Sustainability Report 2022



CBMM

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ABOUT THE **REPORT**

GRI 2-2, 2-3, 2-5

Our Sustainability Report 2022 comprises economic, social, environmental and governance information, as well as initiatives, performance and results delivered by our Company in Brazil, our regional offices in São Paulo, Pittsburgh (United States), Amsterdam (Netherlands), Geneva (Switzerland), Singapore (Singapore), and our representation offices in Beijing and Shanghai (China). Elaborated in compliance with 2021 standards of the Global Reporting Initiative (GRI), which are externally assured by PwC, this publication is released yearly, and reports our quantitative results between January 1 and December 31, 2022. The Company's financial statements and the Sustainability Report registration have the same scope.

We adopted a new materiality matrix as the foundation to define the most relevant topics to be discussed herein, which contextualizes our presence in the Niobium global market, advances in technology and innovation, programs, social projects and initiatives to impact the sustainable development directly and indirectly driven by our business. We report the connection between our strategy and the United Nations Organization (UN) Sustainable Development Goals (SDG).

Click here to access the table Basis of Preparation elaborated with complementary information to comply with PwC methodology.

We selected the most relevant topics from a new materiality matrix



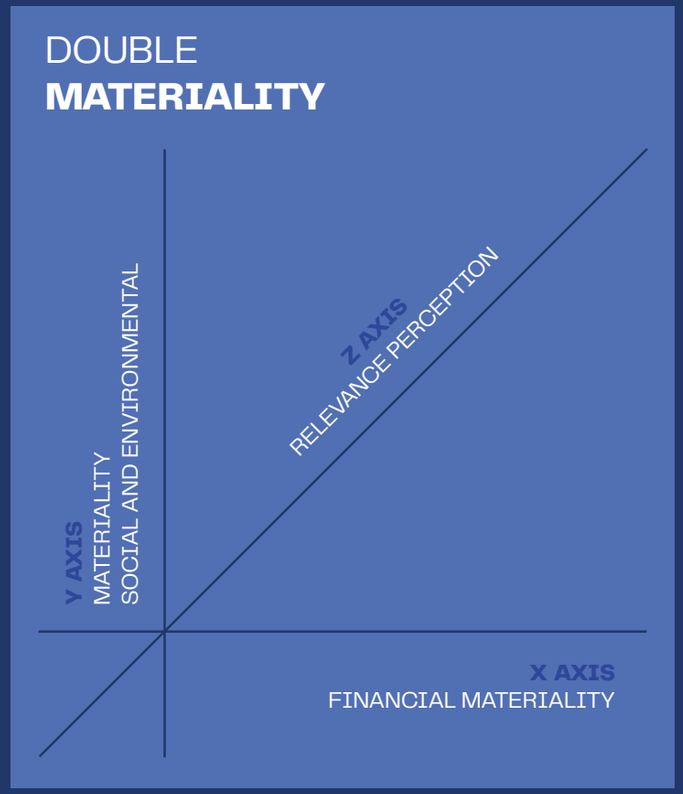
For additional information about this report, please contact us via e-mail **cbmm@cbmm.com**

MATERIALITY

GRI 2-26, 2-29, 3-1

The Company's materiality matrix is regularly reviewed, in accordance with GRI standards. In 2022, the process was grounded in five stages: definition, identification, prioritization, analysis and validation. During identification phase, we mapped our impacts and stakeholders. From a crossed study of in-house, sector and benchmarking documents, a preliminary list was elaborated with 17 potential material topics, split as follows within the ESG Agenda: six material topics in the environmental aspect, five in the social aspect and six in the governance aspect.

This year, in compliance with the best market practices, we decided to adopt the double materiality concept, whose methodology is anchored on a process that builds a three-axis matrix:



Therefore, a map was consolidated, composed of seven categories of stakeholders: employees, customers, community, and local organizations, research partners, contractors, suppliers, government, regulatory and oversight bodies.

The preparation of the Financial Materiality relied on seven interviews with the Company's leaders, added to nine answers received in an online consultation. In the social and environmental materiality, specialists were the stakeholders involved, relying on a total of three interviews with external specialists, and other 12 answers to the online consultation, of which nine internal specialists and three external specialists. The Relevance Perception consulted employees, customers, suppliers, and contractors, research partners, community, local organizations, government, regulatory and oversight bodies, totaling 368 answers to the online questionnaire especially developed for this purpose.

Then, weights were defined to each axis, so that the analysis of answers actually reflects how our business impacts our stakeholders. After recommendations of the advisory firm contracted to develop a new matrix (rpt.sustentabilidade) and senior management validation, eight material topics were defined, listed on the next page.

LIST OF MATERIAL TOPICS GRI 3-1, 3-2

Topic	Challenges	Related SDG
1. Innovation & technology Continued investments in research and innovation with a focus on product, operation, and environmental management.	Maintain a high capacity of investments in innovation, building an extensive portfolio, also reducing the time of launching new applications.	
2. Employee health, well-being and safety Assure employees' safety through a solid structure that prioritizes physical and mental integrity, especially caring for higher risk activities.	Maintain a high level of work quality concerned with employees' and contractors' safety, at the same time, broaden the external perception of a safe workplace.	
3. Waste and dams management Commitment to a sound investment in new technologies that make feasible the greater utilization of mineral resources, also the maintenance of excellence in dams management.	Keep the high level of dams management, advance the adoption of new technologies, also bolster investment to increment the utilization of mineral resources.	
4. Ethics, integrity & compliance Commitment to integrity and ethics across all relations, always pursuing transparency and a close relationship with stakeholders.	Disseminate a commitment to ethics and integrity at all levels of the organization, besides heightening actions along with suppliers.	
5. Employee attraction, development and retention Continued investment in employee development, also create a workplace that ensures the best talents' attraction and engagement.	Invest in employee development, and work experience that attracts and motivates the best talents.	
6. Water and wastewater management Management focused on the efficient use of water, wastewater treatment quality, and operational risks control.	Maintain a high efficiency in operation's water recirculation, also ensure a strict control to prevent pollution.	
7. Climate change Commitment to operations' decarbonization, climate change-related risk management, and seize business opportunities connected with Niobium's sustainable properties.	Develop the emissions inventory process, also build a clear plan of how to continue decarbonizing operations, in line with the goal to be announced in 2023.	
8. Local development Foment the social and economic development of Araxá region.	Create partnerships and invest in social initiatives to build a promising legacy for the community.	

The process to determine the material topic consists of describing entire procedure, including how adverse, actual and positive, and potential impacts on the economy, the environment and people across the Company's activities and business relations were identified, and how CBMM prioritized these impacts, based on their level of relevance. Stakeholders and specialists are detailed, whose stance substantiates entire process to define these topics.

MESSAGE FROM MANAGEMENT

GRI 2-22

Our business strategy continued fomenting new uses of Niobium in the global market. In this regard, we bolstered our investments in technology, processes, and product development to build up the inclusion of Niobium in sectors, such as construction, infrastructure, and mobility, also new relevant markets. Through new application development, we boost innovation in the batteries, energy storage, nanomaterials, and electro-electronic industries, fine-tuned with electrification, urbanization, digitalization, and sustainability global trends.

Our contributions to the Technology Program totaled nearly R$220 million in 2022. Out of this amount, we earmarked R$72 million only for lithium-ion batteries, 30% higher than in 2021. In 2022 we announced an investment of R$306 million to broaden our entire line of Niobium oxide production targeting the batteries market, which will envisage the construction of a new plant at our industrial hub in the city of Araxá, state of Minas Gerais. This new plant, which is expected to start its operations in 2024, shall have a production capacity of 3 thousand tons/year of Niobium oxide for batteries, to be applied in ultra-fast and safe load technologies, with high power and extended useful life.

With resilience and always analyzing foreign scenarios, we continue pursuing opportunities in the market; we succeeded in relevant segments, such as structural steel. Domestically, we are getting ready for the inputs acquisition, amid a period of conflicts in East Europe that caused supply volatility in various segments, however, throughout the year, our operations were not compromised, and we fulfilled our commitment to ensure supply to our customers.

During 2022, we maintained special attention to our people, we stressed that health and safety are non-negotiable values. Our 'Valor Segurança' (Safety Value) Program was enhanced by launching the 'Regras de Nióbio' (Niobium Rules) that aim at heightening controls, and safe behavior at our Company, and underscore that nothing worth having no health and safety.

Our commitment to the Araxá community was also a highlight. In 2022, +233 thousand people benefited from social initiatives in health, education, sports, and culture pillars. Our Environmental Education program's 30th anniversary was another highlight, since its foundation in 1992, already assisted 73,5 thousand people, a very significant number in a municipality with nearly 110 thousand inhabitants.

Our Sustainability Committee detailed the ESG plan that now includes the Company's strategic plan. Among other initiatives, the plan foresees a better utilization of mineral resources, such as barite and magnetite. We also maintained the water recirculation in our industrial hub above 96%, we also undertook to neutralize carbon within scopes 1 and 2 by 2040.

Our continued investments in research and development, technical assistance, also our robust global operations drove a positive financial and operating result, with net revenue of R$11 billion; net income totaled R$4.5 billion; and EBITDA came to R$7.5 billion, in line with 2021, and amongst the Company's most successful years, based on pre-pandemic periods.

Welcome! We share herein our key results delivered in 2022. Below, are our most relevant achievements and endeavors.

Enjoy the reading!



Ricardo Fonseca de Mendonça Lima
CBMM CEO

2022 HIGHLIGHTS



100% of electricity acquired is renewable

75% of energy consumed in processes derives from renewable sources

0.54 tCO_2 is the GHG emission/ton of Niobium products

96.3% water recirculation

Environmental Educational Program's **30 years** – with nearly 75 thousand participants

233 thousand people benefited from culture, sports, health, and education initiatives supported by CBMM

Financial results

R$ 11.0 bi
net revenue

R$ 4.5 bi
net income

R$ 2.2 bi
shareholders' equity

R$ 56 million invested to to expand the Niobium oxide line of production

OEA Certificate (Authorized Economic Operator) attesting foreign trade operations' safety and reliability

1

IN THIS CHAPTER

–

Global presence
Business model

THE CBMM



We have maintained fauna and flora conservation works since the 1980s

GRI 2-1, 2-6

Since our foundation in 1955, we have invested in innovation research focused on technology development to pursue an enhanced niobium production process, we also develop applications for Niobium products.

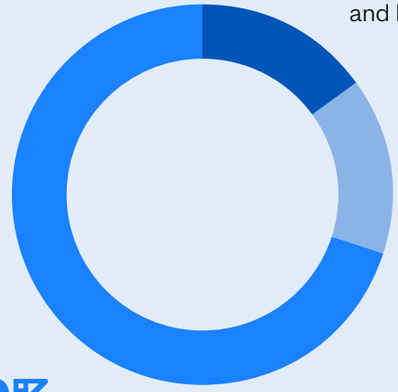
Our purpose is to bolster materials efficiency, making them safer and more sustainable, so that we can better serve our customers in Brazil and overseas through an innovation and technology-based model.

We are a groundbreaking and global leader in technology, production, and trading of niobium, we are proud of being a genuine Brazilian company.

Our business model includes a continued advancement to lessen eventual adverse impacts of our activities, products, and services.

Our headquarters and industrial hub are located in the city of Araxá, the state of Minas Gerais. The Cerrado is the biome surrounding the region of Araxá, comprising the Minas Gerais triangle and Alto Paranaíba region and 10 Brazilian states, covering nearly 22% of the entire Brazilian territory.





Two consortia composed of Japanese and Korean companies

15%

China consortium

15%

70%

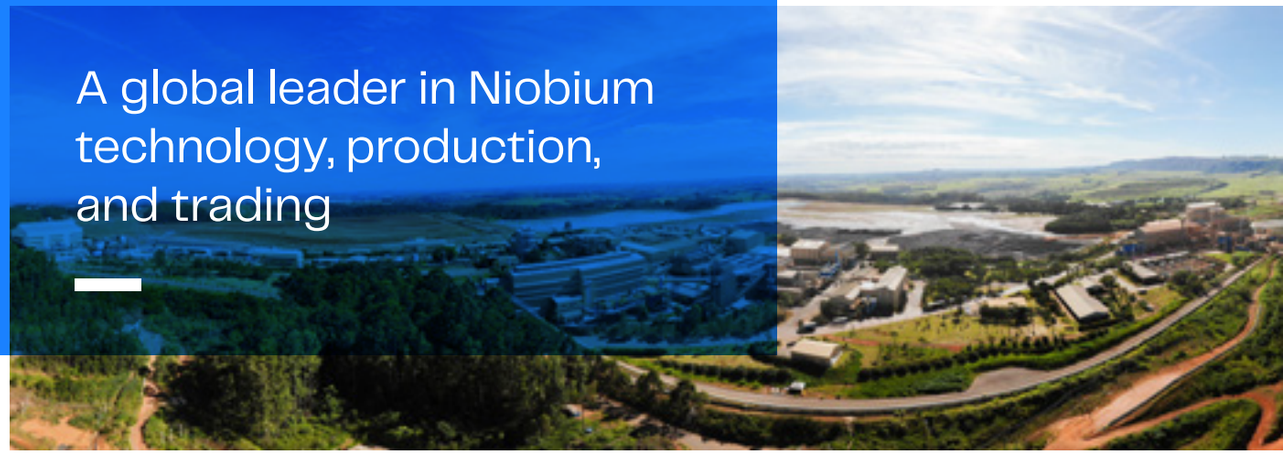
Grupo Moreira Salles

With the corporate name of Companhia Brasileira de Metalurgia e Mineração (the 'Company' or 'CBMM'), we are a closely-held corporation, 70% of capital pertains to Grupo Moreira Salles, and the remainder 30% is distributed between two consortia: one is composed of Chinese companies, and another one is composed of Japanese and South Korean companies, each one holding 15% interest in the Company. **GRI 2-1**

FROM ARAXÁ **TO THE WORLD**

We are a global leader in Niobium production and trading. Located in the state of Minas Gerais, in the city of Araxá, our headquarters and industrial hub rely on three great complexes, combining mineral activities, and primarily, steel and chemical activities.

We also maintain regional offices abroad, an extensive warehouse network, and an office in the city of São Paulo, focused on Niobium sales and technology applications.



A global leader in Niobium technology, production, and trading

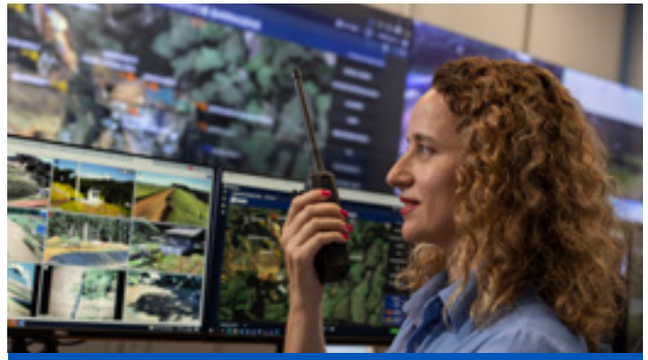
Our headquarters and industrial hub of Araxá have five specialized centers:



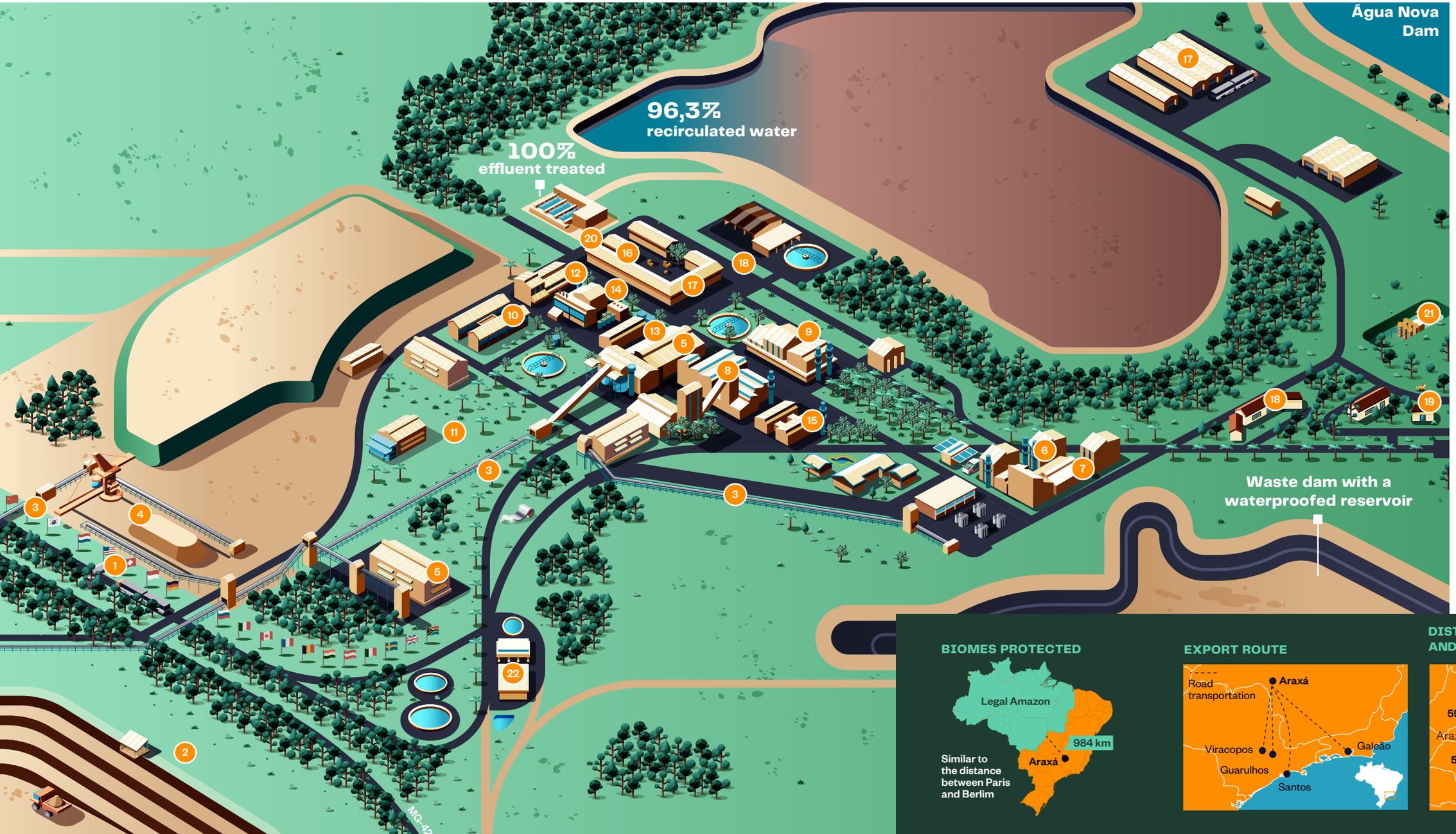
The Technology Center, the Materials and Steel Process Research Center, and the Batteries Materials Center lead our business and the Company's core activities, applied in the Niobium product research and development.



