CBMM

2023 SUSTAINABILITY REPORT

CONTENTS

About this report

GRI 2-2 | 2-3 | 2-4 | 2-5

For the 11th consecutive year, we presented our Sustainability Report to all stakeholders, bringing economic, environmental, social and governance information, as well as initiatives, projects, performance and results achieved in Brazil, at the regional offices in Houston (United States), Amsterdam (Netherlands), Geneva (Switzerland) and Singapore and at representative offices in Beijing and Shanghai (China).

Prepared in accordance with the Global Reporting Initiative (GRI) Standards, the document also includes SASB indicators, from the Value Reporting Foundation (VRF). It refers to our performance from January 1st to December 31st, 2023, and was assured externally by PwC. Our Financial Statements and the Sustainability Report record have the same scope.

In this annual cycle, there is no reformulation of previously published information. To define the content portrayed here, we were based on the materiality process conducted in the previous year, which means maintaining the same eight material topics, explained below.

To send suggestions or comments regarding this document, please send an email to **cbmm@cbmm.com**.

Materiality process

GRI 3-1 | 3-2

Our materiality matrix is evaluated periodically, as recommended by the GRI Standards. In 2023, we maintained the result of the process conducted in the previous year, which included five stages: definition, identification, prioritization, analysis, and validation. In the identification phase, we mapped our impacts and audiences. Based on the study of internal, sectoral and benchmarking documents, we prepared an initial list of 17 potential material topics, divided as follows within the scope of the ESG Agenda: six in the environmental aspect, five in the social aspect, and six in the governance aspect

In 2023, in line with best market practices, we chose to adopt the concept of double materiality, with a methodology based on a matrix construction process that considers three axes:

Axis Y	**Socio-environmental Materiality**
Axis Z	**Perception of Relevance**
Axis X	**Financial Materiality**

To this end, a map formed by seven categories of stakeholders was consolidated: employees, customers, community and local organizations, research partners, service providers, suppliers, government and regulatory and inspection bodies. Additionally, in 2024 we consulted representatives of two financial institutions, who, although they understood that all the topics already raised were relevant, recommended greater clarity and prioritization of two others: governance and diversity, inclusion and equity. Thus, despite of both not being listed in the material topics, we understand the need to conduct the monitoring of the two following GRI indicators, which will be reported next year: 405-1 (diversity of governance bodies and employees), and 405-2 (Ratio of basic salary and remuneration of women to men).

The development of financial materiality included seven interviews with our leaders, whose responses were added to the other nine obtained in an online inquiry. In socio-environmental materiality, external experts were involved, with three interviews, and another 12 online inquiries – with nine internal experts and three external ones. Regarding the perception of relevance, employees, customers, suppliers and service providers, research partners, the community, local organizations, government, regulatory and supervisory bodies were consulted, totaling 368 responses to the online questionnaire.

From this process, the weights of each axis were defined so that the analysis of the responses actually reflected how our business impacts our stakeholders. After recommendations from the consultancy hired to prepare the work (sustainability report) and validation from senior leadership, eight material topics were defined.

Material topics

1. **Innovation and technology**: continuous investment in research and innovation with a focus on product, operation and environmental management.

Challenges: maintaining high capacity to invest in innovation, creating a broad portfolio and reducing the time to launch new applications.

2. **Employee health, well-being and safety:** guarantee of employee safety through a robust structure that prioritizes physical and mental integrity and acts with special care in activities considered to be of greater risk.

Challenges: maintaining a high level of work quality aimed at the safety of employees and third parties, while expanding the external perception of a safe work environment.

3. **Waste and dam management:** commitment to robust investment in new technologies that enable greater use of mineral resources and the maintenance of excellence in dam management.

Challenges: maintaining the high level of dam management, advancing the adoption of new technologies, and expanding investment to increase the use of mineral resources.

4. **Ethics, integrity and compliance:** commitment to integrity and ethics in all relationships, always seeking to maintain transparency and relationships with its stakeholders.

Challenges: disseminating the commitment to ethics and integrity to all layers of the organization, in addition to expanding actions with suppliers.

5. **Employee attraction, development and retention:** continuous investment in employee development and the creation of a work environment that guarantees the attraction and engagement of the best talent.

Challenges: investing in employee development and work experience that attracts and motivates the greatest talents.

6. **Water and effluent management:** management focused on the efficient use of water, the quality of effluent treatment, and the control of operational risks.

Challenges: maintaining high efficiency in water recirculation in the operation and ensuring strict control to prevent pollution.

7. **Climate change:** commitment to decarbonizing operations, managing risks associated with climate change, and taking advantage of business opportunities associated with Niobium's sustainable properties.

Challenges: maturing the emissions inventory process and building a clear plan on the path forward for the decarbonization of operations, aligned with the goal announced in 2023.

8. **Local development:** estimulation of socioeconomic development in the Araxá region.

Challenges: developing partnerships and investing in social initiatives to build a promising legacy for the community.

Interaction with stakeholders GRI 2-29

We maintain a series of channels for interaction with stakeholders, in line with our principle of ethics and transparency. Our dialogue with the Public Power encompasses the Executive and Legislative branches, at all levels (federal, state and municipal), with a view to presenting information about our activities and about Niobium, clarifying doubts and supporting technical issues.

We maintain a confidential ethics channel that guarantees anonymity for any report involving potential violations to the principles and values set out in our Code of Ethics and other policies.

Our website and social network aim to present news about initiatives, business and programs. Internally, we disseminate updated information to all employees via the intranet.

In line with best practices, we adopted the concept of double materiality in 2023

Highlights of the year

Growth in total sales volume of 4.6%, compared to 2022

Investment of R$ 578 million in capex

Achievement of the GHG Protocol Gold Seal in Brazil

Approval of the **Social Responsibility Policy**

Growth of 53% in sales of battery products compared to 2022

R$ 230 million dedicated to research and development of products and applications for Niobium

Reduction of emissions in the industrial park, accompanied by public commitment to the goal of **zero carbon emissions by 2040** (scopes 1 and 2) with structuring actions

Restructuring of the growth plan for the next ten years

Start of work to implement waste disposal systems **(Project EDR-9)**

R$ 39 million directed to **social actions in Araxá**, benefiting more than **370,000 people**

Investment of R$ 80 million in the Battery Research and Development Program

Achievement of ISO 37001 certification for the anti-bribery management system

More than 2 thousand people covered by the **Environmental Education** Program

Recirculation of **96.6% of the water volume**

Message from the Leadership

GRI 2-22

In 2023, our revenue grew 9% compared to the previous year and we not only recovered what had been lost during the pandemic period, but also resumed a growth phase.

Our main consumer market, the steel industry, which represents around 91% of sales, did not report organic growth. We focus on our strategic goal of expanding the market by seeking other forms of insertion for Niobium, both in existing applications and in the development of new applications.

We are permanently identifying opportunities in the world. In the last five years, our sales to India have grown by 400%. In China, we started to work more heavily with structural steel. In a global market estimated at 124 thousand tons of ferroniobium, our annual installed production capacity is 150 thousand tons. Thus, we fulfill our responsibility to guarantee supply to the global market.

One of our main challenges is developing new technologies. On the battery front, for example, we invested R$ 256 million in the construction of a plant, with a production capacity of 3,000 tons/year of mixed Niobium oxides for batteries. In the last fiscal year, we reported a 53% growth in sales of battery products compared to 2022.

We also achieved record sales of special products. Another relevant development was in the segment of nanocrystalline magnetic materials, used in electric motors and magnetic applications.

To continue our sustainable growth strategy, we continued expanding investments in Research and Development. In 2023, we contributed R$ 230 million to the Technology Program, with R$ 80 million of this amount allocated to the Battery Program.

On the New Business front, we continued with strategic investments in companies with promising technologies to accelerate the adoption of Niobium by the battery market, such as Battery Streak, Echion Technologies, and Skeleton Technologies. In 2023, we invested around R$ 100 million in this segment.

Our continuous investments in research and development, in addition to solid logistics capacity, have enabled positive financial and operational results. We are aligned with the major global trends of electrification, urbanization and sustainability. Using Niobium technology, we contribute to the decarbonization agenda and, we are committed to being carbon neutral, in scopes 1 and 2, by 2040, while we advance in mapping scope 3.

From a social standpoint, we invested R$ 39 million in 2023 in actions aimed mainly at children and adolescents in the municipality of Araxá. We allocated resources to encourage cultural and sports projects and to initiatives with our own resources linked to education and health, benefiting 811,000 people, 370,000 of whom in Araxá alone.

We also developed our Social Responsibility Policy, to improve the targeting of social investments and continue to contribute to the sustainability of Araxá. Internally, we created the Legal, Institutional Relations and ESG directorate, taken over by Renata Ferrari.

Although we are not a publicly traded company, we adopt robust governance, with a structure similar to that of companies that trade shares. In 2023, we achieved the ISO 37001 certification for our anti-bribery management system, which demonstrates the maturity of our controls and Compliance Program.

We are close to celebrating 70 years of history as leaders in Niobium technology, as we value the potential of this metal, indicate its benefits, dialogue and work in partnership with customers, positioning it at the center of our strategy.

These attributes support our growth and ensure our perpetuity. Therefore, even with the economic and geopolitical challenges, our outlook for 2024 is optimistic, because we have a team of employees with technical competence and a profile that adheres to our expansion strategy. Together, we will continue to work with integration, without cultural or geographical barriers. Because everyone is important and makes our company unique.

From left to right: Alex Amorim – Finance and Planning Officer, Rafael Mesquita – Technology Officer, Renata Ferrari – Legal, ESG and Institutional Relations Officer, Ricardo Lima – CEO, Marcelo Scuccuglia – Commercial Officer, Rogério Contato – Industrial Operations Officer.

4.

- Organizational profile
- Global operation
- Business model
- Acknowledgment
- Our history

ABOUT US

Organizational profile

GRI 2-1 | 2-6

We are Companhia Brasileira de Metalurgia e Mineração (CBMM), founded in 1955 and the world leader in the production and commercialization of Niobium products. Our leadership in the sector is due to permanent investments in innovation, driven by research and development of new applications for Niobium, in order to collaborate with the expansion and diversification of the market. As a result of our technology program, we have achieved global leadership in industrialized Niobium products, and we are the only player in the sector with presence in all segments of this market.

Our industrial plant is in the city of Araxá (MG), where our headquarters are also located. We have three large industrial units, integrating mineral, metallurgical and chemical activities. On site, we operate a technology center that carries out research and development of technologies that result in increasingly efficient, safe, sustainable products aimed at different segments, such as civil construction, infrastructure, mobility, aerospace, health and energy.

In addition to the Technology Center, which has laboratories accredited by Inmetro, we have the Metallurgical Materials and Processes Research Center and the Center dedicated to Batteries, responsible for research and development of technology for Niobium products.

We believe in the harmonious coexistence between progress and preservation. Operating under the highest levels of security, the Integrated Monitoring Center (CMI) guarantees the integrity of waste disposal structures, with high-tech monitoring, operating around the clock.

The advancement of our operation is intrinsically linked to sustainability, since Niobium is an element that makes up products with lower CO2 emissions. Furthermore, we also work to generate the lowest possible environmental impact in our activities. Since the 1980s, the Environmental Development Center has been operating at our plant, which works to preserve the fauna and flora of the Cerrado biome and develops environmental education actions.

At the end of 2023, we had 1,914 employees and 1,910 suppliers, and an installed production capacity of 150,000 tons of ferroniobium per year. We are a privately held company, with 70% of the capital belonging to the Moreira Salles Group and 30% distributed equally in two consortiums – one made up of Chinese companies and the other made up of Japanese and South Korean companies.

Global operation GRI 2-6

We have regional offices in the United States; in Switzerland; in the Netherlands; and in Singapore, in addition to two representative offices in China: one in Beijing and the other in Shanghai. With 18 international warehouses, we ensure efficient logistics and product stock for our main consumer markets, serving around 500 customers in more than 50 countries.

Niobium in the world

In addition to Brazil, there are more than 90 ore deposits that can be used as a basis for Niobium production in the world. Many of them remain unexplored, given the still low commercial demand for the metal. In Brazil, we operate reserves located in Araxá (MG), with other reserves in Catalão (under exploration) and in the Amazon.

SOUTH AMERICA

HEADQUARTERS
Industrial hub
Minas Gerais – Araxá

ORPORATE OFFICE
CBMM Sales and Technology Applications
São Paulo

EUROPE

REGIONAL OFFICE
CBMM Europe
Netherlands

CBMM Technology Suisse
Switzerland

ASIA

DISTRIBUTOR
Sojitz – Japan

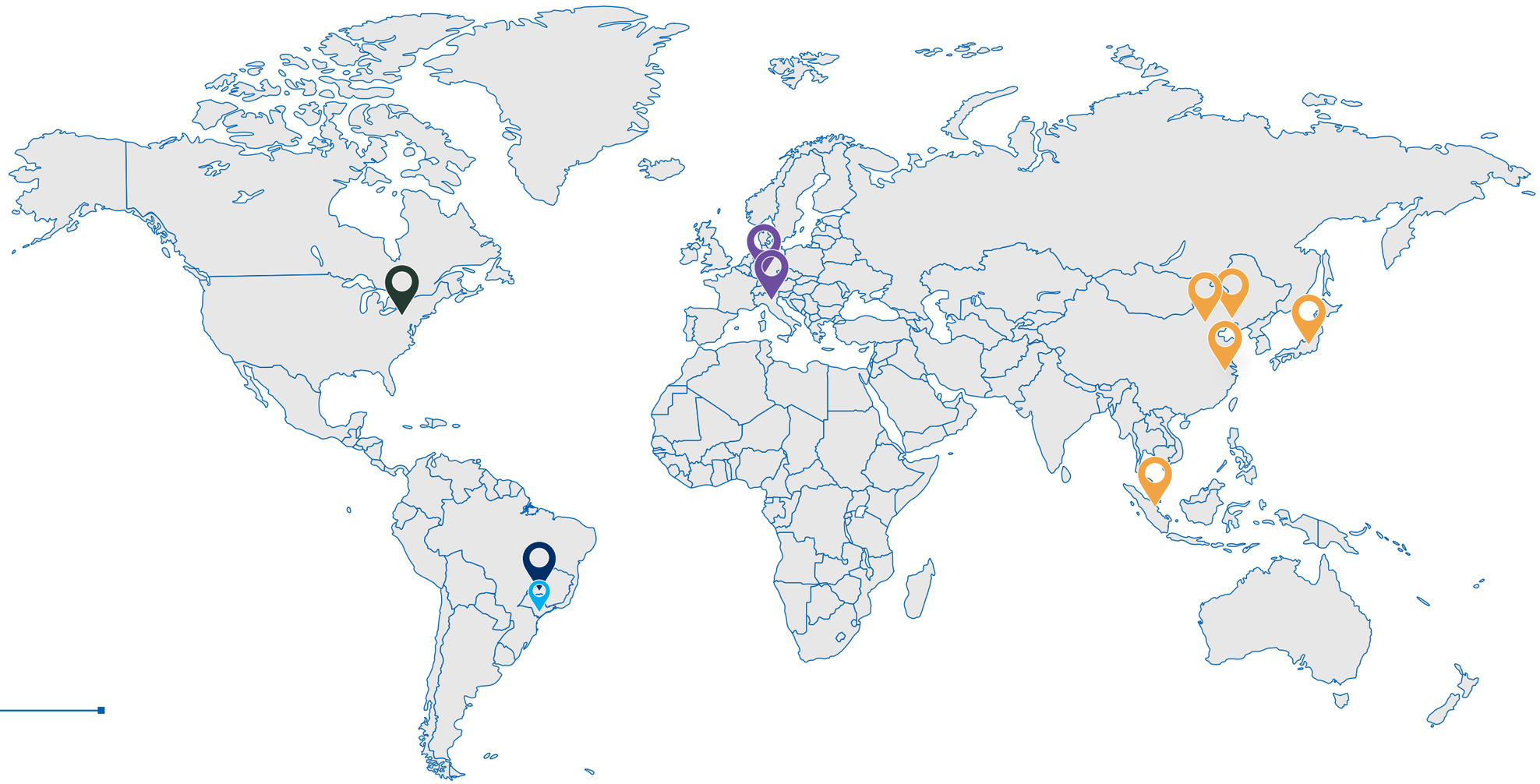
REPRESENTATION OFFICES
China – Shanghai
China – Beijing

DISTRIBUTOR
CITIC Metal
China

REGIONAL OFFICE
CBMM Asia
Singapore

NORTH AMERICA

REGIONAL OFFICE
CBMM North America
USA



Business model CBMM-01

Our business model, focused on innovation and technology, is oriented towards making the most of Niobium's potential, in order to expand the global market. Since our foundation, we have developed projects, in Brazil and abroad, to encourage the adoption of Niobium technology by different industries.

To promote the greater insertion of this metal, we have a New Business front, with operations focused on investments that explore new applications for Niobium.

Our technological journey is also driven by partnerships with the scientific community, startups and client companies, which collaborate with technical and market knowledge and with testing different products. We had 239 projects underway in Brazil and around the world in 2023. Our Integrated Management System guides our operations, based on principles of governance, efficiency and innovation.

In addition to fostering and encouraging the market, we operate in a sustainable way, transforming a natural resource into solutions aligned with the best environmental practices. We operate in line with global trends in electrification and urbanization, in addition to having our own goals to eliminate carbon emissions in our industrial complex, in Araxá, by 2040.

Continuous improvement of our internal processes and mitigation of any negative impacts from our activities, products and services are also part of our business model. We responsibly manage waste, tailings, effluents and emissions, in compliance with current legislation, and work to ensure the safety of our dams and to protect the Brazilian Cerrado, the biome in which we are located.

