



PITTINI
STEEL AHEAD

||| PITTINI

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Welcome
to the world
of high-tech
steel

Pittini Group

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TO QUALITY

Ever-forwards.

A story of innovation



After collecting and trading scrap for a while, **Cav. Andrea Pittini** first starts drawing mill.

The installation of one of the most advanced **wire rod rolling mills** of the time initiates the process of control of the whole production cycle, granting the quality of the final products.

Completion of the **first electric arc furnace** in Osoppo. The group achieves full autonomy during the whole production chain, from raw material to finished product.

New takeovers lead to the process development: **Pittarc**, a welding wire specialist, joins the group – later becoming a division of Siat.

The group is the first to introduce **high-ductility steel (PITTINI HD)** for concrete reinforcement. This product innovation changes the building industry, meeting anti-seismic requirements long before they were introduced.






Inauguration of **Officina Pittini per la Formazione**, one of the first corporate schools in Italy.

The group acquires a majority shareholding in **Bstg**, an Austrian company in the forefront of electro-welded wire mesh production, with two plants, in Linz and Graz.



Launching of the **Master Plan** for the complete revamping of Acciaierie di Verona: one of the historic sites of the Italian steel industry is renovated and enhanced through the creation of a revolutionary and technologically advanced wire rod rolling mill.

1955	1971	1975	1982	1997	2003	2013	2016
1961	1972	1976	1990	2002	2007	2015	2019
<p>Metallurgiche Pittini becomes the first company to manufacture lattice girders in Italy, helping to revolutionize the building industry and launching prefabricated industrial production. In 1967 the production of electro-welded wire mesh is started.</p>	<p>Acquisition of Siat, a company specializing in drawn steel products for use in mechanical engineering.</p>	<p>On 6 May, a massive earthquake destroys the group's plants, causing several casualties. The resilience of our employees enables the company to return to business in a remarkably short time and the Group immediately begins to expand again.</p> 	<p>The bar rolling mill is installed in Osoppo. In 1992 the group acquires La Veneta Reti, a company specialized in the manufacture of special electro-welded products. These two steps serve consolidate the group's leadership in the production of steel for the building industry.</p>	<p>Opening of the first plant in the world producing Jumbo®, Pittini's exclusive hot-rolled rebars in coils. Siderpotenza, subsequently renamed Ferriere Nord-Potenza, joins the group.</p> 	<p>Acquisition of the Slovenian Kovinar, a company specializing in the production of electro-welded wire mesh for the Balkan market.</p>	<p>The Jumbo® plant undergoes complete renovation to enable the production of rebars for concrete reinforcement in 5-ton coils. The takeover of Acciaierie di Verona is completed.</p> 	<p>Green Steel, a project designed to reduce the environmental impact of steel production through an innovative technology, is launched at the Potenza plant.</p>

Key figures

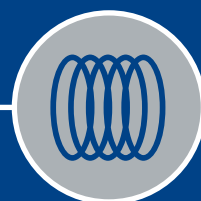
Turnover

€ 1,5
billion



Production

3 million
tonnes



Plants

18



Countries served

60



Employees

1.800



Data updated at January 2020

Overview

Ferriere Nord

Osoppo (UD)
Italy

- Meltshop with electric arc furnace
- Wire rod rolling mill
- Rebar rolling mill
- Electro-welding wire mesh plant
- Stretching wire rod plant

Ferriere Nord

Potenza
Italy

- Meltshop with electric arc furnace
- Rebar rolling mill

Acciaierie di Verona

Verona
Italy

- Meltshop with electric arc furnace
- Wire rod rolling mill
- Stretching wire rod plant