The Environmental Development Center preserves Cerrado's fauna and flora and also carries out environmental education actions.



The Integrated Monitoring Center (CMI) is liable for the Company's waste disposal safe structures, ensuring 24/7 monitoring through cutting-edge technology equipment.



SUBTITLE

1. Entrance
2. Mine/Belvedere
3. Conveyor belt
4. Blending
5. Concentration
6. Desulfurization
7. Dephosphorization
8. Metallurgy
9. Crushing/Shipment
10. Technology Center
11. CPMPM – Materials Research Center and Steel Processes
12. Niobium metal
13. High purity Niobium oxide
14. Special Niobium oxides
15. Special alloys
16. Maintenance
17. Warehouse
18. Office
19. CDA - Environmental Development Center
20. ETE - Wastewater Treatment Station
21. ETESG – Sanitary Sewage Treatment Station
22. Batteries Materials Center

BIOMES PROTECTED

Similar to the distance between Paris and Berlim

EXPORT ROUTE

DISTANCE BETWEEN ARAXÁ AND A FEW CAPITAL CITIES (KM)



GLOBAL **PRESENCE** GRI 2-6

We produce and provide niobium products for +500 customers in +50 countries. We invest in research centers to make feasible increasingly more efficient products for varied Niobium applications.

Our logistics relies on 18 warehouses strategically positioned to assure the quality of services, and distribution to any place in the world. We operate four regional offices located in Pittsburgh, in the United States; in Geneva, Switzerland; in Amsterdam, Netherlands; and Singapore, Asia, and we have two representation offices in China: one in Beijing and another one in Shanghai.

The rampant Asian market is one of our targets. In 2022, represented nearly 61% of our sales volume.

The Indian market was one of our greatest surprises. We perceived that this country has an ambitious goal of ramping up its steel production, which is reflected in a great opportunity for us to insert the Niobium.

The Southeast Asia region concentrates nearly 120 million tons of the world's total steel of 1.9 billion tons/year, our attention is concerned with the use of Niobium in structural steel. In this composition, Niobium contributes both to improve steel properties and reduce the number of other materials, directly impacting the product's lower-end cost. Thus, Niobium is traded to Southeast Asian countries through two types of concepts.



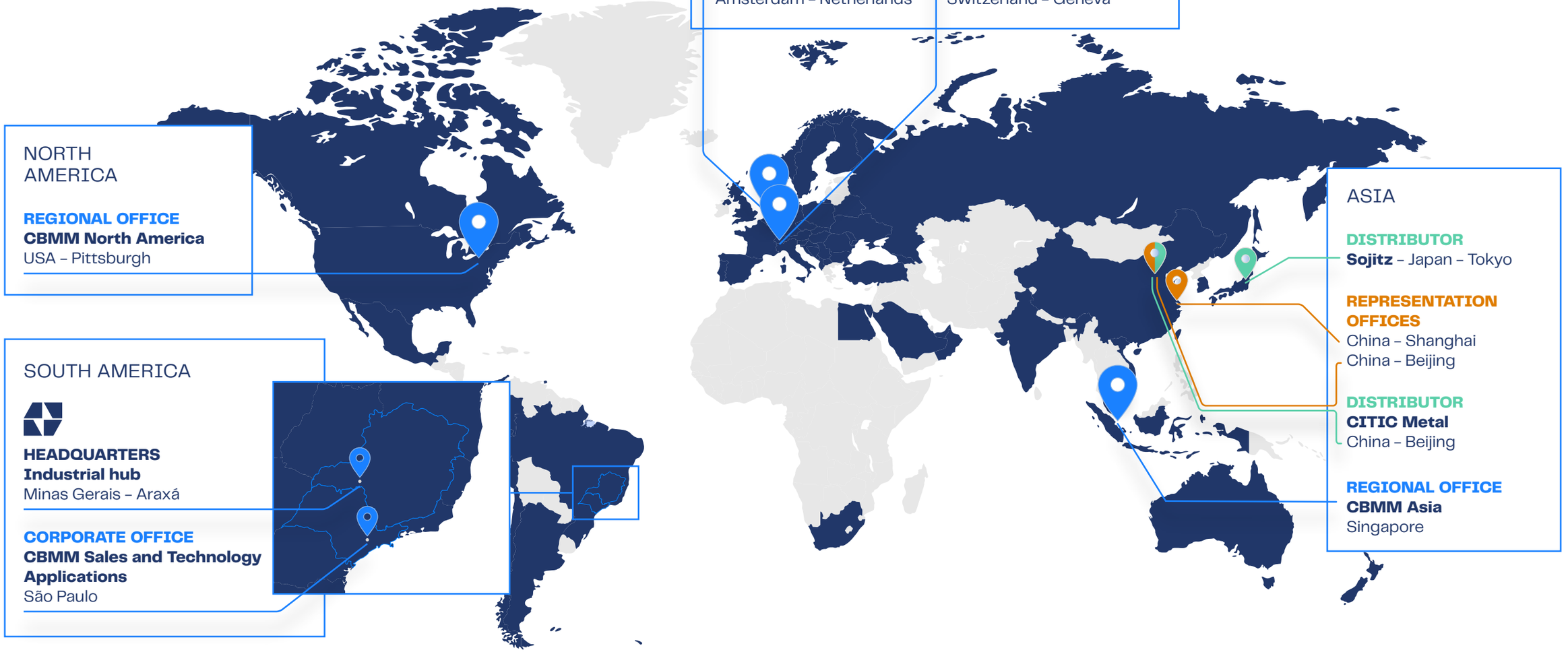
ULTRA LOW NIOBIUM
It consists of a low quantity of Niobium used in steel composition, around 50g to 100g/ton of material.

ALLOY DESIGN OPTIMIZATION
The steel alloy cost optimization curtails the addition of other elements, such as manganese.

EUROPE

REGIONAL OFFICE
CBMM Europe
Amsterdam – Netherlands

REGIONAL OFFICE
CBMM Technology Suisse
Switzerland – Geneva



NORTH AMERICA

REGIONAL OFFICE
CBMM North America
USA – Pittsburgh

SOUTH AMERICA

HEADQUARTERS
Industrial hub
Minas Gerais – Araxá

CORPORATE OFFICE
CBMM Sales and Technology Applications
São Paulo

ASIA

DISTRIBUTOR
Sojitz – Japan – Tokyo

REPRESENTATION OFFICES
China – Shanghai
China – Beijing

DISTRIBUTOR
CITIC Metal
China – Beijing

REGIONAL OFFICE
CBMM Asia
Singapore

BUSINESS MODEL

INPUTS

Financial – Shareholders' equity, revenues from sales of products, and financing.

Manufactured – Industrial hub; transportation assets (partners).

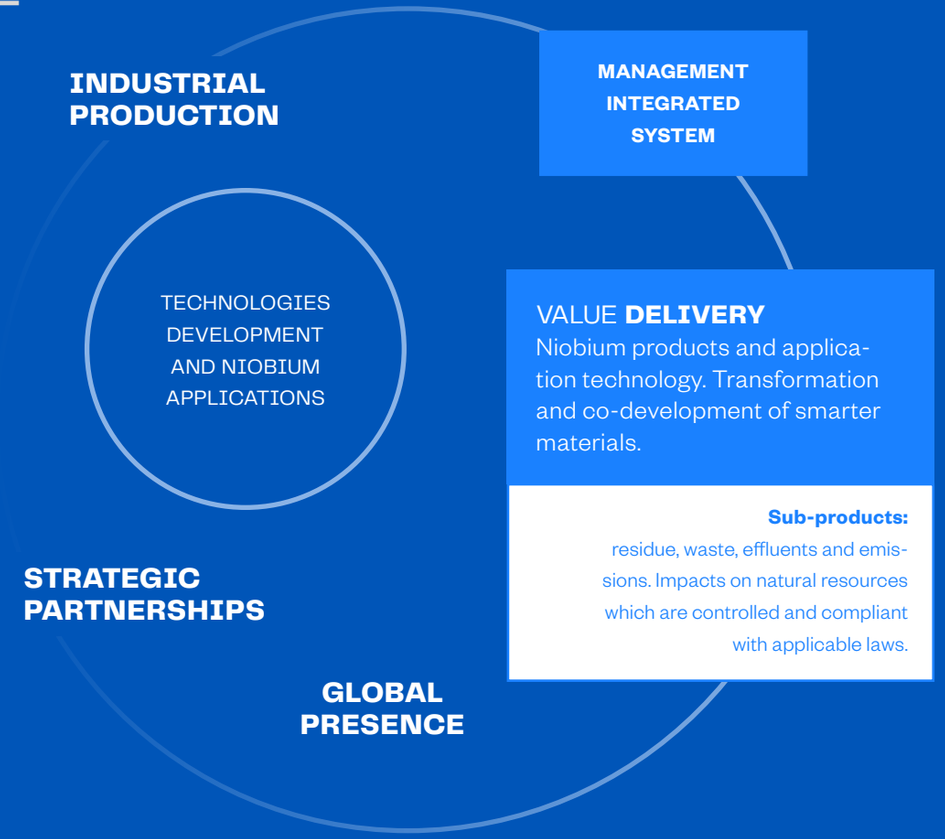
Human – Trained and qualified employees and contractors.

Intellectual – International certificates and licenses; brands (CBMM and Niobium); Niobium technology and know-how; integration with universities and research, science and technology centers.

Social & Relationship – Identity-based relationship with the community and respect for all stakeholders, including suppliers, partners, and government authorities.

Natural – Pyrochlore ore; hydroelectric energy; water (dam lakes).

BUSINESS CORE ACTIVITIES



IMPACTS

Financial – Investment capacity; profit for shareholders and revenue for state-owned companies; Social and Private Investment (SPI).

Manufactured – Operational safety and quality; production and expression capacity; availability and fast delivery in a global market.

Human – Human development; strong educational, technical, and behavioral perspectives.

Intellectual – Incentive to innovation, new technologies, and applications; awards creation; knowledge dissemination.

Social & Relationship – Solid bonds with the community; dialogue and transparency with stakeholders; an incentive to cultural, educational, and health projects.

Natural –Fauna and flora conservation (CDA); GHG reduction; water reuse and environmental education.



IN THIS CHAPTER

The Niobium
New products and solutions

INNOVATION & **TECHNOLOGY**

2

R$ 56 million

invested in the construction of the first industrial lines of Niobium oxide

R$ 340 million

is the total investment estimated for 2023

GRI 3-3: INNOVATION & TECHNOLOGY
OWN INDICATOR CBMM-01, CBMM-02, CBMM-03

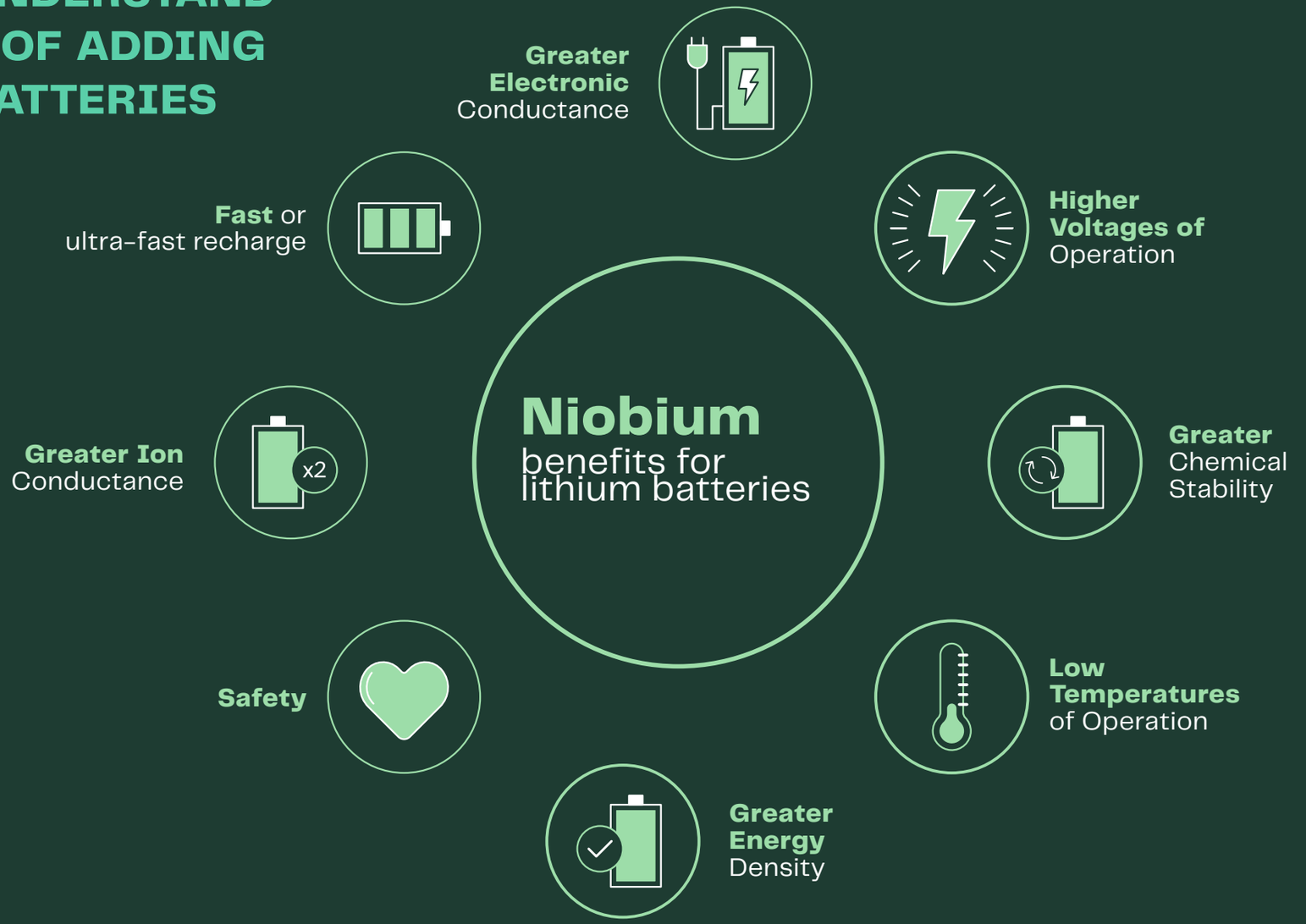
Innovation is embedded into CBMM's strategic agenda and contributes to position our business toward the future. The topic relies on a plan of investments and initiatives split into three perspectives: market and customer development; Niobium technology and products; processes and products in-house development.

Mostof our efforts toward innovation & technology have been currently concerned with our Batteries Materials Center, with 24/7 operations. Inaugurated in 2021, this center occupies an 1 thousand m^2 area and only in 2022, it received R$56 million investments to increase batteries industrial capacity, and in 2022 we already started selling to meet a rampant global demand. In 2023, we plan to invest nearly R$340 million in research and development.



The Niobium improves materials, at the same time, it optimizes natural and energy resources

IN PRACTICE: **UNDERSTAND THE BENEFITS OF ADDING NIOBIUM TO BATTERIES**



NTO
Niobium oxide and titanium

NWO
Niobium oxide and tungstenum

DR-Nb
Niobium Disordered Structures

LNO
Lithium niobate as dopants and coating

Wehavetechnology and research centers, we also invest in methodologies and systems

TECHNOLOGYCENTER:

This center develops Niobium new products and technology applications in three work fronts: steel base materials, iron base materials, and special products. In addition, the center researches ways of enhancing production processes, including researches, such as higher recovery of Niobium um ultra-thin fractions at steelworks, also the development of sub-products from tailings.

STELEL MATERIALS AND PROCESSES RESEARCH CENTER:

This center relies on professionals dedicated to the development of alloys and super alloys prototypes, seeking to contribute with new special products containing Niobium, for instance, for aerospace and energy industries. With three patents registered, all the processes elaborated in the site are certified by AS9100 (Industry of Aviation, Space and Defense), for chemical analyses in nickel alloys. We are the first company in South and Central Americas to be attested as to the quality of essays conducted, ranking us amongst the world's best laboratories.

TRL (TECHNOLOGY MATURITY LEVELS) METHODOLOGY:

Connected to the Company's growth plan, and applied in market development projects, this methodology aims at ramping up, prioritizing investments, also advancing the maturity level analysis of various technologies developed. Therefore, its language is unique and consistent with the global market practices. The TRL should reach the stage 9, which characterizes recurring sales in the market. All the projects concluded have their TRL evolution analyzed.

MRL (MANUFACTURING MATURITY LEVEL) METHODOLOGY:

It is adopted in processes, product in-house development, it measures, similar to TRL, the plant's advances. The objective is to reach the scale 9 of maturity, characterized by the industrial implementation of solutions developed, with quarterly evolution analyses.

KM (KNOWLEDGE MANAGEMENT) SYSTEM:

To consolidate all the expertise gained over the years through our Technology Program, we rely on a unique platform that is regularly upgraded, it provides technical reports on all our systems.

In 2022,

263 PROJECTS
KICKED OFF,

49
in company and

214
with external partners

R$ 220
MILLION
in funds destined to the project portfolio

THE NIOBIUM

Discovered in 1801 by English chemist Charles Hatchett, Niobium began to gain relevance after the 1960s. Before our foundation in 1955, little was known about this transition metal. We pioneered the development of Niobium technology. Since then, we have been developing and trading this metal. For the past 67 years, we have been continuously enhancing the quality of our products through a combination of groundbreaking technologies, solely deployed from, to, and with Niobium.

