofar as possible, of rebalancing this situation, also in consideration of the reference labour market.

In line with the provisions of the Articles of Association concerning equal access to the administrative and control bodies of listed companies (Italian Law 120/2011), in Iren and in the top-level Companies, gender balance in the set-up of the governing bodies is ensured. On the whole, on the Boards of Directors for Group Companies there are 30 women, amounting to approximately 23.3% of total members (129 people of which 33% in the 30 to 50 age group and 67% over 50).

Women represent 40% of the members on the Board of Directors of the Parent Group.

In 2019, 311 employees took parental leave (162 women and 149 men), and 307 took maternity leave (obligatory, optional, early), also taking advantage of the various options for working hours that the Group makes available, the specific training that the company provides in these cases and the services described in the Corporate Welfare paragraph.

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.

PROTECTED CATEGORIES

The Iren Group takes care to provide disabled personnel with conditions that facilitate their integration in the working environment and operates in compliance with current legislation on the subject.

Personnel belonging to protected categories	2019	2018	2017
Number of employees	383	352	315

CORPORATE WELFARE

The Group is creating 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 in this process. 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

The Group pursues a management policy that promotes and supports the correct balance between professional and private life, providing its employees with a range of opportunities that allows them to reconcile work commitments and personal needs (flexible working hours, teleworking, part time, ultra-daily flexibility, additional leave, up to a maximum of 2 days to be taken, even by the hour, within the year of maturity resulting from the replacement of part of the Performance Bonus, short leave and short paid leave, integration of compulsory maternity leave, conciliation desks).

Remote Working: 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, the distance between their home and place of work, etc.). In 2019, 107 employees worked from home.

Smart Working: this is a new way of working based on trust and flexibility, in line with the needs of personnel to better balance their private life and professional life.

In 2018 a pilot smart working project was launched, which was extended in 2019. It offers the option to work one day a week away from the workplace, as agreed with the employee's line manager. As at 31 December 2019 the project included 950 employees (422 men and 528 women) belonging to very different organisational units that carry out activities that are appropriate for smart working. Take-up has been significant, confirming that this new way of working, in exchange for increased responsibility over results, is in line with the needs of employees, who perceive the attention of the Group towards their different needs.

In 2019, in line with its organisational and service needs the Group decided to prioritise the requests for remote and smart working submitted by employees whose place of work is in Genoa, who still have difficulties in getting to work for reasons due to the collapse of the Morandi Bridge.

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)	2019	2018	2017
Women	262	235	211
Men	85	38	35
TOTAL	347	273	246

INITIATIVES FOR EMPLOYEE WELFARE

With a view to promoting the well-being of its employees, the Group has chosen to meet employees' needs in terms of health and conscious consumption in eight operational company cafeterias. Modernisation work has been carried out to make the spaces more comfortable and to build a new image of a company restaurant.

Stringent controls and samples allow for compliance with health protection contractual and legal provisions to be verified, with particular attention to the quality of the ingredients used.

Furthermore, the "Sustainable Cafeteria" project was continued, which sees the involvement and active participation of all employees in three main issues: sustainable waste management, also via the reduction of waste and the introduction of free beverages (drink vending machines), with the subsequent elimination of plastic bottles and cans; social solidarity, with surplus food being recovered by non-profit organisations; education on proper, healthy eating, via posters, monitors located in dining areas, "healthy eating and cooking workshops", and the possibility of accessing the "Menu chiaro Iren" app on smartphones to help employees track their diet in the company cafeterias and provide useful dietary information.

Additionally, the Group has implemented a benefits scheme to improve the quality of life of its employees. This includes vouchers and discounts with affiliated restaurants, company cafés that offer regulated prices, internal parking for private cars and subsidised tariffs or contributions for buying subscriptions to the local public transport network.

All employees are offered, on a voluntary basis and following on from an agreement with the Trade Unions, the option of allocating

a portion of their 2019 performance bonus to company welfare initiatives, which, in this case, benefit from an increase. By accessing the Iren Welfare Portal, employees can attain – within the limits of the allocated amounts – refunds and/or goods and/or services in the following areas: family, healthcare fund, mortgages, supplementary pensions, sports, culture and leisure and trips. More than 5,180 employees are already registered on the Portal, which managed around 1,810,000 Euro in 2019.

Finally, all employees have the option of purchasing some of the IT and telephone equipment that they currently use at discounted rates, in the case of replacement when they become obsolete or when they terminate their service.

PREVENTION PROGRAMMES

The 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 Genoa the "Welfare Project" launched in 2010 continued through subscription to the "Progetto al cuore della salute" [Health at the heart], which offers the possibility of voluntary periodic health checks, and was extended in 2019 to employees in Savona, Turin, Parma, Piacenza and Reggio Emilia. The project is structured in two phases ("Health Project" and "Heart Project") (programme promoted by the Istituto Superiore di Sanità) and aims to identify, through laboratory examinations and a visit aimed at preventing cardiovascular risk, the main health risk factors in relation to age and gender. In 2019, around 1,500 Group employees signed up to the programme, with their individual contribution of 10 Euro going entirely to the Local Health Authorities.

In 2019 the Group's attention to health also focused on preventing breast cancer, with the initiative "Together for prevention" created in collaboration with the Europa Donna association on the inspiration of Professor Umberto Veronesi. The initiative offered women the opportunity to receive accurate and up-to-date information on how to prevent the most widespread female cancer, the importance of certain lifestyle factors, early diagnosis and how to choose a treatment centre. The five events took place in Genoa, Piacenza, Reggio Emilia and Turin and saw participation from over 600 women who had the chance to receive immediate responses to questions from medical professionals operating in the region's oncological departments.

As regards health eating and diet, as part of the "Mensa sostenibile" [Sustainable Canteen] project in 2019 the Group organised training sessions for employees hosted by a dietician and a chef. Furthermore, events were organised in the company cafeterias in the Turin and Parma offices, focusing on the prevention of health problems and food waste.

Finally, in 2019 the posture rehabilitation programme continued. Delivered through various training courses and involving 1,750 employees, the project aims to prevent muscular-skeletal disorders by improving the ergonomics of work stations.



SUPPLEMENTARY PENSION COVERAGE

Since the legislation reforming the supplementary pension system came into force, employees have been able to decide how to use their employee severance pay. 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 only be joined by workers applicable for certain collective agreements. The main funds for Iren Group employees are as follows: Pegaso (electric or gas-water National Collective Labour Agreement), Previambiente (environment National Collective Labour Agreement) and Previndai for senior managers. As part of the unification and standardisation process for economic and regulatory treatment, in order to promote the value of supplementary pension funds among young people, for employees hired on permanent contracts or apprenticeships an additional payment is made every year to the supplementary pension scheme in which they are enrolled.

As at 31 December 2019, 6,662 employees had joined a supplementary pension fund, including employees enrolled in open-end funds. The Group has paid a total contribution of 3,285,029 Euro to the pension funds. Employees can also make use of a pension support and advice service.

PERSONNEL INSURANCE COVERAGE

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 accidents at and outside of work. Furthermore, special insurance policies have been 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 accidents (even ones which occurred outside of work and in the case of occupational illness) and life insurance is provided for all senior managers, as per the provisions of the Confservizi National Collective Labour Agreements for Senior Managers.

SUPPLEMENTARY HEALTHCARE

Through their membership to supplementary healthcare funds, healthcare coverage is given to employees in relation to their National Collective Labour Agreement (FASIE for personnel employed on a gas-water contract, FASDA for personnel employed on an environment contract). The National Collective Labour Agreement for the electricity sector provides for the payment of contributions to CRAL associations for healthcare activities. In Parma, and for members of the CRAL ARTA association in particular, employees can join a prevention programme that includes specific health checks. Specially constituted funds manage the payment of healthcare benefits that ordinary members (employees) and their dependants can benefit from. All senior managers, for whom primary healthcare coverage is provided by their membership to Fasi, are also supplied with supplementary

health insurance 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 employee severance pay more than once to pay for healthcare, to buy their first house, renovate an existing 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 senior managers, whose last working relationship elapsed while holding the position of senior manager, which lasted not less than one year, can keep their subscription to the Fasi supplementary healthcare fund and make use of the benefits provided. The healthcare also covers any 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 leaving entitlement for employees who leave service with 40 years of contributions or are 60 years of age.