Ferriere Nord

Nave (BS)
Italy

- Electro-welding wire mesh plant

La Veneta Reti

Loreggia (PD)
Italy

- Electro-welding wire mesh plant
- Cold wire drawing plant

Bstg

Linz
Austria

- Electro-welding wire mesh plant

Bstg

Graz
Austria

- Electro-welding wire mesh plant

Kovinar

Jesenice
Slovenia

- Electro-welding wire mesh plant

Siat

Gemona del Friuli
(UD) Italy

- Cold drawn wire and flat production

Pittarc

Division of Siat
Gemona del Friuli
(UD) Italy

- Welding wire production

Siderpotenza

Ceprano (FR)
Italy

- Distribution centre

Pittini Stahl

Aichach
Germany

- Distribution centre

Pittini Siderprodukte

Geroldswil
Switzerland

- Sales office

Pittini Hungary

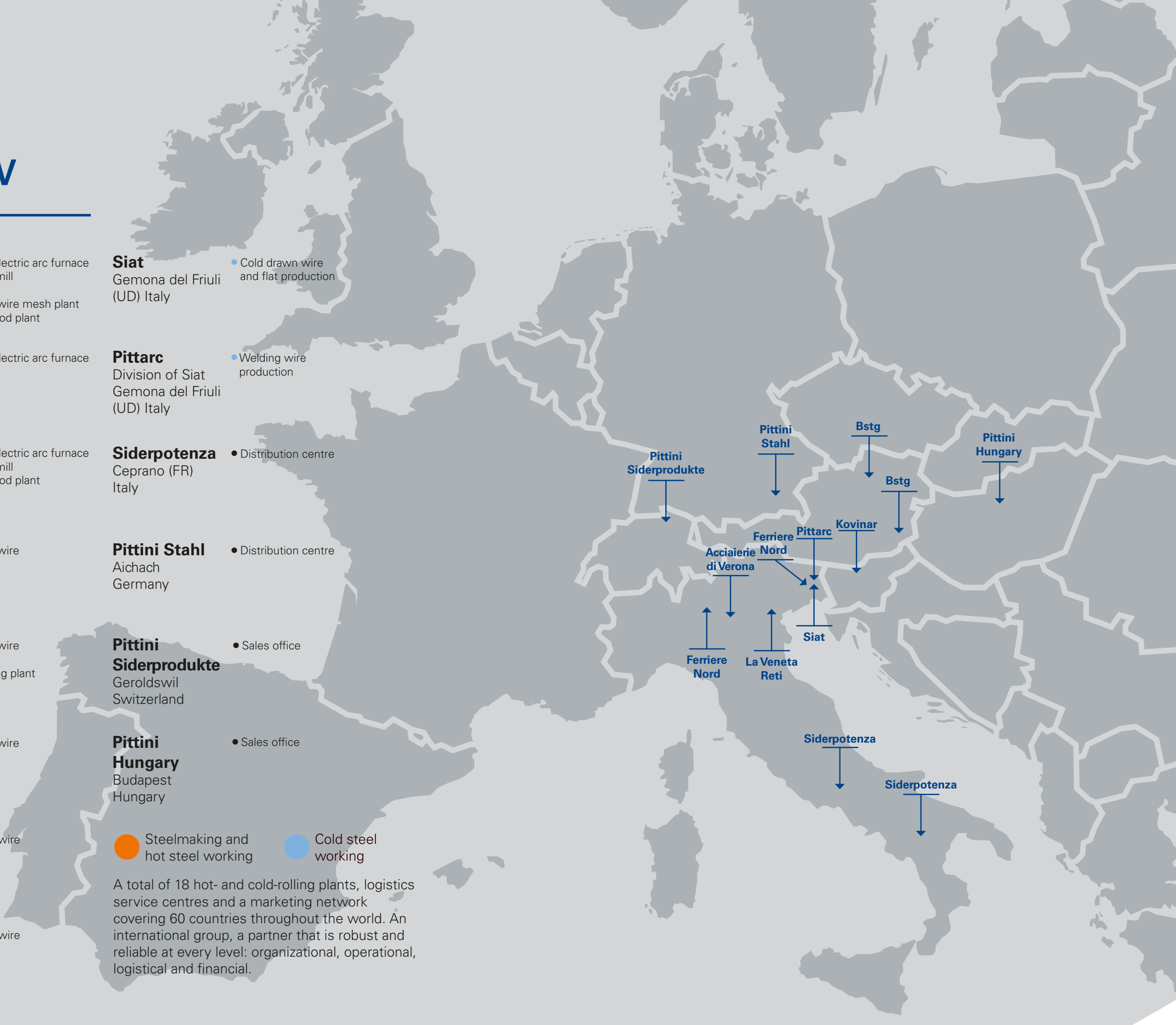
Budapest
Hungary

- Sales office

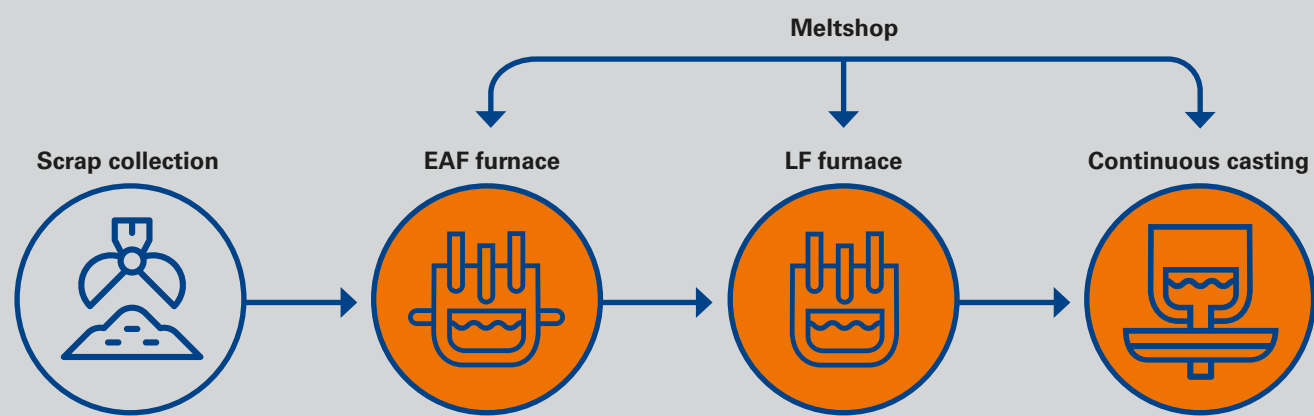
● Steelmaking and hot steel working

● Cold steel working

A total of 18 hot- and cold-rolling plants, logistics service centres and a marketing network covering 60 countries throughout the world. An international group, a partner that is robust and reliable at every level: organizational, operational, logistical and financial.