Itstkey characteristics include high electrical conductivity, flexibility, ductility, toughness, and resistance to heat, corrosion, wear, and tear. Niobium improves materials' properties, making them more efficient, and accordingly, more sustainable, as it lowers carbon emissions throughout the production chain. The Niobium product applications in steel industry objectively evidence an optimization of the use of natural and energy resources (see the infographic below).

Ourvalueproposal is to use Niobium to transform materials. We can exemplify the addition of minimum quantities of Niobium, 0,02% in steel, making it mechanically more resistant, without reducing thoughness and its ability to deform plastically without bursting.

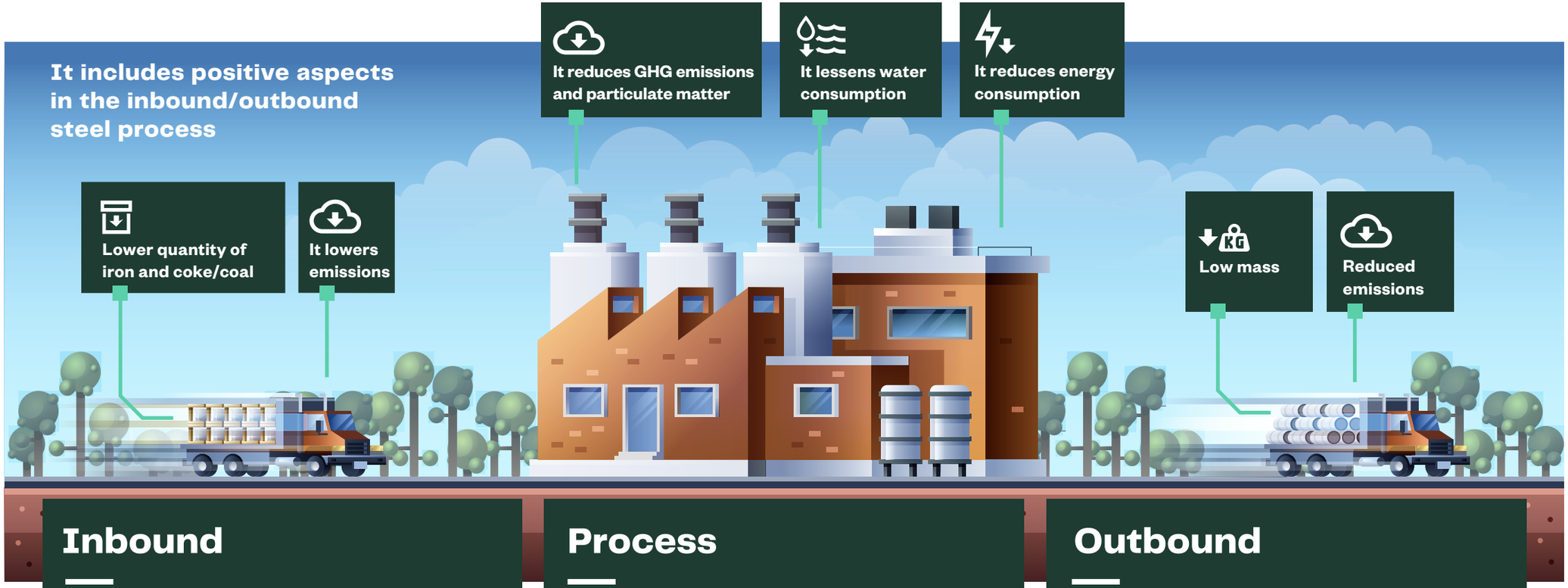
0.02%

of Niobium in steel makes it more resistant

For the past 67 years, we have been continuously enhancing the quality of our products through groundbreaking technologies, solely deployed from, to, and with Niobium



BENEFITS AND USE OF FERRONIOBIUM IN **STEEL PROCESSES**



Inbound

The application of ferroniobium in the steel manufacturing process allows lower quantities of raw materials and inputs to be used, accordingly, reducing the GHG emission, water, and energy consumed in production, besides transportation-related emissions of these materials to the steel industry.

Process

The application of ferroniobium in the steel manufacturing process diminishes the quantity of steel produced and lowers greenhouse gas emissions, besides water and energy consumption. It also allows obtaining more homogeneous steel, with better properties, thus, cutting down production bias, and building savings.

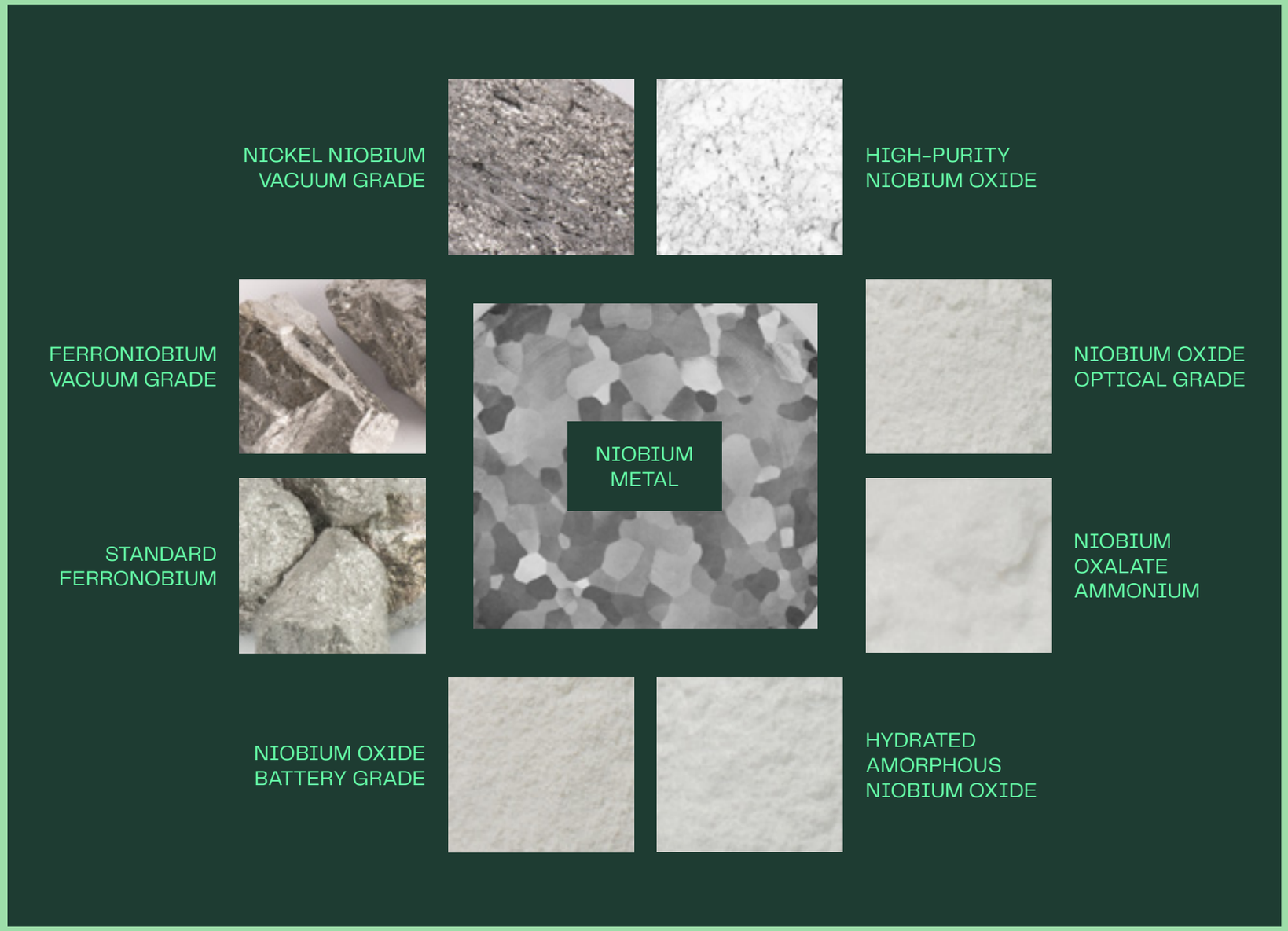
Outbound

As a result of a smaller quantity of best-quality produced steel (micro-alloyed with Niobium), transportation costs are lower. Thus, greenhouse gas emissions are avoided connected with lower transportation.

Ourproducts have the highest quality standard required by ISO 9001 certificate. Key applications comprise the mobility, energy, and civil construction large structures sectors, besides more specific solutions for aircraft, magnetic resonance imaging equipment, pacemakers, spacecraft, rockets, gas pipelines, and electronic components.

Theniobium application benefits include:

- Greatersafetyas it improves properties, making other metals more flexible;
- Reducedmaintenance due to high resistance to wear and tear;
- Lowerweight and size, which also makes feasible dematerialization and miniaturization;
- Electricsystems optimization and integration due to high conductance;
- Efficiency gains and less energy consumption;
- Lowercarbon footprint.



EXAMPLES OF **NIOBIUM APPLIED IN CITIES**

Check the presence of Niobium in our daily activities

SMARTCITIES

Niobium technology benefits are directly related to the smart cities concept that aims at prioritizing mobility, energy generation and distribution solutions, and mitigation or clearance of environmental impacts with more efficient and sustainable groundbreaking solutions.



Mounting value
The higher financial return on manufacturing costs, greater component durability, and lower fuel costs.

Environment
Reduced consumption of inputs, fuels, and raw materials, as well as GHG emissions throughout the life cycle.

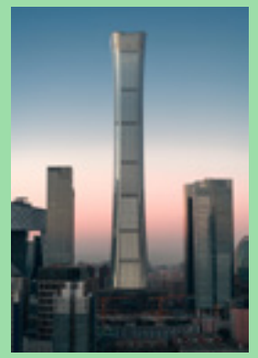
Cuttin-edge technology
It enhances advanced steel, cast aluminum, glasses, batteries, and electronics properties.

Improved performance
Flexibility, weldability, consistency, lower weight.

Higher safety
Lighter structures, and at the same time, more resistant.

NIOBIUM IN **CIVIL CONSTRUCTION**

ZUN TOWER (CHINA)



In large civil construction structures, the Niobium solutions' key benefit is the process of lessening the use of raw materials. That is to say, the Niobium applied in structural steel makes feasible larger constructions, with better quality and safety with lower quantities of related materials. When applied in the construction of Zun Tower, one of Beijing's highest buildings, the Niobium technology enabled using 17% less steel, despite the need of meeting additional safety requirements in the event of earthquakes. This 108-floor building inaugurated in 2018, has 528 meters in height.

INSTITUTO MOREIRA SALLES (BRAZIL)



The construction of Instituto Moreira Salles (IMS) headquarters located at Paulista Avenue, in the city of São Paulo, used 556 tons of steel micro-alloyed with Niobium that composed the project's welded and rolled steel profiles. This was paramount to achieving the structural objectives, and also heightening floor resistance that supports, besides normal cargo, very heavy works of art, such as sculptures, and other heavy workpieces. In addition, the micro-alloyed steel enabled meaningful advances in essential mechanical properties of the building inaugurated in 2017, such as resistance and toughness, also enhancing weldability.

NIOBIUMIN THE **AUTOMOTIVE INDUSTRY**

Tests carried out by the automotive industry have revealed that Niobium solutions applied both in engine structure and components make metal lighter and more resistant, increasing vehicle safety, reducing the need for repairs, also bolstering fuel burn efficiency. As a result, each vehicle manufactured with Niobium technology consumes less fossil fuel, and accordingly, it emits fewer greenhouse gases (GHG).

Lithium-ion batteries with Niobium have so many advantages that became paramount for the world's electrification growth. Besides being safer, the batteries have extended useful life, higher energy density, and the innovative ultra-fast charge, less than ten minutes.

THE NIOBIUM AND SAFETY IN **NATURAL GAS TRANSPORTATION**

Anotherrelevant Niobium solution is applied to steel used in the natural gas distribution infrastructure construction. As it reduces the quantity of steel required, making the material more resistant, the Niobium ensures the safety and integrity of these structures, the pipelines transporting gas under high pressure during long distances around the globe.

NIOBIUM **IN HEALTH**

Superconductors made with Niobium are used in magnetic resonance equipment that generates high-quality imaging for reliable and non-invasive diagnoses.

NEW PRODUCTS **AND SOLUTIONS**

Our innovation projects are continual. We innovated in industrial processes technologies, such as Niobium product applications. In 2022, we worked in 263 projects concerned with new product solutions, technologies, development and quality. Out of these, 49 are in-house projects, and 214 projects were carried out with external partners, not of all them were concluded in the same year, with development moving forward in 2023. Amongst the projects developed in 2022, we highlight:

R$ 72 million

invested in the Batteries Program



BATTERIES SEGMENT

STEEL SEGMENT

SUPER ALLOYS, SUPERCONDUCTORS, AND ELECTRONICS SEGMENT

NANO AND CASTING SEGMENT



Nb_2O_5

BATTERIES SEGMENT

In 2022, the Batteries Program was the R&D highlight, to which R$72 million were allocated out of a total of R$246 million invested in our Technology Program. We expect that in 2023 this Program's investments total R$95 million. This is because the Company already became a global benchmark in the development of Niobium materials for lithium-ion batteries, sales of which saw growth in 2022. Other project advances in 2022 included:

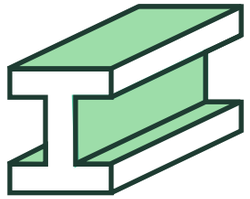
Toshiba Corporation started selling cells for ultra-fast and high-energy density recharge batteries;

An investment of R$306 million was announced to bolster the Niobium oxide production capacity, including the construction of a new Niobium oxide plant for lithium-ion batteries, with a production capacity of 3 thousand tons/year;

The partnership with the British company Echion continues, which uses Niobium oxide in its exclusive technology called XNO®. Our product is added to the batteries cell anode, promoting benefits, such as safety, ultra-fast load, and extended useful life;

The partnership with Volkswagen Caminhões e Ônibus (Trucks and Buses) continues **to create the world's first electric bus with Niobium-lithium ion batteries**;

The Batteries Materials Center **operated at its full capacity** to meet the rampant demand for oxide battery grade, and adjustment was required in equipment and operation.



STEEL **SEGMENT**

One of the highlights was the use of Niobium in the composition of parts for heavy vehicles

In this segment, we prioritize technical assistance to producers in ADO – Alloy Design Optimizationand process parameters (NPO – Niobium Process Optimization).

In the civil construction of large structures, the key benefit of the use of Niobium solutions is dematerialization, i.e., the Niobium applied in structural steel allows better quality and safer constructions, using fewer materials. Our industrial hub is one of the examples we can mention. The use of Niobium benefited the 22% lower weight of steel frames, ensuring greater resistance, and safety to our buildings, thus, reducing the emission of CO_2, carbon footprint, and also cutting down construction costs.

In the automotive sector, we continue supporting the steel industry and vehicle manufacturers (OEMs) to bolster stamped steel performance. Tests evidenced that by making metal lighter and more resistant, Niobium solutions applied to engine components improve vehicle safety, reduce the need for repair, and also enhance fuel burn efficiency. One of these applications' highlights was the Niobium used in the composition of heavy vehicle parts, such as tractors and trucks. This initiative in partnership with Bruning Tecnometal innovates through ultra-high resistance steel hot stamping in thicker plates.





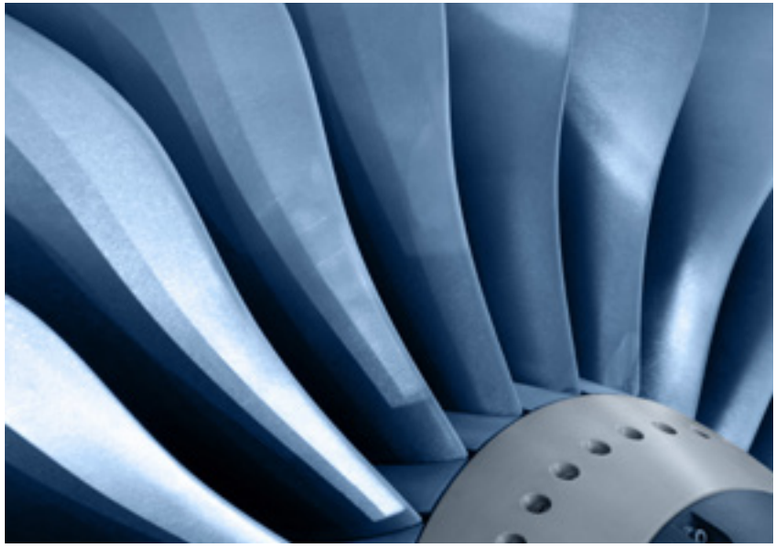




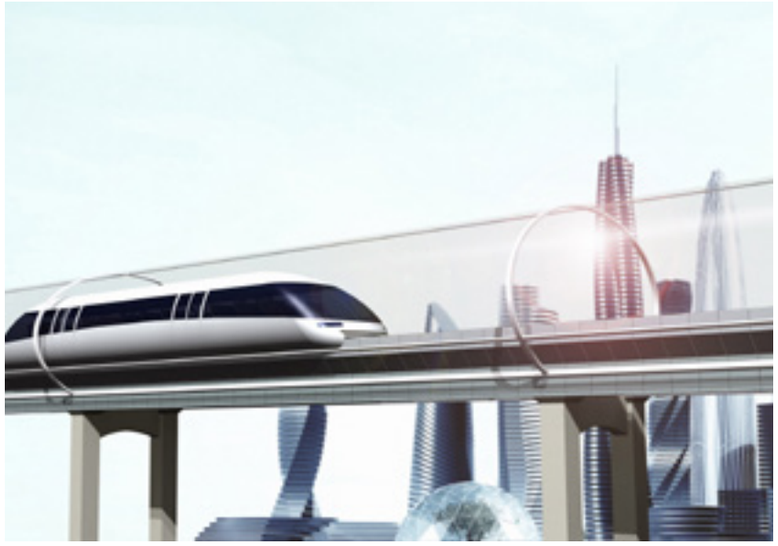
SUPER ALLOYS, **SUPERCONDUCTORS AND ELECTRONIC SEGMENT**

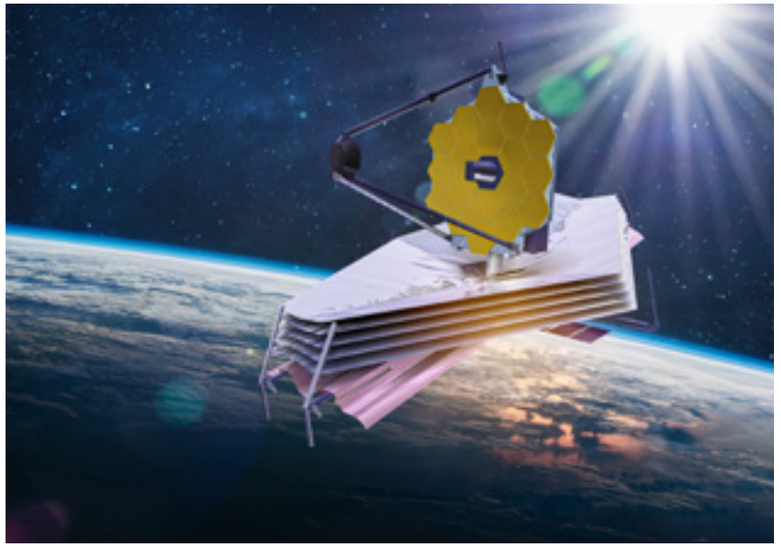
We also have been expanding the Niobium metal market, creating a supply chain to produce sheets used as corrosion-high resistance coating material.