LEISURE, CULTURAL AND SPORTING ACTIVITIES

Through the company leisure clubs, which are present in various areas, employees are offered leisure, recreational, sports and cultural activities. Aiming to increase sociability between employees, 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 ENIA 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 areas of interest 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 provided by company supplementary agreements which have been subject to withdrawal.

Contribution paid (€)	2019	2018	2017
Leisure activities	847,690	769,632	731,687
Healthcare activities	2,250,435	1,972,327	1,891,104
TOTAL	3,098,125	2,741,959	2,622,791

INTERNAL COMMUNICATION

Internal communication is an essential tool for accelerating the development of processes, assisting and supporting organisational changes and business strategies, developing a common corporate

culture and directing efforts towards achieving company objectives, which become shared objectives that can be pursued through each person's contribution.

The "Noi Iren" company intranet is responsive and accessible off-site when employees are on the move and is the main internal communication tool, with around 4,500 active users every day and over six million page views per year. It is now possible to view and interact with the intranet via the company smartphone provided to all employees. "Noi Iren" is the knowledge map of the whole Group and is the access point for company applications. Strategic (Business Plan, economic/financial results and sustainability data) organisational (notifications, the staff structure, QSA documentation), regulatory (service orders, Model 231) and corporate (acquisitions, non-recurring transactions) information is published on the intranet, in addition to information on the meetings of the Board of Directors. The intranet also disseminates news from the Iren Informa magazine, ads on the internal notice board for the sale and exchange of items between personnel and cultural information, which aims to involve and encourage participation - both free and at discounted prices - in sports, artistic, theatre and musical initiatives supported by the Group held in the various areas. Employee engagement is also encouraged through the organisation of company events and initiatives which include the participation of workers and their family members with the aim of increasing their sense of belonging.

The work carried out to promote the Group's vision, mission and values is particularly important, involving workers in various departments in a project to produce videos that are then voted on by employees.

The "Iren Informa" magazine is an instrument that has shown itself to be particularly valuable for internal communication in 2019, thanks to its ability to involve, reward and enhance Group initiatives that would not be particularly newsworthy in traditional media, improving the ranking on search engines of service news for residents. Over 360 articles, editorials and interviews are enhanced with photo galleries and videos.

In 2019 the "Relay Project" was launched on the basis of an internal survey carried out in 2018, with the aim of promoting effective and continuous communication between managers and workers, increasing employee engagement and raising awareness about projects and strategies at all organisational levels. A series of events were held, attended by around 5,300 people from different offices and departments. During the meetings, employees demonstrated extraordinary engagement with the Group's values and the Business Plan, facilitating the exchange of ideas and opinions between the managers and employees of the various business units. As part of the project a fortnightly newsletter was produced and sent to all employees.

In 2019 the "Children and Families at plants" initiative was carried out: a series of events aimed at employees and their children, with no age limit and with the option of inviting other family members. The event represented an opportunity to come together and share experiences: over 700 people attended and had the possibility of a guided tour of some of the Group's systems, combining educational

and cultural activities according to an hourly programme based on the strengths and unique characteristics of the different regions.

The company events to reward high performing colleagues and introduce new employees hired during the year also have high levels of engagement and popularity, with nearly 2,000 people attending. This year's theme was the Group values, expressed through music and film, with performances from circus acrobats who emphasised the value of artistic spirit in their working lives.

In 2019 internal communication activities also supported Iren Mercato and Iren Smart Solutions in the launch of a commercial offer aimed at employees, enabling their friends and relatives to sign electricity and gas supply contracts at more favourable conditions compared to those offered on the market.

TRADE UNION AND INDUSTRIAL RELATIONS

The 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 (CCNL) of reference.

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 between the Parties.

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 with a view to seeking possible points of convergence) and negotiation



(discussion between the Parties aimed at reaching agreements that have binding force for 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.

Following the positive conclusion of the process to standardise company agreements in the various sectors and regions in 2018, in 2019 the Group welcomed in a new season of industrial relations and the agreements signed focused on work flexibility and digitalisation, determining new forms of organisation and, therefore, also requiring the necessary involvement of Trade Unions throughout the transition phase. The digitalisation process has become one of the central paradigms of corporate productivity and in reflection of this, the Group's Performance bonuses have been extended to include the diffusion of digital culture. The Group agrees with Trade Unions that in order to meet this objective, high employee participation in training activities, the proactive use of company IT systems and contribution to the organisation of work are essential, including through consultations on the conduct and organisational policies proposed to all employees, positive points and/or criticisms or suggestions for improvement. Furthermore, considering the digitalisation process as a tool to promote a flexible work organisation, in 2019 a trade union agreement was signed to govern smart working.

In Autumn 2019, the electricity and gas-water National Collective Labour Agreements were renewed. Among the central points of the new contracts was the formalisation of negotiations in 2020 between companies and Trade Unions, aimed at defining a proposal for the revision of the employment category system, considering new professions and emerging skills, including as a result of digitalisation and technological innovation.

In 2019, in compliance with the Group Trade Union Protocol, the Group and Trade Unions agreed upon the necessity to establish a culture of participation aimed at optimising the various "levers" required to innovate the work organisation, enhancing people through the provision of greater opportunities for autonomy and coordination.

Following the Trade Union agreement signed on 20 November 2019, the Iren Group has promoted, and will continue to promote in 2020-2021, the right to voluntary early retirement (quota 100), in application of current legislation.

Company management informs the Trade Unions in the event of significant organisational changes (such as the establishment of new business units or changes to the organisation of work) 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 email and posted to company notice boards.

In regard to 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 20 to 60 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.

In 2019, the Group definitively lost five lawsuits brought by employees and former employees, in relation to which the Group did not make any pay-outs, having already carried out its obligations at the time of the initial unfavourable verdict, as provided for in the regulations.

OCCUPATIONAL HEALTH AND SAFETY

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 accidents, near-misses, and planned supervisory surveys.

The Parent Company, all top-tier Group companies and the main investee companies have adopted systems certified according to BS OHSAS 18001, implemented in order to ensure the systematic control of occupational health and safety for the entire employed workforce (equally around 94% of the total Group workforce).

SAFETY MANAGEMENT

The Safety Management System for the entire Group is provided 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 identification of employee training needs. Specific codified and systematic audit procedures allow for the monitoring and the continuous improvement of this system to be pursued.

Specific objectives are identified as part of the progressive computerisation of the Safety Management System (through the dedicated "Gamma" app which guarantees uniformity of approach and the relative monitoring activities), when standardising the management of cross-departmental topics (including the issue of Group procedures regarding PPE, health checks, emergencies,

accidents) and during the progressive integration of newly acquired companies incorporated into the Iren Group.

Each Group company organises at least one meeting each year on company safety (art. 35, Italian Legislative Decree 81/2008), as well as one or two additional meetings during the year involving 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 participate in workplace visits with the occupational health physician (Article 25, Italian Legislative Decree 81/2008) and are involved in the audits of Certified Systems.

Accidents and near-misses are reported and managed 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.

With regard to the specific characteristics and needs of Group companies, specific procedures are adopted to regulate particular situation 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 specific 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 worker, directly or through groups (safety certifications) of the results of the assessments conducted on working activities and workplaces completes the risk profile of each individual worker, identifying the consequent general protection measures to be implemented such as 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 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 OHSAS 18001 certification, specific and periodic audits are carried out by certified external auditors and independents with the aim of verifying the correct implementation of the occupational health and safety management system.

The results of these audits are brought to the attention of the Management to enable the relative action to be taken.

There is a specific section 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).

The focus on accidents is also demonstrated by the provision of specific objectives, provided within the MbO system, of containment or prevention, assigned to the Managers of operational structures most exposed to these risks.

HEALTH CHECKS

Employee health checks are carried out on the basis of their assigned duties (around 6,000 medical examinations in 2019); these are organised centrally by the Safety Service while diagnostic checks are planned and conducted by a specialist external company. Pursuant to current law, the medical examinations are carried out by qualified external 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 specified 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, medical professionals and the PPS only when relevant.