We prioritize innovation and technology in our strategy of seeking new applications for Niobium

Acknowledgment

Exame Melhores e Maiores – 50 years

- ☑ One of the historic champions, with **nine titles**
- ☑ Best in Steel Industry, Mining and Metallurgy – **4th place**
- ☑ 1000 Greatest – **106th place**

Brasil Mineral – 200 Largest Mining Companies

- ☑ Overall ranking – **45th place**
- ☑ Companies of the Year in the Mineral Sector in 2023 – **1st place** in the "Innovation and Technology" ranking

Época Negócios 360°

- ☑ Top 30 Companies in Brazil in 2023 – **6th place**
- ☑ "Vision of the Future" ranking – 1 **st place**
- ☑ Top 410 Ranking – **6th place**
- ☑ *Top* 500 Ranking – **95th place**

Estadão Empresas Mais

- ☑ Top 100 companies in the "Metallurgy and Steel Industry" category – **2nd place**
- ☑ Top CIE 2023 – **59th place**
- ☑ 1500 Ranking (FIA) – **74th place**

Valor 1000

- ☑ Mining Ranking – **3rd place**

Valor Inovação

- ☑ Overall ranking – **66th place**
- ☑ Mining, Metallurgy and Steel Industry – **4th place**

Our history

1953
Djalma Guimarães discovered the pyrochlore deposit in Araxá (MG).

1955
Our foundation.

1961
Start of mining and production.

1970
Start of activities in Japan.

1972
Implementation of the Niobium Technology Program in the USA.

1972
Partnership signed with the State of Minas Gerais (Codemig).

1975
Start of ferroniobium production in Araxá.

1977
Opening of the North American office in the Pittsburgh region, Pennsylvania.

1979
Start of activities in China.

1979
Start of large-scale production of Niobium oxides (production capacity of 4,800 tons).

1982
Opening of the laboratory in Araxá.
Beginning of production of vacuum grade alloys.

1986
Opening of the Conservationist Breeding Facility, recognized by Ibama.

1989
Ferroniobium production capacity expanded to 26,000 tons.

1991
Implementation of the Environmental Education Program.

1994
Achievement of ISO 9002 (Quality) certification.

1994
Beginning of operation of the vacuum grade alloys unit, in Araxá.

2000
Opening of the Environmental Development Center in Araxá.
Ferroniobium production capacity of 45,000 tons.

1999
Opening of the Technology Center in Araxá.

1997
First company in the sector worldwide to receive ISO 14001 (Environment) certification.
Beginning of production of optical grade Niobium oxides.

2002
Achieved OHSAS 18001 (Health and Safety) certification.
Opening of the special alloys unit in Araxá.

2003
Achievement of ISO 9001 certification (Quality, transformation of ISO 9002).

2006
Achievement of ISO 27001 certification (Information Security).
Ferroniobium production capacity of 70,000 tons.

2007
Opening of the Asia regional office in Singapore.
Beginning of activities at CBMM Technology Suisse, in Geneva, Switzerland.
Beginning of activities of the CBMM Europe subsidiary, in Amsterdam, Netherlands.

2008
Ferroniobium production capacity of 90,000 tons.

2010
Conservationist Breeding Facility is licensed by Ibama as a Scientific Wildlife Breeding Facility for Conservation Purposes.

2011
Chinese consortium acquires a 15% stake in our capital.
Japanese/South Korean consortium acquires a 15% stake in our capital.

2017
Opening of the Metallurgical Materials and Processes Research Center in Araxá.

2018
Partnership with Toshiba for the production of lithium batteries with mixed Niobium and titanium oxide (NTO) anodes.

2018
Opening of representative offices in China, in the cities of Beijing and Shanghai.

2019
Holding of the first edition of the CBMM Science and Technology Award.

2021
Strategic investments in companies and startups, aiming for new developments in materials for lithium-ion batteries.

2022
Announcement of the new phase of production of Niobium oxide for batteries (Battery Materials Plant).
Announcement of the goal to achieve zero carbon emissions (scopes 1 and 2) in the industrial complex in Araxá (MG) by 2040.

2023
Achievement of ISO 37001 certification (Anti-Bribery Management System).

5.

- Niobium and its applications
- Innovation and technology
- Product portfolio
- Research and development

BUSINESS

Niobium and its applications GRI 2-6

Considered an advanced material and ally of the future, Niobium is a multifunctional transition metal, with the ability to transform and enhance the properties of other materials. Even in small quantities, its addition provides high thermal and electrical conductivities, malleability, resistance to extreme temperatures, mechanical wear and corrosion, resulting in a significant improvement in the materials in which it is used. Furthermore, it provides additional lightness and safety to the structures to which it is applied.

With a wide range of applications, Niobium was once a metal with no commercial relevance and virtually unknown to the population. Discovered in 1801 by English chemist Charles Hatchett, it began to be studied in greater depth around 70 years ago, after our founding.

We were pioneers in the research and development of Niobium, to better understand its characteristics and benefits. For decades, we have invested to develop processing and application technology and have thus become the global leader in Niobium technology. Currently, the market for Niobium products is consolidated worldwide, and our products are used in different sectors.

The themes of reducing emissions, saving resources, reusing waste, more efficient processes and energy transition are intrinsically part of our agenda. Niobium is aligned with the global demand for decarbonization – both in the steel and electrification segments and in batteries and nanocrystalline magnetic materials – as it optimizes natural and energy resources and promotes the concept of dematerialization, which means more efficient products with lower use of raw materials and, consequently, lower carbon footprint in the production process.

Fun Facts

Niobium is a chemical element represented by the symbol Nb. With atomic number 41, atomic mass of 92.91 un and high melting point (2468°C), it is among the transition metals in the periodic table. It is a malleable metal, with lustrous appearance, and bright gray color that acquires a blue hue when exposed to environmental conditions for a long period.

The metal has its name inspired by a Greek mythology goddess called Niobe, whose story represents fertility.

Benefits of applying Niobium

- **Technology:** improves the properties of advanced steels, cast aluminum, lithium-ion batteries and electronics.
- **Better performance:** reduction in weight and size, enabling dematerialization and miniaturization.
- **Optimization:** integration of electrical systems through high conductivity; reduced maintenance due to its resistance to wear.
- **Safety:** increased safety by improving structural properties and making materials more flexible. Provides lighter and more resistant structures.
- **Environment:** efficiency gains and lower energy consumption, reduction of the carbon footprint, and reduction of input consumption.

Niobium offers solutions, among others, for:

- Aerospace industry
- Civil construction and infrastructure
- Naval industry
- Energy
- Nanocrystalline magnetic materials
- Batteries
- Urban mobility
- Telecommunications

Innovation and technology

GRI 3-3 – Innovation and technology | CBMM-02

Innovation and technology are included in our business strategy, reflecting the commitment to continuous advancement. The aspects make up one of our material topics and have major impacts on the continuation of business. We have a Technology Program that is structured to meet/foster the demands of Market Development and Process and Product Development on its different business fronts, as well as to adequately serve the market through technical assistance actions and technical promotions.

The Process and Product Development area ensures that the factory's internal processes are prepared and adapted to different market demands, as well as to improve production efficiency and compliance with national and international specifications and regulations.

Every year we promote the Management Workshop, aiming to recognize innovation initiatives in internal areas, which use methodologies such as Lean, Kaizen, Agile Methodologies, among others.

We monitor the evolution of the Technology Readiness Levels (TRL), ensuring that the development of technologies reaches a sufficient level to be commercialized, and we maintain dashboards to compare whether our growth forecast is in line with market expansion.

To track the effectiveness of the measures adopted in relation to innovation, we have a Project Management System (NTS), in which all market development initiatives or processes and products are recorded and monitored.

In 2023, we invested in Research and Development (R&D), in the implementation of products and applications that promote the insertion of Niobium, and we entered into strategic collaborations with academic institutions, startups and other sectors.

We maintain a strong technological structure, which includes a Technology Program, Process and Product Development area, and Project Management System

Product portfolio **GRI 2-6**

We do not sell ore, only industrialized Niobium products with high added value. Our production process covers 15 units and 160 production stages, ranging from mining to industrialized products. We are the only company in the world to produce all Niobium products.

Batteries

The product used in this new segment is battery-grade Niobium oxides, developed by us to serve our technological partners. The use of these oxides allows significant improvements in the performance of lithium-ion batteries. One of the most relevant advantages of the technology, considering the application of Niobium in the anode of lithium batteries, is the possibility of ultra-fast recharging, in around ten minutes, maintaining safety and durability. Safety is an important aspect, as there is a natural protection of the material that prevents the formation of dendrites on the anode, minimizing the possibility of fires and explosions. As for durability, due to the high stability of Niobium oxide, the batteries have a work life four to five times longer than that of a traditional carbon battery.

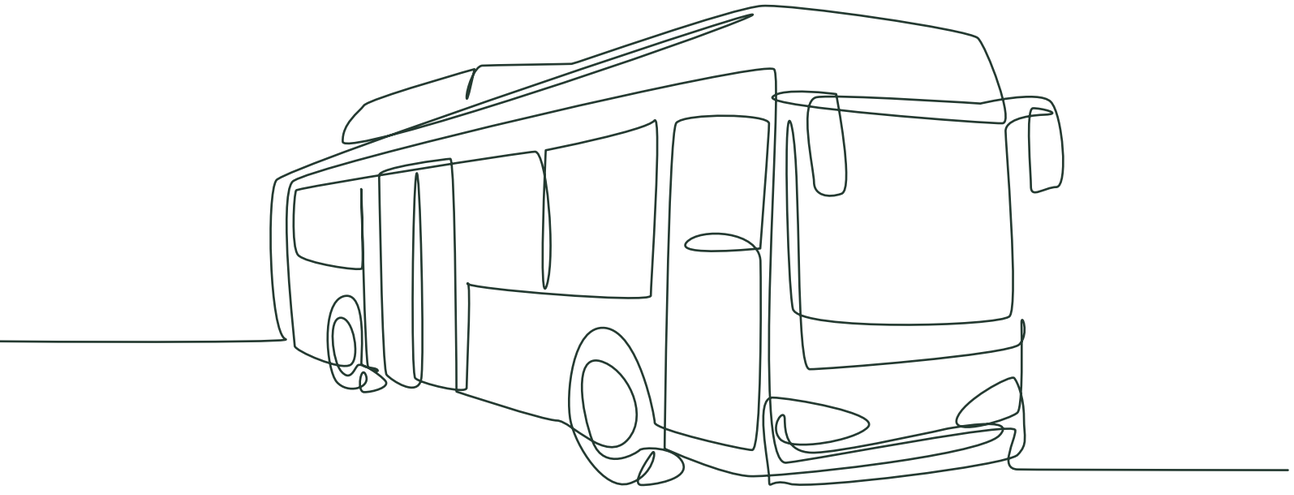
The value proposition for this new generation of batteries with Niobium is more aligned with the commercial and industrial segments. Thus, applications in urban buses, electric and hybrid trains, trucks and mining machines, ships and hybrid vehicles, robots and high-performance cars are the main markets served.

Our innovation strategy is focused on working with technological partners. One example on the battery front is our technical cooperation with Toshiba, signed in 2018, seeking to accelerate the adoption of this new technology by the market. To achieve this development, in 2022 we began construction of the industrial battery oxide plant in Araxá.

learn more in New Markets

The world's first ultra-fast charging electric bus with lithium-ion battery technology containing Niobium is being developed in an unprecedented technical cooperation between us, Toshiba and Volkswagen Truck & Bus. In 2024, the bus will be launched and will remain at our plant in Araxá to demonstrate the technology as a showcase.

Investments in the battery segment include the construction of the oxide industrial unit in Araxá



We reinforced the partnership with the British company Echion Technologies, signed in 2021 and in which we are strategic investors, to use battery-grade Niobium oxides in the anode. Echion's exclusive technology, XNO, is already being tested and approved, and it will be the first company in the world to guarantee supply, allowing it to meet the growing demand for electrification.

We signed an agreement to acquire 20% of the North American startup Battery Streak, also known as BSI, aiming to accelerate new technologies with Niobium for lithium-ion batteries, with the expectation of boosting the development of materials for batteries in micro-mobility applications, medical and electronic equipment, and drones. BSI's patented technology uses nanostructured Niobium oxide as the anode.

With Skeleton, an Estonian company that is leader in the supercapacitors segment, we have entered into a relevant partnership for the production of battery electrodes. The goal is to accelerate the adoption of super battery technology, which provides high charge and discharge rates (seconds) with good energy density (similar to lithium batteries) and long durability, around 20 times greater than a traditional battery.

We also plan to invest in the electrification of our own industrial operations using batteries containing Niobium. The purpose is for the first ultra-fast charging electric truck to operate at our facilities, in order to demonstrate the application of the technology.

Steel

In the steel segment, the product used is ferroniobium, consisting of 2/3 Niobium and 1/3 iron, and used by steel mills in the production of high-strength microalloyed steels. By adding grams of Niobium per ton of steel, it becomes more resistant, without losing toughness and the ability to deform without breaking.

Steelmaking is our core business, and we have seen a large inclusion of Niobium on several fronts in this segment, including civil construction, in structural materials.

In 2023 we improved the design of the alloys – studying the best way to combine the elements that make up steel with Niobium – and upgraded civil construction steels, improving their properties and resistance. We have also advanced in the automotive sector, in vehicle structures and exhaust systems in special stainless steels. Another segment in which we operated was pipeline, with emphasis on the energy sector, mainly in the American and Indian markets. The presence of Niobium in the steel that makes up vehicle structures generates ultra-resistant materials, with longer work life, lighter, and consequently, consuming less fuel. In 2023, the first racing truck with combustion and electric engines in the world, the VW Meteor Mission Zero, debuted at the Copa Truck, in Goiânia, and was also champion of the season. This hybrid vehicle was developed in partnership between Volkswagen Truck & Bus, Ciser, Giaffone Electric, and R9 Competições, using our advanced Niobium materials.

Another example of the use of high-resistance steel, with the addition of Niobium, is the structure of the building where the Yayoi Kusama Gallery is located, the 20th to be launched by the Inhotim Institute, in Brumadinho (MG). The material was distributed in the upper structures of pillars, beams and foundation infrastructure.

Special alloys

In the segment, vacuum grade alloys are used, especially in the production of nickel-based steel superalloys, resistant to high temperatures. The superalloy segment, also called special products, had significant growth, largely driven by demand from the aerospace market. Because it is heat-resistant and has good conductivity, Niobium superalloys are used in the propellants of rockets, satellites, probes and other space applications.

It was also a year in which we expanded the use of Niobium in superconductors, starting from Niobium metal. With a high concentration of metal, the ingots have superconducting capacity and high resistance to corrosion, being used in the health sector, in magnetic resonance and tomography devices, and particle accelerators.

Nano

Nano is generally used in special magnetic materials, applicable to the electronics industry and in components for charging with greater energy efficiency, such as electric vehicles, but we are working to expand the applications.

In the Mission Zero project, to launch the hybrid truck for motorsport, we also contributed with the use of nanocrystalline materials – alloys that, with Niobium, acquire a unique set of electromagnetic properties.

We kept a partnership with companies that manufacture electric engines to use a nanocrystalline material with Niobium in its composition, for use in axial flux electric engines. They are considered sustainable because they require fewer resources to manufacture and reduce electricity consumption due to operational efficiency.

New applications

On this front, in the initial phase of technological development, we established a partnership with a startup that developed a Niobium-based molecule with fungicidal properties for agricultural applications, in crops such as soybeans, corn, wheat and coffee. The main advantage of this molecule is that it is completely inorganic and non-toxic, unlike currently available products, which are organic and toxic compounds. Therefore, the molecule presents itself as a more sustainable alternative in the agricultural fungicides market.

We are conducting laboratory and field tests to optimize its performance and generate data for registration with the relevant bodies. The goal of the partnership is to support and accelerate the entire process of development, registration and availability of this technology on the market.

In our research center, we conduct studies and tests of products and applications, in partnership with the innovation ecosystem

Research and development

The commitment to innovation is evidenced by the **investment of R$ 230 million** in research and development of products and applications for Niobium in 2023. Of the total, R$ 80 million, or 32%, was allocated to the Battery Program.

Our projects are grouped by segment and involve several layers of development, such as concept, application, conditions of use and open innovation, a model that allows us to design or improve them with research centers and institutes, universities, startups and customers, in an open and collaborative design.

Technology Center

Our research center works in partnership with the innovation ecosystem, focused on developing products and new applications for Niobium, contributing to the growth and diversification of this market. The space is also dedicated to optimizing industrial processes, through constant technological improvement, covering all stages of the production chain.

We invested R$30 million in the center in 2023, considering all laboratories. From this amount, we allocated 80% to 90% to open innovation research. About 10% to 15% of the resources were applied to processes aligned with the decarbonization plan, oxide development, and mine implementation.

Methodologies applied

Our center adopts methodologies that allow us to compare advances in different areas, such as battery materials and special steels. We use TRL to evaluate products from different categories, a universal metric with indicators that report the maturity level of an application: whether it is in development, in the testing phase, or already approved and available on the market.

On the other hand, MRL (manufacturing maturity level) is a concept that indicates scale maturity, whether it is already possible to manufacture it in large quantities or it is necessary to invest in equipment and processes before reaching the market.

Product and process development

The possibility of adopting new applications for Niobium and improving already consolidated uses is part of our technological journey. In the steel industry, our growth is supported by an expansion in the use of Niobium by demonstrating its comparative advantages. Considering oxides, our focus was to increase the efficiency of the process, resulting in greater competitiveness and lower final cost of the product. We also work on increasing the productivity of Niobium metal, destined for the superconductor market

We foster technology and innovation

Charles Hatchett Award – Intended to recognize projects that present the best development in Niobium in the world and to celebrate the importance of the metal in creating transformative innovations, this annual award, announced in London, was created in 1979 and counts on our participation since then. In 2023, the prize was awarded to a scientific work focused on batteries.

CBMM Science and Technology Award – Initiative created in 2019, aims to recognize professionals who contribute to Brazil's scientific and technological development, on diverse topics that do not necessarily involve Niobium. In 2023, the award was granted to projects in the area of biological and life sciences, and in the area of science and information technology. Evaluated by an independent commission, the annual recognition awards R$ 500,000 to two winners, encouraging new generations of researchers and education.

6.

GROWTH STRATEGY

- Regional offices
- New markets
- Insertion
- Customers

One of the main goals from our strategy and new business area is to study and understand market trends and seek growth levers, considering our focus on the sustainable expansion of the Niobium market through innovation, technology and value creation. Our approximately 500 customers are located in more than 50 countries.