Another relevant segment is the application in superconductors, wherein the supply chain, in this case, is also considered paramount to increasing the material's availability on the market, also its use. For application in electronic glasses, and pottery, we will continue making available niobium oxide with a lower presence of iron and tantalum, elements considered impurities in these applications.







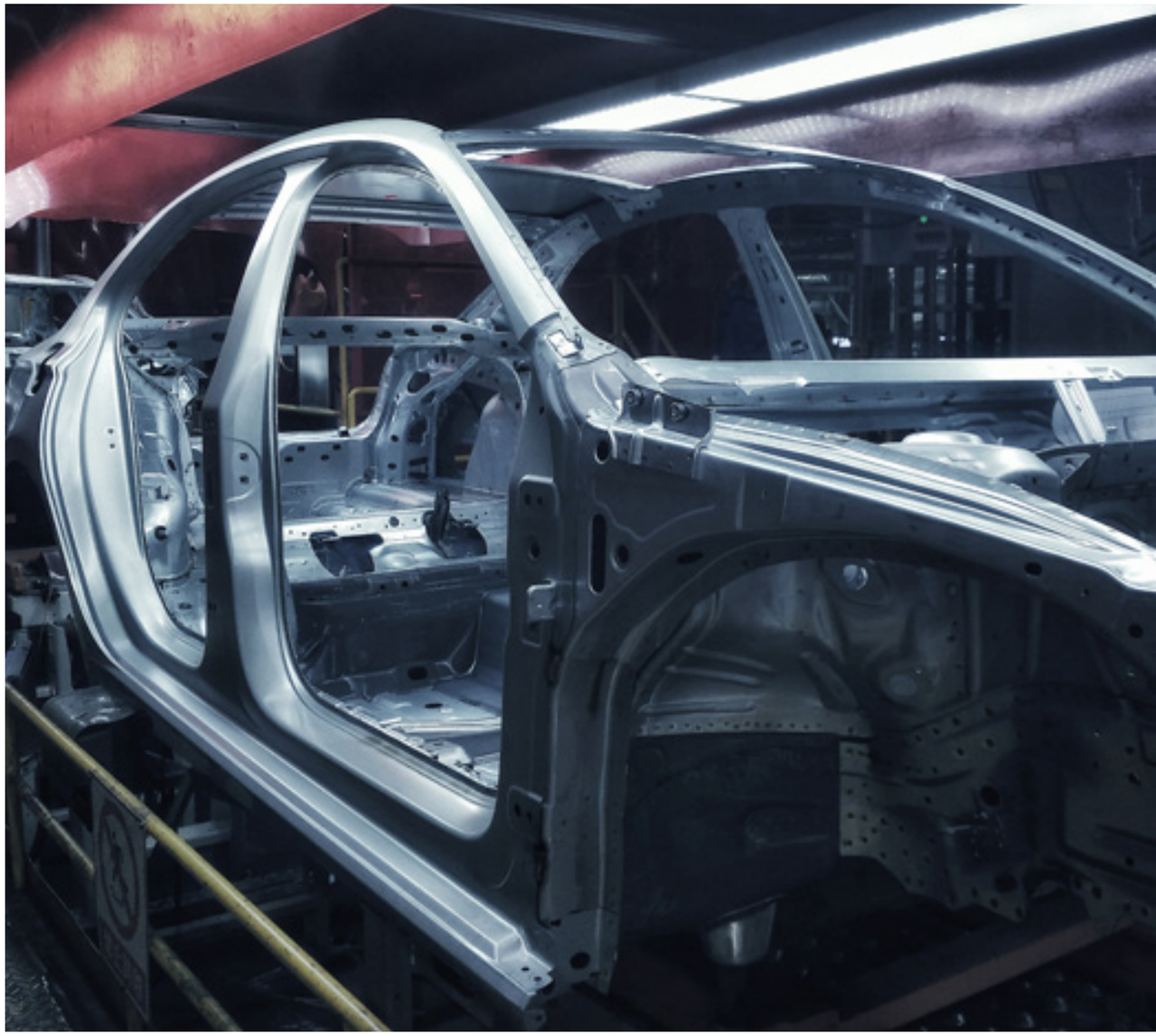


NANO & CASTING SEGMENT

In the nano and casting segment, the Niobium is applied in ferrous materials different from steel

Relevant to our diversification plan, this segment uses Niobium in ferrous materials different from steel. Nanocrystalline materials are non-permanent magnetic materials applied in electronic components, such as inductors and filters, broadly utilized in electric circuits. These materials' application has been growing, as these are fine-tuned with key global megatrends (urbanization, electrification, sustainability, and digital transformation), allowing equipment to operate at higher frequencies, with great energy efficiency, enabling their miniaturization. Cast materials combine different iron-based materials, such as white, grey, and ductile cast iron.

However, the Niobium application is greatly focused on the automotive industry, especially cast iron for the manufacturing of turbo compressors and brake discs for heavy and passenger vehicles.



3

IN THIS CHAPTER

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Climate change
Waste and dams
Water and effluent management

ENVIRONMENTAL **DIMENSION**



In 1997, CBMM was the first company of this segment to receive ISO 14001 certificate

Ourpositioning coupled with a more efficient business proposal drive us to be more stringent concerning our standards, than with requirements. As a result, we are the first company of this segment to receive ISO 14001 certificate.

Since 1997, we have relied on a mapping system and applicable laws assessment (CAL) that monitor compliance with related laws. We have an environmental program that envisages local fauna and flora management, also pollution prevention, with efficient management of emissions, waste, and effluents.

Our Sustainability Program encompasses various initiatives, understanding that responsible development has various fronts of action, and it is necessary to evolve towards project investments that bring autonomy and a leading role both for our employees and the community.

Therefore, we have a Sustainability Committee with a multidisciplinary approach that holds monthly meetings. This group is composed of employees and leaders from different areas, specializing in various topics and aspects concerned with environmental protection and social development.

Continued research and development of Niobium leading-edge product solutions aim at making its use to cause a lesser environmental impact as possible. We also measure the impacts and risks of our operations, within and outside the industrial hub, making technical, social, and environmental assessments of technological and locational alternatives to increasingly make more assertive decisions.



30 YEARS OF **ENVIRONMENTAL EDUCATION**

Our Environmental Education Program celebrated 30 years in 2022, a program that raises the awareness about the climate change impacts, the need for preserving the Cerrado biome, and care for the environment.

Since 1992, we have been interacting with nearly 75 thousand Araxá's students, teachers, and citizens in various activities that permeate topics connected with our responsibility toward surrounding area, which is directly related to Cerrado conservation. The cycle of the program's educational activities includes lectures, monitored visits, theme workshops, exhibitions, everything that can apply to educational environment, concerned with the environment preservation good practices.



'FLORIR O CERRADO' (BLOOMING THE CERRADO)

To celebrate our Environmental Education Program's 30th anniversary, we promoted the first edition of the 'Florir o Cerrado' Festival, in partnership with the local government of Araxá. The festival, besides offering various activities for children, relied on a non-stop 9-hour program for all ages, including workshops, artistic and theater presentations.

The event was held at Parque do Cristo, Araxá's postcard in the north zone of the city, to celebrate World Environment Day. This initiative connected different projects in a single place and also stimulated the Araxá citizens to adhere to Cerrado's preservation and conservation movement.

ENVIRONMENTAL DEVELOPMENT CENTER

Most of our environmental educational initiatives take place at the Environmental Development Center (CDA), wherein initiatives are also carried out to preserve Cerrado's fauna and flora's endangered species.

In 2022, the CDA's nursery promoted the re-socialization, and transfer of a couple of tapirs to the Ibitipoca National Park. The center has a nursery concerned with fauna environmental works and a seedling nursery, focused on Cerrado's flora. The demand for environmental protection is local and global: during all these years of our history, we endeavored efforts to raise awareness about the use of natural resources responsibly.



CLIMATE **CHANGE**

GRI 3-3 CLIMATE CHANGE, SASB EM-MM-110A.2

We have assessed the effects of eventual climate change in Araxá and the region, always doing our best to tackle the climate emergency. Our operations are not only restricted to our industrial hub's surrounding area, but also our global presence in European and Asian markets, wherein we trade our products, always aiming for the minimum impact.

Our goal is to zero scopes 1 and 2 emissions by 2040. The plan is related to the replacement of fossil fuels in our operations, initially focused on diesel, LPG and oil coke. The Company has been optimizing the use of renewable energies over the past years, mainly incrementing the use of vegetable coal in its operations, besides efficiency improvements, and the development of fast recharge batteries using Niobium.

For scope 3, we have been assessing our supply chain to identify and reduce specific emissions of each input in our production process. This activity shall be concluded in 2023.

RENEWABLE **ENERGIES**

Since 2019, all the electricity used in our production is 100% renewable and certified by the Companhia Energética Minas Gerais S.A. (Cemig): the Renewable Energy Certificate (REC) evidences that our Greenhouse gas (GHG) emission is zero. GRI 305-5

The mined ore is carried from the mine leased to Companhia Mineradora de Pirocloro de Araxá (COMIPA) to CBMM's blending yard. through an electricity-driven conveyor belt, thus, not requiring the use of trucks, lowering the GHG emission. The pyrochlore ore is picked up from the blending pile and transferred through a conveyor belt for processing at our Concentration Unit.

75%

of energy consumed in processes derives from renewable sources

In ourproduction, 75% of the energy consumed derives from renewable sources (vegetable coal, biodiesel and electricity). In 2022, out total energy consumed moved up 7% mainly due to higher consumption of LPG fuels (28%) and aviation fuel (90%). The energy consumed from non-renewable sources totaled 593,245.61 GJ, 13.3% higher than in the previous year, due to increased production to meet upswing global demand for Niobium products. The energy consumption from renewable sources (renewable fuels and electricity) totaled 1,413,493.69 GJ, 5% higher than in 2021. GRI 302-1

We defined a road map to plan decarbonization actions to be carried out by 2040, which is connected with enhanced energy efficiency by lowering fuel consumption, fleet electrification, upgraded processes and equipment, amongst other initiatives. Current calculations are made through emission factors of Brazil GHG Protocol calculation tools. The methodology adopted is the Brazil GHG Protocol, whose approach of consolidation selected was the Operational Control. GRI 302-4, 302-5

Wehave been disclosing emissions inventories of the Brazilian GHG Protocol Program for consultation since 2013. The inventory considers the emissions generated in our production process, and our major contractors and suppliers. In 2022, we recorded 8.1% lower Scope 1 emissions and 65.7% Scope 2 emissions, compared to the previous inventory data. Lower Scope 1 emissions is chiefly due to a lower volume of diesel reported, since fuels consumed by an outsourced company now are reported within the Company's Scope 3. This outsourced company initiated the Emissions Inventory along with the GHG Protocol and registered this consumption in its Scope 1.

DOING MORE, **IMPACTING LESS**

We deployed initiatives to lessen the greenhouse gas emission-related impacts, such as a study to reduce the use of fossil fuels in our fleets, employing ethanol-driven and hybrid vehicles. We adopt the circularity principles which aim at providing greater endurance and useful life of natural resources, such as water and minerals, and also the dematerialization that aims at lowering the use of raw materials when applying Niobium products.

Check **here** our emissions inventories of the Brazilian GHG Protocol Program.

GHG DIRECT EMISSIONS (t CO_2 EQUIVALENT)[1] GRI 305-1

Scope 1	2020	2021	2022
Generation of electricity, heat or steam	23,092.05	31,276.72	37,181.65
Physical-chemical processing	3,164.58	4,801.33	5,066.36
Transportation of materials, products, waste, employees and passengers	14,684.04	16,446.57	7,321.61
Fugitive emissions	2,902.11	4,227.47	3,450.95
Waste and effluents	576.58	912.63	583.39
Total	**44,419.36**	**57,664.72**	**53,603.93**
Biogenic emissions	30,634.00	41,335.63	43,336.56

[1] Calculations of GHG direct emissions (Scope 1) considered the gases: C02, CH4, N20 and HFCs.

INDIRECT EMISSIONS DERIVING FROM ENERGY ACQUISITION (t CO_2 EQUIVALENT)[1] GRI 305-2

Scope 2	2020	2021	2022
Emissions deriving from energy acquisition	17,724.00	48,806.60	16,724.59

[1] Calculations of indirect emissions deriving from electricity acquisition (Scope 2) considered the gas: CO_2

OTHER GHG EMISSIONS (t CO_2 EQUIVALENT)[1] GRI 305-3

Scope 3	2020	2021	2022
Upstream			
Goods and services purchased[2]	0	0	81,388.55
Transportation and distribution upstream	4,996.00	5,621.67	11,079.25
Waste generated in operations	0.00	0.00	387.72
Business travels	372.00	166.64	942.36
Employee transportation	1,059.00	2,773.83	1,219.95
Subtotal	**6,427.00**	**8,562.14**	**95,017.83**
Downstream			
Transportation and distribution downstream	3,840.00	5,265.34	5,492.14
Total	**10,267.00**	**13,827.40**	**100,509.97**
Biogenic emissions	1,299.00	1,675.88	2,893.70

[1] Calculations of other emissions and GHG (Scope 3) considered the gases: CO_2, CH_4, N_2O and HFCs.
[2] As of 2022, the Goods and Services Purchased category started to be considered in the calculation of emissions for improved refining of Scope 3 information.

INTENSITY OF GREENHOUSE GAS EMISSIONS[1, 2] GRI 305-4

	2022
Total GHG emissions (t CO_2 equivalent)	53,603.96
Intensity of greenhouse gas emissions (emission of CO_2 /ton of Niobium product)	0.54

[1] Indicator not reported in previous reports.
[2] The Scopes 1 and 2 emissions calculation considered the gases: CO_2, CH_4, N_2O, HFCs.

LOWER GHG EMISSIONS (t CO_2 EQUIVALENT)[1] GRI 305-5

	2022
Reductions stemming from direct emissions (Scope 1)	6,631
Reductions stemming from energy acquisition indirect emissions (Scope 2)	0
Reductions stemming from other indirect emissions (Scope 3)	0
Total reduced GHG emissions	6,631
Reductions stemming from compensation	0

1 Indicator not reported in 2020. In 2021, we did not record lower emissions, due to increased production to meet upswing global demand for Niobium products.

ENERGY CONSUMED WITHIN THE ORGANIZATION, BY SOURCE (GJ) GRI 302-1

Fuels from non-renewable sources	**2020**	**2021**	**2022**
LPG	239,104.00	318,537.75	409,246.43
Oil coke	72,289.00	88,146.31	88,846.16
Diesel oil	183,475.00	113,731.30	89,368.67
Aviation fuel	2,642.00	3,040.74	5,784.35
Subtotal	**497,510.00**	**523,456.10**	**593,245.61**
Fuels from renewable sources	**2020**	**2021**	**2022**
Vegetable coal	272,004.00	370,888.40	399,784.22
Biodiesel	21,905.00	11,796.85	9,269.58
Subtotal	**293,909.00**	**382,685.25**	**409,053.80**
Energy consumed	**2020**	**2021**	**2022**
Electricity	1,027,019.00	1,350,592.04	1,413,493.69
Total	**1,818,438.00**	**2,256,733.39**	**2,415,793.10**

ENERGY CONSUMPTION OUTSIDE THE ORGANIZATION (GJ)[1] GRI 302-2

	2020	2021	2022
Diesel	150,241	201,743	260,181

[1] The 29% higher energy consumed outside the organization mainly referred to the inbound of fuels of the company liable for mining, in our Scope 3.

ENERGY INTENSITY (GJ/T)[1] GRI 302-3

	2020	2021	2022
Ferroniobium	23.16	21.56	22.48
Niobium products	24.49	23.07	24.29

[1] We recorded a 9% higher energy intensity/ton of FeNb, on the back of increased production.



WASTE AND **DAMS**

GRI 3-3 WASTE AND DAMS MANAGEMENT, 306-1, 306-2, MM3

We prioritize waste safety and lower generation in our processes, pursuing minor environmental impact as possible at our dams. Our contracts with third parties provide for clauses on the best environmental practices to include waste management and disposal.

Nearly 99% of non-hazardous residues generated, including tailings, is composed of process residues. The hazardous residues category mainly includes thin particulates collected in the bag filter of Refining Department. One of the initiatives to optimize resources is the 98% use of sterile material from the mine, in works implemented at the Company's industrial hub.

The waste that could impact the environment related to the organization's indoor activities – has its impact prevented due to appropriate disposals. Waste is generated and monitored by two departments: the Dephosphorization department which generates processes Grade 1 fines which are disposed of in appropriate waterproofed, covered waste landfills; and the Steelworks department which generates Class IIA aluminous slag which is disposed of in waterproofed waste landfills. **GRI 306-1**

Our industrial hub has five dams, which were designed and built with state-of-the-art and safe infrastructure at the time of their implementation. The structures undergo regular reviews and assessments for continued advancement, thus, ensuring high safety standards. One of them is destined to sediment control, another one for freshwater accumulation, and three for residues and tailings disposal from the Niobium concentration process. We invested in processes that continuously improve the safety management of our structures, we also bolster a seamless relationship with environmental authorities, public officials, and the community.