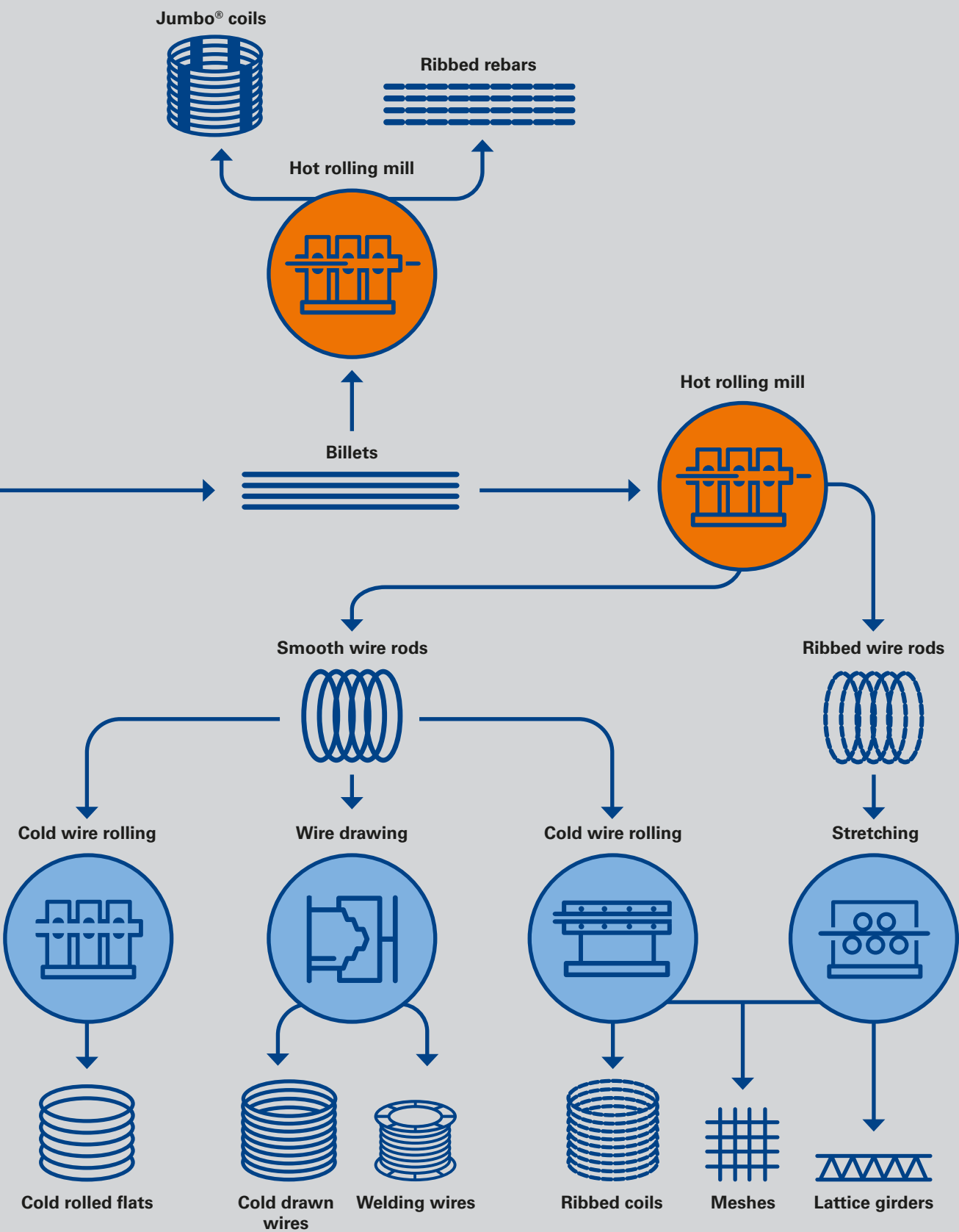


Our production process



The Pittini Group covers the entire production cycle, from raw material (recycled ferrous materials) to the finished product, manufacturing billets, wire rods and rolled rebars and coils for concrete reinforcement. The wire rods undergo a further process: they are turned into electro-welded products for the building industry – such as mesh and lattice girders – or into rolled and

drawn products for mechanical engineering, or welding wire production. Our experience and understanding of every single step in the steel-making process during the whole production is an undisputed strong point of the Pittini system, which assures high quality of the finished products and reliability for our clients.



A constant commitment to quality

The Pittini Group's quality-control laboratory has been awarded UNI CEI EN ISO IEC 17025:2018 accreditation, which acknowledges the technical skills of the workforce, the high standard of the equipment and the independence of the workshop's operations.

The accreditation was conferred by Accredia, the Italian accreditation body and signatory of the ILAC MRA, which is designed to provide international recognition of local certifications, inspections and verification, making them valid all over the world.



The laboratory performs the following analyses:

- Chemical analyses, including spectrometry and wet chemistry analysis to establish the chemical characteristics of the steels and most of the strategic materials;
- Mechanical tests, mainly aimed at determining the strength and ductility of the steels;
- Metallographic tests, including analysis of the steel's grain structure, phase and inclusion status;
- Geotechnical tests, designed to monitor the production process and the quality of the Granella®, an aggregate for asphalt and concrete reinforcement.



Products and applications

Our steel is designed and produced to suit the specific requirements of the companies operating in the **building** and **mechanical engineering industries**. Our main strength is the **sustained quality** of our solutions, whose reliability is assured by a production system that includes a careful monitoring throughout the production process, from the raw material to the finished product. Wire rod, rolled bars for concrete reinforcement in rebars and coils, electro-welded wire mesh, lattice girders, cold-drawn and rolled steel products, welding wires and solutions for road surfaces: a broad and highly specialized range that only a large industrial group with invaluable know-how can provide.

Wire Rod

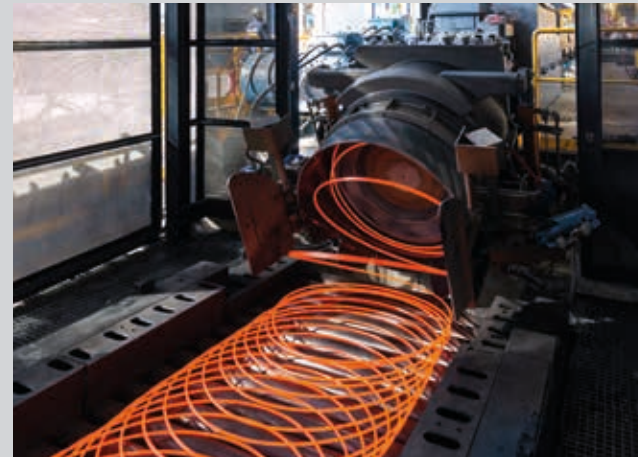
The wire rod produced in the Pittini Group's rolling mills in Osoppo and Verona is used in the mechanical engineering and building industries and is subsequently turned into the most varied products and components in daily use.

