Sustainibility report
2021

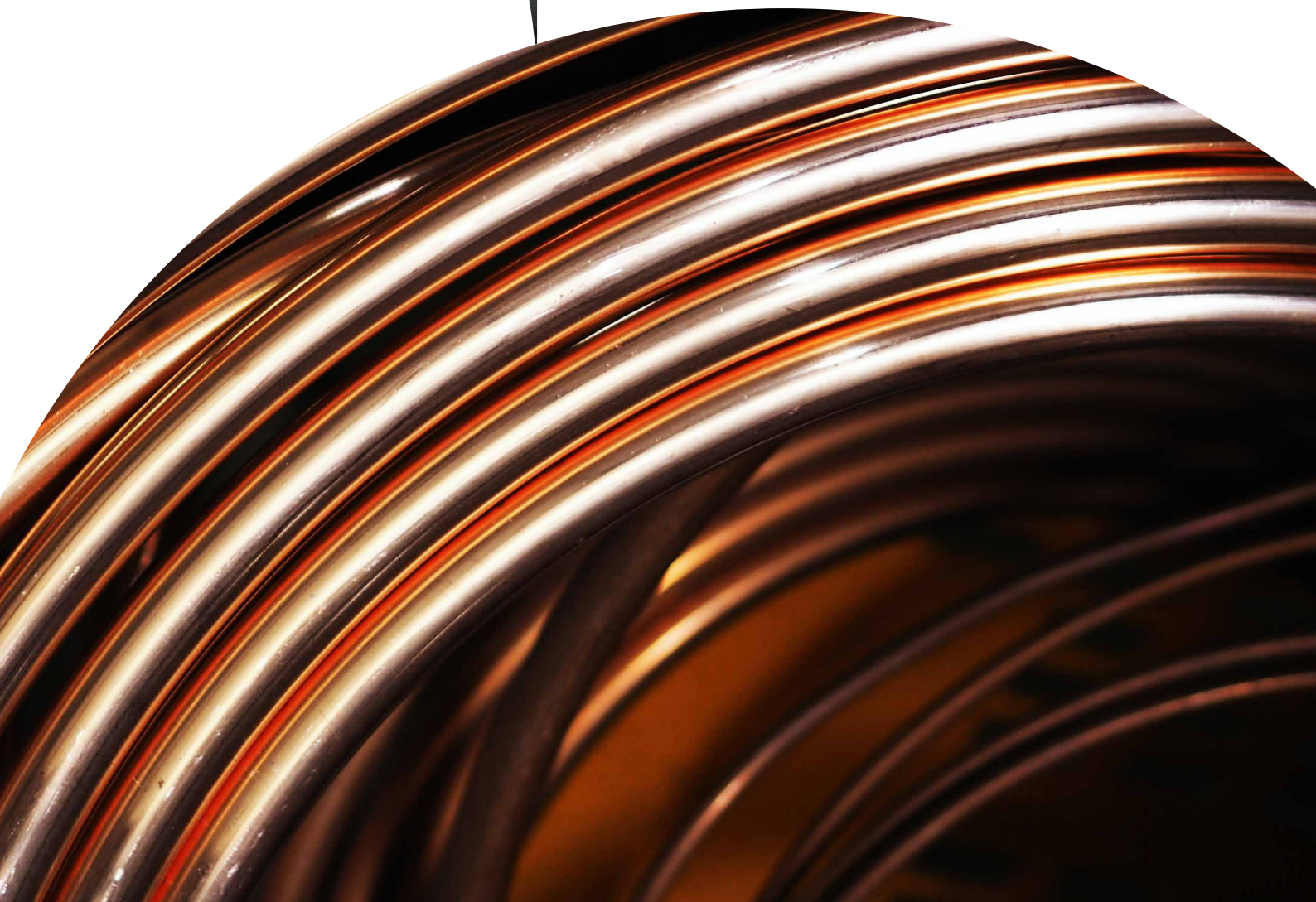
KME

Plant
Fornaci di Barga
KME ITALY - EM MOULDS

Service Centre
Besançon
KME ROLLED FRANCE

Service Centre
Barcelona
KME SPAIN

Service Centre
Brescia
ILNOR



Sustainability Report **2021**

KME

Plant
Fornaci di Barga
KME ITALY- EM MOULDS

Service Centre
Besançon
KME ROLLED FRANCE

Service Centre
Barcelona
KME SPAIN

Service Centre
Brescia
ILNOR

Photo credits
KME internal images
Pixabay
PxHere
Pexels
Unsplash

Index

1 Report Guide

KME Group reports
Now in its fifth edition, we are further broadening the scope of the activities surveyed. The first report, five years ago, only covered the KME Italy plant in Fornaci di Barga, the second included the service centres in Besançon in France and Barcelona in Spain. The third year saw the report of KME Mansfeld GmbH and then, last year, that of the Osnabrück KME Germany plant. This year, the reporting activities also include the SCT plant in Serravalle (AL), the ILNOR Service Centre in Brescia and the KMD plant in Stolberg. The report of the Brescia plant is included in that of KME ITALY.
It is a further step towards reporting extended to the entire KME Group. For this reason, already in this edition, the sustainability reports are structured partially differently from previous years. The individual reports that account for the production activities of plants and service centres are complemented by a general report, which provides an overview of the KME Group and the context in which it operates.

A voluntary act of transparency and social responsibility
The decision to produce and publish a Sustainability Report is not a legal obligation for KME, but an expression of a strong focus on corporate social responsibility (CSR) and ESG criteria, as well as a concrete commitment to ecological transition and the circular economy.

Methodology
The Sustainability Report was drawn up on the basis of the guidelines of the **Global Reporting Initiative** (GRI), an independent international organisation recognised by the UN and the main reference for sustainability reporting activities worldwide.

Indicators
To report on company activities and performance, the sustainability report uses four groups of indicators with reference to GRI standards:

- **information** on *governance*;
- **environmental indicators**, covering the main environmental aspects and in particular energy, the materials used, waste, water, emissions;
- **social indicators**, concerning the main social aspects and in particular employees, safety, training, equal opportunities, supplies, relations with the territory;
- **economic indicators**, concerning the main economic data* and the added value distributed to key stakeholders.

**Complete data can be found in the companies' annual financial statements.*

In addition to reporting on the basis of GRI standards, the report also contains **circularity indicators** that measure corporate performance against the principles of the **circular economy**.

Reporting perimeter
Together with the plant in Fornaci di Barga, where KME Italy and EM Moulds operate, the report includes the Service Centres in Barcelona (Spain) and Besançon (France), as part of an integrated system, as well as the Ilnor plant in Brescia from this edition of the report.

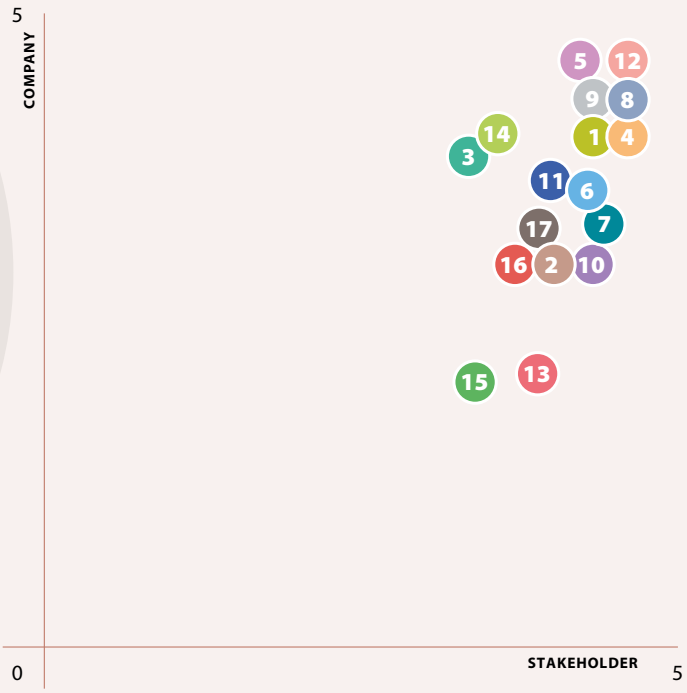
The report also provides, by means of special boxes, information and evaluations to contribute to the understanding of the context within which the company operates and to delve into specific topics.

Reference period
This sustainability report covers the **year 2021**. Figures for 2019 and 2020 are also shown to allow a comparison of the performance of the main indicators over the last three years. For the Brescia Ilnor Service Centre only, the period reported runs from June 4th, the date of the company's operational start-up, to December 31st.

Materiality matrix
The materiality matrix, drawn up on the basis of a consultation of key stakeholders and company management, highlights the issues considered most relevant for the preparation of the sustainability report.

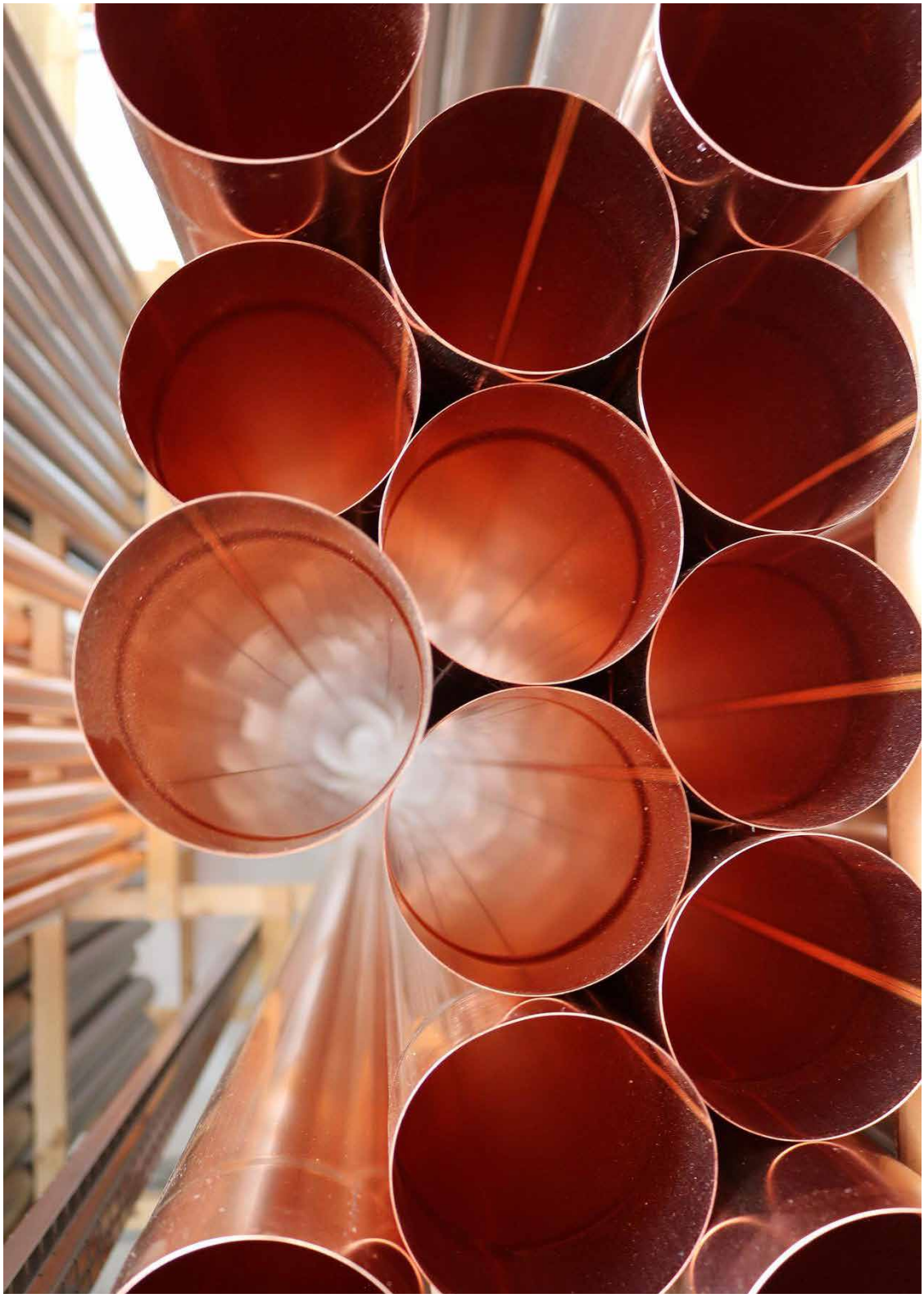
Materiality matrix

1 ECONOMICS
2 SUPPLIERS
3 ENVIRONMENT
4 RAW MATERIALS
5 ENERGY
6 WATER
7 BIODIVERSITY
8 EMISSIONS
9 WASTE
10 TRANSPORT IMPACT
11 WORKING PRACTICES
12 HEALTH AND SAFETY
13 EQUAL OPPORTUNITIES
14 TRAINING
15 HUMAN RIGHTS
16 IMPACTS ON LOCAL COMMUNITY
17 PRODUCT LIABILITY



Sustainability Targets
Company activities and performance are also reported with reference to the **sustainability goals** of the UN 2030 Agenda.

2 Companies



Establishment
Fornaci di Barga (Lucca)

	tonnes	employees
KME Italy Production of laminates and copper alloys	75,701	488
EM Moulds Production of ingot moulds and components in copper alloys	561	54
Total	76,262	542

Service Centre
Besançon
KME ROLLED FRANCE

tonnes	employees
9,110	22

Service Centre
Brescia
ILNOR

tonnes	employees
7,417	55

Service Centre
Barcelona
KME SPAIN

tonnes	employees
2,902	19

2.1 KME Italy Fornaci di Barga plant

Two different companies operate within the Fornaci di Barga (Lucca) plant:

KME Italy S.p.a.

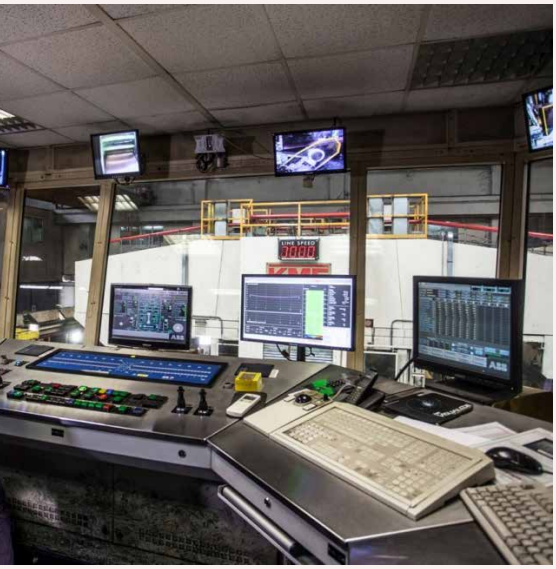
It produces copper and copper alloy rolled products. A wholly-owned subsidiary of KME SE, it owns the buildings and land on the site and holds the authorisations (AIA).

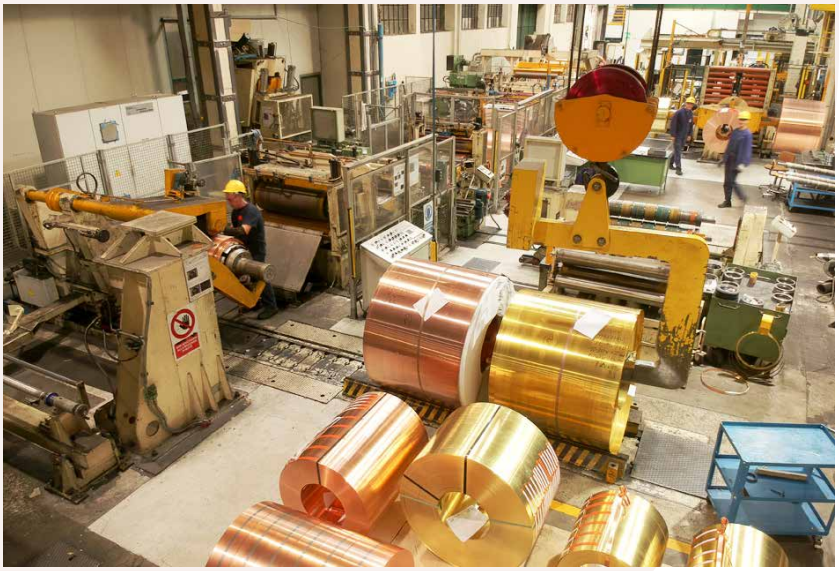
EM Moulds S.p.a.

It produces copper ingot moulds for continuous steel casting. Since June 2021, the company is 55% owned by Paragon GmbH and 45% by Intek SpA. It uses real estate owned by KME Italy through a lease agreement.

The plant

The plant covers an area of **482,000** m^2. It has a production capacity of approximately 95,000 tonnes/year. It also houses a **Research Centre** and a **Service Centre**, where cut-to-length, packaging and shipping operations are carried out, with a capacity of approximately 6,000 tonnes/year.





Orlando SMI **historical archive** opens to the public

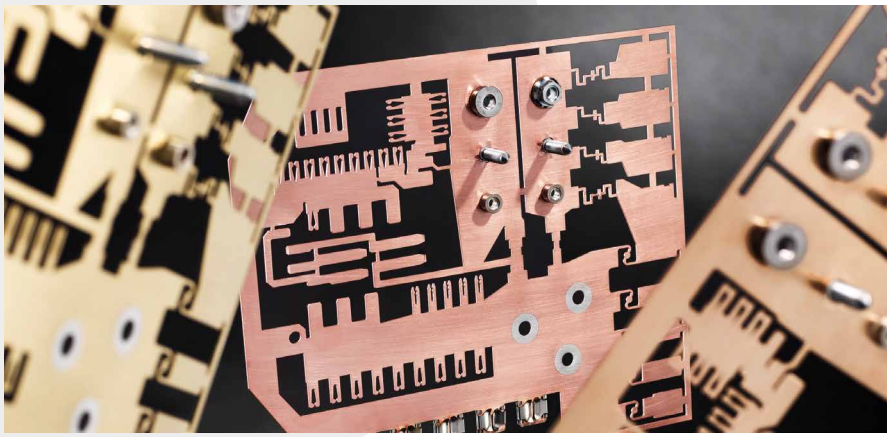
A heritage of great value that tells the story of Italian industry between the 19th and 20th centuries

Since July 2020, the Orlando SMI Historical Archive, located at the KME Italy headquarters in Fornaci di Barga, has been open to the public for study and consultation activities. It is a documentary heritage of great value, secured under the supervision of the Archival Superintendence of Tuscany and protected by the Cultural Heritage Code, which tells over 100 years of history. It tells the story of SMI (Società Metallurgica Italiana), which later became KME Italy in more recent times, but it is also the story of a family, the Orlando family, originally from Sicily, which played a leading role in the history of Italian industry from the 19th century onwards, and which gave a contribution to national political history first by supporting the Risorgimento cause and later by holding important government posts. And it is, at the same time, the history of a territory and a community. The Orlando Historical Archive, owned by Intek and KME Italy, was established in 2016. Its purpose is to conserve and make accessible the consultation of documents, promote research and the publication of historical and scientific studies on Italian industrial history in the 19th and 20th centuries. The opening to the public is just one more stage in a reorganisation and digitisation work that is continuing, with the aim of fully preserving and enhancing this extraordinary historical and cultural heritage.

KME Italy productions

Copper and copper alloy tapes, sheets and discs

- Copper for roofs, facades, gutters and rainwater harvesting systems
- Copper and brass for electrical and electronic applications (switches, plugs, contacts, connectors, etc.).
- Copper alloys for the automotive industry
- Copper for boiler exchangers
- Copper and brass for gifts, bathroom accessories and giftware
- Mineral insulated cables: heating cables, power cables; fireproof cables, consisting of an outer sheath of copper or cupronickel, with magnesium oxide insulation and one or more copper conductors



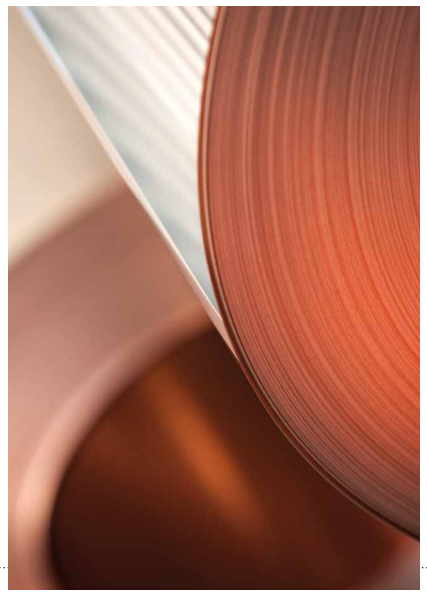
EM MOULDS productions

- Tubular (standard and special) and plate moulds for continuous casting of steel from semi-finished copper and copper alloys
- Ingot tooling and cooling parts

2.2 KME Rolled France Besançon service centre

It is located in Devecey, near Besançon. It has a capacity of about 6,000 t/year. It performs cut-to-length operations, packaging and shipping, mainly for the French market. The group's only service centre in Europe that also carries out surface treatment by electrolytic tinning, it is also able to carry out surface treatments on copper and copper alloy strips.

Products are mainly aimed at the construction, mechanical engineering, automotive, electrical and electronics sectors. It is located in a strategic area to ensure fast delivery times and small and medium-sized batches. It also functions as a logistics hub to market products from other industrial sites by the KME Group. Although autonomous from a corporate point of view, it is closely integrated with the Fornaci di Barga plant, from which an important part of the semi-finished products come.



2.3 KME Spain S.A. Barcelona service centre

It is based in Santa Perpetua de Mogoda, near Barcelona. The production capacity is around 5,000 t/year. It performs cut-to-length operations, packaging and shipping. Its activities are mainly aimed at the Iberian area. It also functions as a logistics hub to market products from other KME Group plants. The products are particularly aimed at the construction, electrical and electronics, automotive, transformer and refrigeration sectors.
Although autonomous from a corporate point of view, it is closely integrated with the Fornaci di Barga plant from which a significant part of the semi-finished products come.

2.3 ILNOR Brescia service centre

As a result of a framework agreement signed by Intek Group SpA (ITK) and S.A. Eredi Gnutti Metalli SpA (EGM), ILNOR Srl was established on 20 May 2021 and will be operational from 4 June 2021. ILNOR, a wholly-owned subsidiary of KME Italy, acquired EGM's rolled products business for a consideration of 21.8 million euro; the entire consideration reinvested in newly issued KME Italy shares allows EGM to hold a 16% stake in the share capital of KME Italy.

The Service Centre, which operates within EGM's Brescia facility, performs cutting to length, packaging and shipping* operations. Its products offer industrial solutions capable of satisfying an increasingly competitive market.