Healthcare initiatives and programmes and those relating to the general prevention plan are defined at contractual level and through the corporate welfare system.

With regards to occupational ill-health, the risk assessment document is constantly updated and requires a very low level of professional risk in order to vastly reduce the likelihood of illness. 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 Qualified 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 Qualified 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 Qualified Physician is however required by law to report any suspected occupational ill-health to the competent bodies. In 2019 a total of 11 reports of occupational ill-health were made, which were not acknowledged as such by INAIL. There were therefore no cases of certified occupational ill-health. The actions extend to all Group companies supervised by the Safety Service department; any companies not falling into this category, such as newly acquired companies, will be gradually integrated into the safety management system, always and in any case in compliance with the law.

No specific initiatives or programmes limited to serious illness are planned, however, numerous initiatives and programmes concerning welfare and general prevention are planned, both at the level of the collective bargaining agreements and through specific company agreements.

MAIN INDICATORS OF HEALTH AND SAFETY

Accidents and frequency index ⁽¹⁾	u.m.	2019
Total number of accidents	no.	401
of which with serious consequences ⁽²⁾	no.	0
of which fatal	no.	0
Hours worked	no.	13,135,784
Frequency index (Total number of accidents/hours worked x 1,000,000)		30.53
Days of absence due to accident	no.	12,851
Severity index (days of absence due to accidents/hours worked x 1,000)		0.98
Average duration of absence for accidents (days of absence due to accidents/total no. accidents)	days	32.05

⁽¹⁾ Accidents during travel and those not recognised by INAIL are excluded.

⁽²⁾ Injuries lasting longer than 6 months.

Near-misses ⁽¹⁾ by region and gender (no.)	2019
Piedmont	53
Emilia	29
Liguria	21
Other areas	3
TOTAL	106
Women	29
Men	77
TOTAL	106

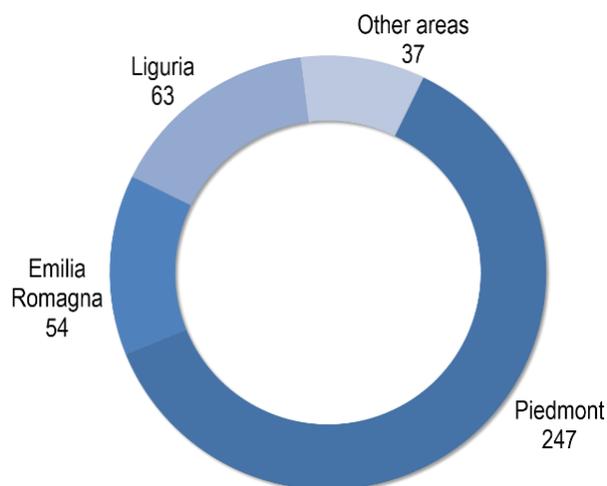
⁽¹⁾ Near misses pursuant to standard ISO 45001:2018.

The accident trend is influenced by the extension of the corporate perimeter to companies characterised by a strong level of operation in various regions of Piedmont, Liguria and Emilia.

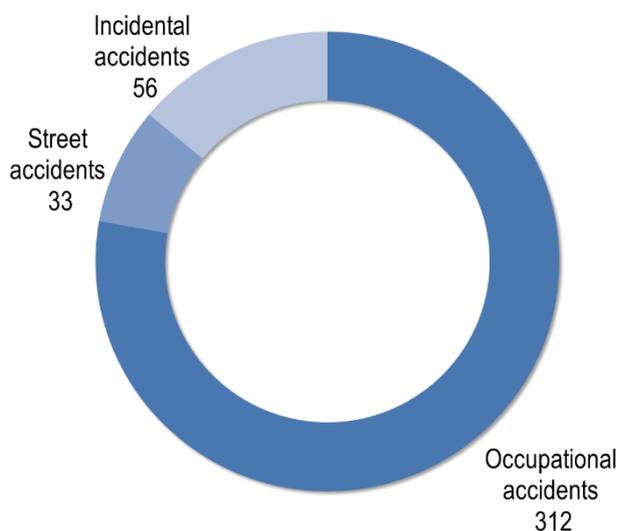
Although the frequency index (30.53) recorded a slight increase (27.68 in 2018), the severity index (0.98) remained largely unchanged on the previous year (0.95 in 2018) and the average duration of absence for accidents (32.05 days) decreased (34.39 days in 2018).

The paragraph "Iren People: the numbers" shows the breakdown of the accident indicators for the last three years.

ACCIDENTS BY GEOGRAPHICAL AREA



ACCIDENTS BY TYPE



IREN PEOPLE: THE NUMBERS

Personnel at 31/12 by position, contract type and geographical area	2019		2018		2017	
Position						
Senior managers	94	1.2%	93	1.3%	89	1.4%
Junior managers	314	3.9%	296	4.2%	265	4.2%
White collar workers	3,495	43.1%	3,304	46.9%	2,918	46.4%
Blue collar workers	4,199	51.8%	3,349	47.6%	3,013	48.0%
Contract						
Employees with permanent contracts	7,514	92.7%	6,729	95.6%	6,129	97.5%
Employees with fixed-term contracts	84	1.1%	50	0.7%	34	0.5%
Apprenticeship/in-house training contract	504	6.2%	263	3.7%	122	2.0%
Geographical area						
Province of Turin	3,137	38.7%	2,812	39.9%	2,813	44.8%
Province of Vercelli	239	2.9%	229	3.3%	225	3.6%
Province of Genoa	1,040	12.8%	1,012	14.4%	1,028	16.3%
Province of Reggio Emilia	902	11.1%	847	12.0%	747	11.9%
Province of Parma	715	8.8%	691	9.8%	715	11.4%
Province of Piacenza	555	6.9%	540	7.7%	541	8.6%
Province of La Spezia	721	8.9%	709	10.0%	n.a.	n.a.
Other provinces	793	9.9%	202	2.9%	216	3.4%
TOTAL	8,102	100%	7,042	100%	6,285	100%

Personnel at 31/12 by position and gender	2019			2018			2017		
	Total	Women		Total	Women		Total	Women	
Senior managers	94	17	18.1%	93	17	18.3%	89	13	14.6%
Junior managers	314	76	24.2%	296	70	23.6%	265	66	25.0%
White collar workers	3,495	1,261	36.1%	3,304	1,148	34.7%	2,918	983	33.7%
Blue collar workers	4,199	586	14.0%	3,349	572	17.1%	3,013	541	18.0%
TOTAL	8,102	1,940	23.9%	7,042	1,807	25.7%	6,285	1,603	25.5%

Average personnel age by position (years)	2019	2018	2017
Senior managers	54	54	53
Junior managers	52	52	52
White collar workers	49	49	49
Blue collar workers	48	49	48
OVERALL AVERAGE	49	49	49

Personnel by qualification (%)	2019	2018	2017
Compulsory education	38	33	35
Professional institutions	9	11	13
Diploma	37	40	38
Degree	16	16	14
TOTAL	100	100	100

Average personnel by Business Unit	2019		2018		2017	
Holding	1,047	13%	1,048	15%	933	15%
B.U. Energy	855	11%	815	12%	648	10%
B.U. Market	505	6%	478	7%	464	8%
B.U. Networks	2,136	27%	2,098	30%	1,955	31%
B.U. Environment	3,447	43%	2,482	36%	2,262	36%
OVERALL AVERAGE	7,990	100%	6,921	100%	6,262	100%

Average company service of departing staff by age and gender (years)	2019	2018	2017
Age			
under 30 years old	1	1	1
from 30 to 50 years old	3	8	9
over 50 years	22	30	28
Gender			
Men	14	27	22
Women	17	23	20
OVERALL AVERAGE	14	26	22



Staff turnover by gender, province and age ⁽¹⁾	2019	2018	2017
Gender			
Men	7.7%	7.0%	3.0%
Women	2.0%	3.9%	1.4%
Province			
Province of Turin	4.3%	6.2%	3.0%
Province of Vercelli	5.4%	7.9%	6.2%
Province of Genoa	3.3%	5.3%	2.1%
Province of Reggio Emilia	5.3%	7.9%	2.1%
Province of Parma	3.8%	8.0%	1.5%
Province of Piacenza	2.2%	5.6%	1.1%
Province of La Spezia	4.2%	2.5%	n.a.
Other provinces	27.0%	10.9%	5.1%
Age			
Under 30 years old	8.8%	5.0%	2.7%
From 30 to 50 years old	4.7%	1.6%	1.6%
Over 50 years	7.2%	9.6%	3.5%
TOTAL	6.3%	6.2%	2.6%

⁽¹⁾ Turnover was calculated as ratio of outbound employees to the number of total employees at 31/12.

