



**VOLUNTARY CONSOLIDATED
NON-FINANCIAL STATEMENT**

2019

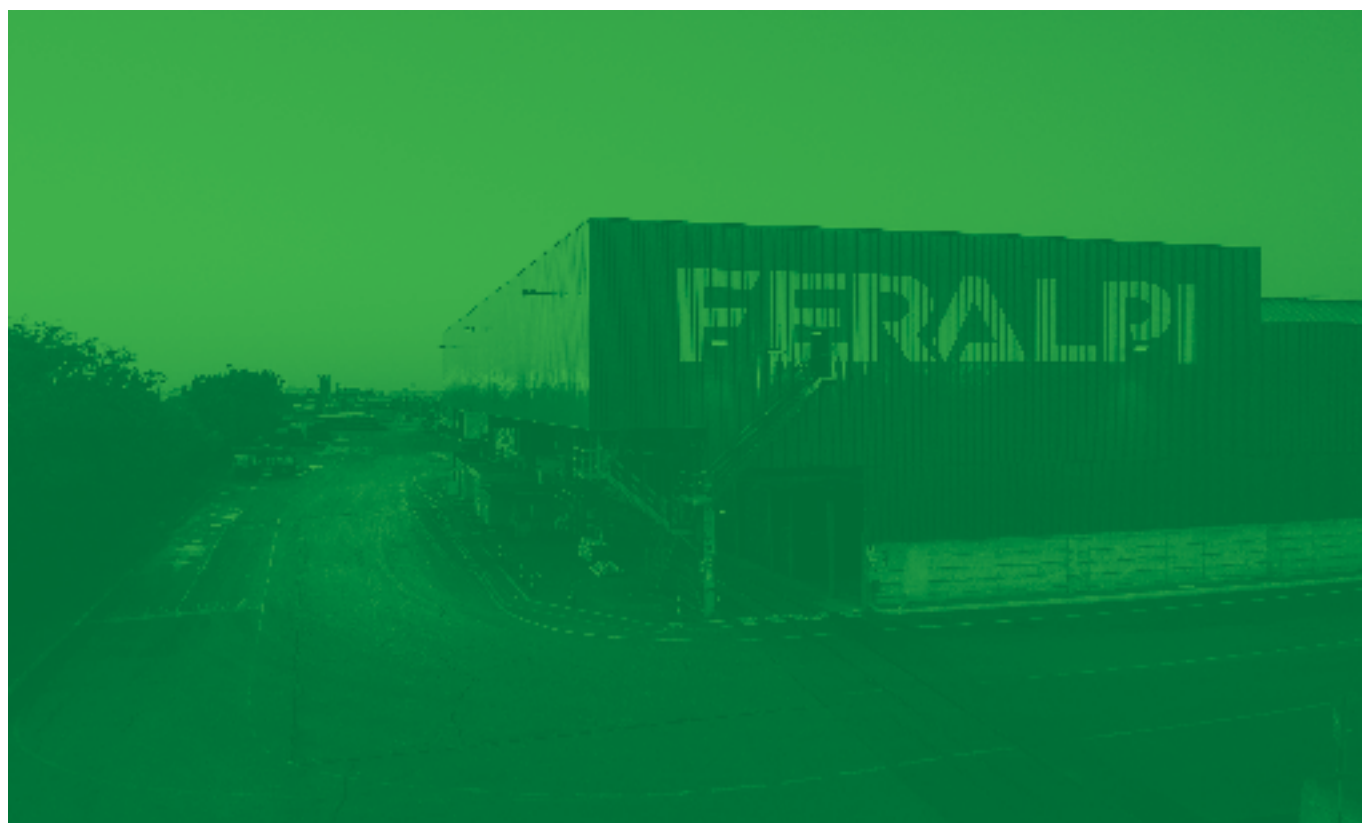


2019



VOLUNTARY CONSOLIDATED NON-FINANCIAL STATEMENT

2019



1	2	3	4	5
CONTEXT AND STRATEGY P. 20	CORPORATE ORGANISATION AND ETHICAL BUSINESS MANAGEMENT P. 40	ENERGY EFFICIENCY AND ENVIRONMENTAL MANAGEMENT IN PRODUCTION PROCESSES P. 54	MULTIPLYING THE USE OF MATERIALS: A COMMITMENT TO THE CIRCULAR ECONOMY P. 68	DEVELOPING A CULTURE OF SAFETY P. 78
6	7	8	9	
ENHANCING PEOPLE P. 82	PROVIDING A QUALITY PRODUCT AND SERVICE - MANAGING SUPPLY AND CUSTOMER RELATIONSHIPS P. 98	DEVELOPMENT AND COMMUNITY INCLUSION P. 106	PERFORMANCE P. 116	

CONTENTS

LETTER TO STAKEHOLDERS	8
FROM THE SUSTAINABILITY REPORT	
TO THE NON-FINANCIAL STATEMENT:	
TOOLS FOR COMPREHENSION	10
HIGHLIGHTS	11
THE FERALPI GROUP	12

1

CONTEXT AND STRATEGY

20

1.1. The market and challenges for the steel industry	21
1.2. Business vision and strategy	23
1.3. The role of research in Company strategy	26
1.4. Sustainability for Feralpi	28
1.5. Commitment to sustainability	29
1.6. Stakeholder engagement	32
1.7. Materiality matrix	35

2

CORPORATE ORGANISATION AND ETHICAL BUSINESS MANAGEMENT

40

2.1. Governance structure: roles and responsibilities	41
2.2. Governance model and risk analysis	43
2.3. Preventing and tackling acts of corruption	49
2.4. Privacy	51

3

ENERGY EFFICIENCY AND ENVIRONMENTAL MANAGEMENT IN PRODUCTION PROCESSES

54

- 3.1. Management of environmental impacts 59
- 3.2. Energy efficiency 65

4

MULTIPLYING THE USE OF MATERIALS: A COMMITMENT TO THE CIRCULAR ECONOMY

68

- 4.1. Management methods, policies and procedures 73
- 4.2. Use of water and liquid emissions 76
- 4.3. Other materials 77

5

DEVELOPING A SAFETY CULTURE

78

6

ENHANCING PEOPLE

82

- 6.1. Recruitment, training and development 87
- 6.2. Investing in health and well-being 93
- 6.3. Respecting human rights and providing equal opportunities 95

7

PROVIDING A QUALITY PRODUCT AND SERVICE - MANAGING SUPPLY AND CUSTOMER RELATIONSHIPS

98

- 7.1. Responsible management for a quality supply 102
- 7.2. Relationships with customers 103

8

DEVELOPMENT AND COMMUNITY INCLUSION

106

- 8.1. Economic sustainability and generated value 109
- 8.2. Community inclusion 112

9

PERFORMANCE

116

- 9.1. Economic indicators 117
- 9.2. Environmental indicators 119
- 9.3. Social indicators 131

APPENDICES

134

- Methodology note 135
- GRI Content Index 137

AUDIT REPORT

146

LETTER TO STAKEHOLDERS

(102-14)

**DEAR STAKEHOLDERS,
WE ARE DELIGHTED TO ISSUE THE FERALPI
GROUP VOLUNTARY CONSOLIDATED
NON-FINANCIAL STATEMENT (NFS)
DETAILING THE RESULTS ACHIEVED
IN 2019. THE NFS IS AN IMPORTANT
STEP TOWARDS THE TARGETS,
COMMITMENTS AND CONCRETE
ACTIONS THAT AIM TO CREATE
VALUE IN THE WIDEST
MEANING OF CORPORATE
SOCIAL RESPONSIBILITY.**

Feralpi has been operating in line with international standards on transparency for some time now, and objectively providing details on company **performance** for all of you - collaborators, customers, suppliers, government departments and the communities in the areas where we operate. In this document you will find the practices we have adopted, and the corporate actions we wanted to make even more inclusive and respectful with regard to humankind and the environment.



Our guidelines have been based on the United Nations Agenda which, with its Sustainable Development Goals, clearly indicates an ethical approach that industry is called upon to implement, making it an integral part of company strategy to contribute to achieving increasingly sustainable development.

This is our first Non-Financial Statement which we have decided to produce voluntarily, and it sets out another step in our development as we move from a more narrative style of reporting, as with the previous Sustainability Reports, to a more technical framework in line with the search for competitiveness that has to set a business, irrespective of its size.

THE NON-FINANCIAL STATEMENT IS A RIGOROUS TOOL THAT ALLOWS THE COMPANY TO PROVIDE STAKEHOLDERS WITH INFORMATION THAT GOES FAR BEYOND THE MERE ECONOMIC AND FINANCIAL FIGURES.

Thanks to the NFS the Feralpi Group can provide you with information on organisational development, outlining how in recent years the Group has completed various takeovers, diversifying and verticalising its businesses to meet market requirements more rapidly. Two different business units have also been set up, one for construction steel and the other for specialities. The new Governance Model was implemented at Group level and Feralpi's business **purpose** continues, starting with ethical business management and developing a quality offering, while reducing consumption and environmental impact in line with a circular economy approach. This is our contribution to tackling climate change, an unavoidable target that the collective conscience of a civilised society demands, with a voice that is getting louder and louder.

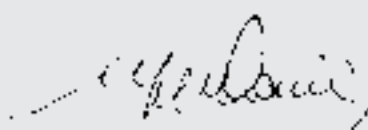
THIS DOCUMENT CLARIFIES OUR PROACTIVE AND CONCRETE CONTRIBUTION, WHICH WE MAKE ALONGSIDE ALL OF OUR COLLABORATORS. WITH THEM, WE CAN TURN VISIONS INTO PROJECTS AND PROJECTS INTO RESULTS.

A strong work ethic, the development of talent and the enhancement of skills are the assets that underpin progress, not only in the business, but also in the area and community where the Group operates.

This is what we have always believed in, and never more so than in these difficult times with the global COVID-19 pandemic, which is putting the economic fabric of business, countries and even entire continents under considerable strain. Let's face the coming challenges with an even greater sense of responsibility, by contributing to lasting, sustainable development.

THANK YOU.

Giuseppe Pasini
Feralpi Group Chairman



FROM THE SUSTAINABILITY REPORT TO THE NON-FINANCIAL STATEMENT: TOOLS FOR COMPREHENSION

This document has been prepared in accordance with Legislative Decree no. 254/2016 on a voluntary basis and is Feralpi Group's first **Non-Financial Statement**. It follows nine sustainability reports that have been issued since 2004 and its reporting scope is broader than that of previous years (*refer to the Methodology Note at the end of this document*).

Even though the Group is not one of the organisations required to draw up a Non-Financial Statement, it was felt necessary to anticipate alignment with Legislative Decree no. 254 of 30th December 2016 to provide **stakeholders** with comparable elements, and encourage increasing transparency in relation to corporate, environmental and economic aspects. This also supports the belief that there is a **responsibility** to share the quantitative and qualitative results that underpin the value generated by Company actions throughout the year with the full spectrum of stakeholders.

Consequently, although it is aimed at organisations of public interest and large companies, the Company is implementing the Decree by providing information on the **Company's Governance Model**, the policies applied, the main risks resulting from business operations, and the results achieved.

As the Decree requires qualitative information to be accompanied by the corresponding quantitative information, the Feralpi Group has taken the decision to continue following the Sustainability Reporting Standards published in 2016 by the Global Reporting Initiative (GRI), adopting the **"in accordance -Core"** option.

The Group therefore selected the topics to report in line with the principle of materiality, focusing on what is deemed important by internal and external stakeholders. The topics the Company are required to report on pertain to a typical manufacturing industry, and include **environmental, social, employees matters, respect for human rights and anti-corruption aspects**.

After presenting the Group and the key facts of 2019, this NFS illustrates the context in which the Company operates and its **sustainability strategy**, as well as considering future development by sharing the commitments made. Last but not least, the statement concludes with quantitative information.

The Feralpi Group 2019 Non-Financial Statement is **separate from and complementary to the Consolidated Financial Statement**, and is supplementary to enable a comprehensive view of the Group's performance.

HIGHLIGHTS



THE GROUP 6 COUNTRIES

509,496 Shareholders' equity (€/000)

33,831 Profit/loss for the year (€/000)

1,302,752 Total Turnover (€/000)

63% Turnover abroad



PRODUCTS AND PROCESSES

2,496 Steel produced (t 000)

6 Circular processes in progress

93% Minimum recycled content

> 350 Italian scrap suppliers involved in the TENP process



INNOVATION AND QUALITY

54,521 Technical investments (€/000)

11 Production sites certified ISO 9001

13 Research projects proposed

40 Project partner



ENVIRONMENT

-3% Scope 1 and Scope 2 emissions on 2018

-4% Indirect emissions (Scope 2) on 2018

€ 20 m Funded by the BNL - BNP Paribas Group for Feralpi's commitment to reduce greenhouse gas emissions

+4 percentage points Hazardous waste recovery on 2018

97-100% Recycled/reused water



HUMAN RESOURCES

1,570 End-of-period workforce (+1.4% on 2018)

23,217 Training hours

-1.4% Personnel turnover rate on 2018

26 WHP good practices adopted since 2013



THE LOCAL COMMUNITIES

6,542 Charitable donations to local communities (€/000) (+39% on 2018)

166,085 Net overall value added (€/000)

+8% Turnover invoiced by local suppliers (Brescia area) on 2018

> 1,200 Youngsters visiting the main production sites

THE FERALPI GROUP

(102-4; 102-6; 102-7)



The Feralpi Group is one of Europe's leading manufacturers of **steels for use in building construction**.

Internationalisation, **verticalisation** and **diversification** are the three main strategic directives of development that have led Feralpi Siderurgica, which was founded in 1968 in Lonato del Garda, near Brescia, to become the parent company of an industrial group with **several production plants in Italy, Germany, France, Hungary, the Czech Republic and Algeria**. Starting from its lengthy tradition in steel manufacturing, the Group has developed according to a strategy of upstream and downstream process verticalisation, by developing synergies inside the Group.

The offer has been strengthened and integrated thanks to the numerous acquisitions made over the years, which have contributed to increase the Group's competitive edge.

In 1992, just three years after the fall of the Berlin Wall, the company took over a huge steel complex situated in Riesa, Saxony, in the former DDR. The entire facility was relaunched through a major plant engineering revamp. The now-named **ESF Elbe-Stahlwerke Feralpi GmbH**, soon became a benchmark for productivity and efficiency, as it is today. This paved the way for new acquisitions in Europe that place the Feralpi Group among the leading producers of steel for the construction industry. In the following years Feralpi branched out in Eastern Europe countries, namely in Hungary (**Feralpi Hungária KFT**) and the Czech Republic (**Feralpi Praha SRO**), and further strengthened its foothold in Germany (**EDF Elbe-Drahtwerke Feralpi GmbH***, **Feralpi Stahlhandel GmbH**, **Feralpi Logistik GmbH**), thus creating two more strategic directions that are bound to define the Group's current structure: diversification and verticalisation.

Subsequent acquisitions brought the Feralpi Group a series of companies operating in the field of mesh, fencing and grating systems (**Nuova DE.FI.M Orsogrill SpA** in 2009), high value added steels for use in the mechanical en-

* In 2019 the company EDF Elbe-Drahtwerke Feralpi GmbH merged into ESF Elbe-Stahlwerke Feralpi GmbH.

gineering industry (**Caleotto SpA** taken over 50% in 2015), structural steelwork (**MPL Srl** in 2016), pre-shaped reinforcing steel in bar (**Presider SpA** in 2016), up to the production of rolled products and section bars (**FER-PAR Srl** and **Feralpi Profilati Nave SpA** in 2016). In the meantime, the Group landed to Algeria North Africa, (**Feralpi Algérie SARL** in 2013) and France (**Presider Armatures SaS** in 2017).

In over half a century of history, the Feralpi Group has **diversified its business** in the steel sector and not only there. Outside the steel industry, Feralpi is active in the **fields of the environment and fish farming** and also in **financial business and equity investment management activities**.



2019 REPORTING SCOPE GROUP COMPANIES AND THEIR BUSINESS

ITALY

FERALPI HOLDING

Lonato del Garda, Brescia
Services.

FERALPI SIDERURGICA

Lonato del Garda, Brescia
Production of steel billets, reinforcing steel in bar and coil, smooth and ribbed wire rod, recoiled wire, drawn wire and welded mesh.

ACCIAIERIE di CALVISANO

Calvisano, Brescia
Production of billets.

FER-PAR

Nave, Brescia
Production of rolled angle bar, U-section bar, T-section bar, square and round bar made of alloy and carbon steels, rolled billets and special section bars.

FERALPI PROFILATI NAVE

Nave, Brescia
Marketing of steel rolled products and sections.

NUOVA DEFIM ORSOGRIL

Anzano del Parco Alzate Brianza, Como
Production of welded mesh, gratings and fences.

PRESIDER

Borgaro Torinese, Turin;
Macclodio, Brescia;
Pomezia, Rome
Pre-shaping and assembling of reinforcing steel in bar and coil for building construction companies and manufacturers of prefabricated reinforced concrete elements.

METALLURGICA PIEMONTESE LAVORAZIONI (MPL)

Rivoli, Turin
Girder service centre for steel structural workshops.

ECOETERNIT

Montichiari, Brescia
Landfill for non-hazardous waste and waste containing asbestos.

FAECO AMBIENTE

Lonato del Garda, Brescia
Development of environment-friendly activities aimed at the processing of waste and its reuse.

ECO-TRADING

Lonato del Garda, Brescia
Waste trading.

FRANCE

PRESIDER ARMATURES

Saint-Souplets, Paris

Preshaping and assembling of reinforcing steel in bar and coil for construction companies and manufacturers of prefabricated reinforced concrete elements.

GERMANY

ESF ELBE-STAHLWERKE

FERALPI GmbH

Riesa

Production of steel products for concrete construction elements.

FERALPI STAHLHANDEL GmbH

Riesa

Business services.

FERALPI LOGISTIK GmbH

Riesa

Logistics services.

THE CZECH REPUBLIC

FERALPI-PRAHA s.r.o.

Kralupy

Production and sale of welded mesh, drawn wire in coil and bar.

HUNGARY

FERALPI-HUNGARIA kft.

Budapest

Production and sale of welded mesh and downstream products.

AFRICA

FERALPI ALGÉRIE

Oran

Business services.





PRODUCT APPLICATIONS

Steel is the core of infrastructures. Due to its mechanical properties, steel is essential in creating private and public construction projects as it combines strength and durability over time. Steel products can also be used not only in civil, industrial and residential building, but also in numerous production sectors, such as the metalworking, the automotive industry, shipbuilding, energy-related and transport services, the production of various metal equipment and components, and special and precision small parts.

Feralpi Group products can be used in various sectors, namely:



1. BUILDING CONSTRUCTION AND INFRASTRUCTURES

The construction industry can be divided into **two main categories: civil and residential** works on one side and **industrial and public infrastructures** on the other. The request for materials and components varies in terms of type and quality, depending on the applications. The Feralpi Group manufactures reinforcing steel in bars and coils for the construction of load-bearing structures and also produces spacers and lattice for the formation of slabs and prefab main and partition walls. The Group also produces welded mesh and gratings for the construction of industrial floors, consolidation walls and home renovations, including pre-assembly welding of reinforcement structures for lining rail and road tunnels and hydroelectric power plants.

Last but not least come high-security fencing solutions for industrial and residential solutions, as well as façade claddings for building renovation.



2. MANUFACTURING INDUSTRY AND INDUSTRIAL APPLICATIONS

The industrial downstream sector is very broad and includes the **use of pre-worked steel products** and the **request for services concerning the pre-processing of steel products**. The Group is active along different supply chains of the industrial value, starting from the billet up to pre-processed and finished products delivered or installed on site (such as welded mesh, lattice, girders, angle sections and metal joints). These processes are flanked by the production of premium quality steel intermediate products. The Group also provides such services as the cutting to size, bending, welding, drilling, notching, pegging, galvanising, sand-blasting and painting of girders. Welded mesh is also provided for industrial use as a semi-finished product in multiple sectors, in addition to pedestrian floor gratings and logistics services.



KEY ACCOUNTS

The Companies belonging to the Feralpi Group boast customers in numerous fields of operation. Building constructors and pre-fabricators, converting and shaping centres, traders and retailers of steel construction products, international traders, large contracting companies and general contractors are all part of the **building construction industry**.

Such companies as structural steelwork shops, traders and resellers and the end users in industries, including large companies, request **tailored products or services**.

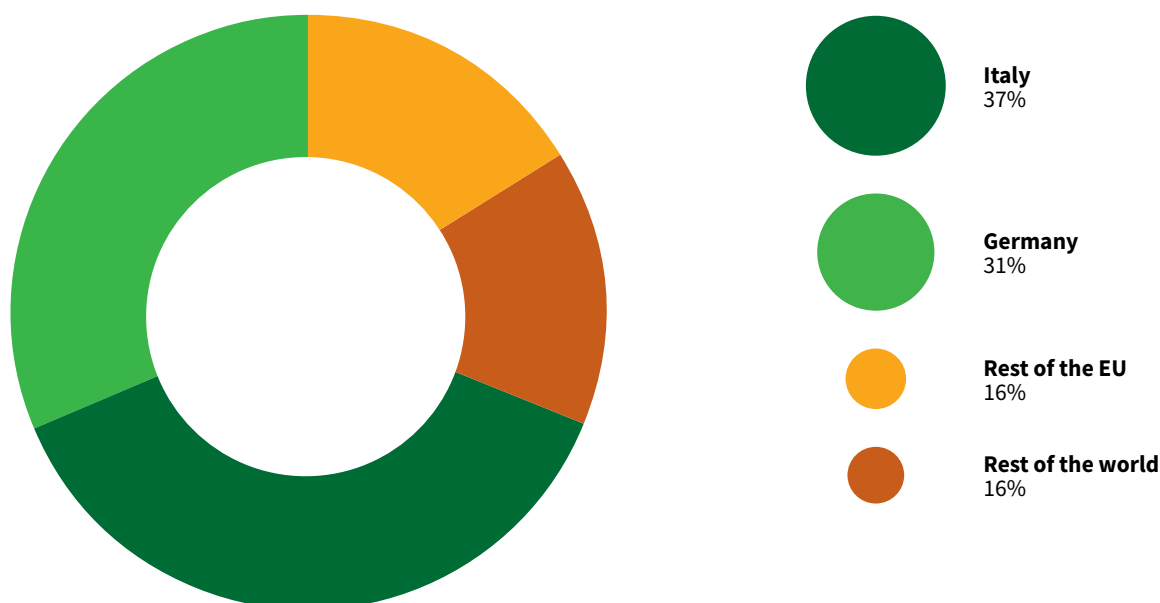
The range of customers targeted by the Group Companies operating in diversified sectors include building construction and steel product distributors, OEMs (Original Equipment Manufacturers, such as the producers of sofa bed nets, axial fans, concealed doors, containers, cages, fences, cable trays, gabions, shelves and logistics), as well as fencing fitters, grating converters and agricultural consortia.

FERALPI GROUP'S INTERNATIONAL VOCATION IS REFLECTED IN THE VERY COMPOSITION OF ITS TURNOVER. IN FACT, IN 2019 SALES ABROAD ACCOUNTED FOR 63%, DISTRIBUTED AMONG EUROPE, AFRICA AND NORTH AMERICA. THE ITALIAN AND GERMAN MARKETS ARE CONFIRMED AS THE PREVAILING DOMESTIC MARKETS.

Sales revenue by geographical area

€/000	2017	2018	2019
Italy	431,323	500,421	483,784
Germany	416,475	434,719	405,210
Rest of EU	162,907	208,988	213,390
Rest of the world	188,265	176,205	200,368
Total	1,198,970	1,320,333	1,302,752

Revenues from sales by geographical area - 2019

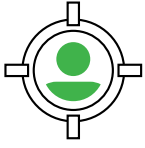




FERALPI'S RESPONSE TO THE COVID-19 EMERGENCY

The Feralpi Group has followed COVID-19 developments closely since the early phases, with the aim of responding as quickly as possible.

A **task force** was set up with internal personnel and expert medical consultants. The team has been sharing information on emergency precautions to meet government legislation and standards, and implementing special measures and organising dedicated communication activities.



DIGITAL AWARENESS

A **page dedicated to the Coronavirus emergency** was immediately set up on the Group's **website**, and has been updated continually to provide collaborators and external stakeholders with useful information from reliable sources to counteract any fake news.

A dedicated section has also been created in the News section of the **WeAreFeralpi app**, within which profiled internal and external communications have been uploaded, in addition to official documents on the *Coronavirus - News & Updates* page.

The Group also introduced **new services** with the aim of supporting employees, involving company medical staff working in conjunction with the Feralpi Siderurgica Health & Safety Manager to promote videos with medical content: *Emergency and Stress - Tackling Covid-19 and Strategies for Coping with the Emergency*, both by PEOPLEwellBE, in addition to an exhaustive list of FAQs with the most important developments on the subject.

Editorial plans for the Feralpi Group social networks were reviewed to add content on raising awareness of good practices.



INFORMATION-SHARING

Various initiatives deemed useful have been shared through company platforms to aid physical, psychological and social well-being. Examples include an initiative promoted by Lombardy Regional Government on their website, with resources and tips for coping with the current emergency, covering physical exercise, education and psychological support, in addition to the digital film collection made available by the Museum of Industry and Work (Musil), and the Digital Solidarity project promoted by the Ministry of Technological Innovation and Digitalisation.



SOLIDARITY

The Group joined the **#iopagoifornitori** campaign supported in the Brescia area by the Brescia Industrial Association, which launched a fully-fledged Call to Action through an official Manifesto signed by companies in the Lombardy province. It entails the implementation of actions required to ensure the sharing and observation of the guiding principles of the initiative. Signing up to the project means making a commitment to pay suppliers within the timescales set out in existing business contracts with the company. This aims to raise awareness among the business community and government departments, as part of transparent and ethical civic engagement with the entire supply chain.

The Feralpi Group also contributed to the **#aiutiAMO Brescia** initiative promoted by the newspaper Giornale di Brescia, Fondazione Comunità Bresciana, and UBI Banca to support the Brescia healthcare system in its fight against Coronavirus. In addition to financial support, the community is also being supported through the supply of PPE and consumables that are hard to source, to meet the needs of Montichiari Hospital and the Lake Garda voluntary group.

CONTEXT AND STRATEGY



P.21

1.1. **THE MARKET AND CHALLENGES FOR THE STEEL INDUSTRY**



P.23

1.2. **BUSINESS VISION AND STRATEGY**



P.26

1.3. **THE ROLE OF RESEARCH IN COMPANY STRATEGY**



P.28

1.4. **SUSTAINABILITY FOR FERALPI**



P.29

1.5. **COMMITMENT TO SUSTAINABILITY**



P.32

1.6. **STAKEHOLDER ENGAGEMENT**



P.35

1.7. **MATERIALITY MATRIX**



1.1. THE MARKET AND CHALLENGES FOR THE STEEL INDUSTRY

Observing the global steel industry, **2019 did not maintain the positive trend of 2018**, and showed signs of weakness that intensified for months until the start of 2020 brought the **pandemic generated by the Covid-19 virus**, leading not only to a medical and social emergency, but also production stoppages that did not spare the world of steel.

2019 suffered from **critical global issues** which were persistent, such as overcapacity, added to a general slowdown in markets downstream (in particular the *automotive* industry), and an **increase in the cost of raw materials**. The intensification of **geopolitical tensions**, not to mention **Brexit**, and business struggles accompanied by protectionist measures between the USA and China, have worsened the context in which Europe, and Italy within it, have had to operate, dealing with international trade distortions and increased volatility.

Indeed in Europe, the **apparent consumption of steel decreased by 3.1%** in the third quarter of 2019 compared with the same period in the previous year, following an even worse second quarter (-6.7% y/y). The most recent findings by **Eurofer** (European Steel Association) mainly put this down to the slowdown in European manufacturing, fewer exports, and a drop in private investment and investment in infrastructure.

Despite this, **global steel production increased**. According to figures from the **World Steel Association**, output was 1.869 billion tonnes, an **increase of 3.4%** on the previous year. The year confirmed the predominance of Chinese steel which, with an increase of 8.3% on an annual basis with 996.3 million tonnes, represented over 55% of global production. 2019 had some surprises however, with a clear setback observed in steelmaking in Germany - the leader in Europe followed by Italy - where a 6.5% drop in production resulted in 39.7 million tonnes. Europe with its 28 Member States was also negative, at -3.9% with 298.8 million tonnes.

THE INTENSIFICATION OF GEOPOLITICAL TENSIONS, NOT TO MENTION BREXIT, AND BUSINESS STRUGGLES ACCOMPANIED BY PROTECTIONIST MEASURES BETWEEN THE USA AND CHINA, HAVE WORSENERED THE CONTEXT IN WHICH EUROPE, AND ITALY WITHIN IT, HAVE HAD TO OPERATE, DEALING WITH INTERNATIONAL TRADE DISTORTIONS AND INCREASED VOLATILITY.

In this scenario Italian steel production suffered a setback in 2019, following three years of growth. **National output** (Federacciai data) was equivalent to 23.242 million tonnes, a decrease of 5.3% compared with the previous year. In particular, the production of long products (sector where the Feralpi Group operates) was 12.311 million tonnes, marking a figure of -0.7% on an annual basis. The balance of trade was also negative.

2020 continued in the same vein as the previous year. **Global production** increased by 0.7% in the first two months, while the EU 28 alone slowed significantly: -9.1% y/y. Germany registered a figure of -10.9%, whereas Italy was more contained at -2.3%.

Though the first two months of 2020 showed a slight recovery of production volumes for Italy, with over 2 million tonnes in the month of February, the special measures taken by the Italian government to tackle the spread of Coronavirus stopped manufacturing and production activity. The negative repercussions cannot be quantified at the time of writing this report.

However, every European country must be seriously committed not only to implementing actions that foster economic recovery, but also doing so in line with the objectives of the European Green New Deal, presented by the President Ursula Von der Leyen and approved by the European Commission.

THE FERALPI GROUP IS AWARE THAT THE ROUTE TO A SUSTAINABLE FUTURE ALSO REQUIRES THE DECARBONISATION OF THE PRODUCTION SYSTEM. THIS IS A VISION IN WHICH THE NEW EUROPEAN TARGETS TO TACKLE CLIMATE CHANGE, INCLUDING ENERGY TRANSITION, MUST COINCIDE WITH THOSE OF COMPETITIVENESS IN THE MANUFACTURING SYSTEM AND INDUSTRIAL DEVELOPMENT OPPORTUNITIES, CONSISTENT WITH THE NEED TO CREATE AN INDUSTRY WITH NO IMPACT ON THE CLIMATE BY 2050.

The contribution of production businesses is significant in this context, and much more so than those which are energy-intensive, such as Feralpi. Energy, and its migration to **lower-impact** models, is a crucial factor in a forward-looking industrial policy, fortified by an energy policy that ensures industrial competitiveness and the certainty of supplies.





1.2. BUSINESS VISION AND STRATEGY

(102-2)

Business internationalisation, diversification and verticalisation processes have meant that for some time now the Group has been operating in markets with very different systems. Dealing with such a situation requires being able to count on an **organisational structure** that is highly orientated towards competitiveness, to better oversee development strategy and achieve company objectives.

For these reasons, in 2019 the Group adopted a **new Governance Model** on 1 July, clearly defining roles, responsibilities and scope of action. The new Governance Model

also enables shareholders to focus on the strategic role that characterises modern companies organised into several businesses and markets, as in the case of the Feralpi Group, and which is crucial for anticipating developments and market changes.

More specifically, there are two divisions - one dedicated to **construction steel** and the other for **specialities**. Each division has two Business Units that correspond to a specific product/geographical market combination.

In particular,



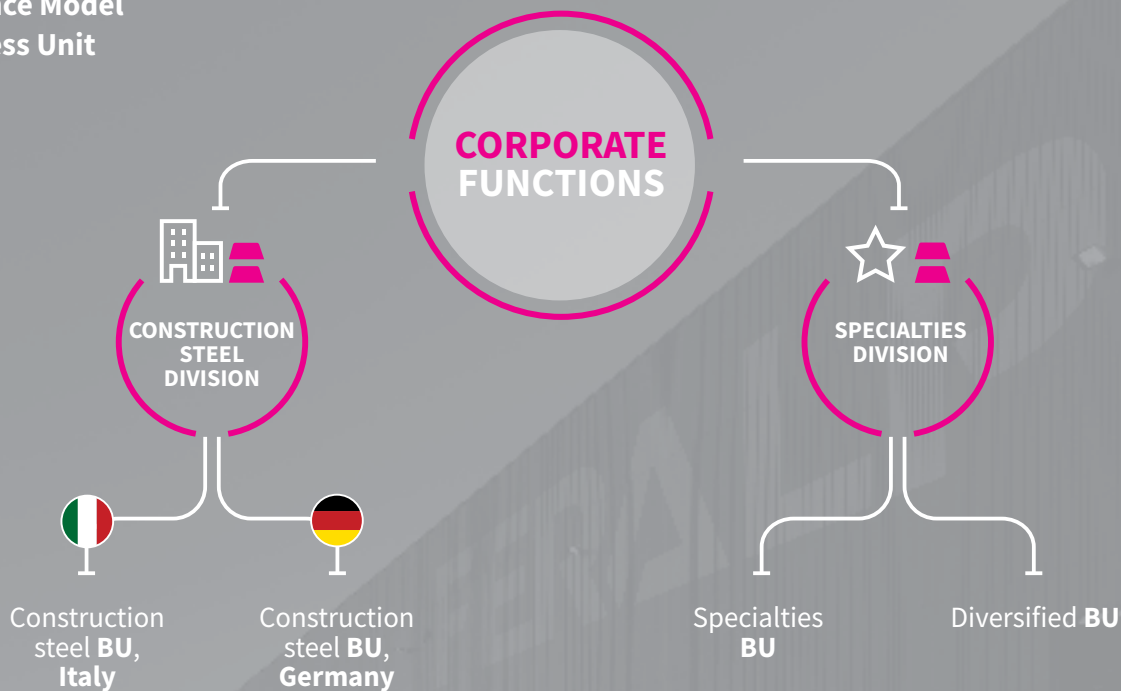
The **construction steel division includes Italian companies** (Construction Steels Business Unit for Italy) and foreign companies (Construction Steel Business Unit for Germany) operating in the Group's historic market i.e. aimed at the more traditional building industry.



The **specialities division** includes companies operating in the special steels industry (Specialities Business Unit) and the diversified products market (Diversified Products Business Unit).



The **Corporate Departments** are central staff or business departments that provide services and draw up policies and guidelines for the entire Group.



THE NEW GOVERNANCE MODEL ENABLES FERALPI TO OVERSEE A BUSINESS STRATEGY THAT DEVELOPS THROUGH 5 PILLARS:



1

VERTICALISATION

through the consolidation of downstream processes and presence at several levels in the supply chain to engage with end customers.



2

DIVERSIFICATION

by entering new target markets for new products.



3

INTERNATIONALISATION

with further expansion in foreign markets to offset the persistent weakness of the Italian market.



4

SUSTAINABILITY

by creating value for stakeholders, reducing environmental impact and engaging with the community.



5

PRODUCTION INNOVATION

through research and development, and an ongoing focus on product quality.

The strategy makes it possible to provide individual businesses with the levers of success required to achieve objectives and consolidate corporate strengths, therefore standardising Group policies. It also enables coordination to be strengthened through clear and effective decision-making processes.

In line with this strategy, a decision was made in 2019 to invest in **identifying internal synergies** in particular, and further orientating the **construction steel and specialities business units** towards a wider range of products and services and a revamped sales network, in order to better fulfil customer requirements. This approach also entails the **diversified enhancement of products**, by focusing on and continually engaging with customers.

Alongside the development of new internal synergies, a decision was made to **upgrade existing plants** in the companies based in Italy, and to **introduce new plants** characterised by a higher level of innovation and reliability. This was mainly aimed at increasing efficiency and productivity, not to mention safety.

OF PARTICULAR IMPORTANCE AMONG THE INVESTMENT PLANS APPROVED IN 2019 WAS THE UPGRADE TO PRODUCTION CAPACITY AT THE ESF ELBE-STAHLWERKE FERALPI FACILITY, TO CONSOLIDATE THE ROLE OF THE GROUP IN THE EUROPEAN STEELMAKING PANORAMA AND MEET THE INCREASING REQUIREMENTS OF THE GERMAN MARKET. IN LINE WITH A SUSTAINABLE DEVELOPMENT APPROACH, THE PLANT WILL HAVE THE BEST TECHNOLOGIES FOR ACHIEVING EFFICIENCY AND HIGH QUALITY, REDUCING ENVIRONMENTAL IMPACT, AND ADOPTING THE HIGHEST SAFETY STANDARDS.

This investment also means **increasing local job prospects**, especially for younger generations with strong digital skills to enhance the wealth of expertise that is essential for developing in line with **Industry 4.0 models**.



1.3. THE ROLE OF RESEARCH IN COMPANY STRATEGY

Companies in the Feralpi Group carry out **extensive applied research**, which is deemed a strategic resource for all industrial activities, with production departments working together with the **R&D and Process Technologies** department. Research and development therefore supports the economic and environmental optimisation of process safety and product quality, by targeting the detailed technological development of processes and systems, in many cases with an **Industry 4.0** approach.

There are internal projects and ones in partnership with external organisations and companies, and they may also be funded by regional institutions (regional tenders on competitiveness and innovation), national organisations (**Ministry for Economic Development** - tax credit schemes) and European institutions (**RFCS** - *Research Fund for Coal And Steel*, Horizon 2020, SILC, Life).