Our strategy always considers anticipating the growth journey, maintaining production capacity greater than demand, ensuring the stability and reliability of the supply of Niobium products. Our ferroniobium production capacity is of 150,000 tons/year, a volume above the global market, which in 2023 was 124,000 tons.

We closed the year with 92,000 tons of ferroniobium equivalent sold, operating below the complex's nominal capacity. In the oxide and Niobium metal segments, our production capacity is fully occupied, requiring studies to increase capacity.

In 2023, we carried out structuring actions in our industrial plant, aiming at reducing emissions, in line with our decarbonization target in scopes 1 and 2.

Furthermore, we advanced in circularity by starting to sell all the magnetite generated as a by-product of the Niobium production process. In addition to maximizing the use of ore, we reduced the disposal of tailings, which represented an environmental and financial gain.

To enable this strategy, which required a considerable increase in the movement of materials in the yard, an additional effort was required in terms of internal and external logistics and adaptation of the yard to enable more efficient flow. The magnetite operation started with 10,000 tons/month and, in less than a year, reached 130,000 tons/month.

The industrial plant is equipped with resources to conduct activities in a sustainable manner. In the mine where we operate, Niobium represents 4% of the mass, which means moving a large volume of materials. We promoted the recirculation of 96.6% of all water from operations, and our waste disposal system includes special cells, piles and dams monitored 24 hours a day.

Targets until 2027 GRI 2-24

Our business is conducted based on a Strategic Map aligned with the Integrated Management Policy and stakeholder requirements. Through it, methodology and guidelines, we define our goals and targets.

- ☑ Evolution of the operating model in the core market, with new steels;
- ☑ Implementation of the operating model in the battery market: feasibility of expansion investments, acceleration of new technologies, through operational efficiency and selection of projects and investments;
- ☑ Implementation of a culture aligned with the growth challenge, encouraging employees to have a vision for our growth journey, with integration between teams from different parts of the world, respect and appreciation of diversity, creating a perception of belonging and connections between teams;
- ☑ Increased operational efficiency and capital allocation;
- ☑ Advances in the ESG agenda: decarbonization route until 2040, in scopes 1 and 2; dematerialization and energy transition; continuous maturation of occupational safety circularity, maximizing the use of resources; and ethics and governance.

Following the magnetite model, our focus of operation in the industrial plant is to increase the barite processing capacity, with investments to take advantage of this by-product in the final stage of approval after the creation of a pilot plant and business plan. The target is for our sales capacity to increase, from 2024 to 2025, from 30,000 tons to 40,000 tons to a range of 100,000 tons to 150,000 tons. This investment is aligned with our goal of maximizing the use of ore, reducing waste and increasing circularity.

Our priorities in the complex, therefore, are the expansion of barite, the new factory of oxides for batteries, and the continuity of the work to implement the waste disposal system (EDR-9), started in 2023, which should begin operating in 2028.

Multi-metal utilization

The Araxá Alkaline-Carbonatite Complex stands out for its mineralization of Niobium, in addition to other mineral assets, such as iron, barium, phosphorus and monazite. According to the last certified reserve, the deposit contains an average Nb2O5 content of around 2.1%.

Regional offices

We maintain regional offices to ensure greater proximity to customers and valuechains, facilitating operations by improving portfolio management and timely and personalized response to demands.

Innovative application

When applied in the construction of the Zun Tower, one of the tallest buildings in Beijing, Niobium technology made it possible to use:

17% less steel,
even though there was a need to meet extra safety requirements in the event of earthquakes.

Opened in 2018, the **528-meter-high** building has **108 floors.**

New markets

We work under two lines of growth: organic, related to economic growth and involving exogenous factors, such as increased production of steel and vehicles; and inorganic, directly related to our insertion actions, technology development, new levers or extension of existing ones from one region to others, opening consumer markets.

Approximately 96% of production is exported. The Asia-Pacific market remained the main one, with around 64% of sales volume, followed by Europe, the Middle East and Africa, which represented a 19% share. The Americas absorbed 17% of the company's sales.

In Europe, we noted a reduction in steel production, but, on the other hand, there was an increase in insertion, which means that the steel produced in the region included greater adoption of Niobium technology.

India has also become promising for our sector. The country's steel industry has a high growth rate, and its installed production capacity is evolving rapidly.

With population growth and greater urbanization, other regions are gaining relevance in the steel market, as occurred with Southeast Asia. Additionally, we work on developing technology in structural steels, which meet the needs from different industries, such as civil construction, machinery, equipment, naval, tower energy and wind. Another relevant segment is automotive steel, which can also use Niobium and, in 2023, outperformed the previous year, representing 19% of our sales.

In the Americas, steel production fell in 2023, compared to the previous year, mainly impacted by Brazil and Mexico. Even so, our sales to the sector increased in the region, driven by the flat steel consumer segments. A highlight was the United States, where steel production remained virtually stable and our sales grew.

Another growth lever is the battery segment, aligned with the sustainability agenda, as it contributes to the energy transition. Our main markets arein Asia and Europe, with projects focused on cathodes and anodes.

In our business plan, we see the battery products segment as an opportunity for rapid and exponential growth. In 2023, we reported a 53% increase in sales of battery products when compared to 2022, the year in which we began selling them.

Growth story

In 2019, we set up a laboratory to develop oxides for batteries. Our production was around 100 g per day, primarily intended for samples. Six months after starting activities, we invested R$ 15 million to build a pilot plant to produce 20 kg of material per day.

We acquired additional equipment, optimized processes and, in 2023, reinforced our team with another 15 employees at the plant, so that it could operate 24 hours a day, in uninterrupted shifts. With these measures, we started producing 40 tons/year.

However, given the growing demand for the material and the opportunity to grow exponentially, we approved an investment of R$ 400 million for an industrial plant, with a capacity of 3,000 tons/year, which will be opened in 2024.

Insertion

In the short term, we use steel to increase our insertion; in the medium term, with batteries and applications for magnetic materials; and in the long term, with agricultural and refractory products.

To accelerate technological development and technology adoption, we establish partnerships with technology companies and institutes capable of adding value and transforming ideas into opportunities. Of our 239 technology and innovation projects, 195 are in partnership with universities, research institutes, startups, customers and partners, in Brazil, Japan, China, Korea, the United States and Europe. To disseminate the application, we preferably operate with an open innovation model.

In the case of incipient technologies, we work with institutes and universities. In mature technologies, ready for application, we work in partnership with customers interested in using them.

We also invested R$ 100 million in our New Business front to acquire participation in companies, mainly in the battery area. We are investors in three companies in this segment, some of them startups.

Sustainability is inherent to our business. Our growth levers are aligned in this sense, as they imply dematerialization and energy transition. We also work to increase the use and recovery of Niobium available in the Araxá reserve, making the most of the existing reserve and optimizing the efficiency and cost of the process.

Growth plan review

In 2023 we review our growth plan for the next ten years, maintaining the perspective of seeking new applications and new markets to occupy the installed capacity. The steel industry will always be our main segment, with great opportunities for growth.

Customers

Our sales model is direct, through our regional offices, and, in some specific markets, we work with partners – distributors or agents. This is the case in China and Japan, where we have exclusive distributors. One of our strategic goals is to seek new avenues of growth that do not depend solely on the core business.

We create tailored products for different needs or market demands for Niobium and work to discover potential uses for the metal. In the battery segment, for example, we have technical capacity to meet the intense customization of products thanks to a highly specialized team, with doctors, masters and market professionals, with technical and commercial experience focused on our business.

In 2023, we invested in the growth of the dedicated team, which works in direct contact with the customer. At the same time, we promoted greater closeness between the commercial and technical teams, who worked in pairs with customers, in a model that seeks to maximize the results and benefits of using Niobium by promoting technology solutions to meet specific needs

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Our team that maintains direct contact with customers was expanded during the year and started to interact more intensely with the commercial area

7.

- Climate change
- Water resources and effluents
- Dam management
- Waste and co-products
- Environmental education

ENVIRONMENTAL PERFORMANCE

GRI 304-2 | 304-3

Our path is guided by the purpose of working towards a balanced relationship between the environment and our operations. To achieve this, we are guided by a Sustainability Program with clear ESG guidelines that establish respect for the environment, especially the Cerrado biome, maximum use of mineral resources, water recirculation and environmental education.

During the year, we made a formal commitment and began the process of unfolding planned actions for decarbonization, launched in 2022, with the goal of bringing our scope 1 and 2 Greenhouse Gas emissions to zero by 2040. Furthermore, to analyze the environmental effects of our main product, we completed the analysis of the ferroniobium lifecycle – an initiative that provides more visibility into its potential environmental aspects – and began the external verification process for data assurance.

We maintain work fronts in aspects such as management of local fauna and flora, climate change, consumption of renewable energy, management of emissions, water and effluents, waste and co-products, and dam safety.

Our direct impacts on biodiversity related to the construction or use of factories, mines and transport infrastructure, are the generation of liquid effluents, propagation of noise, atmospheric emissions, possibility of altering water quality, driving away fauna, altering habitats and impacts on flora. As for pollution, the impacts are atmospheric emissions from fixed and diffuse sources and the discharge of effluents into waterways.

We are not aware of activities that cause the introduction of invasive species, harmful organisms and pathogens resulting from our activities. Regarding the reduction of species, we did not develop a study that contemplates the baseline in order to verify the occurrence. In plant suppression operations, plant species are reduced.

In relation to habitat conversion, when projects are implemented, such as the EDR-9 project, they are converted into mining-industrial environments. In relation to changes in ecological processes outside the natural range of variation, such as salinity or changes in the water table, variation may occur due to soil waterproofing, occasionally reducing recharge areas. There is also the possibility of affecting species of the Cerrado fauna and flora in Industrial Areas I and II and surrounding areas (around 6,000 ha).

We own a protected or restored area measuring 7.67 km² in the city of Araxá, approximately 12 km away from the industrial plant, which has its vegetation already developed after restoration measures. At the end of 2023, the area was almost entirely preserved, with small environments undergoing natural regeneration. It was selected for compensation in our environmental licensing processes based on the determination of the environmental agency, requiring compensatory planting for the suppression of isolated trees, threatened trees, intervention in Permanent Preservation Areas (APPs) and semi-deciduous seasonal forest fragments.

Our second protected or restored area has 81.53 ha and is also located in Araxá. We partner with third parties to protect or restore areas of habitat other than those we already oversee and in which we have implemented restoration or protection measures. The status of the area at the end of 2023 was in the reforestation maintenance process. It was selected for compensation in the environmental licensing process for the Dam 8 Project and followed the same premise determined by the environmental agency in the previous area.

Climate change

GRI 201-2 | 3-3 – Climate change | SASB EM-MM-110a.2.

Our governance related to the topic of climate change is the responsibility of the Sustainability Committee, which recommends strategies with active listening to our stakeholders and deploys corporate actions in different areas aiming at strengthening the business and reducing risks. The effects on financial performance are risks due to non-compliance with international legislation, with possible loss of market share and/or restrictions on the development of products and applications. To mitigate these risks, we must implement agile solutions capable of predicting possible effects, preventing financial impacts.

Along these lines, we have been evaluating the effects of possible climate changes in Araxá and the region to adopt actions to fight it and minimize our impacts. This concern extends to the European and Asian markets, where we sell our products. Possible environmental risks and impacts directly linked to operations, such as air pollution due to emissions from stationary sources, soil pollution due to inadequate waste disposal, and water pollution due to disposal in water bodies without due treatment are mitigated via internal controls.

Our target is to achieve zero scope 1 and 2 emissions by 2040. We have optimized the use of renewable energy over the last few years, increasing the consumption of recycled inputs, such as aluminum, and those with lower carbon footprint, such as charcoal, in addition to promoting efficiency improvements and the development of fast recharge batteries with use of Nobium.

Therefore, we understand that tackling the climate emergency is urgent and everyone's responsibility. Since the launch of the decarbonization agenda for our activities (2022), we have adopted in our plan, among other actions, the inclusion of fossil fuel replacement technologies (especially diesel, LPG and petroleum coke), the electrification of the fleet, and constant improvements of energy efficiency. Part of these actions is under advanced study for implementation.

In 2023, one of the stages of the plan included the survey of all inputs per production unit, in order to understand which are the main emitters of Greenhouse Gases (GHG) in the industrial complex and improve our energy efficiency. The work concluded that around 40% of emissions come from the use of LPG, which led us to begin the search for technological solutions that promote the replacement of this input with other materials. We also carried out tests to replace coke with charcoal, which further contributes to reducing emissions in our operations.

From 2024, with a clear vision of scopes 1 and 2, we will have even greater strategic direction in relation to scope 3, evaluating our supply chain to identify the specific emissions from the inputs we use in the production process and act to reduce them.

In addition to the internal decarbonization agenda, we are aware that, for our customers, Niobium is an ally in their own emission reduction agendas, since the addition of ferroniobium to steel provides lighter structures and a smaller amount of material. These aspects favor dematerialization with reduced emissions.

Since 2013, we have published the inventories of emissions from the GHG Protocol Brazil and again received, in 2023, the Program's Gold Seal, granted by Fundação Getulio Vargas (FGV) to companies that reach the highest level of qualification and transparency for the GHG inventory.

Renewable energy

Aiming to eliminate the use of trucks and reduce GHG emissions, the mined ore is taken via conveyor belt from the mine leased to Companhia Mineradora de Pirocloro de Araxá (Comipa) to our homogenization yard, and carried, in the same way, for processing in our Concentration Unit.

Our total energy consumed in 2023 was 2,443,293 GJ, just 1% below the previous year. Also during the year, 77% of the energy consumed in our production process came from renewable sources (charcoal, biodiesel and electricity). The total was 1,885,343 GJ, with no considerable difference compared to the previous year's result.

Energy consumption from non-renewable sources was 557,949 GJ, an amount 6% lower than that reported in 2022, mainly due to the reduction in consumption of LPG and petroleum coke inputs.

Water resources and effluents

GRI 303-1 | 303-2 | 303-3 | 303-5 | 3-3 – Water and effluent management | SASB EM-MM-140a.1

In 2022, as a result of continuous reviews of internal processes, we managed to reduce by three times the amount of water required to produce one ton of Niobium products. Still, we work tirelessly to increase the use of recirculated water in the industrial park.

So much so that, in 2023, we were able to increase the recirculated volume to 96.6%, even considering the technical maintenance stops in the industrial complex, carried out in December, which impacted the calculation, as they resulted in an increase in the use of new water. Water is recycled in a loop and only discarded if it reaches the maximum capacity of the reservoir.

The volume of 3.4% refers to rainwater, collected indirectly, which ends up being used in the industrial process because it comes into contact with waste. In this case, we manage the volume retained or stored in dams.

To ensure even greater water security, we maintained the Bolsões de Água project, created in 2022. The initiative, carried out on our properties, aims to create level curves that form reservoirs to contain rainwater and, consequently, recharge the aquifer (groundwater), preventing it from falling into the watercourse.

In addition to the efficient use of water, the quality of effluent treatment is another priority. We operate with two own stations, capable of treating 1,500 m3 of effluent per hour. The Effluent Treatment Station (ETEL) and the Sewage Treatment Station (ETE) complement each other. The first receives the disposal of water from the industrial process. Only after undergoing treatment, this disposal can be sent outside the industrial park, to water courses, within the standards permitted by law. The second station is responsible for treating water from the company's bathrooms and restaurant. From ETE, the resource goes to ETEL.

Water quality control is carried out virtually, with blocking mechanisms that, if necessary, direct the effluent back to the tailings dam, and has a corrective action plan.

In 2023, total water withdrawal amounted to 3,064 megaliters, coming from surfaces (fresh), of which only 1,926 megaliters were consumed in the production process. The stored volume at the end of 2023 totaled 1,803 megaliters, 22.8% less than at the end of the previous year. During the year, we optimized the consumption of new water in production processes, which resulted in saving 343 megaliters of new water.

We hire outsourced companies to carry out remediation work and identify levels of change and evolution regarding groundwater contamination. The results are reported in biannual meetings and monitored by the Soil Quality and Contaminated Areas Management of the State of Minas Gerais – Gerac.

Pró-Araxá is an agreement established in 1984 to reestablish the natural conditions of the area contaminated by soluble barium due to the beneficiation process that was adopted in our operations. After discovering the source of contamination, we began treating the effluents to prevent the disposal of barium chloride. Furthermore, in August 2018 we signed a Term of Commitment (TC) with the Public Ministry of the State of Minas Gerais, and, as part of the obligations from the agreement, we prepare biannual reports about monitoring of activities related to the environmental management of the remediation process and periodically forward them to environmental agencies, City Government and the Public Ministry.

To manage the material topic of water and effluents, as well as their impacts, we adopted the following measures:

- **Maintenance of adequate structures in effluent generation sites (impermeable areas, correct piping, constant training for professionals).**
- **Immediate handling of all non-compliances through a process of identifying causes and actions, implementing initiatives and verifying the effectiveness of the implemented solution.**
- **Use of indicators in systems to manage real and potential positive impacts.**
- **Installation, in the treatment unit, of online analysis equipment that allows constant control of the effluent quality.**
- **Activation of the valve system in case of loss of control, immediately interrupting the sending of treated effluent to the water body, directing it to the tailings dam.**
- **Periodic monitoring of the quality of water resources.**

Dam management

SASB EM-MM-540a.2 | EM-MM-540a.3.

Our Integrated Monitoring Center (CMI) operates 24 hours a day to ensure the safety of structures. The dams undergo continuous checks carried out by the Registration Engineering area and semi-annual checks carried out by independent audits. In 2023, we improved our governance process, implementing the Independent Tailings Review Board (CIRR), comprised of three professionals with more than 50 years of experience in the sector. CIRR evaluates all processes related to our dams, including design, operations, monitoring, governance and construction. Through CIRR's work, we were able to identify and implement opportunities for improvement in these processes.

We also carry out annual simulations for all structures in the industrial complex, to evaluate the performance of people involved in emergency action processes (such as siren tests, evacuation and time needed to travel the routes). The simulations bring together employees, the population and local authorities, and are monitored and certified by an independent company.