Ratio of basic average salary by gender and position (%)	2019	2018	2017
	% Men/Women		
Senior managers ⁽¹⁾	89.3	86.2	91.4
Junior managers	98.3	97.1	94.4
White collar workers	91.1	91.1	86.4
Blue collar workers	96.7	93.5	92.0

⁽¹⁾ The data for 2017 has been restated.

Staff hired in the year by gender, province and position (no.)	2019	2018	2017
Gender			
Men	633	244	115
Women	112	69	37
Province			
Province of Turin	242	149	68
Province of Vercelli	14	19	4
Province of Genoa	64	39	38
Province of Reggio Emilia	93	40	14
Province of Parma	55	25	18
Province of Piacenza	27	30	8
Province of La Spezia	27	6	n.a.
Other provinces	223	5	2
Position			
Senior managers	4	2	2
Junior managers	16	22	6
White collar workers	229	129	60
Blue collar workers	496	160	84
TOTAL	745	313	152

Ratio of basic average salary by gender and geographical area (%)	2019			
	% Men/Women			
	Senior managers	Junior managers	White collars	Blue collars
Piedmont	99.7	100.0	91.7	99.6
Emilia Romagna	85.8	102.0	94.2	98.8
Liguria	76.7	96.5	88.5	95.0
Other areas	n.a.	71.7	77.9	93.5

Accidents and accident indexes	u.m.	2019	2018	2017
Total number of accidents⁽¹⁾	no.	401	310	295
of which work-related	no.	312	216	166
of which traffic-related	no.	33	28	38
of which random	no.	56	66	91
Accidents with serious consequences⁽²⁾	no.	-	n/a	n/a
of which fatal	no.	-	-	-
Hours worked	no.	13,135,784	11,199,462	9,949,750
Frequency index⁽¹⁾	-	30.53	27.68	29.65
(Total number of accidents/hours worked x 1,000,000)				
Days of absence due to accident⁽¹⁾	days	12,851	10,660	9,266
Severity index⁽¹⁾	-	0.98	0.95	0.93
(days of absence due to accidents/hours worked x 1,000)				
Incidence index⁽¹⁾⁽³⁾	-	50.19	44.79	47.11
(total no. accidents/total no. employees x 1,000)				
Average duration of absence for accidents⁽¹⁾	days	32.05	34.39	31.41
(days of absence due to accidents/total no. accidents)				
Accidents during travel	no.	60	57	75
of which non-fatal	no.	59	57	75
of which fatal	no.	1	-	-

⁽¹⁾ Accidents during travel and those not recognised by INAIL are excluded from the accident indexes calculation.

⁽²⁾ Injuries lasting longer than 6 months.

⁽³⁾ The incidence index is calculated considering the average number of employees.

Accidents by gender (no.)	2019	2018	2017
Men	308	224	213
Women	93	86	82
TOTAL	401	310	295

COMPLIANCE WITH THE GRI STANDARDS AND ITALIAN LEGISLATIVE DECREE 254/2016

Indicator	Application	Italian LD 254/16	Page/Notes
Organisational profile			
102-1	Name of the organisation	Core	● Cover, 8
102-2	Activities, brands, products and services	Core	● 19-23
102-3	Location of headquarters	Core	● Back cover
102-4	Countries of operations	Core	● 16
102-5	Ownership structure and legal form	Core	● 14, 26
102-6	Markets served	Core	● 16, 19-23, 93-100
102-7	Scale of the reporting organization	Core	● Consolidated Financial Statements, 13, 19-21, 54, 75-79, 93, 120-121, 135-136
102-8	Information about employees and other workers	Core	● 13, 21-23, 120-137, 135-136
102-9	Supply chain	Core	● 113-118
102-10	Significant changes to the organisation and its supply chain	Core	● 9, 16-18, 26, 116
102-11	Precautionary principle (Risk Management)	Core	● 35-39
102-12	External initiatives	Core	● 45, 86
102-13	Membership of associations	Core	● 112
Strategy			
102-14	Letter to the stakeholders	Core	● 2-3
102-15	Key impacts, risks and opportunities	Comprehensive	● 37-39, 48-52, 66-71
Ethics and Integrity			
102-16	Values, principles, standards and rules of conduct	Core	14, 40-41, 86, 94-97
102-17	Mechanisms for advice and concerns about ethics	Comprehensive	40-41
Governance			
			Report on corporate governance
102-18	Governance structure	Core	● 27-32
102-19	Delegation process for economic, environmental and social issues	Comprehensive	27
102-20	Management responsibility for economic, environmental, and social topics	Comprehensive	27-28
102-21	Consulting stakeholders on economic, environmental and social issues	Comprehensive	● 9, 45-47
102-22	Composition of the highest governance body and its committees	Comprehensive	● 27-31
102-23	Chair of the highest governance body	Comprehensive	27, 28
102-24	Nominating and selecting the highest governance body	Comprehensive	● 27-28
102-25	Processes in place for the highest governance body to ensure conflicts of interest are avoided	Comprehensive	28, 31
102-26	Role of highest governance body in setting purpose, values, and strategy	Comprehensive	● 14, 26, 30-35
102-27	Collective knowledge of highest governance body	Comprehensive	28
102-28	Evaluating the highest governance body's performance	Comprehensive	● 27
102-29	Identifying and managing economic, environmental, and social impacts	Comprehensive	● 9, 26, 27, 35-39, 45-47
102-30	Effectiveness of risk management processes	Comprehensive	● 30-31, 35-39
102-31	Review of economic, environmental, and social topics	Comprehensive	● 9, 26, 30-31, 35-39
102-32	Highest governance body's role in sustainability reporting	Comprehensive	● 8-9, 26
102-33	Communicating critical concerns	Comprehensive	28, 36, 41
102-34	Nature and total number of critical concerns	Comprehensive	● 41
102-35	Remuneration policies	Comprehensive	29-30
102-36	Process for determining remuneration	Comprehensive	29-30
102-37	Stakeholder engagement regarding remuneration policies	Comprehensive	30
102-38	Annual total compensation ratio	Comprehensive	123
102-39	Percentage increase in annual total compensation ratio	Comprehensive	123
Stakeholder Engagement			
102-40	List of stakeholder groups	Core	● 9, 45-47
102-41	Collective bargaining agreements	Core	● 116-117, 122-123
102-42	Identifying and selecting stakeholders	Core	9, 45-46
102-43	Stakeholder engagement	Core	● 9, 45-47, 111
102-44	Key topics and concerns raised	Core	9-12, 46-47