IN PARTICULAR, PARTICIPATION IN EUROPEAN TENDERS ENABLES THE GROUP TO COLLABORATE WITH PARTNERS WHO HAVE THE BEST SPECIALIST EXPERTISE AT AN INTERNATIONAL LEVEL, UNDERSTAND THE MAIN TRENDS EMERGING AND THE MOST PROMISING LINES OF RESEARCH, PROACTIVELY CONTRIBUTE TO GENERATING NEW IDEAS, AND PRODUCE SOLUTIONS APPLICABLE TO INDUSTRIAL OPERATIONS.

To this effect, Feralpi is involved in **activities to steer national and European research policies**, by participating in shared industry platforms such as **ESTEP** (*European Steel Technology Platform*), **AFIL** (*Associazione Fabbrica Intelligente Lombardia*) and **CLM** (*Cluster Lombardo della Mobilità*). The Group is also collaborating with **Federacciai** and **EUROFER** to create a new Public Private Partnership (**PPP**) - named the *Clean Steel Partnership* - with the aim of directing funding offered by the EU within its **Green New Deal** project, towards steel production that uses less carbon and has lower CO₂ emissions.

Thanks to this approach, it has been possible for Feralpi to set up various initiatives gleaned from European research in advance, which has been adapted for Industry 4.0. Feralpi actually applied the first predictive simulators for the **Electric Arc Furnace (EAF)** in 2009, and since 2012 has been implementing software systems to monitor the EAF process in its research projects, through the **use of key performance indicators (KPIs)**. Furthermore, in 2014 application examples of **digital twin process simulators** for the electric furnace were developed internally and with research partners, which became the first example of an integrated monitoring system for EAF process control which is self-adaptive, i.e. it can learn and adapt its functionality on the basis of previous production periods. As a result, Feralpi has positioned itself as a European developer of Industry 4.0 strategies in the steelmaking industry.

Starting with an approach that mainly focused on the electric furnace, Feralpi then extended its **research to other process phases**, such as the development of integrated systems for the entire steelworks area, simulation and monitoring systems for continuous casting, and integrated monitoring of supply chain data between different sites, with the aim of improving production processes and guaranteeing process quality standards. In particular, systems to monitor the supply chain aimed to correlate the results obtained in the various process phases, qualitative product results, and the operational practices adopted. In these cases data analysis is used to understand production itself and maintain quality standards achieved, and is based on statistics and the use of modern machine-learning criteria. Other product monitoring systems have been added to these applications, such as the development of sensors and application of machine-learning criteria, to identify any defects.

During 2019, research activities mainly concerned four key areas that are closely connected: **quality** (see section 7), **energy efficiency** (see section 3.2), **circular economy** (see section 4), **emissions** and **Industry 4.0** (see section 3). For a full list of research projects underway in 2019, consult the Innovation and Research section on the website at www.feralpigroup.com/en/ and the Consolidated Financial Statement.



INDEX

SECTION 7 Providing a quality product and service - managing supply and customer relationships [P. 98]

SECTION 3.2 Energy efficiency [P. 65]

SECTION 4 Multiplying the use of materials: a commitment to the circular economy [P. 68]

SECTION 3 Energy efficiency and environmental management in production processes [P. 54]



1.4. SUSTAINABILITY FOR FERALPI

AMONG FERALPI GROUP'S INTERNAL FUNCTIONS THERE IS THE SUSTAINABILITY AND PUBLIC RELATIONS UNIT, WHICH ACTS AS A LINK BETWEEN ALL THE GROUPS' OPERATIONS. THIS UNIT REPORTS DIRECTLY TO THE CHAIRMAN OF THE FERALPI GROUP.

Since 2014, the sustainable development governance has been entrusted to the **Sustainability Committee**, which in 2019 regularly met twice, in July and December 2019. It provides advisory and support to the Board of Directors, which is informed directly by the Group Chairman. The Board of Directors of the Holding is also responsible for approving the Non-Financial Statement. The Feralpi Group plans an evolution of the role and tasks of the Sustainability Committee, with a view to greater integration of sustainability in the company's core business and in line with the increasing market requirements in terms of non-financial disclosure.

As a family-owned business, the ownership along with the top figures indicates the strategic direction also in terms of sustainability guidelines, which are part of the corporate risk assessment. It is up to the corporate functions and/or individual companies to determine in a coordinated manner the management policies, processes and procedures, in line with the specificities of each individual business.

The managing directors of the various Group companies and the manager of individual production units are respon-

sible for compliance with legal requirements and the determination of the corporate policies and their implementation. Specifically, on environmental and social issues, operational management is currently independent in each group company, with cross-coordination activities, both in Italy and abroad, at the helm of the main production plants: **Feralpi Siderurgica** and **ESF Elbe-Stahlwerke Feralpi**. In support of this, both have an **integrated management system**.

The integrated management system at **Feralpi Siderurgica** includes Safety Management, which is certified according to **BS OHSAS 18001** requirements and Environmental Management, which is certified according to **UNI EN ISO 14001:2015** and according to **EMAS** regulation; the procedures of this Environmental and Safety Management System (**SGAS**) are also incorporated in the Significant Accident Risks management system.

The German integrated management system, which was established in 2019 following the 2018 risk analysis process and applicable to **Feralpi Stahl (ESF Elbe-Stahlwerke Feralpi, Feralpi Stahlhandel and Feralpi-Logistik)**, includes the following:

- › **DIN EN ISO 9001** (quality management) with the obligation to achieve a product of a high level of quality;
- › **DIN EN ISO 14001** (environmental management) or Eco-Management and Audit Scheme (EMAS, EC regulation 1221/2009) focusing on continuous improvement of environmental performance;
- › **DIN EN ISO 50001** (energy management) for continuous improvement in energy efficiency.

This management system is part of the Feralpi Stahl Integrated Management Manual.



1.5. COMMITMENT TO SUSTAINABILITY

In line with the **Sustainable Development Goals** adopted by the United Nations, Feralpi has decided to engage in the following three areas, while maintaining its own identity and promoting development in terms of supply chain and field of industry:



ENHANCING PEOPLE

intended as individuals within a social and work environment, guaranteeing **safety**, supporting them in **health-care prevention** and contributing to their **well-being** and that of their families.



INVESTING IN AN INCREASINGLY SUSTAINABLE PRODUCTION

promoting **positive impacts and reducing negative** ones for the geographical area and the people who work. **Process optimisation** focuses on efficiency of materials, the development of circular processes, investments in research and innovation, 4.0 quality development technologies and an efficient customer-oriented service.



ENCOURAGING THE DEVELOPMENT AND GROWTH OF THE NATIONAL ECONOMIC SYSTEM

starting from **work**, intended as a key tool for the enhancement of the individual within a social context. Feralpi is committed to contributing to the **spread of a responsible working culture** and raising awareness and training future generations at the same time.



More specifically, in connection with the Sustainable Development Goals, Feralpi has chosen to engage in **six Goals**, which are considered more in line with its business activities: Goal 7 - Affordable and clean energy, Goal 8 - Decent work and economic growth, Goal 9 - Industry, innovation and infrastructure, Goal 11- Sustainable cities and communities, Goal 12 - Responsible consumption and production and Goal 13 - Climate action.

The three areas illustrated above, which are part of a broader scheme of national and international recommendations, such as the Confindustria Manifesto on sustainability and the 2030 Agenda, are developed in the **seven pillars** that define Feralpi's sustainability policy.

THE SEVEN STRATEGIC PILLARS FOR SUSTAINABILITY AND ENGAGEMENTS



1 CONTRIBUTE TO REDUCING CONSUMPTION AND IMPACTS

Feralpi is committed to developing actions and behaviours aimed at reducing impacts at work, making production more efficient on one hand and promoting sustainable lifestyles on the other. Innovation and new technologies are key factors.

ENGAGEMENTS

- › reducing direct emissions and energy consumption by 5% over five years
- › promoting the development of renewable energies

See **section 3** for more about management methods and 2019 facts and figures [P. 54]



2 MULTIPLY THE USE OF MATERIALS

Feralpi has chosen to enhance the materials and, where possible, to give them new life by developing partnerships in and outside the fields of activity and investing in research and development, thus contributing to the innovation of the supply chain.

ENGAGEMENTS

- › investing in innovative solutions aimed at reusing materials within or outside the production cycle
- › choosing technologies aimed at reducing emissions with a view to circular economy

See **section 4** for more about management methods and 2019 facts and figures [P. 68]



3 DEVELOP A QUALITY OFFER

Quality as synonymous with sustainability. Quality in the raw materials, quality in production and quality in relations with customers: these are the ingredients of the offer that Feralpi undertakes to provide its customers.

ENGAGEMENTS

- › enhancing relations by investing in dialogue, timeliness and offer
- › improving supply quality from a sustainable perspective
- › developing the quality culture throughout the supply chain

See **section 7** for more about management methods and 2019 facts and figures [P. 98]



4 ETHICAL BUSINESS MANAGEMENT

An accountable company cannot exist without good governance that is well structured and efficient, transparent and ethical. Feralpi is committed to qualifying its management and meeting market and stakeholder expectations.

ENGAGEMENTS

- › preparing and implementing in-house policy guidelines
- › formalizing ethical and sustainable management by means of certifications and transparency of information
- › raising awareness and informing the supply chain on sustainable practices and measures

See **section 2** for more about management methods and 2019 facts and figures [P. 40]



6 INCLUSION AND COMMUNITY DEVELOPMENT

With its production plants and administrative offices, Feralpi is an integral part of the geographical area in which it operates. Investing in the growth and development of the local community, the countries where it operates and the people living there is a crucial aspect of the Group's business.

ENGAGEMENTS

- › continuing to actively contributing to the development of the local community
- › developing dialogue and engagement with non-profit organisations

See **section 8** for more about management methods and 2019 facts and figures [P. 106]



5 THE CARE, SAFETY AND DEVELOPMENT OF PEOPLE

Feralpi has always focused its operations on people who, with their individuality, work background and personal history, are strategic for the development of the Group. The Company is therefore committed to ensuring their loyalty, care and professional enhancement.

ENGAGEMENTS

- › investing in and enhancing existing and new talents within the company
- › developing and raising safety awareness and culture
- › designing welfare solutions in support of well-being and health

See **sections 5** [P. 78] and **6** [P. 82] for more about management methods and 2019 facts and figures.



7 WORK CULTURE AND EDUCATION FOR YOUNG PEOPLE

Young people are the future, which is why Feralpi has chosen to commit itself to the new generations and promote their professional growth so that they can actively contribute to the development of our country and local community.

ENGAGEMENTS

- › contributing to the education of young people by raising their awareness of climate change and the rational consumption of resources
- › investing in business projects for sustainable development

See **section 8** for more about management methods and 2019 facts and figures [P. 106]

The **seven sustainability pillars** have been identified following a **context analysis** that took into account global trends and risks, the needs of today's society, the material topics of the Group and the industry, the actions and strategic guidelines put in place by Feralpi. They were subsequently approved by the Group Chairman and the Sustainability Committee.

The **definition** of the Feralpi Group's 7 sustainability pillars made therefore possible to guide subsequent actions, namely the updating of the stakeholder map, the materiality matrix, the internal and external engagement activity and the setting up of an operational sustainability plan at Group level, currently in the process of optimisation and internal sharing, in anticipation of its implementation.



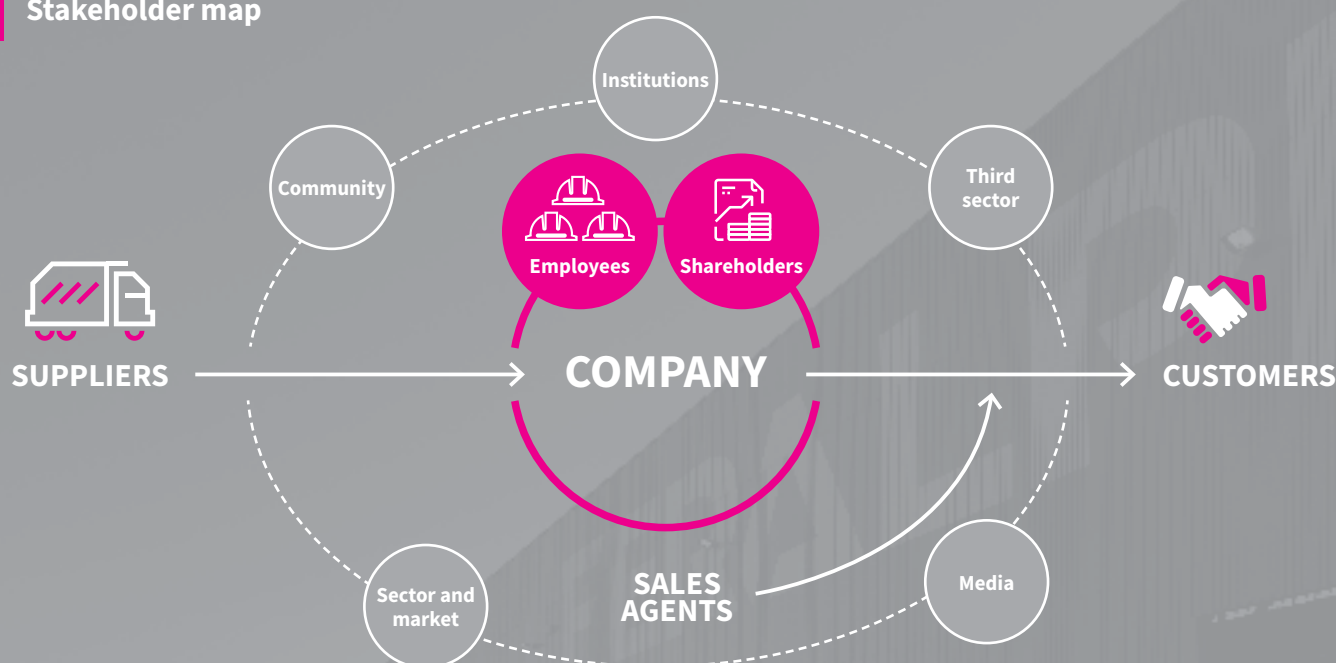
1.6. STAKEHOLDER ENGAGEMENT

(102-12; 102-13; 102-40; 102-42; 102-43)

Feralpi's **stakeholders** are all its employees and collaborators, shareholders, customers, suppliers, local communities, institutions, sales agents, the sector and the market, the media and the third sector. The updated stakeholder map has made it possible to consider new interlocutors who respond to the Group's current evolution: the network of sales agents, banks and insurance companies, supply chain partners and other relevant organisations.

IN ORDER TO PURSUE ITS CORPORATE MISSION, FERALPI IS COMMITTED TO DEVELOPING A RELATIONSHIP OF TRUST WITH ALL ITS STAKEHOLDERS (AT AN INDIVIDUAL, GROUP AND INSTITUTIONAL LEVEL).

Stakeholder map



The stakeholder map was updated in Autumn 2019 as the result of internal engagement, which involved Group's executives and middle managers.

In addition to updating the stakeholder map, the **engagement activity** had the following **objectives**:

- › the identification and understanding of internal expectations and growth and development opportunities;
- › raising awareness with executives and middle managers regarding the Group's challenge (the seven pillars of sustainability strategy) and the global challenge (United Nations 2030 Agenda)
- › updating of the materiality matrix;
- › evaluation of internal processes with a view to sustainability;
- › evaluation of suggestions for improvement in risk management;
- › understanding the needs and expectations of key stakeholders.

The engagement activity was conducted through **one-to-one interviews** with middle managers and executives and a **digital questionnaire** sent to the representatives of external stakeholders, who have been invited to express their opinion on material topics and on the Group's strengths and improvements.

Members of the Feralpi Group staff, selected in Italy and Germany in line with the new Group's Governance Model, have been **involved in the engagement**. The activities were carried out in September/October 2019 according to the quality interview method and the digital survey. Each interview was anticipated by a preliminary discussion document specifying the stakeholders, the material topics and relevant explanations, the 7 sustainability engagements and specific targets of the 6 sustainability development goals selected. The **external stakeholder engagement** was conducted in 2019. The persons were proposed directly by the internal departments and were involved in the digital questionnaire (average duration 9 minutes, response rate 82.5%), created with the aim of updating the external axis of the materiality matrix and collecting useful indications on the Group's strengths and improvements.

As to the **internal stakeholders**, the priorities on which Feralpi is called to invest in the near future are:

- › Economic sustainability
- › People (training, development, enhancement, safety)
- › Product and service quality

While as to the **external stakeholders**, the opportunities refer to:

- › Environment (emissions, circular economy and energy)
- › Product and service quality
- › Safety

In March 2019, the **Leipzig company INWT was entrusted to repeat the opinion survey**, with the aim of updating the data collected every two years on public opinion in Riesa and the surrounding area, in relation to the economic role and environmental impact of the steel plant situated in Riesa, Saxony. The results have already been reported in the 2018 Sustainability Report.

During the year, **periodic stakeholder engagement activities** were also promoted for **schools and universities** with the aim of increasing work culture among young people, giving value to the theme of entrepreneurship and making the world of steel known. Among the most important events, it is worth mentioning the theatre show **Da le ses a le dò, da le dò a le des** at Siderurgica at the occasion of the Le Dieci Giornate di Brescia revival and the art exhibition entitled **Brera Feralpi, an art workshop** held at the Academy of Fine Arts of Brera, with which the Feralpi Group established in 2017 a partnership to create an art competition for young students of this prestigious school. To these are added the activities for the children of the employees and the Students' Day (**Großenhainer Ausbildungstag**) in Riesa. The Group has also actively taken part in specific initiatives promoted by third organisations at a local and national level, which include the **SME Day** organised by Confindustria at the 2019 Family Business Festival organised by the Bocconi University, AIDAF and Corriere della Sera, the **Bildhauersymposium** cultural event with an exhibition of sculptures made with scrap and finished products, sponsored by the Municipality of Riesa and endorsed by the Riesa cultural promotion association and the Wohnkulturgut Gostewitz at the Open Day **"Tag der offenen Tür"** in Riesa and at the **"Tag der Sachsen"**, a major Saxon folk festival, and last but not least the participation at the **Call-To-Action CEO** event aimed at raising awareness for sustainability. All these initiatives are flanked by the steps taken to dialogue with the public administration, which led the Lonato mayor and the chairman of the town council to visit the **ESF Elbe-Stahlwerke Feralpi** steel plant in Germany for the twinning of Riesa and Lonato. Numerous **appointments were held with international**

stakeholders, such as the visit of a **Thai delegation** at the Lonato plant, which was promoted by the *United Nations Industrial Development Organization* (UNIDO), ISIT, the Ministries of Industry and Environment in Thailand, *BISW* and *NTSC*, Thai Metal, Daiki and the Brescian Industrialists' Association (AIB). In parallel numerous activities continued in trade associations with Giuseppe Pasini who holds the office of president of the Brescian Industrialists' Association

(AIB) and is the coordinator of **Confindustria** Technical Roundtable for Energy, and with Giovanni Pasini, the managing director of Feralpi Holding who is also a member of the AIE Executive Committee and the Federacciai Long Product Association and vice-president of the AIB metallurgy sector. In Saxony (Germany), Frank Schaefer, **Feralpi Stahl**'s General Manager is vice-chairman of the regional Chamber of Commerce in Dresden.

PARTICIPATION OF FERALPI IN TRADE ASSOCIATIONS AND ORGANISATIONS

INDUSTRY TRADE REPRESENTATIVE GROUPS

- AIB** Brescian Industrialists' Association
- AIDAF** Italian family business association
- Federacciai** Federation of Italian steelmakers
- Federmeccanica** Unions federation
- Eurofer** European steel association
- RAMET** Consortium for environmental research for metallurgy
- Wirtschaftsvereinigung Stahl**
German steel industry federation
- Industrieverein Sachsen Chemnitz**
Saxony industrialists' association
- Vereinigtes Wirtschaftsforum Riesa**
Local business association
- Deutscher Ausschuss für Stahlbeton e.V., Berlin**
Regional industrial association of Saxony - National committee for the definition of standards in German industry and the improvement and distribution of construction products
- Regional Chamber of Commerce and Industry in Dresden**

TECHNICAL ASSOCIATIONS

- Fondazione CSR**
National study centre for corporate risk control and management
- Riconversider**
A Federacciai consultancy firm that deals with business organisation, technological innovation and financial management
- Unisider**
Italian steel standards unification body for promoting the knowledge of international standards
- AIM**
Italian metallurgy association
- FEhS-Institut Duisburg**
Building materials research institute, focusing mainly on the reuse and recovery of slag
- BDSV**
Bundesvereinigung Deutscher Stahlrecycling - und Entsorgungsunternehmen e. V. - German business union for steel recovery and disposal
- ESN**
Entsorgungsgemeinschaft der Deutschen Stahl und NE-Metall-Recycling-Wirtschaft e V. - German association for the recovery of steel and non-ferrous materials
- Sächsischer Hafen-und Verkehrsverein e.V. Dresden**
Association for the management of ports in Saxony

CORPORATE SUSTAINABILITY

- Lombardy Cluster Association of Technological Mobility**
Clusters, recognized by the Lombardy Regional Government
- CSR Manager Network**
Association that brings together professionals and managers involved in corporate social responsibility
- Fondazione Sodalitas**
Italian association for promoting the practice and principles of corporate social responsibility
- Green Economy Observatory**
Bocconi University, IEFE dept. Participation at round tables
- Klimaschutzunternehmen e.V.**
German association for commitment, environmental protection, with the aim of reducing CO₂ emissions

RESEARCH

- AFIL** Associazione Fabbrica Intelligente Lombardia
- CSMT** Multi-industry and technological service centre, a Lombardy research organisation
- Reach Ferrous Slag Consortium** - Consortium assisting companies in registering with the European Chemicals Agency ECHA, which promotes the safe use of chemicals, and registers, assesses, authorises and restricts chemicals
- ESTEP** (European Steel Technology Platform) European association promoting technological research activities for the development of processes and production plants for improving performance and sustainability
- Participation in the formation of a **Private Public Partnership** (Clean Steel Partnership) for the creation of research calls for tender in the Green New Deal area

In-house specific events have been held to increase the involvement among managers, as well as broader initiatives aimed at promoting healthy lifestyles and developing a culture of safety.



1.7. MATERIALITY MATRIX

(102-44; 102-46; 102-47; 103-1)

The material topics reported were updated during the financial year, with the aim of further supporting business development and engagement with stakeholders. Consequently, the positioning of topics in the matrix has evolved. These were considered in terms of risk/opportunity and urgency/non-urgency of action (*see the Methodology Note for an illustration of the procedure used*). The new matrix has **12 material topics** (listed alphabetically below) which are subject to reporting procedures,

and 8 of secondary importance (shown in the diagram for the materiality matrix below the curve identifying the materiality threshold) which are not reported, except for those indicated in Decree 254, such as inclusive, cultural and local economic development, anti-corruption, workers' human rights and diversity and equal opportunities.

Methodology Note [P. 135]



1. TALENT ACQUISITION

ability to attract, technical, specialist, operational and management personnel through long-term HR planning.



2. SAFETY CULTURE

development of an internal culture that raises awareness of the importance of working safely and training for emergency situations, through specific actions and activities. Management and prevention of production risks that could impact employees, the community and surrounding environment.



3. CIRCULAR ECONOMY, WASTE AND USE OF MATERIALS

sustainable waste and water management through recycling, reuse and a circular economy approach.

follows >



4. ENERGY EFFICIENCY

management of energy consumption with energy savings and the use of clean energy sources, also through self-production.



5. TRAINING AND DEVELOPMENT

training designed to develop personnel and appreciate their skills.



6. ETHICAL AND TRANSPARENT MANAGEMENT

ability of the Company to manage its business satisfactorily and transparently, through management methods that focus on ethics.



7. RESPONSIBLE MANAGEMENT OF THE SUPPLY CHAIN

selection and management of suppliers with a focus on quality of goods or service purchased, and compliance with current legislation in terms of integrity, transparency, sustainability and respect for human rights.



8. POLLUTANT EMISSIONS

management of emissions to reduce impact and comply with current legislation.



9. DIGITAL AND TECHNOLOGICAL INNOVATION

ability to create innovation through planned research, the development of new technologies and the promotion of initiatives and programmes aimed at digitalisation.



10. PRODUCT AND SERVICE QUALITY

ability of Feralpi to ensure high quality standards in terms of products and services provided, and therefore the development of customer relationships based on trust, which encourage loyalty and provide satisfaction with the service provided, and not just the product sold.



11. HEALTH AND WELL-BEING

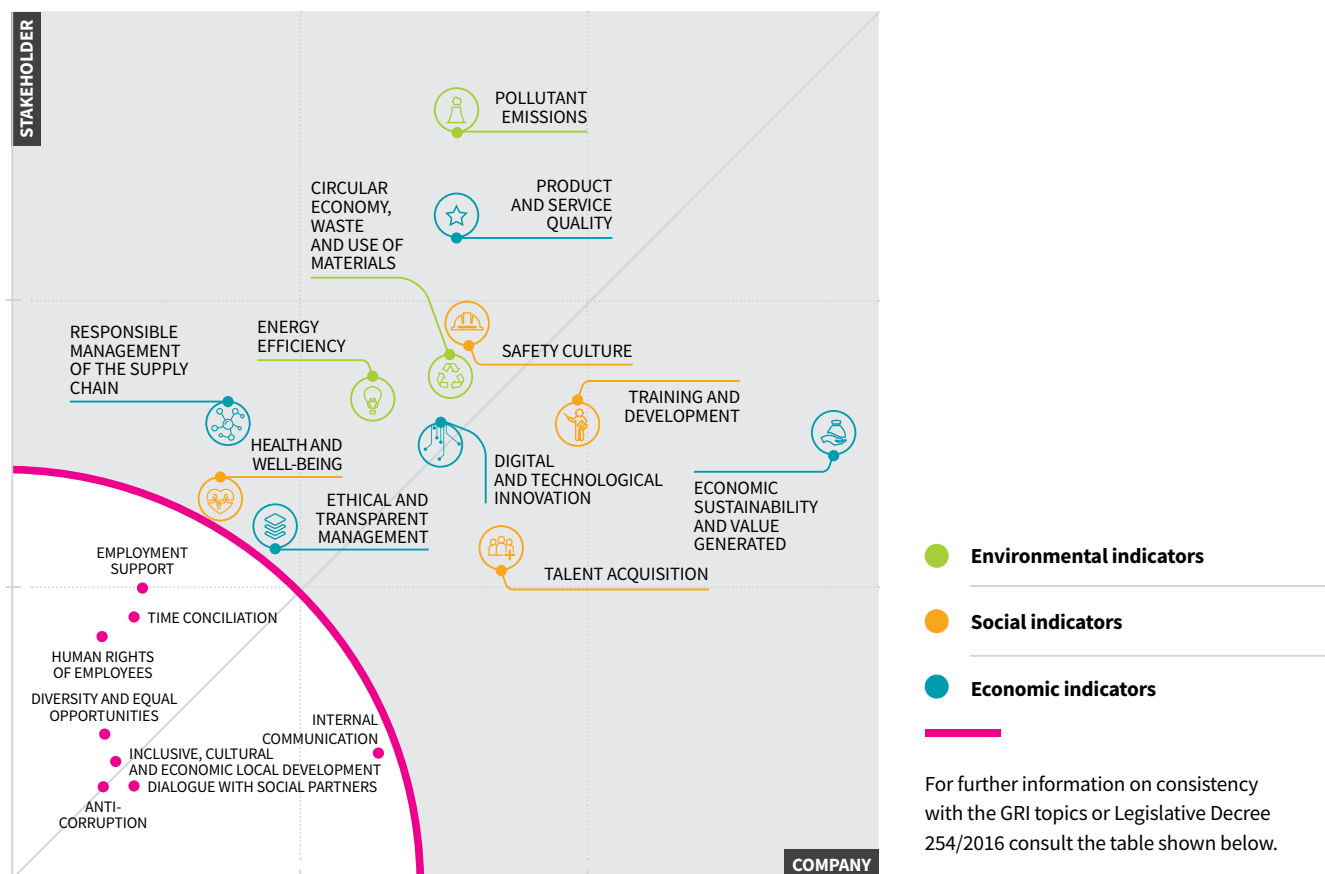
safeguarding Group employee health and well-being in the workplace and in their private life.



12. ECONOMIC SUSTAINABILITY AND VALUE GENERATED

ability of the company to remain competitive in the market while complying with competition, economic and environmental standards, generating value for stakeholders.

Materiality matrix



Compared with last year's matrix, there are some changes beyond the evolution of the individual topics. In 2019 **environmental topics** acquired greater importance in the eyes of external stakeholders, in addition to topics relating to the **quality of products** and the **supply chain**. Thanks to actions implemented in recent years, these topics have a lower level of urgency and risk for internal stakeholders than in the past. The increasing importance of these topics has led to the topic of safety being rescaled in terms of urgency, from both an internal and external point of view, but it remains a priority.

Correlation table of material topics, GRI Standards, Legislative Decree 254/2016

(103-1)

MATERIAL TOPIC	CORRESPONDING GRI STANDARDS	ISSUES UNDER Leg. Decree 254	INTERNAL SCOPE	EXTERNAL SCOPE	LIMITATIONS
Talent acquisition	401 (Employment)	› Employees	Feralpi Group	-	-
Safety Culture	403 (Occupational health and safety)	› Employees	Feralpi Group	Contractors for internal operations at the plants in Lonato, Calvisano, Nave and Riesa	-
Circular economy, waste and use of materials	301 (Materials) 306 (Effluents and waste) 303 (Water)	› Environmental	Feralpi Group (plants for which specific indicators are relevant)	Contractors for internal operations	Reporting on this aspect is not extended to outsourced companies and contractors for internal operations
Energy efficiency	302 (Energy) 305 (Emissions)	› Environmental	Feralpi Group (plants for which specific indicators are relevant)	Scrap suppliers, transporters of finished products	-
Training and development	404 (Training and education)	› Employees	Feralpi Group	-	-
Ethical and transparent management*	205 (Anti-corruption) 206 (Anti-Competitive Behavior) 405 (Diversity and equal opportunity) 412 (Human rights assessment) 307 (Environmental compliance)	› Anti-corruption › Respect for human rights › Employees › Environmental	Feralpi Group	-	-
Pollutant emissions	305 (Emissions)	› Environmental	Feralpi Group (plants for which specific indicators are relevant)	Scrap suppliers, transporters of finished products, contractors for internal operations and outsourcing of cold production	Reporting on this aspect is not extended to outsourcing and contracting companies that carry out internal operations.

MATERIAL TOPIC	CORRESPONDING GRI STANDARDS	ISSUES UNDER Leg. Decree 254	INTERNAL SCOPE	EXTERNAL SCOPE	LIMITATIONS
Digital and technological innovation	-	› Social	Feralpi Group	-	-
Product and service quality	417 (Marketing and labelling)	› Social	Feralpi Group	-	-
Responsible management of the supply chain	204 (Procurement practices) 308 (Supplier environmental assessment) 414 (Supplier social assessment)	› Social	Feralpi Group	Suppliers	Reporting on this aspect is not extended to suppliers
Health and wellbeing	-	› Employees	Feralpi Group	-	-
Economic sustainability and value generated	201 (Economic performance) 204 (Procurement practices)	› Social	Feralpi Group	-	-

NON-MATERIAL TOPICS UNDER Leg. Decree 254	CORRESPONDING GRI STANDARD	ISSUES UNDER Leg. Decree 254	INTERNAL SCOPE	EXTERNAL SCOPE	LIMITATIONS
Inclusive cultural and economic local development	-	› Social	Feralpi Group	-	-

* The topics associated with *Human rights of employees, Diversity and equal opportunities and Anti-corruption*, which are not material but relevant for Legislative Decree 254/16, have been dealt with as part of the material topic *Ethical and transparent management*.



CORPORATE ORGANISATION AND ETHICAL BUSINESS MANAGEMENT

(102-16)



P.41

2.1. **GOVERNANCE STRUCTURE: ROLES AND RESPONSIBILITIES**



P.43

2.2. **GOVERNANCE MODEL AND RISK ANALYSIS**



P.49

2.3. **PREVENTING AND TACKLING ACTS OF CORRUPTION**



P.51

2.4. **PRIVACY**



2.1. GOVERNANCE STRUCTURE: ROLES AND RESPONSIBILITIES

(102-5; 102-18)

FERALPI HOLDING S.P.A. IS CONTROLLED BY A FAMILY SHAREHOLDER BASE AND HAS A CONVENTIONAL GOVERNANCE STRUCTURE, WHERE THE CORPORATE BODIES ARE REPRESENTED BY SHAREHOLDERS' MEETING, THE BOARD OF DIRECTORS AND THE BOARD OF AUDITORS. A LEADING COMPANY IS ENTRUSTED TO CARRY OUT AN INDEPENDENT AUDIT.

In accordance with the law, the **Shareholders' Meeting** appoints the **Board of Statutory Auditors**, which consists of three members assisted by a secretary.

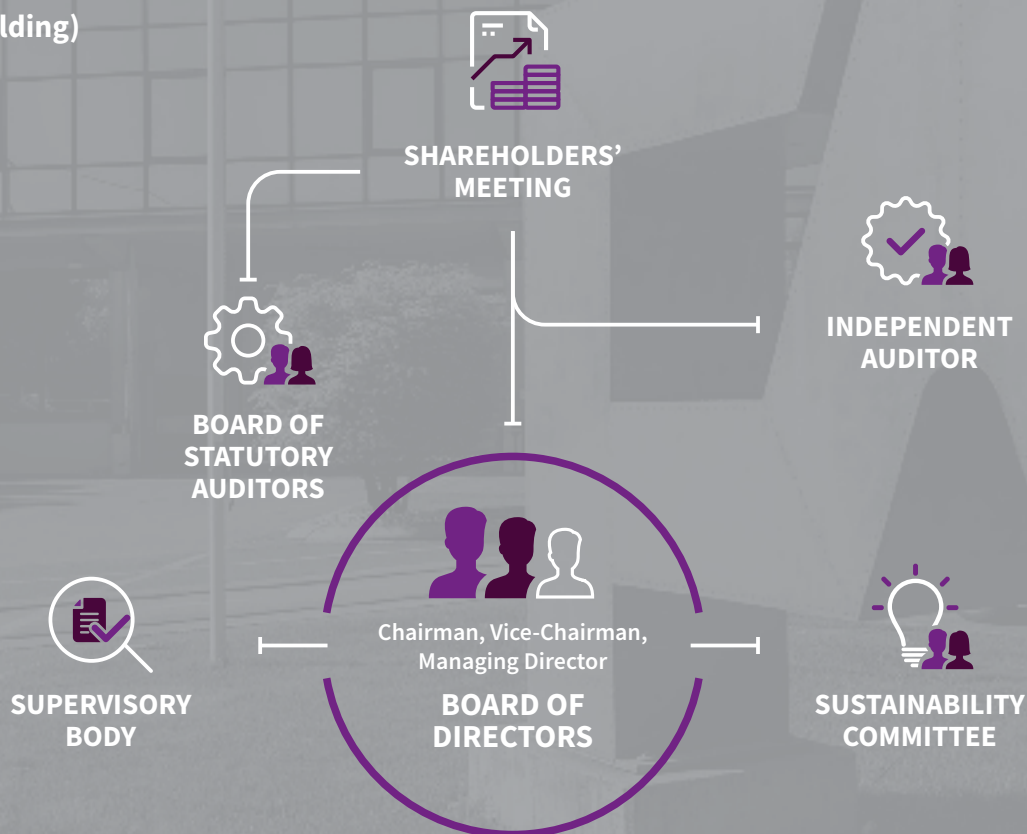


BOARD OF STATUTORY AUDITORS (FERALPI HOLDING)

Giancarlo Russo Corvace	Chairman
Alberto Soardi	Statutory Auditor
Stefano Guerreschi	Statutory Auditor

The **ordinary and extraordinary management** of the Company lies exclusively with the Board of Directors, which comprises eight directors, among which the Chairman with executive powers, the Vice-Chairman and Managing Director are appointed. The Board of Directors meets every month. The **board members** are selected on the basis of skills and experience gained at Feralpi, according to informal procedures based on trust relationships among shareholders, without any discrimination of gender, ethnicity or age. The **Board of Directors** determines the Group's economic, social and environmental strategies in consultation with international market specialists and independent advisors.

The **Sustainability Committee** supports the Board of Directors on such matters as the prevention of social and environmental risks, thus playing a key role in determining the Group's sustainability policies.



BOARD OF DIRECTORS (FERALPI HOLDING)

CHAIRMAN	Giuseppe Pasini
VICE-CHAIRMAN	Cesare Pasini
MANAGING DIRECTOR	Giovanni Pasini

BOARD MEMBERS

Maria Giulia Pasini
Marco Leali
Andrea Tolettini
Alessandra Tolettini
Guido Corbetta

In the Board of Directors the **presence of women accounts for 25% as against 75% of men**.
25% of directors fall in the age group of 30-50 years, while 75% is over 50 years of age.



2.2. GOVERNANCE MODEL AND RISK ANALYSIS

(103-2; 103-3; 206-1)

The Feralpi Group has put in place a set of internal procedures and policies that are a point of reference for all employees and their stakeholders in terms of ethical business management.