**In the initial phase of its operations, for about two months, ILNOR also carried out rolling projects, which were later decommissioned. This obviously has a significant influence on many environmental indicators, including energy consumption and waste production, which for this reason will only be comparable with those of other Service Centres of the group as of the next activity report in 2022.*

2.5 Governance

The companies adopt a corporate governance system that complies with the law.

Board of Directors KME Italy*

- **Marco Miniati** *President*
- **Claudio Pinassi** *Managing Director*
- **Nicola Cantele** *Administrator*
- **Michele Manfredi** *Administrator*
- **Marcello Gallo** *Administrator*

**Board composition in 2022. In 2021 it consisted of Marco Miniati (president), Claudio Pinassi (managing director) and Vincenzo Autelitano.*

Board of Directors EM Moulds**

- **Bernhard Hoffman** *President*
- **Michele Manfredi** *Administrator*
- **Angelo Naclerio** *Administrator*
- **Giovanni Mori** *Administrator*

***Board composition in 2022. In 2021, it consisted of Michele Manfredi (president), Angelo Naclerio (director), Bernhard Hoffman (director).*

The Board of Directors of the Barcelona Service Centre consists of three members. The Board of Directors of the Besançon Service Centre has a similar composition. ILNOR has Claudio Pinassi as its sole director.

2.6 Organisational model and code of conduct

KME Italy and EM Moulds adopt an **organisation and management model** pursuant to Legislative Decree 231/2001. A special supervisory body has the task of monitoring the functioning and compliance of the model, reporting periodically to the Board of Directors and pointing out any critical issues. The chairman of the supervisory body is a person external to the company.

Companies adopt a **delegation** system aimed at risk prevention and a functional organisation of occupational safety and environmental protection. Company management involves permanent **risk management** activities both by the delegated persons and by top management, based on reports received from the delegated persons and the supervisory body.

Conflicts of interest are **prevented** through compliance with the provisions of the civil code concerning the adoption of *corporate* resolutions and *corporate governance*, as well as through the principles laid down in the Code of Conduct and the Organisational Model.

KME Italy Fornaci di Barga

CEO Kme Italy
C. Pinassi

Plant Manager
M. Manfredi

Special Division
B. Hoffmann

Management Assistant
F. Nardini

OpEx Manager
G. Masciarelli

HR
D. Ponziani

Controlling
M. Del Ministro

Quality Manager
E. M. Martellucci

EHS Manager
E.C. Grilli

Purchasing
F. Cristofani

EM Moulds Sales
A. Naclerio

Customer service
S. Palazzolo

Rolled & MIC Sales

Real Estate
S. Finetti

EM Moulds
G. Mori

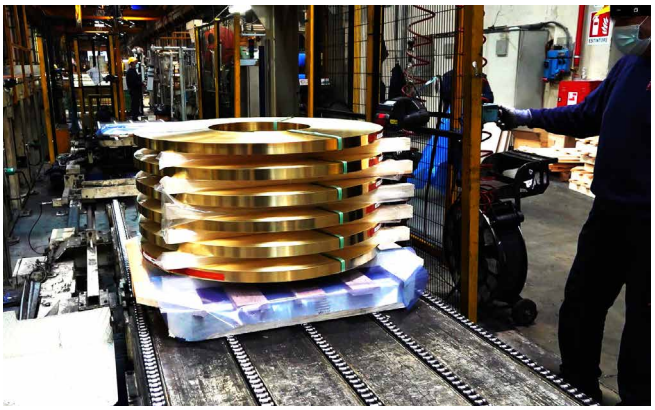
Foundry
P. Pocai

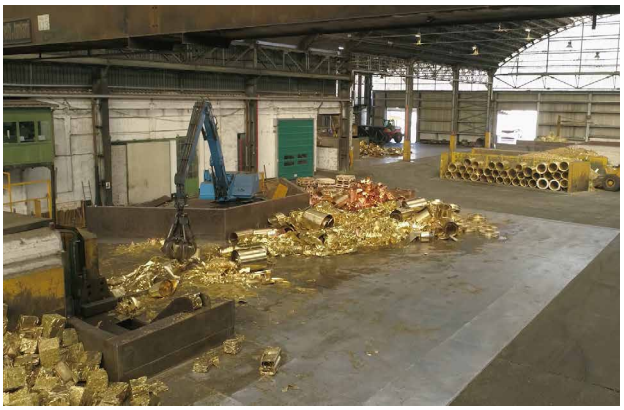
Rolled
M. Fanucci

Engineering & Technology
F. Bucci

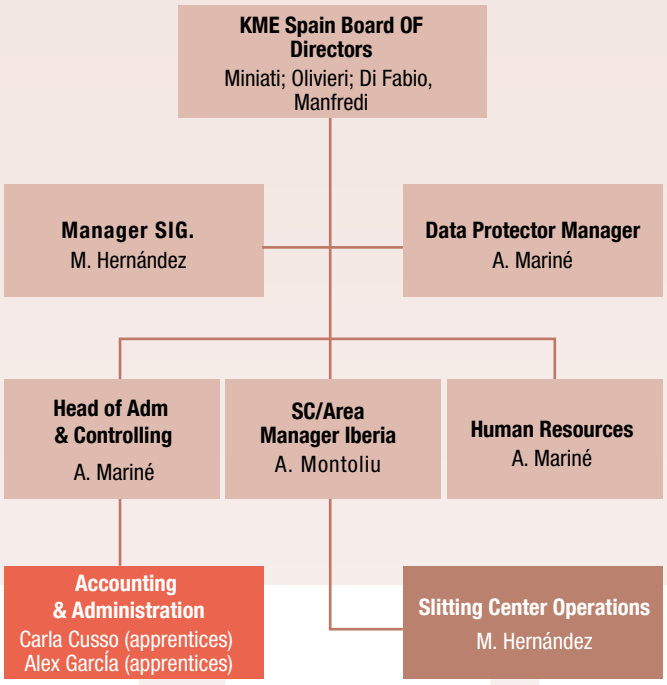
Central Maintenance
Manfredi ad interim

Supply Chain & Logistic
G. Fabbri

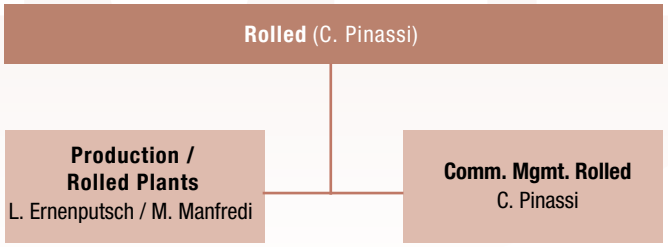


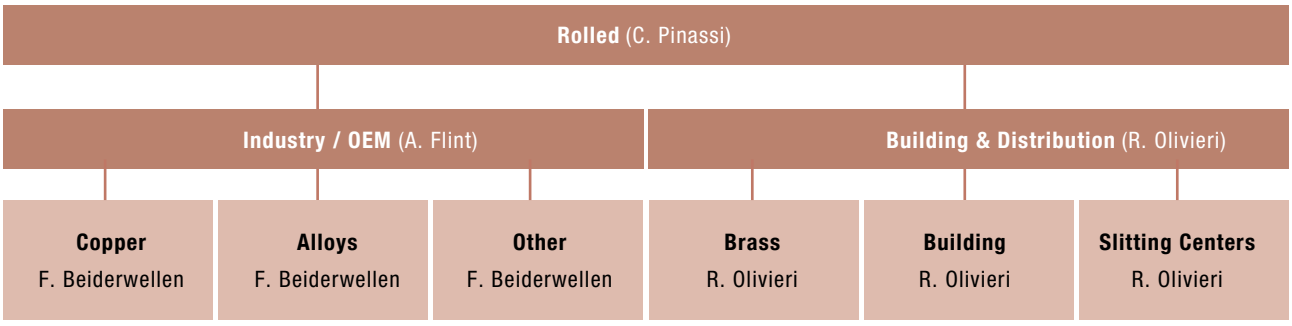


KME Spain Barcelona Service Centre

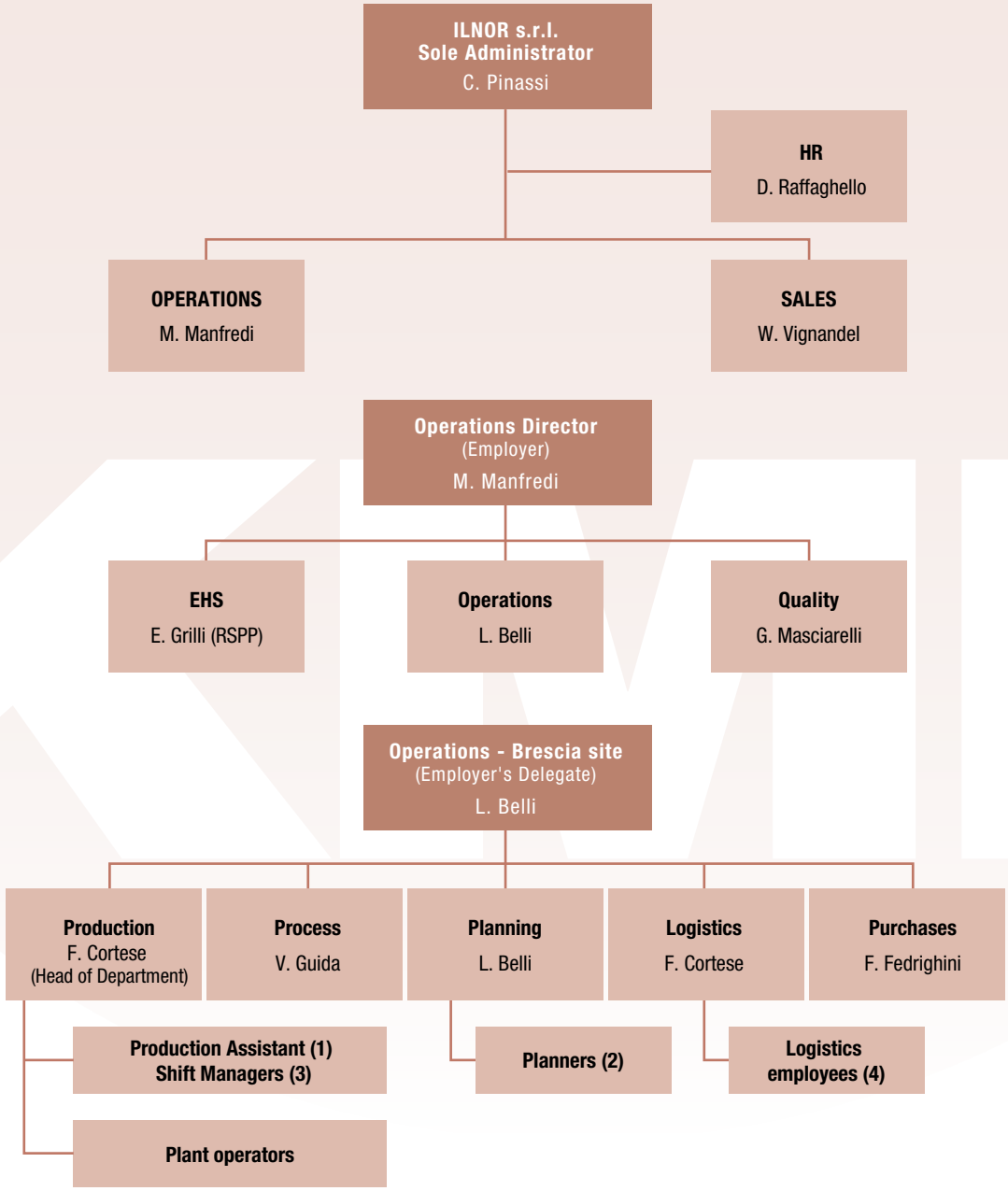


KME France Besançon Service Centre

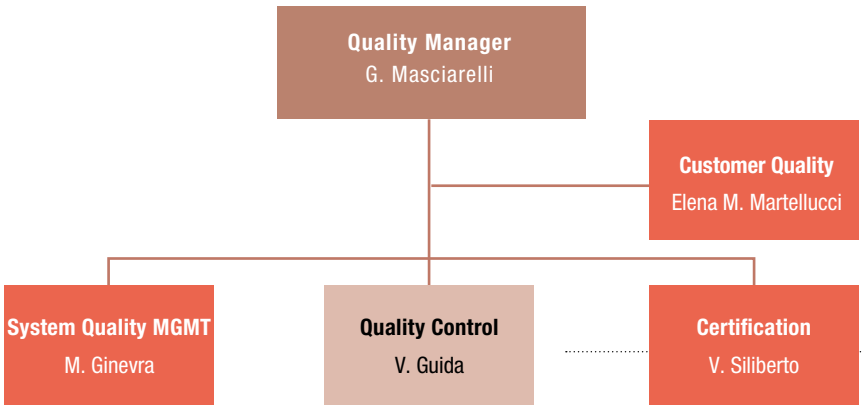




ILNOR Brescia Service Centre



QUALITY ORGANIZATION



Code of Conduct

The companies comply with the KME Group Code of Conduct, which is based on 3 fundamental principles:

- Legality
- Stakeholder relations based on fairness, cooperation and loyalty;
- Working conditions that respect human dignity and a safe working environment.

2.7 Certifications

The management system of the **Fornaci di Barga** plant complies with the requirements of the following certification systems:

- **ISO 9001** (Quality Management)
- **IATF 16949** (in progress)
- **ISO 14001:2015** (Environmental Protection)
- **UNI ISO 45001** (Security Management System)

The **Barcelona** Service Centre has ISO 9001 (quality) , ISO 14001 (environment) and UNI ISO 45001 (occupational safety) certifications.

The **Besançon** Service Centre adopts ISO 9001:2015 certification.

ILNOR's Brescia plant adopts ISO 9001:2015 (quality management system) certification, which was achieved in record time after only a few months of operation.

2.8 Sales

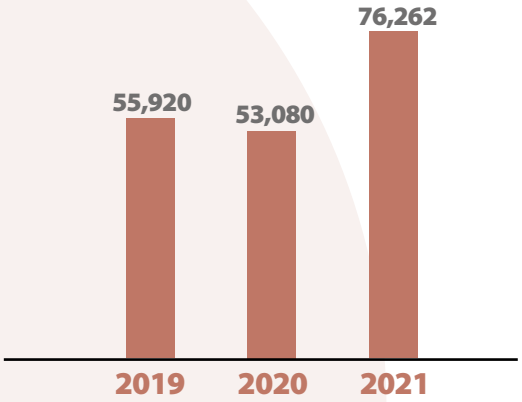
2.8.1 Fornaci di Barga plant

In 2021, total sales* amounted to **76,262 tonnes**** (+ 43.7% compared to 2020).

*data refer to the quantity of products (finished or semifinished) leaving the plant over the entire year: these data are considered to be substantially in line with the plant's production figures, as the warehouse stock remains substantially constant over the years, and can therefore also be taken as a reference for the purposes of processing the environmental indicators relating to consumption and emissions per unit of product.

** including intra-group sales

TOTAL PLANT SALES (t)

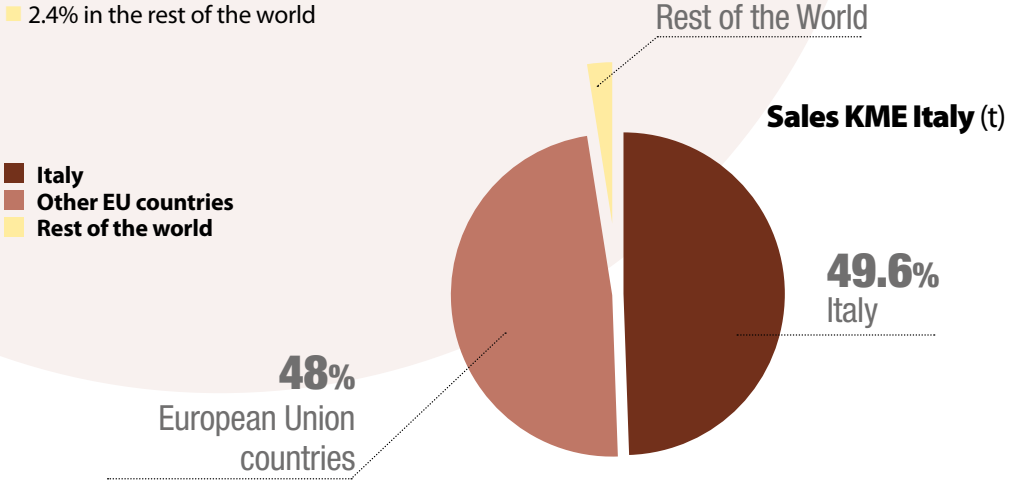


KME Italy
KME Italy's sales amounted to **75,701 tonnes** (+43.8% compared to 2020), of which:

- 49.6% in Italy
- 48% in other EU countries
- 2.4% in the rest of the world

KME ITALY	2019	2020	2021
tonnes	55,319	52,656	75,701

Sales KME Italy (t)

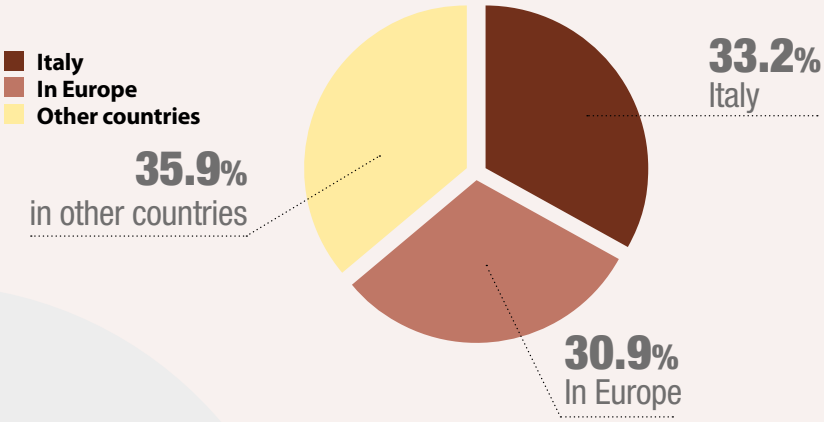


EM Moulds
Sales of EM Moulds amounted to **561 tonnes** (+31.7%), of which:

- 33.2% in Italy
- 30.9% in Europe
- 35.9% in other countries

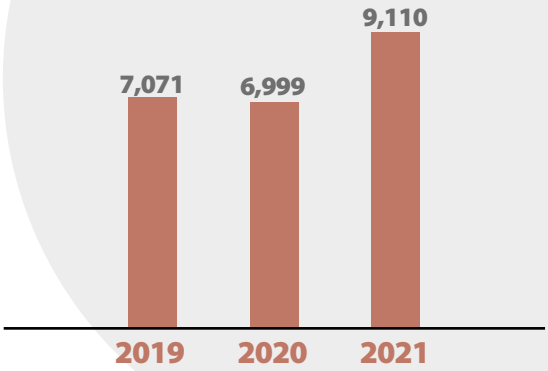
EM MOULDS	2019	2020	2021
tonnes	**601**	**426**	**561**

Sales EM Moulds (t)



2.8.2 Besançon Service Centre

Sales in 2021 amounted to **9,110 tonnes.**



87.6% of sales relate to the French market, 12.2% other EU countries, 0.2% other countries.

The total sales figure includes not only products directly processed by the Service Centre (5,790 t)*, but also a share of final products purchased from other plants

** For the purpose of calculating environmental indicators per unit of product, this value is therefore assumed to be relative to the productions of the Service Centre, as reference data.*

2.8.3 Barcelona Service Centre

Sales to the market in 2021 amounted to 1,162 tonnes.

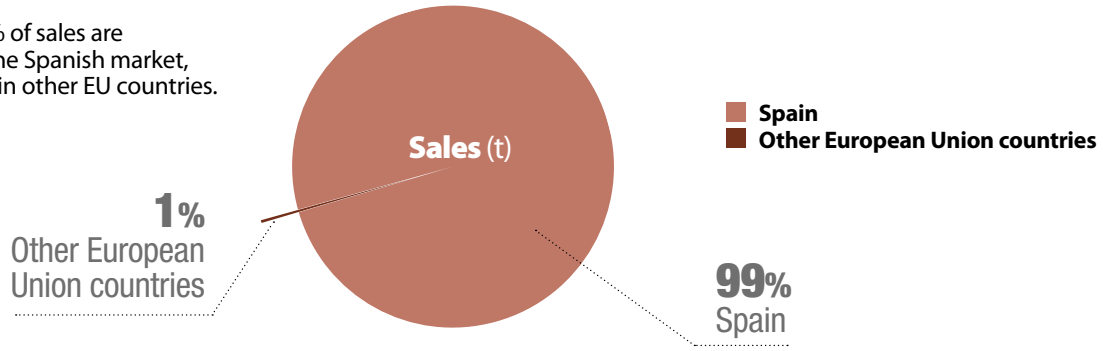
To these must be added **1,740 tonnes** of production **for** the KME **Group**. Including these productions for the KME Group, the **output** is therefore **2,902 tonnes.**

It should also be considered that this overall figure includes not only products processed and marketed by the Service Centre, but also products that, although marketed by the Barcelona Service Centre, come from other plants of the group.
Net of the latter (563 tonnes), the **actual production*** of the Service Centre (i.e. directly related to the processing and shipping carried out by the plant) is **2,339 tonnes**.

*For the purpose of calculating environmental indicators per unit of product, it is therefore considered correct to assume this value, relative to production of the Service Centre, as given reference.

SALES (t)	2019	2020	2021
tonnes	**3,554**	**2,586**	**2,902**
			of which **1,162** *at the market*
- of which products marketed received from others establishments	**430**	**242**	**563**
PRODUCTION (t.)	**3,124**	**2,344**	**2,339**

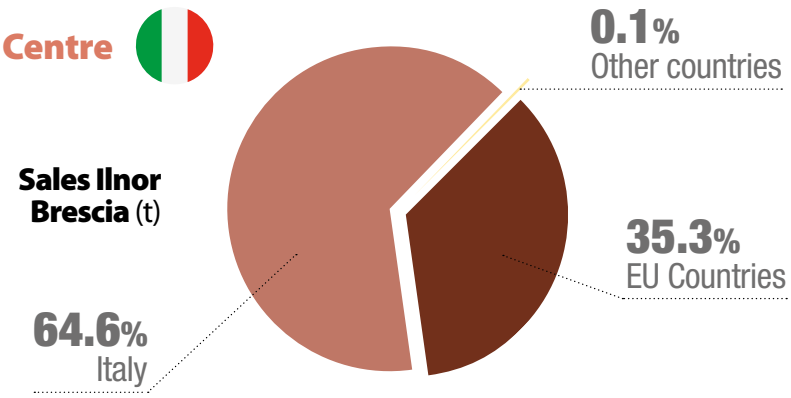
99% of sales are in the Spanish market, 1% in other EU countries.