Indicator	Application	Italian LD 254/16	Page/Notes
Reporting practices			
102-45	Entities included in the Consolidated Financial Statements	Core	• 8
102-46	Defining report content and topic boundaries	Core	• 9
102-47	List of material topics	Core	• 9
102-48	Restatements of information	Core	• 9, 67, 69, 73, 80, 93, 136
102-49	Changes in reporting	Core	• 9
102-50	Reporting period	Core	• 8
102-51	Date of most recent previous report	Core	• 8
102-52	Reporting cycle	Core	• 8
102-53	Contact point for questions about Sustainability Report	Core	• 149
102-54	Claims of reporting in accordance with the GRI Standards	Core	• 8
102-55	GRI content index	Core	• 137-141
102-56	External assurance	Core	• 8, 143
Management approach			
103-1	Explanation of material topics and their boundary	Core	• 10-12
103-2	The management approach and its components	Core	• (see the topics shown in italics)
103-3	Evaluation of the management approach	Core	• (see the topics shown in italics)
	<i>Value and economic development for local areas</i>		• 12, 32-35, 50, 54-58, 72
	<i>Competitiveness on the market</i>		• 12, 32-35, 50, 89-92
	<i>Impacts on local areas (suppliers)</i>		• 12, 50, 118
	<i>Innovation and smart cities</i>	•	• 11, 49, 61-64
	<i>Energy efficiency, renewable sources and district heating</i>	•	• 10, 48, 66, 79, 82, 97-99, 100
	<i>Sustainable use of water resources</i>	•	• 11, 49, 67-68, 74, 75-76
	<i>Biodiversity</i>	•	• 11, 82-84
	<i>Emissions</i>	•	• 11, 48, 68-70, 72-75
	<i>Circular economy: management, separated waste collection and reuse of waste</i>	•	• 11, 48, 68, 77-79
	<i>Responsible management of business segments</i>	•	• 12, 49, 70-71, 72-75, 79, 98-100
	<i>Sustainable management of the supply chain</i>	•	• 12, 50, 113-118
	<i>Employment</i>	•	• 11, 52, 120-122, 135-136
	<i>Industrial relations</i>	•	• 11, 52, 131-132
	<i>Occupational health and safety</i>	•	• 11, 52, 117, 132-134
	<i>Development of human resources</i>	•	• 11, 52, 117, 123-127
	<i>Corporate welfare and diversity</i>	•	• 11, 52, 127-131
	<i>Human rights</i>	•	• 11, 44-45, 113-115, 123-124
	<i>Development of local communities</i>	•	• 11, 50, 103-107
	<i>Environmental education</i>	•	• 11, 51, 108-109
	<i>Internal and external communication</i>	•	• 12, 50-51, 87-89, 113, 130-131
	<i>Service levels, customer focus and changes in customer expectations</i>	•	• 12, 51, 86-100, 109-110
	<i>Efficient and reliable services</i>	•	• 12, 49, 54-55, 70-71, 73, 75-76, 93-100
	<i>Marketing policies</i>	•	• 12, 51, 86-87, 89-92
	<i>Management of construction sites</i>	•	• 12, 110
	<i>Management of emergencies</i>	•	• 12, 110-111
	<i>Dialogue with Public Authorities</i>	•	• 11, 39-40, 50, 111-113
	<i>Fight against corruption</i>	•	• 12, 41-42
	<i>Compliance with laws and regulations</i>		• 12, 39-40, 57, 58, 84, 93, 118, 132
ECONOMIC PERFORMANCE			
201-1	Directly generated and distributed economic value	Comprehensive	• 54-56
201-2	Financial implications and other risks and opportunities connected to climate change	Comprehensive	• 36, 55
201-3	Defined benefit plan obligations and other retirement plans	Comprehensive	• 122, Annual Report
201-4	Financial assistance received from government	Comprehensive	• 56
Market Presence			
202-1	Ratio between the standard base salaries by gender compared to the minimum local salary.	Comprehensive	• 123
202-2	Proportion of senior management hired from the local community	Comprehensive	• 55, 120

Indicator	Application	Italian LD 254/16	Page/Notes
Indirect Economic Impacts			
203-1	Infrastructure investments and services supported	Comprehensive	54, 72, 107
203-2	Significant indirect economic impacts	Comprehensive	55, 61-63
Procurement practices			
204-1	Proportion of spending on local suppliers	Comprehensive	118
Anti-corruption			
205-1	Operations assessed for risks related to corruption	Comprehensive	• 41-42
205-2	Communication and training about anti-corruption policies and procedures	Comprehensive	• 41-42
205-3	Confirmed incidents of corruption and actions taken	Comprehensive	• 42
Anti-competitive behaviour			
206-1	Legal actions for anticompetitive behaviour, anti-trust, and monopoly practices	Comprehensive	93
ENVIRONMENTAL PERFORMANCE			
Property, plant and equipment			
301-1	Materials used by weight or volume	Comprehensive	• 71, 97
301-2	Recycled input materials used	Comprehensive	• Not applicable due to the characteristics of the materials used
301-3	Regenerated products and their packaging materials	Comprehensive	• Not applicable in relation to Group activities
Energy			
302-1	Energy consumption within the organisation	Comprehensive	• 66, 69, 74-75
302-2	Energy consumption outside of the organisation	Comprehensive	• 75
302-3	Indicators of energy intensity	Comprehensive	• Ratio between direct energy consumption and energy produced (TOE/MWh): 0.136
302-4	Reduction of energy consumption	Comprehensive	• 48, 73-74, 80-82
302-5	Reductions in energy requirements for products and services	Comprehensive	• 81-82
Water and water discharges (2018 standard)			
303-1	Interactions with water as a shared resource	Comprehensive	67-68, 75
303-2	Management of water discharge related impacts	Comprehensive	67, 76
303-3	Water withdrawal	Comprehensive	• 67, 75 From the analysis carried out on "Aqueduct Water Risk Atlas" of the World Resources Institute, withdrawals, discharge and consumption did not take place in areas of water stress
303-4	Water discharge	Comprehensive	• 67, 76 From the analysis carried out on "Aqueduct Water Risk Atlas" of the World Resources Institute, withdrawals, discharge and consumption did not take place in areas of water stress
303-5	Water consumption	Comprehensive	• 68 From the analysis carried out on "Aqueduct Water Risk Atlas" of the World Resources Institute, withdrawals, discharge and consumption did not take place in areas of water stress
Biodiversity			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Comprehensive	• 82-84
304-2	Significant impacts of activities, products, and services on biodiversity	Comprehensive	• 82-84
304-3	Habitats protected or restored	Comprehensive	• 82-84
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Comprehensive	• 84
Emissions			
305-1	Direct (Scope 1) GHG emissions	Comprehensive	• 68-69, 74
305-2	Energy indirect (Scope 2) GHG emissions	Comprehensive	• 68-69
305-3	Other indirect (Scope 3) GHG emissions	Comprehensive	• 68-70
305-4	GHG emissions intensity	Comprehensive	• Ratio between Scope 1 + Scope 2 emissions and energy produced (tCO ₂ /MWh): 0.36
305-5	Reduction of GHG emissions	Comprehensive	• 72-75, 79-82
305-6	Emissions of ozone-depleting substances (ODS)	Comprehensive	• 70
305-7	Nitrogen oxides (NO _x), sulphur oxides (SO _x), and other significant air emissions	Comprehensive	• 70, 73



Indicator	Application	Italian LD 254/16	Page/Notes
Water discharges and waste			
306-1	Water discharges by quality and destination	Comprehensive	• 76, partly included in standard 303-4 2018
306-2	Waste by type and disposal method	Comprehensive	• 68
306-3	Significant spills	Comprehensive	• 71
306-4	Transport of hazardous waste	Comprehensive	• Not applicable as the Group does not transport, import or export waste shipped internationally
306-5	Water bodies affected by water discharges and/or runoff	Comprehensive	• 76, partly included in standard 303-4 2018
Environmental compliance			
307-1	Non-compliance with environmental laws and regulations	Comprehensive	• 84
Supplier environmental assessment			
308-1	New suppliers screened based on environmental criteria	Comprehensive	• 116-117
308-2	Negative environmental impacts in the supply chain and actions taken	Comprehensive	• 114, 116-117
SOCIAL PERFORMANCE			
Employment			
401-1	New employee hires and employee turnover	Comprehensive	• 121-122, 136
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Comprehensive	• 122
401-3	Parental leave	Comprehensive	• 128
Relations between workers and management			
402-1	Minimum notice periods regarding operational changes	Comprehensive	• 132
Occupational health and safety (2018 standard)			
403-1	Occupational health and safety management system	Comprehensive	117, 132-134
403-2	Hazard identification, risk assessment, and incident investigation	Comprehensive	117, 122, 133
403-3	Occupational health services	Comprehensive	133
403-4	Worker participation, consultation, and communication on occupational health and safety	Comprehensive	• 117, 133
403-5	Worker training on occupational health and safety	Comprehensive	117, 126-127
403-6	Promotion of worker health	Comprehensive	117, 129, 130
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Comprehensive	Not applicable in relation to Group activities
403-8	Workers covered by an occupational health and safety management system	Comprehensive	117, 132
403-9	Work-related injuries	Comprehensive	• 117, 132-134, 136
403-10	Work-related ill health	Comprehensive	• 117, 133-134 Data pertaining to Group employees
Training and education			
404-1	Average hours of training per year per employee	Comprehensive	• 125-126
404-2	Programs for upgrading employee skills and transition assistance programs	Comprehensive	• 124-127, 129-130
404-3	Percentage of employees receiving regular performance and career development reviews	Comprehensive	• 123-124
Diversity and Equal Opportunity			
405-1	Diversity of governance bodies and employees	Comprehensive	• 28, 28, 121, 127-128, 135-136
405-2	Ratio of basic salary and remuneration of women to men	Comprehensive	• 128, 136 Data on remuneration is not available as it was partly paid in the following financial year
Non-discrimination			
406-1	Incidents of discrimination and corrective actions taken	Comprehensive	• 11, 44, 93, 113-114, 124, 127-128
Freedom of Association and Collective Bargaining			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Comprehensive	• 116
Child labour			
408-1	Operations and suppliers at significant risk for incidents of child labour	Comprehensive	• 114
Forced or compulsory labour			
409-1	Operations and suppliers at significant risk of incidents of forced or compulsory labour	Comprehensive	• 114
Security practices			
410-1	Security personnel trained in human rights policies or procedures	Comprehensive	• Not applicable in relation to Group activities
Rights of indigenous peoples			
411-1	Incidents of violations involving rights of indigenous peoples	Comprehensive	• Not applicable given the location of the Group's activities