CODE OF ETHICS

Feralpi's Code of Ethics is adopted by all the Group companies. The principles and provisions set out therein are binding on the Directors, all individuals employed by Feralpi and anyone working on behalf of Feralpi. A **printed copy of the Code of Ethics is handed over to new hires** and, as to suppliers, they are requested to sign it as a binding clause of the supply agreement.



CODE OF ETHICS

Available on
www.feralpigroup.com/en

CORPORATE GOVERNANCE CODE

In view of promoting a general improvement in governance processes, in 2019 Feralpi Holding decided to voluntarily join the **Corporate Governance Code for non-listed companies**, promoted by the Italian Family Business Association (AIDAF) and Bocconi University. The implementation of a modern governance model helps optimising decision-making processes and business policies, more effective control of risks and potential conflicts, an improvement of corporate reputation, thereby bringing significant benefits for all stakeholders of the company.



CORPORATE GOVERNANCE CODE

The Code is incorporated in the reporting tools and is posted in a dedicated section on the website
<https://www.feralpigroup.com/en/corporate-governance-code/>

GOVERNANCE MODELS

In Italy and Germany, Feralpi has a **governance and monitoring model**, consisting of a set of principles, rules and provisions aimed at ensuring conditions of transparency and fairness among all those who operate within or on behalf of the Group. In Italy, the Model 231 has been adopted by all Group companies, except **Ecoeternit** due to its small size (implementation currently under consideration).



GOVERNANCE MODEL

This model can be consulted on the website
<https://www.feralpigroup.com/en/d-lgs-2312001-en/>

This model allows individual companies to intervene promptly to prevent and combat the commission of crimes thanks to constant monitoring and careful supervision of areas of activities at risk.

As to the companies based in Germany, they refer to the national legislation (*Betriebsverfassungsgesetz- BetrVG*), which defines the right to co-decision, through the establishment of the “Workers’ Committee” (*Betriebsrat*). A governance model based on sharing, thereby workers and trade unions cooperate and at the same time exert a sort of control in terms of information, consultation and veto, though being minority with respect to corporate ownership.

ANTI-TRUST MANUAL

Feralpi has drawn up an **Anti-trust Manual**, accompanied by an operational handbook containing all the principles and guidelines for the personnel who maintain relations with third parties on behalf of the Group companies.

The anti-trust programme is updated and implemented every two years. In view of the risks encountered and the governance method implemented, it is not deemed necessary to currently envisage further internal actions to increase the sensitivity on this issue.

Group companies outside Italy regularly comply with the regulations in force in their countries and also join Feralpi Group compliance by adopting the same principles and values. More specifically, the German **ESF Elbe-Stahlwerke Feralpi** is an active member of *Wirtschaftsvereinigung Stahl*, the national federation of German steel mills, through which all the issues regarding tariffs and fair competition are dealt with.

As to the appeals filed with the Anti-trust Authority in 2018, following the annulment of fines administered to Feralpi by the Lazio Regional Court in 2017, in January 2020 the Council of State confirmed that no cartels were agreed among the manufacturers of rebar and welded mesh.

The Feralpi Group also filed an appeal, at a European level, against the €5,125 million fine imposed by the Anti-trust Authority for anti-competitive behavior for facts that had occurred between 1992 and 2000, which had already been fined twice by the EU Anti-trust Authority for €10,250,000. In both cases, the Group filed an appeal against the EU anti-trust decision, which was upheld and both fines were cancelled.

Except of the above facts, no other events of this kind and type occurred throughout 2017-2019.

SUPERVISORY BODY (SB)

The Board of Directors appoints the **Supervisory Body and the Sustainability Committee**, led by the chairman of Feralpi Holding’s Board of Directors. All the criticalities resulting from the activity carried out by the Supervisory Body (SB) in accordance with the Governance and Monitoring Model prepared in accordance with Legislative Decree 231/2001 and the Sustainability Committee,

THIS DOCUMENT IS SUPPORTED BY PERSONNEL TRAINING ACTIVITIES AIMED AT UNDERSTANDING ANTI-TRUST ISSUES AND AROUSE AWARENESS BY EMPLOYEES REGARDING ANTI-TRUST RISKS ASSOCIATED WITH BUSINESS TRANSACTIONS. TRAINING ACTIVITIES CONTINUED THROUGHOUT 2019 FOR THE EMPLOYEES INVOLVED IN MARKET-ORIENTED ACTIVITIES.

each for their relevant tasks, are reported to the Board of Directors.

As of 31st December 2019, eight Supervisory Bodies (SBs) were active within the Group, namely at **Feralpi Holding**, **Feralpi Siderurgica**, **Acciaierie di Calvisano**, **Nuova Defim**, **Feralpi Profilati Nave**, **Fer-Par**, **Presider** and **MPL**. The SB is a collective board with two or three members, except for Acciaierie di Calvisano and Nuova Defim where there is a single-member SB, represented by a safety leader. The Legislative Decree 231/2001 is currently not applied at **Ecoeternit**, due to its small size. For the Group's foreign companies, no Supervisory Bodies are put in place, since the Model 231 is not applicable, and the monitoring system is entrusted to the national law system and the competent authorities to whom the complaints are reported.

**IN THE REPORTING PERIOD,
THE SBS DID NOT RECEIVE
ANY REPORTS OF VIOLATION
OF THE GOVERNANCE MODEL
OR THE CODE OF ETHICS.**

WHISTLEBLOWING

Act 179 of 30 November 2017 on **whistleblowing** introduced the new sub-section 2-bis of art. 6 of Legislative Decree 231/2001, according to which the governance models adopted must provide for the activation of one or more channels that allow anyone to report, while protecting the integrity of the board itself, detailed complaints of **unlawful conduct** of a relevance in relation to the crimes envisaged in the models and based on precise and proven facts, or violations of the organisational and governance model, that have come to knowledge in carrying out the tasks assigned.

In 2019, all Feralpi Group's Italian companies (except for Ecoeternit due to its small size) have adopted a **specific procedure for the handling reports of offenses and irregularities**.

Feralpi has prepared a reporting model as an aid for the reporting party, which does not exclude any other possible reporting means. Reports can also be made anonymously through the following communication channels, provided they are complete, detailed and founded and properly substantiated:

- › **ordinary mail, with a personal reserved letter addressed to the chairman of the company's Supervisory Body at the Company's registered office;**
- › **e-mail address: segnalazioni.feralpi@pec.feralpigroup.com.**

The e-mail address is adequately protected by a security password only attributed to those responsible for assessing the reports or only to external members of the Supervisory Board, pursuant to Legislative Decree 231/2001. To these are added the communication channels established by the Organisational, Governance and Monitoring Model adopted pursuant to Legislative Decree 231/2001, such as mailbox and ordinary mail. During the year, no reports were received by the Supervisory Bodies.

TRAINING INITIATIVES REGARDING COMPLIANCE

Specific training plans are periodically promoted in view of continually updating internal resources. In late 2019, updating **training sessions were held on Legislative Decree 231/2001**, which involved the top managers of **Feralpi Holding, Feralpi Siderurgica, Acciaierie di Calvisano, Fer-Par and Nuova Defim**.

The meetings covered the following objectives:

- › an analysis of the characteristics of the Model adopted by the Company;
- › raising the awareness of corporate departments on how the Model works and the measures implemented to prevent the risk of crime;
- › an in-depth analysis of the management of risks for the Company, with particular reference to recent legislative changes.

RISKS

Work relating to the detailed mapping of 'sensitive' company activities and the analysis of potential risk was used as a reference when voluntarily complying with Legislative Decree 254/2016 on non-financial reporting. Feralpi carried out a risk assessment separately for each company, aimed at adopting the Governance Model set out in Legislative Decree 231/2001 for the Italian companies (with the exception of Ecoeternit). An analysis of risk and opportunity was carried out for the German companies, in line with a procedure to assess all potential events through their evaluation, and the identification of measures designed to avoid or minimise the risk, and create potential opportunities for the company. The German system to determine and assess risk is checked every 3 years in compliance with standard requirements, and is updated for significant changes to areas or departments.

In addition to risks of a financial, commercial and economic nature referred to in the annual report, business operations involve **social and environmental risks** of a different nature. As part of a deeper understanding of this type of risk, in 2019 the Group's External Relations and Sustainability Department carried out a sustainability analysis* to map the global and specific risks and trends in the industry where the Group operates. The macro risk categories identified by this analysis were presented and assessed during a Sustainability Committee meeting in July 2019, with the aim of increasing internal awareness and facilitating the identification of more specific risks. Once the macro risk categories had been identified, an update session on Legislative Decree 254/2016 was organised for executives and middle managers in the Group, during which the potential risks for Feralpi were assessed in relation to the topics set out in the decree. A summary of the results was subsequently shared, to help **content owners** complete quality data documents. The analysis of the context, internal updates and the completion of information documents constitute several aspects of a larger process, which enabled the initial identification of risks for the Group in relation to the decree. A summary is included in this document. The main risks identified by the group to date are therefore illustrated, with reference to the section containing the corresponding management methods.

IN 2019 THE COMPANY TOOK PART IN A WORKING PARTY HELD BY THE CSR MANAGER NETWORK FOR THE INTEGRATION OF SUSTAINABILITY RISKS AND BUSINESS RISKS SO AS TO INCORPORATE THEM AS INPUTS TO BUSINESS STRATEGIES.

* Main sources used for the sustainability analysis: BSR, Deloitte, Ernst & Young, European Parliament, Forum for the Future, KPMG, McKinsey, Standard & Poor's, SustainAbility, World Economic Forum.

Main risks identified under Legislative Decree 254/2016

ENVIRONMENTAL ISSUES	SECTION
Emissions into the atmosphere	Section 3
Management of hazardous and non-hazardous waste	Section 4
Use of X-ray sources and fusion of radioactive sources (only Feralpi Siderurgica, Acciaierie Calvisano and ESF Elbe-Stahlwerke Feralpi)	Section 3
Consumption of energy carriers (electricity and fuels) and raw materials	Sections 3 and 4
Health and safety risks associated with: chemical agents, physical agents, biological agents, work environments, equipment, systems, fire and explosion	Section 5
Major incident risk (only Feralpi Siderurgica e Acciaierie di Calvisano)	Section 5
SOCIAL ISSUES	SECTION
Relations with local communities and poor well-fare	Section 8
Product non-conformity	Section 7
Reputational risks associated with non-satisfaction or loss of customers	Section 7
Supply risks	Section 7
EMPLOYEES ISSUES	SECTION
Low attractiveness for potential candidates and high-level professional expertise	Section 6
Loss of talent	Section 6
Digital divide	Section 6
Lack of adequate skills for certain tasks	Section 6
ANTI-CORRUPTION	SECTION
Active corruption	Section 2.3
Passive corruption	Section 2.3
RESPECT FOR HUMAN RIGHTS	SECTION
Sexual, social, cultural, gender, age or race discrimination	Section 6.3
Human rights risks of specific companies' supply chain	Section 6.3

Certifications held by the Group companies

One of the governance methods adopted to mitigate the above-listed risks is obtaining and maintaining the following certifications:

Feralpi Siderurgica: UNI EN ISO 14001 | EMAS | UNI EN ISO 9001 | Minimum Recycled Content Certification | OHSAS 18001 | SustSteel Sustainability mark for steel products | EPD Environmental Product Declaration | ICMQ Eco Gold, Level of product eco-sustainability | End of Waste, Compliance with (EU) Regulation 333/2011

Acciaierie di Calvisano: UNI EN ISO 14001 | UNI EN ISO 9001 | Minimum Recycled Content Certification | TÜV certificate PED AD2000 W 0, Risk control and safety of pressurized equipment

Feralpi Profilati Nave: UNI EN ISO 9001 | CE marking

Nuova Defim: UNI EN ISO 9001 | CE marking

Presider: UNI EN ISO 9001 | UNI EN ISO 17660-1 | UNI EN ISO 17660-2 | AFCAB Certification

Presider Armatures: AFCAB-POSE certification | AFCAB NF-Armatures certification

Metallurgica Piemontese Lavorazioni: UNI EN 1090-1 | UNI EN ISO 9001 | UNI EN ISO 14001 scheduled for 2020 | Declaration of Performance (DoP)

ESF Elbe-Stahlwerke Feralpi: UNI EN ISO 14001 | EMAS | UNI EN ISO 9001 | UNI EN ISO 50001

Feralpi Stahlandhel: UNI EN ISO 14001 | EMAS | UNI EN ISO 9001 | UNI EN ISO 50001

Feralpi Logistik: UNI EN ISO 14001 | EMAS | UNI EN ISO 9001 | UNI EN ISO 50001

Feralpi-Praha: UNI EN ISO 9001

Feralpi-Hungaria: UNI EN ISO 9001

Ecoeternit: OHSAS 18001 | UNI EN ISO 14001





2.3. PREVENTING AND TACKLING ACTS OF CORRUPTION

(103-2; 103-3; 205-3)

The prevention and management of corruption is managed by the Group in full compliance with existing legislation and national standards. The **Code of Ethics** also refers to potential risk due to corruption, stressing principles of Transparency, Truth and Honesty in section 3, and appropriate conduct in relationships with government departments in section 4.5.

The Model relating to Legislative Decree 231/2001 adopted by the Group's Italian companies (except *Ecoeternit*) can be referred to in relation to public administration corruption and corruption between private parties. **The following sensitive areas have been identified as part of the mapping activities:**



CODE OF ETHICS

Available on
www.feralpigroup.com/en/



THE MANAGEMENT OF REQUIREMENTS TO OBTAIN AND/OR RENEW AUTHORISATIONS, LICENCES AND/OR PERMITS FROM GOVERNMENT DEPARTMENTS AND ANYTHING ELSE THEY ISSUE



THE FULFILMENT OF THE REQUIREMENTS OF GOVERNMENT DEPARTMENTS OR PUBLIC SUPERVISORY AUTHORITIES, AND THE MANAGEMENT OF RELATIONSHIPS WITH THEM DURING AUDITS AND INSPECTIONS



THE MANAGEMENT OF DISPUTES IN THE VARIOUS AREAS OF INTEREST TO THE COMPANY (CRIMINAL, CIVIL, ADMINISTRATIVE, FISCAL, ARBITRATION)



THE REQUEST FOR AND MANAGEMENT OF PUBLIC FUNDING

Feralpi applies the measures for the offences set out in **Model 231** for Italian legal entities to manage risks relating to this topic. The methods to manage sensitive operations and the corresponding responsibilities are outlined in various procedures and refer to the Supervisory Bodies for each company. *Ecoeternit*, in line with its size and specific characteristics, operates in synergy with the information defined at Group level.

All Italian companies have an internal procedure governing public administration relationships to accompany **Governance Model 231/2001** and the Code of Ethics. For example, this procedure is applied by assigning powers to delegate, sign and access accounts to specific executive roles only, and for specific transactions. Companies that participate in public tenders indirectly provide specific training for commercial personnel to prevent acts of corruption between private parties.

German legislation requires companies to provide the government with detailed information on specific aspects potentially connected to the risk of corruption and money laundering, which are then checked and verified. A double-checking principle is also applied, whereby several members of company staff cross-check information.

In light of the above, it is felt that the information outlined in the **Code of Ethics** and **Governance Model 231/2001** adopted by the Italian companies (except *Ecoeternit*), and the requirements of German legislation, are comprehensive in defining actions and the management of corruption-related risks such that the creation of a Group policy is not necessary.

AS IN THE TWO PREVIOUS FINANCIAL YEARS (2017 AND 2018), IN 2019 NO CONFIRMED CASES OF CORRUPTION WERE DETECTED, NOR WERE THERE LEGAL CASES AGAINST THE COMPANY/EMPLOYEES, FINES, OR SUPPLIER RELATIONSHIPS TERMINATED DUE TO CORRUPTION.



2.4. PRIVACY

The risks associated with the protection of personal and non-personal data of individuals are manifold and constantly evolving as the administrative and production processes become increasingly interconnected and digitalized. The repercussions resulting from failure to comply with regulatory requirements involve the risk for data controllers to be sanctioned. From an environmental point of view, an improper management of data can result in increased costs and duplication of paperwork whereas it would be more sustainable to digitalize data with suitable legally recognised storage guarantees and appropriate security measures. From a social viewpoint, a wrong approach can create an inadequate working environment or even jeopardize trade union relations (e.g. improper management of a video-surveillance or worker monitoring system).

THE HUMAN RIGHTS PUT AT STAKE IN CASE OF BREACH OF DATA ARE THOSE RELATING TO THE PROTECTION OF PERSONAL DATA AND SELF-DETERMINATION, WHICH IS WHY A DATA BREACH PROCEDURE HAS BEEN PUT IN PLACE FOR COMMUNICATION TO DATA SUBJECTS AND REPORTS TO THE PERSONAL DATA PROTECTION AUTHORITY.

The Group Information Security policy describes the objectives and the general principles adopted by the Feralpi Group in the processing of data to support the needs of business continuity while ensuring compliance with legal or regulatory requirements within an approach that is consistent with risk management. The aim is to maintain a uniform IT system standard with the various transmission structures, **cloud storage** and **data backup**, and in the various human resources and administration management systems. The current regulatory framework sets up the **accountability** principle, according to which each data controller identifies the measures to be considered adequate in relation to the context and the categories of the data processed.

This process entails a permanent dialogue among the various parties involved, through the coordination of the Group **Data Protection Officer (DPO)**, who is appointed by Feralpi to comply with the new **European General Data Protection Regulation 2016/679 (GDPR)** and works in direct contact with the operations in Germany, where the specific German regulations required the need to identify a DPO on site.

Constant monitoring by the IT structure prevents the risk of data loss. Cyber-security is also pursued through partnerships with first-tier cloud platforms, which hold constantly updated certifications and provide in-house training to raise risk awareness and mastery of suitable risk-limiting tools. Further measures consist of frequent reiteration of backup processes with different operators, tighter controls and restrictions on the use of personal devices when accessing company applications.

The Group aims to increasing its ability to identify threads through a process of continuous improvement of its security control system and the implementation of Cyber Intelligent services. In addition of regulatory compliance, the goal is to achieve maximum transparency towards its employees, external collaborators and contractors so as to enhance efficient circulation of documents in full compliance with the personal data protection rights of all those involved. This explains why all the shared applications and platforms are designed and validated in relation to respect for security based on the principle of **privacy-by-design**. All the activities and data resulting from production and R&D operations are intended to improve the relationship among the various stakeholders. The role of the confidentiality clauses have been enhanced (**Non-Disclosure Agreement** or **NDA**) in order to achieve these results, protect the intangible corporate assets and the privacy of the parties involved.

THE BOARD OF DIRECTORS OF FERALPI HAS APPROVED A PERSONAL DATA PROTECTION POLICY THAT IDENTIFIES THE RULES TO BE COMPLIED WITH.

The Group's contact for the management of the personal data protection process is the **Data Protection Officer (DPO)**. Under this process, the Group companies keep a record of treatments and investigations necessary for assessing the impact of personal data protection, when requested by the GPDR, and have implemented a process of constant monitoring of the company procedures and related documentation through:



the periodic review of the privacy policies;



the verification of suppliers and collaborators and their suitability for the processing of personal data as data processors as per the specific data protection agreement;



the identification of procedures for the efficient management of the rights of the interested parties, for the definition of data retention times and the management of data breach events*;



the updating of own websites to include more information about the protection of personal data.

OVER THE LAST THREE YEARS (2017-2019) NO COMPLAINTS OR REQUESTS RELATING TO THE PROTECTION OF PERSONAL DATA WERE RECEIVED NEITHER DIRECTLY NOR BY MEANS OF REPORTING TO THE DATA PROTECTION AUTHORITY PURSUANT TO ART. 77 OF EU REGULATION 679/2016 (GDPR). WITHIN THE GROUP THERE WERE NO CASES OF PERSONAL DATA BREACHES.

* Data safety-related incidents.

ENERGY EFFICIENCY AND ENVIRONMENTAL MANAGEMENT IN PRODUCTION PROCESSES

(103-2; 103-3)



P.59

3.1 MANAGEMENT OF ENVIRONMENTAL IMPACTS



P.65

3.2 ENERGY EFFICIENCY

Within the widest framework of the **Green New Deal** initiative, the European energy policy measures initiated with the **Climate & Energy Package** also set out national and European 2030 targets in relation to energy savings, renewable energy, standardisation of networks and European energy markets for the efficient and safe use of resources.

Furthermore, a **national integrated energy and climate plan** was approved in Italy in 2019, indicating measures for achieving national targets to implement European governance policies. As a particularly **energy-intensive** sector, the steel industry is being called on to achieve these objectives by targeting energy efficiency and the sensible use of energy resources, with measures to modernise and decarbonise the sector.

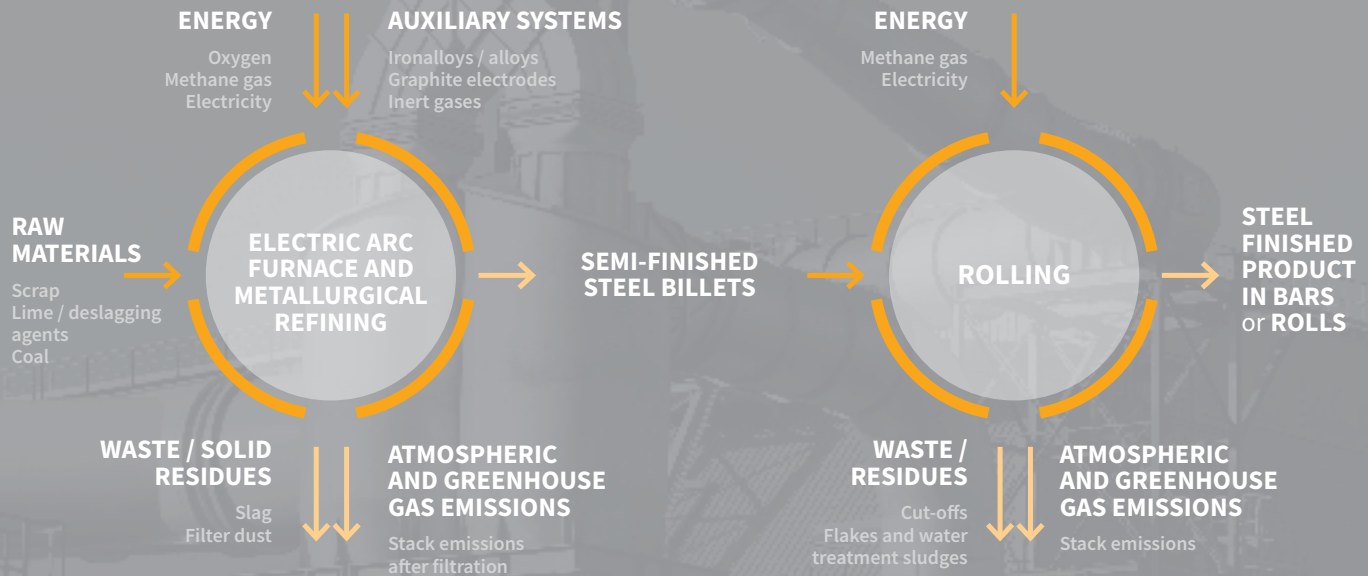
The Feralpi Group has incorporated these energy sustainability targets, in addition to the challenges surrounding decarbonisation, by facilitating energy transition towards more efficient models with less impact.

Some of the Italian and foreign production facilities have more significant energy consumption and impact levels than others, given their high production volumes and process type. These include the following three: **Feralpi Siderurgica**, in Lonato del Garda (Brescia, Italy), which has a steel mill, two rolling mills and a cold processing department, **Acciaierie di Calvisano** in Calvisano (Brescia, Italy) with a steel mill only and **ESF Elbe-Stahlwerke Feralpi** in Riesa (Saxony, Germany), which has a steel mill, a rolling mill and a cold processing department. These three steelworks use **electric arc furnace technology** to turn scrap iron into cast steel billets destined for rolling to create the finished product. This process consumes a large amount of electricity and chemical energy (oxygen and methane).

The smelting process also produces waste that can be treated as a by-product or recovered as waste or disposed of accordingly. The subject of developing a **circular economy** approach illustrated in section 4 is extremely relevant in this regard.

SECTION 4 - Multiplying the use of materials: a commitment to the circular economy [P. 68]

Process mass flow chart



The rolling processes at the aforementioned sites and at **Fer-Par** (Brescia, Italy) must be considered energy-intensive given the high amount of methane gas consumed to heat and process billets into semi-finished and/or finished products.

The high consumption of raw materials and energy sources (electricity and combustible materials) means managing economic risk in relation to the significant impact of supply costs on the business. For this reason it is not enough to ensure supply flexibility and monitor consumption; technological and process solutions must be sought to limit consumption, and heat waste recovered and optimised (e.g. by using heat from flue gases or the production of steam and electricity) to make systems more efficient.

The management and prevention of risks connected to Feralpi's characteristic production process is not limited to use of energy and raw materials, but also extends to mitigating potential risks resulting from environmental impact (linked for example to emissions into the atmosphere, managing waste), which is continually monitored. An example of a potential environmental risk relating to economic impact is represented by radioactive sources entering facilities with steelworks, which may result in environmental damage and uneconomical production stoppages.

With regard to environmental risks at **Feralpi Siderurgica** and the German subsidiary **ESF Elbe-Stahlwerke Feralpi**, a more detailed and specific risk analysis is carried out in relation to the respective EMAS environmental declarations, and is regularly updated and published on the website at www.feralpigroup.com/en/. With regard to the companies in the Group with a lower environmental impact, the risks that emerge are not significant given the nature of their business.

The subsidiary **Ecoeternit** is not a company in the steel production chain, and is one of the few organisations in Lombardy that can meet the increasing need to dispose of material containing asbestos. The company was set up as a result of the requirement set out in the regional asbestos plan to eliminate it from the Lombardy area within 10 years of the plan coming into force. Due to the nature of this business, **Ecoeternit** operations involve potential impact and environmental risks closely related to the material the company handles, which can be identified as the dispersion of asbestos fibres into the atmosphere, or asbestos fibres and dust remaining in the plant itself.

The commencement of **Ecoeternit** operations, in 2019 alone, enabled approximately 70,000 tonnes of asbestos to be made safe, which corresponds to approximately 4,500,000 m² of asbestos roofing.

The Company carries out all the checks required by legislation and under the current permit, including monitoring the health of personnel according to medical protocol (airborne fibres with optical contrast microscopy and asbestos fibres with scanning electron microscopy), with weekly, monthly, and six-monthly air samples in accordance with the air monitoring plan approved by the relevant authority. All monitoring activities carried out by the appointed laboratory confirm that operations are being carried out appropriately and such as to safeguard the environment, so much so that tests carried out show the absence of variations relating to the presence of asbestos fibres compared with the situation prior to the commencement of disposal operations.

Considering the indications in the half-yearly monitoring reports regarding the concentration of asbestos fibres in the air (Reports drawn up by the CRC Centro Ricerche Chimiche Srl), no values exceeding the limit of 2 fibres/l set forth by MD 06/09/1994 for asbestos in buildings and recovery of reclaimed environments (SEM analysis) were found in the measuring stations.

**DURING 2019 THE
ECOETERNIT DISPOSAL
FACILITY PROCESSED
70,907 TONNES OF WASTE
CONTAINING ASBESTOS
(EWC CODE 17.06.05).**





3.1. MANAGEMENT OF ENVIRONMENTAL IMPACTS

(103-2; 103-3; 102-11; 305-4; 307-1)

THE FERALPI GROUP'S BUSINESS SITES CARRY OUT THEIR PRODUCTION ACTIVITIES IN COMPLIANCE WITH EXISTING LEGISLATION AND, IN ITALY, LEGISLATIVE DECREE 152/2006. IN GERMANY THE COMPANY OPERATES IN LINE WITH GERMAN LEGISLATION ON EMISSIONS (BIMSCHG), REPORTING ANY MONITORING CARRIED OUT IN ACCORDANCE WITH THE MEASURES STIPULATED.

Additionally, **Feralpi Siderurgica** and the Germany companies with headquarters in Riesa, have a **management system** based on procedures that enable environmental aspects and impact to be monitored continually, and the corresponding action/management priorities to be assessed. **Acciaierie Calvisano** and **Fer-Par** have operational and business procedures to prevent environmental risks and manage company processes.

To support the management system, specific **policies** for Italian companies have been developed, in addition to **guidelines** (focusing on the environment in terms of energy consumption and resources, in addition to emissions, waste, and employee health & safety) indicated in the Integrated Management Manual for German companies. **Feralpi Siderurgica** and **Presider** have a **Policy on safety and the environment**, which will be extended to **Fer-Par** in 2020. The Calvisano site has adopted an environmental policy and is considering extending it to include safety. The Group's companies are working on obtaining certification in accordance with standards (see section 2.2) on energy efficiency and environmental management (e.g. ISO 50001, ISO 14001).

The management of the **Ecoeternit** plant is regulated by the in-house Integrated Authority, the Operational Management Plan (P.G.O.) and the environmental monitoring plan approved by the regional agency for environmental protection (Arpa) in Lombardy. The company implements an Environmental and Health

THE ENVIRONMENTAL MANAGEMENT OF PRODUCTION PROCESSES IS IMPLEMENTED BY INDIVIDUAL SITES, WHICH MUST FOLLOW THE RELEVANT MANAGEMENT STRATEGIES STIPULATED BY THE GROUP'S TOP TIER.

& Safety policy and an **integrated management system** (ISO 14001:2014 and OHSAS 18001:2007) under which operational procedures and instructions have been adopted in order to train the operators and raise awareness accordingly.

A key factor in preventing environmental risk is **vigorous awareness-raising activities on the subject**, involving not only employees but also the main contractors operating on site, by following a specific training schedule. There is a plan with specific actions outlined for each of the scenarios that could affect the environment, in order to manage the impact of potential emergencies. All operators are provided with training on these aspects (*see section 5 for safety aspects*).

SECTION 5 - Developing
a culture of safety [P. 78]

Environmental communication is also directed at the wider community, through **annual reporting processes** (Sustainability Report, EMAS Environmental Declaration), and specific processes for 2019, such as the **Energy Scout** initiative promoted by the Saxony Chamber of Commerce, to raise the awareness of young people in the area in relation to environmental topics, such as energy efficiency and reducing emissions, which involved the participation of ESF Elbe-Stahlwerke Feralpi, with its trainees acting as trainers. Furthermore, sessions were organised with the non-government organisation BUND, to update the local community on the company's commitment to reducing polluting emissions in Riesa.

**IN 2019 NONE OF THE
GROUP'S STEELMAKING
PLANTS RECEIVED A FINE
DUE TO NON-COMPLIANCE
WITH ENVIRONMENTAL
LEGISLATION.**

Feralpi's participation in Q-Cumber, a system to measure, manage and report the company's socio-environmental impact, continued in 2019 through Acciaierie di Calvisano. Action centred on producing a screening report that focused on quantifying and assessing direct company impact in the January-December 2018 period. The report contains evaluations for a wide range of indicators, including the direct impact of PM10 and PM2.5 at an operational level. Targeted analysis was also carried out for these indicators, to evaluate the progression of their authorised/direct operational impact, using potential monthly quantities released. From the comparisons carried out, on a monthly basis included, it has emerged that the potential impact due to the operational level is still lower than the authorised level.

The Group's companies with an insignificant environmental impact have specific emission management procedures that comply with national legislation. During 2019, **Presider** commenced work on the implementation of a fume extraction plant to further reduce emissions at the Borgaro (TO) site, a production plant was completed in Saint-Soupplets (Paris) in line with French legislation, and a new investment plan was initiated.

The Feralpi Group applies the **precautionary principle** set out in article 15 of the Rio Declaration on the environment and development (United Nations Conference in Rio de Janeiro, 3-14 June 1992), stating that *"Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."*

The steel industry is subject to EU regulations on the integrated prevention and control of pollution (introduced in 1996 with the first *Integrated Pollution Prevention and Control* (**IPPC**) directive), which set out an innovative principle in policies on preventing and controlling environmental impact from industrial sources. The basic principles included *Best Available Techniques* (**BAT**) i.e. the

set of advanced technical solutions (plant, business and control) that are financially and technically feasible within the scope of the relevant industrial sector.

In the Feralpi Group, ongoing research into the **best technologies available** and the advanced technical/plant engineering development of **predictive technologies and automation**, especially for special steels, are essential for achieving production efficiency, continually reducing the Group's environmental impact, and improving performance in the industry.

In 2017 the **A2F Working Party** was set up to create a coordinated approach at Group level, and involves engineers from the Group's sites that process scrap (**Feralpi Siderurgica, Acciaierie di Calvisano** and **ESF Elbe-Stahlwerke Feralpi**) in the improvement of various processes relating to scrap, the rolling mill, maintenance and the manufacture of by-products, and therefore the evaluation of appropriate investments. This process is based on sharing good practices at each site, with the aim of identifying individual points of excellence and making them standard at all sites. This innovative and experimental approach resulted in 54.5 million euro being invested to improve plant installations during the financial year.

IN 2019 A PARTNERSHIP WAS SET UP BETWEEN A2F AND THE IT DEPARTMENT, WITH THE AIM OF FURTHER INCENTIVISING THE DEVELOPMENT OF INNOVATIVE SOLUTIONS AS PART OF AN INDUSTRY 4.0 STRATEGY, AND IDENTIFYING GUIDELINES DESIGNED TO STEER A COORDINATED APPROACH AT GROUP LEVEL.

During the financial year, Feralpi combined its commitment to reducing environmental impact with the introduction of new green financial tools, capable of merging business development and sustainability.

Feralpi was the first steel manufacturer able to access the sustainability-linked loan offered by Bnl Gruppo Bnp Paribas. This is a credit line for the sum of 20 million euro, with conditions linked to specific, measured and monitored sustainability targets which, if achieved, means the credit becomes more competitive for the Company.

In particular, the Group is committed to reducing its greenhouse gas emissions in the next five years. This aim is being targeted with new capital investment designed to increase plant efficiency and lower consumption in line with the UN's sustainability development goals (SDGs), which underpin the company's development strategy.

This investment, backed by dedicated investment tools, therefore aims to substantiate Feralpi's commitment, even financially, to putting its environmental performance at the centre of the business.

The Group is committed to supporting production processes, with research projects that aim to increase energy efficiency and reduce impact and emissions, in line with an Industry 4.0 approach.

For Feralpi, promoting Industry 4.0 strategies means developing predictive systems and simulators in the various process phases, analysing data to correlate process results with operational practices, implementing product **tracking** systems and interconnecting the various phases, implementing advanced process monitoring systems and sensors, creating online control systems to monitor processes in real time and identify line correction logic through predictive systems and data analysis, and creating self-adaptive systems that learn from the behaviour of the process in progress with the analysis of historic data.

The application of **Industry 4.0 criteria** is progressed along with the development of internal skills, especially in process technology departments in the R&D, Quality and IT areas, such that the systems developed actually adhere to process management methods, meet production requirements, and enable the following:

- › fast data processing to identify best practices for process management through correlation with end results and product quality;
- › the use of predictive algorithms to have a virtual representation of processes, and adjust their progress while underway;
- › the use of artificial intelligence techniques on historic data, to understand the relationships between complex phenomena;
- › the application of machine-learning criteria, to enable systems to understand process behaviour from historic data.

In 2019 the project entitled **SteelPro4.0 - Development of special steels through innovation in the implementation of the manufacturing process, the characterisation of materials, and integrated control of the entire production chain** continued at **Acciaierie di Calvisano**, with the aim of implementing plant solutions and software to improve steel production processes, including the development of monitoring, control and forecasting software for production processes, based on technological and statistical analysis.

This system therefore includes online control systems for individual process phases in addition to the entire steelworks area, aimed at an improvement in production performance and correlation with scrap usage. Also included here are systems for online simulation and interconnection with process data in the steelworks area, and to monitor charge.

The project involves other partners, including:

- › **PoliMi** to develop the online simulation of solidification in continuous casting and characterisation of product results;
- › **Visiorobotis** and **Automazioni Industriali Capitanio** to develop advanced sensors that detect billet faults using innovative methods and machine-learning criteria;
- › **Brescia University** to characterise the results on drawn products, simulate the rolling process, and assess the variation in the environmental impact of various actions via LCA.

The project funded by the Ministry for Economic Development, entitled **Wire Accuracy4.0**, also continued at **Feralpi Siderurgica**, with the wire rod rolling line **revamped**, a new welding machine and spool evacuation line installed, and plant engineering activities in continuous casting and the downstream products area completed. The project also facilitates an improvement in process management capability, through the development of systems that enable more precise technological analysis that is instrumental in assessing operational practices, such as:

- › predictive models to simulate all process phases;
- › production/product tracking methods;
- › advanced product monitoring systems;

- › online control systems and real time simulation of processes to identify corrective actions or flag anomalies;
- › data integration systems for the evolving data analysis of the entire production cycle;
- › production reprogramming methods;
- › commercial support and e-business platform;
- › augmented reality systems for applications to support maintenance and production.

At **Feralpi Siderurgica** the project initiated in 2016 and funded by the European RFCS, entitled **PerMonList**, continued. It has been designed to develop and use calculation systems and performance monitoring methods in steelmaking processes, which in recent years have concerned the addition of new functionality, including the online simulation of electric arc furnace process conditions. The project has led to the development of process control logic through dynamic KPIs, **tracking** ladles, and forecasting the steel temperature in the steelworks cycle through to the tundish. A comparison with actual results was carried out, and self-adaptive and self-learning criteria applied, including the prediction of the characteristics of the scrap used as charge (**machine-learning**).