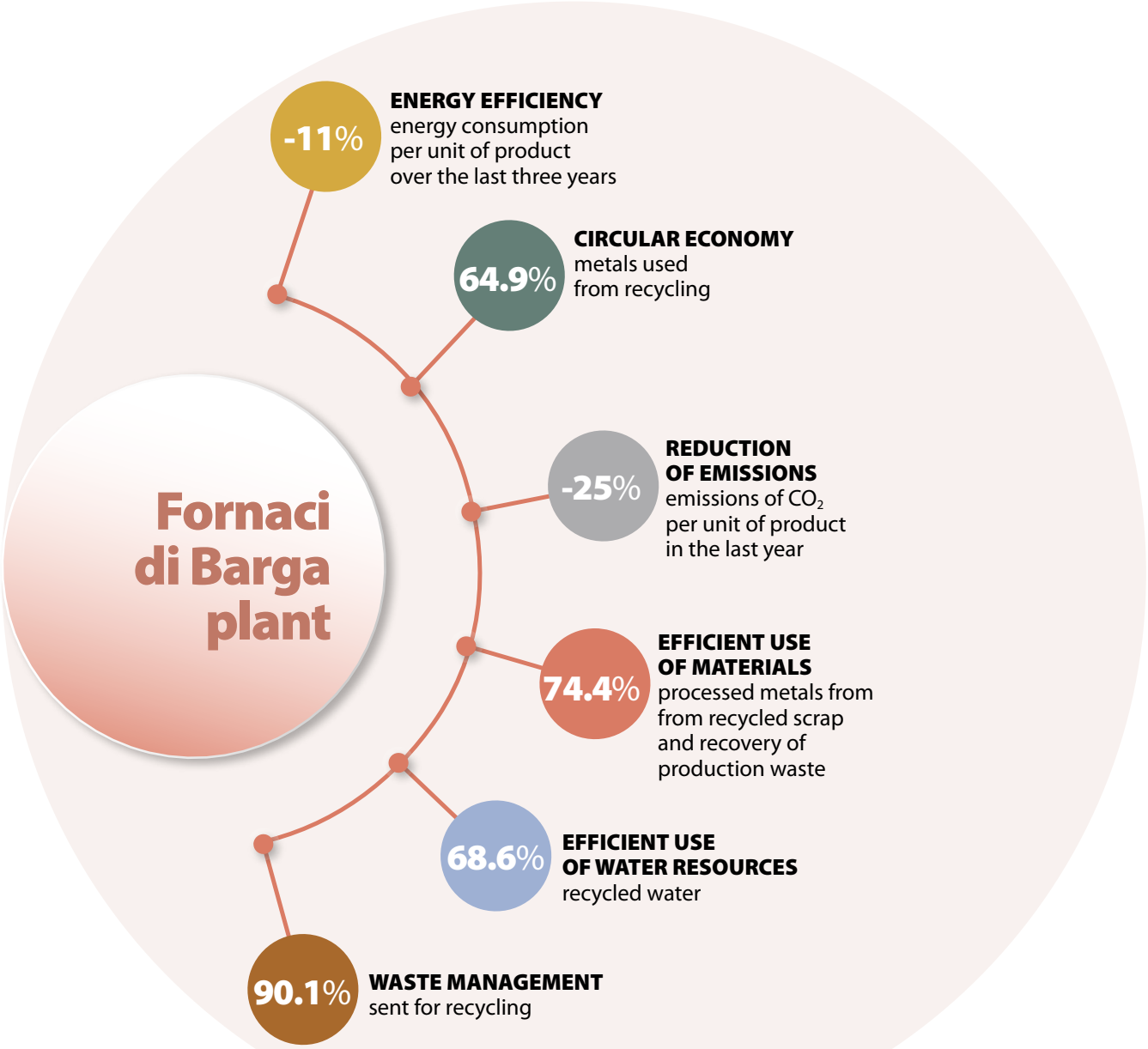
2.8.4 Ilnor Brescia Service Centre

In the reported period, i.e. June to December 2021, sales amounted to **7,417 tonnes**, distributed in this way:

- 64.6% Italia
- 35.3% Paesi EU
- 0.1% Altri Paesi



3 Environmental Sustainability



3.1 Environmental management

The **Fornaci di Barga** plant adopts an **integrated management system** for the environment, health and safety. KME Italy and EM Moulds have **ISO 14001** certification for the environmental management system. The plants are subject to the **Integrated Environmental Authorisation** (IEA).
The **Besançon** Service Centre is subject to the ICPE (Installation classée pour la protection de l'environnement) regulation with regard to surface treatment activities.
The **Barcelona** Service Centre adopts the certification ISO 14001 for the environmental management system. It promotes staff training and awareness-raising activities on environmental issues.
Ilnor Service Centre **in Brescia** adopts procedures to identify, control, measure and reduce the environmental impacts of its activities.

Methodological **note**

The data and indicators for the Fornaci di Barga plant and the Besançon and Barcelona Service Centres cover the entire year 2021. On the other hand, as far as the ILNOR Service Centre in Brescia is concerned, the data relate to about 7 months, from June 4, when the Centre began operations, to 31 December 2021. It must also be taken into account that in the first phase, for about two months, ILNOR also carried out rolling activities that were subsequently decommissioned, and that this had a significant impact on a series of environmental data, for example in terms of higher energy consumption and waste production.

3.2. Energy

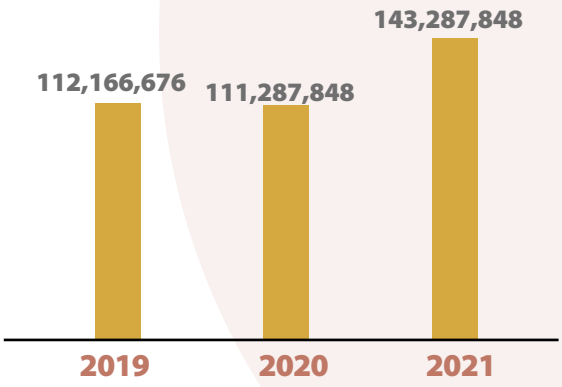
Using energy efficiently is important both from an environmental point of view, because it helps reduce greenhouse gas emissions, and from an economic point of view, because it helps contain costs. The Fornaci di Barga plant, which uses electricity and methane gas, is strongly committed in this direction. The Service Centres, although they have lower energy consumption, are also working to improve their energy efficiency.

3.2.1 Fornaci di Barga

Consumption
- Electricity **79,156,806 kWh** (+26.3% vs. 2020)
- Natural gas **232,310,950 MJ** (+31.1 %).

In 2021, total consumption amounted to **143,685,005 kWh** eq, an increase of 29.1% over the previous year. The increase was due to the growth in production, but consumption per unit, as we shall see, decreased.

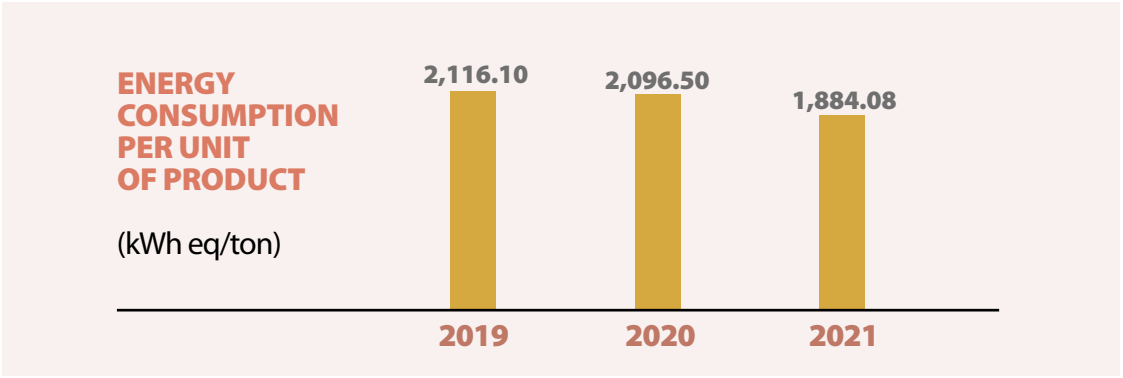
ENERGY CONSUMPTION (kWh eq.)



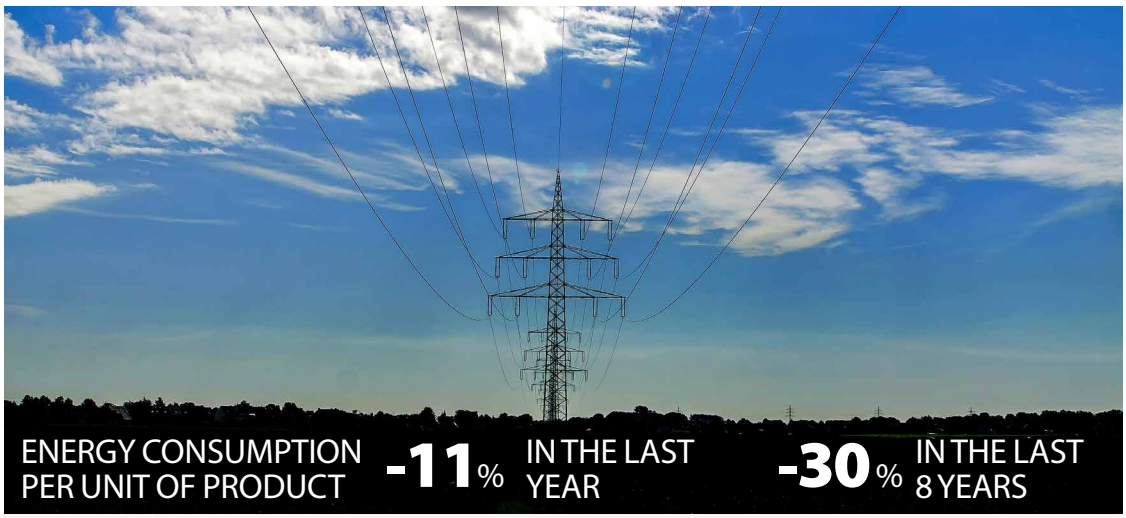
ENVIRONMENTAL **SUSTAINABILITY**

Energy intensity

The **energy consumption** per tonne of product is **1,884.08 kWh** with a reduction of **10.1%** compared to 2020.



If the increase in efficiency is measured over a longer period of time, the progress made can be seen even better: from 2019 to 2021 the reduction in energy consumption per unit of product was 11%, while from 2013 to 2021 the reduction was close to 30%.



This progressive improvement in energy efficiency was made possible through **management innovations** and **plant efficiency** measures. In particular: process efficiency, rationalisation of production procedures, work on air compressors, improvement of the refractory covering of ovens, and efficiency improvements in filters.

Other interventions concerned the **working environment**: work on the efficiency of heating and air conditioning systems in the rooms with computerised remote control systems, use of LEDs for lighting.

ONLY IN THE LAST YEAR, ENERGY SAVINGS THROUGH EFFICIENCY MEASURES AMOUNTED TO

17.960,625 kWh *

**estimation*

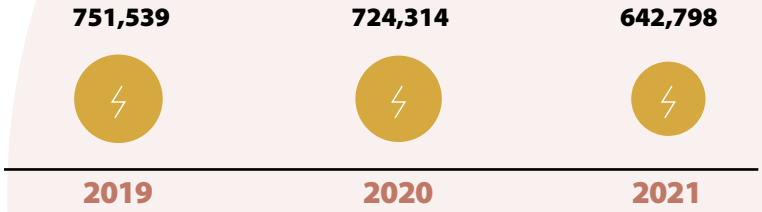
AN AMOUNT OF ENERGY CORRESPONDING TO THE ANNUAL CONSUMPTION OF

6,500 households

3.2.2 Besançon Service Centre

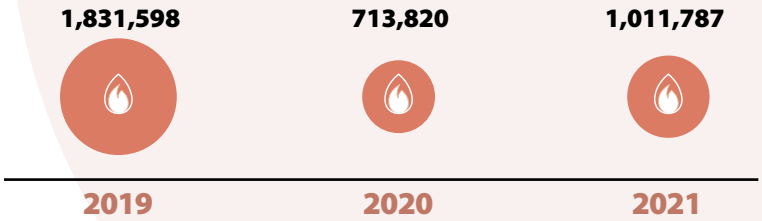
Electricity consumption: 642,798 kWh (-11.3% compared to 2020).

ELECTRICITY
(kWh)



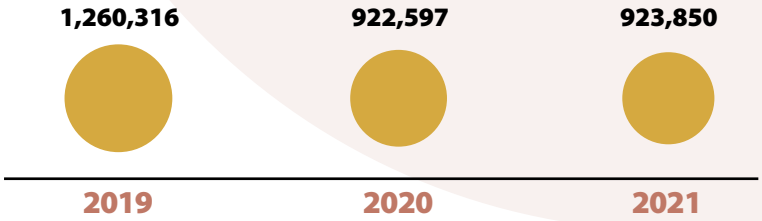
Methane consumption: 1,011,787 MJ (+41,7% year-on-year).

METHANE GAS
(MJ)



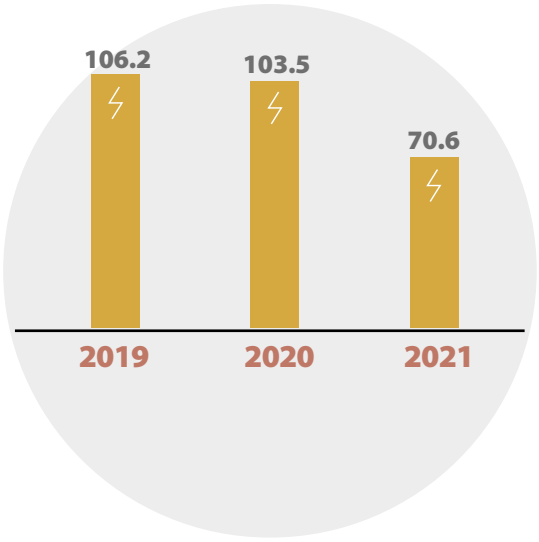
The **total energy consumption** amounted to 923,850 kWh eq., a figure substantially similar to the previous year.

TOTAL ENERGY CONSUMPTION
(kWh eq.)



The **electricity consumption per unit of product** in 2021 was **70.6 kWh eq.** per tonne of production.

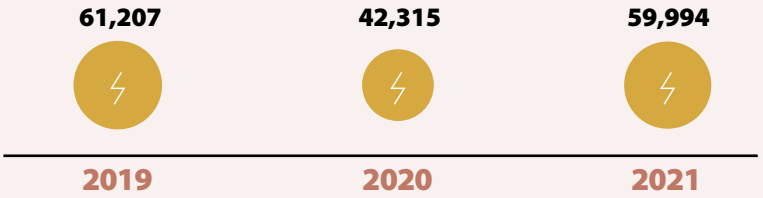
ELECTRICITY CONSUMPTION PER UNIT OF PRODUCT
(kWh/t)



3.2.3 Barcelona Service Centre

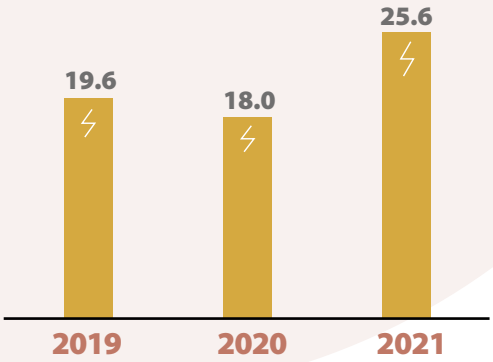
In 2021, **electricity** consumption was **59,994 kWh** (+41.8% compared to 2020).

ELECTRICITY
(kWh)



Electricity consumption in relation to production was **25.6 kWh eq.** per tonne, up from previous years.

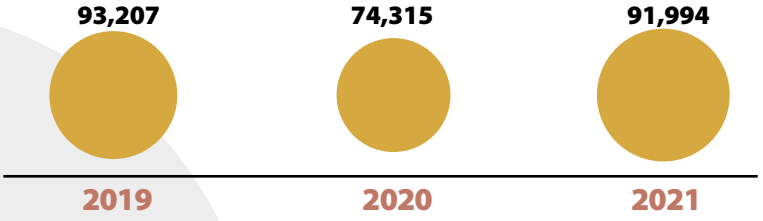
CONSUMPTIONS ELECTRICITY PER UNIT OF PRODUCT
(kWh/t)



The plant also uses **LPG** for space heating, via a centralised boiler. The quantity consumed by the Service Centre is estimated at approximately 4,900 litres per year, which corresponds to approximately 32,000 kWh eq.

Total energy consumption in 2021 (electricity and LPG) is **91,994 kWh eq.**

TOTAL ENERGY CONSUMPTION
(kWh eq.)



In order to improve energy efficiency, the interior lighting system was gradually renewed with LED lamps. Presence detectors were also placed to avoid unnecessary consumption. It is estimated that energy savings of approximately 7,500 kWh will be achieved thanks to a series of measures adopted in 2021.

3.2.4 Ilnor Brescia Service Centre

The Service Centre in the reported period consumed:

- **electricity 3,306,644 kWh**
- **methane gas 3,455,560 MJ**

Overall, energy consumption amounted to **4,266,522 kWh eq.** *

The EGM plant, in which the ILNOR Service Centre operates, is equipped with an extensive roof-mounted **photovoltaic plant**, the energy production of which (about 4,500 MWh/year) is entirely intended for self-supply. Approximately **90% of the** electricity used by ILNOR comes from this **renewable energy** plant, and only the remaining 10% is purchased from the grid.

Relative to **production**, the **consumption per unit** was **575 kWh eq/t.** *

** These figures are to a large extent determined by the fact that in a first phase, for about two months, ILNOR also carried out rolling activities, which were later discontinued.*

3.3 Materials

If the efficient use of energy is important, the efficient use of materials is no less important. This is the main goal of the circular economy, reducing production scrap and waste, while at the same time increasing the use of recycled secondary raw materials to replace virgin raw materials.

The **Fornaci di Barga** plant makes extensive use of **recycled materials**. These are **copper and brass scrap**, classified as 'end of waste' according to European Regulation 715/2013. In addition to this, there are material **recovery processes**, internal to the production process, which allow waste to be minimised.

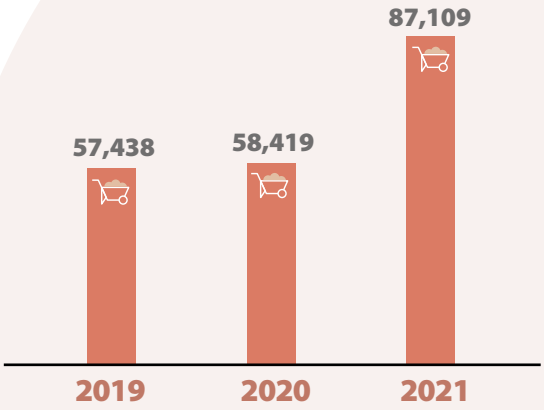
The **Service Centres** contribute to this **virtuous circuit**. Firstly, because they use semi-finished products from Fornaci di Barga, which contain a significant share of secondary raw materials. Secondly, because they, in turn, reintroduce residual metals from processing into the integrated production cycle.

3.3.1 Fornaci di Barga

Materials used
A total of **87,109 tonnes** were used* in 2021 (+49 % compared to 2020).

For 95.4 per cent, these are **metals**: virgin raw materials (copper and zinc), scrap (copper and brass) and semi-finished products.

MATERIALS USED (t)



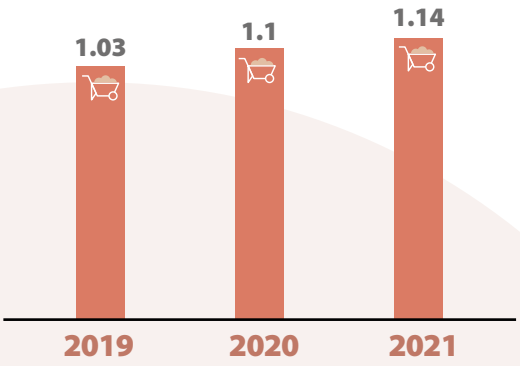
**the figure refers to the amount of material entering the plant during the year; it is possible that a portion, albeit small, was not actually used in 2021, remaining in the plant. As stocks in the warehouse; this may influence, albeit not significantly, the figure for materials used*

ENVIRONMENTAL **SUSTAINABILITY**

Materials used per unit of product

For every tonne of production in 2021, 1.14 tonnes of material was used, compared to a value of **1.10** in 2020.

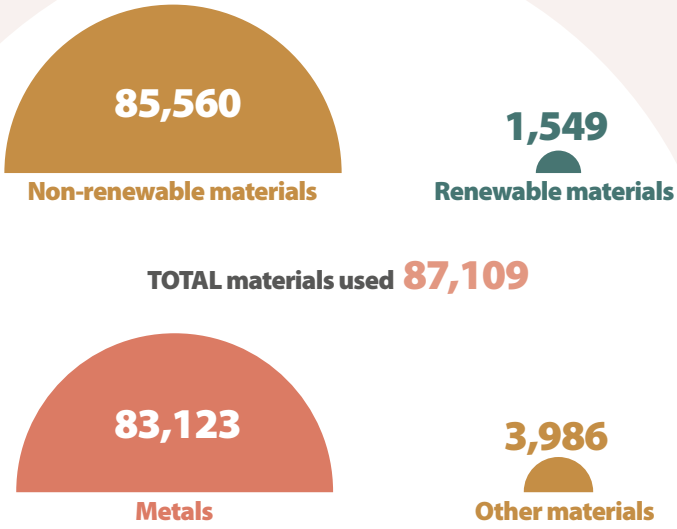
MATERIALS USED PER UNIT OF PRODUCT (t/t)



Renewable raw materials

Of the materials used, 1,549 tonnes are **renewable raw materials** (eco-pallets, wooden packaging, paper and cardboard packaging). Compared to the total, this represents only 1.8 %, but net of metals the share of renewable raw materials rises to **38.9** per **cent** (a threefold increase compared to 2020).