Indicator	Application	Italian LD 254/16	Page/Notes
Human Rights Assessment			
412-1	Operations that have been subject to human rights reviews or impact assessments	Comprehensive	• 44-45
412-2	Employee training on human rights policies or procedures	Comprehensive	• 40-41
412-3	Significant investment agreements and contracts that include human rights clauses or are subject to human rights screening	Comprehensive	• 114, 116, 122
Local Communities			
413-1	Operations with local community engagement, impact assessments, and development programs	Comprehensive	• 45-47, 101-107, 109-110
413-2	Operations with significant actual and potential negative impacts on local communities	Comprehensive	• 109-110
Supplier social assessment			
414-1	New suppliers that were screened using social criteria	Comprehensive	• 114-116
414-2	Negative social impacts in the supply chain and actions taken	Comprehensive	• 114-115, 116
Public policy			
415-1	Political contributions	Comprehensive	• 112
Customer health and safety			
416-1	Assessment of the health and safety impacts of product and service categories	Comprehensive	• 89, 109-110
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Comprehensive	• 95, 110-111
Marketing and labelling			
417-1	Requirements for product and service information and labelling	Comprehensive	• Not applicable in relation to Group activities
417-2	Incidents of non-compliance concerning product and service information and labelling	Comprehensive	• 93
417-3	Incidents of non-compliance concerning marketing communications	Comprehensive	• 93
Customer Privacy			
418-1	Substantiated complaints regarding concerning breaches of customer privacy and losses of customer data	Comprehensive	• 93
Socio-economic Compliance			
419-1	Non-compliance with laws and regulations in the social and economic area	Comprehensive	• 57, 58, 110, 118
ELECTRIC UTILITIES SUPPLEMENT			
EU-1	Installed capacity	Core	• 19
EU-2	Net energy output	Core	• 19, 79, 80
EU-3	Number of customers	Core	19-20, 93
EU-4	Length of transmission and distribution networks	Core	19, 20, 95
EU-5	Allocation of emission quotas	Core	• Level of respect: 5.21%
EU-10	Planned capacity	Comprehensive	54
EU-11	Average output of heat production plants	Comprehensive	• Cogeneration plants, thermal plants and thermoelectric plants: 64.9% Waste-to-energy plants: 66.6%
EU-12	Transmission and distribution losses as a percentage of total energy	Comprehensive	• 94
EU-13	Biodiversity of offset habitats compared to the biodiversity of the affected areas	Comprehensive	• 83
EU-15	Percentage of employees eligible to retire in the next 5 to 10 years	Comprehensive	122
EU-17	Days worked by contractor and subcontractor employees	Comprehensive	117
EU-18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	Comprehensive	• 117
EU-22	Number of people physically or economically displaced and compensation	Comprehensive	• 110
EU-25	Number of injuries and fatalities to the public involving company assets	Comprehensive	• 110
EU-26	Percentage of population not served in the electricity distribution area	Comprehensive	The Group serves the entire population of the areas where it manages the electricity distribution service
EU-27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	Comprehensive	95
EU-28	Power outages: mean number of interruptions per LV customer (N1)	Comprehensive	94
EU-29	Electricity interruption: cumulative downtime (D1)	Comprehensive	95
EU-30	Average plant availability factor	Comprehensive	• Co-generation plants: 58.3% Waste-to-energy plants: 90.3%



RECONCILIATION BETWEEN RELEVANT TOPICS AND GRI STANDARDS

Material topics	Indicators
Value and economic development for local areas	102-15; 103-1; 103-2; 103-3; 201-1; 201-2; 201-4; 202-2; 203-1; 203-2
Competitiveness	102-15; 103-1; 103-2; 103-3; 203-1; 206-1
Impacts on local areas (suppliers)	102-15; 103-1; 103-2; 103-3; 204-1
Innovation and smart cities	103-1; 103-2; 103-3; 203-2
Energy efficiency, renewable sources and district heating	102-15; 103-1; 103-2; 103-3; 302-1; 302-2; 302-3; 302-4; 302-5
Sustainable use of water resources	102-15; 103-1; 103-2; 103-3; 303-1; 303-2; 303-3; 303-4; 303-5
Biodiversity	103-1; 103-2; 103-3; 304-1; 304-2; 304-3; 304-4
Emissions	102-15; 103-1; 103-2; 103-3; 305-1; 305-2; 305-3; 305-4; 305-5; 305-6; 305-7
Circular economy: management, separated waste collection and reuse of waste	102-15; 103-1; 103-2; 103-3; 306-2;
Responsible management of business segments	102-15; 103-1; 103-2; 103-3; 301-1; 306-3
Sustainable management of the supply chain	102-15; 103-1; 103-2; 103-3; 204-1; 308-1; 308-2; 403-1; 403-2; 403-5; 403-6; 403-8; 403-9; 403-10; 407-1; 408-1; 409-1; 412-3; 414-1; 414-2
Employment	102-15; 103-1; 103-2; 103-3; 201-3; 202-1; 202-2; 401-1; 401-2
Industrial relations	102-15; 103-1; 103-2; 103-3; 402-1; 403-4
Occupational health and safety	102-15; 103-1; 103-2; 103-3; 403-1; 403-2; 403-3; 403-4; 403-5; 403-6; 403-8; 403-9; 403-10
Development of human resources	102-15; 103-1; 103-2; 103-3; 404-1; 404-2; 404-3; 406-1; 412-2
Corporate welfare and diversity	102-15; 103-1; 103-2; 103-3; 401-3; 405-1; 405-2; 406-1
Human rights	103-1; 103-2; 103-3; 412-1
Development of local communities	102-15; 103-1; 103-2; 103-3; 203-1; 413-1; 413-2
Environmental education	102-15; 103-1; 103-2; 103-3
Internal and external communication	103-1; 103-2; 103-3
Service levels, customer focus and changes in customer expectations	102-15; 103-1; 103-2; 103-3; 406-1; 416-1; 416-2; 418-1
Efficient and reliable services	102-15; 103-1; 103-2; 103-3
Marketing policies	102-15; 103-1; 103-2; 103-3; 417-2; 417-3
Management of construction sites	103-1; 103-2; 103-3
Management of emergencies	103-1; 103-2; 103-3
Dialogue with Public Authorities	102-15; 103-1; 103-2; 103-3; 415-1
Fight against corruption	103-1; 103-2; 103-3; 205-1; 205-2; 205-3
Compliance with laws and regulations	103-1; 103-2; 103-3; 307-1; 417-2; 417-3; 418-1; 419-1

REPORT OF THE INDEPENDENT AUDITORS



Independent auditor's report on the consolidated non-financial statement

pursuant to article 3, paragraph 10, of Legislative Decree No. 254/2016 and to article 5 of CONSOB Regulation No. 20267 adopted by resolution of January 2018

To the board of directors of Iren SpA

Pursuant to article 3, paragraph 10, of Legislative Decree No. 254 of 30 December 2016 (the "Decree") and article 5 of CONSOB Regulation No. 20267/2018, we have performed a limited assurance engagement on the "Sustainability Report 2019 - Consolidated non-financial report pursuant to Legislative Decree 254/2016 (Directive 2014/95/EU)" of Iren SpA and its subsidiaries (hereafter "Iren Group" or the "Group") for the year ended 31 December 2019 prepared in accordance with article 4 of the Decree and approved by the Board of Directors on 25 March 2020 (hereafter the "NFS").