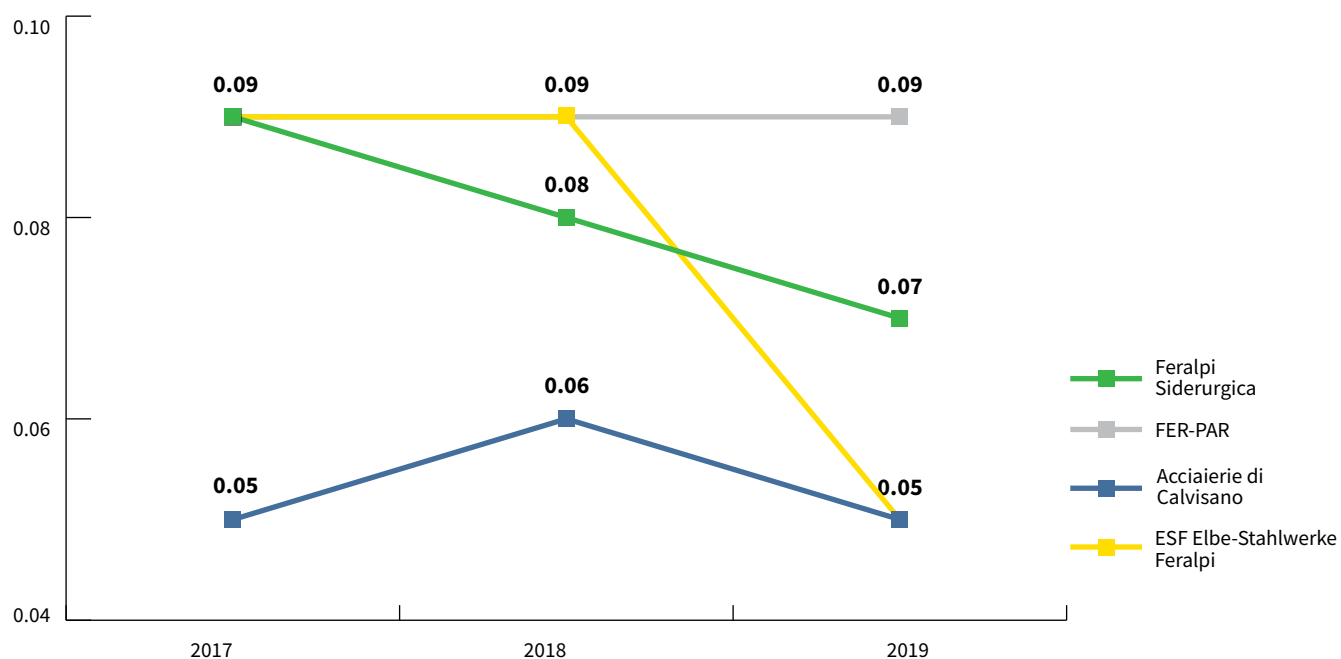
The project also led to the development of a system that monitors the entire process with a multi-variable approach and the status of the entire steelmaking cycle. It is among the first process monitoring and control systems with an integrated simulator (digital twin technology), and self-calibration, self-learning and self-adaptive criteria for the entire steelworks area.

A research project on decarbonisation processes, in particular the capture and transformation of CO₂, also commenced.

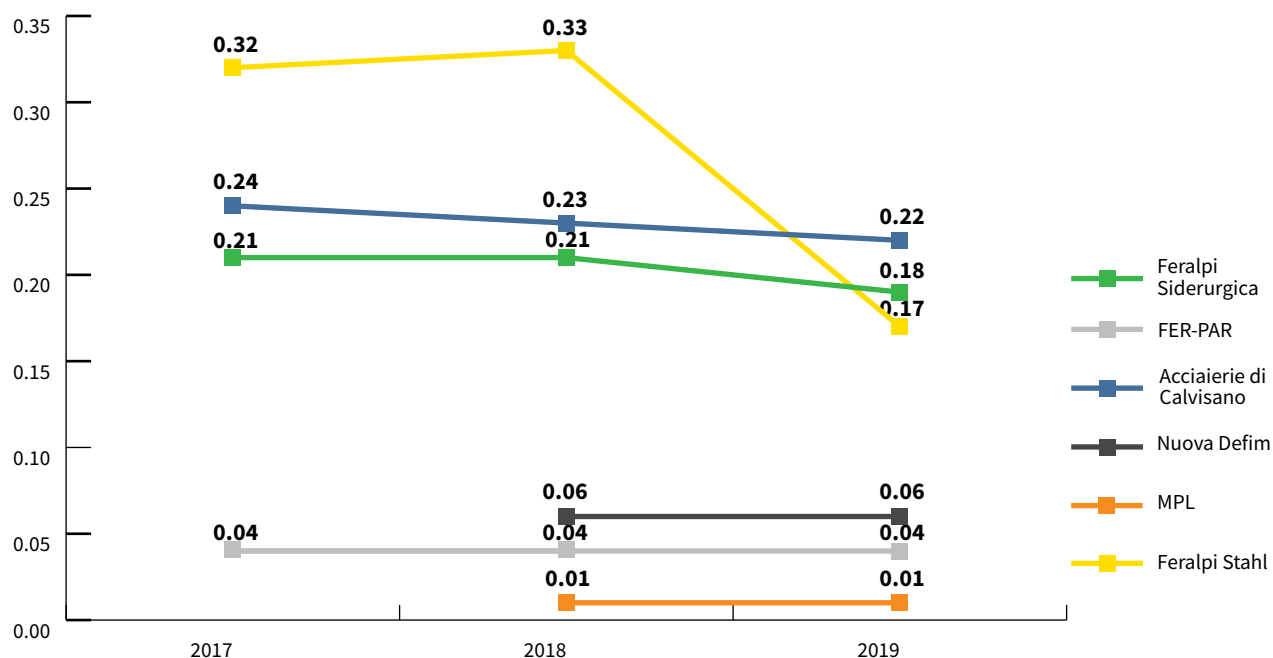
The Group's ongoing efforts in this area resulted in a slight decrease (-3%) in the trend of Scope 1 and Scope 2 emissions with respect to 2018, achieving results in 2019 in the form of a reduction in indirect emissions from electricity (-4% according to the location-based method).

Significant results were achieved during the financial year, with a reduction in the intensity of direct emissions (Scope 1) and indirect emissions (Scope 2) from electricity at various sites belonging to the Group. In particular, the reduction in emission intensity at ESF Elbe-Stahlwerke Feralpi is due to a production increase that was greater with respect to direct and indirect emissions.

Intensity of direct greenhouse gas emission (tCO₂/t finished product)



Intensity of indirect greenhouse gas emissions from electricity (tCO₂/t finished product)





3.2. ENERGY EFFICIENCY

(103-2; 103-3; 302-1)

The **Group's Energy Management Team** directly supervise subsidiaries with significant energy consumption (electricity, methane, oxygen), indicating strategic lines in terms of supplies, legislation and actions to improve efficiency through coordination meetings scheduled throughout the year.

The **Energy Department** gives companies with lower consumption support in relation to supply contracts and legislation.

For the companies in Hungary and the Czech Republic, the Energy Department liaises with the Integrated Management System Manager in Riesa.

To ensure streamlined, efficient management, all technical/plant aspects relating to the consumption of electricity, methane, oxygen, self-production and energy certification are the direct responsibility of site managers, who work to optimise consumption and adopt organisational and plant reduction actions. This management approach did not require written reference procedures at Group level, however in July 2019 coordination was set up with the introduction of the new **Governance Model** (see sections 1.2 and 2.1), with the aim of optimising Group management overall to support individual sites. Annual meetings were scheduled between the companies in the Group, with aims focusing on strategy, investment and the reduction of emissions.

The first company in the Group to adopt an energy management system is the German subsidiary **ESF Elbe-Stahlwerke Feralpi**, which obtained **ISO 50001 certification** in 2011 and has a set of principles that apply to all sites in Riesa. The same certification is planned in 2020 for the **Feralpi Siderurgica** site. For the other companies in the Group, every new investment also has to be assessed in terms of energy efficiency.

FERALPI SIDERURGICA, ACCIAIERIE DI CALVISANO, ESF AND FER-PAR PARTICIPATE IN THE EMISSION TRADING SYSTEM (ETS), THE EU SCHEME TO CONTROL GREENHOUSE GAS EMISSIONS, THROUGH EMISSION 'ALLOWANCES' THAT CAN BE TRADED BETWEEN OPERATORS.

SECTION 1.2. - Business vision and strategy [P. 23]

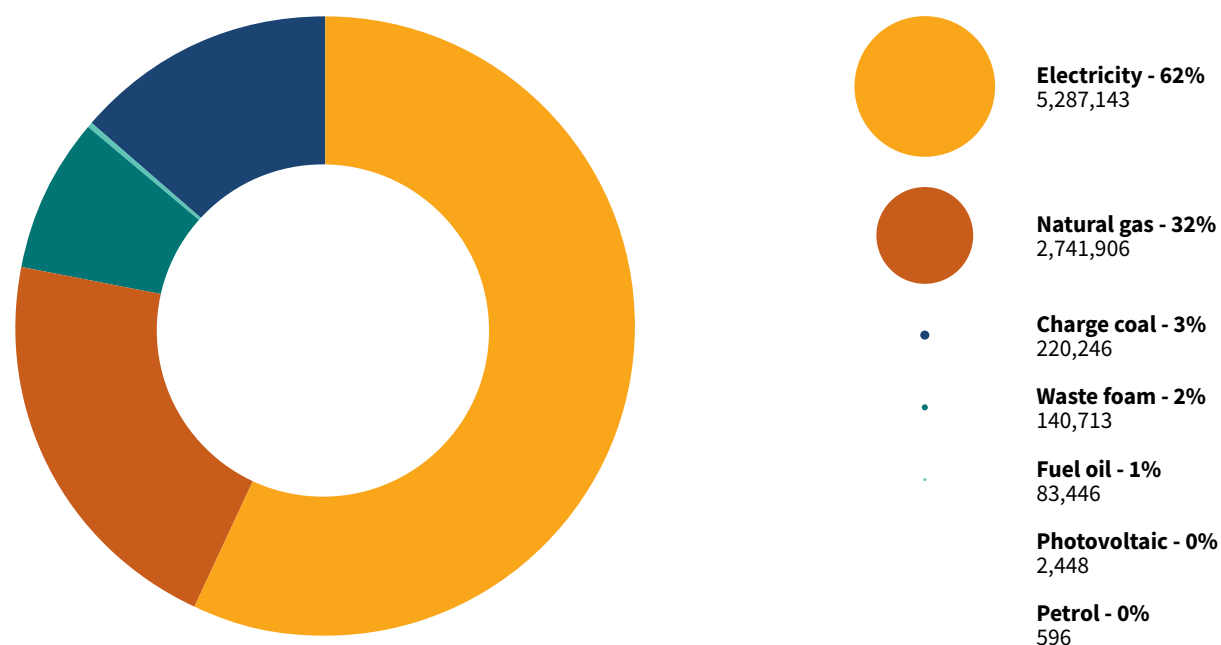
SECTION 2.1. - Governance structure: roles and responsibilities [P. 41]

In 2019 the German government approved the first climate legislation (**Klimaschutzgesetz**), and a detailed programme of measures to combat climate change (**Klimaschutzprogramm**) and reach environmental targets in all economic sectors by 2030. Investments organised by the Group in recent years in this respect include:

- › the new management of the scrap yard at the **Feralpi Siderurgica, Acciaierie di Calvisano** and **ESF Elbe-Stahlwerke Feralpi** sites, which has contributed to an increase in overall process efficiency and the optimisation of electricity and methane consumption. In some research projects (SteelPro4.0), mainly for the special steel production chain, methods for monitoring individual tundishes are being developed, to understand actual process data and accelerate the introduction of corrective practices with dedicated calculation systems.
- › the recovery of heat waste at the **Feralpi Siderurgica** and **ESF Elbe-Stahlwerke Feralpi** sites, where the use of heat from steelworks fumes for the Lonato district heating network and the production of electricity in Riesa are examples of the company's strategy to also provide third parties with alternative energy sources. See section 8 for further information.

SECTION 8 - Development and community inclusion [P. 106]

Group overall energy consumption by energy source (GJ)



Electricity is the main energy source in the steelworks (in 2019 accounting for 62% of total energy consumption), whereas natural gas is the main source in billet heating furnaces in the rolling mills (in 2019 accounting for 32% of total energy consumption).

The amount of electricity coming from **renewable sources** is estimated at approximately 6.8%*, with regard to the main supplier in Italy, in line with

THE FERALPI IRON AND STEELMAKING PROCESS IS DEFINED AS ENERGY-INTENSIVE, AS IT REQUIRES THE HIGH CONSUMPTION OF ENERGY FROM VARIOUS SOURCES, ONLY SOME OF WHICH ARE RENEWABLE.

* Source: Duferco

last year's figure, and approximately 46% for Germany^{**}. There is a 625.14 kWp **photovoltaic system** at the **Siderurgica** plant, which produces a modest amount of renewable energy. The **Presider** site in Pomezia (Lazio) has a 347 kWp photovoltaic system, which covers all production for the site and generates an energy surplus that is transferred to the distributor.

During the financial year the **district cooling network** commenced operation in Lonato. This system uses water in the heating network (at 90°) to lower the temperature of cooled water (from 12 °C to 7-9 °C). Both circuits exchange energy without mixing water, through a special thermodynamic process that prevented emissions into the atmosphere equivalent to 9 tCO₂ in 2019.

A SYSTEM TO RECOVER FLUE GAS FROM THE BURNER THAT HEATS LADLES WAS INTRODUCED, WHICH IS ESTIMATED TO REDUCE METHANE GAS CONSUMPTION BY 40%.

A **billet welding machine** was installed at **Feralpi Siderurgica**, enabling a reduction in energy consumption estimated at approximately 13,600 GJ, thanks to a continuous production process that avoids pauses between one billet and another and eliminates trimming operations, reducing the generation of swarf significantly.

A research project was launched at **Feralpi Stahl**, entitled **Optimised Temperature Management** (*Optimierte Temperaturführung*). This aims to reduce energy consumption, through better management of the temperature of the steel in the process from the electric furnace to the continuous casting plant, with the help of artificial intelligence. The objective is to integrate the various heating and cooling steps, to optimise energy consumption and reduce CO₂ emissions.

During the **revamping** operations on the rolling mill automation system at the **Nave** (BS) site in August 2019, new electric motors were installed which will enable, under equal rolling conditions, energy savings of up to 10%.

At **Nuova Defim**, all the main users were equipped with real time meters to identify waste and economic disadvantages. Thanks to **ongoing analysis**, and new replace-and-improve investments in the last three years, consumption has been reduced by more than 20%. An energy analysis is carried out by a certified third party every two years, however to support wider actions to increase efficiency, annual investment is continuing for the installation of **LED lights** to replace existing lights in various branches in the Group. Lights were replaced in Riesa in 2019 for a value of 100,000 €. The 2018 project at **Acciaierie di Calvisano** to replace 30 lights enabled savings of 147,000 kWh/year in 2019. As of 31st December 2019 approximately 30% of the lights, in terms of power, had been replaced at the **Feralpi Siderurgica** site, and 60% in terms of quantity, for a value of approximately 250,000 €. At the **Presider** site in Piedmont (Borgaro), a study is underway to assess changing to LED lighting, and introducing electric handling equipment. The latter is also being planned for **Presider Armatures**. At **Ecoeternit** too the perimeter lights were replaced with the latest LED lighting solutions.

^{**} Source: https://www.energy-charts.de/ren_share_de.htm?source=ren-share&period=annual&year=all. The source refers to the national energy mix for 2018 (40% in 2018), as a specific company figure is not possible. This percentage does not necessarily refer to energy purchased by the companies in the Group, which could have been destined (totally or partially) for other users on the basis of specific requests.

MULTIPLYING THE USE OF MATERIALS: A COMMITMENT TO THE CIRCULAR ECONOMY

(103-2, 103-3)



P. 73

4.1. MANAGEMENT METHODS, POLICIES AND PROCEDURES



P. 76

4.2. USE OF WATER AND LIQUID EMISSIONS



P. 77

4.3. OTHER MATERIALS



2019 was a fundamental year for the **circular economy** in Europe. The European Commission President, Ursula von der Leyen, presented a plan to the European Parliament to lead the European Union in its aim to be the first zero impact continent by 2050. In particular, the **Green New Deal** represents the set of policies and actions targeted at reducing the release of CO₂ into the atmosphere.

Steel will feature significantly in this development for several reasons. Not only is it the **most recycled material in the world**, it will be fundamental for helping to construct more modern buildings with less impact, in addition to more efficient vehicles with lower emissions.

While European industry only uses **12%** of recycled materials, **steelmaking** is already an **ethical example of the circular economy** being applied successfully, as all steel products, both with short or long life cycles, show very high recycling rates. In particular, Italy is the leading European country for recycling steel. In 2018 Italian steelworks recast approximately 19 million tonnes of iron scrap*.

The Feralpi Group is benchmark for circular economy, thanks to its steelmaking production cycle with **electric arc furnace**. The circular aspect is in producing **steel from scrap**, therefore avoiding dispersal into the environment and reducing the consumption of natural raw materials (e.g. iron ore) to produce new steel. Indeed it is the durability of steel that means it can be reused numerous times without losing its intrinsic properties.

ITALY IS THE LEADING EUROPEAN COUNTRY FOR RECYCLING STEEL. IN 2018 ITALIAN STEELWORKS RECAST APPROXIMATELY 19 MILLION TONNES OF IRON SCRAP.*

The steel produced by Feralpi is **93.4%** recycled material**.

* 2019 Sustainability Report by Federacciai.

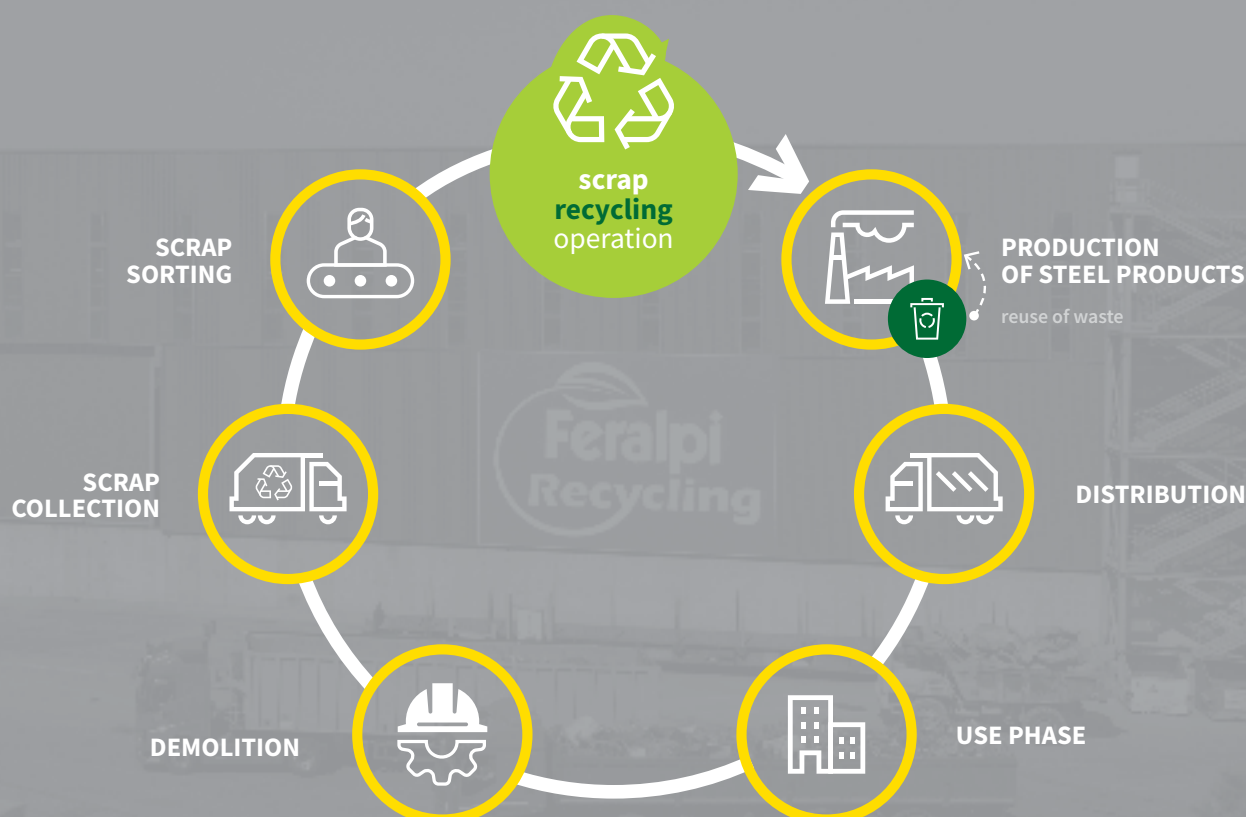
** The calculation took into consideration the Group's three steel mills (more specifically, for Acciaierie di Calvisano the estimated data refers to 2018).

However, this is not enough to contribute as much as possible to the targets set out in the European Green New Deal, as new circular economy models are also required in the steel industry, recovering, reusing and recycling anything not yet managed linearly, starting with the by-products of the steelmaking process itself.

The most important **raw material** for the production is the ferrous scrap of different origin (domestic or imported) and composition, which can be considered as waste or non-waste, according to so-called “End of Waste”^{*} EU Regulation 333/2011, and hence be reused.

Starting from the scrap, the Group’s three steel mills have an environmental risk associated with the potential delivery by the suppliers of non-quality and less performing material, resulting in increased energy consumption and auxiliary materials, and also more waste to be disposed of or, in the case of unidentified contaminated scrap, potentially severe consequences.

^{*} Under the so-called “End-of-Waste (EoW) EU Regulation 333/2011, the European Community sets out the rules according to which iron, steel and aluminium scrap can be considered “Non-waste” and classified as “Secondary Raw Material (SRM)” or “New Product” in view of their reuse, in accordance with correct recycling and recovery procedures.



AS TO THE WASTE ISSUE, IT IS IMPORTANT FOR THE GROUP TO MONITOR THE RISKS ASSOCIATED WITH CHANGES IN THE LEGISLATION GOVERNING THE USE OF BY-PRODUCTS REUSABLE IN THE CONSTRUCTION INDUSTRY AS PART OF A CIRCULAR APPROACH. FAILURE TO RECOVER WASTE COULD RESULT IN LESS CIRCULARITY AND INCREASED USE OF LANDFILL SITES, THUS GENERATING GREATER OVERALL IMPACT OF THE OPERATIONS ON THE ENVIRONMENT. FERALPI RECOVERS REFRACTORY MATERIAL, BLACK SLAG, POWDERS, NON-FERROUS METALS AND MILL SCALE.

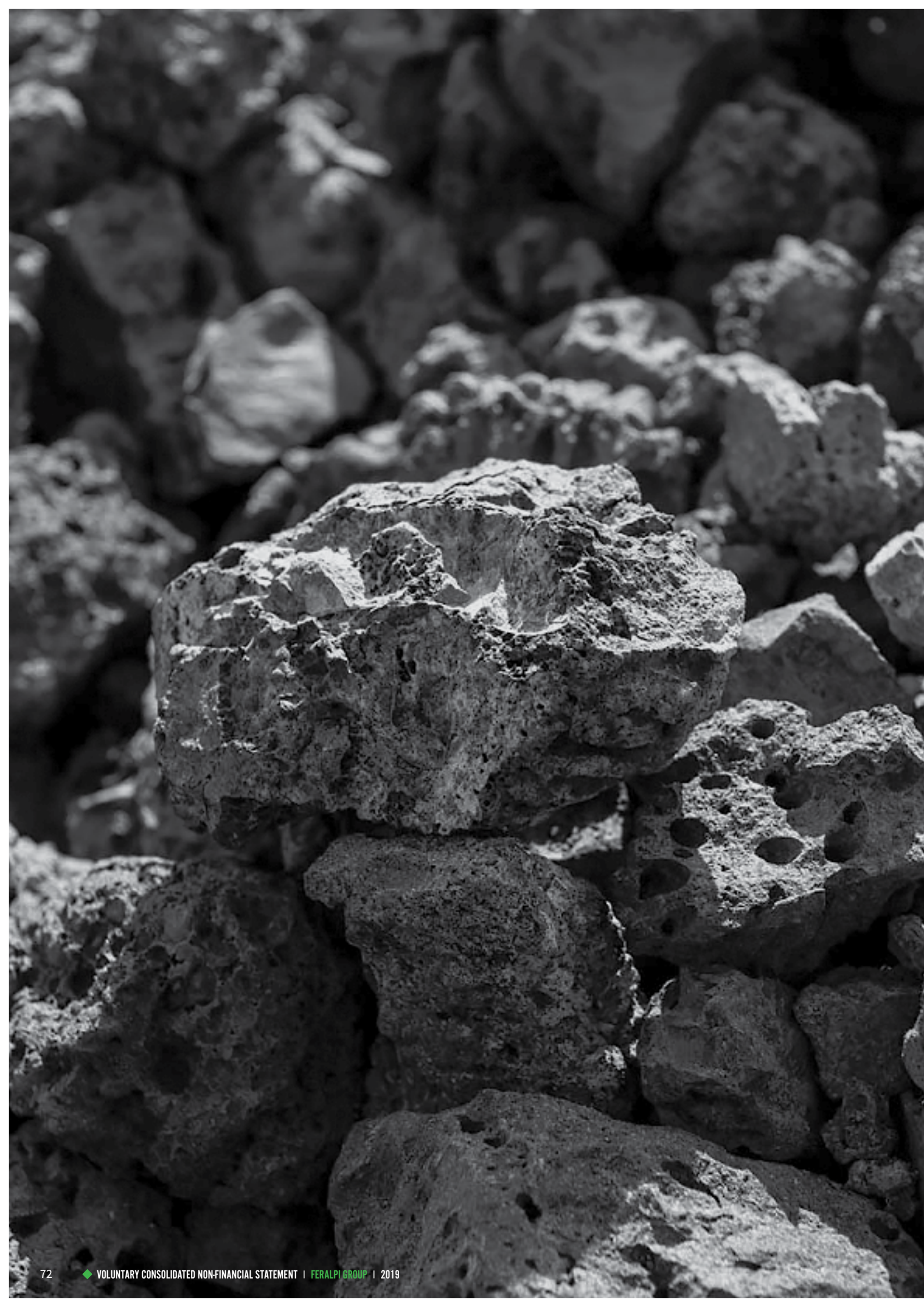
Appropriate waste management, combined with suitable flooring and waterproofing maintenance, can prevent risks in relation to contaminating the ground on production premises or aquifers. Similar care is required with spillages of substances used in maintenance operations, with potential implications for the quality of water destined for discharge into surface water, by applying emergency procedures correctly, and ensuring operators have received suitable training on these procedures.

As part of managing major incident risks, full compliance with management procedures and measures enables

the prevention of potential emergencies defined as **'top events'**, such as dust from steelworks fumes, or implications for the quality of water destined for discharge into surface water.

With regard to the smaller companies with less environmental impact (**Nuova Defim, Presider, MPL, Feralpi Stahlhandel, Feralpi Logistik, Feralpi-Hungaria, Feralpi-Praha, Presider Armatures, Feralpi Algérie**), the risks connected to managing material, including waste and water, are not deemed significant.







4.1. MANAGEMENT METHODS, POLICIES AND PROCEDURES

(103-2; 103-3)

The **quality of scrap** is a priority for the Group: it is only purchased from authorised national and foreign suppliers (for further information on selection consult section 7.1) and, before entering the steelworks, the scrap is checked carefully, first with a document check on entering and a subsequent inspection by qualified personnel.

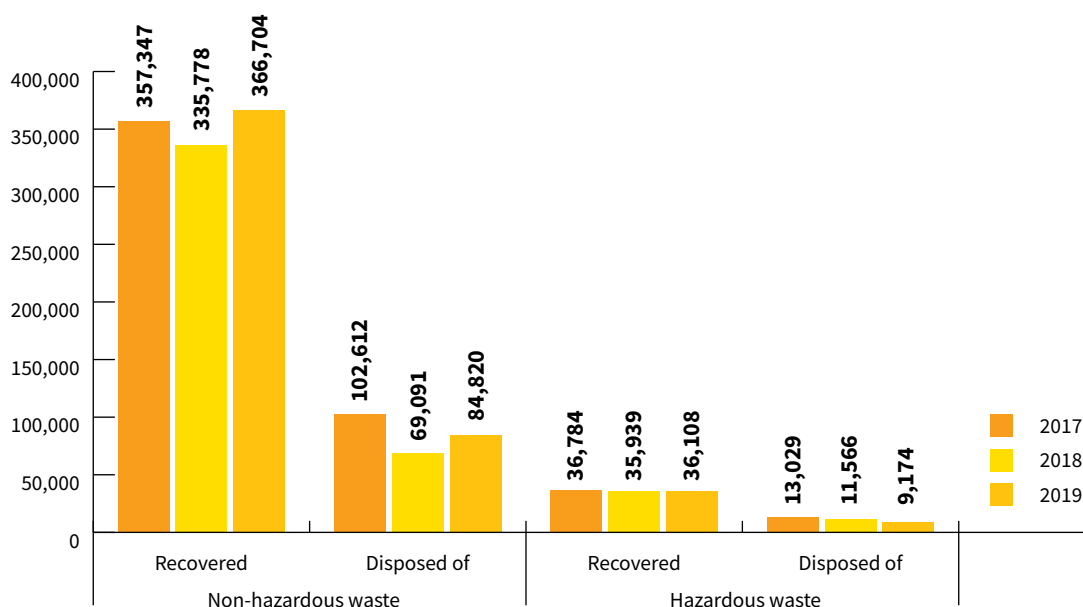
The supplier is quickly notified of any non-compliance issues, which are recorded in the log "for non-compliant

scrap events". If it is recovered a material that has been contaminated with radiation, the procedures require the vehicle to be stopped, decontaminated, and the level of risk verified with a qualified, external specialist. If the material is actually radioactive, it is reported to the relevant authorities and handled accordingly.

SECTION 7.1. - Responsible management for a quality supply [P. 102]

In line with a circular economy approach, waste and production residues are mostly sent for recovering and/or classified as by-products, with only some residual waste remaining for disposal. The recovery of hazardous waste increased by 4 percentage points, from 76% in 2018 to 80% in 2019.

Hazardous and non-hazardous waste management (t)



Given that the first step towards a virtuous model is to reduce waste, the production processes and plants are organised and managed to minimize the volumes.

In any case, emissions and waste are monitored and processed in compliance with the regulations. Plant managers, jointly with the Environmental Management System managers are responsible for the waste management at each site. At the Italian sites, waste is managed according to procedures that are specific for the various plants. At the German sites a unified management procedure is adopted: the waste produced in the various plants are conveyed to central collection points, where waste are separated, recovered and the residue is transferred to landfills.

A TRULY CIRCULAR MANAGEMENT OF PRODUCTION NOT ONLY MINIMIZES THE AMOUNT OF WASTE PRODUCED BUT ALSO IMPLIES A WIDER VISION THAT COVERS A REDUCED TRANSFER OF RAW MATERIALS AND WASTE, CONFERRALS AND THE REPLACEMENT OF THE RAW MATERIALS.

In the ongoing search for new solutions, the Lonato plant is the Group leader for the **circular economy**, in that it coordinates the expertise of the plant manager, the environmental management system manager, the R&D department and the buying department. The following research projects are in the pipeline:

- › **Fissac project** – co-funded by the EC 2020 Horizon tender, it aims at developing and implementing the circular economy concept, through slag characterisation activities and the transformation and recovery of white slag for reuse in construction products. In this project, Feralpi obtained the first example of combined recovery of white and black slag in products

used in building construction (flooring, lego blocks, New Jersey blocks) with intermediate products called “Ecocemento” and “Green Concrete”.

- › Further study projects for the recovery of **white slag**, so far completely disposed of in landfills, with the aim of stabilising and reusing it in construction materials.
- › Projects for the recovery in furnace of products resulting from the reuse of **plastics/polymers** as a reducing agent instead of coal: experiments have been conducted using, at certain phases of the EAF smelting process, plastics pretreated in external plants, which derived from different supply chains and acquire the characteristics of new raw material. Throughout its life, Feralpi has demonstrated the possibility of reusing appropriately pre-treated waste material, such as the **CarFluff** obtained from car demolition (RimFoam project) as a substitute of coal in EAFs and is now pursuing the reuse of waste obtained from recycled packaging (with Corepla consortium support), which will continue under the “OnlyPlastic” European funded research project.

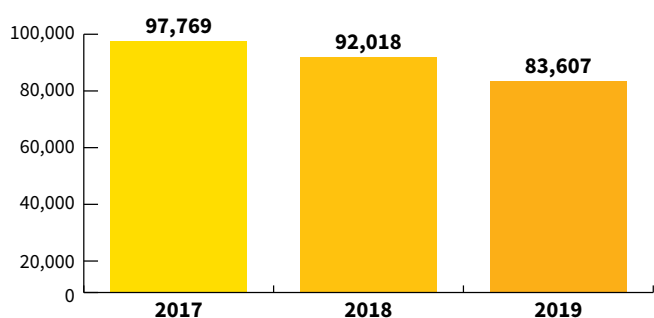
In this circular economy context, the intervention of independent private and public supply chain players is significant. The results are reported annually in the EMAS environmental declarations that are prepared by **Feralpi Siderurgica** and **ESF Elbe-Stahlwerke Feralpi**. More specifically, in 2019 Feralpi Siderurgica received by Confindustria the “Best Circular-Economy Performer” award, in the category Big Manufacturing Companies, in relation to heat recovery projects and reuse of slag produced. **Acciaierie di Calvisano** has achieved significant improvements in the selection and treatment of ferrous raw materials, with a decrease of over one percentage point and 10% reduction in the production of waste black slag. Over the years, this approach has allowed the company to monitor the emissions and considerably increase the amount of recycled waste materials.

AT FERALPI, THE FOLLOWING IS CURRENTLY RECOVERED:



BLACK SLAG

At the Lonato del Garda plant, slag is processed by an external specialized company with which the treatment process has been developed in partnership. In this way the slag is transformed into a commercial by-product called “Greenstone”, which is used in building construction instead of natural materials, which results in an overall saving of non-renewable sources. All Greenstone by-products have obtained the CE 2+ marking, according to UNI EN specifications. An **Environmental Product Declaration (EPD®)*** was obtained for the Greenstone in 2019.



Greenstone sold (T)

At the Calvisano plant, the black slag waste is recovered in a co-shared plant for the production of products certified according to the **2+ system**. At the Riesa plant, the black slag is transferred to an external company for processing and marketing.

* The EPD is based on the application of the Life Cycle Assessment method (LCA regulated by ISO 14040 and 14044), which quantifies the environmental performance of a product during the various stages of its life cycle.



REFRACTORY MATERIALS

Exhausted refractory materials coming from the ladle are returned to the production cycle, as partial raw material substitutes*. Their reuse in the furnace does not entail any negative impact on the environment or human health.

* The raw material to be replaced is calcic lime and dolomite lime («CaO cubes» and «40%CaO») to be used as a slagging agent in the EAF.



NON-FERROUS METALS

The residual fraction produced by the scrap selection plant is sent to external plants for the recovery through mechanical sorting of non-ferrous metals (such as aluminium, brass and copper).



HEAT

Over the last few years, heat has been recovered from the cooling water systems of the **Feralpi Siderurgica** and the Riesa steel mills, preventing it from being released into the atmosphere. The flue gas recovery system at **ESF Elbe-Stahlwerke Feralpi** generates steam that is partly conveyed by the Riesa town utility company (Stadtwerke Riesa - SWR) directly to Goodyear Dunlop Tires and partly used to generate electricity through an **Organic Rankine Cycle (ORC) turbine**. With the heat recovered, **Feralpi Siderurgica** has created a system that interfaces directly with the smelting furnace flue gas cooling system, which heats the one or so kilometre-long water distribution system and can supply 4 MWt at an operating temperature of 90°C. Since 2018 the heat recovered has been used to heat the buildings inside the plant. In 2019, Siderurgica saved 2,217 MWh of fossil fuel energy thanks to the flue gas. Since 2019, public buildings and some residential buildings in town have been heated with the steel mill heat, thanks to the collaboration with the local government. The parties involved in the project, which saw a virtuous and effective collaboration between private and public resources, were ENGIE and Lonato del Garda town council, jointly with **Feralpi Siderurgica** and Energard engineering company.



DUST AND FLUE GASES

The metal zinc contained in the dust resulting from flue gas removal in the smelting process is mostly recovered at external plants in replacement of natural mineral. The dust produced by the ferroalloy plant are fed back directly into the production cycle, the amount of which equals that of the materials from which dust originates.



ROLLING SCALE

The rolling scale is recovered for external use. The Green Iron is the by-product obtained from the rolling scale that is sold to plants for the production of ballasts and concrete.



4.2. USE OF WATER AND LIQUID EMISSIONS

(103-2; 103-3; 306-3)

THE NEED TO COOL DOWN PLANTS FOR STEEL PRODUCTION REQUIRES LARGE AMOUNTS OF WATER. THE MANAGEMENT OF WATER RESOURCES IS REGULATED AND THE WATERS ARE MONITORED ACCORDING TO A PLAN THAT ENVISAGES ANALYSES CARRIED OUT BY TEST LABORATORIES THAT ARE ACCREDITED TO CERTIFY COMPLIANCE, WITH THE LEGAL LIMITS RELATING TO THE RELEASE INTO THE SURFACE WATER BODY.