98%

of sterile material is used in engineering works

TAILINGS REUSE

Magnetite and barite are mineral concentration sub-products. Magnetite after processing can be applied as source of iron in steel industries. Barite is primarily used in auto parts. In 2022, nearly 162 thousand tons of magnetite and barite were sold, corresponding to nearly 2,8% of total tailings generated.

SASB EM-MM-150A.1, EM-MM-150A.2

The quantity of sterile material generated in 2022, non-hazardous and inert residue (Class IIB), went down 26% from the previous year, on the back of higher demand for ore mining (instead of sterile material removal). The ore processing tailing is a non-hazardous and non-inert residue (Class IIA). The 2% increase is related to higher production of Niobium products during the period.

Dams' hydraulic and structural conditions are internally supervised, and inspected by independent auditors

SAFETY & **MONITORING**

The Integrated Monitoring Center (CMI) operates without interruption. There, technicians have conditions to check the operations' conditions and instrumentation, quickly informing any failure that may compromise our structures' safety. We also conduct mapping and regular simulations, getting ready for any emergency.

All our initiatives are outlined in the Dams Emergency Action Plan that is available at our industrial plant, on the Company's website, in the local governments of Araxá, Ibiá, and Perdizes, also civil defense bodies.

Besides operational and ordinary procedures executed by the Company's team, independent audits are carried out that check the dams' hydraulic and structural conditions, and also attest the structures' safety conditions. All dams' safety management information, external audits, and Emergency Action Plans are managed based on the Dams Governance Policy that sets out engagement procedures between the operational team, the senior management, and the board of directors. **GRI 2-29**



DAMS
DECOMMISSIONING

In compliance with prevailing state laws, in 2022, we concluded the decommissioning dam No. 5. This process consists of draining the water superficially and planting the vegetation across the entire region, which previously sheltered the residue stemming from mineral exploration, without removing it, which now composes the landscape. We received consent from the appropriate environmental authority, and in 2023, we will move forward to decommission another dam (No. 4).



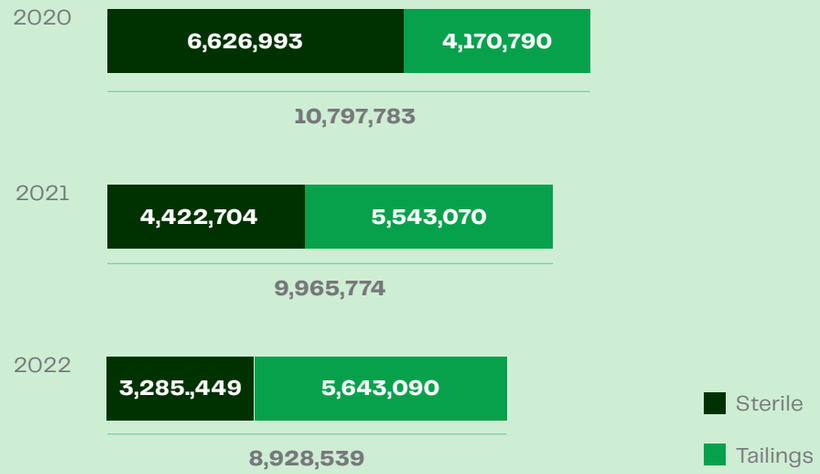
WASTE DISPOSAL
STRUCTURE

CBMM maintains natural resources utilization optimization policies, besides executing projects that enhance materials smart management. The Installation License (LI) began in 2022 for a new Waste Disposal Structure, the EDR 9. This project's technology allows to innovatively thicken and dry tailings stemming from Niobium mineral processing, sustainaing safety, also enhancing the dry waste disposal, thus, lessening the environmental impact.

With the EDRs future installation, we create a program in partnership with the Social Transport Service and the National Transport Learning Service (SEST/SENAT) that consists of training the workforce and local suppliers to understand the process required to sell their products and services in structure construction. Therefore, we contribute to the local development and the region's economy.

Amongst the programs and advances connected with materials management, we underscore the study of technologies alternative to waste disposal at dams, compliant with State Law No. 23.291, and the Co-products Sale Program. **GRI MM11**

QUANTITIES OF SPECIFIC RESIDUES FROM MINERAL ACTIVITY (t) GRI MM3



TOTAL WASTE GENERATED, BY COMPOSITION (t) GRI 306-3

TOTAL by type (t)	2020	2021	2022
Non-hazardous[1]	4,494,880	5,878,541	5,828,902
Hazardous[2]	2,719	3,831	3,605
Total	**4,497,599**	**5,882.,372**	**5,832,508**

[1] Non-hazardous: mineral concentration tailings; scrap wood; metal scrap; graphite electrode scrap; refractory bricks scrap; particle recovery; casting sand; refractory alumina; crushed phosphorous iron; aluminate slag; alumine slag; crushed concrete; civil works residues; oxide; useless tyres; rubber; paper, plastic and cardboard; grass clippings; used PPEs.
[2] Hazardous: particle recovery; aluminous slag; oil and grease; automotive and industrial batteries; active sludge; electronic products; and health services residues (RSS).

TOTAL WASTE DIVERTED FROM DISPOSAL, BY RECOVERY OPERATION, IN METRIC TONS (T) GRI 306-4

Hazardous waste[1]	2020	2021	2022
	Recycling/reuse	Recycling/reuse	Recycling/reuse
Within the organization	0	0	0
Outside the organization	56	51	48
Subtotal	**56**	**51**	**48**
Non-hazardous waste[2]	**2020**	**2021**	**2022**
	Recycling/reuse	**Recycling/reuse**	**Recycling/reuse**
Within the organization	41,721	53,338	50,121.04
Outside the organization	5,336	8,061	15,054.19
Subtotal	**47,057**	**61,399**	**65,175.23**
Total	**47,313**	**61,450**	**65,223.23**

[1] Waste considered in these data - Hazardous: mineral and vegetable oils; automotive and industrial batteries; and electronic products.
[2] Non-hazardous: scrap wood; metal scrap; graphite electrode scrap; refractory bricks scrap; particle recovery; casting sand; refractory alumina; useless tyres; rubber; paper; plastic and cardboard.

TOTAL WASTE DIVERTED FROM DISPOSAL, BY COMPOSITION[1] GRI 306-4

In metric tons (t)	2022
Recycling/Total Recovery	65,240.34
Total	**65,240.34**

[1] Waste considered in these data: scrap wood; particle recovery; casting sand; refractory alumina; crushed phosphorous iron; crushed concrete; useless tyres; oil and grease; automotive and industrial batteries; electronic products; and grass clippings.

TOTAL WASTE DIRECTED TO FINAL DISPOSAL BY OPERATION (t METRIC) GRI 306-5

Non-hazardous waste[1]	2020		2021		2022	
	Landfill	Dams	Landfill	Dams	Landfill	Dams
Within the organization	92,934	4,170,790	91,528	5,543,070	114,974	5,643,090
Outside the organization	327	0	340	0	376	0
Subtotal	**93,261**	**4,170,790**	**91,868**	**5,543,070**	**115,350**	**5,643,090**
Total		**4,264,051**		**5,634,938**		**5,758,440**

Hazardous waste[2]	2020		2021		2022	
	Landfill	Incineration	Landfill	Incineration	Landfill	Incineration
Within the organization	2,649	0	3,766	0	3,550	0
Outside the organization	0	10	0	10	0	5.98
Subtotal	2,649	10	3,766	10	3,550	5.98
Total		**2,659**		**3,776**		**3,556**

[1] Waste considered in these data - Non-hazardous: mineral concentration tailings.
[2] Hazardous: oil; grease; aluminous slag; aluminous brick scrap; particle recovery; and health services residues (RSS).

MATERIALS USED IN PRODUCTION AND PACKAGING, BY WEIGHT/VOLUME GRI 301-1

Material	Use	2020	2021	2022
Non-renewable sources				
Liquid chemical reagents (Kg)	End product	28,034,388.01	36,316,738.29	49,770,246.55
Raw material/ Inputs (Kg)	End product	65,227,950.97	85,190,475.61	78,636,062.66
Ore (T)	End product	4,319,248.00	5,749,407.00	6,564,191.00
Package (UMN)	Package	1,262,491.71	1,570,911.00	1,474,410.50
Renewable sources				
Renewable Package (Unit)	Package	75,567.00	103,544.00	93,010.00
Raw material/ Inputs (Kg)	End product	10,055,585.60	13,712,874.99	17,170,108.60

PERCENTAGE OF RAW MATERIALS OR RECYCLED MATERIALS USED IN THE MANUFACTURING OF PRODUCTS AND SERVICES GRI 301-2

Material	2022
Aluminum Type 2	99%
Aluminum Type 3	96%
Vegetable coal	100%

WATER & EFFLUENT MANAGEMENT

GRI 303-1, 303-2, 3-3: WATER & EFFLUENT MANAGEMENT
SASB EM-MM-140A.2



Another relevant approach of environmental management is focused on the efficient use of water, wastewater treatment quality, and improved control of any operational risks.

Thus, we prioritize solutions that aim for the region's natural water conservation, also the reuse of water used in production. Kicked off in 2022, the 'Bolsões de Água' project directly acts to recover dams within our industrial hub. We expect this project to be extended to surrounding properties in 2023, contributing to the recovery of streams, ponds, and natural effluents, which often disappear due to human action.

Soil digging is carried out in strategic sites to hold rainwater and avoid water siltation, thus, creating groundwater recharge points, ensuring better water course discharge, lower evaporation, and water use during drought periods.

This initiative helps to lessen the environmental impact and tackle the climate emergency. With a continued review of in-house processes carried out by the Research and Development area, we managed to decrease by three times the quantity of water required to produce a ton of Niobium products.

In 2022, despite the vestiges of the water crisis that inflicted on the country, we have water availability to operate our industrial hub, without resorting to other sources.

Aiming at replacing the new water consumption with recirculated water, our recirculation target for 2022 was 96.1%, we ended the year at 96.3%. For 2023, the recirculation target will be 96.7%.

CBMM's policy sets out that no effluent is discharged from its domain without going through the ETEL (Wastewater Treatment Station), wherein physical-chemical parameters are continuously verified through online tools and measuring instruments. Any water discharged from processes takes place within waste dams, then, receiving the identification of 'Industrial Water'. We installed an online analysis equipment at the treatment unit that allows to continuously control the effluent quality. In the event of any lack of control, the valve system is activated, immediately halting treated effluent to be sent to the water body, directing it to the waste dam. Concerning toilet and restaurant water, this is directed to the ETE (Sewage Treatment Station) which after appropriate treatment, is destined to the industrial water dams.

Regular monitoring of water resources quality -surface and ground water - under industrial hub's influence, are relevant to assess any related impacts, and define appropriate remedy actions. During 2022, we did not record incidents of non-compliance connected with water quality licenses, rules and regulations.

During the same period, CBMM withdrawn 3,098 ML of water, however, only 2,269 ML were used in production. This means that 829 ML were not consumed during production. The Company has online flow meters and collects new water withdrawal data through pump hour meters, pursuant to the Brazilian national laws. The Company's new water reservoir has capacity of 3,500 ML and ended 2022 below the overflow level. GRI 303-3, 303-5

WATER WITHDRAWAL AND CONSUMPTION (ML)[1] GRI 303-3

	2020	2021	2022
Total volume of water withdrawn by source – surface water (fresh water)	1,832	3,180	3,098
Total water consumed (m^3)	1,833	2,311	2,269

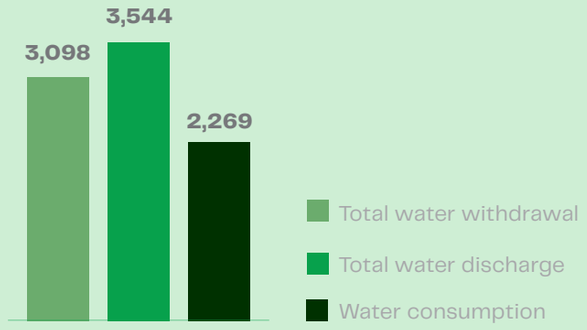
[1] Water is not withdrawn in water stress areas; the Company neither receives water from outsourced companies, nor has well collection.

TOTAL WATER DISCHARGE ACROSS ALL AREAS AND STRESS AREAS[1], BROKEN DOWN BY THE FOLLOWING SOURCES (ML), WHERE APPLICABLE[1] GRI 303-4

Total volume by disposal	2020	2021	2022
Water treated and directed to Pirapitinga river			3,544
Surface water	3,898	1,023	3,544
Water reused by organization	45,534	62,267	58,582
Total volume of water discharged	3,898	1,023	3,544

[1] No water discharge in water stress areas. The water discharge considers all the areas in mega liters: surface water; groundwater; seawater and third-party water.

WATER WITHDRAWAL, DISCHARGE AND CONSUMPTION (ML) GRI 303-5



CHANGES IN WATER STORAGE (ML) GRI 303-5

All the areas	
Total water storage at the beginning of the period covered by report	2,166
Total water storage at the end of the period covered by report	2,305
Changes in water storage (ML)	139.86



4

IN THIS CHAPTER

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Local development
Supply chain

SOCIAL **IMPACT**







SASB EM-MM-210B.1

The social responsibility is present in our actions. In 2022, we moved forward with the assumption of sharing value with society, especially the community of Araxá and the state of Minas Gerais. Our initiatives along with community are relevant for a joint development between CBMM and local society. The social benefits of economically using Araxá's Niobium mineral resources are evidenced through programs, incentives and employment across the region.

According to this assumption, CBMM has been carrying out projects in five fronts: social, health, sports, education and culture, whose total investments reached nearly R$47 million in 2022. CBMM has an Investment Committee to assess all the projects requested and also assures that social investments adhere to the objectives outlined so that actions build the highest social impact and that projects supported, where possible, become independent and sustainable in the medium and long runs.

We underscore in 2022 the relevant relationship between the first and third sectors bodies and CBMM. This enabled to promote projects related to the development of community that evolves along with the Company.

R$ 47 million

invested in social projects

LOCAL **DEVELOPMENT**

GRI 3-3 LOCAL DEVELOPMENT, 203-2, 413-1, 413-2
SASB EM-MM-210B.1

We operate in various fronts to reinforce relations with Araxá community

In our 67 years of history, we always understood that local development and our business success move forward together. Thus, we work in various fronts that strengthen our relationship with municipality and Araxá community, with close relations and mutual advancement.

We maintain a relationship area with community, we promote a social dialogue, meetings, events, interactions at the Company's official channels, with demands managed by this area, in cases of greater complexity, with officers and manager participation.

Today, we did not identify actual and adverse effects on communities, however, among the potential effects, we analyzed that topics, such as air, water and noise quality require monitoring and controls with specific programs underway. CBMM's operations are far away from the city, and rely on responsive actions to mitigate environmental risks. To foster benefits and return to Araxá, CBMM prioritizes investments in full-time education for children, adolescents, and young students and contribute to lessen local community's social vulnerability.

Along with the Ministry of Tourism, we promoted the 10th edition of Araxá Literary Fair (Fliaraxá), that occupied the city downtown streets and the district of Parque do Cristo between May and September. The mobile library retrofit was amongst the program highlights.

For the past 22 years, the 'Embarque nas Letras' (Traveling Literature) project has been assisting the municipality, offering books, information, leisure and culture for population.

We signed a contract to donate R$988.497,40 destined to the security project of Araxá's Santa Casa facilities, which in 2022, celebrated 137 years of history and activity in the municipality. This new funding will be fully invested in security and renovation works, which will allow to safely maintain the hospital's activities, as well as enhance the user's service quality.



MEASURING OUR **SOCIAL IMPACT**

We continuously monitor and assess the social and environmental aspects connected with our institution, publicly disclosing our results. We pursue to mitigate any adverse effects of our activities, we aim at advancing and leveraging those positive aspects registered during social and environmental studies and licensing. Local development programs are built on current needs. Thus, action plans are analyzed by the Company's stakeholders and representatives. GRI 2-29

EDUCATIONAL **PROJECTS**

We interact with students and teachers of the community' educational institutions

CERRADO'S SCIENTISTS

The 'Cientistas do Cerrado' (Cerrado's Scientists) project is a partnership with the Municipal Education Department of Araxá and targets elementary school's fourth-grade students. In 2022, we assisted 100% of state, municipal and private schools, also reaching the rural area. With such a great comprehensiveness and local population's acceptance, the project became our Environmental Education Program's flagship. We initiated such approach in 2016, and since then, we have been seeking to stimulate the observation, experimentation, and registry of experiences from surveys proposed by teachers and students concerned with biodiversity, fauna and flora conservation of our region. In November 2022, we concluded this project's activities in 2022 by promoting the theater presentation, 'Perigo, Amigo! Prevenção é a Solução' (Look out Friend! Prevention is the Solution) for nearly 1,400 students participating in the Cerrado's Scientists project.

We understand that local and industrial development move forward together



AN EYE ON THE FUTURE

One of the striking memories for the Araxá population is the book 'As Aventuras do Lobo Kiko' (The Adventures Wolf Kiko), written by our environmental education team, and very present in municipality's schools during the 1990s and 2000s. In the referred book, the mascot Kiko led an expedition through Cerrado, teaching in a playful way how to take care of our nearby resources.

To celebrate the Environmental Education Program's 30th anniversary, Wolf Kiko's stories inspired the creation of a new class: 'A Kika no Cerrado', the she-wolf Kika, Kiko's granddaughter, the tapir Eva, and the ant-eater Manduca, who from now, will be present in the program activities, engaging children to raise the awareness about environment preservation. Thus, the 'De Olho no Futuro' (An eye on the future) innovated by combining environmental aspects and children's leading perspective, who will contribute to building a better world.



This Project consolidates our Environmental Education Program with sustainable development and social responsibility as principles, connected with the Company's activities and applications of our products. Amongst the Program's objectives, we can mention the development of an environment and sustainability culture, along with internal stakeholders.