All of these initiatives are part of our Emergency Action Plan (PAE) for dams, which is available at our industrial plant, on the corporate website, at the City Halls of Araxá, Ibiá and Perdizes and at Civil Defense organizations, as determined by federal and state legislation on dams. In 2024, we will carry out a reassessment of the region's socioeconomic registration, covering the entire area downstream of the dams – an extension of 140 km – and mapping the families located in the territory. After the decommissioning of dam number 5, in 2022, in compliance with current state law, we received authorization from the responsible environmental agency and, in 2023, began the process of decommissioning dam number 4, which must be completed by 2025, with revegetation and landscape formation.

Based on a structured safety plan, we are able to quickly respond to emergencies in dams and mitigate potential risks. We train our employees and carry out simulations with the population and municipal authorities to always be prepared. Although we have never reported any incident, we continuously, permanently and responsibly monitor our dams, ensuring a high degree of safety, in line with our Dam Governance Policy.

Waste and co-products

GRI 3-3 – Waste and dam management | 306-1 | 306-2 | SASB EM-MM-150a.10.

We believe that waste that can impact the environment and is related to our activities, has its impacts avoided by correct disposal. They are generated and monitored by two departments: Dephosphorization, which generates fines from processes characterized as Class I and are disposed of in its own waste landfills (waterproofed and covered); and Metallurgy, which generates aluminous slag characterized as Class IIA, disposed of in its own waste landfills (impermeable). Possible impacts are related to specific incidents, such as spills, but correct disposal prevents contamination in the environment. Furthermore, through the Risk Matrix, action plans are developed to periodically monitor the mitigation of possible impacts.

In 2023, 99.68% of the sterile material generated in our operations was reused in engineering works in the industrial plant, especially in the decommissioning of dams, as part of the tailings covering material and subsequent revegetation, promoting the environmental reintegration of the area in question.

We continually test new technologies for waste disposal. Currently, we conduct a wet disposal of flotation tailings in dams (slurry) and magnetite is dewatered through hydrocyclones. Always seeking to improve the safety of structures and our processes, we continually study new technologies available on the market. Therefore, for our next tailings disposal system, EDR9, we will adopt dry tailings disposal: the flotation tailings will be filtered (the coarse fraction will be disposed in piles of dry and compacted tailings, while the fine fraction will be drained in a thickener and disposed of in a dam). The magnetite will continue to be dewatered in hydrocyclones and will be disposed of dryly in a pile of compacted material.

99.68% of the sterile material generated in our operations during the year was reused in engineering works in the industrial plant

In 2023, we obtained an environmental license to implement EDR9, a waste disposal structure consisting of a project with modern technology, which increases the disposal of waste in a dry form. The project will involve an investment of R$ 3.5 billion and will require the work of around 2,000 people, expected to be completed in 2028.

To mitigate the impacts and provide environmental compensation of the new venture, we acquired rural properties in the region of our headquarters, located in the Brazilian Cerrado, and invested in an initiative that resulted in planting 150,000 native seedlings, aimed at reforestation. The action will continue, and the goal is to produce 1 million seedlings internally from the work of 50 people committed to collecting seeds adapted to the location and planting crops with genetic heritage adapted to the Cerrado climate, which will contribute to maintaining the biodiversity in the region in an area of 400 hectares.

Environmental education

We have maintained the Environmental Education Program (PEA) for 31 years, which has served more than 77,000 students, teachers and residents of Araxá. In 2023, more than 2,000 people were involved in activities such as lectures, monitored visits (which include responsible interaction with animals kept in our conservationist breeding facility), thematic workshops and exhibitions, among others, held mainly in our Environmental Development Center (CDA) and focused on preserving the Cerrado, socio-environmental responsibility and the impacts of climate change.

Most of our environmental education actions are carried out at the CDA, focusing on preserving species of Cerrado fauna and flora that are endangered. In 2023, CDA's conservationist breeding facility participated in the reintroduction of 13 animals into areas preserved by us and in studies conducted in partnership with the State Forestry Institute (IEF). Over time, around 2,400 animals have passed through the breeding facility, such as giant anteaters, tapirs, maned wolves, toucans, howler monkeys, among others.

In partnership with Companhia Mineradora do Pirocloco de Araxá (Comipa), we carry out frequent awareness campaigns and maintain work groups with our employees and social groups in the Environmental Education Coverage Area to better manage waste and natural resources associated with our industrial process.

Please refer to the GRI Annex for details about our emissions, energy and water consumption, and waste disposal.

8.

- Our people
- Suppliers
- Social responsibility

SOCIAL PERFORMANCE

Our people

GRI 2-30 | 401-2 | 3-3 – Attraction, development and retention of employees | SASB EM-MM-000.B | SASB EM-MM-310a.1

At the end of 2023, we had 1,914 employees. To deal with the diversity of our team, made up of young and mature talents and geographically dispersed, we rely on broad and direct communication, through campaigns, events, newsletters, e-books and corporate meetings. In 2023, we promoted the Integration Meeting in Amsterdam, an integration meeting between all regional offices abroad and professionals from São Paulo and Araxá. During the two-day event, strategic topics for human and organizational development were discussed.

We also held our Annual Leaders Meeting in Araxá, in which 120 senior leadership professionals from all over the world participated. The goal was to promote integration and debate on topics relevant to our evolution.

Also for integration, we hold quarterly meetings, covering 100% of the internal audience, in which employees have the opportunity to learn about our results and participate with questions, doubts and suggestions, which are answered by the leadership team. In addition, we have a monthly Integrated Management Meeting to evaluate ongoing projects, results and indicators. Both meetings have simultaneous translation, to be followed in real time or later by those out of Araxá and Brazil.

In 2023, we applied our biennial organizational engagement survey, through which we measured engagement – the questionnaire's key indicator – and the level of adherence to internal culture. Employees answer around 50 questions. This edition of the survey was responded by 92% of those eligible, with an engagement rate of 81%, a slight reduction compared to the 2021 survey, which had 85%.

The most unfavorable points of the survey, in addition to being addressed during Career Week, are addressed by work groups in each department, with guidance and monitoring from the direct leader, who must debate, identify and develop a plan with their team. As of 2024, this management will also be associated with the directors' goals.

Next year, we will also work on the evolution of our culture, implemented in 2018 with the creation of the *Our Commitment* program, which includes the development of employees and was the basis for the launch of the People Cycle, an annual performance evaluation process, with Individual Development Plan (PDI). Based on ongoing diagnosis – which involves, in a second stage, surveys with employees, work groups and workshops –, we are motivated to modernize our culture and adjust it to existing challenges.

To guide the behaviors expected of employees, we also maintain the principle of Candor, which aims to strengthen transparent and honest exchanges and feedback between professionals, leaders and management. We maintain the Direct Connection channel, with the purpose of encouraging constructive dialogue between the parties, mainly between the employee and the area itself and with the Human Resources department. Through this channel, employees can send suggestions, criticisms and questions with the aim of contributing to business development, generating greater engagement.

Attracting and retaining talent

We invest in onboarding programs, focused on training and career development for young talents. Among them, the Young Apprentice Program stands out, which, through training carried out by SENAI (National Service for Industrial Training), promotes the inclusion in the job market of teenagers and young people in operator and technical assistant roles; the Internship Program, through which technical and higher education students experience the job market; and the Trainee Program, which gives newly graduated candidates the opportunity to learn about all of our areas to build a successful career. Within the scope of the Internship Program, 55 young talents were developed in a trail lasting more than 20 hours, comprising themes such as Self-knowledge, Public Speaking, Agile Projects, Routine Management, Creativity and Innovation. At the end, the trail was considered satisfactory by 98% of participants.

Depending on the position, we promote and reassign employees, prioritizing our talents. In positions that require greater specialization, we advertise vacancies externally with the possibility of internal candidates who feel able to apply. For management levels, we set up a succession committee for a more comprehensive assessment of candidates. Our selection process is conducted in a transparent and professional manner and, in every hiring, we make clear the desirable behaviors for the position, to ensure adherence to our culture, which is also reinforced in integration training.

Every two years, we compare salaries and variable remunerations with those of national and international markets to ensure competitiveness. We offer full-time employees food vouchers, meal vouchers, health and dental plans, a co-participation medication purchase plan, education assistance – for children of employees aged 1 to 25 years –, life insurance, pension fund/benefit plan, and Gympass.

In Araxá, we maintain a kindergarten school, with approximately 400 children of employees, who study free of charge. For professionals from other regions, we support studies financially.

Diversity and inclusion

Our Diversity Committee created three years ago, with representatives from different areas, meets every 15 days to discuss relevant topics and address initiatives so that we can be a more diverse and inclusive company.

We annually promote the Diversity and Inclusion Week, an event in which we carry out intensive communication on the topic, with lectures, conversation circles, workshops and communication actions, aimed at raising employee awareness. The initiative brings together all professionals, including leadership. Every two months, we hold meetings on the topic, involving the CEO and a group of employees.

Since 2020, all managers and our recruitment team have received training on the topic of diversity and inclusion, to avoid unconscious bias. We also promoted lectures on gender and race and training for a class in Brazilian sign language.

During the year, we financially supported a SENAI initiative to encourage the inclusion of women in the mining industry, a sector that is mostly male, and hired several female employees, as a result of this movement, for the administrative and factory areas.

As a result of the Diversity Commission's actions, renovations were initiated aimed at accessibility for people with disabilities, and a breastfeeding room was opened.

Development and growth

GRI 404-2

We provide training to our employees on topics ranging from leadership skills to regulatory standards, always focused on technical and behavioral developments.

In 2023, we conducted the Continued Education Program, consisting of Language and Postgraduate Studies. The first one aims to enable the development of employees in another language, meeting needs and closing gaps in relation to the activities in the area of activity and requirements defined by the current or potential role in the company. During the year, the initiative benefited around 100 eligible professionals, providing classes on an online teaching platform. The Postgraduate program aims to encourage employees to develop their professional training by subsidizing 80% of postgraduate costs (national institutions and subsidy value limited to a certain sum), to comply with the skills required to functions at CBMM. The number of scholarships available for postgraduate studies is defined at the time the budget is prepared. Despite these development boosts, we do not maintain a career transition assistance program.

We encourage professionals to be protagonists of their development, understand where they want to go and how to build their career. To this end, we offer support through debates, dialogues and constant communication, always backed up by the immediate manager and HR team.

A highlight in development is the Voar Program, dedicated mainly to analyst positions. Through it, employees spend one day a week outside their areas, in training, qualification and projects in other departments. In addition to developing new skills and knowledge, the initiative also represents greater integration between teams and, eventually, new opportunities for employees.

For leaders, we offer the Career Dialogues track and the Leadership Trail, with lectures and training on topics that vary every year, in addition to individualized assessment, to support individual paths by fostering leadership skills.

We also believe that to keep the company's longevity through people development and succession, leaders must be responsible for developing other leaders. Aiming to prepare employees to take on new positions and responsibilities, we created the Develop Supervisor program, which includes a layered growth path. Through it, we work with steps, so that supervisors, in addition to their technical obligations, become tutors for other professionals, collaborating with their development and reporting the team's evolution to managers.

Health, safety and well-being

GRI 403-1 | 403-2 | 403-3 | 403-4 | 403-5 | 403-6 | 403-7 | 403-8 | 403-9 | 3-3 – Health, well-being and safety of employees

Resources to ensure the integrity of professionals include the Security Value Program and the Niobium Rules

Our Human Resources and Occupational Safety areas work in a cohesive and collaborative manner. In 2023, we continued to implement the Niobium Rules, a set of standards that establish mitigation measures for 10 critical processes and risks. They are part of the Security Value Program, which aims to develop actions that contribute to the continuous evolution of our maturity in occupational health and safety.

Our employees and service providers undergo various types of training, in which risks and control measures for each activity are identified. Incidents are recorded and analyzed, seeking to identify possible failures in the processes and root causes of accidents. The registration of occupational accidents and their classifications are based on NBR 14280 and ISO 45001. After identifying the causes, risk mitigation and control actions are implemented in all similar processes, in a cycle of continuous improvement. Occupational safety indicators are recorded and handled in the occupational safety management system.

Several channels are maintained for reports and feedback, protected from retaliation and actively used by all employees and service providers when identifying any unsafe conditions or acts in areas or activities. When identifying conditions in which risks have not been mitigated according to the hierarchy of controls, employees are encouraged to report immediately and use their right to refuse the risk.

We also have a Service Specialized in Safety Engineering and Occupational Medicine (Sesmt), an Internal Commission for Accident and Harassment Prevention (Cipa), Emergency Action and Response Brigade (Bare), and Occupational Health and Safety facilitators, that disseminate actions related to occupational health and the well-being of workers, and specific training for emergency situations. Through health and safety committees and Incident Reporting Systems (ROS), we actively involve employees. Thus, through the participatory risk assessment process, they identify and assess risks in the workplace, ensuring their active participation in safety management.

Our Occupational Health and Safety Management System, which covers 1005 employees, is certified by ISO 45001, contributing significantly to the reduction of accidents and occupational illnesses. We also maintain the Occupational Health Medical Control Program (PCMSO), which includes admission, dismissal and return-to-work examinations, and health promotion actions based on prevention and referral to specialist professionals, when necessary. All documents and information related to the employee's health are kept confidential, in compliance with the Brazilian General Personal Data Protection Law (LGPD).

To facilitate workers' access to non-work-related medical and health services, we maintain a link on our website that directs those wishing to consult health professionals directly to the benefits channel. The PR-GORH-01 procedure regulates all health benefits available to professionals. The industrial park has an occupational health clinic, which operates 24 hours a day, providing healthcare services from doctors, nurses and other professionals.

We offer well-being programs, with the support of social workers, who give lectures on different topics, such as life goals, physical and mental health, and financial education, and visit the areas talking to the teams. These professionals are responsible for collective or individual monitoring of employees, in relation to topics that need to be addressed at the moment, either at recommendation from the manager or at the request of the professional themselves.

All of these initiatives contribute to mitigating negative impacts, that is, possible accidents and occupational illnesses. The management of this material topic involves the identification of hazards and occupational agents and risk assessment and control, carried out in a continuous and proactive manner, especially in the project implementation phase. When it is not possible to completely eliminate the dangers inherent to the activity, the risks are mitigated by following the hierarchy of controls, always seeking to provide healthy and safe working conditions to prevent occupational injuries and illnesses. There are procedures that establish criteria for identifying and evaluating the significance of risks in relation to the environment, occupational health and work safety, relating to activities under the Company's responsibility.

Please refer to the GRI Annex for details about the profile of professionals, remuneration, maternity/paternity leave and other human resources data.

Suppliers GRI 2-6

In line with our commitment to promoting economic development in the region where we operate, we prioritize suppliers from Araxá or other cities in the State of Minas Gerais in our supply chain, whenever possible. To encourage companies close to our industrial operations and create jobs, we promote training in the community.

We prioritize local suppliers and provide them with training opportunities

Our supply chain had 1,910 registered suppliers in 2023, including manufacturers, distributors, resellers and direct service providers, 15% of which were from Araxá. During the year, 96% of the products and services necessary for our operation were purchased in Brazil, with Minas Gerais representing 43% of the national volume. In terms of the procurement budget, of the R$ 2.8 billion invested in the year, 52% involved companies from Minas Gerais and 13% involved suppliers from Araxá.

During the year, we formalized a partnership with the SENAI to train local labor force, with the aim of increasing the participation of the population of Araxá in the works for implementing our new waste disposal complex (EDR9), which should be completed by 2028. In 2024, we will launch a program to accelerate and promote local entrepreneurship, offering resources and consultancy in the areas of management and marketing, with the support of an incubator. The proposal is to generate jobs, boost the service sector and promote even more socioeconomic development for the city.

Supply chain

Our Third Party Hiring Policy classifies all suppliers and service providers according to their degree of criticality, following established metrics, considering their activity and whether they will represent us in interactions with the Government or a government-owned company, among other criteria. Due diligence is carried out on third parties classified as high risk, following the best market methodologies. These analyses have different validity periods, according to the level of criticality and any notes identified. All information is recorded to support hiring decisions – a process that was audited when obtaining ISO 37001.

In 2023, 1,032 partners were classified as high risk and 1,167 as low risk. In the due diligence process, if a risk is found, the Compliance area recommends not hiring the supplier. On the other hand, suppliers are constantly evaluated and can be awarded, for example, in relation to good sustainability practices.

We continually carry out online training for all third parties, with the aim of reinforcing adherence to our Code of Ethics and Conduct and compliance policies. In 2024, they will also begin to be trained and evaluated in human rights.

We also track the origin of the raw materials and inputs for our products. We have a checking tool that makes it possible to evaluate any counterparty with which we have relationships.

We use the SAP/R3 system, which monitors the performance of areas in procurement practices and allows us to achieve budgeted value in the acquisition of raw materials, purchase preferentially from suppliers with whom we have contracts and carry out negotiations via the SAP Ariba system, among others.

We also adopt careful export control, which has been increasingly complex to keep up with global geopolitical issues. We have a real-time checking tool for our entire customer base, and our sanctions and embargoes committee monitors the evolution of applicable sanctions, embargoes and export controls. To better systematize the export control rules, we developed a policy to address the issue which, together with the sanctions and embargo policy, constitutes the program that allows us to maintain efficient control over these topics.

Since 2022, we have held the Authorized Economic Operator (OAS) certification, which qualifies us as a low-risk, reliable operator that is entitled to the benefits offered by Brazilian Customs, related to greater agility and predictability of cargo in international trade flows. To achieve this, we went through a strict process, for which we have been preparing since 2019, controlling and inspecting products and processes, to ensure that there is no cargo contamination throughout the trip, reducing the need for inspections and improving the relationship with the customs authority.

Furthermore, in our industrial plant, we have a road scale that works as a tax ordinance to mitigate fraud risks by checking the difference in weighing between the entry and exit of delivery vehicles. This tool has undergone recent improvements, with adjustments to tolerance levels, segregation of functions and delimitations of rules and policies.

Read additional information on purchases and materials in the GRI Annex

Social responsibility

GRI 203-1 | 3-3 – Local development | SASB EM-MM-210b.1.