Thanks to the use of **closed circuits in all production plants**, the continuous recycling of the water used prevents the withdrawal from having a significant environmental impact. Feralpi aims to reduce water withdrawal, by optimising the cooling circuits and ensuring the purification of the waters released outside the plants. To avoid wasting water, the Group constantly monitors consumption. The production plants are regularly maintained and, where appropriate, investments are made to reduce consumption. In 2019, no incidents involving the spillage of polluting or hazardous substances and other materials occurred within the Group plants.

At the **Lonato**, **Calvisano** and **Nave** sites water is obtained directly from the underlying groundwater by means of wells. At the Riesa site it is obtained from the local council water supply network and wells, although a meter is not available for the latter, therefore the total amount used

cannot be measured. Under the Grundwasserverordnung law, the German companies are required to monitor the water bed every two years: **ESF Elbe-Stahlwerke Feralpi** has placed some meters on the short sides of the perimeter of its water bed to measure incoming and outgoing water, which makes it possible to make a comparison and evaluate the impact.

Rainwater is collected on all waterproofed surfaces, sent to purification plants for treatment and partly used in the industrial process. In 2019, a cistern was built in Riesa to collect rainwater used to cool down the black slag. Surplus water captured from the internal site sewage system is sent to the purification plant and released into the surface water body in the case of the Lonato, Calvisano and Nave sites, and into the urban sewage network in the case of Riesa.

By the end of 2021, a new system for the collection of rainwater will be constructed at the Nave plant, under the project for adapting the IPPC installation to the Regional Regulation no. 4/2006, which is being defined jointly with the competent bodies. In 2019, the area opposite the scale storage yard and the water treatment plant area were paved. At **Nuova Defim** there are no risks of water contamination in the production process. The water used for cooling down the systems is in a closed circuit, which prevents it from any external contamination.

At **Ecoeternit**, the water for internal users is taken from a well (authorized by the Brescia provincial government). In 2017, there was an increase in the recovery of industrial waters and in 2019 the company obtained from the Lombardy government the authorisation to reuse the percolate to wet up the landfill slopes and base.



4.3. OTHER MATERIALS

At the Italian and German plants, Feralpi has put in place a procedure and specific operating practices for the regulation of the activities envisaged for the protection of the soil and subsoil and the prevention of accidental pollution. In addition, **Feralpi Siderurgica** carries out soil chemical analyses every two years to verify the absence of contamination. The surveys have never given noteworthy results with values well below the legal limits. In order to contain any spills, an emergency and collection kit is available in areas where hazardous substances and waste are stored at the Italian and German sites.

The materials that can contribute to soil contamination are grease, solvents, oils (including equipment contaminated with oil, such as detergents, filters, water hoses and containers). These materials are collected and processed to be recycled or disposed of, according to the legislation and avoiding any type of spillage. Special attention is paid to the management of dust from the steel mill fume abatement systems, the characteristics of which make the Feralpi Siderurgica and Acciaierie di Calvisano sites be included among those with a Major-Incident Risk, according to the European Directive 2012/18/EU.

In all cases, the handling and storage of substances and materials are controlled by specific procedures and guidelines that ensure proper management in terms of safety and environment.



SIMULATED EMERGENCY EXERCISES ARE CONDUCTED EVERY YEAR AT ALL THE CERTIFIED PLANTS (I.E. FERALPI SIDERURGICA, ACCIAIERIE DI CALVISANO, ESF ELBE-STAHLWERKE FERALPI, AND ECOETERNIT). THEY INCLUDE FIRE-FIGHTING CAPABILITY AND ALSO THE SPILLAGE OF OILS AND HAZARDOUS SUBSTANCES.

For further information on the management of hazardous and non-hazardous materials and waste, reference is made to Feralpi Siderurgica's and ESF Elbe-Stahlwerke Feralpi's EMAS Environmental Declarations published on the site at www.feralpigroup.com/en/.

DEVELOPING A SAFETY CULTURE

(103-2; 103-3; 403-2; 403-3)

Ensuring the health and safety of employees and protection against risk is a priority for the Feralpi Group. The company continually focuses on plants, work environments and work procedures, given that its production activity involves a level of risk which, though continually falling thanks to ongoing action, must always be monitored to identify and plan improvement actions.

Safety is managed in accordance with legislation in the countries where the Group's facilities operate, and the procedures vary depending on the type of production processes in place. The Group's companies present the risk factors in the sector where they operate, as outlined in the safety legislation (Legislative Decree 81/08 as amended) and German Arbeitsschutzgesetz legislation, and these are linked to: biological agents, chemical agents, physical agents (noise, vibrations, non-ionising and ionising radiation, electromagnetic fields), fire, explosion, use of equipment and plants, work environments with a risk of falling from height and access to confined spaces) and work-related stress.

A certified safety management system is implemented at **Feralpi Siderurgica** in accordance with the international BS OHSAS 18001 standard, based on operational and management procedures that ensure that risks are continually monitored and improvement measures are defined. Alongside the management system, there are also safety and environmental policies for **Feralpi Siderurgica**, **Pre-sider** and **Ecoeternit**, and a safety policy for **MPL**, defining objectives, strategies and commitments. The risk assessment relating to health and safety in the workplace is also updated continually, with a risk assessment document produced and improvement actions monitored. The risk of major incidents (**Top Events**) occurring was also assessed

at **Feralpi Siderurgica** and **Acciaierie Calvisano**, with the creation of a special Safety Report. As a result, both sites have been equipped with a **major incidents risks management system and a related policy**, supplementing the procedures for managing emergencies and coordinating the management of the external emergency plan, in accordance with the requirements of Legislative Decree 105/15. **Feralpi Holding** does not come under the integrated safety and environmental management system, but is subject to an operational procedure that includes safety standards for personnel, risks resulting from office-based activities, the management of emergencies, access to subsidiaries, and the surveillance plan for safety measures.

All Italian companies, with the exception of **Ecoeternit**, have **Model 231** and are subject to special inspections by the Supervisory Body to ensure the application of health and safety procedures.

Foreign companies do not outline a safety management system nor specific certification, but they comply with the requirements of national legislation. As required by legislation, Feralpi Stahl is a member of the professional association **Berufsgenossenschaft Holz und Metall (BGHM)**, which sets out safety rules and practices for companies and personnel. The association carries out checks and audits along with company safety representatives, manages compulsory accident insurance in Germany's

private sector, is involved in the rehabilitation of employees who have had an accident at work or have an industrial disease, and provides compensation for the victims of accidents.

In terms of **organisation**, **Feralpi Siderurgica** has a Safety, Prevention and Environmental Department, whose manager also provides guidance and coordinates other Italian sites, such as **Acciaierie di Calvisano**, **Fer-Par**, **Feralpi Profilati Nave** and **Feralpi Holding**. One or more internal employee safety representatives are elected by employees at sites in Italy, under company union representation. Similar mixed bodies have been set up at **ESF Elbe-Stahlwerke Feralpi**, where there is a committee with a General Manager, a Factory Council and a company doctor, who also facilitates the return of personnel following sick leave.

THE FERALPI GROUP PROVIDES A MEDICAL CENTRE ON ALL MAIN SITES, WITH NURSING STAFF AND A DOCTOR PRESENT CONSTANTLY. THESE MEDICAL CENTRES CARRY OUT REGULAR TESTS ON EXPOSURE TO POTENTIAL RISK FACTORS.

Feralpi has adopted a **prevention strategy** to identify and define investments and policies for employee safety, and to reinforce awareness with ongoing training and activities to raise awareness among all collaborators.

An essential tool for prevention is **intensive training** on health and safety for employees, on specific subjects such as the use of equipment, working at height and in confined spaces, fire prevention measures, first-aid, and the use of defibrillator for a significant number of employees. On the subject of prevention, actions implemented in 2019 include the **revamping project** of the fire detection and warning systems at the **Feralpi Siderurgica** premises, and measures to contain hazards caused by manually moving loads, thanks to the installation of four automated warehousing systems. A structured certification process for complex systems is also underway at **Feralpi Siderurgica** which, commencing with certification for individual machines installed and/or modified as required, aims to obtain CE certification for the entire system by improving and modifying certain areas or plant components.

In 2019, the procedure to obtain the fire prevention certificate issued by the fire brigade was completed at **Acciaierie di Calvisano**, increasing safety at the site. **Feralpi Siderurgica**, **Fer-Par** and **Presider** also have this certificate.

A safety improvement project (falling from height and mechanical/thermal risks) commenced on the rolling mill at **Fer-Par**. The separation of different areas of the plant commenced during the year, using metal fencing with controlled access via security keys and/or interlocks. Work is expected to be completed by 2020.

At the **Presider** site in Borgaro Torinese a new plant layout will be implemented for cutting operations to increase employee safety.

An integrated management system (**ISO 14001:2014** and **OHSAS 18001:2007**) and an evacuation and emergency plan are in place at **Ecoeternit**. Personnel benefited from additional medical tests over and above those stipulated, such as spirometry tests to measure respiratory function and CT chest scans.

Furthermore, the company has introduced individual samplers for operators unloading waste to monitor airborne fibres daily, and cabs in vehicles used to handle waste have filtration systems to provide operators with clean, filtered air by creating a pressurised atmosphere.

A fundamental aspect of the improvement process is the **ongoing involvement of union representation and of all employees**. In April 2019, a display was set up in corridors and changing rooms at the **Feralpi Siderurgica** in Lonato, called *Workplace Health & Safety in the Presence of Hazardous Substances*, with the aim of raising awareness among employees. The initiative was promoted by the Italian Association for Operator Safety Training (AiFOS), and the posters were created by students at the Santa Giulia Fine Arts Academy in Brescia.

In Germany, **practical and theoretical sessions** were organised for suppliers and sub-contractors which, in addition to complying with legislation, aimed to increase engagement and understanding. To this effect, illustrative safety videos were produced in 2019 for employees and external companies, which also require a final test to be passed. These videos were only used internally at the end of 2019, but during 2020 they will also be shared with supplier employees who access the Riesa premises. These employ-

ees will be required to participate and pass the test in order to access the site.

Workplace safety will be monitored with accident indicators. In 2019 the total injury frequency rate showed a slight decrease overall at 18.97 per million working hours, due to an increase in Italy and a significant decrease in Germany.

Injury frequency rate by geographical area and gender

		2017	2018	2019
GROUP	Men	18.51	19.27	18.97
	Women	0.00	5.81	5.63
	Total	17.37	18.37	18.05
ITALY	Men	18.37	20.30	22.43
	Women	0.00	0.00	11.30
	Total	17.49	19.06	21.72
GERMANY	Men	13.55	15.09	12.77
	Women	0.00	14.64	0.00
	Total	12.66	15.06	11.92

EXTERNAL PERSONNEL	2019
GROUP	Men
	Women
	Total
ITALY ¹	Men
	Women
	Total
GERMANY	Men
	Women
	Total

Rate = (number of accidents/hours worked) x 1,000,000. Accidents leading to more than 3 days of absence were considered. Commuting accidents were excluded. The main types of injuries occurred in 2019 were bruises, fractures, crushings and tears of bruised wounds.

¹ The data refers to the Lonato, Calvisano and Nave sites.

Specific procedures for the assessment of **subcontractors** and the management of interference risks are envisaged for contracted work. The technical requisites and expertise of the candidate contractor and its subcontractors, if any, are verified before awarding a contract. This is done by requesting a set of documents proving that the company has fulfilled its legal obligations, used regularly hired personnel, pays fair remuneration and provides suitable training in accordance with the provisions in force for specific activities.

Before commencing the contracted work, and also during operations, meetings are held, as required, to coordinate the work with the representatives of the parties involved during which specific issues are discussed and resolved jointly to eliminate or minimize any risks associated thereto.

The companies situated in Riesa adopt a management manual for external contractors, which contains all the safety procedures and is signed by the CEO of **ESF Elbe-Stahlwerke Feralpi** and the workers' representative. A "safety information" sheet detailing the main rules of conduct for visitors and workers, the PPE, emergency instructions, signs and emergency exits is also available at each company.

ENHANCING PEOPLE

(103-2; 103-3)



P.87

6.1. **RECRUITMENT, TRAINING AND DEVELOPMENT**



P.93

6.2. **INVESTING IN HEALTH AND WELL-BEING**



P.95

6.3. **RESPECTING HUMAN RIGHTS AND PROVIDING EQUAL OPPORTUNITIES**

Proactive, skilled and motivated people represent a long-term success factor for the Group. Diversifying production, developing the best technologies, facilitating transformation towards **Industry 4.0** and applying circular economy principles are strategic aspects of change that can only be achieved by continually investing in company skills.

The main risks Feralpi personnel are exposed to relate to operations implemented on industrial sites. Being aware of the risk factors that are naturally present, Feralpi views aspects such as safeguarding health, fostering a culture of safety, and looking after physical and mental well-being as priorities in its approach to HR management (see sections 5 and 6.2).

In parallel with this aspect, the significant changes that are taking place in industry (Industry 4.0) require companies to undertake a **cultural and organisational transformation** that involves managing new skills, developing company **talent** and **new work methods**, adapting to change quickly, bridging any gaps and overcoming barriers.

Technology and **innovation** are not the only aspects pushing for a new human resources management model. The main risks monitored where Feralpi is investing relate to potential issues in **attracting specialist skills**, or appropriately developing skills already in the Company. The management of these specific risks is discussed in more detail below (see section 6.1).

Less significant for the Group are risks relating to the topic of inclusion and integration, due to discrimination for reasons of nationality, religion, gender or age, as well as risks relating to the protection of human rights.

Feralpi manages its human resources in accordance with legislation and national regulations in the countries where the company operates, and in line with the company values and principles outlined in the company's Code of Ethics, which is given to every new hire. At **Feralpi Stahl** there is also a **company policy** to support the Code of Ethics, which in ten points summarises the key



INDEX

SECTION 5 Developing a culture of safety [P. 78]

SECTION 6.2 Investing in health and well-being [P. 93]

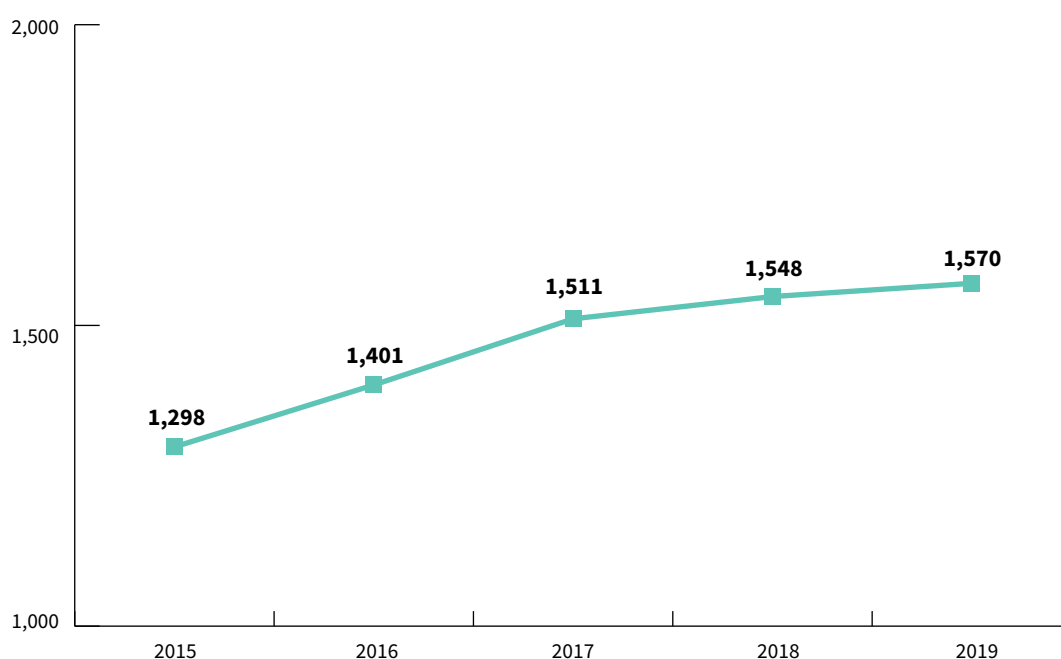
SECTION 6.1 Recruitment, training and development [P. 87]

values and approach used with personnel, customers and suppliers. The policy outlines the company's ongoing commitment to developing internal awareness of safety, quality, energy and the environment.

A Human Resources department is in place to manage the sites in Italy, France and Algeria and meet the various needs of company personnel appropriately and effectively, and a second department covers sites in Germany and Eastern Europe. Both departments, one of which reports directly to the Chairman and the other to the CEO of ESF Elbe-Stahlwerke Feralpi, work independently on management and organisational issues, national contract aspects and union relationships, but they remain continually aligned on strategic matters, policy and special projects.

As at 31st December 2019, the Feralpi Group has 1,570 employees, up 1.4% on the previous year (the increase is due to new hires, especially in Germany, a decrease in turnover at a Group level and also the extension of the reporting scope).

Number of Feralpi Group personnel



Group personnel in 2019

Gender



Age groups



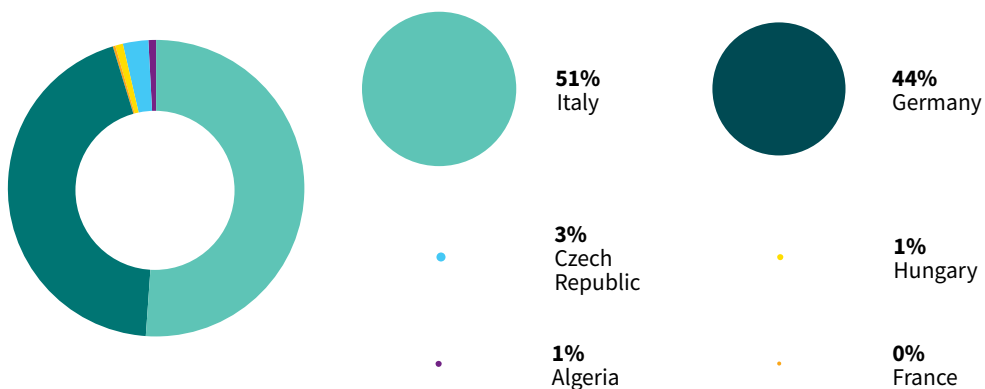
Professional category



Contract type



Geographical area





Energia ∞

Cresc. 7%

Dev. 5%

Cresc. 15%

INTELLIGENZA ARTIFICIALE

BIG DATA

INDUSTRIA 4.0

3D PRINTING

ROBOTICA

TELECOMUNICAZIONI

REALITA' VIRTUALE

INTELLIGENZA DELLE MACCHINE

CONTRIBUTO UMANO



6.1. RECRUITMENT, TRAINING AND DEVELOPMENT

(103-2; 103-3; 401-1; 404-1)

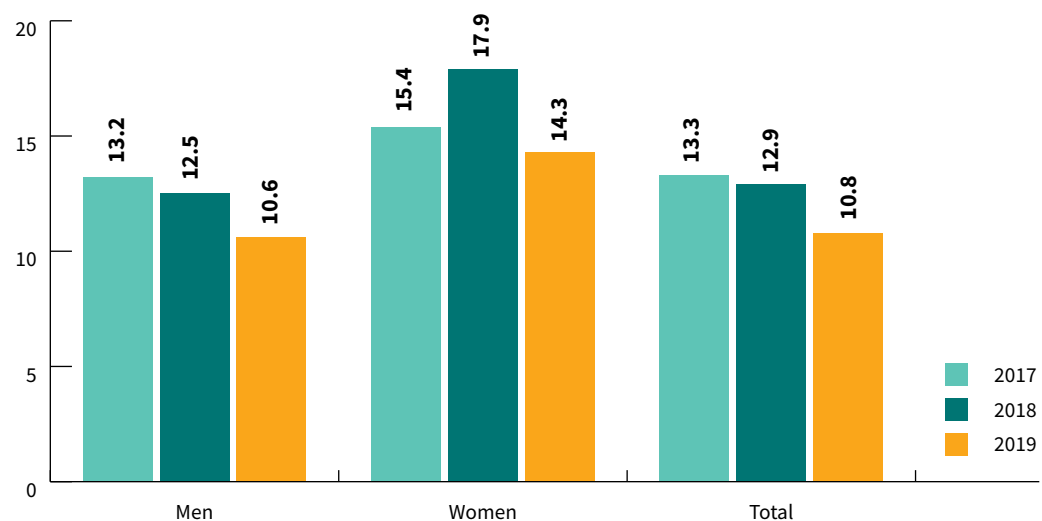
People are at the centre of Feralpi's business model, and constitute one of the pillars of the sustainability strategy (see section 1.5). As a result, the company's management approach aims to develop internal resources and attract new resources. **Recruitment methods** consider local job market conditions, which may differ significantly from country to country where sites are situated. The Group's sites operate mainly in economically developed areas with a long industrial tradition, and unemployment rates are relatively lower than the European average (5.2% in the province of Brescia, 4.1% in the district of Dresden*). In Riesa especially, the company encounters **difficulties in sourcing labour**, and there is competition between the businesses operating in the area that are trying to attract skilled personnel. As is the case in Italy, the issue of sourcing the **highest skills** persists due to the increasing requirement for advanced technical/specialist skills created by the gradual introduction of **Industry 4.0**.

SECTION 1.5 - Commitment to sustainability [P. 29]

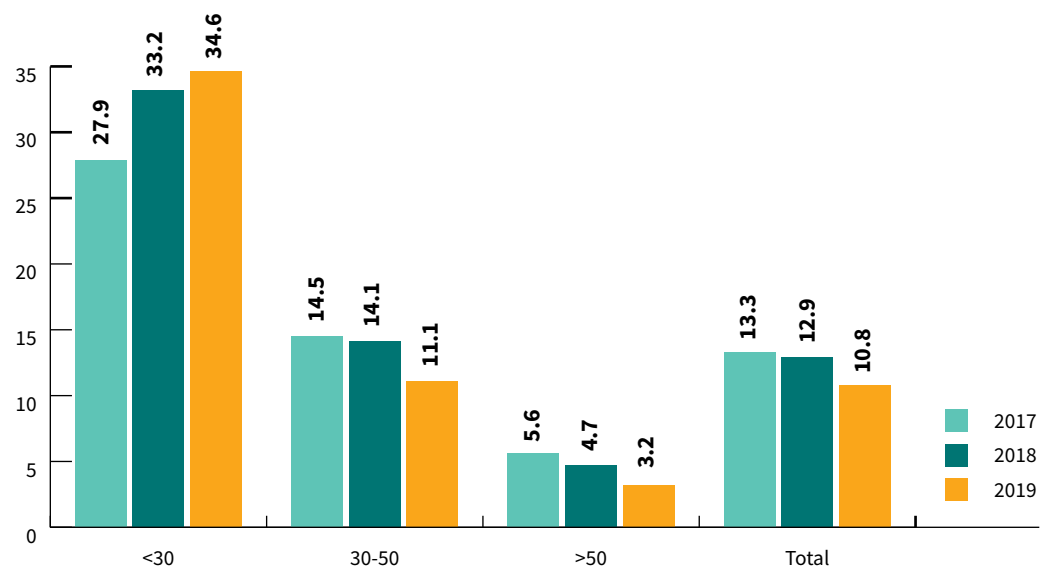
FERALPI HAS ALWAYS PRIORITISED PERMANENT EMPLOYMENT CONTRACTS (THIS APPLIED TO 98% OF THE WORKFORCE IN 2019), BY ADOPTING POLICIES DESIGNED TO ENSURE EMPLOYEE LOYALTY AND TOOLS FOR LONG-TERM INVESTMENT IN HUMAN CAPITAL. THE RECRUITMENT PROCEDURE IS ASSESSED VIA TURNOVER LEVELS, WHICH WAS 9.5% FOR 2019, DOWN FROM 10.9% LAST YEAR.

*Source: Istat 2019 for the province of Brescia and Eurostat 2019 for the district of Dresden.

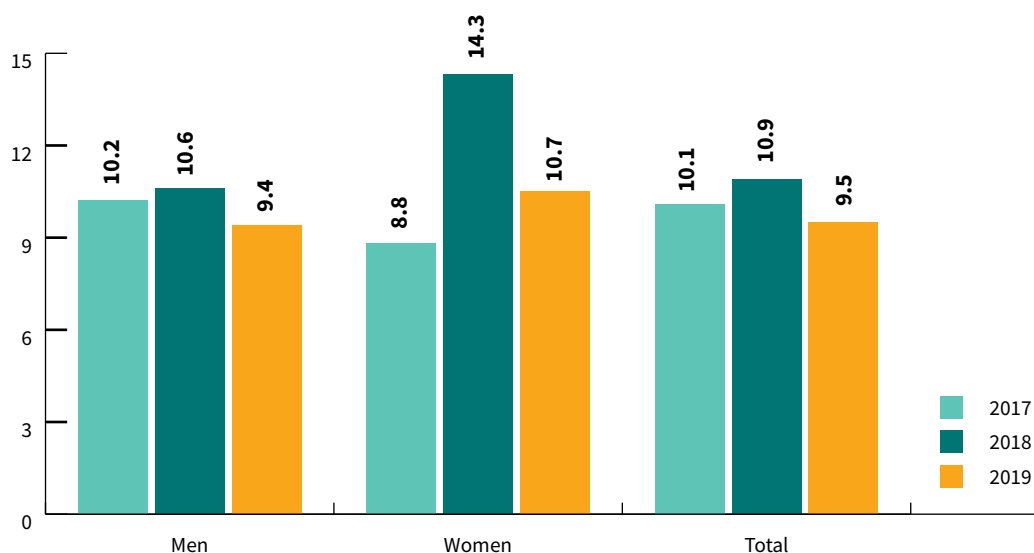
Personnel recruitment rate by gender



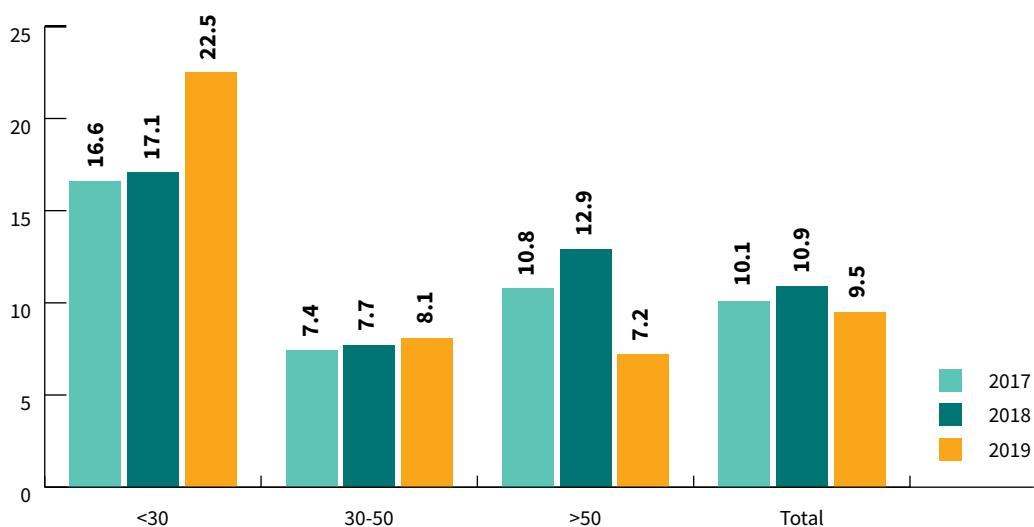
Personnel recruitment rate by age group



Personnel turnover rate by gender



Personnel turnover rate by age group



Training is one area where Feralpi has also invested significantly, in order to develop internal skills, optimise development and increase the company's appeal on the market, and in 2019 a significant investment was made in developing digital skills and expertise.

Digital innovation encompasses a wide range of technological, organisational, cultural, social, managerial and creative changes, with the aim of improving the application of digital technology for people in society. The introduction of new digital technologies and processes

now enables the Group to apply smart, flexible working practices. Feralpi uses a scalar and modular approach in developing these technologies, to accompany a change not only in work methods, but also in the work culture, which can sometimes be complex. To this end, the main processes that contribute to creating value have been studied and evaluated, considering the process areas and types of intervention that require more actions and improvements, and those which are already sufficiently structured and ready to be supported by new digital technologies.

This approach to digital innovation has reduced the **digital divide** between different generations in the Company, and in relation to the various innovative work tools now available. This has led to an integration and standardisation of company processes, improving the management of the Feralpi value chain and facilitating operational mobility, sharing and collaboration.

The digital awareness strategy, which was put in place in 2018, continued in 2019 with all companies involved to a varying degree. All employees of the Group's Italian steel manufacturing companies were involved in an educational information event designed to raise awareness of the new technologies, their use and corresponding risks. Simultaneously, other technical training courses were organised for a specific section of the company's workforce, to provide employees with operational training on the new internal digital management systems, in order to ensure process efficiency and operational standardisation.

Since 31st December 2019 most companies in the Group (except **Feralpi Praha**, **Feralpi Hungaria**, **Feralpi Algérie** and **Ecoeternit**) have been using **G Suite**, the Google service for companies where it is possible to use different sharing and communication services. In 2019 the training course was delivered at the companies based in Riesa for the introduction of **SAP**, which had already commenced in the Italian branches in 2018.

Along with other important industry players, Feralpi set up a management training project for potential talent named **Management 4 Steel**, the first event was attended by 12 middle managers in the second half of 2019. The course has so far involved personnel from Feralpi Siderurgica and ESF Elbe-Stahlwerke Feralpi, and the intention is for it to constitute the first module of a future academy focusing on the steel industry.

As part of the digital awareness project, the **e-Farmer** project was developed during the business year at **Feralpi Siderurgica**. This initiative involved 12 university students who, with support and guidance from the Department of Mechanical and Industrial Engineering at Brescia University, worked on creating innovative digitalisation projects for the Group. After a six-month study, the project concluded with the presentation of three design proposals, which covered industrial topics, an internal/external company communication system, and a circular economy project. The winning team would spend the following two years working on the development of ADAM, a digital assistant for managerial activities, designed to simplify the relationship between the company and customers through **artificial intelligence** and **machine-learning** technologies. By the end of 2019 all of the participants in the e-Farmer project were employed internally by the Group.

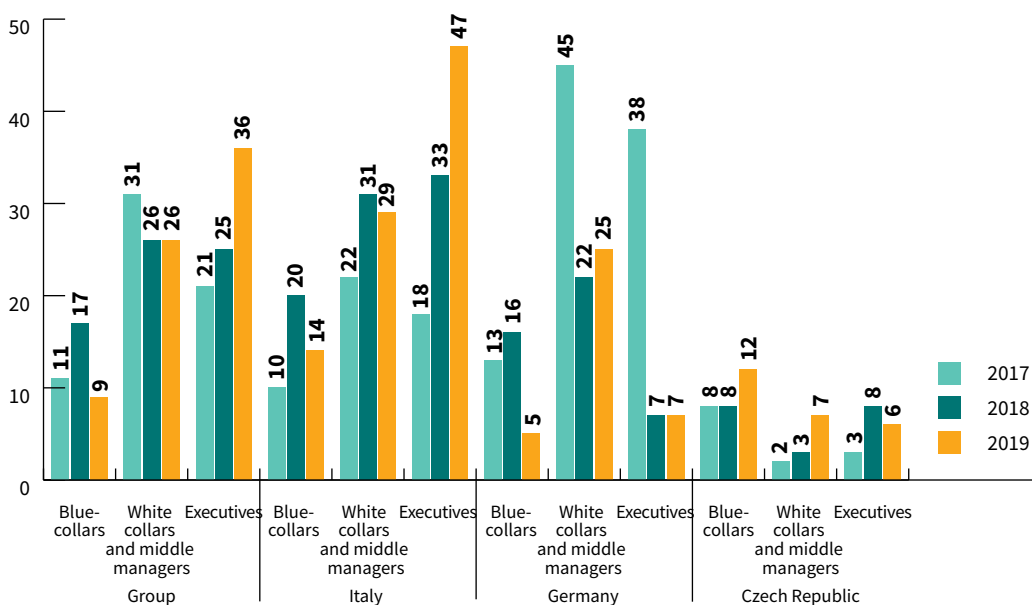
Alongside these specific projects, training modules aimed at new hires continued in 2019 covering the basics, such as health and safety in the workplace, quality policies in line with standard ISO 9001:2015, technical and trade-specific aspects, the environment, environmental management and energy, and organisational management. A large number of the training courses are assessed by the participants at the end of the course and via regular company climate surveys. Note that the results of the 2019 climate survey were anticipated in the 2018 Sustainability Report, and presented in full in the **company magazine VerdeFeralpi** in June 2019. Both documents can be consulted on the website at www.feralpigroup.com/en/.



VERDEFERAPI, 02.2019
Available on
www.feralpigroup.com/en/

During the course of the year an average of 15 hours per capita of training were delivered, amounting to an overall total of approximately **23,217 hours**.

Per capita annual average training hours by professional category



Countries where Feralpi has less than 20 employees are not reported.





6.2. INVESTING IN HEALTH AND WELL-BEING

(103-2; 103-3)

FERALPI IS CONTINUALLY STRIVING TO IMPROVE EMPLOYEE HEALTH AND WELL-BEING. THE HEALTH AND SAFETY MANAGEMENT SYSTEM IS BASED ON PROMOTING PREVENTATIVE MEASURES, AND DEVELOPING A CORPORATE CULTURE GEARED TOWARDS FACILITATING GOOD PHYSICAL AND MENTAL HEALTH AND PERSONAL AND PROFESSIONAL WELL-BEING.

Of particular significance are the company **welfare** measures introduced by the Group, which aim to ensure personal well-being in terms of a good work-life balance. More specifically, employment contracts with Feralpi Holding, Feralpi Siderurgica, Acciaierie di Calvisano, Fer-Par and Presider include a flexible, integrated system of benefits entitled WELFer, which is accompanied by performance bonuses and enables not only financial reward, but also the possibility of opting into a package of solutions and services.

The Feralpi company benefits scheme operates as a '**market place**' on a web platform which can be accessed by employees, who can customise their package of benefits and services, and obtain vouchers or reimbursements within applicable expense budgets. Over 400 services available throughout Italy can be accessed via the platform, including reimbursements for school costs (school enrolment and attendance at nursery right through to university level, summer camps, study holidays, school trips, recreational centres, school bus journeys), and medical costs such as dental treatment, medication, hospital

charges supplementing health funds and care costs for children and the elderly, supplementary welfare, training and culture (cinema and theatre tickets, language courses and professional courses), holidays and sport.

Feralpi has also been part of a **local alliance association** for the East, West and Central Brescia districts, led by Montichiari Council, since 2015 for the company Acciaierie di Calvisano and since 2016 for Feralpi Siderurgica and Feralpi Holding. In April 2017 FER-PAR also joined the alliance association headed by Brescia Council. Membership has enabled personnel in these companies in the Group to benefit from vouchers that partially cover costs incurred for family services.

With regard to activities related to physical and mental well-being, Feralpi Holding, Feralpi Siderurgica, Acciaierie di Calvisano and Nuova Defim have participated in the project entitled **Work Health Promotion (WHP)** since 2013, as have Fer-Par since 2017. This is a European initiative adopted at provincial and regional level, thanks to national health agencies and collaboration with Confindustria,

by means of initiatives dedicated to a healthy diet, stopping smoking and addressing other addictions, encouraging physical exercise and road safety, promoting a work-life

balance and social responsibility, with the aim of reducing the preventable and avoidable toll of poor health, disability and premature death due to chronic disease.

Since 2013, the WHP project has involved over 700 employees and produced 26 good practices for healthy living.

In 2019, the Feralpi Group set up an **observational study** in the Group's Brescia branches, designed to intercept and prevent **posture issues** related to the oral cavity in conjunction with Brescia University (Department of Medical and Surgical Specialities, Radiological Sciences and Public Health). Musculoskeletal disorders are multi-factorial in origin. On the one hand they can be attributed to structural, individual or genetic factors, and biomechanical overload and vibrations in the working environment on the other hand. Poor posture can play a significant role, which can be exacerbated by chewing disorders. The project included individual sessions with specialists during working hours, the completion of a postural history questionnaire, a dental examination with a specialist, and a postural assessment on a stabilometric platform. The project team spent 24 days at company sick bays, examining a total of 277 employees.

Agreements are in place for employees to access **well-being packages, rehabilitation services, medical and health services, sporting activities, family support services, company incentives** for personal savings plans,

and extra pension contributions in Germany. In addition to **agreements with gyms and swimming pools** (for employees' children also), in Riesa the company contributes to **medical costs** for its employees upon written request from the company doctor.

Activities to promote health, safety and well-being at the Riesa site also include the organisation of a **Health Day**, which has been taking place every year since 2011. On the day in question personnel are involved in prevention measures, and personal protective equipment is distributed, such as insoles for safety footwear, prescription safety goggles, and adjustable ear defenders. In 2019 two events were planned.

The company has agreements with **nurseries** for the families of young children, and in Riesa the availability of places at an infant school is guaranteed.

Personnel well-being is mainly measured through **corporate climate surveys**, in addition to objective indicators such as rates of absenteeism, which decreased slightly overall at Group level compared with the previous year.