SPORTS **PROJECTS**



MÁRCIO VIEIRA BORGES MULTI-SPORT GYMNASIUM RETROFIT

Sports are directly related to local development and well-being. Therefore, along with the local government of Araxá, we renovated the Márcio Vieira Borges multi-sport gymnasium façade. Now, the space has a work of art painted at the outer part of the building, paying tribute to recent history's local characters. The façade retrofit was executed in partnership with Araxá local government, and designed by a local visual artist.

BOCA DA MATA SOCCER SCHOOL RENOVATION

Prioritizing children and adolescents' development initiatives through safe sports, CBMM made available to the local government of Araxá, via loan for use, an area owned by the Company, converting it into a soccer field called Boca da Mata. This space is part of an area pertaining to the José Bento municipal school, sponsored by CBMM, and the local government is liable for its conservation, maintenance, and operation.





INTERNATIONAL CUP OF MOUNTAIN BIKE

In 2022, CBMM became the official sponsor of the International Cup of Mountain Bike, present in different initiatives of the city of Araxá, aiming at providing this sport lovers with an experience of reducing carbon emission: a free-of-charge bike rack was made available at the arena's entrance so that Araxá's citizens could ride and have a place to store their bikes. Besides promoting this sport, the event offered cultural, educational, and environmental initiatives, showing Araxá to the international scenario, and also boosting local development.

CULTURAL PROJECTS

PONTO TRAVELLING MUSEUM

Society's transformation also occurs through science and technology. Thus, we supported the visit of the traveling museum Ponto of the Federal University of Minas Gerais (UFMG) in Araxá. The museum is an interactive scientific-cultural space, adapted to a mobile unit that mainly receives elementary school students of Minas Gerais, also, Brazil. Ambiances rely on settings and technological resources guiding the visitor to an immersion, experience, and discussions about topics related to men, and their relation with the environment.



OURO PRETO ORCHESTRA AND ARAXÁ CONGADO

In September, the Ouro Preto orchestra, along with the Guarda de Congado Moçambique Mocidade Verde and Branco de Araxá got together in a presentation called 'Missa Conga' (Conga Service) sponsored by CBMM and supported by Araxá local government, and Calmon Barreto Foundation, held through the federal law of culture incentive. The result was a literary-musical concert that provided a cultural fusion between two different sounds, also relevant cultural manifestations in the state of Minas Gerais. The presentation was exhibited at the yard of the Calmon Barreto Foundation, in Araxá, with free tickets.



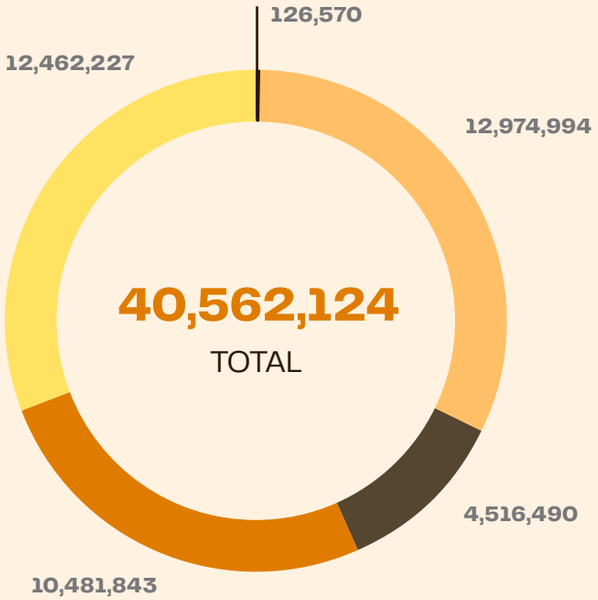
CINESOLARZINHO

Considering that clean and renewable energy is a relevant topic, we support the Cinesolzinho project that exhibited movies, also promoted artistic workshops on solar energy, with a lineup developed in the city during April.

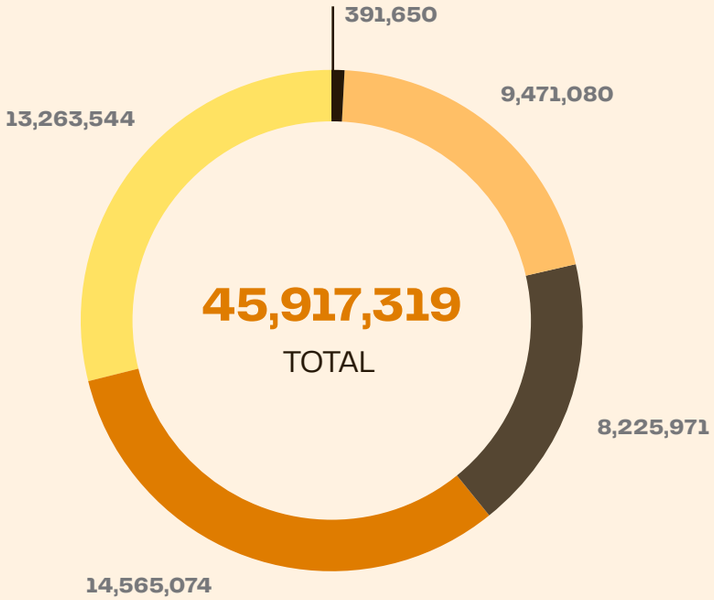


INVESTMENTS IN INFRASTRUCTURE AND SERVICES (R$) GRI 203-1

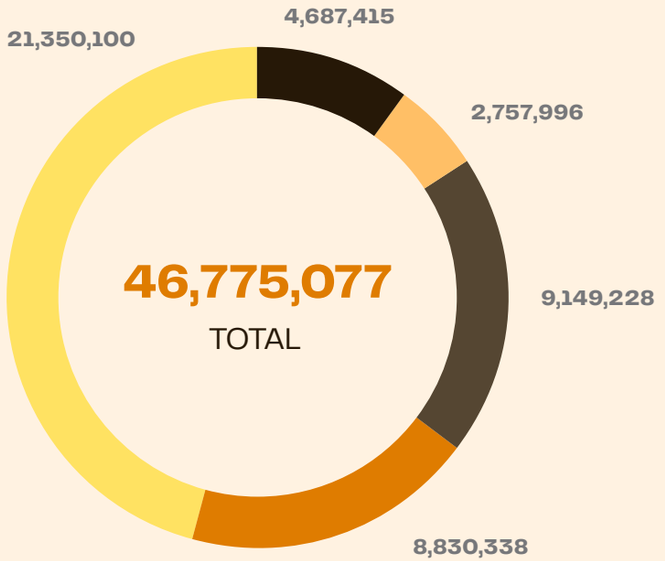
2020



2021



2022



Current or expected impacts on communities and local economies

- **EDUCATION** — Promote quality education for Araxá's citizen qualification
- **HEALTH** — Stimulate businesses to continue doing the best for communities' health.
- **SPORTS** — Foster sports practices at community
- **CULTURE** — Inspire the public's interest and understanding of culture in general
- **SOCIAL** — Improved living standard of communities assisted

SUPPLY CHAIN

GRI 3-3 LOCAL DEVELOPMENT, 204-1

We are committed to the economic development of the region in which we operate, therefore, we always pursue to support our suppliers to enhance their processes, especially with health and safety training. Overall, 92% of products and services used in our manufacturing process are acquired in Brazil, and others, 8% in the United States, China and Europe.

In 2022, our supply chain relied on 1.962 businesses, among manufacturers, distributors, resellers and direct contractors. We prioritize that our supply chain values services provided in Araxá and Minas Gerais, to foment local development.

The procurement process requires the raw materials and inputs traceability, besides qualification certificates. To assure the quality of this practice, key contractors undergo audits to guarantee the compliance with legal requirements. Since 2019, we have adopted the SAP/R3 system to monitor our procurement performance which has been bringing benefits, such as reach the budget amount in the acquisition of raw materials, preferably buy from contract suppliers and negotiate via SAP Ariba system.

Our industrial hub has a truck scale to measure the weight of goods received, checking the weighting difference between delivery vehicles inflow and outflow. The area undergoes regular internal and external audits to assess inventory management, controlled by CBMM's supply and logistics management, liable for managing materials and registering code for each input used by the Company, from internal use to receipt and storage.

As far as compliance is concerned, in 2022, we initiated compliance and anticorruption training along with third parties performing activities classified as compliance high risk, according to CBMM's Contractors Policy. In 2022, 100% of third parties mapped in the first phase were trained, and training will move forward in 2023, aiming at covering 100% of high-risk third parties.

INVESTMENT IN **LOCAL CHAIN**

Out of R$2.7 billion procurement budget in 2022, 46% (R$1.2 billion) were spent with Minas Gerais suppliers and 13% (R$361 million) were allocated to suppliers and partners in the municipality of Araxá.

PROPORTION OF SPENDING ON LOCAL SUPPLIERS GRI 204-1

ARAXÁ
2022

Suppliers budget
nearly R$2.8 billion

Spending on local suppliers
nearly R$361 million

Percentage of budget spent on local suppliers
13%

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IN THIS CHAPTER

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Health, well-being and safety
Attraction, development and retention

PEOPLE **MANAGEMENT**



GRI 2-7, 2-8, 2-29

Our Organizational Culture seeks to remain solid, dynamic and young, to make it worth over six decades of our Company's history. We stimulate to the fullest our employees' proactivity and leading role, aiming the human development of our workforce.

With this performance guiding principle, since 2019 we have been committed to behavior expected from each employee across our policies, practices and philosophy. We understand that CBMM's objective is to foment the technical skills, but also human skills.

Our bi-annual organizational climate was developed in 2021 which evidenced our culture connected with our employees. During the survey, with 79% of spontaneous answers, our engagement index stood at 85%, in line with the last survey's percentage.

We stimulate to the fullest our employees' proactivity and leading role

Data revealed our agility in decision-making processes as a point of development. Due to its growing relevance, this is an issue that has been monitored by our leaders and is already included in our Commitment as one of our Culture's supporting pillars. One behavior expected is that our leaders feel encouraged to work in an increasingly more complex, rapid, and interdependent workplace. That is to say, they should be ready to decide and act within a global scenario of accelerated and continued changes. Our leaders are committed to seek solutions that expedite processes, without neglecting decision-making process consistency and strength.

We have been continuously endeavoring to enhance diversity and inclusion at our workplace.

In 2022, the Diversity Committee succeeded to promote bi-weekly meetings, also plan initiatives, such as:

LACTATION ROOM

The room relies on all the devices necessary, so that working mothers can nurse their children in a comfortable and supportive setting.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES AT THE INDUSTRIAL PLANT

The Company's property in Araxá was mapped, so that decisions could be made about redesigning spaces to become more accessible for everyone.

DIVERSITY WEEK 2022

The event gathered all the Company, including officers, and the CEO to discuss this topic through lectures, activities and in-house communication.

GENDER AND RACE LECTURES

Opened for all employees, these lectures discussed this bias at the workplace, raising the relevance of discussing about diversity.

SECTORS TOILETS WERE MAPPED

The Committee mapped entire plant, so that all the sectors can have male and female toilets, preparing that spaces for new female employees.

STRAIGHT TALK

It is our principle to exchange information and honest feedbacks , concerned with a mutual respect, each one's perspective, seeing each other equally, but always attentive to their particularities. Through our Direct Connection channel, any employee may contact us to request supplies and repairs, also report situations within his/her sector. We assure horizontal and constructive communication among everyone, therefore, our channels do not provide anonymity. GRI 2-29

EXCELLENCE IN ***PERFORMANCE***

We strive to understand the advancement of our results processes, defining the best quality as goal for our internal and external customers, innovating, exercising creativity during working hours.



ENCOURAGING LEADERSHIP

We encourage our leaders to seek leading-edge solutions to serve all our customers and in-house stakeholders. We are in the forefront of market trends, innovating with smart solutions, training our leaders to understand that our mission is always to develop new talents. 100% of employees are covered by collective bargaining agreements. GRI 2-30



100%

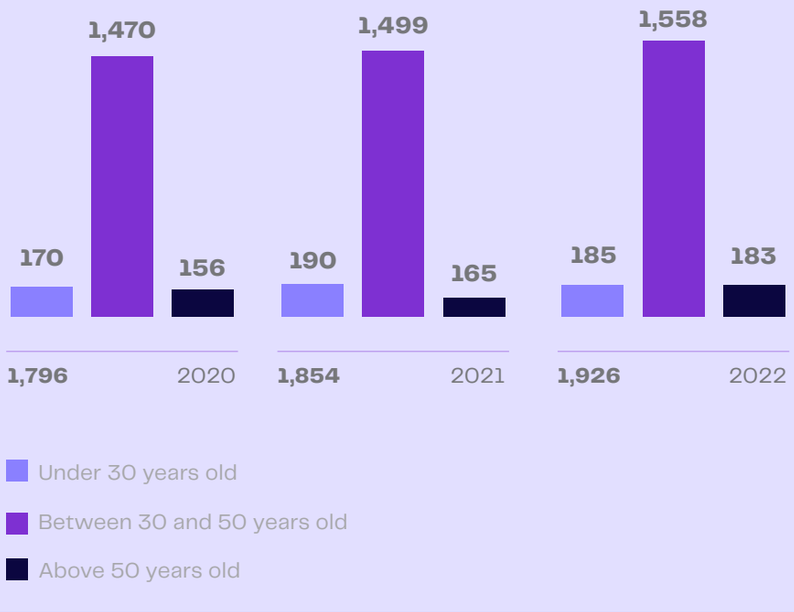
of our employees are covered by collective bargaining agreement

EMPLOYEES BY TYPE OF EMPLOYMENT AGREEMENT AND GENDER GRI 2-7

Type of agreement	2020[1]			2021[2]			2022		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Permanent	1,598	180	1,778	1,587	199	1,786	1,638	223	1,861
Temporary	11	7	18	59	9	68	54	11	65
Total	**1,609**	**187**	**1,796**	**1,646**	**208**	**1,854**	**1,692**	**234**	**1,926**

[1] Only employees located in São Paulo and Araxá were considered.
[2] In 2021, this quantity considered three permanent employees of China office.

EMPLOYEES BY AGE GROUP GRI 401-1



EMPLOYEES BY TYPE OF EMPLOYMENT AGREEMENT AND REGION GRI 2-7

Region	2020			2021			2022		
	Determined duration	Undetermined duration	Total	Determined duration	Undetermined duration	Total	Determined duration	Undetermined duration	Total
Araxá	18	1,701	1,719	68	1,712	1,780	63	1,772	1,835
São Paulo	-	77	77	-	74	74	2	89	91
Total	**-**	**1,778**	**1,796**	**68**	**-**	**1,854**	**65**	**1,861**	**1,926**

EMPLOYEES BY TYPE OF EMPLOYMENT GRI 2-7

Type of employment	2020			2021			2022		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Full-time employment	1,608	181	1,789	1,645	202	1,847	1,691	228	1,919
Part-time employment	6	1	7	1	6	7	1	6	7
Total	**1,614**	**182**	**1,796**	**1,646**	**208**	**1,854**	**1,692**	**234**	**1,926**

EMPLOYEE BY EMPLOYEE CATEGORY GRI 2-7

	2020	2021	2022
Board of Executive Officers	5	5	5
Managers	70	70	78
Head/coordinator	86	65	18
Technician/supervisor	403	387	427
Specialists	0	103	75
Administrative	265	220	289
Operational	967	1,004	1,034
Total	**1,796**	**1,854**	**1,926**

WORKERS BY EMPLOYEE CATEGORY AND GENDER GRI 2-8

	2020			2021			2022		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Apprentices	31	17	48	38	27	65	0	0	0
Interns	3	9	12	2	2	4	17	12	29
Trainees	0	0	0	2	2	4	1	3	4
Total	**34**	**26**	**60**	**42**	**31**	**73**	**18**	**15**	**33**



HEALTH, **WELL-BEING** AND SAFETY

GRI 3-3 EMPLOYEE HEALTH, WELL-BEING AND SAFETY, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-10

Our employees' and contractors occupational health and safety is a priority, also an integral part of our businesses. Our occupational health and safety management system is certified by the ISO 45001 standard and significantly contributes to reduce work-related injuries and illness.

With our Safety Value program, the Company monitors our maturity evolvement in terms of occupational safety. We assess risks, we identify opportunities, we execute mitigation initiatives according to controls hierarchy. Our procedures set out the criteria to identify and assess the relevance of risks relating to the environment, occupational health and safety, activities, products, and services of visitors or contractors under the Company's responsibility.

In 2022, the launch of the Niobium Rules which are included in our Safety Value Program was a relevant step taken to advance our occupational health and safety maturity. These rules reinforce our occupational safety culture, setting out controls and actions to involve people, processes and facilities.

CHECK THE NIOBIUM RULES



1. LIQUID METAL

To have access or work in the furnace area, which contains liquid metal, authorization is mandatory.

Control objective: production and handling of liquid metal free from eventual explosion, fire, and non-controlled leakage, ensuring personnel and facilities integrity.

2. LIFTING LOADS

Never cross or remain under a suspended load.

Control objective: lifting and handling without hitting people, without load drop, mobile equipment overturning, or structures crash.

3. HAZARDOUS CHEMICAL SUBSTANCES

To transport, store, and handle chemical products authorized by CBMM, employee shall be duly trained and compliant with all measures set out in FISPQ.

Control objective: storage, transportation, and handling of chemical products without damaging physical integrity or health, and uncontrolled reactions.

4. HOT WORK AND PRESSURIZED GASES

When executing hot work or with pressurized gases, it is indispensable that employee is duly trained, authorized, and using safe equipment.

Control objective: the execution of hot work activities without the occurrence of fire, explosion, damages to the physical integrity or health.

5. POWER LOCK

Only intervene in machinery or equipment with all sources of power locked, tested and with zero energy guarantee.

Control objective: execution of operational maneuvers and maintenance interventions in areas, facilities, equipment and systems without damaging the physical integrity, due to power manifestations.

6. WORKING WITH ELECTRICITY

Only intervene in machinery or equipment with all sources of power locked, tested and with zero energy guarantee.

Control objective: execution of maneuvers and interventions in equipment and electric systems without arc exposure or electric shock.