We manufacture wire rod in steel grades with various carbon content for a number of applications, such as:

- wires and cold-rolled and -drawn products (flats and section bars);
- hot dip galvanized wires and drawn products;

and for the production of:

- electro-welded steel for reinforced concrete;
 - braid and strand steel for pre-stressed reinforced concrete;
 - welding wires;
 - wires for tyre reinforcement;
 - mechanical springs, nails and braces;
- as well as for certified use in mechanical engineering and metal carpentry, conforming to the S235JR standard.



Steels for the building industry

The Pittini Group's range of steels for reinforced concrete is among the most complete on the market and is able to satisfy every kind of building requirement through standard and customer designed products.

We supply **rebars and rebars in coils** in different grades of steel, depending on the local requested standard, which are ready for further processing and use on site. In 2002 Pittini Group became the first producer of 2.5 tons hot-rolled rebars in coils, creating a new standard in the industry with **Jumbo®**, our rebars in coils which have also been available in a **5 tons** bundle since 2015, to better meet the logistical and production requirements of our partners.

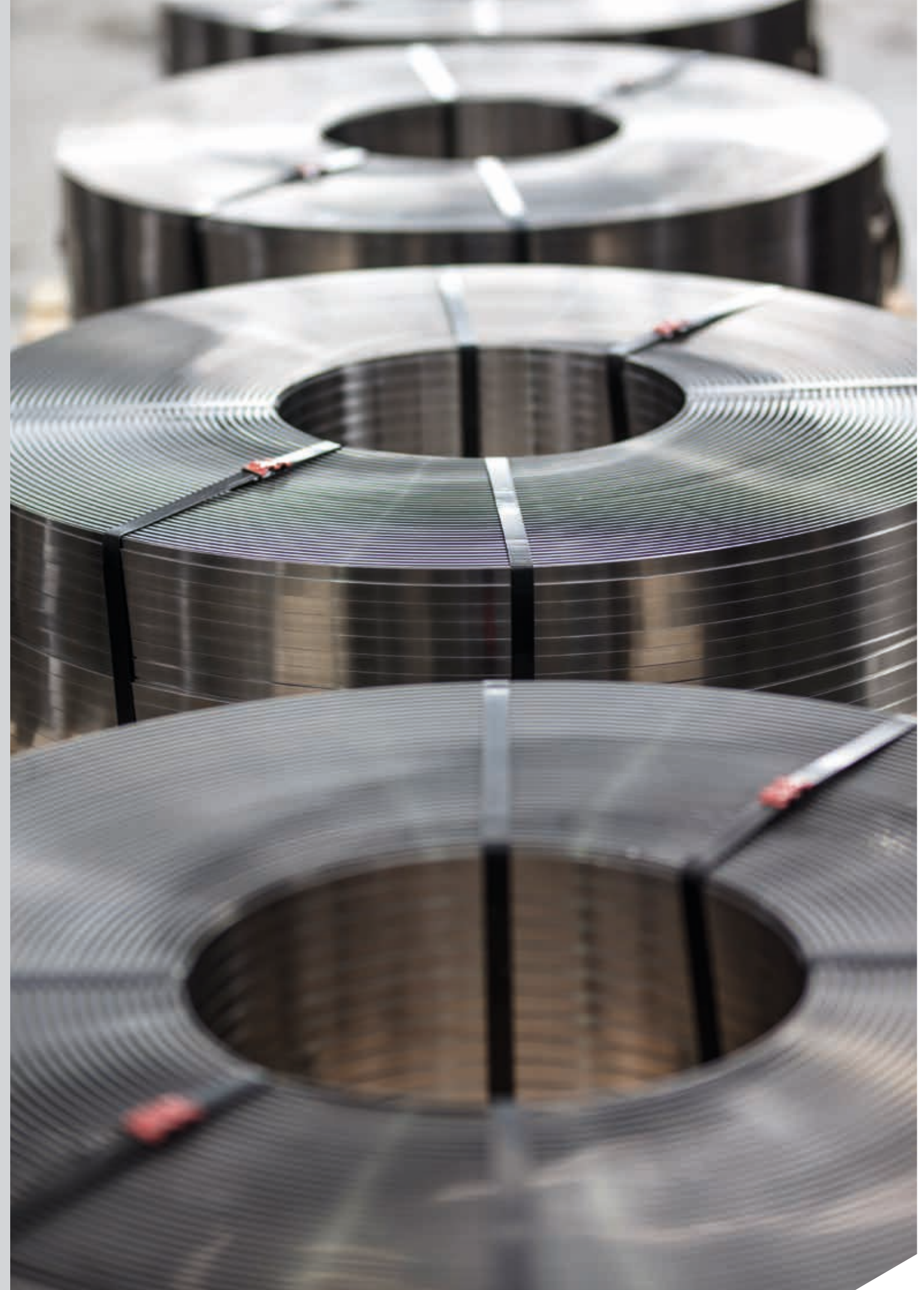
With its six plants located in three countries, Pittini Group is also a market **leader in the production of electro-welded meshes**, made according to the technical standards required in each European country. The range stretches from standard formats to customized articles for specialized applications, such as mesh for reinforced soils, shaped meshes for tunnels, flat and shaped meshes for prefabricated units and pillars, uni-directional wire mesh and **electro-welded lattice girders**.