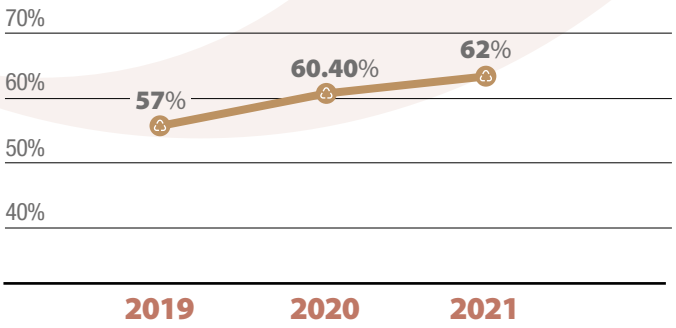
MATERIALS USED (t)



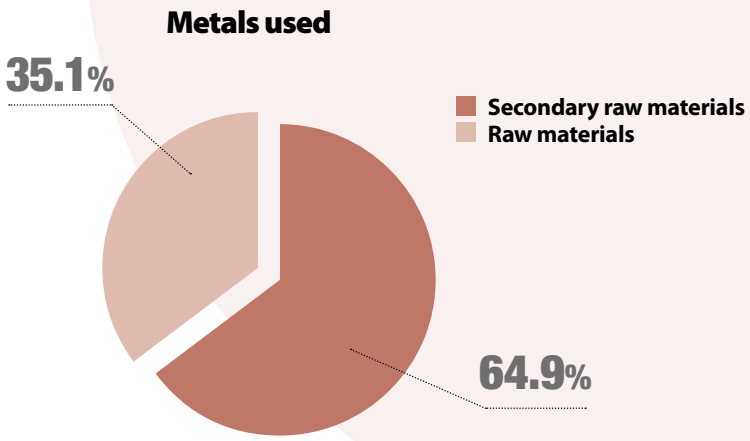
Materials from recycling

62% of the materials used by the plant (54,008 tonnes) are secondary raw materials. Compared to 2020, this represents an **increase of 1.6%**.

MATERIALS ORIGINATING FROM RECY-CLING (%)



If the calculation is made with reference to **metals only**, the percentage of materials from recycling (secondary raw materials) is 64.9 % (+0.5 % compared to 2020).



In-house recovery
A significant share of **production** waste is reused through **in-house recovery processes**. In 2021, **42,260 tonnes** of materials were thus recovered and reused. This further reduces the consumption of virgin raw materials and scrap, reducing waste and increasing material efficiency.

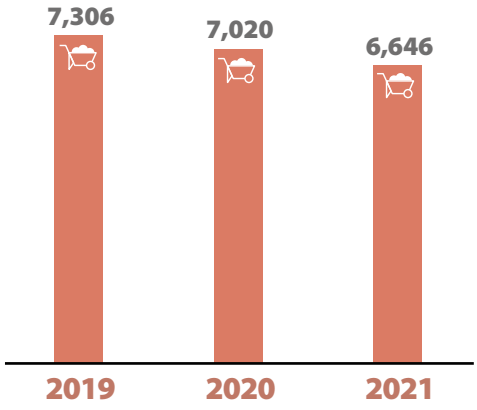
If we also consider materials fed back into the production cycle through internal recovery processes, the total number of tonnes of processed metal (virgin raw materials, scrap, semi-finished products, metals recovered within the production cycle) in 2021 is 129,383. If measured on this value, the percentage of **metals from secondary raw materials and internal recovery** out of the total metals processed is **74.4%**.

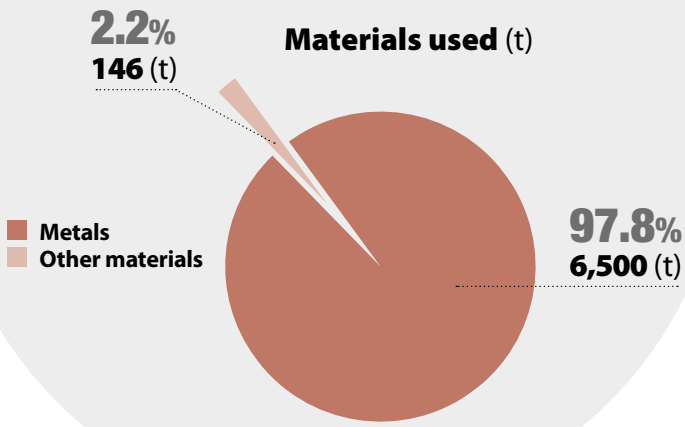
3.3.2 Besançon Service Centre

The materials used amounted to 6,646 tonnes (-5.3% compared to 2020).

Of this, about 6,500 t are **metals** (processing from Fornaci di Barga and other factories of the group) and 146 t are **other materials**.

MATERIALS USED (t)



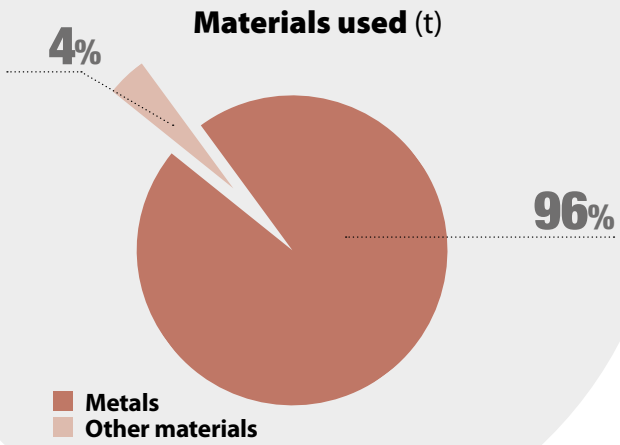


The **renewable materials used**, essentially cardboard and wood, amount to **106** tonnes: net of metals, they account for 73 % of the other materials used. Also net of metals, **6% of the other materials** come from **recycling**.
It is also worth mentioning that the metal materials that feed the Besançon Service Centre, which come from Fornaci di Barga and other group plants, were produced with a significant use of materials from recycling processes.

In 2021, 1.14 tonnes of materials were used for every tonne of production.

3.3.3 Barcelona Service Centre

The materials used amounted to **2,491 tonnes.** 96% of them are of metals, only 4 % are other materials.



The materials classified as **renewable** are **94.9 tonnes** (paper and cardboard, wood used for packaging and pal- lets), or 3.8 % of the total.

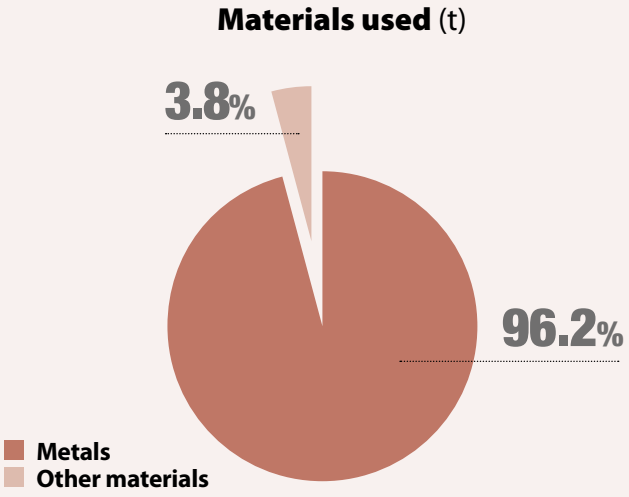
Recycled materials, including the fact that semi-finished products from oth- er KME Group plants were produced using recycled materials, account for 73.4% of the total.

Approximately **626 tonnes of working waste were** destined for other group plants and fed back into the produc- tion cycle.

3.3.4 Ilnor Brescia Service Centre

The materials used in the reported period amount- ed to 9,964.1 tonnes.

Of these, 9,582 t are **metals** (semi-finished products from Fornaci di Barga and other group plants) and 382.1 t **other materials**.



The **renewable** materials used (wood, paper and cardboard packaging) amount to **137.5** tonnes: after deduc- tion of metals, they account for **36%** of the materials used.

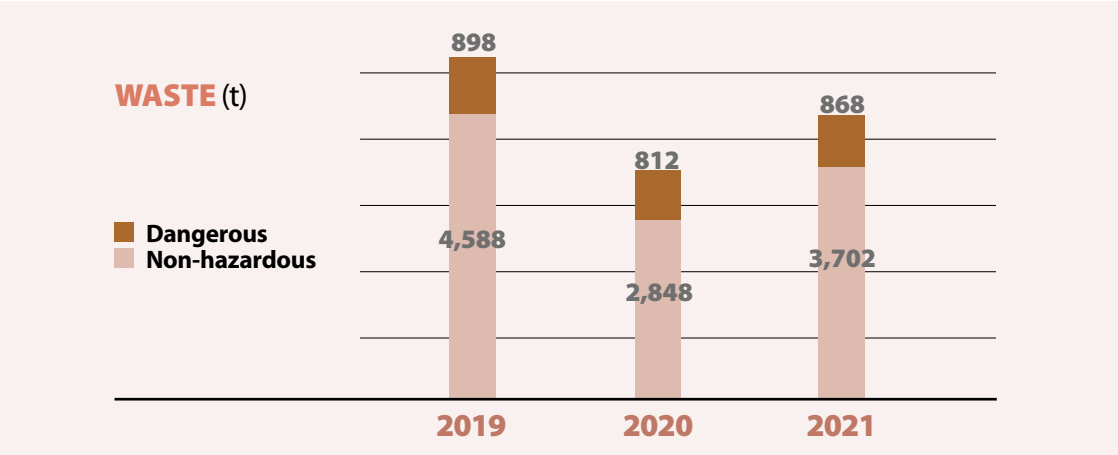
48% of the materials used originate from **recycled** processes, mainly due to the fact that semi-finished products from other KME Group plants were pro- duced with a prevailing use of recycled materials.
In the period under review, 1.34 tonnes of materials were used for each tonne of production.

3.4 Waste

Proper waste management plays a key role in the transition to a circular economy. Prolonged objectives are to reduce the production of waste and increase its recovery as much as possible as a resource.

3.4.1 Fornaci di Barga

The total amount of waste produced by the plant amounted to **4,570 tonnes** (+24.8% compared to the previous year).



Non-hazardous waste

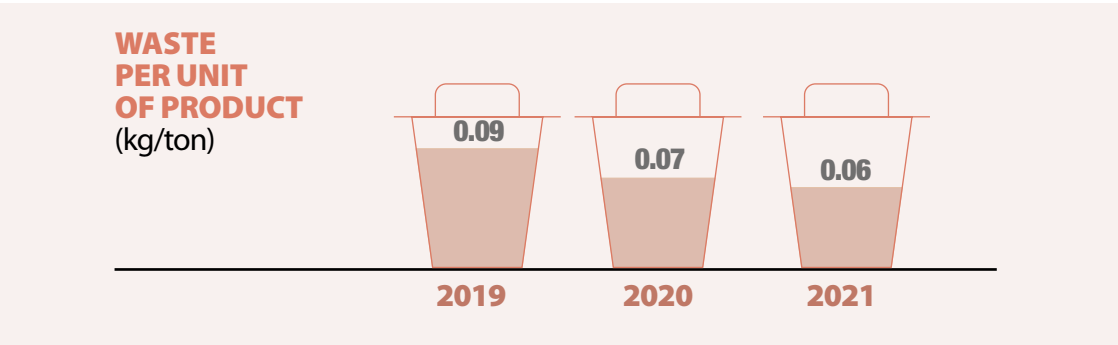
Non-hazardous waste amounted to 3,702 tonnes (+30% compared to 2020). This mainly consists of:
- refractory materials sent for recovery in the brick industry or cement factories;
- slag of brass, copper, bronze, iron, steel;
- paper, cardboard, wood and iron packaging.

Hazardous waste

Hazardous waste amounted to 868 tonnes, an increase of 6.9% compared to 2020. These are:
- aqueous solutions and other spent emulsions from rolling mills;
- sludge produced by the water treatment plant;
- small quantities of zinc oxides, waste oils, copper oxides

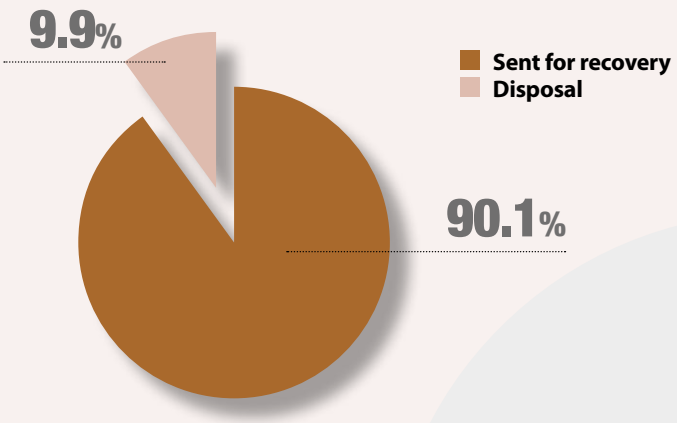
Waste per unit of product

Waste generation per unit of product decreased to 0.06 t/tonne.



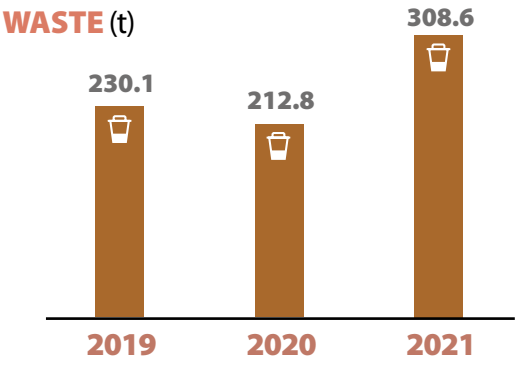
Recovery start-up
90.1% of the waste produced by the plant was sent for recovery. This figure was even better than the previous year (85.5%). Only 9.9% of the waste was disposed of in landfills.

Waste Management



3.4.2 Besançon Service Centre

In 2021, the production of waste (all classified as non-hazardous) amounted to 308.6 tonnes.

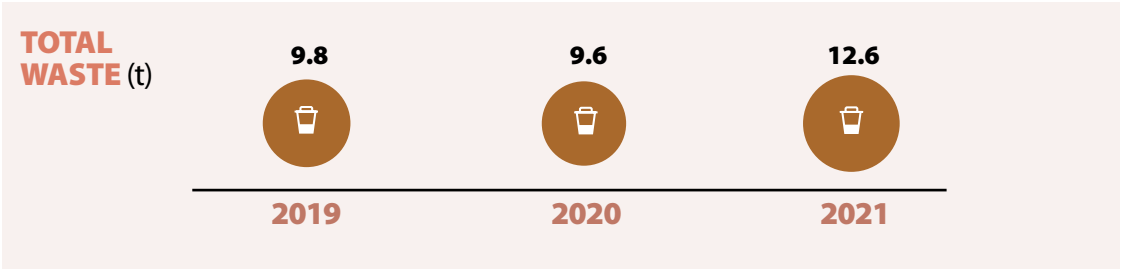


96% is made up of production waste (copper, brass, bronze), which is **recycled and reused**. The remainder is **packaging** (mixed materials), which is also **recycled** in its entirety.

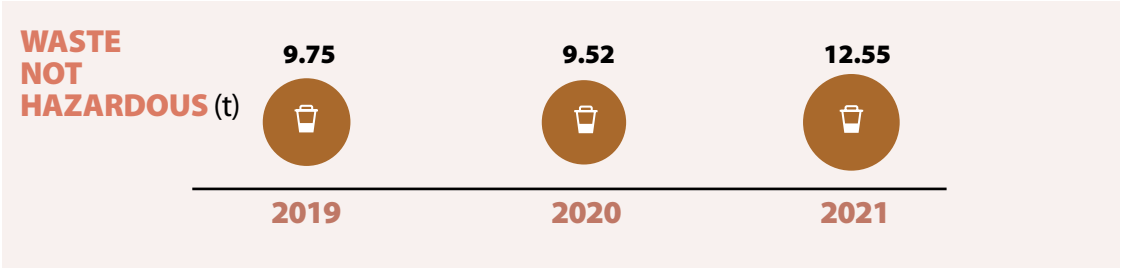
Waste generation per unit of product is 0.05 t/tonne.

3.4.3 Barcelona Service Centre

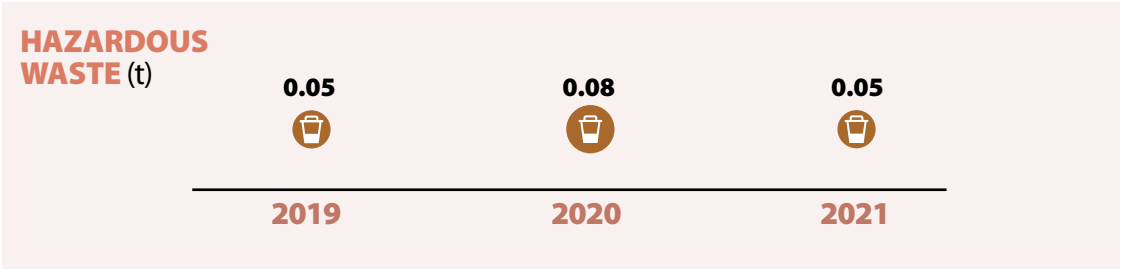
The total waste production was 12.6 tonnes.



The Service Centre produced 12.5 tonnes of **non-hazardous waste**. 100 % was sent for **recycling**.



The quantity of **hazardous waste** is minimal, only 0.5 tonnes, which is entirely sent for treatment.



Waste amounted to **0.005** tonnes per tonne of production.

3.4.4 Ilnor Brescia Service Centre

The Service Centre produced **244.6 tonnes** of waste*, of which 227.1 tonnes was hazardous and 17.5 tonnes non-hazardous.

9.7 per cent of the waste was sent for **recycling** or other forms of recovery, 90.3 per cent sent for treatment for subsequent disposal in **landfills**. It should be noted that 100% of non-hazardous waste was sent for recycling.

Waste is 0.03 tonnes per tonne of production.

**These figures are to a large extent determined by the fact that in an initial phase, about two months, the Service Centre also carried out rolling activities, which were later discontinued. This resulted in the production of a large part of the reported hazardous waste, including about 215 tonnes of non-chlorinated emulsions.*

3.5 Greenhouse gases

Copper producing industries are subject to the *Emission Trading Scheme* (ETS), adopted by the European Union to meet CO_2 reduction targets in the main industrial sectors.

Methodological note

How emissions are measured
The calculation of GHG emissions is based on the GHG reporting system, which classifies GHG emissions into:
- **direct emissions*** from in-plant processes;
- **indirect emissions****, resulting from the production processes of purchased energy;
- **other indirect emissions** (e.g. for a company, those resulting from transport for the supply and dispatch of goods).

As no information on the latter is available, the calculation of emissions concerns direct emissions and indirect emissions related to the production of electricity purchased from the grid.

**For the calculation of direct emissions, reference is made to the values declared by KME Italy and EM Moulds.*

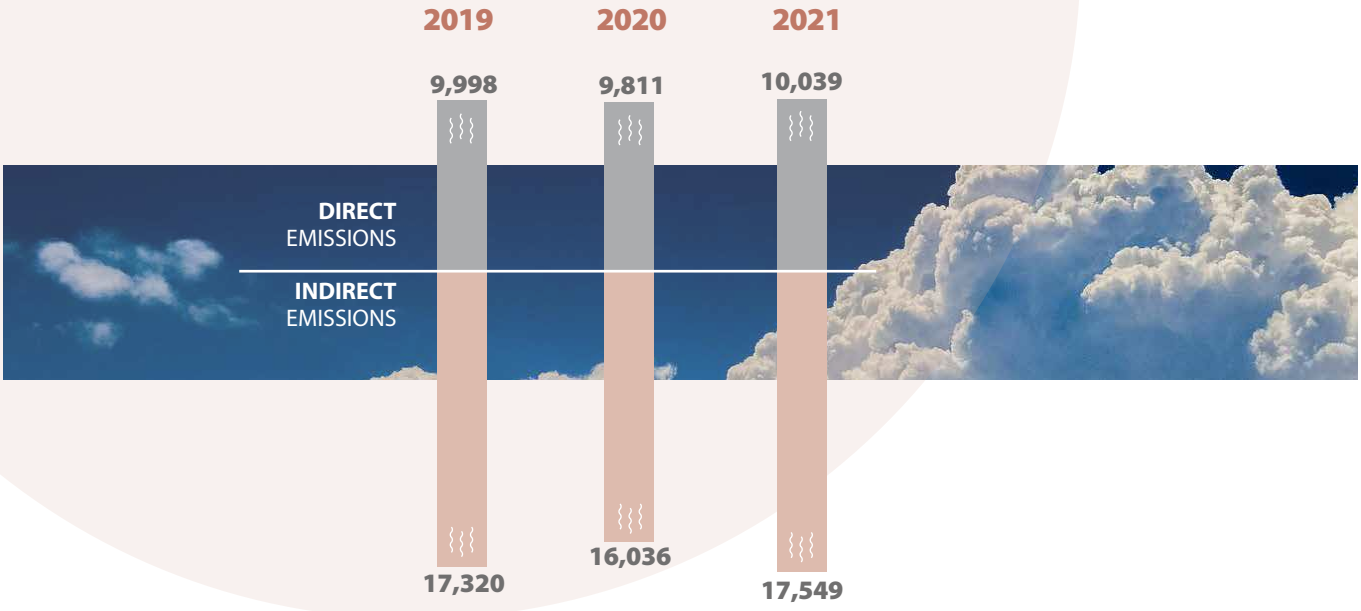
***For the calculation of indirect emissions, reference is made to the electricity consumption and greenhouse gas emission factors of each country's national energy mix.*

3.5.1 Fornaci di Barga

Total emissions

Between **direct** emissions (generated by in-plant processes) and **indirect emissions** (related to the production of electricity purchased from the grid), **total emissions** in 2021 amount to **27,588 t. CO_2 eq**.

GREENHOUSE GAS EMISSIONS CO_2 eq. (t)

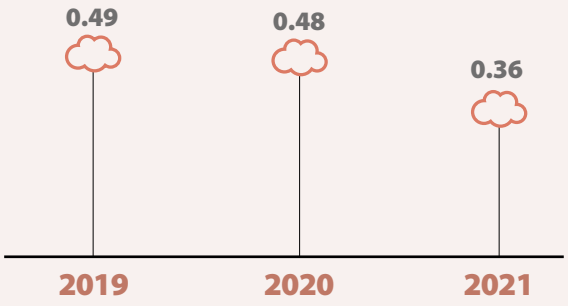


TOTAL EMISSIONS	**27,318**	**25,847**	**27,588**

TOTAL EMISSIONS PER PRODUCT UNIT (t CO_2 eq/t)

Emissions per unit of product

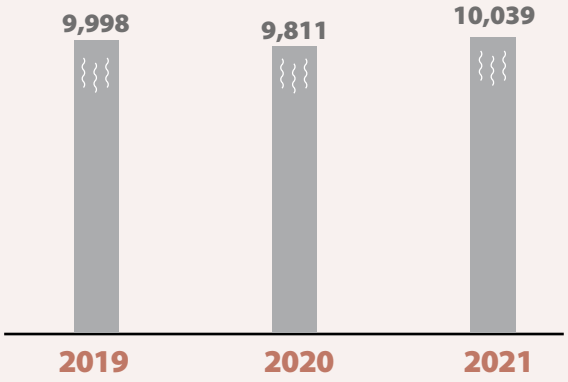
As far as total **emissions per unit of product** are concerned, there was a strong improvement compared to previous years. In 2021, they amounted to **0.36 t** CO_2 eq. per tonne of production, a **reduction of 25%** compared to the previous year.