Responsibility of the directors and of the board of statutory auditors for the NFS

The directors are responsible for the preparation of the NFS in accordance with article 3 and 4 of the Decree and with the "GRI Sustainability Reporting Standards" defined in 2016, and subsequent versions (hereafter the "GRI Standards") and with the "G4 Sector Disclosure – Electric Utilities" defined in 2013 (hereafter the "G4 Sector Disclosure"), indicated at paragraph "Note on methodology" of the NFS, identified by them as the reporting standards.

The directors are responsible, in accordance with the law, for the implementation of the internal controls necessary to ensure that the NFS is free from material misstatement, whether due to fraud or unintentional errors.

The directors are responsible for identifying the content of the NFS, within the matters mentioned in article 3, paragraph 1, of the Decree, considering the activities and characteristics of the Group and to the extent necessary to ensure an understanding of the Group's activities, its performance, its results and related impacts.

Finally, the directors are responsible for defining the business and organisational model of the Group and, with reference to the matters identified and reported in the NFS, for the policies adopted by the Group and for the identification and management of risks generated and/or faced by the Group.

The board of statutory auditors is responsible for overseeing, in the terms prescribed by law, compliance with the Decree.

PricewaterhouseCoopers SpA

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Auditor's Independence and Quality Control

We are independent in accordance with the principles of ethics and independence set out in the *Code of Ethics for Professional Accountants* published by the *International Ethics Standards Board for Accountants*, which are based on the fundamental principles of integrity, objectivity, competence and professional diligence, confidentiality and professional behaviour. Our audit firm adopts *International Standard on Quality Control 1 (ISQC Italy 1)* and, accordingly, maintains an overall quality control system which includes processes and procedures for compliance with ethical and professional principles and with applicable laws and regulations.

Auditor's responsibilities

We are responsible for expressing a conclusion, on the basis of the work performed, regarding the compliance of the NFS with the Decree, with the GRI Standards and with the G4 Sector Disclosure. We conducted our engagement in accordance with *International Standard on Assurance Engagements 3000 (Revised) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information* (hereafter “ISAE 3000 Revised”), issued by the *International Auditing and Assurance Standards Board (IAASB)* for limited assurance engagements. The standard requires that we plan and apply procedures in order to obtain limited assurance that the NFS is free of material misstatement. The procedures performed in a limited assurance engagement are less in scope than those performed in a reasonable assurance engagement in accordance with ISAE 3000 Revised, and, therefore, do not provide us with a sufficient level of assurance that we have become aware of all significant facts and circumstances that might be identified in a reasonable assurance engagement.

The procedures performed on the NFS were based on our professional judgement and consisted in interviews, primarily of company personnel responsible for the preparation of the information presented in the NFS, analyses of documents, recalculations and other procedures designed to obtain evidence considered useful.

In particular, we performed the following procedures:

1. analysis of the relevant matters reported in the NFS relating to the activities and characteristics of the company, in order to assess the reasonableness of the selection process used, in accordance with article 3 of the Decree and the with the reporting standard adopted;
2. analysis and assessment of the criteria used to identify the consolidation area, in order to assess their compliance with the Decree;
3. comparison of the financial information reported in the NFS with the information reported in Iren Group's consolidated financial statements;
4. understanding of the following matters:
 - business and organisational model of the Group, with reference to the management of the matters specified by article 3 of the Decree;
 - policies adopted by the Group with reference to the matters specified in article 3 of the Decree, actual results and related key performance indicators;
 - main risks, generated and/or faced by the Group, with reference to the matters specified in article 3 of the Decree.

With reference to those matters, we compared the information obtained with the information presented in the NFS and carried out the procedures described under point 5 a) below;



5. understanding of the processes underlying the preparation, collection and management of the significant qualitative and quantitative information included in the NFS. In particular, we held meetings and interviews with the management of Iren SpA and with the personnel of Iren Ambiente SpA, Ireti SpA, Iren Energia SpA, and we performed limited analyses of documentary evidence, to gather information about the processes and procedures for the collection, consolidation, processing and submission of the non-financial information to the function responsible for the preparation of the NFS.

Moreover, for material information, considering the activities and characteristics of the Group:

- at a holding level,
 - a) with reference to the qualitative information included in the NFS, and in particular to the business model, the policies adopted and the main risks, we carried out interviews and acquired supporting documentation to verify their consistency with available evidence;
 - b) with reference to quantitative information, we performed analytical procedures as well as limited tests, in order to assess, on a sample basis, the accuracy of consolidation of the information;
- for the following companies: Iren SpA at the offices in Turin and Piacenza, Iren Ambiente SpA at the offices in Turin and the site of PAI (Parma), Iren Energia SpA at the offices in Turin and the site of Turbigio (Milan), Ireti SpA at the offices in Piacenza, which were selected on the basis of their activities, their contribution to the performance indicators at a consolidated level and their location, we carried out site visits during which we met local management and gathered supporting documentation regarding the correct application of the procedures and calculation methods used for the key performance indicators.

Conclusions

Based on the work performed, nothing has come to our attention that causes us to believe that the NFS of Iren Group as of 31 December 2019 has not been prepared, in all material respects, in compliance with articles 3 and 4 of the Decree, with the GRI Standards and with the “G4 Sector Disclosure – Electric Utilities”.

Genoa, 8 April 2020

PricewaterhouseCoopers SpA

Signed by

Andrea Manchelli
(Partner)

Paolo Bersani
(Authorized signatory)

This report has been translated from the Italian original solely for the convenience of international readers. We have not performed any controls on the NFS 2019 translation.



GLOSSARY

A

WASTE AND WATER REGULATING AUTHORITY (ATO): in accordance with Italian Law no. 36 of 1994, the Waste and Water Regulating Authority determines the local level of organisation of the Integrated Water Service in view of the overcoming the fragmentation of management and the attainment of adequate management dimensions; the regional Law defines its boundaries based on the hydrographic basin.

ARERA (formerly AEEGSI, the Authority for Electricity, Gas and Water Service): The Italian Regulatory Authority for Energy, Networks and Environment

ARPA: Regional Environmental Agency.

ATERSIR: Territorial Agency of Emilia Romagna for Water and Waste Services.

B

BEST AVAILABLE TECHNIQUES (BAT): "Best Available Techniques" (BAT) to regulate the obligations of industrial operators concerning the prevention and control of pollution.

BIOGAS: gas formed by the anaerobic fermentation in the presence of micro-organisms (acidogenic bacteria, acetogenic bacteria and methanobacteria) of industrial and agricultural waste or sludge from urban water treatments; 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 specific time period (5 days for BOD₅), at a given temperature, to break down the organic substances present in the water through the action of bacteria (cellular respiration). High biochemical oxygen demand is an indication of intense bacterial activity of organic decomposition and may indicate the presence of organic pollution. It is an indirect measure of the concentration of pollutants. Its value is given in %.

C

CLEANTECH: any process, product or service that reduces the negative environmental impacts with significant improvements in energy efficiency, the sustainable use of resources or environmental protection activities.

CO: carbon monoxide.

CO₂: carbon dioxide.

COD: the term COD (chemical oxygen demand) is the amount of oxygen required for the complete oxidation of organic and inorganic compounds found in a water sample. It is an index that measures the degree of water pollution by oxidisable substances, which are mainly organic. It is given in %.

CODE OF ETHICS: a document that defines the principles, conduct, commitments and ethical responsibilities that must be adhered by directors, employees and collaborators when conducting company business.

COGENERATION: the simultaneous production of electricity and useful thermal energy.

CORPORATE GOVERNANCE: the set of rules by which a company is managed and controlled.

CSR: Corporate Social Responsibility.