We identify the potential impacts of our operations on surrounding communities, related, for example, to air and water quality and noise, and maintain continuous monitoring and controls, via specific programs. Our operations are far from the city, but are still equipped with response actions to mitigate environmental risks.

Our structure includes the area of community relations, and we promote social dialogue, meetings, events and interactions on our official channels, which raise demands managed by the area itself and, in cases of greater complexity, with involvement from directors and managers.

Resource allocation

☑ Children's Fund

R$ 5.5 million and 7,000 beneficiaries

☑ Elderly Fund

R$ 5.5 million and 6,000 beneficiaries

☑ Others

R$ 681,000 and 630 beneficiaries

Since the beginning of our operations, more than six decades ago, we have worked with a great sense of responsibility towards the population of Araxá (MG), investing in social initiatives and dealing with the community, government agencies and municipal authorities.

Based on a relationship of transparency and ethics, we operate with the premise of taking care of our business and, at the same time, contributing to the self-sufficiency of the surrounding area. We believe that our economic activity, linked to Niobium products and technologies, should positively impact the society.

We offer our stakeholders the opportunity to learn about our operations and the way we work through the *Open Doors* Program. We frequently receive visits from representatives of governments, universities, international bodies and agencies so they can learn more about our benchmark practices and, subsequently, disseminate them in the sector.

To increasingly evolve in taking care of the community, and strengthened governance, we create in 2023 our Social Responsibility Policy, with the aim of formalizing priorities, pillars and forms of action, improving targeting of our resources.

All proposals for social projects and sponsorships are evaluated by the Social Responsibility area, the Social Investment Management Committee and the Compliance area. During the year, we invested around R$ 39 million – most of it in incentivized projects – in the social, education, health, sport and culture areas – our priority areas of action. With our actions, we directly benefited 811,000 people, 370,000 of whom were in the city of Araxá, which received 71,6% of the resources, accompanied by the State of Minas Gerais, to which 18,5% of the total invested was transferred.

Investment in infrastructure and services

	2021 (R$)	2022 (R$)	2023 (R$)
Education	391,650.00	4,687,415.00	4,185,023.94
Health	9,471,080.00	2,757,996.00	1,234,510.56
Sports	8,225,971.00	9,149,228.00	11,372,500.00
Culture	14,565,074.00	8,830,338.00	9,926,970.00
Social	13,263,544.00	21,350,100.00	12,908,849.54
Total	**45,917,319.00**	**46,775,077.00**	**39,627,854.04**

Note: The variation in investment between 2021 and 2023 is justified by the amounts allocated to actions to fight Covid, in 2021, and to the renovation work at Araxá airport, in 2022. The investments made are in-kind.

Social actions

We conducted **seven projects in the area of education, six in the healthcare area, 27 in the sports area, 20 in the culture area, and 17 in the social area**. Check out some of them.

Area: Education

Project	Description	Resource	Commercial, cash or free	Status
Escola Mágica	Teaching children in the municipal education network in a playful way	Rouanet Law	Free/Tax Deduction	Progress
Fliaraxá 11th Edition	Literary festival with several lectures by national authors	Rouanet Law	Free/Tax Deduction	Concluded
Vr. Social Responsibility Institute Contract – Sírio Libanês	Train women in socially vulnerable situations in the IT area	Own Resources	Free/ Cash donation	Progress

Area: Healthcare

Project	Description	Resource	Commercial, cash or free	Status
Araxaense Women's Assistance Foundation	Carry out examinations and medical care for the community	Own Resources	Free/ Cash donation	Concluded
Uninorte	Donation of an X-ray machine to the healthcare unit	Own Resources	Free/ Cash donation	Concluded
Visão para Todos Project	Carry out exams and donation of eyeglasses for visually impaired children	Own Resources	Free/ Cash donation	Progress

Area: Sport

Project	Description	Resource	Commercial, cash or free	Status
MTB International Cup	Mountain biking event	Sports Law	Free/Tax Deduction	Concluded
Hippotherapy	Project carried out with horses to support and rehabilitate children with disabilities and autism	Sports Law	Free/Tax Deduction	Progress
BMX para todos	Biking project for impoverished children	Sports Law	Free/Tax Deduction	Progress

Area: Culture

Project	Description	Resource	Commercial, cash or free	Status
Ouro Preto Orchestra – João Bosco	Presentation in public square	Rouanet Law	Free/Tax Deduction	Concluded
Minas & Gerais Festival – Popular and Regional Culture	Event that values Minas Gerais culture and traditions	Rouanet Law	Free/Tax Deduction	Concluded
Festnatal Araxá	One of the biggest Christmas festivals in Brazil, with dances, music and lighting	Rouanet Law	Free/Tax Deduction	Concluded

Area: Social

Project	Description	Resource	Commercial, cash or free	Status
Transfer to the Children's Fund	Support for municipal councils to carry out projects for children and adolescents	Children's Fund	Free/Tax Deduction	Progress
Transfer to the Elderly Fund	Support for municipal councils to carry out projects for the elderly	Elderly Fund	Free/Tax Deduction	Progress
Vr. Human Promotion Society Contract – Fazendinha	Therapeutic community in the city of Araxá dedicated to treating alcohol dependence.	Own Resources	Free/ Cash donation	Concluded

9.

- Ethics, integrity and compliance
- Governance structure
- Risk management
- Operational and financial performance

CORPORATE GOVERNANCE

Ethics, integrity and compliance

GRI 2-15 | 2-23 | 2-24 | 2-25 | 2-26 | 3-3 – Ethics, integrity and compliance | SASB EM-MM-510a.1.

To ensure our continuity, we adopt strict ethical controls, for integrity and respect for laws in our relationships with all our stakeholders. Under this premise, in 2023 we achieved certification of the anti-bribery management system by ISO 37001, an international standard for fighting corruption and bribery, from the International Organization for Standardization, granted in Brazil by the National Institute of Metrology, Quality and Technology (Inmetro).

The development of the project that led to obtaining the standard began with the identification of 22 aspects for improvements, which were worked on and improved during the year, in addition to mapping compliance risks throughout our production and administrative chain.

The achievement materializes our evolution in compliance and commitment to the pillars of ethics, integrity and transparency. The fight against corruption is a recurring topic on our communication agenda, disseminated in internal training for our employees and third parties and through policies, anti-corruption clauses in contracts, reporting channel operated by an external company, third-party due diligence and internal audits. The due diligence process also applies to all partners holding more than a 5% stake. Its purpose is to evaluate not only our history, but also that of the people responsible for making decisions.

We have an Ethics Committee that evaluates all cases reported in the Confidential Line, which, after analysis and investigation by the Compliance area, depending on the criticality, involvement of senior leadership or high risk, have their report forwarded to the Audit and Risk Committee for investigation, conclusions and recommendations. In addition to monitoring internal investigations, the Ethics Committee and the Audit and Risk Committee monitor the development of the Compliance Program through indicators and main projects and their respective schedules conducted by the Compliance area.

The following policies are part of the program: Code of Ethics and Conduct; Anti-Corruption Policy; Hiring Third Parties; Donations and Sponsorships; Gifts, Presents and Hospitalities; Conflict of interests; and Competition Defense Manual. Also, the program has procedures, manuals and internal regulations that guide the entire internal process in the area.

In 2023, we developed the Social Responsibility Policy to formalize priorities, improving the evaluations of sponsorship requests, registered in the Prosas System, which allows monitoring the proponent and understanding social considerations. The platform also contains a record of the project's history. No initiative moves forward without deliberation by the Social Investment Committee, which forwards requests for evaluation by the Compliance area and subsequent formalization.

We also launched our Risk Policy and worked on the creation of the Human Rights Policy, which was approved in early 2024, to increase the level of awareness of our commercial partners and suppliers, aligned with the importance of ethics and integrity.

We conduct a series of training sessions for employees, since onboarding, which includes lectures on compliance policies. During the period, professionals participated in specific training on conflicts of interest, in accordance with the terms of our policy that governs the topic, and, as an ongoing practice, we promote the Integrity Day at our headquarters, in Araxá, with transmission to all regional offices.

Another action that continued was the Compliance Partners project, which aims to guide, prevent, detect and remedy possible misconduct and violations of internal rules and laws applicable to our business. The project is voluntary: those who sign up undergo training and qualification throughout the year, covering our Code of Ethics and Conduct, compliance policies, moral and sexual harassment and the Reporting Channel, among others.

The goal of the initiative is for the employees to disseminate the importance of integrity and respect in our actions, spreading the topic across areas and increasing engagement, and contribute to addressing delicate situations to the Ethics and Reporting Channel, when necessary. In 2023, the tool received 180 reports, 35.33% more than in 2022. All complaints are addressed internally for proper investigation.

As for situations that reveal a real or potential conflict of interest, they are submitted to analysis by the Compliance Department, either through direct reporting via the system or through the Confidential Line.

Confidential line

Our Ethics and Reporting Channel is available to internal and external audiences to report deviations or violations of the Code of Ethics and Conduct and internal standards. Respecting the confidentiality of complainants, it can be accessed daily, 24 hours a day.

Website: www.cbmmcompliance.com
Telephone numbers:
Brazil: 0800 7210754
United States: 1-800-982-0934
Switzerland: 0800-835-088
Netherlands: 0800-022-2352
Singapore: 800-852-3836
Other countries: +55 11 27394508 (accepts collect calls)

All of our compliance policies are gathered on the Compliance Portal, which systematizes the area's flows and, with its own governance, allows greater traceability and reportability of processes, organization of controls, improvement and monitoring of indicators, and concentration of data on a single platform.

We fully adhere to the Brazilian General Personal Data Protection Law (LGPD) and promote training, information classification, and parameterization across all hierarchical levels. The personal data submitted to us follows rules for collection, processing, storage and sharing.

In relation to third parties and suppliers, we evaluate their performance in order to identify actions that go against our principles. If we identify, in the supply chain, anyone who does not follow best practices, current laws, and ethics and transparency, we take the necessary measures to cease the commercial relationship.

Performance metrics related to sustainability are included in remuneration policies. The main executives already had goals linked to ESG, and the tendency is to increasingly include them in remuneration, including work environment, ethics and governance. These goals are cascaded down to other levels of leadership in the company.

Integrated Management Policy
GRI 2-23

Our Integrated Management Policy aims to steer all activities, in alignment with the Code of Ethics and Conduct. Its pillars are:

1. **Providing** healthy and safe working conditions in order to prevent occupational incidents, injuries and illnesses in the business processes;
2. **Managing** the hazards and risks of safety and health at work as well as environmental aspects and impacts through integrated dynamic practices;
3. **Ensuring** the participation of employees and consult them as well as service providers and, when applicable, their representatives on issues related to health and safety at work;
4. **Protecting** the environment through pollution prevention, risk management as well as sustainable actions and opportunities arising from its activities;
5. **Increasing** customers' satisfaction by meeting requirements, innovations and technological solutions;
6. **Ensuring** competence, impartiality and consistency in the operation of its activities;
7. **Engaging** people (employees and service suppliers) in participative management and ethical performance in order to achieve results;
8. **Complying** with the laws and other requirements applicable to its activities, products and services;
9. **Continuously** improving the Management Systems in order to enhance performance and effectiveness.

Governance structure
GRI 2-9 | 2-11 | 2-12 | 2-14

Our governance structure includes the Board of Directors, Board of Executive Officers and advisory commissions.

Board of Directors – Its main task is to define the business strategy, evaluating our global performance, analyzing risk scenarios, opportunities and aspects of governance and sustainability, including supervision over the impacts of operations. The board is also responsible for approving budgets, electing and dismissing directors, in addition to supervising the activities of the Executive Officers. The council is made up of a chairman, who does not hold an executive position, a vice-chairman and nine board members, all elected at the General Assembly. The board normally meet three times a year or whenever necessary.

Composition*

Chairman
Pedro Moreira Salles

Vice chairman
Fabio Colletti Barbosa

Board members
Demosthenes Madureira de Pinho Neto
Eduardo Augusto Ayroza Galvão Ribeiro
João Fernando Gomes de Oliveira
Joon Youp Jung
Mauro Agonilha
Siegfried Kreutzfeld
Tienan Wang
Tomoyuki Kawashima
Weibao Hao

*Composition of the Board of Directors at the end of 2023.

Executive Officers – In addition to being in charge of management, directors are responsible for proposing to the Board of Directors the budget for implementing the business strategy, submitting the Sustainability Report and Financial Statements for each year to the Board of Directors, and keeping their members informed about the activities and progress of operations. The executive officers board members have a one-year term of office, with the possibility of reelection.

One of the highlights of 2023 was the creation of a board dedicated, among other matters, to ESG topics, which reflects responsibility for risks and opportunities related to sustainability. Throughout the year, the areas involved with their respective management handled the issue in a decentralized manner, reporting to the Sustainability Committee – which was maintained. Strategic themes are submitted to the Board of Directors, such as the decarbonization target approved by the board this year. Additionally, the Executive Officers approved the Social Responsibility Policy.

Another milestone of the period was the beginning of the process of diagnosing the effectiveness of our commissions, which will become continuous. The goal is to evaluate the work from the bodies, how they contribute to the business and what positive impacts are generated, assigning criteria for maintenance, strengthening, discontinuity or creation of new commissions.

Advisory committees

We closed 2023 with six committees, which advise the Board of Directors, essentially comprised of members of the Board of Directors and the Executive Officers:

Strategy Committee

People Committee

Finance Committee

Audit and Risk Committee

Technology Committee

Legal Committee

Composition

Chief Executive Officer
Ricardo Fonseca de Mendonça Lima

Executive Officers
Alex Silva e Amorim
Marcelo Scuccuglia
Rafael Agnelli Mesquita
Renata Willens Longo Ferrari
Rogério Contato Guimarães

See more details about corporate governance in the GRI Annex

Risk management

GRI 2-13

Our Risk Management area presents risk monitoring results to the Audit and Risk Committee and the Board of Directors on a quarterly basis.

We divide our risks into five fronts – operational, strategic, financial, reporting and compliance – and have adopted an Integrated Risk Management Policy to centralize them and obtain a global view of the processes, so that they flow at all levels of governance, permeating areas, from occupational safety to dams. Complementing the structure, internal controls, internal audit and compliance constitute segregated lines of defense that support risk mitigation and continuous improvement of process and control compliance.

In 2023, we broke down compliance risks in each of our internal areas to detect critical business exposure factors, protect our reputation, improve policies and strategies, strengthen governance, increase transparency in relationships with stakeholders, and facilitate compliance with short and long term goals.

Also during the year, we intensified our work on strategic risks, with a view to systematization, with established governance and processes and routines shared with committees from 2024 onwards.

In finance, the accounting transparency of our business is guaranteed by external audits in all regional offices, with the publication of Financial Statements. The Audit and Risk Committee evaluates aspects linked to the Financial Statements before submission to the Board, and analyzes, together with external auditors, the main accounting and financial practices.

We monitor news and exposure factors for our businesses daily in order to detect reputational risks and act if any situation is identified that could represent a potential reputational risk.

Also in 2023, we expanded our crisis management – until then focused more on dams and cybersecurity – to address potential risks and identify solutions for possible crisis scenarios in a unified and non-segregated way. The goal is to use already approved models to test these scenarios and create a decision-making chain.

Operational and financial performance

We reported positive financial results in 2023 in terms of volume and market size. Throughout the year, our results reflected the focus on the strategy – which consists of developing new applications and uses for Niobium.

In this context, net profit totaled R$ 4.9 billion. Compared to the previous year, it presented growth of 9.0%, mainly due to the expansion in sales, which reached 92,000 tons of Niobium products, 5.5% more than in 2022.

With global leadership, our intention is to expand the market through new applications and uses of Niobium. In this sense, we invest in research and development in partnership with customers, universities, startups and other relevant players. Considering that the use of Niobium goes far beyond steelmaking, we have set a goal of reaching 25% of revenue from new segments in the next ten years.

10.

- GRI Content Summary
- Corporate Information/ Credits

GRI AND SASB ANNEX

OUR PEOPLE

Number of employees, by gender and work regime GRI 2-7

	2021					2022				
	Female	Male	Another	Not informed	Total	Female	Male	Another	Not informed	Total
Number of employees	208	1,646	0	0	1,854	234	1,692	0	0	1,926
Number of permanent employees	199	1,587	0	0	1,786	223	1,638	0	0	1,861
Number of temporary employees	9	59	0	0	68	11	54	0	0	65
Number of employees with no guaranteed work hours	0	0	0	0	0	0	0	0	0	0
Number of full-time employees	202	1,645	0	0	1,847	228	1,691	0	0	1,919
Number of part-time employees	6	1	0	0	7	6	1	0	0	7

Number of employees, by gender and work regime GRI 2-7

	2023				
	Female	Male	Another	Not informed	Total
Number of employees	254	1,660	0	0	1,914
Number of permanent employees	252	1,656	0	0	1,908
Number of temporary employees	2	4	0	0	6
Number of employees with no guaranteed work hours	0	0	0	0	0
Number of full-time employees	248	1,658	0	0	1,906
Number of part-time employees	6	2	0	0	8

Note – Fixed-term contracts from previous years (2021-2022) were signed into effect or terminated. In 2023, there were not many signings in this modality. The occurrence in 2021 and 2022 was due to the pandemic and new business fronts. At the end of the note, add: "The indicator considers the total number of employees at the end of the reporting period. There were no significant fluctuations in the number of employees during the period.

Number of employees, by region GRI 2-7

Region	2021			2022			2023		
	Determined time	Undetermined time	Total	Determined time	Undetermined time	Total	Determined time	Undetermined time	Total
Araxá	68	1,712	1,780	63	1,772	1,835	4	1,813	1,817
São Paulo	0	74	74	2	89	91	2	95	97
Total	**68**	**1,786**	**1,854**	**65**	**1,861**	**1,926**	**6**	**1,908**	**1,914**

Number of workers who are not employees and whose work is controlled by the organization GRI 2-8

	2021			2022			2023		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Apprentices	38	27	65	29	15	44	22	24	46
Interns	2	2	4	17	12	29	14	17	31
Trainees	2	2	4	1	3	4	2	1	3
Total	**42**	**31**	**73**	**47**	**30**	**77**	**38**	**42**	**80**

Note: The SAP program for HR management is used to compile the data. The indicator considers the total number of employees at the end of the reporting period. The type of employee/worker was defined based on legislation, with or without an employment relationship.