DIRECT EMISSIONS CO_2 (t)

Direct emissions

The emissions generated directly by the plant's activities amount to **10,039 tonnes** of CO_2 (+2.3% compared to 2020, taking into account an increase in production over the same period of 43.7%).

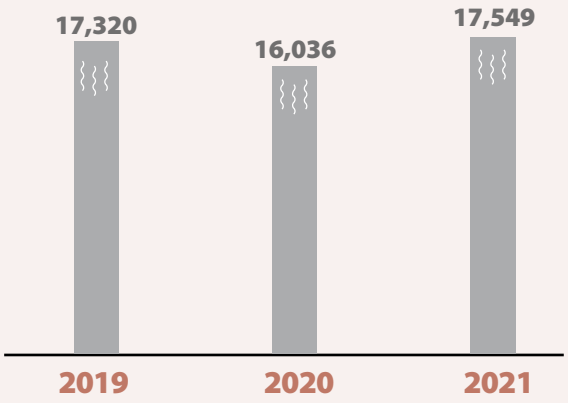


Direct emissions per unit of product have been significantly reduced over the past year. They fall in fact from 0.185 t CO_2 per tonne of production in 2020 to 0.132 t/t in 2021, a **reduction of 28.6%**.

INDIRECT EMISSIONS CO_2 (t)

Indirect emissions

Indirect greenhouse gas emissions related to the generation of electricity purchased from the grid amounted to **17,549 tonnes** (+9.4% compared to 2020). The increase is due to the rise in electricity consumption.



**ISPRA-Emission factors of national electricity production and consumption of the national electricity system - preliminary estimate for 2021: 221.7 g. CO_2/kWh*

In **2021 EMISSIONS** of CO_2 per unit of product **ARE REDUCED** by **25%**

3.5.2 Besançon Service Centre

**Emission factor of the French national energy mix: 51 g CO_2 eq/kW (2020). Source: 'Efficiency and decarbonisation indicators for total energy consumption and power sector', ISPRA 2022.*

The plant **produces no CO_2** or other greenhouse gas **emissions** directly from production processes.

The only direct emissions are those from the use of methane gas for space **heating:** this is obviously a modest amount, estimated at around **58 tonnes** of CO_2 (+41%) by 2020. To give an idea of the order of magnitude, this corresponds to the emissions from the domestic gas consumption of about 17 households.

Indirect emissions, related to the production of electricity purchased from the grid*, amounted to 32.8 **tonnes** of CO_2 eq in 2021, a **reduction of 14.2 per cent** compared to the previous year.

Total emissions were **90.8 tonnes** in 2021, an increase of 14.6 per cent compared to 2020

3.5.3 Barcelona Service Centre

**Emission factor of the Spanish national energy mix: 163.5 g CO_2 eq/kW (2020). Source: 'Efficiency and decarbonisation indicators for total energy consumption and power sector', ISPRA 2022*

The plant does not directly emit CO_2 or other greenhouse gases.

The only direct emissions are from the use of LPG for **heating** the premises, the consumption of which is estimated at 4,900 litres per year. This is a modest amount of emissions, about **8 tonnes of CO_2.** To give an idea of the order of magnitude, it corresponds more or less to the emissions produced by 3 households for their own domestic consumption.

Indirect emissions, related to the production of electricity purchased from the grid*, amounted to **9.8** tonnes of CO_2 eq. in 2021.

Total emissions amounted to **17.8 tonnes** of CO_2 eq (+5.3% compared to 2020).

3.5.4 Ilnor Brescia Service Centre

The plant does not directly produce greenhouse gas emissions.
Indirect emissions related to the production of electricity purchased from the grid* amounted to approximately **73 tonnes of** CO_2 eq. in 2021. Thanks to the use of renewable energy produced by the photovoltaic plant, CO_2 emissions amounting to approximately 650 tonnes were avoided.

**The EGM plant, in which the ILNOR Service Centre operates, is equipped with an extensive roof-mounted photovoltaic plant, the energy production of which is entirely intended for self-consumption. About 90% of the electricity used by ILNOR comes from this renewable energy production plant, and only the remaining 10% is purchased from the grid.*

Offsetting climate-changing emissions

With the aim of decreasing its corporate carbon footprint and contributing to the achievement of climate neutrality, KME Italy, together with KME Mansfeld and KME Germany, implemented carbon offsetting measures$_2$ through an agreement with Natural Capital Italia SpA, the first Italian holding company dedicated to the protection and preservation of natural capital (water, air, soil, biodiversity).

Carbon offsetting' or 'climate contribution' is defined as any activity aimed at offsetting CO_2 or other greenhouse gases by reducing CO_2 emissions elsewhere. In other words, it is a voluntary mechanism that allows a company or organisation to offset its emissions through the support of emission reduction and absorption projects and to contribute to the goal of 'net zero emissions'.

11,640 TONNES OF CO_2
COMPENSATED EACH YEAR

Under this agreement, 11,640 tonnes of CO_2 generated by the KME Group's plants in 2020 and a further 11,640 tonnes generated in 2021 were offset.

Oasi Dynamo
The interventions are carried out at Oasi Dynamo, a WWF-affiliated nature reserve of about 1,000 hectares, in 1,110 metres high in the Pistoia Apennines. This area, which was once a hunting reserve, is now a virtuous model of environmental sustainability and social responsibility. With its 970 hectares of woodland divided between conifers and various deciduous trees, the area is a true 'green lung'. Oasi Dynamo takes great care of its woods, trying to find the right balance between the different functions of natural capital, starting with the use of the forest as a source of biodiversity and environmental mitigation.

In particular, Oasi Dynamo has a forest management plan that focuses on the sustainable use of wood resources, allowing plants to maximise their ability to sequester CO_2. Plants, as is well known, are an important tool for reducing the greenhouse effect, as through their photosynthesis activity they are able to block large quantities of CO_2 and accumulate carbon in the form of biomass. On average, the amount of CO_2 absorbed annually by a tree varies from 20 to 50 kg; an adult forest can store more than 150 t/ha of CO_2 in the form of organic carbon compounds. At Oasi Dynamo, the CO_2 fixation capacity is also increased through careful agricultural practice on approximately 123 hectares of land. The measures implemented through the agreement with the KME Group's plants produce an average annual increase in absorption capacity of 12 tonnes of CO_2, per hectare, for a total of 11,640 tonnes of CO_2 in the entire area (970 hectares).
Together with these carbon offsetting measures, the agreement also envisages other measures related to conservation and valorisation practices of the forest and rural heritage in the 'Oasi Dynamo' area. In particular, interventions for the conservation of biodiversity, maintenance of hydrographic networks and water regulation services, soil conservation through environmentally sound agronomic practices, and maintenance of the oasis structures.

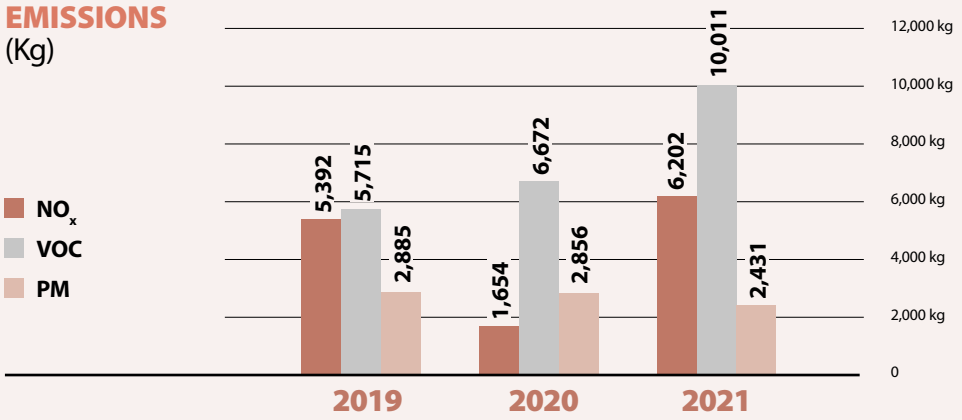
3.6 Other emissions

Protecting air quality means protecting the environment and health. To this end, KME adopts the best available technology and operates in accordance with current regulations.

3.6.1 Fornaci di Barga

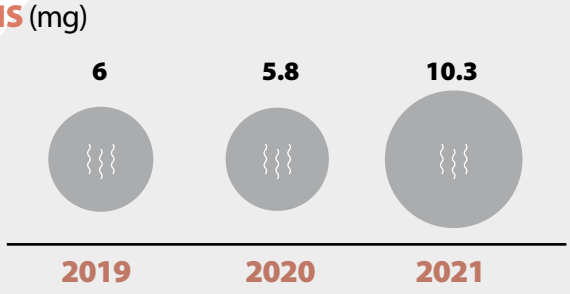
Emissions from the plant's activities concern in particular:
- nitrogen oxides (NOx) originating mainly from combustion processes;
- volatile organic compounds (VOC);
- particulate matter (PM) consisting mainly of dust produced during metalworking and mists of oil from the use of emulsions in rolling mills.

EMISSIONI (kg)	2019	2020	2021
NO_x	5,392	1,654	6,202
VOC	5,715	6,672	10,011
PM	2,885	2,856	2,431



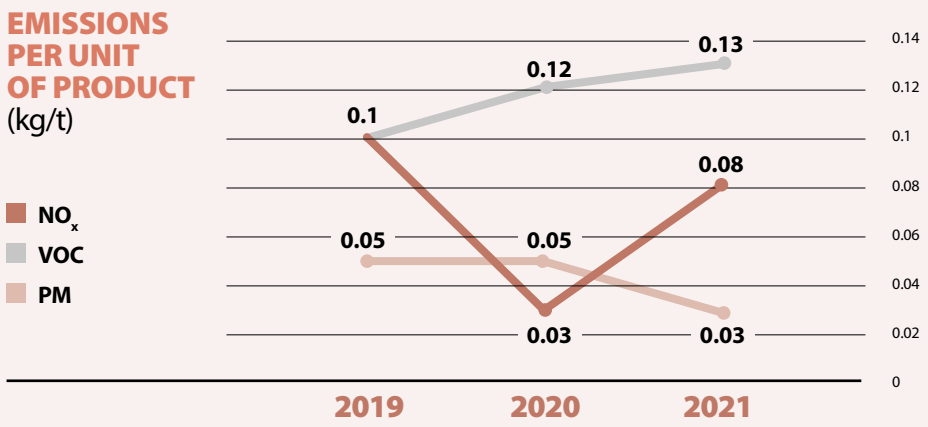
Dioxin emissions (**HAP**) were 10.3 mg.

EMISSIONS (mg)	2019	2020	2021
HAP	6	5.8	10.3



Emissions per unit of product

	NO_x (kg/t)	VOC (kg/t)	PM (kg/t)	HAP (mg/t)
2019	0.10	0.10	0.05	0.00010
2020	0.03	0.12	0.05	0.00010
2021	0.08	0.13	0.03	0.00013



3.6.2 Besançon Service Centre

EMISSIONS (kg)	2019	2020	2021*
NO_x	23.5	22.1	76.2
SO_x	3.7	3.5	57.7

EMISSIONS PER UNIT OF PRODUCT (kg/t)

	2019	2020	2021
NO_x	0.0033	0.0031	0.0131
SO_x	0.0005	0.0005	0.0099

**New analyses were carried out in 2021, as a result of which the concentration NOx concentration rose from 0.25 mg/NM3 taken as a reference in previous years to 0.66 mg/NM3, while SOx concentration rose from 0.04 mg/NM3 to 0.5 mg/NM3. This explains the significant increase in reported values.*

3.6.3 Barcelona Service Centre

The Barcelona plant produces no emissions into the atmosphere.

3.6.4 Ilnor Brescia Service Centre

The Service Centre produces no emissions into the atmosphere.

Ozone layer depleting substances
None of the factories have emissions of atmospheric ozone-depleting gases.

3.7 Water

Water is a precious resource: avoiding any possible waste is an essential goal. As far as possible, it should be recycled and reused in industrial processes. It must also be properly treated in purification plants so that discharges comply with water quality protection regulations.

3.7.1 Fornaci di Barga

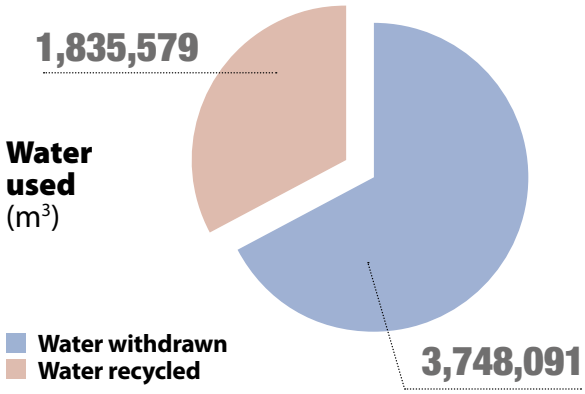
Water withdrawn

In 2021, the plant withdrew 1,835,579 m³ of water. Of this, over 99% (1,821,230 m³) came from the Polla Gangheri spring. The remainder (14,349 m³) comes from the municipal aqueduct and is used for sanitary purposes.

WATER (m³) RETRIEVED	2019	2020	2021
m³	1,930,908	1,527,418	1,835,579

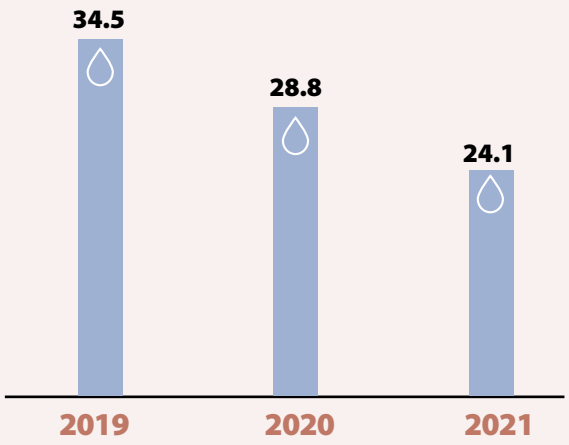
Recycled and reused water

Thanks to a series of technological and plant solutions, water is recycled and reused in the industrial process.
Based on some technical data (pump power, flow rate, filter capacity, etc.), it can be calculated that the total volume of water needed without these recirculation systems would have been 5,583,670 m³ in 2021.
This means that the company recycled and reused 3,748,091 m³ or 68.6% of the total amount of water used in the plant.



Water used per unit of product
The amount of water used amounts to **24.1 m³** per tonne of production, a decrease from the previous year (28.8 m³).

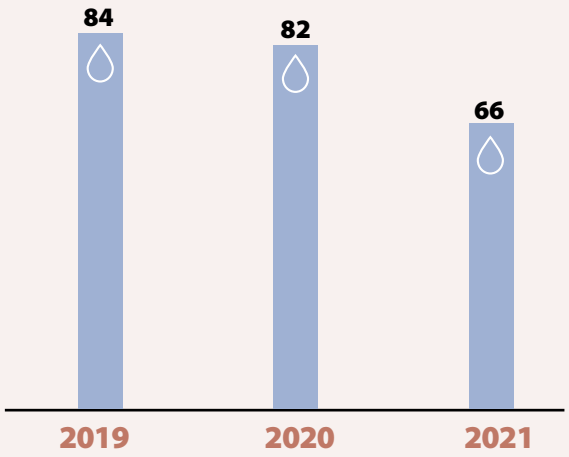
WATER USED PER UNIT OF PRODUCT
(m^3/t)



3.7.2 Besançon Service Centre

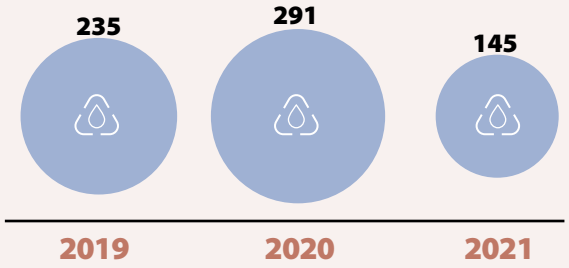
The water withdrawn from the water network in 2021 amounts to 66 m³.
This is a small amount, roughly corresponding to the average consumption of a family.

WATER TAKEN FROM THE WATER MAINS
(m^3)



A significant proportion of water is recycled and reused.

RECYCLED WATER
(m^3)



3.7.3 Barcelona Service Centre

The Barcelona plant uses water taken from the water network.
In 2021, approximately 364 m^3 were consumed.

3.7.4 Ilnor Brescia Service Centre

The Service Centre used 85 m^3 of water taken from the water network during the reporting period.

3.8 Purification and drains

Fornaci di Barga plant
The volume of **water discharged** in 2021 was **2,681,483 m^3** (+18.6% compared to 2020).

It must be taken into account that the plant's purification plant treats, in addition to the water used by KME Itali and EM Moulds for production processes and hygienic-sanitary uses, also water from the Fornaci di Barga sewerage system (527,347 m^3) as well as rainwater collected in the plant area (618,557 m^3).

Considering, in addition to the amount of water withdrawn for use in the plant's activities, also the rainwater collected in the village of Fornaci di Barga and in the area of the plant and treated in KME Italy's wastewater treatment plant, the total input of water resources in 2020 was 2,981,483 m^3. The difference between this value and the discharge value corresponds to the volume of evaporated water (300,000 m^3).

Following **purification** through chemical-physical treatment with selective resins for heavy metals, sand filter and carbon filter, the water is discharged into the Serchio river.

The values of pollutants in the waste water are well **within the limits** set by law (Legislative Decree 152/2006). In particular:

- **As far as copper is** concerned, the law stipulates a maximum concentration of 0.1 mg/litre, whereas water with much lower copper concentrations of between 0.02 and 0.05 mg/litre comes out of the plant;
- for **zinc**, the law imposes a limit of 0.5 mg/litre, whereas the water discharged by the plant has a concentration of 0.1 -0.26 mg/litre, i.e. less than half the legal limit.

4 Social sustainability

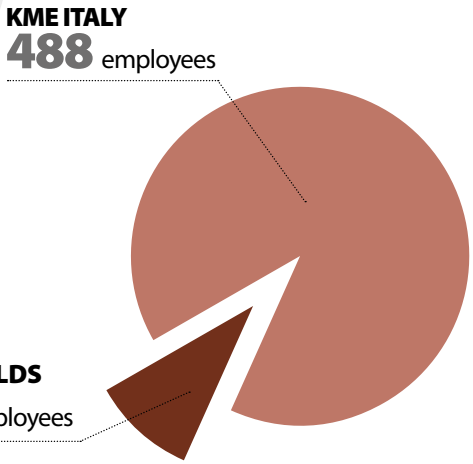
4.1 Employees

4.1.1 Fornaci di Barga

*to 31 December 2021

The plant has a total of **542 employees***.

542 employees



Employees of KME Italy engaged in purchasing, personnel management and supervisory services also perform services for EM Moulds, against remuneration paid by the latter to KME Italy.

EMPLOYEES	2019	2020	2021
	539	530	542

Compared to 2020, there was an increase of 12 (+2.3%), with 39 new hires.

QUALIFICATIONS	KME ITALY	EM MOULDS	TOTAL
WORKERS	394	44	438
EMPLOYEES	71	7	78
MANAGERS	18	3	21
DIRECTORS	5	-	5
TOTAL	488	54	542

AGE	20-30	30-40	40-50	OVER 50
KME ITALY	1	35	244	201
EM MOULDS	-	5	24	25
TOTAL	1	40	268	226

Performance evaluation

The performance of employees with grades 'C1' and above (KME internal coefficient) is assessed on the basis of company and individual objectives. The percentage of employees evaluated in 2021 was 7.8% at KME Italy and 7.4% at EM Moulds.

Protected categories

16 employees refer to protected categories (disabled), 8 to Law 68/99 art. 18 c. 2 (orphans)

Trade union agreements

In October 2018, KME Italy signed an agreement with the trade unions, replacing the previous one, containing a series of commitments until September 2021. The agreement confirmed the previous method of managing the redundant workforce through the use of alternative personnel management measures, incentivised mobility and solidarity, with the redundant personnel also being employed in activities outside the ordinary industrial perimeter.
In 2021, the lay-off phase ended and all employees returned to work.

4.1.2 Besançon Service Centre

At the end of 2021, there are **22 employees**, all with permanent contracts. To these are added **3 temporary workers**, who work as labourers.

With regard to the qualifications of the employees, 7 are blue collar workers, 8 white collar workers and 7 executives (some of them with management functions).

Among the employees, 9 are aged between 30 and 50, while 10 are over 50 and 3 under 30.

	2019	2020	2021
STAFF	**25**	**25**	**25**
OF WHICH EMPLOYEES	**23**	**22**	**22**
OF WHICH INTERIMS	**2**	**3**	**3**

4.1.3 Barcelona Service Centre

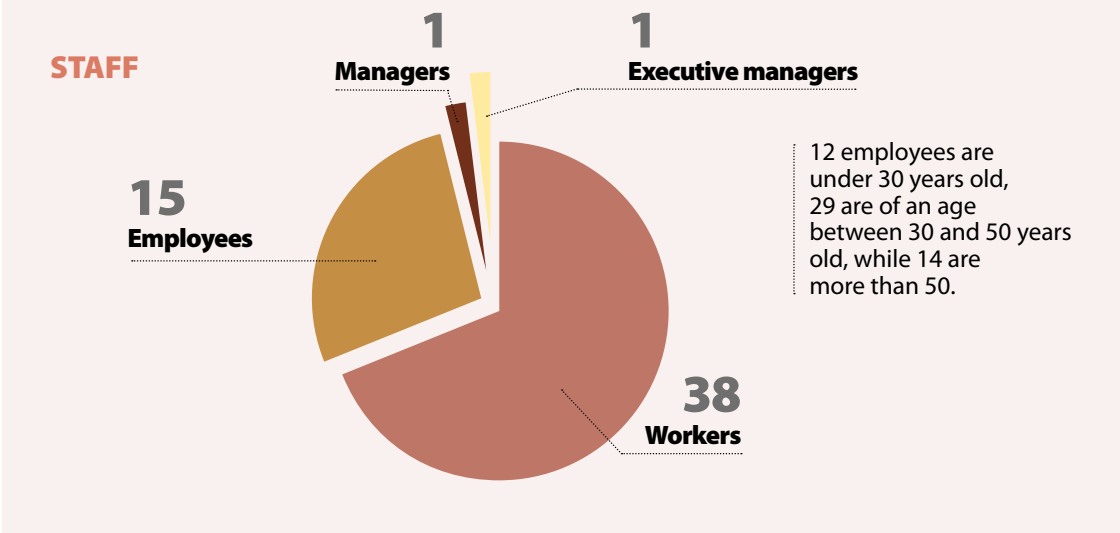
As at 31 December 2021, 22 people worked at the Service Centre (the same number as in 2020), of whom:
• 19 permanent, full-time employees
• 3 people with training contracts

In addition to these there are 3 administrators.