Personnel absenteeism rate by geographical area

		2017	2018	2019
GROUP	Men	7.0	6.4	5.9
	Women	3.1	3.3	4.9
	Total	6.8	6.2	5.8
ITALY	Men	6.6	5.8	5.2
	Women	2.2	1.4	1.9
	Total	6.4	5.5	5.0
GERMANY	Men	7.4	7.1	6.8
	Women	3.9	5.5	8.0
	Total	7.2	7.0	6.8

Absenteeism rate = (number of absent days/number of planned workdays)*100. With regard to the number of absent days, all types of absence were considered, except authorised leave for holidays, maternity/paternity leave, leave for weddings, study or family reasons and union activities, other cases of authorised paid leave and suspensions, starting from the first day of absence.



6.3. RESPECTING HUMAN RIGHTS AND PROVIDING EQUAL OPPORTUNITIES

(102-41; 103-2; 103-3; 412-2; 405-1)

“Human dignity is irreplaceable”, states the first article of the German constitution which, along with the Allgemeines Gleichstellungsgesetz legislation, guides the **working practices** of all companies and people in relation to equality, human rights and equal opportunities. In Italy, the subject of **human rights** is part of the Governance Model prepared in accordance with Legislative Decree 231/2001. The Code of Ethics provides the guidelines for business conduct.

AT FERALPI, WORK CONDITIONS ARE REGULATED BY COLLECTIVE INDUSTRY AGREEMENTS THAT ARE UPDATED REGULARLY. CONTRACTS ARE SUPPORTED BY ADDITIONAL DOCUMENTS AS REQUIRED, SUCH AS THE CODE OF ETHICS OR OTHER SPECIFICATIONS FOR EACH SITE OR FOR SPECIFIC DUTIES. THESE DEFINE ALL TERMS, INCLUDING THE RIGHTS OF EMPLOYEES THEMSELVES.

Employees operating in a role or department where they are involved in the selection, recruitment and management of personnel, must act with respect for personal dignity and merit, and ensure equal opportunity for all when considering the suitability of an employee to a work environment. The selection of candidates must be based on technical suitability and aptitude. Decisions taken regarding personnel, authorisations and checks are transparent and are tracked.

In October 2019, Feralpi took part in the **All-In** project co-funded and sponsored by Brescia City Council and the Brescia Chamber of Commerce. This project is dedicated to social inclusion and multiculturalism, and is promoted by the Brescia Industrialists' Association (AIB) with the support of Brescia Provincial Government, Sacro Cuore University, Brescia University, Associazione Comuni Bresciani, the Lombardy Educational Department of Brescia, the Diocese of Brescia, Federmanager, CIGL Brescia e Vallecamonica, CISL Brescia, UIL Brescia and Forum per il Terzo Settore. In this framework, the Chairman

Giuseppe Pasini signed the **Charter for Equal Opportunities in the Workplace**, to encourage the spread of a corporate culture and inclusive HR policies that are free from discrimination and prejudice, and ensure the development of talent - a concrete tool for implementing diversity management programmes.

Feralpi Stahl has strived to create work facilities which were previously male-orientated more accessible for female personnel, ensuring the elimination of any type of discrimination in recruitment phases. In 2019 a **Girl's Day** dedicated to female pupils from middle schools in the area was held to trigger their interest in technical and scientific careers.

Although steel manufacture has traditionally been considered an industry for men, Feralpi has increasingly opened up to the employment of women, which has increased by 23.1% in the last three years.

Breakdown of Feralpi Group personnel by gender, age group and protected categories

	2017		2018		2019	
GENDER	%		%		%	
Men	1,348	93.7	1,436	92.8	1,458	92.9
Women	91	6.3	112	7.2	112	7.1
AGE GROUP						
<30	229	15.9	193	12.5	191	12.2
30-50	674	46.8	757	48.9	756	48.2
>50	536	37.2	598	38.6	623	39.7
PROFESSIONAL CATEGORY						
Blue-collars	1,041	72.3	1,085	70.1	1,091	69.5
White-collars and middle managers	372	25.9	430	27.8	445	28.3
Executives	26	1.8	33	2.1	34	2.2
PROTECTED CATEGORIES						
	-	-	-	-	66	4.2

The human resource management system adopted by the Feralpi Group bans any violation of human rights and discrimination based on gender, race or ethnicity, religion or beliefs, political orientation, trade union membership, sexual orientation or age and the hiring of minors. No

evidence of complaints or penalties associated with these aspects were reported in 2019. The Group does not deem it necessary to provide training activities on issues related to human rights and gender equality.

Feralpi Stahl is part of the **Wirtschaft für ein Weltoffenes Sachsen** initiative promoted by the Ministry for the Economy, Work and Traffic in Saxony, aiming for a Saxony which is open and inclusive. In 2019 the Company participated in the round table on immigration, which was open to the public, with contributions from experts, authorities, Employment Agency representatives, Feralpi apprentices, and a Saxony Parliament representative for immigration.

Risks relating to the violation of employee rights and equal opportunities along the **supply chain** concern casual work agreements set up by external contractors/subcontractors with whom Feralpi may have direct or indirect business relationships. To monitor this risk, a **thorough system** is in place **to check** that **the documentation of external companies** confirms compliance with the requirements of Legislative Decree 81/2008 (Testo Unico in materia di tutela della salute e della sicurezza nei luoghi di lavoro), in relation to safety and employment law on protecting workers.

Checks are made to ensure companies meet professional technical requirements, and documentation obtained confirming that contributions are made as required (DURC), obligations set out by the relevant authorities are being met (social security requirements (INPS) and appropriate employee insurance (INAIL)), and suitable third party and public liability insurance policies that cover their personnel has been organised.

Personnel must be employed on an official basis, paid regularly and undergo medical check-ups. Checks are also made to ensure they are suited to the tasks to be implemented, have all necessary PPE, and have received any compulsory training and specific training relating to their duties (e.g. operating forklifts, aerial platforms, electrical work etc.). For employees recruited in companies operating in the European Union, documentation is required confirming that they are covered by social security provision and health insurance.

Equipment brought on site is also checked (forklifts, cranes etc.), requesting the documentation issued by the authorities confirming that regular maintenance is carried out.

Employees working under secondment agreements with vouchers are excluded, whereas subcontracts are only authorised in writing for specific duties that differ from those of contractors. The aforementioned checks are also carried out with subcontractors.

THE VALUE OF REMUNERATION

The minimum wage for Group employees is higher than the amount set out in collective agreements and legislation in the various countries concerned. The remuneration system in Italian branches is based on merit and ability, determined by assessing collective performance (production bonuses). At the Italian managerial level, the performance-based system set up in 2018 continued in 2019, which steers, measures and rewards the practices that help to achieve business targets (MBO).

IN 2019 THE FERALPI GROUP PAID REMUNERATION AMOUNTING TO 79.9 MILLION EUROS, WITH AN INCREASE OF 13.1% COMPARED WITH THE PREVIOUS FINANCIAL YEAR.

INDUSTRIAL RELATIONS

Feralpi operates in compliance with personnel rights of free representation at all sites, in line with the principles set out in the Group's Code of Ethics. Relationships with unions are based on constructive dialogue and engagement between the parties, and timely, transparent information provided for employee organisations. Collective bargaining applies to all personnel at sites in Italy and Germany (equivalent to 96% of the Group). Feralpi complies with the employment legislation in the countries where it operates, in addition to the agreements set out by the **International Labour Organization (ILO)** on the rights of employees which, among other things, include freedom of association, collective bargaining and consultation, the right to strike etc. Engagement and consultation between parties underpin union relationships throughout the Group, which always aim to find agreement that is beneficial to both parties. The quality of industrial relations is subject to evaluation in regular meetings between organisational parties.

In Germany, the Factory Council is also responsible for promoting measures to include foreign workers, tackle xenophobia, and encourage the recruitment and integration of people of varying abilities. Consequently, in 2019 Feralpi Stahl signed up to the **Respekt! - Kein Platz für Rassismus** initiative, promoted by the union of metalworkers (IG Metall) to protect the rights of everyone and support the integration of workers from third countries.

7

PROVIDING A QUALITY PRODUCT AND SERVICE - MANAGING SUPPLY AND CUSTOMER RELATIONSHIPS

(103-2, 103-3, 417-1, 417-2)



P.102

7.1. RESPONSIBLE MANAGEMENT FOR A QUALITY SUPPLY



P.103

7.2. RELATIONSHIPS WITH CUSTOMERS

Steel manufacture is a key sector that underpins the economy of a country, as it is situated upstream of numerous production chains and is one of their main suppliers.

Technological development in downstream sectors, market globalisation, and the ongoing propensity towards ever higher quality standards are three macro trends which have, over time, been integrated with an increasing requirement for customised products and services tailored to individual company specifications. Steelmaking is no exception in this respect.

Consequently, the Feralpi Group, which is already international with a well-established presence in Europe, has integrated its development strategy by verticalising the organisation and **diversifying the businesses** where it operates.

While upstream integration targets the possibility of constant supplies - which means increasing the competitiveness of the entire Group - downstream integration has enabled Feralpi to go down the **production chain** to be closer to market requirements, and be able to capture requirements quickly and directly from source.

Business diversification has extended the scope of action, integrating the more traditional building sector and reinforced concrete infrastructure with construction in structural products and engineering.

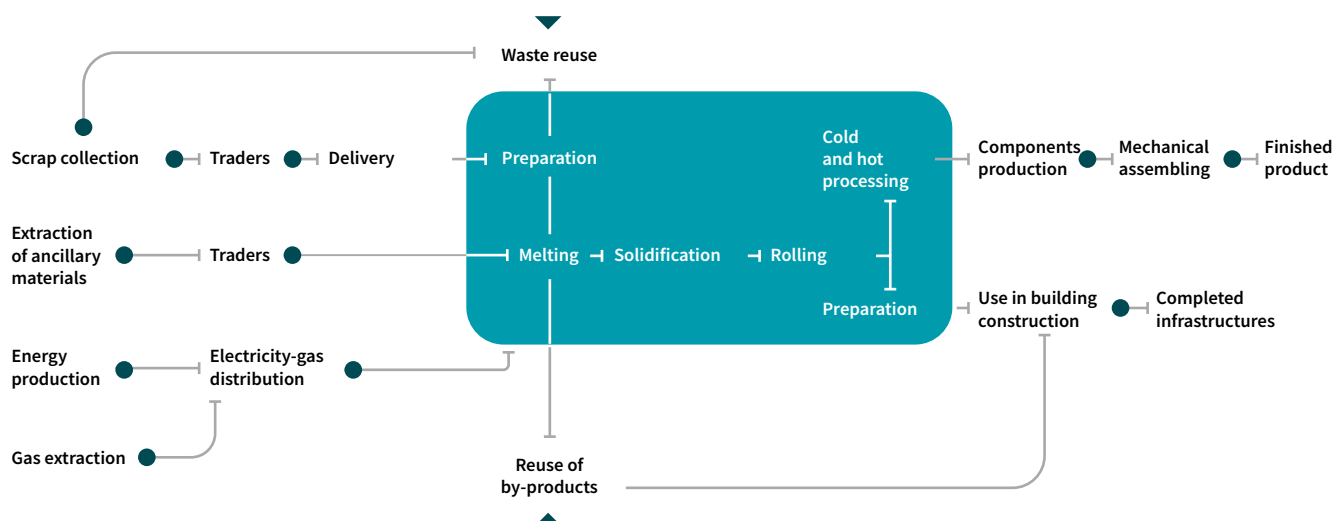
The main objective of this **strategic development** is to maintain the Group's business **continuity**, by strengthening **competitiveness** using a twofold approach - consolidation of the core business in traditional markets and entrance into markets with high added value.

This new market approach has brought with it a significant cultural shift, which must be established in business strategies and internal processes. The introduction of a **new Governance Model**, organised by Business Unit, sector or geographical area, has enabled Feralpi to set up and manage different business areas with business profiles and strategies directed at specific targets.

THIS HAS BROUGHT THE COMPANY CLOSER TO EXISTING CUSTOMERS, FACILITATING THE TARGETING OF POTENTIAL CUSTOMERS. ADDITIONALLY, MORE FOCUS HAS BEEN PLACED ON PRODUCT AND SERVICE QUALITY, WITH TOTAL QUALITY INTEGRATION ALONG THE ENTIRE FERALPI SUPPLY CHAIN, BENEFITING VALUE CHAINS IN WHICH THE GROUP'S COMPANIES OPERATE.

The steel produced by Feralpi has therefore extended to more specialist areas, as in the case of **metalworking industry**, and is now at the head of various value supply chains, while the company is also being a user of raw materials and services that are equally crucial for its competitiveness. Consequently, as a point of intersection between various chains, the management of supplies has been as strategic as customer relationships for Feralpi.

Simplified scheme of Feralpi's value chain



Upstream, **supplies** represent the first key element both for quality, and the Company's ability to be a competitive player in the market. Suppliers of major importance to Feralpi fall into four categories:

- › **technology and systems:** international companies with which Feralpi has joint project relationships and partnerships. This type of suppliers is selected on the basis of technical and economic criteria;
- › **iron scrap:** companies that must ensure continuous, quality supplies at prices in line with the market;
- › **energy (electricity, methane gas, oxygen):** leading international players that can ensure safe, continuous supplies, and support in monitoring changing market conditions;
- › **third-party companies:** companies operating within site perimeters.

Companies in the Group, with the exception of **Ecoeternit** and **Presider Armatures***, have a quality management system that complies with standard UNI EN ISO 9001:2015. This system is accompanied by specific quality policies (in Italy) or principles (in Germany). Quality is incorporated within the overall management system at the companies based in Riesa.

Products are named in line with national and European directives and standards. Each product has a label showing an ID code, the quality level stipulated by standards, the reference standards, dimensional references, a barcode, and the identifying symbol issued by standards organisations. The accuracy of labels is checked by inspection and certification bodies. The company provides the UNI

* Presider Armatures complies with specific product standards set out by the certification body (ASCAB).

EN 10204:2005 test certificate for various product types through a certificate of qualification. At a Group level, all products are assessed to ensure **compliance** with labelling standards and transparency of information.



PRODUCTS ARE TRACKED THROUGH PACKAGE LABELLING AND DELIVERY DOCUMENTS. FURTHERMORE, ITALIAN PRODUCTS ARE HEAT BRANDED TO GUARANTEE THEIR ORIGIN.

During the three-year period there have been no cases of non-compliance with regulations or voluntary codes on product labelling and information. No certificates have been reported as lost, nor have there been warnings from certification bodies, with the exception of one report of non-compliance at Presider Armatures in relation to the position of a symbol, which was resolved with its removal.

The Group's **quality management** process involves various company management teams, including factory, quality and commercial managers. The IT department provides support for technological matters, in addition to the R&D department for more innovative projects.

To this effect, a project was set up to integrate and standardise the different quality systems at various companies in the Group, in order to define common guidelines that aim to achieve **Total Quality Management** (TQM) throughout the Group.

The Total Quality Management approach is also supported by research and development projects that may involve individual process phases, such as continuous casting (e.g. the SupportCast Project), or the entire production chain, as in the case of the project entitled Quality Integration.

With regard to the development of technological systems to improve billet quality (semi-finished products) at **Acciaierie di Calvisano**, the four-year research project **SupportCast**, is continuing, which is co-funded by the EU through the Research Fund for Coal and Steel. The project was organised in conjunction with Milan Polytechnic, and involves the development of new components to improve internal billet quality, while simultaneously developing and applying Industry 4.0 criteria as process simulations.

It also includes the implementation of systems to detect surface defects, through monitoring systems, and post-processing and self-learning software.

The Feralpi Group also has a project entitled **Quality Integration** underway, which involves the entire special steel supply chain at **Acciaierie di Calvisano**, **Arlenico** (Feralpi subsidiary as at 31st December 2019) and **Fer-Par**. The project is the result of an awareness that final product quality is obtained by monitoring all phases of the process, even though it is not always easy to understand the actual influence of variations or anomalies on the final product. It involves various action levels for the development of quality, including improvements to plants and machine instrumentation, solutions to improve the measurement of parameters and product **tracking**, technological process studies which may also be with external research partners, and the development of Industry 4.0 software systems. The main aims are to quickly identify the origin of defects to reduce their occurrence, direct products to their destination on the basis of their determined product quality class, notify the other upstream/downstream processes of the presence of anomalies, and learn from data analysis and any correlations, to implement corrective actions to improve management of the process.

At **ESF Elbe-Stahlwerke Feralpi** the continuous casting project **ConSolCast** is in progress, with the application of a real time solidification simulator (digital twin**) designed to keep casting conditions stable, and prevent billet defects and solidification anomalies that could cause cast breakage. Along with software technologies new sensors are also being developed, to monitor casting conditions in ingot moulds and when exiting machines, to find new applications useful for process control.

** A digital twin is a virtual replica of physical, potential and actual resources (physical twin) that are equivalent to objects, processes, people, places, infrastructures, systems and devices. They are used for various purposes, especially in production and for predictive maintenance.



7.1. RESPONSIBLE MANAGEMENT FOR A QUALITY SUPPLY

(103-2; 103-3; 102-9; 102-10; 308-1; 414-1)

As part of a structured approach to the supply chain and in line with its sustainability policy, Feralpi operates in accordance with its **Governance Model (as per Legislative Decree 231/2001)**, and requires its suppliers to sign up to the **Group's Code of Ethics**. By agreeing to this Code, suppliers confirm being familiar with its contents and individual sections, commit to adhering to its values and principles, and ensure their employees and collaborators understand it.

Furthermore, alongside supplier selection and endorsement procedures, the Group set up an additional **information gathering process** on sustainability aspects linked to quality, the environment, ethics, and health and safety.

In Germany, a questionnaire was organised in line with the integrated management system, sent to all suppliers of materials classified as important for the production process, with the aim of monitoring aspects relating to quality, energy and the environment, whereas in Italy a method based on two questionnaires was outlined. One concerns quality aspects and the other sustainability. The latter uses a specific digital platform on sustainability - **TENP - Sustainable Supply Chain Self-Assessment Platform** - created by Global Compact Network Italia*. This tool involved scrap suppliers first and foremost, and subsequently a sample of suppliers of plant and maintenance materials. The ultimate objective is to create a company vendor list for selecting the most responsible suppliers and facilitating that choice. At the time of document completion over 350 Italian scrap suppliers had completed the questionnaire.

THE RELATIONSHIP BETWEEN FERALPI AND ITS SUPPLIERS IS GOVERNED BY CONTRACTUAL AGREEMENTS THAT REQUIRE TRANSPARENCY AND COOPERATION FROM BOTH PARTIES IN VIEW OF A LONG-TERM RELATIONSHIP. IN TERMS OF SUPPLIES, IT IS IMPORTANT FOR FERALPI TO CONTINUALLY MONITOR RISKS THAT COULD AFFECT THE QUALITY OF THE END PRODUCT, SUCH AS THE SUPPLIER SELECTION PROCESS OR THE RECEPTION OF UNSUITABLE SUPPLIES.

* The Global Compact Network Italia (GCNI) is an organisation that works to promote the UN Global Compact initiative (pact to encourage businesses worldwide to adopt sustainable and socially responsible policies) and its 10 principles at a national level, through dialogue, expertise and good practice.



7.2. RELATIONSHIPS WITH CUSTOMERS

(103-2; 103-3)

INNOVATION, QUALITY, SUSTAINABILITY AND DIVERSIFICATION ARE NECESSARY NOT ONLY FOR OCCUPYING NICHE MARKETS WITH THE MOST DIVERSE REQUIREMENTS AND IDENTIFYING NEW BUSINESS OPPORTUNITIES, BUT ALSO FOR PREVENTING POTENTIAL RISKS RELATING TO LOWER CUSTOMER SATISFACTION.

This market approach brings with it a cultural shift that transpired in the new Governance Model organised by Business Unit. Not only has this brought Feralpi closer to existing customers, but the company is also **targeting potential customers** with business profiles and strategies directed at specific areas, by listening more intently to different market needs.

With regard to the **construction steel Business Unit** for Italy, in 2019 a decision was made to introduce a Customer Relations Management (CRM) tool with functionality to support business management in the belief that in a market-orientated company, the market is not represented by the customer alone, but by the entire surrounding environment. This is the context in which Feralpi is positioned to establish long-term relationships with its customers, considering the values of the company and the surrounding environment.

The CRM tool was set up not only to be linked to commercial strategy, but also to be integrated with company processes and the Group's culture, placing the focus on the customer in both the **business-to-business** (prevailing approach in the commodities market) and the **business-to-consumer** (prevailing approach for specialities) scenarios.

Thanks to the support of the CRM tool, the reorganisation of the business management system aimed to make the entire distribution network more extensive, both nationally and internationally, by creating integration and synergy

THE CRM SYSTEM IS SET UP FOR USE IN THE FRONT OFFICE (I.E. MANAGEMENT OF EXTERNAL RELATIONSHIPS) OR BACK OFFICE, WHICH IS OF NO LESS IMPORTANCE BECAUSE IT AIMS TO ANALYSE AND MEASURE RESULTS ACHIEVED, AND DEFINE BUSINESS STRATEGIES ACCORDINGLY.



between the various companies in the Group according to their position along the value chain, from production through to use.

The construction steel business unit for Italy in 2019 also surveyed its customers to understand various aspects relating to the market and Feralpi's role, including penetration, the perceived evolution of the sector, products that are on the increase, average industry quality, perception among steel producers, level of satisfaction, factors in choosing suppliers of steel products, strengths and weaknesses, and the impact of e-commerce on the purchase of steel.

With regard to the **Specialities Business Unit**, business operations have benefited from significant support thanks to the introduction of ERP SAP at the company Metallurgica Piemontese Lavorazioni, enabling full integration with the Group's ERP. In particular, thanks to the inclusion of Feralpi Profilati Nave, the national market and corresponding presence of Feralpi were mapped by individual region, following the chain covered by the two companies at different, related levels - traders (served by Feralpi Profilati Nave) and final users (served by MPL). This internal cross-referencing at Feralpi makes it possible to identify potential business opportunities.

Continuing with the digital theme, **MPL** is a company whose core business is processing girders, and new software has been introduced to improve production performance, optimise processing times and improve service quality.

With regard to the **Diversified Business Unit**, **Nuova Defim** is continually monitoring customer feedback through a questionnaire distributed to a representative sample to understand customer perception, potential criticality, and implement targeted actions and solutions.

For all Business Units action was taken to adapt all respective **commercial networks**. In particular, the Specialities Business Unit increased its representation nationally, extending its range of operation in the Central-Southern region. In addition to the external agencies, internal resources were reorganised to better meet the needs of customers.

Furthermore, in 2019 there were numerous **opportunities for engaging** with business personnel, including agents, and the Quality, Logistics and Industrial Planning departments, to facilitate the coordination of actions designed to achieve objectives.



Customers have access to dedicated web sections to bolster **communication flows** between the business and the market. Group events for an international audience included participation at the Made in Steel trade fair in Milan in 2019, and major customers visiting the Group's companies.



Soft and hard copies of technical/business documentation and brochures relating to the Group and the individual companies were produced and updated, to provide comprehensive information, including news, with the production of newsletters.



The Feralpi Group also maintained a proactive approach to external communication with leading national and international media publications, both general and specialist, to foster an open, transparent relationship with the relevant economic communities.

DEVELOPMENT AND COMMUNITY INCLUSION



P.109

8.1. **ECONOMIC SUSTAINABILITY AND GENERATED VALUE**



P.112

8.2. **COMMUNITY INCLUSION**

Feralpi is implementing a business model that can create **economic value** which is distributed among the Group's stakeholders once generated, thereby contributing to the economic and social progress of the communities where it operates, in addition to the enhancement of the area and employee well-being.

The companies in the Feralpi Group play a major role in the community, both in terms of ability to **create value** and hence **local development**, increasing employment and supporting the well-being of the population directly and indirectly, and in terms of the safety and environmental impact of company business. To this effect, as stated previously the Group engages with local communities using a **twofold approach** - prevention and safety on the one hand and pro-activeness and action on the other, such that the Company's contribution in the area really is able to increase economic, social and cultural growth. Feralpi's commitment to local development using an inclusive and collaborative approach enables the Group to create **shared value**, for the Company and the community in which it operates.

This approach is designed to manage risks concerning relationships with the community and its level of well-being, and in practice is expressed in the **selection of personnel**, the **selection of suppliers**, the **definition of projects** in partnership with government departments, in **new opportunities** that start with recovering material and creating economic value in an area, in **training** for younger generations, in **joint projects** with non-profit organisations, and **financial support** for initiatives with sporting, cultural and social value.

To understand the areas where Feralpi can create more shared value, mapping activities were carried out on internal processes, identifying which could be used to define a model for measuring shared value that can be replicated and scaled. Managing to measure something as intangible as shared value will enable Feralpi to have a tool that steers investment choices, preventing potential risks and providing valid starting points for a communication approach that is increasingly tangible and transparent.





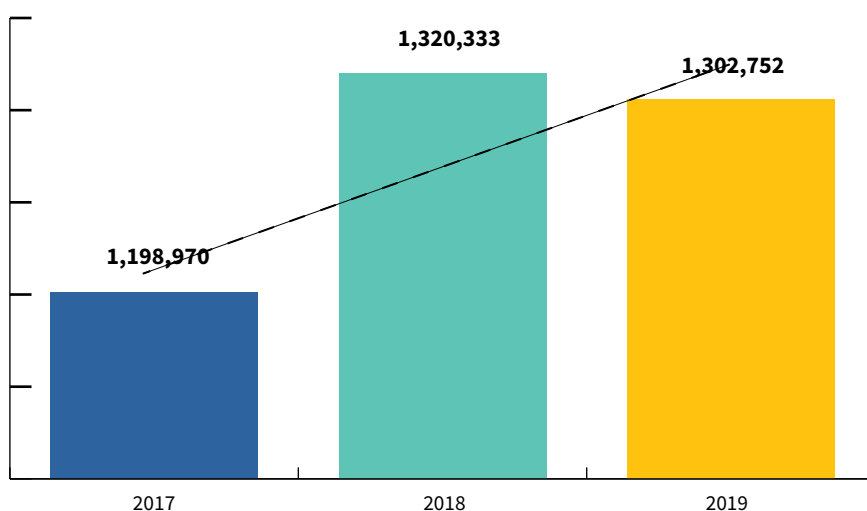
8.1. ECONOMIC SUSTAINABILITY AND GENERATED VALUE

(201-1; 201-4; 103-2; 103-3)

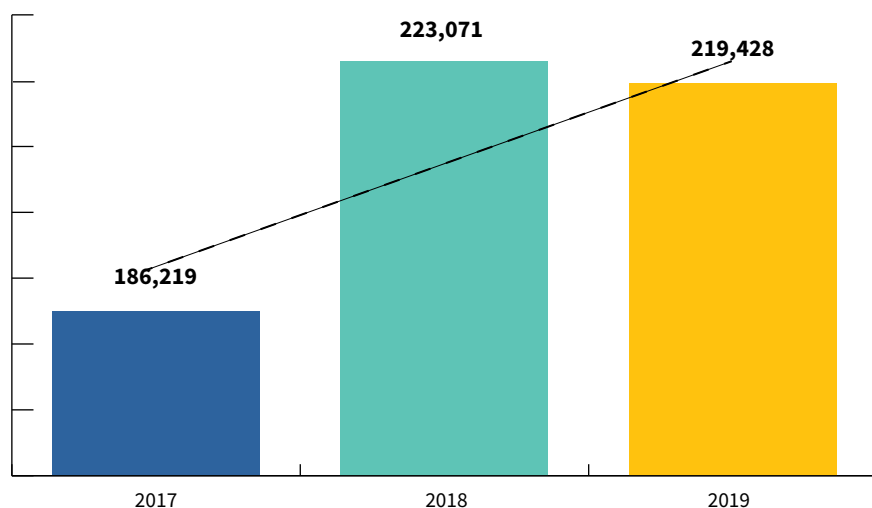
THE VALUE ADDED IS THE WEALTH PRODUCED BY THE FERALPI GROUP AND DISTRIBUTED TO THE VARIOUS STAKEHOLDERS, SUCH AS PERSONNEL (WAGES AND SALARIES, SEVERANCE PAY AND SOCIAL SECURITY CHARGES), LENDERS (INTEREST EXPENSE AND EXCHANGE RATE LOSSES), PUBLIC ADMINISTRATION (TAXES PAID), AND THE COMMUNITY (CHARITIES AND DONATIONS). THE RETAINED VALUE CONSISTS OF PROFIT ALLOCATED TO RESERVES.

The 2019 financial year ended with a turnover of €1,302.8 million, 1.3% down on the previous year, but still on the rise compared with the previous three years. Costs also slightly decreased (-4% on 2018) at €1,089.9 million.

Revenues from sales and services (€/000)



Gross overall value added (€/000)



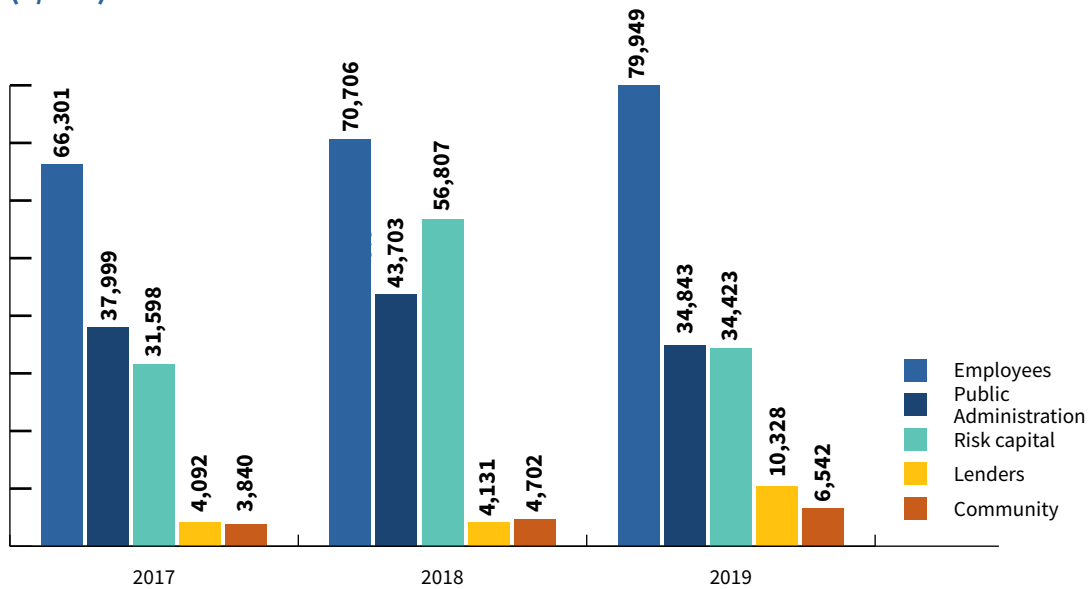
The gross overall value added amounts to **€219.4 million**, while the net value for the stakeholders comes to €166 million (-8% on 2018). A breakdown shows a greater concentration in personnel remuneration (48%), with strengthened share capital (21%) and taxes paid to the Public Administration (21%). €10.3 million have been allocated to lenders and €6.5 million to the community.

Distribution of net overall value added to stakeholders



Whilst the net overall value added decreased by 8% compared to 2018, the value distributed to employees (+13%), lenders (+150%) and the community (+39%) increased.

Distribution of net overall value added to stakeholders (2017-2019) (€/000)



Loans received from the Public Administration in 2019 amounted to €17,072,654.



8.2. COMMUNITY INCLUSION

(103-2; 103-3; 204-1)

THE FERALPI GROUP VIEWS THE COMMUNITY AS A VERY IMPORTANT STAKEHOLDER, AND LOCAL COMMUNITIES ARE CLOSELY CONNECTED TO BUSINESS DEVELOPMENT AND SUSTAINABILITY. FOR THIS REASON THE GROUP TAKES AN ACTIVE ROLE IN LOCAL ORGANISATIONS, INSTITUTIONS AND RESOURCES.

The areas of action identified by Feralpi to support projects that involve community organisations, trade associations, institutions and government departments, educational establishments, research centres and universities and sports associations form part of a **policy on charitable donations**. They take shape in the form of **six specific areas**, defined in line with the 7 pillars of the sustainability strategy and the **6 Global Development Goals** selected by the Group:

- › safeguarding and caring for the environment
- › education, training and work as tools for change
- › social inclusion through sport and culture, and the creation of inclusive spaces
- › promotion of individual physical and mental well-being and safety at work
- › community development
- › global emergencies.



AS AN INTEGRATION TO THE GROUP'S POLICY, AREAS OF ACTION TO SUPPORT ARTISTIC AND CULTURAL HERITAGE HAVE BEEN IDENTIFIED, INCLUDING CULTURE AS AN EDUCATIONAL TOOL, DEVELOPING THE CULTURE OF INDUSTRY, PROVIDING EDUCATION AND INFORMATION ON THE WORLD OF STEEL, AND SAFEGUARDING THE ARTISTIC AND CULTURAL HERITAGE OF THE TERRITORY.

In 2019 this commitment was illustrated with the exhibition, *Brera Feralpi, un laboratorio d'arte* (Feralpi Brera - An Art Laboratory), which opened in July 2019 at the Brera Academy of Fine Arts. The project completed a long-running initiative that commenced in 2017, with eighty final-year students from the academy transforming company values into works of art, which are now installed on **Feralpi Siderurgica** premises.

In Germany, **Feralpi Stahl** put three steel sculptures on display, in an unrestricted area accessible to the public, for an event in Autumn 2019 involving the participation of five artists to artistically mark the 900-year jubilee celebration in Riesa. The company also sponsors the local orchestra, encouraging employees to participate in planned activities, and in 2019 contributed to the renovation of an abandoned farm, in view of promoting cultural events in the area.

The top level of the company assesses charitable donations, sponsorships and investments for local and community initiatives, with the support of the External Relations and Sustainability Department and the Executive Administration Department for Italy. Individual company relationships with communities are managed by facility managers and their colleagues. Specific departments or staff members may sometimes be involved in technical and feasibility analyses, and the resulting operational management.

In 2019 the Feralpi Group contributed to the development and growth of the local economy in areas where the company operates, through projects and collaborations with local organisations, **charitable donations and sponsorships**. In 2019 the Feralpi Group supported local communities with a sum amounting to €6.5 million mainly in relation to Goal 11 of the 2030 Agenda, focusing on the development of inclusive, safe, resilient, sustainable environments.

This figure is in addition to Group investment in **joint projects** that contribute to achieving Goals 9, 11 and 12 in the 2030 Agenda. The most significant of these is the *Feralpi Siderurgica* district heating initiative, resulting in the site's heat recovery system* being connected to the Lonato del Garda district heating network in Autumn 2019. The project involved a partnership between two private organisations, the Feralpi Group and the Engie Group, a multinational energy company, and the Lonato del Garda City Council in a joint commitment designed to capitalise on every resource possible. The project is enabling a reduction in energy consumption, raw materials and emissions, in addition to a reduction in water consumption due to a decrease in the use of evaporation towers. The total investment was shared by both private partners equally, and amounted to 4 million euros. The plan is to connect municipal utilities and private users to the district heating network, providing over 4 GWh of heating and serving a good part of the council area where connection is possible. This system improves the air quality in Lonato considerably, as it entails less CO₂ being released into the atmosphere compared with conventional heating systems, estimated at more than 800 tonnes annually. The city of Lonato del

IN 2019 THE FERALPI GROUP SUPPORTED LOCAL COMMUNITIES WITH A SUM AMOUNTING TO €6.5 MILLION MAINLY IN RELATION TO GOAL 11 OF THE 2030 AGENDA, FOCUSING ON THE DEVELOPMENT OF INCLUSIVE, SAFE, RESILIENT, SUSTAINABLE ENVIRONMENTS.

* To date, according to the GSE report on the 'Distribution of networks and energy supplied in Italy', only 0.4% of the thermal power of district heating network generators derives from recovered heat. Fossil sources (mainly natural gas) account for 83.7% of the installed power overall, followed by renewable sources (9.1%) and waste (6.8%).

Garda is therefore more sustainable as a result of replacing fossil fuel power stations supplied with the district heating system. This project will also lead to a reduction in heating costs, and heating will be available at a competitive price for new public, private and industrial initiatives.

See section 4 for further information.

SUPPORTING THE LOCAL ECONOMY ALSO MEANS CHOOSING SUPPLIERS WHO OPERATE IN THE REFERENCE AREAS OF THE GROUP'S SITES.

SECTION 4 - Multiplying the use of materials: a commitment to the circular economy [P. 68]

Percentage of turnover invoiced by local suppliers at the main production sites out of total supplies

Geographical area	2017	2018	2019
Province of Brescia	31.4	28.8	37.1
Province of Como	4.3	5.1	6.3
Province of Turin	-	4.7	3.7
District of Meißen/Grossenhain	6.7	6.7	7.2
District of Mělník	5.1	4.6	4.6
District of Csepel	4.3	4	5.3
District of Seine-et-Marne	-	5.1	9.7

Ratio of local purchases from suppliers of materials, products and services to total purchases. By 'local' is meant the Province or District of reference. For Feralpi-Praha and Feralpi-Hungaria it is not possible to identify local suppliers. In calculating the indicator, it was considered the item related to other operating expenses in the Income Statement, which incorporate most of local suppliers out of total charges.



THE FERALPI GROUP'S COMMITMENT TO THE COMMUNITY IS ALSO TURNED INTO PROJECTS TO DEVELOP YOUNG SKILLS AND FOSTER A WORK CULTURE, IN ACCORDANCE WITH GOAL 8 IN THE 2030 AGENDA, TO PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL.