Total number and rate of new employees (collaborators) hired, by age group GRI 401-1

	2022			2023		
	Total number of employees	Total number of employees hired	Rate of new hires	Total number of employees	Total number of employees hired	Rate of new hires
Less than 30 years old	185	49	26.49%	210	104	49.52%
From 30 to 50 years old	1,558	110	7.06%	1,548	104	6.72%
Over 50 years old	183	0	0,00%	244	2	0.82%
Total	**1,926**	**159**	**8.26%**	**2,002**	**210**	**10.49%**

Total number and rate of employees (collaborators) hired, by gender GRI 401-1

	2022			2023		
	Total number of employees	Total number of employees hired	Rate of new hires	Total number of employees	Total number of employees hired	Rate of new hires
Men	1,692	124	7.33%	1,706	130	7.62%
Women	234	35	14.96%	296	80	27.03%
Total	**1,926**	**159**	**8.26%**	**2,002**	**210**	**10.49%**

Total number and rate of employees (collaborators) who left the company, by age group GRI 401-1

	2022			2023		
	Total number of employees	Total number of employees who left the company	Rate of employees (collaborators) who left the company	Total number of employees	Total number of employees who left the company	Rate of employees (collaborators) who left the company
Less than 30 years old	185	5	2.70%	210	67	31.90%
From 30 to 50 years old	1,558	73	4.69%	1,548	124	8.01%
Over 50 years old	183	12	6.56%	244	28	11.48%
Total	**1,926**	**90**	**4.67%**	**2,002**	**219**	**10.94%**

Total number and rate of employees (collaborators) who left the company, by gender GRI 401-1

	2022			2023		
	Total number of employees	Total number of employees who left the company	Rate of employees (collaborators) who left the company	Total number of employees	Total number of employees who left the company	Rate of employees (collaborators) who left the company
Men	1,692	130	7.68%	1,706	165	9.67%
Women	234	48	20.51%	296	54	18.24%
Total	**1,926**	**178**	**9.24%**	**2,002**	**219**	**10.94%**

Maternity/paternity leave GRI 401-3

		2022	2023
Total number of employees entitled to parental leave	**men**	1,692	1,660
	women	234	254
Total number of employees who took maternity/paternity leave	**men**	49	68
	women	20	17
Total employees who returned to work, in the reporting period, after the end of parental leave	**men**	49	68
	women	16	17
Total employees who returned to work after parental leave and who were still employed 12 months after returning to work	**men**	47	67
	women	19	17
Return rate	**men**	100%	99%
	women	80%	100%
Return rate	**men**	96%	99%
	women	95%	100%

Note – Only three employees did not remain 12 months after returning (two men and one woman) due to a spontaneous request to leave. The explanation for the number of women who took maternity leave (20), who returned to work at the end of the leave (16) and who were employed for 12 months (19) is that four employees began their leave in September (one), October (two) and November (one), whose returns/ends occurred in the following year, 2023 – that is, next period to column 2022 report. All four are still with us.

Employee health and safety rates and figures GRI 403-9

	2021		2022		2023	
	Employees	Workers	Employees	Workers	Employees	Workers
Number of hours worked	4,499,710	3,796,043	4,775,581	3,014,155	4,923,076	3,970,410
Number of deaths as a result of work-related injuries	0	0	0	0	0	0
Death rate as a result of work-related injuries	0	0	0	0	0	0
Number of high-consequence work-related injuries (excluding fatalities)	4	4	3	3	3	2
Rate of high-consequence work-related injuries (excluding deaths)	0.89	1.05	0.63	1	0.61	0.50

Note – The total number of hours worked in the Employees category was 4,923,076, and the total number of hours worked in the Workers category (not directly employed by the organization) was 3,970,410. The main types of work-related injuries are ankle/foot sprains and fractures. Hazards that are dangerous to health and safety are liquid metal, lifting loads, dangerous chemicals, hot work and pressurized gases, among others. They are identified and mitigated using the hierarchy of controls, based on infrastructure, people and procedure requirements.

Average hours of training that employees (collaborators) took during the reporting period, by gender GRI 404-1

Gender	2021	2022			2023
	Average hours of training	Average hours of training	Total number of employees	Hours of training	Average hours of training
Men	14.66	21.78	1,706	46,672.95	27.35
Women	19.31	19.34	296	4,915.22	16.60
Total	**15.20**	**21.48**	**2,002**	**51,588.17**	**25.76**

Note – In 2022, the effects of the Pandemic limited training. In 2023, the scenario was more satisfactory.

Average hours of training that employees (collaborators) took during the reporting period, by functional category GRI 404-1

	2021	2022			2023
	Average hours of training	Average hours of training	Total number of employees	Hours of training	Average hours of training
Executive	31.20	1.00	12	42.75	3.56
Board	–	N/A	10	N/A	N/A
Management	35.02	21.11	162	4,960.73	30.62
High Complexity/Typical Professional	30.32	17.61	253	4,013.27	15.86
Engineer	21.86	26.72	50	921.15	18.42
Experts	16.99	–	22	333.95	15.18
Specialized/Typical Technician	–	–	376	13,005.14	34.59
Administration	13.67	15.88	53	318.40	6.01
Operational	10.45	20.99	987	27,057.12	27.41
Total	**15.20**	**21.48**	**1,925**	**50,652.51**	**26.31**
Other workers – training average					
Apprentices	N/A	N/A	46	N/A	N/A
Interns	N/A	34.84	31	935.66	30.18
Trainees	N/A	16.50	N/A	N/A	N/A
Total	**N/A**	**32.62**	**77**	**935.66**	**12.15**

Note: We do not provide the supervision of the "Board" and "Apprentices" employee categories.

Percentage of total employees, broken down by gender and employee category, who received regular performance and career development assessments during the period covered by the report GRI 404-3

		2022			2023		
		Men	Women	Total	Men	Women	Total
Executive	number	9	1	10	11	1	12
	percentage	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Management	number	131	27	158	129	26	155
	percentage	92.25%	96.42%	92.94%	95.50%	96.30%	96.30%
High complexity/ typical Professional	number	125	103	228	140	111	251
	percentage	88.02%	91.96%	89.76%	98.59%	99.09%	99.20%
Experts	number	20	2	22	20	2	22
	percentage	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Specialized/ Typical technician	number	26	0	26	17	1	18
	percentage	7.69%	0.00%	7.00%	5.13%	2.22%	4.78%
Engineer	number	27	10	37	36	14	50
	percentage	79.41%	76.92%	77.08%	100.00%	100.00%	100.00%
Administration	number	5	17	22	13	20	33
	percentage	19.23%	56.66%	39.28%	52.00%	71.42%	62.26%
Operational	number	0	0	0	0	0	0
	percentage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	number	**343**	**160**	**503**	**366**	**175**	**541**
	percentage	**20.07%**	**65.04%**	**25.72%**	**21.45%**	**59.12%**	**27.02%**

Note – Regular performance evaluations are not carried out for the technical and operational public.

Health and safety data SASB EM-MM-320a.1.

Indicators / Type of employees	2021		2022		2023	
	Direct employees	Hired employees	Direct employees	Hired employees	Direct employees	Hired employees
Total number of incidences	4.00	4.00	3.00	3.00	3.00	2.00
Work-related mortality rate	0.00	0.00	0.00	0.00	0.00	0.00
Near miss frequency rate (NMFR) for work-related near misses	0.00	0.00	0.00	0.00	0.00	0.00
Average number of training hours provided to your workforce for health, safety and emergency management training	0.00	0.00	0.00	0.00	32,491.00	0.00

Note – The process of classifying, identifying and reporting near accidents is carried out based on the internal procedure PR.00031, which defines the methodology for analyzing the accident, being: 1-Marginal; 2-Moderate; 3-High; 4-Critical; 5-Catastrophic. The analysis method is the cause tree.

SUPPLIERS

Percentage of the procurement budget used in important operational units that is spent on local suppliers of that operation GRI 204-1

	2022	2023
Total budget amount for suppliers (R$)	2,800,000,000.00	2,857,408,070.88
Total amount spent with local suppliers (R$)	361,000,000.00	380,004,902.53
Percentage of budget spent on local suppliers (%)	12.89	13.30

Note – The geographical definition of "local" adopted is the Araxá region. The definition of "important operational units" refers to the place where the production process takes place from the beginning of ore extraction, treatment, packaging and shipping of the product to the internal customer.

Total weight or volume of materials used in the production and packaging of main products and services GRI 301-1

	Used in the final product or packaging	Renewable/ non-renewable source	Measurement unit	2021	2022	2023
Liquid chemical reagents (kg)	Final product	Non-renewable sources	kg	36,316,738.29	49,770,246.55	52,838,350.10
Raw material/ Inputs (kg)	Final product	Non-renewable sources	kg	85,190,475.61	78,636,062.66	85,351,847.42
Ore (t)	Final product	Non-renewable sources	t	5,749,407.00	6,564,191.00	6,929,856.00
Packaging (un)	Packaging	Non-renewable sources	um	1,570,911.00	1,474,410.50	1,640,040.00
Renewable packaging (un)	Packaging	Renewable sources	um	103,544.00	93,010.00	99,842.00
Raw material/ Inputs (kg)	Final product	Renewable sources	kg	13,712,874.99	17,170,108.60	18,644,422.85

ENVIRONMENTAL PERFORMANCE

Total number of species included on the IUCN Red List and national conservation lists with habitats in areas affected by the organization's operations, broken down by level of extinction risk GRI 304-4

	2022				2023				2022			
	Impacted area		Preserved area		Impacted area		Preserved area		Impacted area		Preserved area	
	FAUNA	FLORA	FAUNA	FLORA	FAUNA	FLORA	FAUNA	FLORA	FAUNA	FLORA	FAUNA	FLORA
Critically endangered	0	1	0	0	0	1	N/A	0	0	0	0	0
Endangered	3	2	2	2	2	2	N/A	2	2	6	0	0
Vulnerable	7	8	6	7	8	8	N/A	7	8	8	6	1
Nearly endangered	8	0	9	0	8	0	N/A	0	8	5	7	2
Of little concern	320	544	273	274	336	544	N/A	274	360	241	215	42

Note – For the year 2022, no fauna inventory or monitoring work was carried out in the preserved areas.

Tailings storage facility inventory SASB EM-MM-540a.1

Tailings facility	Facility 1	Facility 2	Facility 3	Facility 4
Facility name	Dam 4	Dam 6	Dam 8	Dam 5
Location	Araxá/Minas Gerais/ Brazil	Araxá/Minas Gerais/ Brazil	Araxá/Minas Gerais/ Brazil	Araxá/Minas Gerais/ Brazil
Ownership status	Operator	Operator	Operator	Operator
Operational status	Inactive	Inactive	Inactive	Decommissioned
Construction method	Downstream	Downstream	Downstream	Other (raised downstream except for the last three raises – around 10 meters – upstream)
Maximum allowable storage capacity (in metric tons)[1]	In the process of decommissioning	Total capacity quota 1098.0 m (34,000,000 m³)	Total capacity quota 1115.0 m (36,000,000 m³)	Decommissioned dam
Current amount of tailings stored (in metric tons)[1]	In the process of decommissioning	Considering NA 1095.94 (32,982,285.48 m³)	Considering NA 1095.20 (13,606,341.42 m³)	Decommissioned dam
Classification of consequences (according to GISTM Requirement 4.1)[2]	Low	High	High	Low
Date of most recent independent technical review (according to GISTM Requirement 10.6)	July/2023	July/2023	July/2023	July/2023
Material discoveries	No	No	No	No
Mitigation measures	No	No	No	No
Site-specific Emergency Preparedness and Response Plan (EPRP) in place (according to GISTM Requirements 13.1 and 13.2)	Yes	Yes	Yes	Yes

1 – If we wish to express the capacity of a geotechnical structure, we use volumetric data. This item deals with the volumetric capacity of the reservoir. Therefore, as waste is released with different densities and with variations in their disposal, it is not possible to present the value in metric tons.
2 – Classification of potential damage associated (PDA) in compliance with state legislation (Decree 48,460 of 07/08/2022 – FEAM).

Percentage of raw materials or recycled materials used to manufacture the main products and services GRI 301-2

Name of material	Unit of measurement (weight or volume)	2021			2022			2023		
		Amount used	Amount of material from recycling	Percentage	Amount used	Amount of material from recycling	Percentage	Amount used	Amount of material from recycling	Percentage
Type 2 Aluminum	t	N/A	N/A	N/A	11,571.00	11,273.00	99.00%	13,497.00	12,949.00	95.94%
Type 3 Aluminum	t	N/A	N/A	N/A	21,287.00	21,287.00	100.00%	25,029.00	25,029.00	100.00%
Charcoal	Kg	13,712,875.00	13,712,875.00	100.00%	14,781,242.00	14,781,242.00	100.00%	14,584,751.00	14,584,751.00	100.00%

Note – There is no estimate for the calculation data presented. The actual value is downloaded by the SAP system. All type 3 aluminum and charcoal consumed in the production process is 100% recycled. Data may change after GHG Protocol audit. As soon as the 2024 calculation tool is available, the calculations will be revised due to changes in emissions factors, and the results will certainly be different from those reported here.

Consumption of fuels from non-renewable sources (GJ) GRI 302-1

	2021	2022	2023
LPG	318,537.75	409,246.43	387,094.18
Petroleum coke	88,146.31	88,846.16	67,775.90
Diesel oil	113,731.30	89,368.67	95,467.68
Aviation kerosene	3,040.74	5,784.35	7,611.65
Total	**523,456.10**	**593,245.61**	**557,949.40**

Note – Regarding the 2022/2023 variation, the total was around 6% lower due to the lower use (-24%) of the petroleum coke input.

Consumption of fuels from renewable sources (GJ) GRI 302-1

	2021	2022	2023
Charcoal	370,888.40	399,784.22	394,469.79
Biodiesel	11,796.85	9,269.58	9,902.24
Total	**382,685.25**	**409,053.80**	**404,372.04**

Energy consumed (GJ) GRI 302-1

	2021	2022	2023
Electricity (electric power)	1,350,592.04	1,413,493.69	1,480,971.14
Heating	N/A	N/A	N/A
Refrigeration	N/A	N/A	N/A
Steam	N/A	N/A	N/A
Total	**1,350,592.04**	**1,413,493.69**	**1,480,971.14**

Energy sold (GJ) GRI 302-1

	2021	2022	2023
Total	**0.00 GJ**	**0.00 GJ**	**0.00 GJ**

Total energy consumed (GJ) GRI 302-1

	2021	2022	2023
Fuels from non-renewable sources	523,456.10	593,245.61	557,949.40
Fuels from renewable sources	382,685.25	409,053.80	404,372.04
Energy consumed	1,350,592.04	1,413,493.69	1,480,971.14
Energy sold	0.00	0.00	0.00
Total	**2,256,733.39**	**2,415,793.10**	**2,443,292.58**

Note – Regarding the 2022/2023 variation: 77% of the energy consumed comes from renewable sources (charcoal, biodiesel and electricity). In 2023, our total energy consumption decreased by 2% mainly due to the reduction in petroleum coke consumption (24%). Energy consumption from non-renewable sources was 557,949.40 GJ, which represents 6% less compared to the previous year, due to the reduction in consumption with high carbon footprint, in line with the Decarbonization Plan. Energy consumption from renewable sources (renewable fuels and electricity) was 1,846,369.17 GJ, a result 1% lower than in 2022. Standards, methodologies, assumptions and/or tools adopted in data compilation: GHG Protocol. Source of conversion factors used. Conversion factors used by the GHG Protocol Brasil calculation tool. Data may change after GHG Protocol audit. As soon as the 2024 calculation tool is available, the calculations will be revised due to changes in emissions factors, and the results will certainly be different from those reported here.

Energy consumed outside the organization (GJ) GRI 302-2

	2021	2022	2023
Diesel	201,743.00	260,181.00	274,721.68

Note – The increase of around 6% in consumption mainly refers to the greater consumption of diesel upstream. The standards or calculation tools adopted and the source of the conversion factors used were the GHG Protocol.

Specific metric (denominator) GRI 302-3

	2023
Nb(t) products	100,583.20

Energy intensity GRI 302-3

	2021	2022	2023
Energy consumption within the organization	2,256,733.39	2,463,228.82	2,443,292.58
Energy intensity (within the organization)	N/A	N/A	24.29

Reductions in energy consumption obtained directly as a result of improvements in conservation and efficiency (GJ) GRI 302-4

	2022	2023
Petroleum coke	88,846.16 GJ	67,775.90 GJ

Note – The variation between the results from the last two years occurred because there was greater use of the FeNb Low Emission route, which uses charcoal, with a view to achieving neutral emissions by 2040.

Total water discharge, broken down by the following destinations, if applicable (Ml – Megaliter) GRI 303-4

	2021	2022	2023
	All areas	All areas	All areas
Water treated and sent to the Pirapitinga stream	N/A	3,544.00	4,985.42
Surface water	1,023.00	3,544.00	4,985.42
Water reused by the organization	62,267.00	58,582.00	55,126.00
Total volume of water discarded	1.023.00	3,544.00	4,985.42
Total	**64,313.00**	**69,214.00**	**60,111.42**

Total water discharge, broken down by (Ml – Megaliter) GRI 303-4

	2022	2023
	All areas	All areas
Fresh water (≤1,000 mg/L of total dissolved solids)	3,554.00	4,985.42
Other waters (> 1,000 mg/L total dissolved solids)	0.00	0.00

Note – There is no water disposal in areas with water stress. Water disposal considers all areas in megaliters, including: surface water; groundwater; sea water; and third-party water.