7. VEHICLES AND MOBILE EQUIPMENT

Only operate vehicles or mobile equipment if duly qualified, trained and authorized.

Control objective: safe circulation of vehicles, mobile equipment and pedestrians without crash, tumbling or hit-and-run.

8. MACHINERY AND EQUIPMENT PROTECTION

Maintain all machinery and equipment protection devices, and only operate with appropriate protection.

Control objective: execution of service next to machinery and equipment without contact with mobile parts, projection or falling of materials.

9. CONFINED SPACE

When accessing a confined space, it is necessary to be duly trained, authorized, with all control measures implemented.

Control objective: execution of services in a confined space, controlling risks of exposure to gases, explosion, lack oxygen or exit, if necessary.

10. WORK AT HEIGHT

Only work at height equal to or higher than 2 meters, being duly trained, authorized, and using the safety belt affixed at approved docking point.

Control objective: execution of services at height equal to or higher than 2 meters without damaging physical integrity, due to fall.

ACTIVITIES, REGISTRIES, AND RELATED BENEFITS

We have incorporated the monitoring and assessment of health and safety indicators into our Management Integrated Policy through the software StratwsOne, that maps the accident frequency and severity rates. This is combined with identification, collection, assessment and mitigation of risks, including occupational monitoring of hygiene (APRHO), hazards and risks (GRISC), also risk conditions (ROS).

The registration of accidents is reported in the Accident Communication Report, and treated, where applicable, by Remedy Action Request that records analyses of accidents, and initiatives set out in the action plan within the Data and Registry Control (CDR) software. The registration of work-related injuries, procedure and classification is envisaged in NBR 14280 and ISO 45001 standard.

The Specialized Service in Safety Engineering and Occupational Medicine (SESMT), the Accident Prevention Internal Committee (CIPA), the Emergency Action and Response Brigade (BARE), and the Occupational Health and Safety facilitators are the formal groups working to disseminate initiatives related to occupational health and well-being at the workplace, besides acting in accident emergencies.

Our occupational health and safety team restlessly works to enhance everyone's working conditions. In 2022, we underscored the psychological safety, also working with mental and emotional health-related issues. Ergonomics is another relevant topic at the workplace, which also permeated team's guidelines and requirements.

The Risk Management Program (PGR) sets out actions to control, reduce, or eliminate risks, aiming at preserving the physical and mental integrity of our employees and contractors. On the other hand, the Occupational Health Medical Control Program (PCMSO), sets out flows for the pre-employment, periodic, return to work, and dismissal medical examinations. Lines of care are outlined with health promotion-related initiatives, and in cases of actual adverse effects, employees are referred to specialists reference in treatment and recovery, and in this case, work-related situations are prioritized. The PCMSO is yearly reviewed, whenever necessary. All documents and information about employee's health are maintained under confidentiality, pursuant to the General Data Protection Law (LGPD – Law No. 13.709/2018).



To prevent work-related illness and injuries, our plan includes programs concerned with respiratory protection, hearing conservation, prevention of accidents with sharp materials; besides the health services waste management program. Controls are continuously re-assessed in partnership with the Occupational Safety and Hygiene Department.

Our Occupational Health and Safety team restless works to improve working conditions

To foment a healthier life, we rely on benefits, such as a subsidy to amounts spent on physical activities, healthcare plans, reimbursements for healthcare expenses, dental plan, and pharmacy agreements, amongst other incentives. In 2022, we highlight wide vaccine coverage against influenza, also stimulating Covid-19 vaccination, as we were still coping with the pandemic. More than 73% of employees were vaccinated against influenza, with a 100% financial subsidy.

Aiming for our employees' social and emotional well-being, we rely on the support of formal committees which seamlessly operate to disseminate health, accident prevention-related actions and respond to emergency situations. These committees are set up by the Specialized Services in Safety Engineering and Occupational Medicine (SESMT); Accident Prevention Internal Committee (CIPA); Emergency Response and Action Brigade (BARE) and Occupational Health and Safety facilitators.

In 2022, we did not record any severe case of leave due to work-related health issues. We did not record work-related illness in 2022. In a workplace that ensures collective health and well-being, training and inspiration advance in the same pace.

Concerning accidents, CBMM adopts the tool ROS that aims at wiping out the work-related injuries risks. In 2022, 6.502 reports were recorded, 5.894 were concluded, and rate of resolution was 91%. Other ROS have actions estimated and planned already underway for appropriate resolution. No fatalities in the reporting period.

WORK-RELATED INJURIES GRI 403-9

	2020		2021		2022	
	Employees	Workers[1]	Employees	Workers[1]	Employees	Workers[1]
No. of hours worked[2]	4,481,509	5,931,918	4,499,710	3,796,043	4,775,581	3,014,155
No. of serious work-related injuries (excluding fatalities)	2	5	4	4	3	3
Rate of serious work-related injuries (excluding fatalities)	0.45	0.84	0.89	1.05	0.63	1
No. of work-related injuries recorded (including fatalities)	0	0	0	0	0	0
Rate of work-related injuries recorded (including fatalities)	0	0	0	0	0	0

[1] Workers who are not employees, but whose work and/or workplace is controlled by the organization.
[2] No. of hours worked is calculated considering 1.000.000, as defined by NBR 14280.

Occupational medicine teams and social welfare are present in the industrial environment

EMPLOYEE **ATTRACTION,** DEVELOPMENT AND **RETENTION**

GRI 3-3 EMPLOYEE ATTRACTION, DEVELOPMENT AND RETENTION, 401-2, 404-2

We prioritized our professionals' development, we understand that their skills and expertise bring substantial benefits to the Company. We ended 2022 with a total of 1,926 employees, 1,692 are men, and 234 are women. Again, we recorded a low turnover rate on our teams.

Among the benefits offered to full-time employees, we have disability assistance, parental leave, stock option plan, healthcare plan, life insurance, pension fund/benefits plan, dental plan, medicine acquisition plan, and education assistance. **GRI 401-2**

We stimulate each person to take the lead in his/her development, irrespective of the path phase he/she is in career, in a seamless and organized manner.

R$ 3 million

invested in employees training and development



We recorded a low turnover rate on our teams

In 2022, R$3 million were invested in employee training and development paths in topics, such as leadership competencies, and mandatory courses related to regulatory standards. It includes the operational technical matrix programs; apprentice; trainee and young engineers; career discussions; leadership path; leaders' individual assessment; and, in 2022, we implemented the 'VOAR' (Flying) Program. There is no end-of-career planning, preparation for retirement or post-employment contract termination monitoring. Check the 2022 highlights:

We stimulate each employee to take the lead of his/her development



'VOAR' (FLYING) PROGRAM

The 'VOAR' (Flying) Program targets senior analysts, and specialists, an initiative launched in 2022 to value and rapidly develop our in-house talents. Therefore, we made available a selection process wherein employees could enroll and undergo an array of phases, such as tests, group dynamics, and interviews. During this first cycle, ten people were selected to set up a team with the challenge of designing projects fine-tuned with our culture and strategy. The groups, composed of multidisciplinary professionals, worked with out-of-the-box topics, expanding their networking, also business understanding, and proposing leading-edge solutions that actively contribute to our Growth Plan.

ONLY ONE CBMM

This was one of the highlight topics of the second edition of the Company's leaders' meeting. In this edition, five topics guided the meeting: psychological safety, communication, only one CBMM, culture evolvement, and sense of ownership. The objective was to arouse the relationship with regional offices, our concept of having a single organizational culture, guided by team development, innovation, an eye on customer, and fulfillment of goals to achieve the Company's objectives.



TURNOVER

EMPLOYEES HIRED IN 2022[1, 2] GRI 401-1

By age group	No.	Rate
Under 30 years old	49	14.59
Between 30 and 50 years old	110	5.87
Above 50 years old	0	3.28
By gender	**No.**	**Rate**
Men	124	7.51
Women	35	7.51
Total headcount[2]	**159**	**8.75**

[1] All employees hired are located in the Southeast region.
[2] Calculation methodology: [(hires + dismissals)/2]/ *total* headcount.

EMPLOYEES WHO LEFT THE COMPANY IN 2022[1] GRI 401-1

By age group	No.	Rate
Under 30 years old	5	0.03
Between 30 and 50 years old	73	0.05
Above 50 years old	12	0.07
By gender	**No.**	**Rate**
Men	130	0.08
Women	48	0.21
Total	**178**	**0.90**

1 All employees dismissed are located in the Southeast region.

AVERAGE HOURS OF EMPLOYEE TRAINING BY GENDER AND EMPLOYEE CATEGORY GRI 404-1

By gender	2021	2022
Men	14.66	21.78
Women	19.31	19.34
Total	**15.20**	**21.48**
By employee category	**2021**	**2022**
Board of Executive Officers	31.20	1.00
Managers	35.02	21.11
Head/coordinator	30.32	17.61
Technician/supervisor	21.86	26.72
Specialists	16.99	-
Administrative	13.67	15.88
Operational	10.45	20.99
Total	**15.20**	**21.48**

Other workers – average training	2022
Apprentices	-
Interns	34.84
Trainees	16.50
Total	**32.62**

PARENTAL LEAVE GRI 401-3

		2022
Employees entitled to leave	Men	1,692
	Women	234
Employees under leave	Men	49
	Women	19
Employees who returned to work, during reporting period, after the end of leave	Men	49
	Women	16
Employees who returned to work after leave and remained employed 12 months after returning to work	Men	10
	Women	2
Rate of return	Men	1.0
	Women	0.84
Rate of retention	Men	0.18
	Women	0.14

PERCENTAGE OF EMPLOYEES COVERED BY PERFORMANCE AND CAREER REVIEW IN 2022 GRI 404-3

By employee category	Men	Women	Total
Board of Executive Officers	100.00%	0.00%	100.00%
Managers	92.00%	100.00%	93.33%
Head/coordinator	87.88%	100.00%	91.30%
Technician/supervisor	29.69%	30.61%	29.79%
Administrative	78.98%	85.23%	82.03%
Total	**20.74%**	**72.65%**	**27.05%**





IN THIS CHAPTER

Corporate governance
Risks & opportunities

ETHICS, INTEGRITY & COMPLIANCE

6



The Company upgraded the corporate policies

GRI 3-3 ETHICS, INTEGRITY & COMPLIANCE, 2-15, 2-27

A relevant highlight in 2022 concerning governance advancement was the setup of management advisory committees, besides the review of various corporate policies. The compliance department reviewed conflict of interests, donation, sponsorship, and anti-corruption policies.

The event previously referred to as the Compliance Day, in 2022, started to be called the Integrity Day that took place at the Araxá headquarters, broadcasted to São Paulo and regional offices. The event was a day of lectures concerned with ethics and integrity and relied on the attendance of all the Company's employees. Integrity and respect are part of our way of acting and operating, and go beyond fulfilling legal obligations.

Since 2015, our compliance program has been continuously improved to advance policies and systems. In 2022, the Meritum system was fully implemented, that offered greater automation and promptness in reports and responses to analyses on gifts, presents and hospitalities, conflict of interests, donations and sponsorships. Connected with a continued improvement and advancement of our compliance policies, the review of the Conflict of Interests Policy made even more clearer for employees, CBMM's care for this topic, providing a wide list of positions which are more exposed to conflict of interests, in this case, employees shall formally complete the annual report on conflict analysis. Another innovation was the review of CBMM's anti-corruption policy that brought relevant aspects of the anti-corruption management system.

We reviewed the Conflict of Interests Policy

All the policies shall apply to employees of CBMM Brasil and its subsidiaries, concerning activities performed within and outside the Brazilian territory, as well as third parties and stakeholders. Employees, in their turn, shall neither hold interest, invest, manage, advise nor influence, directly or indirectly, legal entities of relatives, or close persons who have or may maintain a business relationship with the Company. Any case of conflict of interest shall be reported to be analyzed by the Compliance Department. **GRI 2-15**

To consolidate the Conflict of Interests Policy, we offered conflict of interests training for all employees, and in 2022, 1,763 employees participated in referred training.

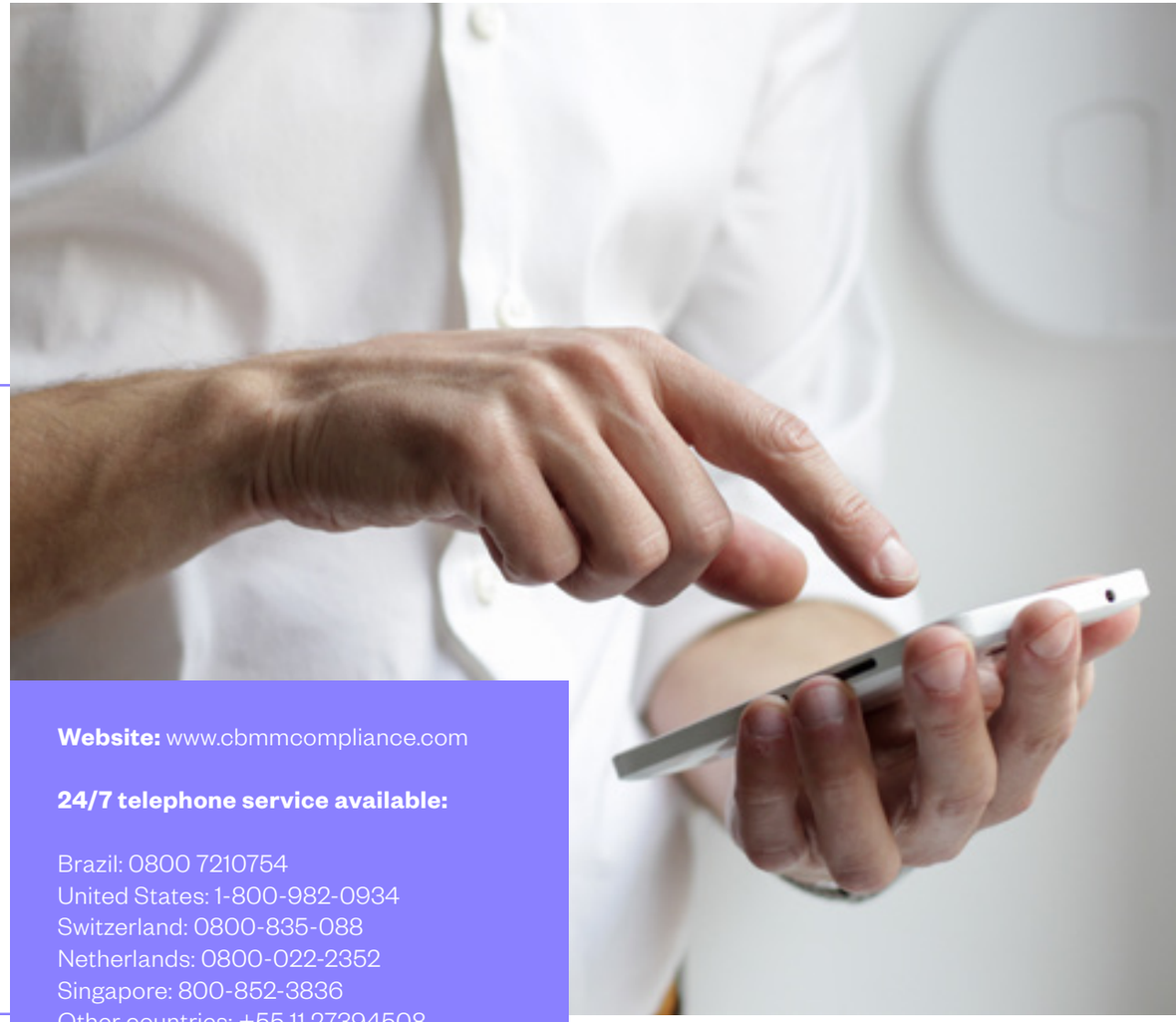
During the same period, 724 employees took part in CBMM's anti-corruption policies and procedures recycling training program. This program is offered yearly, from employees' hiring date. In addition, 132 new employees, as part of their onboarding process, received compliance training, discussing all the compliance policies in effect. GRI 205-2

To enhance widespread dissemination and engagement concerning the integrity program, CBMM kicked off a new cycle of the Compliance Partners' Program. In this edition, we recorded a 38% increase in employee adhesion. Regular training was offered by the Compliance Department, discussing topics, such as our Code of Ethics and Conduct, Compliance or Whistleblowing Channel, Conformity and Integrity for employees, moral and sexual harassment policies, amongst others. GRI 2-29

In 2022, CBMM received 133 reports. The nature of issues reported is diverse, we have an in-house analysis composed of an instruction and conclusive phases. The Compliance Department surveys evidences to efficiently analyze the case, impartially, exempted and independently, always observing the concrete case, also adopting measures to protect those involved in the collaboration to verify reports against any type of retaliation. GRI 2-16

CONFIDENTIAL **LINE**

Fully safe and confidential, our Channel of Ethics and Whistleblowing can be used by internal and external stakeholders to report misconduct or infringements to the Code of Ethics and Conduct and in-company rules. We shortened the period to address the issues submitted.



Website: www.cbmmcompliance.com

24/7 telephone service available:

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
(it accepts collect calls)

CORPORATE **GOVERNANCE**

GRI 2-9, 2-10, 2-11, 2-12, 2-14

Built on the best practices, our corporate governance relies on a management composed of a Board of Directors (BD), and a Board of Executive Officers. Our management has six advisory committees (Audit and Risks, Strategy, Finance, Legal, People & Technology), and specific committees that support the execution of our business strategy.

Among the Committees, we highlight the Ethics and Conduct Committee which aims at analyzing, guiding, discussing, and giving advice on the application of the Code of Ethics and other policies. This Committee has a regulation that outlines the topics that should be discussed with the Audit and Risks Committee, the body that supports the Board of Directors, our highest governance body.

CBMM also has a Sustainability Committee, which is the management's advisory body for ESG-related issues and aims at discussing, improving knowledge, mitigating risks, and pursuing opportunities that foment sustainable development, supporting the Company's initiatives direction toward this topic.