STAFF	2019	2020	2021
EMPLOYEES	**24**	**19**	**19**
TRAINING CONTRACTS	**3**	**3**	**3**

4.1.4 Ilnor Brescia Service Centre

The number of employees as at 31 December 2021 was 55.

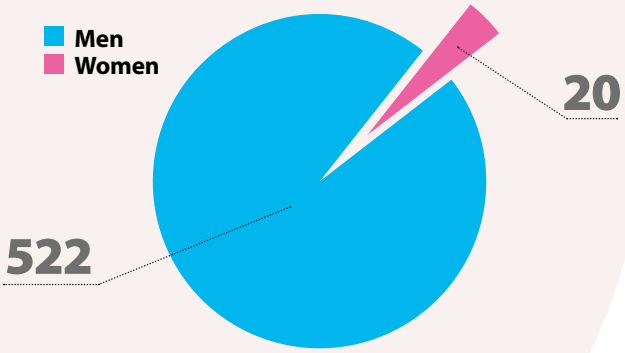


4.2 Equal opportunities

4.1.1 Fornaci di Barga

Out of a total of 542 employees, there are 522 men and 20 women.

Women make up a share of 28 per cent among white-collar workers and 17 per cent among middle managers, while among both managers and blue-collar workers the presence is exclusively male.

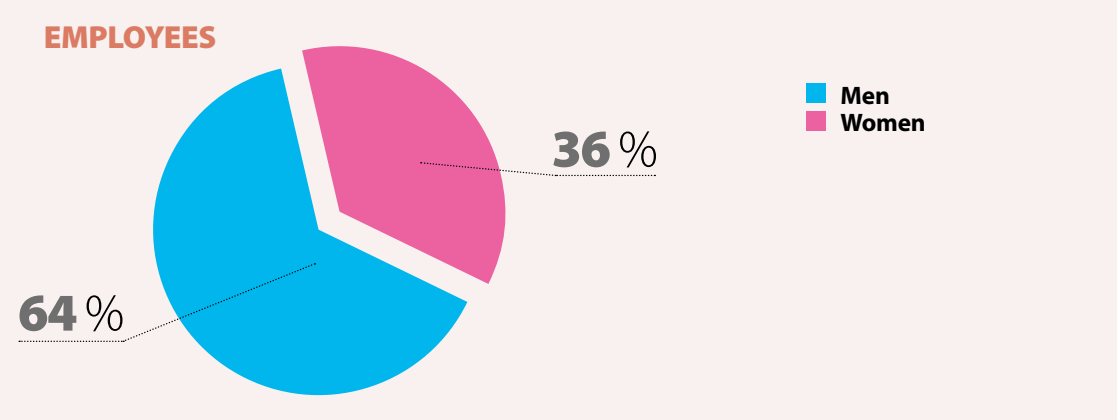


EMPLOYEES	MEN	WOMEN	TOTAL
DIRECTORS	5	0	5
MANAGERS	18	3	21
WHITE COLLARS	61	17	78
WORKERS	438	0	438
TOTAL	522	20	542

No incidents of gender discrimination were detected or reported during the period examined.
There is no disparity between the basic salary of men and women.
All employees are entitled to parental leave. In 2021, three men took it.

4.2.2 Besançon Service Centre

There are eight women out of a total of 22 employees. All of them are in the role of office workers and are employed on permanent contracts. The 3 workers on temporary contracts are men.

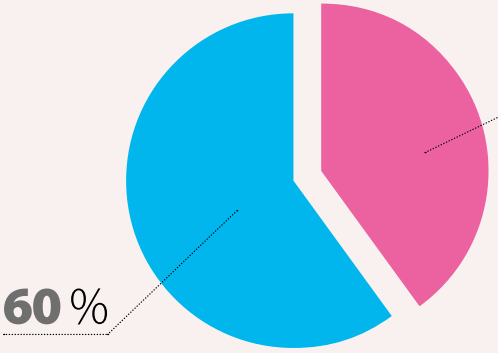


The Board of Directors is composed by only men.
There are no cases of discrimination.

4.2.3 Barcelona Service Centre

Among the 19 employees there are 6 women and 13 men. Out of 3 people working with training contracts there is 1 woman. In total, women make up 39%.

EMPLOYEES



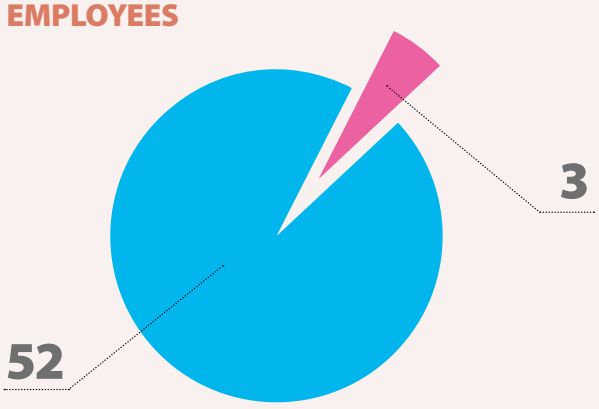
The board of directors consists of men only. There are no cases of gender discrimination.

During 2021, 1 (male) employee took parental leave.

4.2.4 Ilnor Brescia Service Centre

Out of 55 employees 52 are men, 3 are women. There are no cases of discrimination.

EMPLOYEES



4.3 Health and safety

The companies, as stated in the KME Group's code of conduct, consider the **protection of workers' health and safety** an essential element. To this end, they develop prevention activities with the goal of 'zero accidents at work'.

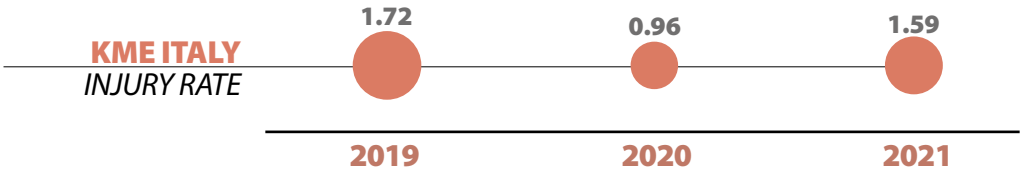
KME Italy, EM Moulds and KME Spain adopt the **UNI ISO 45001**, which, in addition to the provisions of the relevant national laws, defines a voluntary worker health and safety management system.

Fornaci di Barga

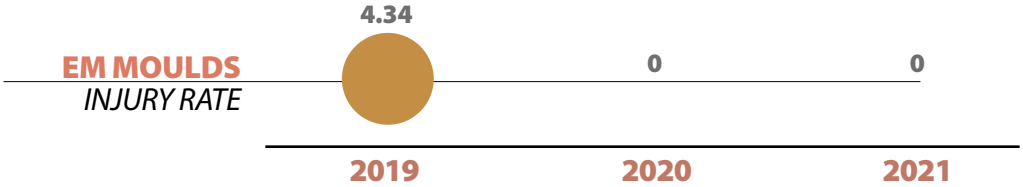
As far as **KME Italy** is concerned, six accidents were recorded during the last year.

INJURIES KME ITALY	2019	2020	2021
EMPLOYEES	539	530	542
NEW INJURIES	6	3	6

In 2021 **KME Italy** registered:
- an **accident** frequency rate (*Injury Rate*: number of accidents with an absence of more than 1 day/number of hours worked x 200,000) of **1.59** (+65%)
- an **accident severity** rate (*Gravity Index*: days of absence due to accidents/ number of hours worked x 1,000) of **0.19** (+32%).
- an *Occupational Diseases* Rate of **zero**.



As regards **EM Moulds**, however, as in 2020, no accidents or cases of occupational disease were recorded in 2021.



Measures taken to deal with the **pandemic**

On the basis of a special protocol, all the necessary preventive measures were taken to protect the safety and health of employees from risks related to the Covid 19 pandemic. This made it possible to ensure the continuity of production in compliance with safety standards.

Besançon Service Centre

No occupational accidents or cases of occupational diseases were recorded during 2021.

Barcelona Service Centre

There was one accident case in 2021 (*Injury rate 4.9*). There are no cases of occupational diseases.

Ilnor Brescia Service Centre

During the reporting period, 1 injury occurred. The Injury rate is 3.91.

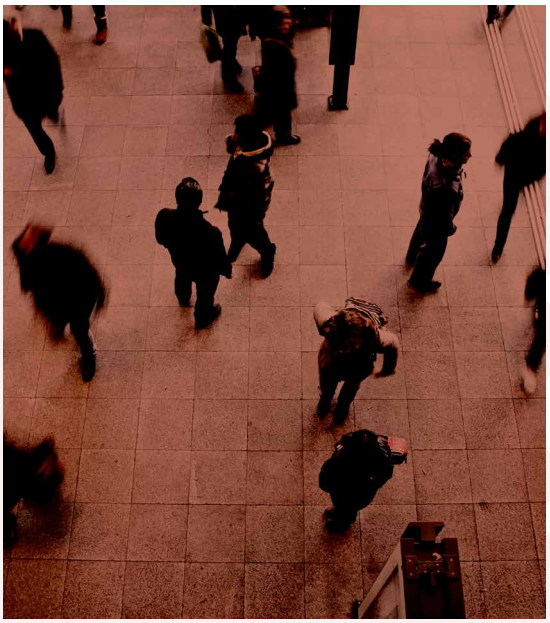
4.4 Training

At the Fornaci di Barga plant, the hours dedicated to training in 2021 averaged 7.88 per employee (7.6 for white-collar workers and 8 for blue-collar workers).

In the Besançon Service Centre 140 hours of training took place. On average, each employee benefited from approximately 6.4 hours of training activities.

In the Barcelona Service Centre, training hours averaged 6.64 per employee (of which 8.2 for blue collar workers and 5.4 for white collar workers).

At the Ilnor service centre in Brescia, the training hours averaged 2.25 per employee.



4.5 Corporate Welfare

Fornaci di Barga plant

KME Italy and EM Moulds have a **corporate welfare** system that complements the public welfare system

Even before it was provided for in the national metalworkers' contract, KME Italy and EM Moulds set up a corporate welfare system that makes available to its employees tax-free amounts to be spent on a series of reimbursable benefits (medical expenses, school expenses, transport, canteen, etc.) as well as the possibility of acquiring, within the limits of the current tax legislation, vouchers for the purchase of goods and services (shopping vouchers, fuel vouchers, vouchers for online purchases, etc.).

On the basis of the national contract, there are also:
- SMIASS **health insurance** for executive employees (managers and middle managers);
- Off-the-job **accident insurance** for employees;
- **Metasalute fund** covering health care costs for all employees.

Employees can use a company canteen at a flat rate of 0.39€, the difference being paid directly by KME to the canteen provider. For employees coming from the Pistoia mountains, the company provides a bus service that is fully paid for by KME. In periods when this is not available, for those coming from the Pistoia mountains, the company reimburses the transport costs.

Summer camps for employees' children are organised in cooperation with Dynamo Camp.

Service Centres

The Barcelona Service Centre has life insurance for some of its employees.

4.6 Suppliers

The KME Group adopts sustainability criteria in the organisation of its business processes. Company guidelines define binding standards for all companies operating within the KME Group.

With regard to the supply of **metals**, given the special nature of raw materials, purchases are made according to market availability. For **energy supplies**, preference is given to national suppliers with a higher renewable component, while for **other purchases of goods and services, preference** is given to **local suppliers**, according to quality/price ratio criteria.

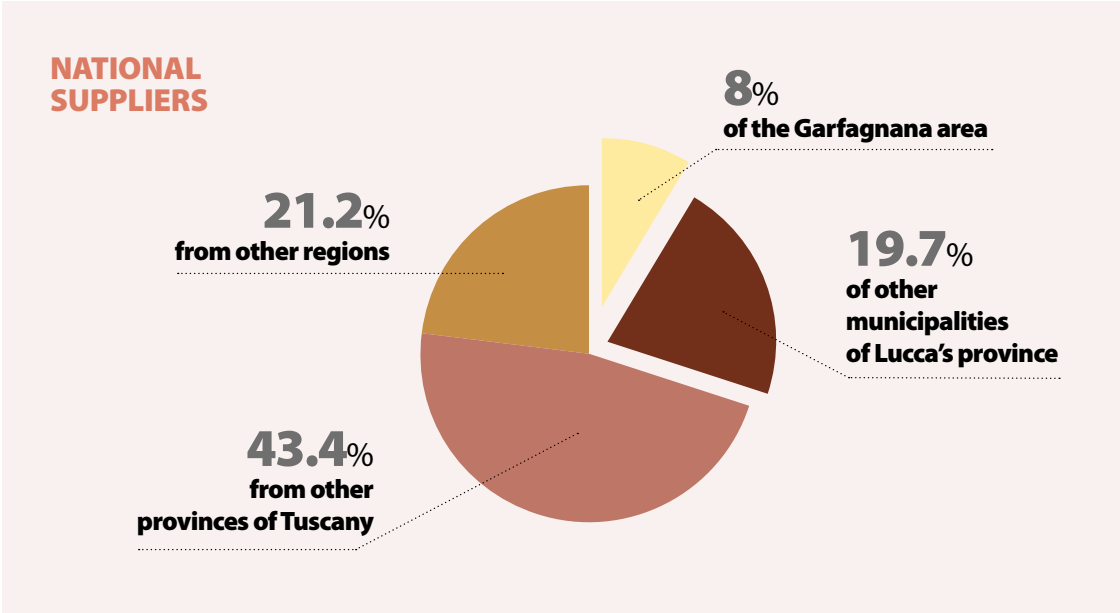
When selecting suppliers, appropriate criteria are adopted evaluating the potential partner from an environmental and social as well as organisational point of view. For the supply of goods and services, preference is given (preferential but not binding requirement) to **environmental management** system certifications (ISO 14001 or EMAS), **safety** management system certifications (UNI ISO 45001) and quality system certifications (ISO 9001).

With regard to the procurement of raw materials, KME Italy **does not use minerals** from **regions with armed conflicts**.
Because of the complex supply chain and multiple metal processing KME Italy - aware that it is not possible in any case to fully trace the materials acquired, especially with regard to recycled materials - when selecting new suppliers considers participation in EICC-*Gesi Conflict-Free* (initiative of the *Electronic Industry Citizenship Coalition* and of the *Global e-Sustainability*).

4.6.1 Fornaci di Barga Plant

KME Italy
Excluding supplies of metals and raw materials, there were 636 suppliers of goods and services in 2021, with a total value of **23,780,017 euro**.

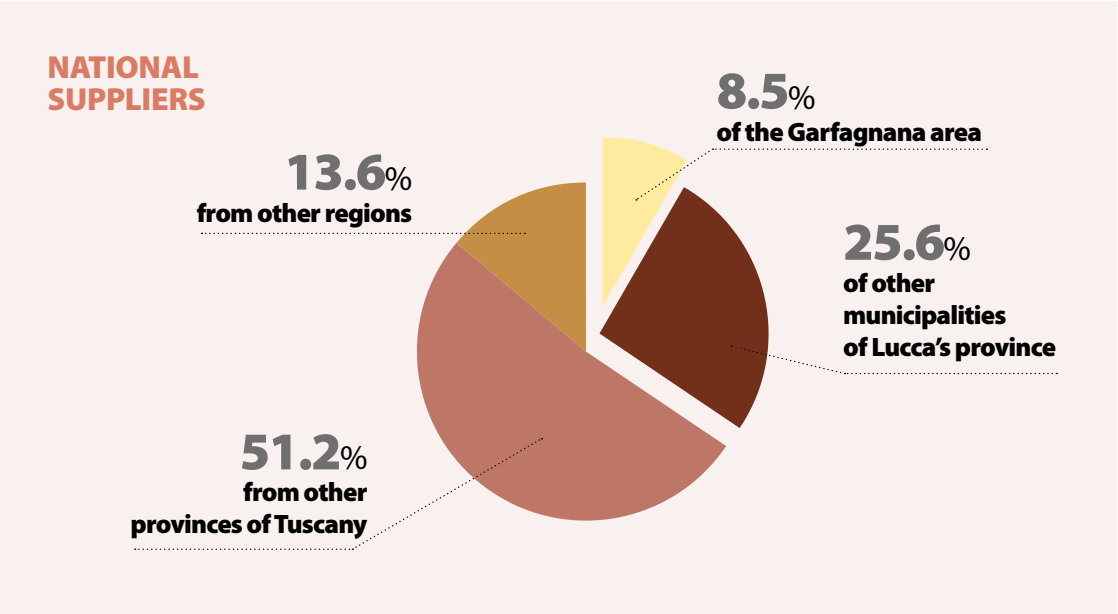
Domestic suppliers account for **92.3 % of the total**.



6.3% are suppliers from other European countries.

EM Moulds
Net of metal and raw material supplies, EM Moulds had 176 suppliers with a total value of **4,251,810 euro**.

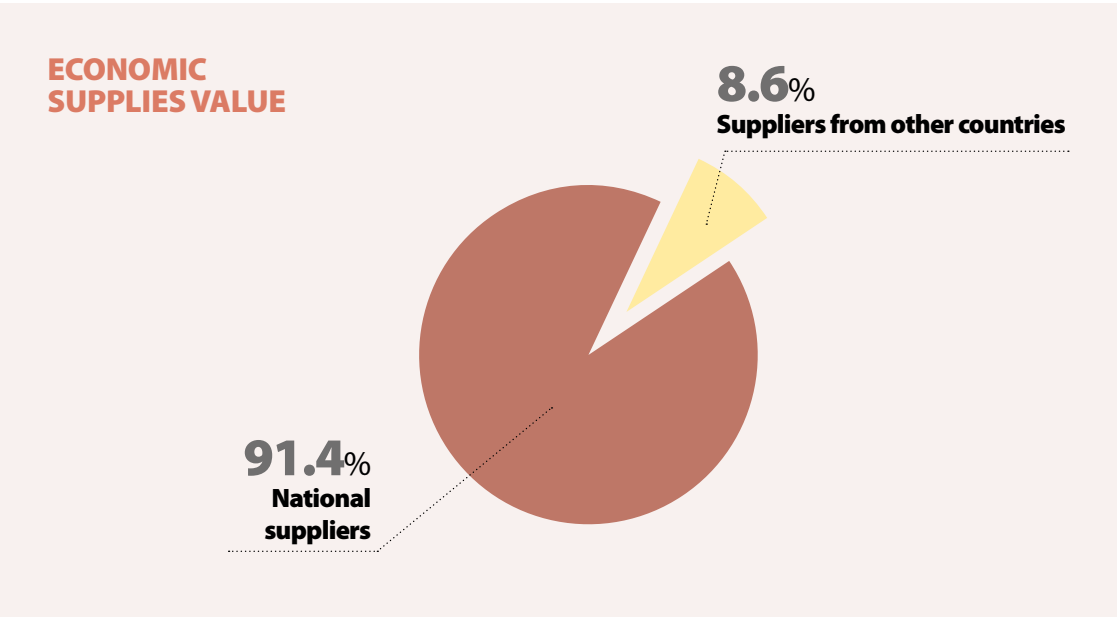
Domestic suppliers account for **98.9% of the total**. In more detail:



Suppliers from other countries account for 1.1%.

4.6.2 Besançon Service Centre

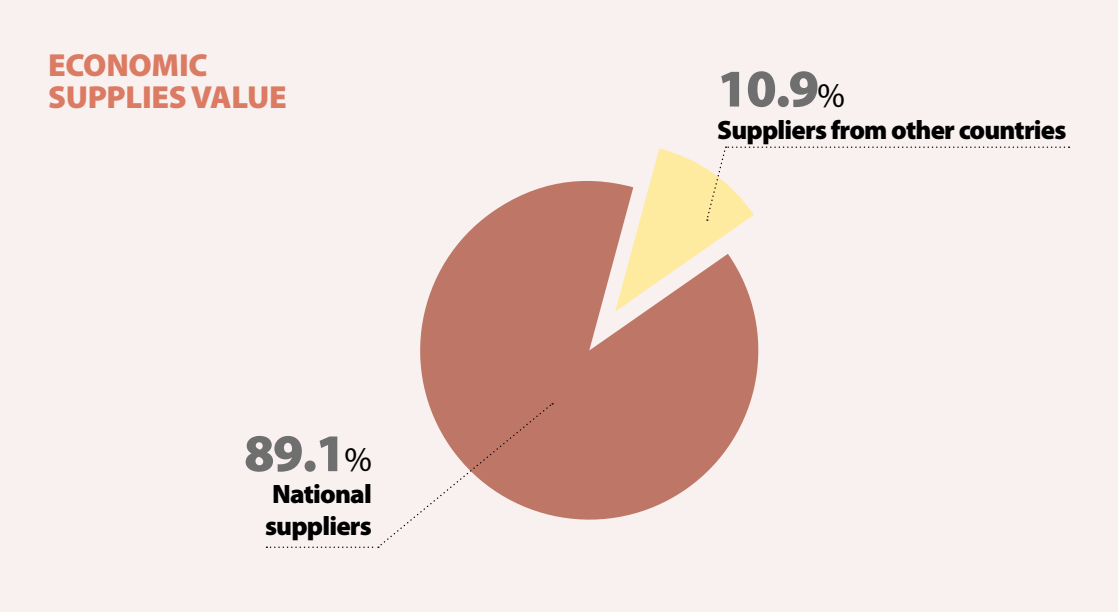
In 2021, the economic value of supplies* was **2,393,236 euro**.
Of this amount, 91.4 % related to domestic suppliers and 8.6 % to suppliers from other countries.