Direct Emissions of Greenhouse Gases (tCO_2 equivalent) GRI 305-1

	2021	2022	2023
Generation of electricity, heating, cooling or steam resulting from burning fuels in stationary (fixed) sources such as boilers, furnaces and turbines and from other combustion processes, such as burning	31,276.72	37,181.65	33,687.81
Physical-chemical processing resulting from manufacturing or processing chemical products and materials, such as cement, steel, aluminum, ammonia and waste processing	4,801.33	5,066.36	5,363.34
Transportation of materials, products, waste, employees and passengers resulting from burning fuels in mobile combustion sources owned or controlled by the company, such as trucks, trains, ships, planes, buses, cars	16,446.57	7,321.61	7,738.39
Fugitive emissions resulting from intentional or unintentional releases, such as leaks in joints, seals, packaging and equipment seals; methane emissions from coal mines and ventilation systems; emissions of hydrofluorocarbons (HFCs) from the use of refrigerators and air conditioners; and methane leaks from gas transports	4,227.47	3,450.95	3,024.75
Waste and effluents	912.63	583.39	181.94
Total gross CO_2 emissions	**57,664.72**	**53,603.96**	**49,996.23**

Note – Data may change after GHG Protocol audit. The 2024 calculation tool is not yet available – as soon as it is, the calculations will be revised due to changes in emission factors, and the results will certainly be different from those reported in the table. The calculations of direct GHG emissions (Scope 1) considered the gases CO_2, CH4, N2O and HFCs. Regarding the 2022/2023 variation: reduction of around 7% due to lower consumption of petroleum coke and refrigerant gases, which is related to the improvement in energy efficiency in the production process.

Biogenic CO_2 emissions (tCO_2 equivalent) GRI 305-1

2021	2022	2023
41,335.63	43,336.56	42,815.89

Note – Regarding the 2022/2023 variation: there was no significant variation. The base year chosen for this indicator is 2013, from the first publication of the GHG Inventory with the GHG Protocol Brasil. Total emissions in the base year were 3,186,092.95 tCO_2 equivalent. There were no significant changes in emissions that generated the need for new calculations of emissions in the base year. The source of the conversion factors used, as well as any standards, methodologies, assumptions and/or tools adopted in data compilation, was the GHG Protocol. The consolidation approach selected for emissions was operational control.

Indirect emissions from energy acquisition (tCO_2 equivalent) calculated based on location GRI 305-2

2021	2022	2023
48,806.60	16,724.59	15,662.19

Note – 2022: In the calculations of indirect emissions from the acquisition of electric power (Scope 2), CO_2 gas was considered.

Base year chosen GRI 305-2

	2023
Justify the choice of base year	Year of the first publication of our GHG Inventory with the GHG Protocol Brazil
Total emissions in the base year	76,754.03 tCO_2 equivalent
Report any no significant change in emissions that generated the need for new calculations of emissions in the base year	None

Note – Source of the conversion factors used, as well as any standards, methodologies, assumptions and/or tools adopted in data compilation: GHG Protocol. The consolidation approach selected for emissions was operational control.

Other Greenhouse Gas emissions (tCO_2 equivalent) GRI 305-3

	2021	2022	2023
Purchased goods and services	0.00	81,388.55	96,042.02
Upstream transport and distribution	5,621.67	11,079.25	11,976.54
Waste generated in operations	0.00	387.72	406.85
Business trips	166.64	942.36	63.74
Transportation of employees	2,773.83	1,219.95	1,047.20
Subtotal	**8,562.14**	**95,017.83**	**109,563.33**
Downstream transport and distribution	5,265.34	5,492.14	5,469.90
Subtotal	**5,265.34**	**5,492.14**	**5,469.90**
Total	**13,827.48**	**100,509.97**	**115,006.10**

Note – 2022: In the calculations of other emissions and GHG (Scope 3), the following gases were considered: CO_2, CH4, N2O, and HFC. From 2022 onwards, the category of Purchased Goods and Services started being considered in the calculation of emissions with the aim of improving the refinement of scope 3 information. Data may change after GHG Protocol audit. The 2024 calculation tool is not yet available – as soon as it is, the calculations will be revised due to changes in emission factors, and the results will certainly be different from those reported in the table.

Biogenic CO_2 emissions (tCO_2 equivalent) GRI 305-3

2021	2022	2023
1,675.88	2,893.70	3,665.74

Note – In the calculations of other emissions and GHG (Scope 3), the following gases were considered: CO_2, CH4, N2O, and HFCs. The base year chosen for this indicator is 2013, from the first publication of our GHG Inventory with the GHG Protocol Brasil. Total emissions in the base year were 3,186,092.95 tCO_2 equivalent. There were no significant changes in emissions that generated the need for new calculations of emissions in the base year. The source of the conversion factors used is the GHG Protocol.

Greenhouse gas (GHG) Emissions Intensity GRI 305-4

	2022	2023
Total GHG emissions (tCO_2 equivalent)	53,513.33	49,996.23
Intensity of greenhouse gas emissions (CO_2 emission per ton of Niobium products produced)	0.54	0.50

Note – 2022: Indicator not reported in previous reports. In calculating Scope 1 and 2 emissions, the following gases were considered: CO_2, CH4, N2O, HFCs. Regarding the 2022/2023 variation: reduction of around 7% due to the reduction in scope 1 emissions, mainly in petroleum coke.

Specific metric (denominator) GRI 305-4

	2023
t of Nb products	100,583.20

Note – For emissions intensity, scope 1 and 2 are considered. We are neutral on scope 2 due to the REC acquisition. Therefore, only Scope 1 production (Nb products) is considered.

Reductions in GHG emissions achieved as a direct result of emission reduction initiatives (tCO_2 equivalent) GRI 305-5

	2022	2023
Reductions from direct emissions (Scope 1)	6,631.00	2,221.00
Reduction from indirect emissions from energy acquisition (Scope 2)	0.00	0.00
Reductions from other indirect emissions (Scope 3)	0.00	0.00
Total GHG emission reductions	6,631.00	2,221.00
Reduction from compensations	0.00	0.00

Note – 2022: Indicator not reported in 2020. In 2021, we did not report a reduction in emissions due to the increase in production to meet the resumption of global demand for Niobium products. Regarding the 2022/2023 variation: reduction of around 2,200 tons of CO_2 and due to lower consumption of petroleum coke, in line with the Decarbonization Plan. Since 2019, all electric power used in our production is 100% renewable and certified by Companhia Energética de Minas Gerais SA (Cemig): the Renewable Energy Certificate (REC) shows that our Greenhouse Gas (GHG) emissions are zero. Gases included in the calculations: CO_2, CH4, N2O and HFCs. Data may change after GHG Protocol audit. As soon as the 2024 calculation tool is available, the calculations will be revised due to changes in emissions factors, and the results will certainly be different from those reported here.

Base year or baseline chosen, including justification for choice GRI 305-5

2013 – Year of the first publication of the GHG Inventory in the GHG Protocol Brazil.

Note – Standards, methodologies and assumptions and/or calculation tools adopted: GHG Protocol.

Gross global emissions of Scope 1 greenhouse gases (GHG) (tCO_2 eq)
SASB EM-MM-110a.1

2021	2022	2023
57,664.72	53,603.96	50,612.66

Note – Standards, methodologies, assumptions and/or tools adopted in data compilation: GHG Protocol.

Total energy consumed, percentage of electric power consumption, percentage of fuels from renewable source SASB EM-MM-130a.1

	2021	2022	2023
Total amount of energy consumed (renewable fuels + non-renewable fuels + electricity) (in GJ)	2,256,733	2,463,229	2,404,318,57
Percentage of energy consumed supplied by grid electricity	60%	59%	60%
Percentage of energy consumed from renewable energy	77%	75%	77%

Waste by composition, in metric tons (t) GRI 306-3

Waste composition	Waste generated			Waste not intended for disposal (reuse, recycling, composting, recovery and energy use)			Waste directed to disposal (distribution of waste in landfills)		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Non-hazardous waste* (waste sent to municipal landfill [waste from pantries and bathrooms])	5,878,541.00	5,828,902.00	5,944,646.37	61,417.95	65,187.00	20,982.77	5,634,937.40	5,758,440.39	5,919,821.23
Hazardous waste	3,831.00	3,605.00	3,411.55	61.39	53.62	47.45	3,766.37	3,550.33	3,359.71
Total waste	**5,882,372.00**	**5,832,507.00**	**5,948,057.92**	**61,479.34**	**65,240.62**	**21,030.22**	**5,638,703.77**	**5,761,990.72**	**5,923,180.94**

Note – 2022: Non-hazardous: mineral concentration waste; wood scraps; metal scraps; graphite electrode; refractory bricks scraps; recovered fines; foundry sand; refractory alumina; crushed iron-phosphorus; aluminate slag; alumina slag; crushed concrete; civil works waste; oxides; waste tires; erasers; paper, plastics and cardboard; grass cutting residue; and used PPE. Hazardous: recovered fines; aluminous slag; oils and greases; automotive and industrial batteries; active sludge; electronics; and healthcare waste (RSS). Regarding the 2022/2023 variation: the increase of around 2% is due to the increase in the production of Nb products in the period. Waste not intended for disposal is sent for reuse, recycling, composting, recovery and energy use. Waste destined for disposal is sent to landfills and dams. Around 97% of the waste generated refers to waste from the mineral concentration destined for dams.

Waste directed to disposal GRI 306-5

Hazardous waste 2 (t)	Within the organization			Outside the organization			Total		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Landfill containment – Landfill	3,766.00	3,550.00	3,359.71	0	0	0	3,766.00	3,550.00	3,359.71
Other disposal operations – Incineration	0	0	0	10.22	5.98	4.78	10.00	6.00	4.78
Total	**3,766.00**	**3,550.00**	**3,359.71**	**10.22**	**5.98**	**4.78**	**3,776.00**	**3,556.00**	**3,364.00**
Non-hazardous waste 1 (t)									
Landfill containment – Landfill	91,528.00	114,974.00	123,566.06	340.00	376.00	395.17	91,868.00	115,350.00	123,961.23
Other disposal operations – Dams	5,543,070	5,643,090	5,795,860	0	0	0	5,543,070	5,643,090	5,795,860
Total	**5,634,598.00**	**5,758,064.00**	**5,919,426.06**	**340.00**	**376.00**	**395.17**	**5,634,938.00**	**5,758,440.00**	**5,919,821**

Note – Non-hazardous: mineral concentration waste. Dangerous: oils; greases; aluminous slag; aluminum brick scrap; recovered fines; and healthcare waste (RSS). The data that comprise the Industrial Solid Waste Management Program is fed into a spreadsheet by the Water, Effluent and Utilities Management and sent by email to the Environment and Technological Support Management for management.

Waste diverted from disposal by recovery operation, in metric tons (t) GRI 306-4

Hazardous waste (t)	Within the organization			Outside the organization			Total		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Recycling/Reuse	0	0	0	51.16	47.64	42.68	51.16	47.64	42.68
Non-hazardous waste (t)									
Recycling/Reuse	53,338.00	50,121.04	9,398.03	8,061.00	15,054.19	11,574.52	61,399.00	65,175.23	20,972.56

Note – Dangerous: mineral and vegetable oils, automotive and industrial batteries and electronics. Non-hazardous: scrap wood, metal, graphite electrode and refractory bricks, recovered fines, foundry sand, refractory alumina, waste tires, rubber, paper, plastics and cardboard.

Waste avoided (t) (total waste not destined for final disposal, by composition) GRI 306-4

	2021	2022	2023
Waste avoided (Recycling/Total Recovery)	61,479.05	65,240.34	21,029.92

Note – Waste included in these data: wood scrap, recovered fines, foundry sand, refractory alumina, crushed iron-phosphorus, crushed concrete, waste tires, oils and greases, automotive and industrial batteries, electronics and grass cutting waste. Reduction of waste generated for internal recycling/reuse due to the lower generation of fines from intermediate or final products from the Desulfurization Departments. The SAP program for HR management is used to compile the data. The indicator considers the total number of employees at the end of the reporting period. The type of employee/worker was defined based on legislation, with or without an employment relationship.

Non-mineral waste (metric tons) SASB EM-MM-150a.4

	2021	2022	2023
Total amount of non-mineral waste generated	339,302.50	189,417.89	152,197.92

Waste produced (metric tons) SASB EM-MM-150a.5

	2021	2022	2023
Total weight of waste produced	0.00	0.00	0.00

Sterile material (metric tons) SASB EM-MM-150a.6

	2021	2022	2023
Total amount of sterile material generated	4,422,704.00	3,285,449.00	2,979,925.00

Hazardous waste (metric tons) SASB EM-MM-150a.7

	2021	2022	2023
Total weight of waste considered hazardous that was generated	3,831.42	3,605.53	3,411.55

Recycled hazardous waste (metric tons) SASB EM-MM-150a.8

	2021	2022	2023
Total weight of waste considered hazardous generated that was recycled	51.16	47.64	42.68

Note – Hazardous waste is only recycled outside the Company.

Total amounts of waste, tailings and sludge and their associated risks MM3

	Measurement unit	Total	
		2022	2023
Sterile	t	3,285,449.00	2,979,952.00
Waste	t	5,643,090.00	5,795,860.00
Mud	t	0	0

Note – 99.68% of the sterile material was used internally, in engineering works Regarding the risks associated with waste generated in operations, waste presents a risk of soil and groundwater contamination.

Material Production Control Planning – GPLC CBMM-03

Production data

		Total	
Item	**Measurement unit**	**2022**	**2023**
Ferroniobium	t	88,872.91	88,457.90
Special products	t	11,578.08	12,081.00

Evolution of revenue resulting from exports CBMM-03

			Total	
	Item	**Measurement unit**	**2022**	**2023**
Market sales	Ferroniobium	R$ Billion	10.90	10,885.01
	Special products	R$ Billion	1.76	1,759.03
Consolidated export sales	Ferroniobium	R$ Billion	10.30	9.46
	Special products	R$ Billion	1.32	1.42

Evolution of the quantity sold on the domestic market CBMM-03

			Total
Item	**Measurement unit**	**2022**	**2023**
Ferroniobium	t	3,077.20	3,385.00
B88	t	–	24.90
Special products	t	58.70	94.30

Note – In the ferroniobium segment there was an increase in sales compared to 2022, which was supported by the decrease in stocks in regional offices, as production remained at the same level. In the special products segment, the increase in production, sales and revenue is the result of an increase in demand for these products.

CORPORATE GOVERNANCE

Total number and percentage of members of governance body who were informed and received training on the anti-corruption policies and procedures adopted by the organization, by region GRI 205-2

	Members of governance body	**2023**	
		Informed	**Trained**
Southeast	Total number of members in the year	3	3
	Total number of members informed/trained	1	1
	Percentage of members informed/trained	33.33%	33.33%

Note – In other indicators, the highest governance body considered was the Administrative Council. However, the Compliance area communicates with the Board of Directors via Audit and Risk Committee. The Audit and Risk committee is comprised of advisors.

Total number and percentage of employees who were informed and received training on the anti-corruption policies and procedures adopted by the organization, by functional category Employees GRI 205-2

	2023	
	Informed	**Trained**
Total number of employees	1,956	
Total number of employees informed/trained	1,902	1,732
Percentage of employees informed/trained	97.24%	88.55%

Note – We do not have data divided by functional category.

Total number and percentage of business partners who were informed about the anti-corruption policies and procedures adopted by the organization, by region GRI 205-2

		2023	
		Comunicados	**Treinados**
Southeast	Total number of partners	1,951	
	Total number of partners informed/trained	632	124
	Percentage of partners informed/trained	32.39%	6.36%

GRI Content Index

Statement of use: CBMM reported in accordance with the GRI Standards for the reporting period: January 1 to December 31, 2023.
GRI 1 used: GRI 1: Foundation 2021
Applicable GRI Sector Standard(s): Not applicable

GRI STANDARD / OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			SDG
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
General Disclosures	2-1 Organizational details	14, 15, 16, 17, 24, 27				–
	2-2 Entities included in the organization's sustainability reporting	4				–
	2-3 Reporting period, frequency and contact point	4				–
	2-4 Restatements of information	4				–
	2-5 External assurance	4, 61				–
	2-6 Activities, value chain and other business relationships	14, 15, 16, 17, 24, 27, 64, 65				–
	2-7 Employees	82, 83				8.5, 10.3
	2-8 Workers who are not employees	83				8,5
	2-9 Governance structure and composition	75, 76	2-9-c	Confidentiality restrictions	We keep this information restricted, as it covers sensitive and strategic data.	5.5, 16.7
	2-10 Nomination and selection of the highest governance body	The CA is elected by the General Assembly and the members of the Management and Board advisory committees are elected by the CA. We do not have detailed information about the criteria adopted to select the members of the CA.				5.5, 16.7
	2-11 Chair of the highest governance body	75, 76				16,6
	2-12 Role of the highest governance body in overseeing the management of impacts	75, 76				16,7
	2-13 Delegation of responsibility for managing impacts	78				–
	2-14 Role of the highest governance body in sustainability reporting	75, 76				–
	2-15 Conflicts of interest	72				16,6
	2-16 Communication of critical concerns	All reports received by the Compliance area involving senior management and which may represent relevant liability for us and/or reputational damage are communicated to the Audit and Risk Committee. The total number and nature of critical concerns communicated to the highest governance body is not publicly available information.				–

GRI STANDARD / OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			SDG
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	2-17 Collective knowledge of the highest governance body	Information is provided whenever necessary to the Executive Committee, highlighting opportunities and risks, in addition to important changes related to the topic of sustainable development.				–
	2-18 Evaluation of the performance of the highest governance body	–	2-18	Information unavailable	We do not maintain a formal evaluation of the Board of Directors; however the Chief Executive Officer participates in the 180° evaluation cycle and the other directors are evaluated in the 360° evaluation cycle.	–
	2-19 Remuneration policies	–	2-19	Confidentiality restrictions	We keep this information restricted, as it covers sensitive and strategic data.	–
	2-20 Process to determine remuneration	–	2-20	Confidentiality restrictions	We keep this information restricted, as it covers sensitive and strategic data.	–
	2-21 Annual total compensation ratio	–	2-21	Confidentiality restrictions	We keep this information restricted, as it covers sensitive and strategic data.	–
General Disclosures	2-22 Statement on sustainable development strategy	10, 11				–
	2-23 Policy commitments	72, 73, 74				16,3
	2-24 Embedding policy commitments	39, 72, 73				–
	2-25 Processes to remediate negative impacts	72, 73				–
	2-26 Mechanisms for seeking advice and raising concerns	72, 73				16,3
	2-27 Compliance with laws and regulations	There were no cases of non-compliance with laws and regulations.				–
	2-28 Membership associations	We participate in entities that defend the interests of our sector and share the same values, including the Instituto Brasileiro de Mineração [Brazilian Mining Institute] (Ibram) and the Federação das Indústrias do Estado de Minas Gerais [Federation of Industries of the State of Minas Gerais] (Fiemg).				–
	2-29 Approach to stakeholder engagement	7				–
	2-30 Collective bargaining agreements	58				8,8
Material topics						
GRI 3: Material topics 2021	3-1 Process to determine material topics	5				–
	3-2 List of material topics	5				–