Among the external training initiatives that aim to develop young skills, is the **Sider+** project which was set up in 2019. This is a free course designed to increase the number of candidates for hire, and to include candidates in the selection process who, while demonstrating determination, motivation and aptitude, would be excluded from the process because they do not have the prerequisites. In 2019 the project involved 11 young people, and also aims to **bring value to the Lombardy area**, and more specifically the province of Brescia, by providing basic marketable skills. At the end of the course an exam can be taken to gain a qualification to operate forklifts and bridge cranes.

In 2019 the Group participated in an **employability workshop**, organised by the **Ministry for Education, Universities and Research** and co-funded by public and private organisations, designed for young people who are not in education, employment or training (**NEET**), with the aim of guaranteeing preliminary placement services. These **workshops** provide the community with an open space to integrate training courses for students already involved in learning initiatives, and present an option aimed at including those classed as **NEET** in the working world. The workshop in Lonato, leader in the Brescia area, was designed to create an area with advanced equipment to test enabling **Industry 4.0** technologies.

Additionally, **dual work-education projects** took place in 2019, and active participation in events dedicated to young people. Feralpi also organised events for the **children of employees**. In 2019 a course to raise awareness of new digital technologies opened to employees' children at the Feralpi Siderurgica premises.

The company is also active in **external training projects** to develop youth skills on the one hand, creating a work culture, and increasing its own ability to attract talent and specialists on the other. Examples include the **Feralpi Bootcamp** project for younger generations, with orientation events for employees' children, **dual work-education projects**, and government courses. Added to these are numerous visits to the premises in Lonato and Riesa, which were open to local communities and schools in particular. In 2019 more than 1,200 young people visited the **Feralpi Siderurgica** and **Feralpi Stahl** premises.

In terms of **inclusion**, one of the goals in the 2030 Agenda that Feralpi has adopted, two important projects were implemented in 2019, one in Italy and the other in Germany.

- › **Feralpi Siderurgica** signed up to the Business & Legality Manifesto, following an agreement between the Brescia Industrial Association, the Supervisory Court, Brescia Prison Management and the Prisoner Authority, to provide training for prisoners in Brescia, in line with the principle that a sentence must be orientated towards rehabilitation (article 27 of the Constitution).
- › **Feralpi Stahl** took part in a company mentoring scheme promoted by the Ministry for Economy and Work in Saxony and coordinated by the Employment Agency, with the aim of facilitating the employment and social integration of refugees. In 2019, 6 new hires joined the company.

Feralpi's support for the community is ever mindful of inclusion, and this is also demonstrated in its commitment to developing sport locally. **Cycling, football, rugby** and **canoeing** are sporting activities that have been supported by the Group for some time.

IN GERMANY, 20 PLACES ARE MADE AVAILABLE ANNUALLY FOR YOUNG PEOPLE, AS PART OF A THREE-YEAR APPRENTICESHIP SCHEME SET UP BY THE GERMAN GOVERNMENT AS AN ALTERNATIVE TO SCHOOL OR COLLEGE, WITH A VIEW TO TRAINING INDUSTRY SPECIALISTS.

For some years Feralpi Siderurgica has been sponsoring Feralpisalò, Virtus Feralpi Lonato and Football Club Dilettantistico Acc. Feralpi, Gruppo Ciclistico Feralpi, Gruppo Ciclistico Feralpi Montecclarese, Feralpi Triathlon and competitions such as Trofeo di Pesca Feralpi and the 9th edition of the Rally Kart Show held in Barghe, in the province of Brescia. Acciaierie di Calvisano sponsors Rugby Calvisano and Associazione Calcio Calvina Sport and ESF Elbe-Stahlwerke Feralpi is the major sponsor of the youth football training centre in Riesa, Fussball-Akademie, and the team BSG Stahl Riesa.

PERFORMANCE

**P.117****9.1. ECONOMIC INDICATORS****P.119****9.2. ENVIRONMENTAL INDICATORS****P.131****9.3. SOCIAL INDICATORS**



9.1. ECONOMIC INDICATORS

(201-1)

Creation of consolidated value added

Figures expressed in thousands of euros €/000	2017	2018	2019
Revenues from sales and services	1,198,970	1,320,333	1,302,752
Changes in inventory of work-in-progress	27,601	33,156	-16,729
Increase in fixed assets for in-house work	2,616	3,964	5,227
Other revenues and income	15,647	8,861	40,424
A) VALUE OF PRODUCTION	1,244,834	1,366,314	1,331,674
Consumption of raw materials (scrap)	637,217	698,851	620,289
Energy	91,630	104,406	91,314
Consumable materials and supplies	149,924	194,996	221,242
Cost of services	141,410	136,349	145,731
Hire, purchase and leasing charges	3,411	4,643	3,932
Provisions for risks	29,451	9	11,978
Other provisions and write-downs	1,749	1,460	1,569
Other operating expenses	5,304	4,126	2,860
B) COST OF PRODUCTION	1,060,096	1,144,840	1,098,915
GROSS CHARACTERISTIC VALUE ADDED	184,738	221,474	232,759
Financial income	491	529	534
Adjustments to financial assets	990	1,068	-13,865
Accessory items	1,481	1,597	-13,331
Extraordinary items	0	0	0
GROSS OVERALL VALUE ADDED	186,219	223,071	213,428
Amortisation and depreciation	42,390	43,022	53,343
NET OVERALL VALUE ADDED	143,829	180,049	166,085

Distribution of consolidated value added

Figures expressed in thousands of euros €/000	2017	2018	2019
Wages and salaries	61,648	65,943	71,312
Employee severance indemnity	2,257	2,304	2,284
Other charges	2,396	2,459	6,353
A - PERSONNEL	66,301	70,706	79,949
Taxes	21,182	25,238	15,171
Social security contributions	16,817	18,465	19,672
B - PUBLIC ADMINISTRATION	37,999	43,703	34,843
Provisions	1,022	3,072	592
Non-distributed profit / loss	30,576	53,735	33,831
C - RISK CAPITAL	31,598	56,807	34,423
Distributed profit	0	0	7,000
Financial expenses	4,092	4,131	3,328
D - LENDERS	4,092	4,131	10,328
Charity	89	146	1,172
Sponsoring of sports/recreational activities	3,751	4,556	5,370
E - COMMUNITY	3,840	4,702	6,542
NET OVERALL VALUE ADDED	143,829	180,049	166,085





9.2. ENVIRONMENTAL INDICATORS

(301-1; 301-2; 302-1; 302-2; 302-3; 303-3; 305-1; 305-2; 305-3; 305-4; 305-7; 306-1; 306-2)

Use of materials and % recycled (301-1, 301-2)

MATERIAL	UNIT	2017		2018		2019	
		USED	% RECYCLED	USED	% RECYCLED	USED	% RECYCLED
Scrap	t	2,713,552	100	2,759,097	100	2,732,514	100
Feralpi Siderurgica ¹		1,199,561	100	1,287,080	100	1,278,486	100
Acciaierie di Calvisano		460,222	100	492,135	100	477,249	100
Feralpi Stahl		1,053,769	100	979,882	100	976,779	100
Additives²	t	27,770	0	23,632	0.63	20,406	0.74
Feralpi Siderurgica		13,550	0	11,024	0	8,231	0
Acciaierie di Calvisano		3,782	0	2,944	0	2,906	0
Feralpi Stahl		10,438	0	9,664	1.54	9,269	1.62
Lime	t	105,812	0.10	97,945	0.13	104,219	2.27
Feralpi Siderurgica ³		52,865	0.20	45,674	0.29	49,936	4.74
Acciaierie di Calvisano		19,941	0	15,837	0	21,664	0
Feralpi Stahl		33,006	0	36,302	0	32,619	0
Iron alloys	t	35,619	0	35,219	0	35,229	0
Feralpi Siderurgica		15,633	0	16,832	0	16,139	0
Acciaierie di Calvisano		5,368	0	5,032	0	6,154	0
Feralpi Stahl		14,618	0	13,355	0	12,936	0
Refractory materials	t	18,489	0	17,474	5.59	17,084	4.80
Feralpi Siderurgica		6,474	0	6,679	0	6,639	0
Acciaierie di Calvisano		5,025	0	4,237	0	3,874	0
Feralpi Stahl		6,990	0	6,558	14.88	6,571	12.49
Oxygen	Sm³	69,118,575	0	70,674,475	0	70,527,025	0
Feralpi Siderurgica		33,319,472	0	35,028,176	0	35,057,696	0
Acciaierie di Calvisano		9,414,382	0	10,866,540	0	11,282,844	0
Feralpi Stahl		26,384,721	0	24,779,759	0	24,186,485	0
Inert gases	Sm³	2,051,325	0	2,057,878	0	2,120,736	0
Feralpi Siderurgica		640,967	0	871,265	0	1,005,737	0
Acciaierie di Calvisano		653,502	0	442,693	0	421,943	0
Feralpi Stahl		756,856	0	743,920	0	693,056	0

¹ The decrease in incoming scrap is due to the full operation of the scrap treatment plant, which made it possible to increase the quality of the charge and, hence, the steel yield.

² The additives used are charge carbons and bulking, desulphurising, deoxidising and recarborising agents.

³ The figure includes internally recovered lime: 112 tonnes for 2017, 131 tonnes for 2018 and 163 tonnes for 2019. The increase in the percentage of recycled materials is due to the use of dolomitic lime recovered in the production process from the demolition of ladles (2,203 tonnes) instead of lime.

Use of energy by source (302-1)

SOURCE	UNIT	2017	2018	2019
Electricity	MWh	1,473,523	1,487,186	1,468,652
Feralpi Siderurgica		646,078	676,096	664,457
Acciaierie di Calvisano		258,020	266,464	259,707
FER-PAR		6,591	8,194	8,963
Nuova Defim		-	3,268	2,829
Presider		-	1,474	1,401
MPL		-	834	786
Feralpi Stahl		562,834	530,856	527,518
Feralpi-Praha		-	-	2,008
Feralpi-Hungaria		-	-	454
Presider Armatures		-	-	529
Natural gas	Sm³ - Standard m³	63,532,093	67,072,107	74,015,460
Feralpi Siderurgica		36,536,960	37,842,364	39,457,357
Acciaierie di Calvisano		2,757,106	4,118,086	4,719,399
FER-PAR		2,976,654	3,706,100	3,711,853
Nuova Defim		-	267,647	207,655
Presider		-	30,914	27,988
MPL		-	0	0
Feralpi Stahl		21,261,373	21,106,996	25,891,208
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0
Petrol	Litres	0	11,279	16,870
Feralpi Siderurgica		0	0	0
Acciaierie di Calvisano		0	0	0
FER-PAR		0	0	0
Nuova Defim		-	0	0
Presider		-	0	0
MPL		-	0	0
Feralpi Stahl		0	11,279	8,762
Feralpi-Praha		-	-	4,744
Feralpi-Hungaria		-	-	3,364
Diesel¹	Litres	1,380,066	1,445,142	2,335,343
Feralpi Siderurgica		335,729	370,341	426,500
Acciaierie di Calvisano		36,000	54,000	73,000
FER-PAR		146	146	146
Nuova Defim		-	89,300	78,225
Presider		-	0	0
MPL		-	0	0
Feralpi Stahl		1,008,191	931,355	1,730,912
Feralpi-Praha		-	-	25,218
Feralpi-Hungaria		-	-	1,342
Charge carbon	Tonnes	13,242	11,084	7,504
Feralpi Siderurgica		8,040	5,391	3,089
Acciaierie di Calvisano		896	948	857

SOURCE	UNIT	2017	2018	2019
FER-PAR		0	0	0
Nuova Defim		-	0	0
Presider		-	0	0
MPL		-	0	0
Feralpi Stahl		4,306	4,745	4,415
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0
Photovoltaic	MWh	509	612	680
Feralpi Siderurgica		509	468	500
Acciaierie di Calvisano		0	0	0
FER-PAR		0	0	0
Nuova Defim		-	0	0
Presider		-	144	180
MPL		-	0	0
Feralpi Stahl		0	0	0
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0
Waste foam	Tonnes	9,046	7,458	6,983
Feralpi Siderurgica		1,303	992	614
Acciaierie di Calvisano		2,357	2,385	2,189
FER-PAR		0	0	0
Nuova Defim		-	0	0
Presider		-	-	0
MPL		-	0	0
Feralpi Stahl		5,386	4,081	4,180
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0

¹ The figures for Feralpi Stahl do not include diesel consumed by Feralpi Logistik, which amounts to 778,795 litres for 2017 and 803,782 litres for 2018. The 2019 figures include 771,603 litres of diesel consumed by Feralpi Logistik.

Use of energy by source, expressed in GJ (302-1)

SOURCE	GJ	2017	2018	2019
Electricity		5,304,683	5,353,870	5,287,143
Feralpi Siderurgica		2,325,882	2,433,946	2,392,046
Acciaierie di Calvisano		928,872	959,271	934,944
FER-PAR		23,728	29,499	32,267
Nuova Defim		-	11,765	10,184
Presider		-	5,306	5,044
MPL		-	3,003	2,829
Feralpi Stahl		2,026,201	1,911,080	1,899,065
Feralpi-Praha		-	-	7,227
Feralpi-Hungaria		-	-	1,634
Presider Armatures		-	-	1,903
Natural gas		2,338,238	2,457,780	2,741,906
Feralpi Siderurgica ¹		1,277,071	1,320,474	1,377,508
Acciaierie di Calvisano		96,350	142,198	164,763
FER-PAR		104,036	130,651	143,637
Nuova Defim		-	9,435	7,331
Presider		-	1,218	1,103
MPL		-	0	0
Feralpi Stahl		860,781	853,804	1,047,564
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0
Petrol²		0	359	596
Feralpi Siderurgica		0	0	0
Acciaierie di Calvisano		0	0	0
FER-PAR		0	0	0
Nuova Defim		-	-	0
Presider		-	0	0
MPL		-	0	0
Feralpi Stahl		0	359	279
Feralpi-Praha		-	-	151
Feralpi-Hungaria		-	-	166
Diesel³		49,325	51,783	83,446
Feralpi Siderurgica		12,092	13,339	15,361
Acciaierie di Calvisano		1,297	1,992	2,629
FER-PAR		5	5	5
Nuova Defim		-	3,255	2,817
Presider		-	0	0
MPL		-	0	0
Feralpi Stahl ⁴		35,931	33,192	61,687
Feralpi-Praha		-	-	899
Feralpi-Hungaria		-	-	48
Charge carbon⁵		381,969	324,998	220,246
Feralpi Siderurgica ⁶		231,909	155,703	90,674
Acciaierie di Calvisano		25,845	32,246	25,162
FER-PAR		0	0	0

SOURCE	GJ	2017	2018	2019
Nuova Defim		-	0	0
Presider		-	0	0
MPL		-	0	0
Feralpi Stahl		124,215	137,049	129,572
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0
Photovoltaic		1,832	2,204	2,448
Feralpi Siderurgica		1,832	1,686	1,800
Acciaierie di Calvisano		0	0	0
FER-PAR		0	0	0
Nuova Defim		-	0	0
Presider		-	518	648
MPL		-	0	0
Feralpi Stahl		0	0	0
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0
Waste foam⁵		260,927	227,613	140,713
Feralpi Siderurgica ⁶		37,583	28,643	18,029
Acciaierie di Calvisano		67,989	81,095	64,239
FER-PAR		0	0	0
Nuova Defim		-	0	0
Presider		-	0	0
MPL		-	0	0
Feralpi Stahl		155,355	117,875	122,684
Feralpi-Praha		-	-	0
Feralpi-Hungaria		-	-	0
TOTAL		8,498,382	8,418,607	8,476,498

- 1 The figure relating to natural gas was calculated using SNAM's Lower Calorific Value for 2018 and 2019.
- 2 For Super Petrol E10 and Super Petrol, the conversion factors used were 41.56 MJ/kg - 0.75 kg/l and 42.65 MJ/kg - 0.747 kg/l, respectively.
- 3 Italy: specific gravity 0.84 t/m³ and ETS coefficient 42.877. Feralpi Stahl: GEMIS-Datebank conversion factors, 42.63 MJ/kg and 0.836 kg/l.
- 4 Except for 2019, the figure does not include Diesel consumption for Feralpi Logistik, which were 27,755 GJ in 2017 and 28,647 GJ in 2018.
- 5 In 2017 a Lower Calorific Value of 28.844 GJ/t was used, of 28.885 GJ/t in 2018, and of 29.349 GJ/t in 2019 (table of ETS standard parameters).
- 6 The decrease in the consumption of charge carbon and waste foam is due to the constant commitment to optimising and enhancing efficiency of the smelting furnace and auxiliary equipment.

Indirect energy consumption expressed in GJ (302-2)

	2017	2018	2019
Feralpi Siderurgica			
Employee commuting	5,253	5,578	5,389
Transport and distribution	108,532	124,458	153,526
Upstream	113,785	130,036	158,914
Transport and distribution	110,734	108,355	136,037
Downstream	110,734	108,355	136,037
Acciaierie di Calvisano			
Employee commuting	1,980	1,472	1,661
Transport and distribution	30,582	34,351	32,874
Upstream	32,562	35,823	34,535
Transport and distribution	8,937	11,014	9,566
Downstream	8,937	11,014	9,566
FER-PAR			
Employee commuting	874	508	692
Transport and distribution	-	-	-
Upstream	874	508	692
Transport and distribution	7,160	9,203	9,407
Downstream	7,160	9,203	9,407
Nuova Defim			
Employee commuting	-	1,083	1,066
Transport and distribution	-	1,104	1,254
Upstream	-	2,187	2,320
Transport and distribution	-	3,803	3,491
Downstream	-	3,803	3,491
Presider			
Employee commuting	-	-	1,495
Transport and distribution	-	-	18
Upstream	-	-	1,513
Transport and distribution	-	-	14,807
Downstream	-	-	14,807
MPL			
Employee commuting	-	-	318
Transport and distribution	-	-	1,212
Upstream	-	-	1,530
Transport and distribution	-	-	2,836
Downstream	-	-	2,836
Feralpi Stahl			
Employee commuting	6,907	7,603	8,379
Transport and distribution	64,077	59,560	53,108
Upstream	70,984	67,163	61,487
Transport and distribution	114,886	108,757	130,056
Downstream	114,886	108,757	130,056
Feralpi-Praha			
Employee commuting	-	-	522
Transport and distribution	-	-	2,449
Upstream	-	-	2,971
Transport and distribution	-	-	6,374
Downstream	-	-	6,374

	2017	2018	2019
Feralpi-Hungaria			
Employee commuting	-	-	184
Transport and distribution	-	-	-
Upstream	-	-	184
Transport and distribution	-	-	772
Downstream	-	-	772
Presider Armatures			
Employee commuting	-	-	45
Transport and distribution	-	-	5
Upstream	-	-	51
Transport and distribution	-	-	533
Downstream	-	-	533

The transport of incoming scrap and outgoing products refers to road transport only, and is estimated at 28 tonnes for each load. With regard to employee commuting, one round trip a day per person was considered.

Energy intensity in GJ per tonne of finished product (302-3)

	2017	2018	2019
Billets			
Feralpi Siderurgica	2.32	2.12	1.96
Acciaierie di Calvisano	2.55	2.22	2.22
Feralpi Stahl	2.06	2.09	2.03
Ribbed bar			
Feralpi Siderurgica	0.90	0.83	0.83
Feralpi Stahl	0.98	1.05	1.23
Rebar in coils			
Feralpi Siderurgica	1.64	1.47	1.51
Wire rod			
Feralpi Stahl	0.98	1.05	1.23
Downstream products			
Feralpi-Praha	-	-	0.21
Feralpi-Hungaria	-	-	0.38
Section bars			
FER-PAR	2.29	2.33	2.28
Welded mesh and gratings			
Nuova Defim	-	0.62	0.65
Shaped or assembled reinforcing steel in bar			
Presider	-	0.05	0.06
Presider Armatures	-	-	0.11
Girders and angle sections			
MPL	-	0.12	0.10

The figures relate to December each year. In the calculation, the total consumption of natural gas, electricity, charge carbon and coal for foamy scrap was used for Feralpi Siderurgica, electricity and natural gas for Acciaierie di Calvisano, Feralpi Stahl and FER-PAR, and electricity for Nuova Defim, Presider, MPL, Presider Armatures, Feralpi-Praha and Feralpi-Hungaria.

Volumes of water recycled % reused in m³/h (303-3)

	2017	2018	2019
Total hourly flow rate of circuits (Qt)			
Feralpi Siderurgica	10,000	11,160	11,160
Acciaierie di Calvisano	4,090	3,500	3,500
FER-PAR	700	700	700
Nuova Defim	-	146	146
Feralpi Stahl	6,636	6,636	6,636
Feralpi-Praha	-	-	700
Hourly makeup water (Qp)			
Feralpi Siderurgica	234	227	245
Acciaierie di Calvisano	147	40	40
FER-PAR	49	33	20
Nuova Defim	-	1	1
Feralpi Stahl	69	66	69
Feralpi-Praha	-	-	0
Total hourly volume of recycled and reused water (Qr)			
Feralpi Siderurgica	9,766	10,933	10,915
Acciaierie di Calvisano	3,943	3,460	3,460
FER-PAR	651	667	680
Nuova Defim	-	145	145
Feralpi Stahl	6,567	6,570	6,566
Feralpi-Praha	-	-	700
Percentage of water recycled/reused			
Feralpi Siderurgica	98	98	98
Acciaierie di Calvisano	96	99	99
FER-PAR	93	95	97
Nuova Defim	-	99	99
Feralpi Stahl	99	99	99
Feralpi-Praha	-	-	100

Total direct greenhouse gas emissions (GHG) (Scope 1: tCO₂eq) (305-1)

	2017	2018	2019
EU ETS	208,347	202,727	203,484
Feralpi Siderurgica	104,792	97,736	95,191
Acciaierie di Calvisano	20,326	24,397	21,988
FER-PAR	5,767	7,166	6,708
Feralpi Stahl	77,553	73,428	79,597
Refrigerant gases	272	371	98
Feralpi Siderurgica	231	371	76
Acciaierie di Calvisano	19	0	0
FER-PAR	22	0	22
Feralpi Stahl	0	0	0
Feralpi-Hungaria	-	-	0
Natural gas		528	410
Nuova Defim	-	528	410
Diesel			207
Nuova Defim	-	-	207
LPG for heating			76
MPL	-	-	76
Total direct emissions (Scope 1)	208,619	203,626	204,275

For the years 2017 and 2018 Scope 1 emissions of EDF (424.39 tCO₂ in 2017, 428.54 tCO₂ in 2018) and Scope 1 emissions of Logistik (2,042.17 tCO₂ in 2017, 2,122.73 tCO₂ in 2018, 2,023.32 tCO₂ in 2019) were not included for Feralpi Stahl.

Indirect greenhouse gas emissions (GHG) resulting from electricity use (Scope 2: tCO₂eq) (305-2)

	2017	2018	2019
Resulting from electricity use location-based method¹	622,925	605,989	582,983
Feralpi Siderurgica	242,279	243,395	238,540
Acciaierie di Calvisano	96,757	95,927	93,235
FER-PAR	2,472	2,949	3,218
Nuova Defim	-	1,176	1,016
Presider	-	531	503
MPL	-	300	282
Feralpi Stahl	281,417	261,711	244,768
Feralpi-Praha	-	-	1,018
Feralpi-Hungaria	-	-	126
Feralpi Armatures	-	-	38
Resulting from electricity use market-based method²	845,701	844,094	836,849
Feralpi Siderurgica	307,876	322,180	321,125
Acciaierie di Calvisano	122,954	126,978	125,514
FER-PAR	3,141	3,905	4,332
Nuova Defim	-	1,579	1,368
Presider	-	712	677
MPL	-	403	380
Feralpi Stahl	411,730	388,337	382,050
Feralpi-Praha	-	-	1,219
Feralpi-Hungaria	-	-	157
Feralpi Armatures	-	-	27

- 1 The national electricity emission factors were used to calculate indirect CO₂ emissions resulting from electricity using the location-based method: i.e. 360 gCO₂/kWh for the Italian sites (Lonato, Calvisano, Nave and Como) in 2017 and 2018, and 359 gCO₂/kWh in 2019; 493 gCO₂/kWh for Germany in 2017 and 2018, and 464 gCO₂/kWh in 2019; 507 gCO₂/kWh for the Czech Republic in 2019; 277 gCO₂/kWh for the Czech Republic in 2019; 72 gCO₂/kWh for France in 2019.
- 2 To calculate indirect CO₂ emissions resulting from electricity using the market-based method, reference was made to the AIB (Association of Issuing Bodies). The 2018 Residual Mix for the Italian sites (Lonato, Calvisano and Nave) is 483.29 gCO₂/kWh, for Germany 724.24 gCO₂/kWh, for Hungary 345.37 gCO₂/kWh, for the Czech Republic 607.16 gCO₂/kWh, for France 51.23 gCO₂/kWh. For photovoltaic energy and the energy certified as renewable (e.g., green certificates) an emission factor of zero was used.

Other indirect greenhouse emissions (GHG) (Scope 3) (305-3)

	2017	2018	2019
Transport of incoming scrap or product - tCO₂	14,978	16,080	17,561
Feralpi Siderurgica	7,986	9,158	11,297
Acciaierie di Calvisano	2,250	2,433	2,147
FER-PAR	0	0	0
Nuova Defim	-	81	92
Presider	-	-	1
MPL	-	0	89
Feralpi Stahl	4,742	4,408	3,935
Feralpi-Praha	-	-	0
Feralpi-Hungaria	-	-	0
Feralpi Armatures	-	-	0
Outgoing product transport - tCO₂	17,835	17,774	22,733
Feralpi Siderurgica	8,148	7,973	10,010
Acciaierie di Calvisano	658	780	624
FER-PAR	527	692	692
Nuova Defim	-	280	257
Presider	-	-	1,090
MPL	-	-	209
Feralpi Stahl	8,502	8,049	9,637
Feralpi-Praha	-	-	166
Feralpi-Hungaria	-	-	9
Feralpi Armatures	-	-	39
Employee commuting - tCO₂	1,057	1,179	1,450
Feralpi Siderurgica	371	394	381
Acciaierie di Calvisano	140	150	156
FER-PAR	70	41	47
Nuova Defim	-	77	78
Presider	-	-	106
MPL	-	-	22
Feralpi Stahl	476	517	606
Feralpi-Praha	-	-	38
Feralpi-Hungaria	-	-	13
Feralpi Armatures	-	-	3

ETS Standard National Parameters were used in the calculation.

Intensity of greenhouse gas emissions (305-4)

tCO ₂ /t FINISHED PRODUCT	2017	2018	2019
EU ETS direct emissions (Scope 1)			
Feralpi Siderurgica	0.09	0.08	0.07
Acciaierie di Calvisano	0.05	0.06	0.05
FER-PAR	0.09	0.09	0.09
Feralpi Stahl	0.09	0.09	0.05
Feralpi-Praha	-	-	0
Feralpi-Hungaria	-	-	0
Indirect emissions resulting from electricity use			
Feralpi Siderurgica	0.21	0.21	0.18
Acciaierie di Calvisano	0.24	0.23	0.22
FER-PAR	0.04	0.04	0.04
Nuova Defim	-	0.06	0.06
Presider	-	0	0
MPL	-	0.01	0.01
Feralpi Stahl	0.32	0.33	0.17
Feralpi-Praha	-	-	0.03
Feralpi-Hungaria	-	-	0.05
Presider Armatures			0.01

The intensity of emissions is calculated on the basis of Scope 1 and Scope 2 emissions as the numerator and on the basis of the finished product (i.e. everything that leaves rolling mills) as the denominator.

Note: the figures for Feralpi Algeria, Feralpi Praha, Feralpi Hungaria, Presider, Presider Armatures and Metallurgica Piemontese Lavorazioni (MPL) are not included in the above table because they are considered non-significant. The variability of NO_x values depends on the heating furnace operating mode, which varies in relation to the product being processed during sampling.

- 1 The figures for Nave concern substances produced by rolling operations only.
- 2 Figure for the site.
- 3 Dioxin-like without toxicity factor.

Emissions into the atmosphere (305-7)

UNIT	2017	2018	2019
Dust² t			
Feralpi Siderurgica	3,57	2,60	3,35
Acciaierie di Calvisano	1,45	1,57	5,95
FER-PAR ¹	0,01	0,11	0,08
Nuova Defim	-	0,20	0,23
Feralpi Stahl	2,59	1,89	0,67
PM10 t			
Feralpi Siderurgica	0,58	0,45	0,41
Acciaierie di Calvisano	1,24	1,96	0,93
Feralpi Stahl	2,19	1,59	0,57
NO_x⁽²⁾ t			
Feralpi Siderurgica	154,11	153,06	153,18
Acciaierie di Calvisano	55,08	49,22	92,20
FER-PAR ¹	5,23	1,26	0,34
Feralpi Stahl	89,60	47,27	50,87
CO⁽²⁾ t			
Feralpi Siderurgica	1,303.15	1,814.32	1,292.89
Acciaierie di Calvisano	463,07	693,08	421,42
FER-PAR ¹	0,29	0,41	24,69
Feralpi Stahl	1,092.70	548,75	619,54
Dioxins and Furans gl-TEQ			
Feralpi Siderurgica	0,07	0,01	0,05
Acciaierie di Calvisano	0,05	0,02	0,03
Feralpi Stahl	0,10	0,01	0,01
IPA kg			
Feralpi Siderurgica	0,06	0,05	0,04
Acciaierie di Calvisano	0,12	0,09	0,15
Feralpi Stahl	-	-	-
COT t			
Feralpi Siderurgica	23,74	32,28	48,33
Acciaierie di Calvisano	8,41	5,03	17,77
Feralpi Stahl	-	-	-
Pb kg			
Feralpi Siderurgica	34,42	10,81	29,31
Acciaierie di Calvisano	9,53	17,85	21,33
Feralpi Stahl	11,52	5,44	6,04
Zn kg			
Feralpi Siderurgica	561,07	191,05	389,46
Acciaierie di Calvisano	224,42	408,51	290,54
Feralpi Stahl	858,02	568,25	175,84
Hg kg			
Feralpi Siderurgica	52,88	13,90	11,93
Acciaierie di Calvisano	3,25	8,66	10,28
Feralpi Stahl	11,89	66,23	73,12
SO_x⁽²⁾ t			
Feralpi Siderurgica	25,56	13,32	3,34
Acciaierie di Calvisano	49,77	37,75	28,21
FER-PAR ¹	0,03	0,04	4,56
Feralpi Stahl	56,02	31,79	36,26
Pcb³ kg			
Feralpi Siderurgica	0,04	0,01	0,08
Acciaierie di Calvisano	0,11	0,04	0,01
Feralpi Stahl	0,17	0,03	0,03

Total water discharged by destination in m³

(306-1)

	2017	2018	2019
Discharged into sewage systems	13,264	17,010	16,350
Feralpi Siderurgica	0	0	0
Acciaierie di Calvisano	0	0	0
Feralpi Stahl	13,264	17,010	15,438
Feralpi-Hungaria	-	-	912
Discharged into surface water	636,478	595,321	632,308
Feralpi Siderurgica	631,851	589,976	627,574
Acciaierie di Calvisano	4,627	5,345	4,734
Feralpi Stahl	0	0	0
Feralpi-Hungaria	-	-	0
TOTAL WATER DISCHARGED	649,742	612,331	648,658

Analysis of water discharged* (306-1)

	UNIT	2017	2018	2019
Feralpi Siderurgica				
COD	mg/l	9.00	15.00	23.33
Suspended solids	mg/l	6.83	3.33	5.50
Total hydrocarbons	mg/l	0.25	0.25	0.25
Zinc (Zn)	mg/l	0.07	0.06	0.03
Iron (Fe)	mg/l	0.08	0.15	0.09
Nickel (Ni)	mg/l	0.01	0.03	0.03
Copper (Cu)	mg/l	0.03	0.06	0.05
Total surfactants	mg/l	0.10	0.10	0.10
Lead (Pb)	mg/l	0.01	0.01	0.01
Phosphorous (P)	mg/l	0.40	0.30	0.23
Electrical conductivity	µS/cm	2,477	2,257	2,125
Acciaierie di Calvisano				
Suspended solids	mg/l	6.00	5.00	7.50
Iron (Fe)	mg/l	0.12	0.10	0.41
Lead (Pb)	mg/l	0.03	0.05	0.05
Phosphorous (P)	mg/l	0.10	0.20	0.20
Electrical conductivity	µS/cm	649	520	749
FER-PAR				
COD	mg/l	12.50	25.00	11.50
Suspended solids	mg/l	2.50	7.75	2.50
Total hydrocarbons	mg/l	0.25	0.25	0.25
Zinc (Zn)	mg/l	0.03	0.03	0.09
Iron (Fe)	mg/l	0.04	0.19	0.16
Copper (Cu)	mg/l	0.01	0.03	0.02
Lead (Pb)	mg/l	0.01	0.01	0.01
Phosphorous (P)	mg/l	0.25	1.20	0.60
Electrical conductivity	µS/cm	588	656	621
Feralpi Stahl				
COD	mg/l	56.04	44.30	15.00
Suspended solids	ml/l	0.83	0.10	0.30
Total hydrocarbons	mg/l	0.17	0.25	0.16
Zinc (Zn)	mg/l	2.67	0.05	1.38
Copper (Cu)	mg/l	0.17	0.02	0.28
Lead (Pb)	mg/l	0.40	0.02	0.03
Phosphorous (P)	mg/l	0.59	0.23	0.58
Electrical conductivity	µS/cm	1,536	1,585	1,503

*Average figure

Total weight of waste by type (t) (306-2)

	2017	2018	2019
Fume abatement dust	44,691	41,607	41,103
Feralpi Siderurgica	20,805	21,112	20,194
Acciaierie di Calvisano	8,353	6,718	7,081
Feralpi Stahl	15,534	13,778	13,738
Heavy waste from shredding	2,415	1,221	48
Feralpi Siderurgica	0	21	0
Acciaierie di Calvisano	0	0	0
Feralpi Stahl	2,415	1,200	48
Mill scale	34,951	38,135	36,315
Feralpi Siderurgica	18,731	20,176	18,442
Acciaierie di Calvisano	906	876	929
FER-PAR	854	1,634	1,198
Feralpi Stahl	14,461	15,449	15,730
Feralpi-Hungaria	-	-	16
Black slag	254,401	186,811	202,301
Feralpi Siderurgica ¹	101,577	45,909	64,400
Acciaierie di Calvisano	52,533	46,616	44,997
Feralpi Stahl	100,292	94,286	92,905
White slag	92,899	75,907	95,923
Feralpi Siderurgica	53,510	31,422	37,475
Acciaierie di Calvisano	23,573	28,424	36,414
Feralpi Stahl	15,816	16,061	22,034
Light waste from shredding (fluff)	2,603	1,533	67
Feralpi Siderurgica	0	198	0
Acciaierie di Calvisano	0	0	0
Feralpi Stahl	2,603	1,335	67
Other waste	77,810	114,616	121,142
Feralpi Siderurgica ²	33,909	65,455	69,893
Acciaierie di Calvisano	5,820	10,798	11,139
FER-PAR	3,783	5,834	6,832
Nuova Defim	-	1,137	944
Presider	-	2,864	2,189
MPL	-	829	956
Feralpi Stahl	34,298	27,128	28,101
Feralpi-Praha	-	-	140
Feralpi-Hungaria	-	-	16
Presider Armatures	-	571	932
TOTAL WASTE	509,773	459,830	496,809

- 1 The increase is due to slag inventory for the year 2018 which was transferred in 2019.
- 2 The increase is due to full-rate operation of the scrap sorting plant.