**Net of supplies of metals and raw materials*

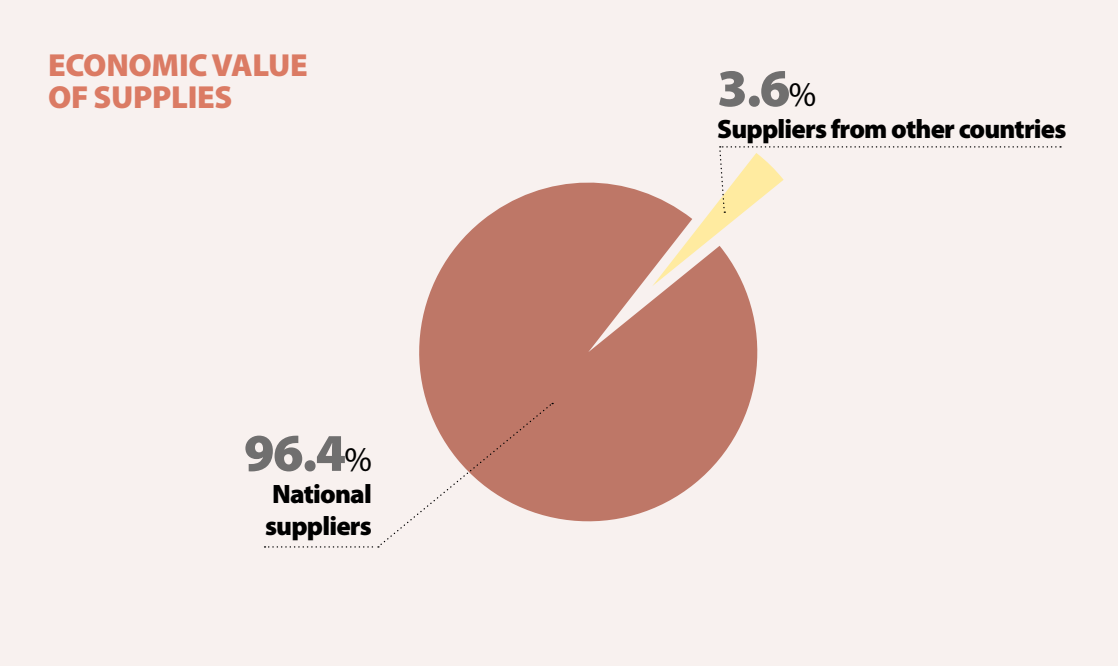
4.6.3 Barcelona Service Centre

In 2021, the economic value of supplies* was **974,307 euro**.
Of this amount, 89.1% related to domestic suppliers and 10.9% to suppliers from other countries.



4.6.4 Ilnor Brescia

During the reported period (7 months of 2021), the economic value of supplies* was **807,645 euro**.
Of this amount, 96.4% concerned local suppliers and 3.6% from other European countries.



**Net of metal supplies and raw materials.*

4.7 Relations with the territory

The **Fornaci di Barga plant** has an ancient and deep-rooted relationship with the territory in which it is located. Since its foundation in 1916, the history of the plant has been closely intertwined with that of the town, the Mediavalle del Serchio and Garfagnana, contributing to its **economic** and **social development**.

In this regard, it is worth mentioning some of the activities carried out in recent years:
- the construction of cliffs along an embankment of the Serchio river near the town of Fornaci di Barga;
- the construction of a 'slip road' between the industrial area of Fornaci di Barga and the two main roads leading to Mediavalle and Garfagnana, with the ultimate aim of removing heavy and lorry traffic from the main town street;
- the redevelopment of a multi-purpose field and adjoining premises, donated to the community, used for play and recreational activities;
- the free loan of a gymnasium for Judo and martial arts to the Fornaci di Barga Judo Club;
- premises for theatrical activities;

It should also be mentioned that since 2016, and until 2021, KME has supported the municipalities in the area with about 50 employees who, after special training, had been assigned to green maintenance and other activities in favour of the local authorities and communities*. The operation was fully paid for by KME.

**On the basis of the law on solidarity contracts (which stipulates that the employees concerned are employed in socially useful activities, and paid by the company, for a minimum number of hours), the staff on the solidarity contract were employed for the management of public green areas and small maintenance activities.*

5 Economic sustainability

5.1 Results

Economic, financial and balance sheet data are published in the accounting documents and financial statements, which are prepared in accordance with the law. Please refer to these for all detailed information. The sustainability report limits itself to highlighting a few key figures and some particularly relevant information from the point of view of social sustainability, including the economic value provided to employees and the public administration. Special attention is also paid to investments in research and development, process and product innovations related to the ecological transition, and occupational safety.

Establishment Fornaci di Barga

In 2021, the total turnover of the plant was 443.2 million euro, of which **423.1 million euro** related to KME Italy and 20.1 million euro to EM Moulds. Compared to the previous year, this represents an increase of 59%.

Net of the value of raw materials*, **the turnover amounted** to **103.6 million euro** (88.9 million euro for KME Italy and 14.7 million euro for EM Moulds), an increase of 50.8 % compared to 2020.

This is particularly significant because it allows us to measure the company performance without the effect determined by the variability of commodity prices.

The economic value disbursed to **employees** as direct remuneration was approximately **21 million euro** (19.1 million euro KME Italy and 1.9 million euro EM Moulds). The economic value disbursed to the **public administration** (direct and indirect taxes) was **35 million euro** (33.6 million KME Italy and 1.4 million EM Moulds). The value of **donations and social initiatives** for the local community by KME Italy was **475,000 euro**.

Besançon Service Centre

In 2021, the turnover amounted to 61.4 million euro, an increase of 60.3% compared to the previous year. Net of raw materials it amounted to 15.5 million euro (+42.2%).

The economic value paid to employees as direct remuneration was 961,000 euro.

The economic value disbursed to the public administration (direct and indirect taxes) was 742,000 euro.

Barcelona Service Centre

The turnover amounted to 5.7 million euro, a decrease of 71.3% compared to the previous year. Net of raw materials, it was approximately 1.1 million euro (-73%).

The economic value paid to employees as direct remuneration amounted to 796,000 euro.

The economic value disbursed to the public administration (direct and indirect taxes) was 248,000 euro.

ILNOR Service Centre Brescia

In the reported period, the turnover amounted to 58.9 million euro. Net of raw materials it amounted to 7.5 million euro.

The economic value paid to employees as direct remuneration was approximately 1.4 million euro, that to the public administration (direct and indirect taxes) 885,000 euro.

5.2 Investments

Kme Italy

During the financial year 2021, investments in tangible assets amounted to **2,134,000 euro**.

Main investments:

- *LOMA 2 Smoke system - 780,000*
- *New cover building 135 CIM 1st step - 260,000*
- *New roof building 93 - 1st step - 130,000*
- *Structural reinforcement of the building - 127,000*
- *Seismic upgrading of Service Centre 120,000*
- *New roofing building 93 - 2nd step - 100,000*

A large part of these investments relate to the environment and safety, totalling 2,045,000 euro.

EM Moulds

The investments, amounting to €738,750, mainly concerned the electric furnace (€714,494) and safety improvements (€24,256).

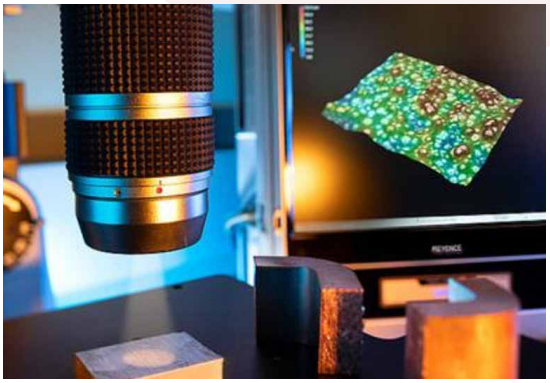
Barcelona Service Centre

Investments totalled 641,000 euro. The main interventions concerned the new headquarters (590,000 euro), the lubrication spray system (23,000 euro) and the arm clamping and pressing system (12,000 euro).

5.3 Research and Development

Establishment Fornaci di Barga

The research and development activities of KME Italy and EM Moulds are both application and process oriented. They are conducted in close cooperation with the production units as well as with universities and other research centres. The specific expertise of KME Italy concern in particular the metallurgy and metallography of copper and copper alloys, as well as chemistry with particular reference to electrochemistry applied to surface treatments.



Antiviral product line

KME saCup

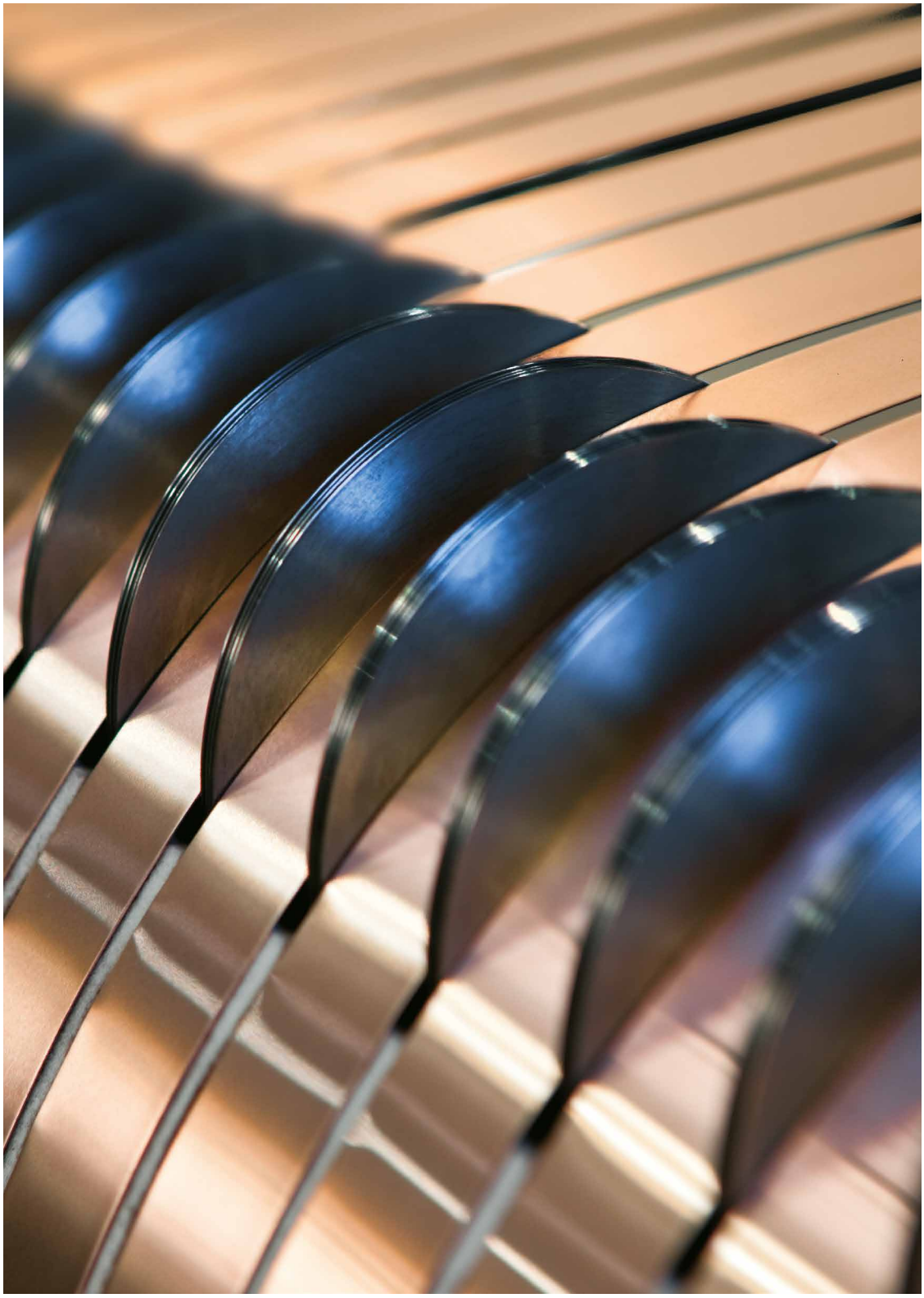
Most infectious diseases can be transmitted through surfaces. Viruses and bacteria, including COVID-19, can survive on stainless steel or plastic for days or even weeks and, in abrasions, even on disinfected surfaces. Infections are a central issue in hospital hygiene and cause up to 100,000 deaths per year in the European Union.

A solution that comes from copper
Copper has a permanent germicidal effect. Its unique texture kills any type of virus, bacteria or fungi in no time: Coronavirus, E. Coli bacteria, influenza, MRSA, Rotavirus, Salmonella, Campylobacter, Legionella.

The scientific evidence
Objects enhanced with copper or copper alloys have 80% less bacteria than equivalent objects made of other materials.

Copper as a natural barrier against infection by viruses and bacteria
The antiviral properties remain unaltered throughout the product's lifetime. Safe for humans, easy to clean, extremely durable.

6 Circular economy



KME Fornaci di Barga
A pole of excellence in the **circular economy**

The KME Group aims to help accelerate the transition to a circular economy.
Already today, KME's **productions** are to a significant extent guided by the **principles of circularity, as they make** significant use of materials from recycling and recovery processes.

KME Italy is committed to making Fornaci di Barga a **pole of the circular economy**, with innovative projects that intend to further improve efficiency in the use of materials and energy, contributing to the development of the plant and the entire territory. The **Circular Academy**, established by the company, goes in the same direction.

The production models of the **Service Centres** in Besançon, Barcelona and Brescia are also based on the same principles of circularity, relying on the infinite recyclability of copper and the widest possible recovery of everything derived from the industrial process.

64.9%
of the metal used comes from recycling

68.6%
of water is recycled

90.1%
of waste is sent for recovery

CIRCULAR ACADEMY

ILNOR, a model of circularity

ILNOR's production model is based on the principles of circularity: from the use of recycled materials and the melting down of scrap, in a highly efficient supply chain, it is possible to obtain new products capable of guaranteeing technologically advanced applications. But that's not all: ILNOR adopts systems aimed not only at reducing consumption, but also at recovering everything that results from the industrial process. This includes the complete reuse of process water to avoid the consumption of groundwater. The building in which the Service Centre operates is also equipped with a photovoltaic system and the energy produced is used for self-consumption.

6.1 Circularity indicators

6.1.1 Resource productivity rate

A first very important indicator is the ratio between the amount of **materials used** and the **output** of a company. The resource productivity rate thus measures the consumption of materials per unit of output. The lower this value, the more efficient the use of resources.

Fornaci di Barga plant

The Fornaci di Barga plant had a resource productivity rate of 1.14* in 2021. In other words, 1.14 tonnes of materials were used for every tonne of product.

This figure is certainly positive, although slightly up from the previous year, when this indicator was 1.10; the increase is due to the greater complexity of production in the financial year 2021.

Besançon Service Centre

Resource productivity in 2021 was 1.14 tonnes of material used per tonne of production.
In 2020 it was 1.03.

Barcelona Service Centre

In 2021, the resource productivity rate, in terms of materials used per unit of output, was 1.06 t/tonne.

ILNOR Service Centre Brescia

During the reported period, the resource productivity rate, in terms of materials used per unit of product, was 1.34 t/tonne.

**It should be borne in mind in this regard that: a) the figure used in the report for production volume is refers to that of sales, as the two values are considered to be substantially the same; b) the relative figure to the materials used is actually referred to the amount of materials entering the plant and it is therefore possible that a portion will remain as stock in the warehouse, has not actually been used in the 2020. All this may have repercussions on the calculation of the rate of productivity.*

6.1.2 Circularity rate

The circularity rate measures the percentage of secondary raw materials (materials derived from the recycling of waste and the recovery of production waste) in relation to the total materials used. The higher this percentage, the more virtuous the production cycle.w

Establishment Fornaci di Barga

62%

OF MATERIALS USED CONSISTS OF RECYCLED MATERIALS

Scrap (copper scrap, brass scrap, share of semi-finished products), together with a share of recycled wood, account for 62% of the materials used in 2021 (up from 60.4% in 2020). This contributes to a significant reduction in the consumption of virgin raw materials and environmental impacts.

64.9%

OF METALS USED CONSISTS OF SCRAP

When measured on metals alone, the circularity rate rises to 64.9 per cent, a further increase from 64.4 per cent in the previous year.

THANKS TO INTERNAL RECOVERY THE CIRCULARITY RATE OF METALLIC MATERIALS RISES IN 2020 TO

74.4%

Circular material utilisation processes do not end with these numbers, because in addition to the use of recycled materials outside the plant, **production waste** is fed back into the production cycle through **recovery** processes inside the plant. Thus, the percentage of metals from the use of scrap and the recovery of production waste in relation to the total metals processed rises to 74.4% (compared to 77% in 2020).

Besançon Service Centre

A virtuous circle exists between the Fornaci di Barga and Besançon plants, not only from a production and commercial point of view, but also from that of 'circular' material flows. Most of the incoming materials, in fact, coming from Fornaci di Barga or other group plants, were produced with a prevalent use of materials derived from recovery and recycling (scrap). In turn, scrap from the Besançon plant is fed back into the production cycle at Fornaci di Barga and other group plants.

Net of metals, **6%** of the other materials used by the Service Centre come from recycling.

Barcelona Service Centre

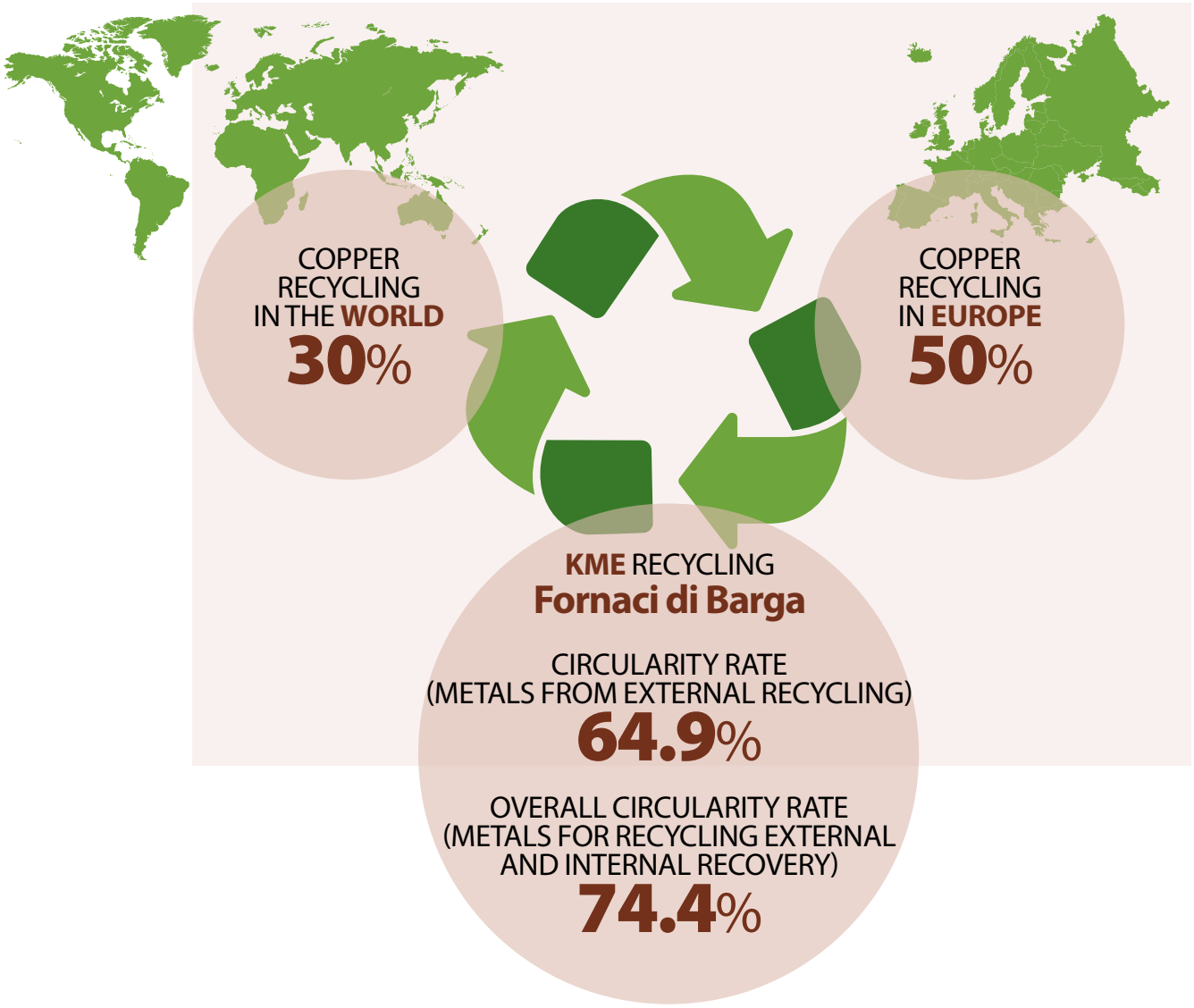
What has just been said about the Besançon plant also applies to the Barcelona plant, in particular with regard to the use of workmanship from Fornaci di Barga, largely produced using secondary raw materials.

In addition, some 626 tonnes of scrap from the Service Centre were sent to other group plants in 2021 to be recycled and fed back into the production cycle.

ILNOR Service Centre Brescia

In the reporting period, **48%** of the materials used came from recycling processes. Again, this is due to the fact that semi-finished products from Fornaci di Barga or other group plants were produced with a prevalent use of materials derived from recycled scrap.

Comparing **numbers**



6.1.3 Waste reduction and recycling

The construction of a circular economy model requires a progressive reduction of waste and an increase in material (or subordinately energy) recovery downstream of production through proper waste management.

Fornaci di Barga plant

A significant indicator is the **amount of waste per unit of product**. In 2021, **0.06** tonnes of waste was generated per tonne of production, a further reduction compared to 2020, when 0.07 tonnes of waste was generated per unit of product.

Another important indicator is the percentage of waste **sent** for **recovery** instead of disposal in landfills. In 2021, this will be **90.1%** (up from 85.5% in 2020).

Besançon Service Centre

Waste production per unit of product is **0.05** t.
100% of the waste was sent for recycling.

Barcelona Service Centre

In 2021, waste per unit of product is **0.005** t/tonne.
100% of non-hazardous waste was sent for recycling.

ILNOR Service Centre Brescia

Waste per unit of product amounted to **0.03** t/tonne.
97.4 per cent (4.1 per cent) was sent for recovery.

6.1.4 Efficient use of water resources

Using water efficiently is another essential objective in the transition to a circular economy.

Fornaci di Barga plant

In 2021, 24.1 m^3 of water was withdrawn for every tonne of production, compared to 28.8 m^3/t in 2019.

Recycled water within the production process is **68.6%** of the total water used, which is even higher than in 2020 (68.4%).

Besançon Service Centre

The amount of water used in the Service Centre is very minimal. However, it is worth calculating the amount of water withdrawn per unit of product, which is **0.011** m^3/t in 2021. A significant amount of water (145 m^3) was recycled and reused.