Cold-drawn and rolled steels

The process of vertical integration of the production chain has led the Pittini Group to acquire **Siat**, a company specializing in drawn steel products and one of the leading manufacturers of flats and cold-rolled profiles. SIAT is a well-known trademark in the casings and windows industry, especially with regard to flats and rolled profiles for Tilt&Turn hardware systems. Other applications are the white goods, automotive and building industries. Their versatility is such that SIAT **rolled flat products** are employed in the production of enamelled grids for cooktops, as well as to reinforce and protect submarine cables. Siat also manufactures special quality steel and cold-rolled flats specifically to make spacers for the building industry.

Bright drawn wire is used to make industrial display units and containers, metal hangers, furnishing components and accessories for the furniture industry, chrome- and plastic-finished wire grids for white goods, supermarket trolleys and industrial gratings, screws and small mechanical components for the automotive industry. **Twisted wire** is used for pedestrian safety grids.



Welding wires

PITTARC, a division of Siat, is the Pittini Group's trademark for welding products. We offer a highly specialized range of products, including gas metal arc welding wire (**GMAW**), submerged arc welding wire (**SAW**) for the mechanical engineering industry, pressurized containers and piping for use in the energy industry and in light and heavy carpentry. The development of the very latest technology and plants ensures that products of extremely high quality are produced to be suitable even for the most complex applications.

GMAW wire is produced using wire rod with a very low content of gas and impurities in order to obtain joints with outstanding mechanical properties and strength at low temperatures. The range available is suitable for welding carbon steel and low-alloy steel and has a wide range of applications, from medium-heavy metal carpentry to the automotive industry.

All wires are available in a copper-plated version and in **GREEN-ARC** non copper-plated variants, as well as in the **INNOV-ARC** improved sliding form, which is the result of the research and development that distinguishes the PITTARC brand.

SAW wires are manufactured by means of an exclusive and highly innovative process employed in a state-of-the-art production plant. Over twenty different types are available for welding carbon steel and low-alloy steel.



Products for road paving

The Pittini Group was one of the first steel producers to reconsider the production cycle as part of the circular economy, finding fresh uses for any steel slag residues. The composition of the steel slag was carefully analysed and an accurate research identified how it could be turned into a product in its own right. Patented under the name of **Granella®** in 2009, this material's excellent physical and mechanical characteristics make it an ideal component of road asphalts. Granella® is used as an alternative to finer natural aggregates, such as basalt, diabase and porphyry. In this way, millions of tons of steel slag that otherwise should be dumped as industrial waste, have instead become an invaluable component in various contexts, replacing natural materials obtained by mining, with clear benefits for the environment.

The Granella® produced at the Osoppo plant (UD) has been awarded **EPD (Environmental Product Declaration) certification**. It is the very first aggregate obtained from steel slag, and with an EPD certification. Other solutions for road infrastructure include the use of **Reflex** electro-welded wire mesh to reinforce asphalt road surfaces and **Baustrada®** PITTINI lattice girders to build flat-slab structures, such as bridge decks and viaducts.