Total weight of waste disposed of by type and destination (t) (306-2)

WASTE TYPE	2017			2018			2019		
	RECOVERED	DISPOSED OF	TOTAL	RECOVERED	DISPOSED OF	TOTALE	RECOVERED	DISPOSED OF	TOTAL
Non-hazardous									
Feralpi Siderurgica	138,711	64,394	203,105	123,799	33,933	157,732	149,662	38,168	187,831
Acciaierie di Calvisano	59,162	23,573	82,735	58,227	28,453	86,680	55,676	36,435	92,111
FER-PAR	4,517	82	4,600	7,456	0	7,456	8,008	7	8,015
Nuova Defim	-	-	-	1,127	0	1,127	935	0	935
Presider	-	-	-	2,861	0	2,861	2,187	0	2,187
MPL	-	-	-	829	0	829	956	0	956
Feralpi Stahl	154,956	12,993	169,519	148,364	6,704	155,068	148,331	10,074	158,404
Feralpi-Praha	-	-	-	-	-	-	0	137	137
Feralpi-Hungaria	-	-	-	-	-	-	16	0	16
Presider Armatures	-	-	-	571	0	571	932	0	932
TOTAL	357,347	102,612	459,959	335,778	69,091	412,324	366,704	84,820	451,524
Hazardous									
Feralpi Siderurgica	16,937	8,489	25,426	17,460	9,100	26,560	17,587	4,987	22,574
Acciaierie di Calvisano	6,850	1,600	8,450	6,723	29	6,752	7,155	1,295	8,450
FER-PAR	4	33	37	8	3	11	2	14	16
Nuova Defim	-	-	-	9	1	10	7	2	9
Presider	-	-	-	0	3	3	0	2	2
MPL	-	-	-	0	0	0	0	0	0
Feralpi Stahl	12,993	2,907	15,901	11,739	2,430	14,169	11,345	2,873	14,218
Feralpi-Praha	-	-	-	-	-	-	0	0	0
Feralpi-Hungaria	-	-	-	-	-	-	16	0	16
Presider Armatures	-	-	-	0	0	0	0	0	0
TOTAL	36,784	13,029	49,814	35,939	11,566	47,505	36,108	9,174	45,285
TOTAL WASTE	559,587			459,829			496,809		

Waste type by destination (306-2)

WASTE TYPE	2017							
	REUSE	RECYCLING	RECOVERY	LANDFILL	INCINERATOR	COMPOSTING	OTHER TREATMENT	TOTAL
Non-hazardous								
Feralpi Siderurgica	0	0	138,702	64,383	0	10	10	203,105
Acciaierie di Calvisano	0	0	59,162	23,573	0	0	0	82,735
FER-PAR	0	0	4,517	82	0	0	0	4,599
Nuova Defim	-	-	-	-	-	-	-	-
Presider	-	-	-	-	-	-	-	-
MPL	-	-	-	-	-	-	-	-
Feralpi Stahl	70	121,090	33,796	11,959	2,603	0	0	169,518
Feralpi-Praha	-	-	-	-	-	-	-	-
Feralpi-Hungaria	-	-	-	-	-	-	-	-
Presider Armatures	-	-	-	-	-	-	-	-
Hazardous								
Feralpi Siderurgica	0	0	16,937	4,055	0	0	4,434	25,426
Acciaierie di Calvisano	0	0	6,850	1,600	0	0	0	8,450
FER-PAR	0	0	4	0	0	0	33	37
Nuova Defim	-	-	-	-	-	-	-	-
Presider	-	-	-	-	-	-	-	-
MPL	-	-	-	-	-	-	-	-
Feralpi Stahl	286	9	12,698	2,876	32	0	0	15,901
Feralpi-Praha	-	-	-	-	-	-	-	-
Feralpi-Hungaria	-	-	-	-	-	-	-	-
Presider Armatures	-	-	-	-	-	-	-	-
TOTAL	509,771							

	2018							
WASTE TYPE	REUSE	RECYCLING	RECOVERY	LANDFILL	INCINERATOR	COMPOSTING	OTHER TREATMENT	TOTAL
Non-hazardous								
Feralpi Siderurgica	0	0	123,791	33,922	0	8	11	157,732
Acciaierie di Calvisano	0	0	58,227	28,453	0	0	0	86,680
FER-PAR	0	0	7,456	0	0	0	0	7,456
Nuova Defim	1,127	0	0	0	0	0	0	1,127
Presider	0	0	2,861	0	0	0	0	2,861
MPL	0	0	829	0	0	0	0	829
Feralpi Stahl	34	110,882	36,113	6,704	1,335	0	0	155,068
Feralpi-Praha	-	-	-	-	-	-	-	-
Feralpi-Hungaria	-	-	-	-	-	-	-	-
Presider Armatures	0	0	571	0	0	0	0	571
Hazardous								
Feralpi Siderurgica	0	0	17,460	3,847	0	0	5,253	26,560
Acciaierie di Calvisano	0	0	6,723	29	0	0	0	6,752
FER-PAR	0	0	8	0	0	0	3	11
Nuova Defim	0	9	0	1	0	0	0	10
Presider	0	0	0	0	0	0	3	3
MPL	0	0	0	0	0	0	0	0
Feralpi Stahl	19	283	11,465	2,384	18	0	0	14,169
Feralpi-Praha	-	-	-	-	-	-	-	-
Feralpi-Hungaria	-	-	-	-	-	-	-	-
Presider Armatures	0	0	0	0	0	0	0	0
TOTAL								459,829

	2019							
WASTE TYPE	REUSE	RECYCLING	RECOVERY	LANDFILL	INCINERATOR	COMPOSTING	OTHER TREATMENT	TOTAL
Non-hazardous								
Feralpi Siderurgica	0	0	149,489	38,110	0	173	59	187,830
Acciaierie di Calvisano	0	0	55,676	36,435	0	0	0	92,111
FER-PAR	0	0	8,008	0	0	0	7	8,015
Nuova Defim	935	0	0	0	0	0	0	935
Presider	0	0	2,187	0	0	0	0	2,187
MPL	0	0	956	0	0	0	0	956
Feralpi Stahl	0	146,857	1,406	10,074	67	0	0	158,404
Feralpi-Praha	0	0	0	0	0	0	137	137
Feralpi-Hungaria	0	0	16	0	0	0	0	16
Presider Armatures	0	0	932	0	0	0	0	932
Hazardous								
Feralpi Siderurgica	0	0	17,587	2,273	0	0	2,714	22,573
Acciaierie di Calvisano	0	0	7,155	1,295	0	0	0	8,449
FER-PAR	0	0	2	0	0	0	14	15
Nuova Defim	0	7	0	2	0	0	0	9
Presider	0	0	0	0	0	0	2	2
MPL	0	0	0	0	0	0	0	0
Feralpi Stahl	0	11,234	111	2,873	0	0	0	14,218
Feralpi-Praha	0	0	0	0	0	0	3	3
Feralpi-Hungaria	0	0	16	0	0	0	0	16
Presider Armatures	0	0	0	0	0	0	0	0
TOTAL								496,809





9.3. SOCIAL INDICATORS

(102-8; 401-1; 403-2; 403-3; 404-1; 405-1; 405-2)

Members of the Feralpi Holding's Board of Directors by gender and age group (405-1)

AGE	MEN	WOMEN	TOTAL
<30	0	0	0
30-50 (30 and 50 included)	2	0	2
>50	4	2	6
TOTAL	6	2	8

Feralpi Group's personnel as at 31.12.2019 (102-8)

	2017			2018			2019		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Permanent	1,275	85	1,360	1,347	102	1,449	1,395	108	1,503
of which in Italy	641	33	674	714	49	763	736	54	790
of which in Germany	572	42	614	576	42	618	602	45	647
of which in the Czech Republic	42	6	48	33	6	39	31	5	36
of which in Hungary	10	2	12	11	3	14	12	2	14
of which in France	-	-	-	2	0	2	3	1	4
of which in Algeria	10	2	12	11	2	13	11	1	12
Temporary	33	5	38	48	8	56	22	3	25
of which in Italy	25	2	27	37	2	39	10	0	10
of which in Germany	4	2	6	6	5	11	8	2	10
of which in the Czech Republic	4	1	5	5	1	6	4	1	5
of which in Hungary	0	0	0	0	0	0	0	0	0
of which in France	-	-	-	0	0	0	0	0	0
of which in Algeria	0	0	0	0	0	0	0	0	0
TOTAL EMPLOYEES	1,308	90	1,398	1,395	110	1,505	1,417	111	1,528
Full-time	1,298	72	1,370	1,390	95	1,485	1,407	94	1,501
Part-time	10	18	28	5	15	20	10	17	27
TOTAL EMPLOYEES	1,308	90	1,398	1,395	110	1,505	1,417	111	1,528
Apprentices	40	1	41	41	2	43	41	1	42
TOTAL PERSONNEL EMPLOYED	1,348	91	1,439	1,436	112	1,548	1,458	112	1,570
Temporary and other types of contract	66	5	71	40	4	44	85	13	98
Interns	5	1	6	13	2	15	1	1	2
Contractors' personnel ¹	2,479	34	2,513	3,107	61	3,168	2,583	88	2,671
TOTAL EMPLOYEES	3,898	131	4,029	4,596	179	4,775	4,127	214	4,341
TOTAL PERSONNEL EMPLOYED BY GENDER	1,348	91	1,439	1,436	112	1,548	1,458	112	1,570
of which in Italy	673	35	708	758	51	809	752	54	806
of which in Germany	609	45	654	616	49	665	644	48	692
of which in the Czech Republic	46	7	53	38	7	45	36	6	42
of which in Hungary	10	2	12	11	3	14	12	2	14
of which in France	-	-	-	11	2	13	3	1	4
of which in Algeria	10	2	12	2	0	2	11	1	12

Only for Germany, the figures do not take into account employees on parental leave or sick leave exceeding 62 weeks as at 31st December.

It is worth noting that 4 employees hired by Feralpi Holding and Feralpi Siderurgica occasionally work at Eco-Trading, a Group company currently not operational and with no personnel employed.

1 Contractors' personnel refer to external personnel working at Feralpi Siderurgica, Acciaierie di Calvisano, FER-PAR, Feralpi Algérie, ESD Elbe-Stahlwerke Feralpi as at 31/12/2019. To these 125 men and 5 women hired by external companies, who worked at MPL and Presider must be added.

Movement of personnel by geographical area and gender (401-1)

GENDER		2017	2018	2019
Personnel recruitment rate¹ (%)				
Group	Men	13.2	12.5	10.6
	Women	15.4	17.9	14.3
	Total	13.3	12.9	10.8
Italy	Men	8.3	11.7	4.9
	Women	11.4	5.9	5.6
	Total	8.5	11.4	5.0
Germany	Men	17.1	13.0	16.1
	Women	22.2	28.6	25.0
	Total	17.4	14.1	16.8
Personnel turnover rate² (%)				
Group	Men	10.2	10.6	9.4
	Women	8.8	14.3	10.7
	Total	10.1	10.9	9.5
Italy	Men	8.3	8.0	6.0
	Women	2.9	7.8	0.0
	Total	8.1	8.0	5.6
Germany	Men	11.2	12.7	12.1
	Women	15.6	20.4	22.9
	Total	11.5	13.2	12.9

- 1 The recruitment rate (A) is calculated according to the following formula: $A = \text{new hires} / \text{total workforce} * 100$.
- 2 The turnover rate (T) is calculated according to the following formula: $T = \text{leavers} / \text{total workforce} * 100$.

Only for Germany, the figures do not take into account employees on parental leave or sick leave exceeding 62 weeks as at 31st December. These employees, considering only Germany, are not included in the total workforce. New hires, on the other hand, include personnel who returned to work in the reporting year following the use of parental leave.

Movement of personnel by geographical area and age group (401-1)

AGE		2017	2018	2019
Personnel recruitment rate¹ (%)				
Group	< 30	27.9	33.2	34.6
	30-50	14.5	14.1	11.1
	> 50	5.6	4.7	3.2
	Total	13.3	12.9	10.8
Italy	< 30	12.0	37.0	21.7
	30-50	10.7	12.1	5.5
	> 50	5.0	5.2	1.1
	Total	8.5	11.4	5.0
Germany	< 30	40.2	27.3	39.3
	30-50	17.0	16.8	16.8
	> 50	5.6	3.9	5.8
	Total	17.4	14.1	16.8
Personnel turnover rate² (%)				
Group	< 30	16.6	17.1	22.5
	30-50	7.4	7.7	8.1
	> 50	10.8	12.9	7.2
	Total	10.1	10.9	9.5
Italy	< 30	7.0	4.1	7.2
	30-50	5.5	4.1	3.7
	> 50	11.0	13.2	7.3
	Total	8.1	8.0	5.6
Germany	< 30	23.1	20.9	24.8
	30-50	8.0	11.3	12.9
	> 50	10.3	12.3	7.1
	Total	11.5	13.2	12.9

- 1 The recruitment rate (A) is calculated according to the following formula: $A = \text{new hires} / \text{total workforce} * 100$.
- 2 The turnover rate (T) is calculated according to the following formula: $T = \text{leavers} / \text{total workforce} * 100$.

Only for Germany, the figures do not take into account employees on parental leave or sick leave exceeding 62 weeks as at 31st December. These employees, considering only Germany, are not included in the total workforce. New hires, on the other hand, include personnel who returned to work in the reporting year following the use of parental leave.

Workers with a high incidence or high risk of occupational diseases (403-3)

Throughout 2019, four cases of occupational diseases were reported in Germany (occupational disease rate: 1.54).

Total number of deaths (403-2)

In the course of the reporting year, no fatal accidents occurred in the Group's sites.

Severity rate (403-2)

	GENDER	2017	2018	2019
Group	Men	925	1,031	798
	Women	0	45	28
	Total	868	1,962	745
Italy	Men	1,097	1,027	1,112
	Women	0	0	56
	Total	1,044	964	1,044
Germany	Men	625	749	413
	Women	0	117	0
	Total	584	709	386

Severity rate = (days lost/ hours worked)*1,000,000

Days lost are calendar days. Commuting accidents and those leading to less than 3 days of absence have been excluded.

Comparison between average male and female remuneration (405-2)

	CATEGORY	2017	2018	2019
Feralpi Holding	White-collar workers and middle managers	80.46	83.13	86.18
	Blue-collar workers	84.39	89.51	87.73
Nuova Defim	White-collar workers and middle managers	56.06	54.36	57.66
	Blue-collar workers	-	-	-
Presider	White-collar workers and middle managers	-	75.21	74.76
	Blue-collar workers	-	-	96.35
ESF Elbe-Stahlwerke Feralpi	White-collar workers and middle managers	64.04	66.31	66.51
	Blue-collar workers	-	-	-
	Executives	-	-	-

The table shows only the sites and categories where female personnel are present or where the breakdown by role concerns at least 6 members of female personnel.

Per capita average training hours by gender and by professional category (404-1)

	GENDER	2017	2018	2019
Group	Men	16	20	14
	Women	17	23	19
	Total	16	20	15
Italy	Men	14	23	19
	Women	9	35	26
	Total	14	23	20
Germany	Men	20	17	9
	Women	27	15	14
	Total	21	17	10

	CATEGORY	2017	2018	2019
Group	Blue-collar workers	11	17	9
	White-collar workers and middle managers	31	26	26
	Executives	21	25	36
	Total	16	20	15
Italy	Blue-collar workers	10	20	14
	White-collar workers and middle managers	22	31	29
	Executives	18	33	47
	Total	14	23	20
Germany	Blue-collar workers	13	16	5
	White-collar workers and middle managers	45	22	25
	Executives	38	7	7
	Total	21	17	10

APPENDICES

P.135

METHODOLOGY NOTE

P.137

GRI CONTENT INDEX

METHODOLOGY NOTE

(102-1; 102-3; 102-4; 102-45; 102-46; 102-48; 102-49; 102-50; 102-51; 102-52; 102-53; 102-54)

The name of the organisation being reported on is Feralpi Group. It includes all the subsidiaries controlled by the parent Feralpi Holding S.p.A., with legal headquarters in Brescia, 15 Via Aurelio Saffi, and administrative headquarters in Lonato del Garda, Brescia, 11 Via Carlo Nicola Pasini. The Group is coordinated by Feralpi Holding S.p.A., which owns all its subsidiaries and associates in various forms, including sub-holdings, according to sectorial logic.

Following the issuing of European Directive no. 95/2014/EU and subsequent implementation in Italy with Legislative Decree 254 of 2016, concerning the disclosure of non-financial information, the Feralpi Group has, for the first time, decided to draw up the voluntary Non-Financial Statement for the year 2019 (1st January to 31st December). This document is available under the Sustainability section on the website www.feralpigroup.com/en/.

The **layout of this Report** has been slightly modified compared to that of previous editions, with the dual purpose of introducing a section regarding sustainability vision and strategy in the first chapter and complying with Legislative Decree 254/2016.

As part of the **engagement activity** promoted in September and October 2019, the **Group's materiality matrix** was also updated, in terms of both topics and prioritisation methodology, the aim being to transform the role of the matrix as a tool of reporting into one of strategy and vision. The topics have been updated, trying to reconcile the guidelines of the **Global Reporting Initiative** (GRI) with a more company-specific approach so as to make the matrix representative of the business and functional in accompanying strategic choices. Always from a strategic perspective, it was deemed important to assess the topics in terms of urgent/non-urgent intervention, risk/opportunity, so as to give relevance to issues that are urgent and take priority today for the Group and its stakeholders.

Each internal or external engaged stakeholder chose five topics out of a list of 20, which have priority in terms of risk/opportunity, urgency/non-urgency, and five considered of less priority. Each topic selected was then assigned a value identifying its importance.

The 'business' axis of the matrix is therefore the mathematical result of what was expressed by the interviewees, while for the 'stakeholder' axis, the mathematical results have been added with the different scores for stakeholders: 3 points for Employees and Collaborators, Shareholders and Investors, Customers; 2 points for Suppliers, Local Communities, Institutions; 1 point for Sales Agents, Business Sector and Market, and the Third Sector.

The aim of this methodology was to highlight the material topics that matter compared to relevant ones. The new matrix now presents 12 material topics.

Compared to 2018, the reporting scope of economic and social indicators includes **Ecoeternit S.r.l.**

As to the **2019 environmental indicators**, in addition to the four main operating companies, i.e. Feralpi Siderurgica S.p.A with Feralpi Holding S.p.a., based in Lonato del Garda (BS), Acciaierie di Calvisano S.p.A. in Viadana di Calvisano (BS), Fer-Par S.r.l. with Feralpi Profilati Nave S.r.l. in Nave (Brescia), ESF Elbe-Stahlwerke Feralpi GmbH with Feralpi Stahlhandel GmbH and Feralpi Logistik GmbH in Riesa, Saxony, as from this year reference is made to the most significant environmental indicators of the Italian production sites in Pomezia (Rome), Alzate Brianza (CO), Anzano al Parco (CO), Maclodio (BS), Borgaro Torinese (TO), Rivoli (TO), Saint-Soupplets in France, Kralupy in the Czech Republic and Czepel in Hungary, despite the little relevance in terms of environmental impact. The report does not include environmental data of Group companies without a production facility and with less than 15 employees. As regards Ecoeternit, which is based in Montichiari (Brescia) and runs a business different from that of the other above-listed companies, only some most significant environmental information is disclosed. Faeco Ambiente and Eco-Trading, non-operational companies and with no personnel employed, have not developed a governance model, a risk analysis or specific procedures.

This Report was drawn up in accordance with **GRI Standards**: Core option.

The scope of the Report coincides with that of the Feralpi Group's Consolidated Financial Statement as of at 31st December 2019. The consolidation criteria include all the subsidiaries and exclude associate companies. It is also specified that the incorporation of EDF Elbe-Drahtwerke Feralpi GmbH into ESF Elbe-Stahlwerke Feralpi GmbH, which occurred in 2019, is to be considered retroactive to 1st January 2019.

The following definitions are used in the Report:

- › the term Feralpi Group or Group refers to the group as a whole, including the scope of the parent company Feralpi Holding's Consolidated Financial Statement;
- › the term Feralpi Siderurgica refers to the combination of operations at the Lonato del Garda site;
- › the term Acciaierie di Calvisano refers to the combination of operations at the Calvisano site;
- › the term Feralpi Stahl refers to the combination of operations at the Riesa site.

As with previous editions, in accordance with the decision of the Board of Directors, the Company had this voluntary Non-Financial Statement audited by a leading external auditor.



**FOR MORE INFORMATION
ON THE NON-FINANCIAL STATEMENT,
PLEASE CONTACT
comunicazione@it.feralpigroup.com**

GRI CONTENT INDEX

(102-55)

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
GENERAL DISCLOSURE					
GRI 102 General Disclosure 2016	ORGANISATIONAL PROFILE				
	Disclosure 102-1 Name of the organisation	Methodology note			
	Disclosure 102-2 Activities, brands, products and services	1.2. Business vision and strategy			
	Disclosure 102-3 Location of headquarters	Methodology note			
	Disclosure 102-4 Location of operations	The Feralpi Group			
	Disclosure 102-5 Ownership and legal form	2.1. Governance structure: roles and responsibilities			
	Disclosure 102-6 Markets served	The Feralpi Group			
	Disclosure 102-7 Scale of the organisation	The Feralpi Group			
	Disclosure 102-8 Information on employees and other workers	9.3. Social indicators			
	Disclosure 102-9 Supply chain	7.1. Responsible management for a quality supply			
	Disclosure 102-10 Significant changes to the organisation and its supply chain	7.1. Responsible management for a quality supply			
	Disclosure 102-11 Precautionary Principle or approach	3.1. Management of environmental impacts			
	Disclosure 102-12 External initiatives	1.6. Stakeholder engagement			
	Disclosure 102-13 Membership of associations	1.6. Stakeholder engagement			
	STRATEGY				
Disclosure 102-14 Statement from senior decision-maker	Letter to the stakeholders				

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
GRI 102 General Disclosure 2016	ETHICS AND INTEGRITY				
	Disclosure 102-16 Values, principles, standards and norms of behaviour	2. Corporate organisation and ethical business management			
	GOVERNANCE				
	Disclosure 102-18 Governance structure	2.1. Governance structure: roles and responsibilities			
	STAKEHOLDER ENGAGEMENT				
	Disclosure 102-40 List of stakeholder groups	1.6. Stakeholder engagement			
	Disclosure 102-41 Collective bargaining agreements	6.3. Respecting human rights and providing equal opportunities			
	Disclosure 102-42 Identifying and selecting stakeholders	1.6. Stakeholder engagement			
	Disclosure 102-43 Approach to stakeholder engagement	1.6. Stakeholder engagement			
	Disclosure 102-44 Key topics and concerns raised	1.7. Materiality matrix			
	REPORTING PRACTICE				
	Disclosure 102-45 Entities included in the consolidated financial statements	Methodology note			
	Disclosure 102-46 Defining report content and topic boundaries	Methodology note 1.7. Materiality matrix			
	Disclosure 102-47 List of material topics	1.7. Materiality matrix			
	Disclosure 102-48 Restatement of information	Methodology note			
	Disclosure 102-49 Changes in reporting	Methodology note			
	Disclosure 102-50 Reporting period	Methodology note			
	Disclosure 102-51 Date of most recent report	Methodology note			
	Disclosure 102-52 Reporting cycle	Methodology note			
	Disclosure 102-53 Contact point for questions regarding the report	Methodology note			
	Disclosure 102-54 Claims of reporting in accordance with GRI Standards	Methodology note			
	Disclosure 102-55 GRI Content Index	GRI Content Index			
	Disclosure 102-56 External assurance	Audit report			

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
SPECIFIC DISCLOSURE					
GRI 200 ECONOMIC INDICATORS					
ECONOMIC PERFORMANCE					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	8.1. Economic sustainability and generated value			
	Disclosure 103-3 Evaluation of the management approach	8.1. Economic sustainability and generated value			
GRI 201 Economic performance 2016	Disclosure 201-1 Direct economic value generated and distributed	8.1. Economic sustainability and generated value 9.1. Economic indicators			
	Disclosure 201-4 Financial assistance received from government	8.1. Economic sustainability and generated value			
PROCUREMENT PRACTICES					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	7.1. Responsible management for a quality supply			
	Disclosure 103-3 Evaluation of the management approach	7.1. Responsible management for a quality supply			
GRI 204 Procurement practices 2016	Disclosure 204-1 Proportion of spending on local suppliers	8.2. Community inclusion			
ANTI-CORRUPTION					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	2.3. Preventing and tackling acts of corruption			
	Disclosure 103-3 Evaluation of the management approach	2.3. Preventing and tackling acts of corruption			
GRI 205 Anti-corruption 2016	Disclosure 205-3 Confirmed incidents of corruption and actions taken	2.3. Preventing and tackling acts of corruption			
ANTI-COMPETITIVE BEHAVIORS					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	2.2. Governance model and risk analysis			
	Disclosure 103-3 Evaluation of the management approach	2.2. Governance model and risk analysis			
GRI 206 Anti-competitive behaviour 2016	Disclosure 206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	2.2. Governance model and risk analysis			

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
GRI 300 ENVIRONMENTAL INDICATORS					
MATERIALS					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	4. Multiplying the use of materials: a commitment to the circular economy 4.1. Management methods, policies and procedures			
	Disclosure 103-3 Evaluation of the management approach	4. Multiplying the use of materials: a commitment to the circular economy 4.1. Management methods, policies and procedures			
GRI 301 Materials 2016	Disclosure 301-1 Materials used by weight or volume	9.2. Environmental indicators			
	Disclosure 301-2 Recycled input materials used				
ENERGY					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	3. Energy efficiency and environmental management in production processes 3.2. Energy efficiency			
	Disclosure 103-3 Evaluation of the management approach	3. Energy efficiency and environmental management in production processes 3.2. Energy efficiency			
GRI 302 Energy 2016	Disclosure 302-1 Energy consumption within the organisation	3.2. Energy efficiency 9.2. Environmental indicators			
	Disclosure 302-2 Energy consumption outside of the organization	9.2. Environmental indicators			
	Disclosure 302-3 Energy intensity	9.2. Environmental indicators			
WATER					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	4.2. Use of water and liquid emissions			
	Disclosure 103-3 Evaluation of the management approach	4.2. Use of water and liquid emissions			
GRI 303 Water 2016	Disclosure 303-3 Water recycled and reused	9.2 Environmental indicators			

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
EMISSIONS					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	3. Energy efficiency and environmental management in product processes 3.1. Management of environmental impacts			
	Disclosure 103-3 Evaluation of the management approach	3. Energy efficiency and environmental management in product processes 3.1. Management of environmental impacts			
GRI 305 Emissions 2016	Disclosure 305-1 Direct (Scope 1) GHG emissions	9.2. Environmental indicators			
	Disclosure 305-2 Energy indirect (Scope 2) GHG emissions	9.2. Environmental indicators			
	Disclosure 305-3 Other indirect (Scope 3) GHG emissions	9.2. Environmental indicators			
	Disclosure 305-4 GHG emissions intensity	3.1. Management of environmental impacts 9.2. Environmental indicators			
	Disclosure 305-7 Nitrogen oxides (NO _x), sulphur oxides (SO _x) and other significant air emissions	9.2. Environmental indicators			
EFFLUENTS AND WASTE					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	4. Multiplying the use of materials: a commitment to the circular economy			
	Disclosure 103-3 Evaluation of the management approach	4. Multiplying the use of materials: a commitment to the circular economy			
GRI 306 Effluentes and waste 2016	Disclosure 306-1 Water discharged by quality and destination	9.2. Environmental indicators			
	Disclosure 306-2 Waste by type and disposal method	9.2. Environmental indicators			
	Disclosure 306-3 Significant spills	4.2. Water resources and liquid emissions			
ENVIRONMENTAL COMPLIANCE					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	3.1. Management of environmental impacts			
	Disclosure 103-3 Evaluation of the management approach	3.1. Management of environmental impacts			

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
GRI 307 Environmental compliance 2016	Disclosure 307-1 Non-compliance with environmental laws and regulations	3.1. Management of environmental impacts			
SUPPLIER ENVIRONMENTAL ASSESSMENT					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	7.1. Responsible management for a quality supply			
	Disclosure 103-3 Evaluation of the management approach	7.1. Responsible management for a quality supply			
GRI 308 Supplier environmental assessment 2016	Disclosure 308-1 New suppliers that were screened using environmental criteria	7.1. Responsible management for a quality supply			
GRI 400 SOCIAL INDICATORS					
EMPLOYMENT					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	6. Enhancing people 6.1. Recruitment, training and development			
	Disclosure 103-3 Evaluation of the management approach	6. Enhancing people 6.1. Recruitment, training and development			
GRI 401 Employment 2016	Disclosure 401-1 New employee hires and employee turnover	6.1. Recruitment, training and development 9.3. Social indicators			
OCCUPATIONAL HEALTH AND SAFETY					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	5. Developing a safety culture			
	Disclosure 103-3 Evaluation of the management approach	5. Developing a safety culture			
GRI 403 Occupational Health and Safety 2016	Disclosure 403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	5. Developing a safety culture 9.3. Social indicators			
	Disclosure 403-3 Workers with high incidence or high risk of diseases related to their occupation	5. Developing a safety culture 9.3. Social indicators			

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
TRAINING AND EDUCATION					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	6.1. Recruitment, training and development			
	Disclosure 103-3 Evaluation of the management approach	6.1. Recruitment, training and development			
GRI 404 Training and education 2016	Disclosure 404-1 Average hours of training per year per employee	6.1. Recruitment, training and development 9.3. Social indicators			
DIVERSITY AND EQUAL OPPORTUNITY					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	6.3. Respecting human rights and providing equal opportunities			
	Disclosure 103-3 Evaluation of the management approach	6.3. Respecting human rights and providing equal opportunities			
GRI 405 Diversity and equal opportunity 2016	Disclosure 405-1 Diversity of governance bodies and employees	6.3. Respecting human rights and providing equal opportunities 9.3. Social indicators			
	Disclosure 405-2 Ratio of basic salary and remuneration of women to men	9.3. Social indicators			
HUMAN RIGHTS ASSESSMENT					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	6.3. Respecting human rights and providing equal opportunities			
	Disclosure 103-3 Evaluation of the management approach	6.3. Respecting human rights and providing equal opportunities			
GRI 412 Human rights assessment 2016	Disclosure 412-2 Employee training on human rights policies or procedures	6.3. Respecting human rights and providing equal opportunities			
SUPPLIER SOCIAL ASSESSMENT					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	7.1. Responsible management for a quality supply			
	Disclosure 103-3 Evaluation of the management approach	5. Developing a culture of safety 7.1. Responsible management for a quality supply			
GRI 414 Supplier social assessment 2016	Disclosure 414-1 New suppliers that were screened using social criteria	7.1. Responsible management for a quality supply			

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
MARKETING AND LABELLING					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	7. Providing a quality product and service - managing supply and customer relationships			
	Disclosure 103-3 Evaluation of the management approach	7. Providing a quality product and service - managing supply and customer relationships			
GRI 417 Marketing and labelling 2016	Disclosure 417-1 Requirements for product and service information and labelling	7. Providing a quality product and service - managing supply and customer relationships			
	Disclosure 417-2 Incidents of non-compliance concerning product and service information and labelling				
OTHER MATERIAL TOPICS					
DIGITAL AND TECHNOLOGICAL INNOVATION					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	3. Energy efficiency and environmental management in production processes 6.1. Recruitment, training and development 7. Providing a quality product and service - managing supply and customer relationships			
	Disclosure 103-3 Evaluation of the management approach	3. Energy efficiency and environmental management in production processes 6.1. Recruitment, training and development 7. Providing a quality product and service - managing supply and customer relationships			

GRI STANDARDS	DISCLOSURE	PAGE	OMISSIONS		
			OMISSIONS	REASONS	EXPLANATION
HEALTH AND WELL-BEING					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	6.2. Investing in health and well-being			
	Disclosure 103-3 Evaluation of the management approach	6.2. Investing in health and well-being			
INCLUSIVE, CULTURAL AND ECONOMIC LOCAL DEVELOPMENT					
GRI 103 Management Approach 2016	Disclosure 103-1 Explanation of the material topic and its boundary	1.7. Materiality matrix			
	Disclosure 103-2 Management approach and its components	8.2. Community inclusion			
	Disclosure 103-3 Evaluation of the management approach	8.2. Community inclusion			

AUDIT REPORT

(102-56)

Independent auditors' report on the voluntary consolidated disclosure of non-financial information in accordance with Article 3, par. 10, of Legislative Decree 254/2016 and with Article 5 of CONSOB Regulation adopted with Resolution n. 20267 of January 18, 2018

(Translation from the original Italian text)

To the Board of Directors of
Feralpi Holding S.p.A.

We have been appointed to perform a limited assurance engagement pursuant to article 3, paragraph 10, of Legislative Decree December 30, 2016, n. 254 (hereinafter "Decree") and article 5 of CONSOB Regulation adopted with Resolution 20267/2018, on the voluntary consolidated disclosure of non-financial information of Feralpi Holding S.p.A. and its subsidiaries (hereinafter the "Group" or "Feralpi Group") for the year ended on December 31, 2019, in accordance with article 4 and article 7 of the Decree, and approved by the Board of Directors on May 27, 2020 (hereinafter "DNF").

Responsibilities of Directors and Board of Statutory Auditors for the DNF

The Directors are responsible for the preparation of the DNF in accordance with the requirements of articles 3 and 4 of the Decree and the "Global Reporting Initiative Sustainability Reporting Standards" defined in 2016 by GRI - Global Reporting Initiative ("GRI Standards"), identified by them as a reporting standard.

The Directors are also responsible, within the terms provided by law, for that part of internal control that they consider necessary in order to allow the preparation of the DNF that is free from material misstatements caused by fraud or not intentional behaviors or events.

The Directors are also responsible for identifying the contents of the DNF within the matters mentioned in article 3, par. 1, of the Decree, considering the business and the characteristics of the Group and to the extent deemed necessary to ensure the understanding of the Group's business, its performance, its results and its impact.

The Directors are also responsible for defining the Group's management and organization business model, as well as with reference to the matters identified and reported in the DNF, for the policies applied by the Group and for identifying and managing the risks generated or incurred by the Group.

The Board of Statutory Auditors is responsible, within the terms provided by the law, for overseeing the compliance with the requirements of the Decree.

Auditors' independence and quality control

We are independent in accordance with the ethics and independence principles of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, based on fundamental principles of integrity, objectivity, professional competence and diligence, confidentiality and professional behavior. Our audit firm applies the International Standard on Quality Control 1 (ISQC Italia 1) and, as a result, maintains a quality control system that includes

documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable laws and regulations.

Auditors' responsibility

It is our responsibility to express, on the basis of the procedures performed, a conclusion about the compliance of the DNF with the requirements of the Decree and of the GRI Standards. Our work has been performed in accordance with the principle of "International Standard on Assurance Engagements ISAE 3000 (Revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information" (hereinafter "ISAE 3000 Revised"), issued by the International Auditing and Assurance Standards Board (IAASB) for limited assurance engagements. This principle requires the planning and execution of work in order to obtain a limited assurance that the DNF is free from material misstatements. Therefore, the extent of work performed in our examination was lower than that required for a full examination according to the ISAE 3000 Revised ("reasonable assurance engagement") and, hence, it does not provide assurance that we have become aware of all significant matters and events that would be identified during a reasonable assurance engagement.

The procedures performed on the DNF were based on our professional judgment and included inquiries, primarily with company's personnel responsible for the preparation of the information included in the DNF, documents analysis, recalculations and other procedures in order to obtain evidences considered appropriate.

In particular, we have performed the following procedures:

1. analysis of the relevant matters in relation to the activities and characteristics of the Group reported in the DNF, in order to assess the reasonableness of the selection process applied in accordance with the provisions of article 3 of the Decree and considering the reporting standard applied;
2. analysis and evaluation of the criteria for identifying the consolidation area, in order to evaluate its compliance with the provisions of the Decree;
3. comparison of the economic and financial data and information included in the DNF with those included in the Feralpi Group's consolidated financial statements;
4. understanding of the following aspects:
 - Group's management and organization business model, with reference to the management of the matters indicated in the article 3 of the Decree;
 - policies adopted by the Group related to the matters indicated in the article 3 of the Decree, results achieved and related key performance indicators;
 - main risks, generated or suffered related to the matters indicated in the article 3 of the Decree.

With regard to these aspects, we obtained the documentation supporting the information contained in the DNF and performed the procedures described in item 5. a) below.

5. understanding of the processes that lead to the generation, detection and management of significant qualitative and quantitative information included in the DNF.

In particular, we have conducted interviews and discussions with the management of Feralpi Holding S.p.A. and with the personnel of Feralpi Siderurgica S.p.A. and we have performed limited documentary evidence procedures, in order to collect information about the processes

and procedures that support the collection, aggregation, processing and transmission of non-financial data and information to the management responsible for the preparation of the DNF.

Furthermore, for significant information, considering the Group activities and characteristics:

- at Group level
 - a) with reference to the qualitative information included in the DNF and in particular to the business model, policies implemented and main risks, we carried out inquiries and acquired supporting documentation to verify its consistency with the available evidence;
 - b) with reference to quantitative information, we have performed both analytical procedures and limited assurance procedures to ascertain on a sample basis the correct aggregation of data.
- for ESF Elbe-Stahlwerke Feralpi GmbH (production site of Riesa, Germany) and Nuova DE.FI.M. S.p.A. (production site of Anzano Del Parco Alzate Brianza, Italy), that we have selected based on their activities, relevance to the consolidated performance indicators and location, we have carried out interviews during which we have had discussions with management and have obtained evidence about the appropriate application of the procedures and the calculation methods used to determine the indicators.

Conclusions

Based on the procedures performed, nothing has come to our attention that causes us to believe that the DNF of the Feralpi Holding S.p.A. Group for the year ended on December 31, 2019 has not been prepared, in all material aspects, in accordance with the requirements of articles 3 and 4 of the Decree and the GRI Standards.

Other aspects

For the year ended on December 31, 2018, the Group has prepared a Sustainability Report, whose figures have been used for comparative purposes within the DNF itself. The Sustainability Report has been subjected, on a voluntary basis, to a limited assurance engagement according to the ISAE 3000, performed by EY who expressed conclusions without any finding.

Brescia, June 1, 2020

EY S.p.A.

Signed by: Stefano Colpani, Partner

This report has been translated into the English language solely for the convenience of international readers.

For more information on the Non-Financial Statement,
please contact **comunicazione@it.feralpigroup.com**.

The document is available under the Sustainability section
on the website **www.feralpigroup.com/en**.

Graphic design and layout: GBF® [www.gbf.it]

Finished printing in June 2020 on 100% biodegradable recycled
Shiro Echo ecological paper





Feralpi Holding S.p.A.

REGISTERED OFFICE

Via Aurelio Saffi, 15
25122 Brescia, Italy

ADMINISTRATIVE HEADQUARTERS

Via Carlo Nicola Pasini, 11
25017 Lonato del Garda - Brescia, Italy
T. (+39) 030 9996.1

www.feralpigroup.com