Barcelona Service Centre

The Barcelona Service Centre also uses small quantities of water. The water consumption per unit of product is **0.015 m³/t.**

ILNOR Service Centre Brescia

The ILNOR Service Centre used small quantities of water (85 m³) taken from the water network. The consumption per unit was **0.011 m³/t.**

6.1.5 Efficient use of energy

In a circular economy model, energy must also be used efficiently, using renewable sources to the greatest extent possible. A significant indicator is the energy consumption per unit of product.

Fornaci di Barga Plant

In 2021, energy consumption per unit was 1,884.08 kWh eq. There was a further increase in efficiency compared to the previous year (2,096.5 kWh eq/t.).
Over the past three years, the **reduction** in energy consumption per unit of product was 11%.

Besançon Service Centre

In 2021, 70.6 kWh of electricity was consumed per tonne of production, compared to 103.5 kWh/tonne in the previous year.

Barcelona Service Centre

Even lower, compared to other plants, is the consumption of electricity in relation to production. Although increasing compared to 2020, in 2021 they amounted to 25.6 kWh per tonne of production.

ILNOR Service Centre Brescia

In the reported period, electricity consumption per unit of product was 445.8 kWh/tonne. As already mentioned, this figure, which is higher than that of other Group Service Centres, is defined by the fact that for a few months, the plant also carried out rolling production processes, which were then decommissioned.

It should also be pointed out that the EGM plant, in which ILNOR operates, is equipped with an extensive roof-mounted photovoltaic plant, the energy production of which is entirely intended for self-consumption. Around **90%** of the electricity used by ILNOR comes from this renewable energy production plant, and only the remaining **10%** is purchased from the grid.

6.2 Company projects

The transition to the circular economy requires investments in research and development, eco-design, technological innovations, new materials, industrial symbiosis and efficient use of resources. KME Italy is particularly active in this direction through a series of projects consistent with the principles of the circular economy.

Industrial symbiosis project
KME Italy has defined an innovative **project** for the revitalisation of the Fornaci di Barga plant in order to turn the plant into a circular economy pole by increasing production and employment. The project has the following objectives:

- realise an experience of **industrial symbiosis** in relation to the paper manufacturing district;
- **self-producing energy**, reducing its cost;
- **improve the** authorised emission **framework** of the industrial site;
- increase **production** and **employment**;
- create a **circular economy hub**.

The project includes:

- interventions in the Fornaci di Barga plant for the **reconversion of the** copper **smelting process**, switching from the use of **thermal** energy (natural gas combustion) to the use of **electricity**, thereby reducing atmospheric emissions;

- the construction of a plant for the production of electrical and thermal **energy** through the **energy valorisation of paper mill** processing **residues** (pulper and process sludge) from the paper district of the province of Lucca; this would bring a benefit in terms of competitiveness for the plant, reducing energy costs, and at the same time would allow the waste paper cycle to be closed in a logic of **industrial symbiosis** according to the principles of the circular economy.

The project is submitted to the competent bodies for the necessary authorisation process.

** Pulper is the end-of-process residue resulting from treatment of waste paper. It is a residue classified as 'non-hazardous', with high calorific value (approx. 15,000 kJ/kg), and does not emit unpleasant odours*

The **project** at a glance

1. Metallurgical plant conversion (copper smelting from thermal to electric)
2. Self-generation of electricity
3. Specific actions to reduce atmospheric emissions
4. Closing the paper industry waste cycle

Fuel: waste from the paper industry (100,000 tonnes/year)*
Technology: two-stage process (gasification + combustion)
Energy output: 12 MW
Operation: 8,000 hours/year
Power supplied: 96,000 MWh/year

Ecopallets Project
The project includes the construction of a plant for the production of ecopallets and ecodesigns for the construction of pallets by recycling wood waste, thus avoiding the consumption of virgin raw materials, according to the principles of the circular economy. Thermal energy produced by the plant for the energy valorisation of paper mill residues will be used.

The finished products will be the result of an innovative industrial process involving the production of wood pulp and its pressing into pallets and nuts. The plant will be built in the area of the former foundry, which is currently unused, and will be equipped when fully operational with 2 production lines for the production of ecoblocks and 3 lines for the production of ecopallets.

Ecoblock

Eco Pallet

Project crystallisers
The crystalliser (or ingot mould) is a copper container through which a molten metal is poured to obtain an ingot. The design created by EM Moulds makes it possible to:

- develop a new production process with the *remanufacturing* of used end-of-life crystallisers to obtain new crystallisers for different customers (as the new dimensions are necessarily smaller than the original dimensions for technical reasons);
- implement a new business model
- *Product-Service-System (PSS);*
- develop *reverse logistics* to bring end-of-life crystallisers into EM Moulds;
- consolidate the *remanufacturing* process to maintain quality standards
- market *remanufactured* crystallisers.

Circular **district**

In an area with a high degree of industrialisation, the redevelopment of disused areas of the plant is aimed at hosting other industrial and non-industrial realities in a logic of industrial symbiosis and/or sharing of common services. The objective is to favour the development of an industrial district that allows competitive advantages for companies through the valorisation of production waste, the sharing of resources and industrial services.

6.3 Circular Academy

Redeveloping a disused area of the plant, KME Italy has established the Circular Academy, a training, research and innovation centre dedicated to the circular economy. A reference point for companies, with educational activities and laboratories equipped to support the development of the circular economy.

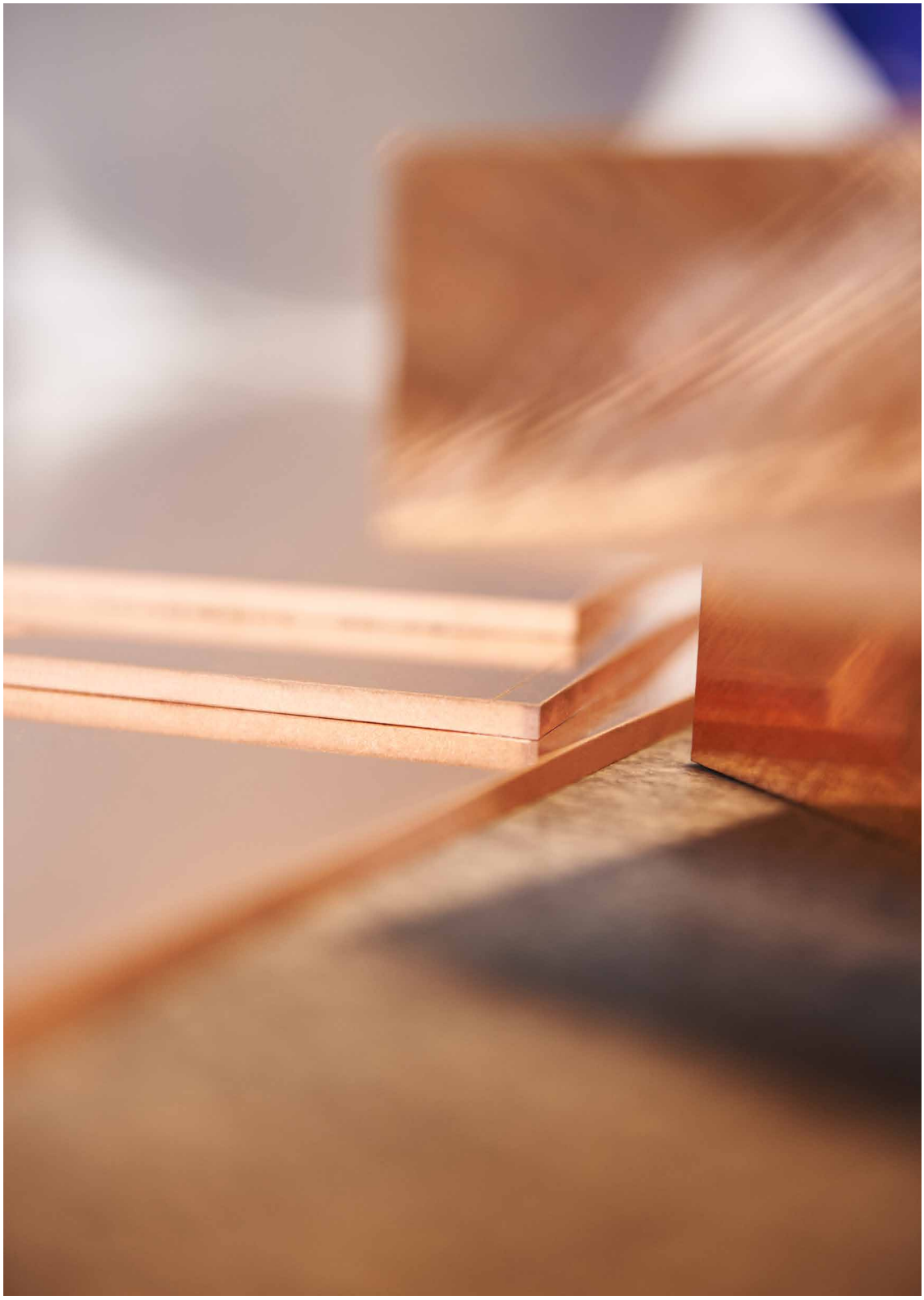
The activities kicked off in 2019 with the first highly specialised course '*Circular economy for business*', realised in cooperation with the Scuola Universitaria superiore Sant'Anna in Pisa.

The aim is to provide functional knowledge to interpret the role of the **circular economy manager** in a conscious and innovative manner, to develop the ability to manage companies in a circular logic, and to address transformation processes according to the principles of the circular economy in all business processes, from **design** to **supply chain management**, from **production to marketing**.

CIRCULAR ACADEMY

SCUOLA SUPERIORE SANT'ANNA PISA

7 Appendix



7.1 Methodological note

The sustainability report was prepared according to the guidelines of the **Global Reporting Initiative** (GRI). For the calculation of the distribution of added value to stakeholders, the **GBS** (National Study Group for Social Accounting) **calculation methodology** was used. The **circularity indicators**, in the absence of standardised criteria and parameters at the European level (currently being developed), refer to the indicators contained in the document "*Circular Economy and Efficient Use of Resources - Indicators for Measuring the Circular Economy*" of the **Ministry of the Environment**, in collaboration with the Ministry of Eco- nomic Development and with the technical-scientific support of ENEA, published in December 2018.
The report was prepared in cooperation with the company **Greening Marketing Italia**.

Reporting Perimeter
The report relates to the Fornaci di Barga plant, where KME Italy and EM Moulds operate, and also includes the Service Centres in Besançon (France), Barcelona (Spain) and Brescia. Where possible, information relating to Fornaci di Barga is reported in aggregate form and in this case refers to the entire perimeter of the plant; on some specific aspects, information is instead reported separately for each of the two companies operating in the plant. Information on the Service Centres is reported separately.

Reporting Period
The budget is for the year 2021. In many parts of the report, the reported data also refer to previous years (2019 and 2020) in order to visualise and compare performance over time. As far as the ILNOR plant in Brescia is concerned, the reported period runs from 4/6/2022 to 31/12/2022.

Principles for defining report content Materiality: the information contained in the report and its level of detail take into account all significant impacts (economic, environmental and social) and all aspects that could substantially influence stakeholders' assessments and decisions.

Stakeholder inclusiveness: the report addresses all stakeholders, internal and external, who are involved or may be involved in the activities of the plant and the companies.

Sustainability context: The report describes the perfor- mance of companies with respect to sustainability goals, taking into account both globally significant impacts (such as climate change) and specific impacts in the territorial context in which the companies operate.

Completeness: the report describes the environmental, economic and social performance of the company using a system of indicators describing the main impacts of the activities carried out and highlighting their development over the reporting period. Indicators are also used. Of circularity to measure company performance with regard to resource efficiency and the objectives of the European Plan of Action for the Circular Economy.

Principles of quality assurance of the balance report: the report describes both the positive and negative aspects of the environmental, social and economic performance of the plants, providing qualitative information and quantitative data that allow the reader to make an independent and balanced judgement.

Comparability: The indicators developed in the report follow the methodologies indicated by the GRI guidelines, thus making it possible to compare the performance of companies and other industries, as well as to assess their evolution over the reporting period.

Accuracy: Each indicator developed in the report is elaborated according to a homogeneous scheme, showing numerical data in tables, accompanying them with explanatory graphical representations and illustrating the main findings with a summary text. The tables and graphs indicate the units of measurement used.

Clarity: The report is drafted using a language that is as simple as possible, avoiding bringing in too much detailed technical information. The structuring of the index and the table of correspondence with the GRI index help stakeholders to identify issues of specific interest to them in the report. Graphical illustrations facilitate the understanding of the data.

Verifiability: information is provided in such a way that it can be verified over the years and possibly become the subject of external scrutiny.

Production data
The production figure for the Fornaci di Barga plant is to be understood as the quantity of products leaving the plant (output) during the year, while the figure for materials used refers to the quantity of materials entering (input) during the same period. The production figure may therefore include some quantities not actually produced during the year but already in stock. Nevertheless, this data is also considered reliable in order to measure resource efficiency with sufficient approximation over time, as the stock trend is essentially constant.

Ilnor Brescia
The data relate to a time span of about seven months: from 4 June, when the centre began operations, to 31 December 2021. It must also be taken into account that in the first phase, for about two months, ILNOR also carried out rolling activities, which were subsequently decommissioned, and that this had a significant impact on a series of environmental data, for example in terms of higher energy consumption and waste production.

7.2 GRI Correspondence Tables

GRI INDICATOR	DESCRIPTION	CHAPTER/ PARAGRAPH
	ORGANISATION	
	Organisation Profile	
102 - 1	Name of organisation	2
102 - 2	Activities, brands, products and services	2.2 -2.3
102 - 3	Location of management offices	2.1-2.2-2.3-2.4
102 - 4	Localisation of existing activities	2.1-2.2-2.3-2.4
102 - 5	Ownership and legal status	2.1-2.2-2.3-2.4
102 - 7	Order of magnitude of the organisation	2.1-2.2-2.3-2.4
102 - 8	Information on employees and other workers	4.1
102 - 9	Supply chain	4.6
102 - 10	Significant changes in relations between the institution and the own supply chain	
102 - 11	Precautionary Principle	2.6-3.1
102 - 12	External Initiatives	4.7
102 - 13	Membership of associations	
	Strategy	
102 - 14	Declaration of the highest decision-making centres	Letter to the stakeholder
102 - 15	Main effects, risks and opportunities	
102 - 16	Values, principles, standards and norms of behaviour	2.6
102 - 17	Ethics advisory mechanisms	
102 - 18	Governance Structure	2.5
102 - 19	Delegating process	
102 - 20	Executive level for economic, environmental topics and social	
102 - 21	Consultation with stakeholders on topics economic, environmental and social	
102 - 22	Composition of governance at the highest levels	2.5
102 - 23	Chairing the highest level of governance	2.5
102 - 24	Apex nomination and selection	
102 - 25	Mechanisms to counter conflicts of interest	2.6
102 - 26	Role of senior governance figures in the setting out values and intentions	
102 - 27	Cognition of senior governance figures on the individual topics	
102 - 28	Governance performance evaluation apical	
102 - 29	Identification and management of economic impacts, environmental and social	3.1
102 - 30	Effectiveness of risk management processes	
102 - 31	Monitoring of economic, environmental and social topics	

GRI INDICATOR	DESCRIPTION	CHAPTER/ PARAGRAPH
102 - 32	Role of top governance on the report of sustainability	
102 - 33	Communication of critical aspects	
102 - 34	Nature and number of critical aspects	
102 - 35	Remuneration policies	
102 - 36	Pay Determination Process	
102 - 37	Level of stakeholder involvement in the remuneration process	
102 - 38	Annual total compensation ratio	
102 - 39	Percentage increase in the compensation ratio	
102 - 40	List of stakeholders involved	1
102 - 41	Collective Bargaining Agreements	4.1
102 - 42	Identification and selection of stakeholders	1
102 - 43	Approach to stakeholder involvement	
102 - 44	Key themes	1
	Reporting	
102 - 45	Entities included in the financial statements	5.1
102 - 46	Definition of report contents and boundaries of topics	
102 - 47	List of itopics-related materials	
102 - 48	Revisiting information	
102 - 49	Changes in reporting	
102 - 50	Reference period	2021
102 - 51	Date of most recent report	2021
102 - 52	Reporting Cycle	Annual
	Management approach	
103 - 1	Explanation of the topic and its boundaries	
103 - 2	Reporting obligations	

ECONOMIC PERFORMANCE		
201 - 1	Direct economic value generated and distributed	5.1
201 - 2	Financial implications and other risks and opportunities due to climate change	
201 - 3	Significant financing received from the public authorities	
	Market presence	
202 - 1	Ratio of local minimum wage to average wage of entry	
202 - 2	Proportions of senior management hired within the local community	
	Indirect economic impacts	
203 - 1	Investments in infrastructure and services	4.7

APPENDIX

GRI INDICATOR	DESCRIPTION	CHAPTER/ PARAGRAPH
203 - 2	Significant indirect economic impacts	4.6-5.1
	Procurement practices	
204 - 1	Proportion of spending with local suppliers	4.6
	Anticorruption	
205 - 1	Operations planned for the corruption	2.6
205 - 2	Communication and training on procedures anti-corruption	
205 - 3	Established corrupt cases and responses	
	Conduct detrimental to competition	
206 - 1	Legal action for anti-competitive behaviour anti-trust and monopolistic practices	

ENVIRONMENTAL PERFORMANCE		
	Materials	
301 - 1	Materials used, by weight or volume	3.3
301 - 2	Recycled materials used	3.3
301 - 3	Reused products and their packaging	3.3
	Energy	
302 - 1	Energy consumption	3.2
302 - 2	Energy consumption outside the organisation	
302 - 3	Energy intensity	3.2
302 - 4	Reducing energy consumption	3.2
302 - 5	Reductions in energy requirements for products and services	3.2
	Water	
303 - 1	Water withdrawal	3.7
303 - 2	Water sources significantly affected by the collection	3.7
303 - 3	Recycled and reused water	3.7
	Biodiversity	
304 - 1	Operational sites owned, leased, operated in or adjacent to protected areas	
304 - 2	Significant impacts of activities, products and services	
304 - 3	Protected or restored habitats	
304 - 4	Species on the IUCN red list	

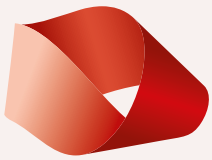
GRI INDICATOR	DESCRIPTION	CHAPTER/ PARAGRAPH
	Emissions	
305 - 1	Direct greenhouse gas emissions (scope 1)	3.5
305 - 2	Indirect greenhouse gas emissions (scope 2)	3.5
305 - 3	Other indirect greenhouse gas emissions (scope 3)	
305 - 4	Intensity of greenhouse gas emissions	3.5
305 - 5	Reduction of greenhouse gas emissions	3.5
305 - 6	Emissions of ozone-depleting substances	3.6
305 - 7	Nitrogen oxides, sulphur oxides and other air emissions significant	3.6
	Waste and Discharges	
306 - 1	Final water discharge	3.8
306 - 2	Waste and disposal methodology	3.4
306 - 3	Spills	
306 - 4	Transport of hazardous waste	
306 - 5	Water bodies affected by discharges and/or outflows	3.8
	Environmental compliance	
307 - 1	Non-compliance with environmental laws and requirements	
	Supplier's environmental assessment	
308 - 1	Reporting Obligations	
308 - 2	Negative environmental impacts in the supply	

SOCIAL PERFORMANCE		
	Workers	
401 - 1	Recruitment of new employees and turnover of employees	4.1
401 - 2	Benefits reserved exclusively for employees full time	4.5
401 - 3	Parental leave	4.2
	Corporate labour relations	
402 - 1	Minimum notice periods concerning changes operational	
	Health and safety	
403 - 1	Worker representation in committees on joint management/employee healthcare	
403 - 2	Accident types and accident rates, illnesses work, absenteeism and deaths at work	4.3

APPENDIX

GRI INDICATOR	DESCRIPTION	CHAPTER/ PARAGRAPH
403 - 3	Workers with a high degree of accident or high risk of occupational diseases	4.3
403 - 4	Health and safety issues covered by agreements formal agreements with trade unions	
	Training	
404 - 1	Average annual hours dedicated to training	4.4
404 - 2	Skills Implementation Programmes and transition assistance programmes	
404 - 3	Percentage of performance and review	
	Equal opportunities	
405 - 1	Diversity of management bodies	4.2
405 - 2	Male/female wage ratio	4.2
	Non-discrimination	
406 - 1	Incidents of discrimination and actions taken	4.2
	Freedom of association and collective bargaining	
407 - 1	Operations and suppliers where there are risks associative	
	Child labour	
408 - 1	Transactions and suppliers subject to labour risk juvenile	2.6
	Forced labour	
409 - 1	Operations and suppliers at risk for forced labour	
	Security practices	
410 - 1	Security personnel trained in human rights	
	Rights of indigenous peoples	
411 - 1	Incidents of violations of the rights of indigenous peoples	
	Evaluation of human rights	
412 - 1	Operations subject to human rights controls	2.6
412 - 2	Training on human rights policies	
412 - 3	Agreements on investments for the protection of human rights	2.6
	Local communities	
413 - 1	Community Involvement Activities premises	4.7
413 - 2	Operations with significant impacts on communities	4.7

GRI INDICATOR	DESCRIPTION	CHAPTER/ PARAGRAPH
	Social evaluation of suppliers	
414 - 1	New suppliers screened with criteria social	4.6
414 - 2	Negative social impacts in the supply chain	
	Public policies	
415 - 1	Public Contributions	
	Consumer health and safety	
416 - 1	Assessment of health and safety impacts	2.7-3.1
416 - 2	Incidents of non-conformity of services and products	
	Marketing and labelling	
417 - 1	Product disclosure requirements and labelling	2.7
417 - 2	Incidents of non-compliance	
417 - 3	Incidents of non-compliance with the communication	
	Consumer privacy	
418 - 1	Reasoned complaints about the violation of the privacy	
	Socio-economic conformity	
419 - 1	Failure to comply with area laws socio-economic	



KME ITALY SPA
Via della Repubblica 257 – 55051 Fornaci di Barga (Lucca)
Tel 0583 7011
www.kme.com

EM Moulds
Via della Repubblica 257 – 55051 Fornaci di Barga (Lucca)
Tel 0583 7011
www.coppermoulds.com

KME Rolled France
Zone industrielle des Miels 25870 Devecey
Tel +33 (0) 3 81 88 93 30
www.kme.com

KME Spain
Ctra. De Sabadell B-140, km.5 – 08130 Sta.Perpetua de Mogoda (Barcelona)
Tel +34 93 574 70 90
www.kme.com

ILNOR
Via della Volta 201 - 25124 Brescia
Tel 030 3513411

THE REPORT WAS PRODUCED IN COOPERATION WITH THE COMPANY
GREENING MARKETING ITALIA

GRAPHICS
9COLONNE