GRI STANDARD / OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			SDG
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Employee attraction, development and retention						
GRI 3: Material topics	3-3 Management of material topics	58, 59, 60, 61				-
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	83, 84				5.1, 8.5, 8.6, 10.3
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	58				3.2, 5.4, 8.5
	401-3 Parental leave	85				5.1, 5.4, 8.5
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	-	402-1	Not applicable	We do not have an established procedure for a minimum period for reporting notifications about implementations of operational changes.	8,8
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	61				8.2, 8.5
	404-3 Percentage of employees receiving regular performance and career development reviews	87				5.1, 8.5, 10.3
Local development						
GRI 3: Material topics	3-3 Management of material topics	66, 67				-
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	-	201-1	Confidentiality restrictions	We do not disclose the information because it addresses strategic and business-sensitive data.	8.1, 8.2, 9.1, 9.4, 9.5
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	88				8,3
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	100% of operations included engagement, impact assessments and/or development programs dedicated to the local community, including, but not limited to, assessments of social impacts, including gender impacts, based on participatory processes, impact assessments environmental and continuous monitoring.				-
	413-2 Operations with significant actual and potential negative impacts on local communities	The Araxá operation, in the Complexo do Barreiro and Boca da Mata Community, has no real negative impacts identified. Relevant potential impacts include air quality, water quality and noise, which are monitored and controlled via specific programs.				1.4, 2.3

GRI STANDARD / OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			SDG
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Ethics, integrity and compliance						
GRI 3: Material topics	3-3 Management of material topics	72, 73, 74				–
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	102, 103				16,5
	205-3 Confirmed incidents of corruption and actions taken	We had no confirmed cases of corruption.				16,5
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	We had no open or confirmed cases related to unfair competition, trust and monopoly practices.				16,3
Mining and Metals Sector Supplement – Biodiversity	MM1 Amount of land (owned or leased, used for productive or extractive activities) altered or rehabilitated	The amount of owned land used for productive or extractive activities altered or rehabilitated was 1150 ha in 2022 and 1200 ha in 2023. The difference is due to the start, in 2023, of the implementation of the mineral aggregates yard for the EDR-9 Project. There are no lands leased for productive or extractive activities that have been altered or rehabilitated.				–
Mining and Metals Sector Supplement – Local communities	MM6 Number and description of significant conflicts regarding land use and customary rights of local communities and indigenous peoples	There were no significant conflicts regarding land use and customary rights of local communities and indigenous people.				–
	MM7 To what extent mechanisms for forwarding demands and grievances were used to resolve conflicts regarding land use, customary rights of local communities	No dispute events related to the occupation of land or resources with the local community were recorded.				–
Mining and Metals Sector Supplement – Materials management	MM11 Programs and progress related to materials management	Through our co-product sales program, we sold 920,000 tons of magnetite, avoiding its disposal in dams. We also mapped the magnetite contained in the dam for use and studies of new barite applications, in compliance with State Law 23,291. There are also guidelines for the use of mineral resources in the Integrated Management Policy.				–
Water and effluent management						
GRI 3: Material topics	3-3 Management of material topics	50, 51				–
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	50, 51				6.3, 6.4, 6.A, 6.B, 12.4
	303-2 Management of water discharge-related impacts	50, 51				6,3
	303-3 Water withdrawal	50				6,4
	303-4 Water discharge	93, 94				6,3
	303-5 Water consumption	50				6,4

GRI STANDARD / OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			SDG
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Waste and dam management						
GRI 3: Material topics	3-3 Management of material topics	53				-
GRI 301: Materials 2016	301-1 Materials used by weight or volume	89				8.4, 12.2
	301-2 Recycled input materials used	91				8.4, 12.2, 12.5
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	53				3.9, 6.3, 6.6, 11.6, 12.4, 12.5
	306-2 Management of significant waste-related impacts	53				3.9, 6.3, 8.4, 11.6, 12.4, 12.5
	306-3 Waste generated	98				3.9, 6.6, 11.6, 12.4, 12.5, 15.1
	306-4 Waste diverted from disposal	99				3.9, 11.6, 12.4, 12.5
	306-5 Waste directed to disposal	99				3.9, 6.6, 11.6, 12.4, 12.5, 15.1
Mining Sector Supplement – Effluents and waste	MM3 Total amounts of waste, tailings and sludge and their associated risks	101				-
Innovation and technology						
GRI 3: Material topics	3-3 Management of material topics	26				-
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	66, 67				5.4, 9.1, 9.4, 11.2
	203-2 Significant indirect economic impacts	-	203-2	Information unavailable	We do not monitor indirect economic impacts.	1.2, 1.4, 3.8, 8.2, 8.3, 8.5
Climate changes						
GRI 3: Material topics	3-3 Management of material topics	48, 49				-
GRI 201: Economic Performance 2016	"201-2 Financial implications and other risks and opportunities due to climate change"	48				13,1
GRI 302: Energy 2016	302-1 Energy consumption within the organization	91, 92				7.2, 7.3, 8.4, 12.2, 13.1
	302-2 Energy consumption outside of the organization	92				7.2, 7.3, 8.4, 12.2, 13.1
	302-3 Energy intensity	93				7.3, 8.4, 12.2, 13.1
	302-4 Reduction of energy consumption	93				7.3, 8.4, 12.2, 13.1
	302-5 Reductions in energy requirements of products and services	-	302-5	Not applicable	Indicator not applicable (energy obtained from products and services sold).	7.3, 8.4, 12.2, 13.1

GRI STANDARD / OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			SDG
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Climate changes						
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	We do not maintain operational activities within or adjacent to protected areas of high biodiversity value located outside protected areas.				6.6, 14.2, 15.1, 15.5
	304-2 Significant impacts of activities, products and services on biodiversity	44, 45, 46	304-2.b	Confidentiality restrictions	We keep this information restricted, as it covers sensitive and strategic data.	6.6, 14.2, 15.1, 15.5
	304-3 Habitats protected or restored	44				6.6, 14.2, 15.1, 15.5
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	89				6.6, 14.2, 15.1, 15.5
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	94, 95				3.9, 12.4, 13.1, 14.3, 15.2
	305-2 Energy indirect (Scope 2) GHG emissions	95				3.9, 12.4, 13.1, 14.3, 15.2
	305-3 Other indirect (Scope 3) GHG emissions	96				3.9, 12.4, 13.1, 14.3, 15.2
	305-4 GHG emissions intensity	96, 97				13.1, 14.3, 15.2
	305-5 Reduction of GHG emissions	97				13.1, 14.3, 15.2
Employee health, well-being and safety						
GRI 3: Material topics	3-3 Management of material topics	62, 63				-
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	62, 63				8,8
	403-2 Hazard identification, risk assessment, and incident investigation	62, 63				8,8
	403-3 Occupational health services	62, 63				8,8
	403-4 Worker participation, consultation, and communication on occupational health and safety	62, 63				8.8, 16.7
	403-5 Worker training on occupational health and safety	62, 63				8,8
	403-6 Promotion of worker health	62, 63				3.3, 3.5, 3.7, 3.8
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	62, 63				8,8
	403-8 Workers covered by an occupational health and safety management system	62, 63				8,8
	403-9 Work-related injuries	62, 85				3.6, 3.9, 8.8, 16.1
	403-10 Work-related ill health	There were no deaths resulting from occupational diseases or cases of occupational diseases that were mandatory for workers or employees to report.				3.3, 3.4, 3.9, 8.6, 16.1
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	86				4.3, 4.4, 4.5, 5.1, 8.2, 8.5, 10.3

Own indicators	Disclosure	Location/Response
CBMM: Innovation & technology	CBMM-01 Promotion and investments in product new solutions and technologies, development and quality	18
	CBMM-02 Promotion of innovation in a collaborative and participative manner, with involvement of various partners	26
CBMM: Production	CBMM-03 Materials Production Control Planning – GPLC	101, 102

SASB Content Index

SASB Topic / Code	Reporting metric	Location/Response	Omission
Greenhouse gas emissions			
EM-MM-110a.1	Gross global Scope 1 emissions, percentage covered by regulations on the limitation of emissions	97	
EM-MM-110a.2	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, targets for emissions reduction, and an analysis of performance against those targets	48	
Air quality			
EM-MM-120a.1	GHG emissions of the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs).	-	We do not hold the information.
Energy management			
EM-MM-130a.1	(1) Total energy consumed, (2) percentage of grid electricity, and (3) percentage of renewable energy.	98	
Water management			
EM-MM-140a.1	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with high or extremely high baseline water stress	50	
EM-MM-140a.2	Number of non-compliance cases associated with water quality permits, standards and regulations	There were no incidents of non-compliance associated with applicable jurisdictional statutory licenses and regulations.	
Waste and hazardous materials management			
EM-MM-150a.4	Total amount of non-mineral waste generated	100	
EM-MM-150a.5	Total weight of waste produced	100	
EM-MM-150a.6	Total weight of sterile material generated	100	
EM-MM-150a.7	Total weight of hazardous waste generated	100	
EM-MM-150a.8	Total weight of recycled hazardous waste	100	
EM-MM-150a.9	Number of significant incidents associated with hazardous materials and waste management.	There were no cases of significant incidents. Therefore, no measures were necessary to avoid them.	
EM-MM-150a.10	Description of waste and hazardous materials management policies and procedures for active and inactive operations	53	

SASB Topic / Code	Reporting metric	Location/Response	Omission
Impacts on biodiversity			
EM-MM-160a.1	Description of environmental management policies and practices for active sites	–	We do not conduct a survey of environmental management policies and practices for active sites.
EM-MM-160a.2	Percentage of mining sites where acid rock drainage occurs: (1) predicted to occur, (2) actively mitigated, and (3) in treatment or remediation.	We do not have mining with acid rock drainage.	
EM-MM-160a.3	Percentage of (1) proven reserves and (2) probable reserves in or near sites with protected conservation status or endangered species habitat.	–	We did not carry out a specific survey on the percentage/degree of populated reserves in places with protected conservation status or in habitat areas of threatened species.
Safety, human rights and rights of indigenous peoples			
EM-MM-210a.1	Percentage of (1) proven reserves and (2) probable reserves in or near conflict areas.	There are no proven reserves located in/or close to conflict areas.	
EM-MM-210a.2	Percentage of (1) proven reserves and (2) probable reserves on or near indigenous lands.	There are no proven reserves located in/or close to areas considered to be indigenous peoples' lands.	
EM-MM-210a.3	Discussion of engagement processes and due diligence practices regarding human rights, indigenous rights and operations in conflict areas.	–	We are in the process of preparing and publishing a Human Rights Policy and implementing the ESG area, which will include due diligence procedures and practices in relation to indigenous rights, human rights and operations in conflict areas.
Community relations			
EM-MM-210b.1	Discussion of process for managing risks and opportunities associated with community rights and interests	66, 67	
EM-MM-210b.2	Number and duration of non-technical delays.	–	We do not hold the information.
Labor practices			
EM-MM-310a.1	Percentage of active workforce employed under collective agreements	58	
EM-MM-310a.2	Number and duration of strikes and lockouts	There were no strikes or lockouts in the organization.	
Workforce health and safety			
EM-MM-320a.1	Workforce health and safety	88	
Ethics and transparency in business			
EM-MM-510a.1	Description of the management system for preventing corruption and bribery along the value chain	72, 73, 74	
EM-MM-510a.2	Production in countries in the bottom 20 ranking at the Transparency International's Corruption Perceptions Index	All production takes place in Brazil.	
Management of waste storage facilities			
EM-MM-540a.1	Table of tailings storage facility inventory: (1) name of facility, (2) location, (3) ownership status, (4) operational status, (5) method of construction, (6) maximum storage capacity allowed, (7) current amount of waste stored, (8) classification of consequences, (9) date of most recent independent technical review, (10) material findings, (11) mitigation measures, (12) site-specific EPRP	90	
EM-MM-540a.2	Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities.	52	
EM-MM-540a.3	Approach for developing Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities	52	
Activity metrics			
EM-MM-000.A	Production of (1) metallic ores and (2) finished metallic products	–	We do not hold the information.
EM-MM-000.B	Total number of employees, percentage of contractors	58	

Independent auditor's limited assurance report on the non-financial information included in the Sustainability Report 2023

To the Board of Directors
Companhia Brasileira de Metalurgia e Mineração
Araxá – MG

Introduction

Fomos contratados pela Companhia Brasileira de We have been engaged by Companhia Brasileira de Metalurgia e Mineração ("Company" or "CBMM") to present our limited assurance report on the non-financial information included in the Sustainability Report 2023 of CBMM for the year ended December 31, 2023.

Our limited assurance does not cover prior-period information, or any other information disclosed together with the Sustainability Report 2023, including any images, audio files or videos.

Responsibilities of CBMM's management

The management of CBMM is responsible for:

- selecting or establishing adequate criteria for the preparation and presentation of the information included in the Sustainability Report 2023;
- preparing the information in accordance with the GRI Standards and with the basis of preparation developed by the Company;
- designing, implementing and maintaining internal controls over the significant information used in the preparation of the Sustainability Report 2023, which is free from material misstatement, whether due to fraud or error.

Our independence and quality control

We comply with the independence and other ethical requirements of the Federal Accounting Council (CFC) in NBCs PG 100 and 200 and NBC PA 291, which are based on the principles of integrity, objectivity and professional competence, and which also consider the confidentiality and behavior of professionals.

We apply the Brazilian and international quality control standards established in NBC PA 01, issued by the CFC, and thus maintain an appropriate quality control system that includes policies and procedures related to compliance with ethical requirements, professional standards, legal requirements and regulatory requirements.

Independent auditor's responsibility

Our responsibility is to express a conclusion on the non-financial information included in the Sustainability Report 2023, based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01, "Issuance of an Assurance Report related to Sustainability and Social Responsibility", issued by the Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that we comply with ethical requirements, including independence requirements, and other responsibilities of these standards, including those regarding the application of the Brazilian Quality Control Standard (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures regarding the compliance with ethical requirements, professional standards and relevant legal and regulatory requirements.

Moreover, the aforementioned standards require that the work be planned and performed to obtain limited assurance that the non-financial information included in the Sustainability Report 2023, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the Brazilian standard NBC TO 3000 and ISAE 3000 mainly consists of making inquiries of management and other professionals of CBMM involved in the preparation of the information, as well as applying analytical procedures to obtain evidence that allows us to issue a limited assurance conclusion on the information, taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead him to believe that the information disclosed in the Sustainability Report 2023 taken as a whole might present material misstatements.

The procedures selected are based on our understanding of the aspects related to the compilation, materiality, and presentation of the information included in the Sustainability Report 2023, other circumstances of the engagement and our analysis of the activities and processes associated with the material information disclosed in the Sustainability Report 2023 in which significant misstatements might exist. The procedures comprised:

(a) planning the work, taking into consideration the materiality and the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the information included in the Sustainability Report 2023;

(b) understanding the calculation methodology and the procedures adopted for the compilation of indicators through inquiries of the managers responsible for the preparation of the information;

(c) applying analytical procedures to quantitative information and making inquiries regarding the qualitative information and its correlation with the indicators disclosed in the Sustainability Report 2023; and

(d) when non-financial data relate to financial indicators, comparing these indicators with the financial statements and/or accounting records.

The limited assurance engagement also included the analysis of the compliance with the GRI Standards and the criteria established in the basis of preparation developed by the Company.

Our procedures did not include assessing the adequacy of the design or operating effectiveness of the controls, testing the data on which the estimates are based or separately developing our own estimate to compare with CBMM 's estimate.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Scope and limitations

The procedures applied in a limited assurance engagement vary in nature and timing, and are less detailed than those applied in a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the level that would be obtained in a reasonable assurance engagement. If we had performed a reasonable assurance engagement, we might have identified other matters and possible misstatements in the information included in the Sustainability Report 2023. Therefore, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate and estimate these data. Qualitative interpretations of the relevance, materiality, and accuracy of the data are subject to individual assumptions and judgments. Furthermore, we did not consider in our engagement the data reported for prior periods, nor future projections and goals.

The preparation and presentation of non-financial information and indicators followed the definitions of the basis of preparation developed by the Company and the GRI Standards and, therefore, the information included in the Sustainability Report 2023 does not aim to provide assurance with regard to the compliance with social, economic, environmental or engineering laws and regulations. However, the aforementioned standards establish the presentation and disclosure of possible cases of non-compliance with such regulations when sanctions or significant fines are applied. Our assurance report should be read and understood in this context, inherent to the criteria selected and previously mentioned in this paragraph.

The absence of a significant set of established practices on which to base the evaluation and measurement of non-financial information allows for different but acceptable evaluation and measurement techniques, which can affect comparability between entities and over time.

The contents included in the scope of this assurance engagement are presented in the Basis for Preparation of the Sustainability Report 2023.

Conclusion

Based on the procedures performed, described herein, and on the evidence obtained, no matter has come to our attention that causes us to believe that the non-financial information included in the Sustainability Report 2023 of CBMM has not been prepared, in all material respects, in accordance with the criteria established in the basis of preparation and with the GRI Standards.

São Paulo, july 31, 2024

PricewaterhouseCoopers
Auditores Independentes Ltda.
CRC 2SP000160/O-5

Maurício Colombari
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