Environment, safety, education

Environmental sustainability has always provided a strategic impetus to generate innovation and growth in our companies. Ensuring the production of sustainable steel means constantly seeking a balance between the efficiency of the processes, the quality of the products and the safeguarding of the areas we operate in, putting first the safety, training and wellbeing of our employees at the workplace.

Zero waste in this context means that the Pittini Group's steel production does not generate unused slag; instead, material is recycled so as to reduce the amount of energy wasted and to create new use possibilities. A good example of this process is Granella®,

quest for constant improvement.
In collaboration with international institutions
and universities, with which it shares its
industrial expertise, the Pittini Group takes part in
numerous European research projects aimed at
sustainable development.



The diagram illustrates a circular flow process for steel recycling. It begins with 'Scrap collection' (represented by a pile of scrap metal icon), which leads to the 'EAF furnace' (represented by a furnace icon). From the 'EAF furnace', the process moves to the 'LF furnace' (represented by a furnace icon). The 'LF furnace' produces 'Steel' (represented by a coil of steel icon) and 'LF slag' (represented by a pile of slag icon). The 'Steel' is then used in 'Manufacturing' (represented by a factory icon). The 'Manufacturing' stage produces 'Use and reuse' (represented by a building icon) and 'EAF Slag' (represented by a pile of slag icon). The 'EAF Slag' is then used in 'Manufacturing' (represented by a factory icon). The 'Manufacturing' stage produces 'Basalt' (represented by a pile of basalt rocks icon) and 'Granella®' (represented by a pile of granella rocks icon). The 'Basalt' is then recycled back into the 'Scrap collection' stage. The 'Granella®' is also recycled back into the 'Scrap collection' stage. The 'Recycle' icon (a circular arrow) is shown next to the 'Basalt' and 'Granella®' icons, indicating their recycling status. The 'Recycle' icon is also shown next to the 'Steel' icon, with a '77%' label, indicating the recycling rate for steel. The 'Recycle' icon is also shown next to the 'Granella®' icon, with a '100%' label, indicating the recycling rate for Granella®.

Safety

Making prevention is a cornerstone of our approach in order to provide a safe and healthy working environment. This is the principle governing the Pittini Group's safety policy. Besides observing all the regulations in this regard, we ensure constant commitment in the search for the best technical and operational solutions to minimize risks. As a result we can aim for specific objectives and target constant improvements. We ensure all safety standards are met through the active participation and continuous training of the workforce, as part of the ever-present purpose of increasing employees' awareness of risks in the workplace, encouraging the adoption of the appropriate protective measures and promoting a sense of personal responsibility. Health and safety at work are prime concerns to which we give absolute priority every day.



Education

Training is one of the pillars on which the Pittini Group's philosophy of growth rests, whether it be internal and applied to our own employees, or in a general sense as an activity that builds the skills the company requires in the areas where our plants are situated. This was the spirit animating the creation of the "Officina Pittini per la Formazione" corporate school in 2003. This not-for-profit institution has been accredited by the Direzione Formazione della Regione Autonoma FVG (Friuli - Venezia Giulia Autonomous Region Training Directorate).

"Officina Pittini per la Formazione" is an ideal learning environment, where knowledge is exchanged and the skills required to fuel the company's constant process of innovation is developed or updated.

Over the years, the training centre has built a widespread network of relations with the local social and business community. This successfully combines the world of work with the training and educational system, with the aim of promoting the spread of a modern business culture and boosting the training process in support of the technological innovation that is underway.

Our philosophy

Change is our daily challenge. Our point of view keeps changing because we firmly believe the way we work, the way we produce and create value can constantly improve. We aim to be a reliable organization for our clients, employees and the communities we operate in. We make innovation the lynchpin of our development strategy, which is based on process sustainability. People are at the heart of the continuous improvement of our business.



A reliable partner

Our approach with the customers aims to build a solid partnership, based on our ability to generate value, inspire confidence and provide the best solutions possible in all situations.

Guided by innovation

Innovation and the willingness to embrace change are part of our DNA. We constantly invest in research and in the latest technologies to introduce innovative products and production processes, steering our business's development towards the best procedures to safeguard the environment and the workplace.

People at the core

The quality of what we do reflects the quality of the people who work with us. The continuous training of our employees along with their skills enhancement are key elements in preserving our unique and distinctive know-how.

Every day our people turn the special into normal: they are our most precious capital.



||| PITTINI

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