D

DEMAND SIDE MANAGEMENT: a set of actions aimed at the efficient management of consumption at a site, in order to reduce electricity supply costs, grid fees and general system charges, including taxes.

DISTRICT HEATING: the distance transmission of heat by means of water circulating in two tubes, one in-flow pipe with hot water and one out-flow pipe with cooler water.

E

EIA: Environmental Impact Assessment

EIB: European Investment Bank, financial institution of the European Union for financing investments to support the political aims of the Union.

E-LEARNING: distance learning based on online multimedia courses.

EMAS (ENVIRONMENTAL MANAGEMENT AND AUDIT SCHEME): the environmental management and audit scheme according to Community Regulation 761/2001.

EMISSION TRADING SYSTEM (ETS): the flexible mechanism, provided for by the Kyoto agreements, aimed at allowing emissions rights to be traded between countries or companies depending on their greenhouse gas emission reduction objectives.

END CUSTOMER: the natural or legal person who buys electricity exclusively for personal use.

ENERGY EFFICIENCY BONDS (EEBs) (commonly known as White Certificates): these attest to the energy savings required of electricity and gas distributors with catchment areas of more than 50,000 customers. EEBs are valid for five years starting from the reference year and are issued by the Electricity Market Operator (GME) (Ministry of Productive Activities Decree 20/7/04, in concert with the Environment Ministry).

ENERGY SERVICE COMPANY (ESCO): Companies whose business activities include energy saving projects and which are accredited as such by ARERA.

ENERGY SERVICES OPERATOR (GESTORE DEI SERVIZI ELETTRICI - GSE): established pursuant to Article 3 of Italian Legislative no. 79/99, this is the joint-stock company that provides incentives for the production of electricity from renewable and similar sources and that handles the qualification of renewable energy plants and their electricity production. Its shares are held by the Ministry for the Treasury.

ETHICAL INDEXES: indexes that monitor the performance of a basket of companies according to financial and economic criteria and ethical, environmental or social criteria also.

G

GAS TURBINE: the machine that converts the energy held in steam generated in a boiler or by geothermal steam into the mechanical energy of a rotating axis.

GIGAJoule (GJ): a unit of measurement of energy (of any kind) adopted by the international system (3.6 GJ corresponds to 1 GWh).

GIGAWATT (GW): a unit of measurement of power (of any kind) equivalent 1 million kilowatts.

GIGAWATT HOUR (GWh): a unit of measurement of energy (of any kind) equivalent 1 million kilowatt hours.

GREEN BOND: bonds 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: certificates that are issued annually by the GSE (Electricity Services Provider) which certify the production of 1 MWh of energy from renewable sources. Since 2002, pursuant to Italian Decree 79/99, producers and importers have been required to feed energy into the grid from renewable sources equal to the percentage of the total electricity produced or imported in the previous year from conventional sources (net of exports, internal consumption of the plant and co-generation).

GREENHOUSE GASES: gases transparent to solar radiation that do not allow the dispersion of heat from the earth and therefore overheat the atmosphere. In addition to natural greenhouse gases, the main anthropogenic greenhouse gases are carbon dioxide, methane, chlorofluorocarbons and nitrogen oxides.

GROSS PRODUCTION: electricity produced in the period of time considered, as measured at the terminals of the electricity generator unit.

H

HYDROELECTRIC: a plant where the energy potential of water is transformed into electricity. Hydroelectric plants can be flowing water, basin or tanks types.

HSR: Workers' Health and Safety Representative

HV: high voltage, i.e. voltages of 132 kV, 220 kV and 380 kV.

I

IEA: Integrated Environmental Authorisation.

IEC: Integrated Environmental Centre.

K

KILOCALORIE (kcal): a unit of measurement of heat (thermal energy). One kcal is the amount of heat needed to raise the temperature of one kilo of water by one degree centigrade.

KILOVOLT (kV): a unit of measurement of voltage equivalent to 1,000 Volts.

KILOWATT (kW): a unit of measurement of power (of any kind) equivalent to 1,000 Watts.

KILOWATT-HOUR (kWh): a unit of measurement of energy (of any kind) equivalent to 1,000 Watts per hour.

L

LANDFILL MINING: excavation of waste deposited in landfill and its subsequent processing aimed at the inertization of hazardous materials and the separation and selection of different components (fine material, recoverable and residual material) for the purposes of differentiated waste management.

LV: low voltage, i.e. voltages of 220/380 V.

M

MBO: Management By Objectives

MEGAWATT (MW): a unit of measurement of power (of any kind) equivalent to one million Watts.

MEGAWATT-HOUR (MWh): unit of measurement of energy (of any kind) equivalent to a thousand kilowatt-hours.

MV: medium voltage, i.e. voltages between 1 and 30 kV.

N

NET PRODUCTION: gross production minus the electricity consumed in running the generator unit.

NOTCH: level on the rating measurement scale.

NOX: nitrogen monoxide.

O

OHSAS 18001 (Occupational Health & Safety Assessment Series): the OHSAS 18001 standard is an internationally recognised reference for the certification of a management system for occupational health and safety.

P

PRODUCTION CAPACITY: estimated energy that can be produced by each producer.

PPE: Personal Protective Equipment

PPS: Prevention and Protection Service.

PPSM: Prevention and Protection Service Manager

PPSO: Prevention and Protection Service Officer

PUMPING: plant consisting of one or more pumps that circulating fluid within a pipe.

R

RA: Risk Assessment Document

RENEWABLE ENERGY: renewable energy sources (solar, wind, water, geothermal, tidal, wave and biomass).



RENEWABLE SOURCES: renewable, non-fossil energy sources (wind, solar, geothermal, wave energy, tidal energy, hydraulic, biomass, waste-dump gas, gas resulting from purification processes and biogas) pursuant to Article 2 of RES Decree.

REVAMPING: renewal of obsolete industrial plants.

RSU: Unitary Workplace Union Structure

S

SCM: standard cubic metre.

SDGs: (Sustainable Development Goals) set of 17 goals to be achieved by 2030, defined by the United Nations.

SECONDARY SOLID FUEL (SSF): a type of fuel obtained from the processing of urban and special non-hazardous waste.

SERVICE CHARTER: document that establishes the quality standards of company services.

SMART METERING: systems that allow the remote reading and management of electricity, gas and water meters.

SOCIAL COOPERATIVES: in accordance with Italian Law 381/91 these are companies that aim to “pursue the general interest of the community in the human development and social integration of citizens” by managing social, health and educational services and running various activities aimed at the employment of disadvantaged people.

SOFT SKILLS: cognitive, relationship and communication skills, as opposed to technical skills and abilities linked to specific roles.

STAKEHOLDERS: the group of subjects that interact with the company, i.e. any individual, community or organisation that may influence or be influenced by the company’s business.

SUSTAINABLE DEVELOPMENT: the economic development of a company in the long term via low environmental impact and good relations with the social community.

SUSTAINABILITY REPORT: an instrument that accounts for the impacts generated by the company with respect to the three pillars of sustainability: economic, social and environmental.

T

TERAWATT-HOUR (TWh): one billion kilowatt hours.

TERNA: the operator of the Italian national transmission grid.

THERMOELECTRIC: an electricity generating plant that uses fossil fuels.

TOE: tonnes of oil equivalent; equivalent to the primary fossil energy replaced, i.e. the quantity of fuel otherwise needed to produce the same amount of useful energy within the national reference system

TOTAL OUTPUT: the total amount of electric or thermal energy of the various producers installed in a plant

TSS: the term TSS (Total Suspended Solids) refers to the sum of suspended solids and filterable solids. It represents all of the substances present in the sample of waste water after drying at 105°C. It is given in %.

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.

V

VOLT: unit of measurement of the electrical voltage.

W

WASTE: Italian Legislative Decree no. 152 of 3 April 2006 defines wastes as “any substance or object that falls within the categories set out in Annex A to part four of this Decree and of which the holder discards or has decided or is required to discard”. The same Decree classifies waste, according to its origin, into urban and special waste and, depending on the hazardous characteristics, into hazardous and non-hazardous waste.

WATT: unit of measurement for electric power.

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<http://www.gruppoiren.it/sostenibilita>

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Would you like to contact our Work Group?

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