The Board of Directors is composed of a chairman, a vice chairman and other members elected, considering their different business views and experiences. Its major responsibility is to define the business strategy, taking into account aspects, such as the Company's global performance, analyses of risks scenarios, and opportunities related to environmental, social and governance aspects. In addition, it shall be incumbent upon the Board of Directors to approve capital budgets, outline the management's compensation policy and benefits, promote the officers' election and removal, besides oversee the compliance with guidelines given to the management. The Board of Directors is elected at the Shareholders' Meeting. Members of management's advisory committees and board of executive officers are elected by the Board of Directors. The Board of Directors' chairman does not have a seat in the board of executive officers.
The Board members hold ordinary meetings three times/year, or whenever necessary. On December 31, 2022, the board of directors was composed of:

Chairman
Pedro Moreira Salles

Vice chairman
Fabio Colletti Barbosa

Board members
Chen Qun
Demosthenes Madureira de Pinho Neto
Eduardo Augusto Ayroza Galvão Ribeiro
João Fernando Gomes de Oliveira
Joon Youp Jung
Mauro Agonilha
Siegfried Kreutzfeld
Sun Yufeng
Tomoyuki Kawashima

The Board of Executive Officers has one-year term of office, with eventual re-election, and is composed of the chief executive officer and other four officers. Besides the responsibility of managing, the board of executive officers shall develop the business plan budget, and submit each year's financial statements to the Board of Directors. In addition, it shall keep the Board informed of operational activities, amongst other responsibilities set forth in the Company's bylaws. The Board of Executive Officers has a charter approved thereby, which aims at ruling the operation and duties of the Company's Statutory Board of Executive Officers, as well as its relationship with other bodies of the Company. At the end of 2022, the board of executive officers was composed of:

Chief Executive Officer
Ricardo Fonseca de Mendonça Lima

Executive Officers
Alex Silva e Amorim
Marcelo Scuccuglia
Rafael Agnelli Mesquita
Rogerio Contato Guimaraes

We rely on Committees whose main duty is to advise the Management. These committees are composed of members of the board of directors and board of executive officers, also of other executives of the Company and third parties with technical qualification in conformity with the Committee's area of activity. On December 31, 2022, the Committees had the following composition:

Strategy Committee
Pedro Moreira Salles
Fabio Colletti Barbosa
Demosthenes Madureira de Pinho Neto
João Fernando Gomes de Oliveira
Mauro Agonilha
Siegfried Kreutzfeld
Eduardo Augusto Ayroza Galvão Ribeiro
Ricardo Fonseca de Mendonça Lima
Alex Silva e Amorim
Rafael Agnelli Mesquita
Rogerio Contato Guimaraes
Marcelo Scuccuglia

People Committee
Pedro Moreira Salles
Fabio Colletti Barbosa
Demosthenes Madureira de Pinho Neto
Eduardo Augusto Ayroza Galvão Ribeiro
Ricardo Fonseca de Mendonça Lima

Finance Committee
Fabio Colletti Barbosa
Demosthenes Madureira de Pinho Neto
Mauro Agonilha
Alex Silva e Amorim

Audit and Risks Committee
Fabio Colletti Barbosa
Mauro Agonilha
Ricardo Baldin

Technology Committee
João Fernando Gomes de Oliveira
Rafael Agnelli Mesquita
Ricardo Fonseca de Mendonça Lima
Siegfried Kreutzfeld
Eduardo Augusto Ayroza Galvão Ribeiro

Legal Committee
Marcia Maria Freitas de Aguiar
Mauro Agonilha
Eduardo Augusto Ayroza Galvão Ribeiro
Renata Willens Longo Ferrari

The Board of Executive Officers has 15 advisory committees, dedicated to specific issues under the executive board's responsibility. Namely:

- Executive
- People
- Radioprotection
- Sanctions and embargoes
- Sustainability
- Social investment management
- Waste disposal structures
- Investment projects analysis and prioritization
- Ethics and conduct
- New businesses and technology investments
- Diversity
- Prices
- Crises
- Supplies
- Waste Review Independent Committee

Grounded on the best market practices, our corporate governance is composed of the Shareholders' Meeting, the Board of Directors and the Board of Executive Officers



Our Company has been continuously advancing the social, environmental, economic and governance aspects

SOCIAL AND ENVIRONMENTAL **DEVELOPMENT AS AN ASSUMPTION** GRI 2-12

CBMM is strategically guided by the Niobium market sustainable growth through applications, technology and value creation, these concepts are frequently discussed by the Strategy Committee. Therefore, we need to value businesses sustainably, taking into account the economic, social, ethical, and governance aspects. This vision is fomented and shared by the Board of Directors and disseminated to employees. Grounded on this principle, the Board of Executive Officers set up the Sustainability, Social Investment Management, Waste Disposal Structures, and Conduct Ethics Committees. These tools reiterate the recommendations, so that the Company considers all the scopes of sustainable development in its actions, whether of economic, environmental, health or safety values. Thus, the care for the environment is a responsibility both of the Board of Directors, and the Board of Executive Officers, also the Company's committees.

RISKS AND **OPPORTUNITIES**

GRI 2-23, 2-24, 2-25, 201-2

Ethics, integrity and observance to the laws and regulations when conducting our businesses are the values guiding our relations with all stakeholders in Brazil or overseas. For this reason, we seek to detect business exposure factors, protect our reputation and bolster our corporate governance structure, enhancing transparency in our stakeholder relationship.

We rely on a Risk Management Integrated Policy, approved by the board of executive officers, and applicable to all CBMM's activities, including visitors, contractors and other related parties. The document is made available on the Company's website also, in training sessions, intranet and physical boards in various areas.

In addition, we received the Authorized Economic Operator Certificate (OEA). This is an international program set out in +83 countries, including the United States and China. In Brazil, this certificate is bestowed by the government, and controlled by the internal revenue service. The certificate is assigned to businesses whose management processes minimize the risks of their foreign trade operations, evidencing to be committed to the Customs Compliance and Logistics Chain Safety criteria. The process carried out to receive this certificate began in 2018 by analyzing CBMM's customs processes. Advancements were applied to the areas involved in procedures, including training and the creation of the OEA Program Risk Matrix, by mapping sensitive positions, managing business partners, and surveying all the evidence.

We seek to detect exposure factors, protect our reputation and bolster our governance

RISK MATRIX UNIFICATION

In 2022, our Risk Management implemented the Risk Matrix unification in the same digital platform, enabling an integrated vision of all critical factors as to each area's decentralized management. This tool provides a macro perspective of how risks are entangled, and also details the outcome of each one, making it feasible to define contingencies, and even more efficient mitigation plans.

ANTI-BRIBERY SYSTEM

In 2022, we created the antibribery management system, overseen by our Audit and Risks Committee to bolster external controls and enhance the organization's ethical culture. In addition, in 2022 we reviewed our anti-corruption policy.

MERITUM SYSTEM

The Meritum System promotes the flow organization of the Compliance Department's main routines concerning the operation of demands stemming from conflicts of interest, gifts, presents, hospitalities, donations, and sponsorships policies. Besides optimizing the procedures deriving from the practical application of Integrity policies, and also improving the interaction between the Department and in-house customers, the Meritum System allows greater traceability and registration of processes, controls systematization, indicators obtainment, and monitoring, as well as the concentration of data on the system, reducing its circulation through other tools.

CLIMATE

We rely on a risk and opportunities mapping related to climate changes, with the potential to substantially affect our operations. These assessments occur at the year's end and allow optimizing materials using Niobium. Thus, making feasible the growth of some business fronts, such as batteries and structural steel.w

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IN THIS CHAPTER

– Financial results

BUSINESS **PERFORMANCE**



Our Strategic Map is in line with the Management Integrated Policy

OWN INDICATOR, CBMM-03

We elaborated and observe a solid Management Integrated Policy compliant with ISO 9001, 14001, 45001, and ISO/IEC 27001 and 17025 standards, by which we are certified. Our Management Integrated Policy is approved by the Board of Executive Officers, and disseminated by the Management Integrated System throughout the organization.

The Company's strategy is outlined and formalized in a Strategic Map that is in line with the Management Integrated Policy, and with related parties' requirements. The Map is disseminated through the management methodology by guidelines that define the objectives and goals for the company's different areas, from the strategic to the operational level.

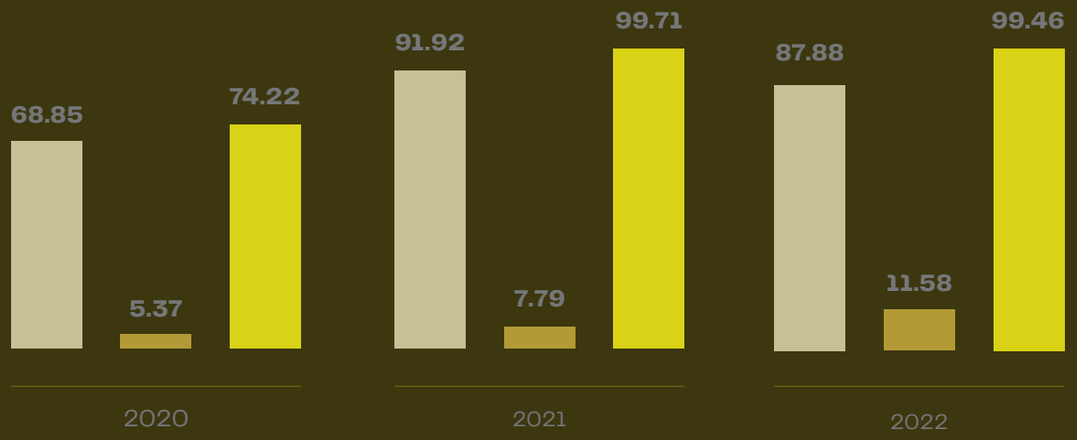
As far as our operational performance is concerned, inventory is our main policy concerning planning and control of production and materials. The shipment accuracy (shipment mix) goal is an assumption for the activity, besides the supply strategic commitment to the market. Our total production in 2022 was 99.463 tons, of which 87.885 came from ferroniobium, and 11.578 from special products.

99,463t

was the total production of Niobium products in 2022



PRODUCTION DATA (THOUSAND TONS)





EVOLUTION OF QUANTITY SOLD AND EXPORTED (T)

Sold/domestic market	2020	2021	2022
Ferroniobium	2,386	3,275	3,077
Special products	45	64	76
Subtotal	**2,431**	**3,339**	**3,153**
Exported/foreign market	**2020**	**2021**	**2022**
Ferroniobium	59,313	83,143	76,804
Special products	2,339	3,999	7,391
Subtotal	**61,652**	**87,142**	**83,751**
Total[1]	**64,083**	**90,481**	**86,904**

[1] In 2021, the total of 90,5 tons differs from total of 99,71 thousand tons of production, due to inventory volume.

FINANCIAL **RESULTS**

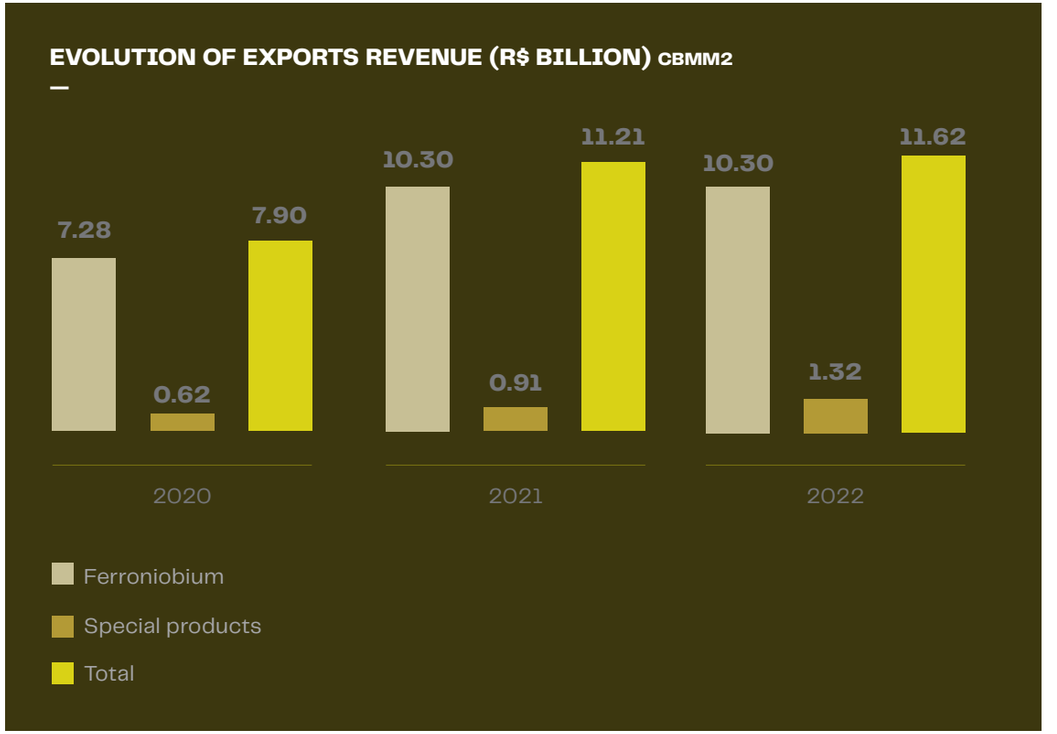
Concurrently with the global megatrends of electrification, sustainability and digital transformation, we reiterate our plans to an accelerated growth guided by new applications in the steel industry, also the diversification of our operational markets. Therefore, in 2022, we invested even more in the new business-driven strategy, pursuing to expedite the entry of Niobium-applied technologies on the global market, especially the batteries segment.

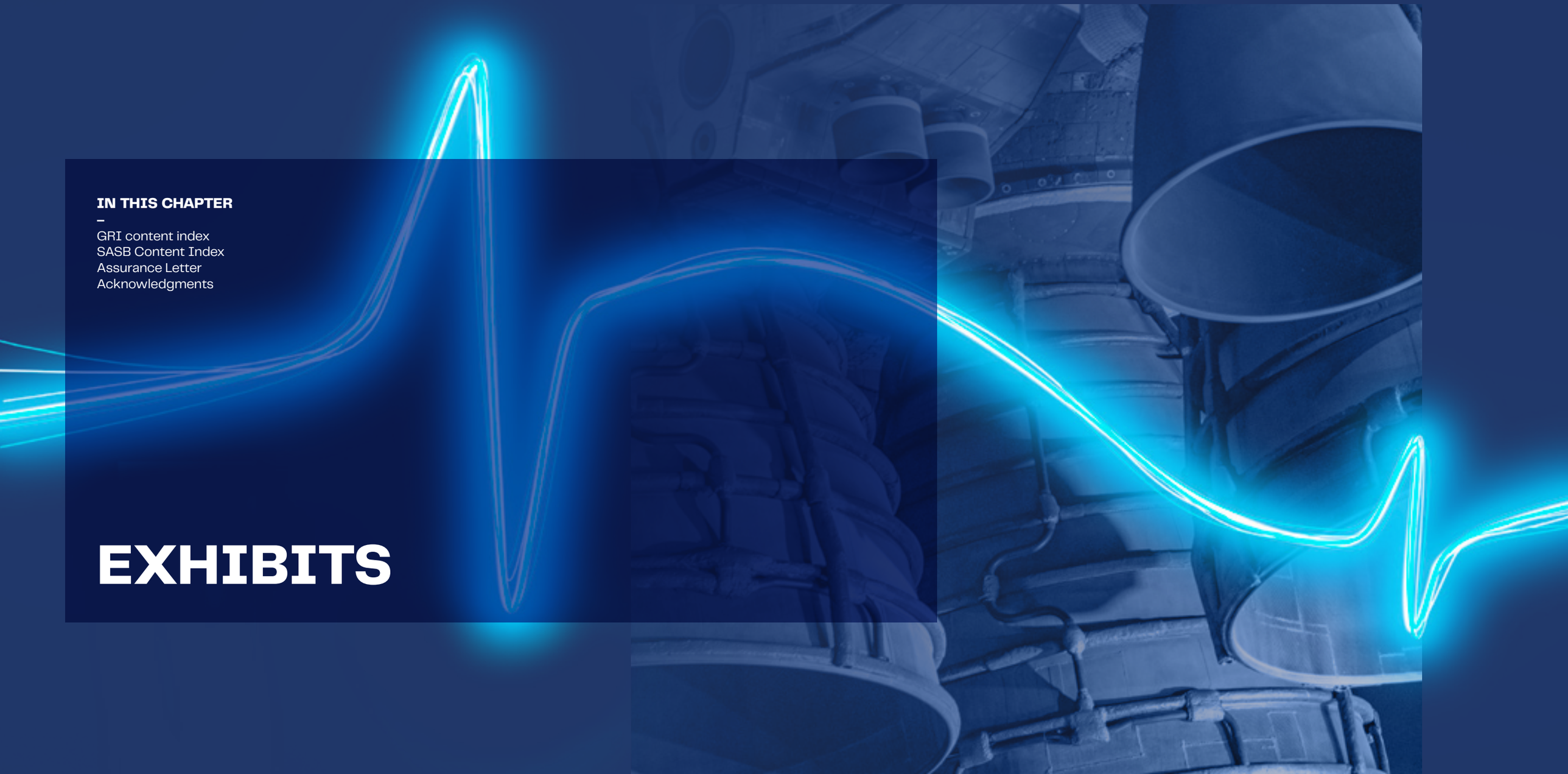
The Company's investments, coupled with the global economy upswing, especially the steel and aviation industries, reflected in a net revenue of R$11 billion in 2022, 4.2% lower than in 2021. Our of 95,462 tons sold in 2022, 3.3% were destined to the domestic market and 96.7% to the foreign market.

ECONOMIC INDICATORS (R$ BILLION) GRI 201-1

	2020	2021	2022
Net revenue	7.0	11.4	11.0
Shareholders' equity	2.1	1.6	2.2
Net income	2.5	4.5	4.5

EVOLUTION OF EXPORTS REVENUE (R$ BILLION) CBMM2





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GRI content index
SASB Content Index
Assurance Letter
Acknowledgments

EXHIBITS

GRI
CONTENT INDEX

Use statement	CBMM reported in accordance with the GRI Standards for the reporting period: January 1 to December 31, 2022.
GRI 1 adopted	GRI 1: General Disclosures 2021
Applicable GRI Sector Standard	Not applicable

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
General disclosures							
The organization and its reporting practices							
GRI 2: General disclosures 2021	2-1 Organizational details	9					
	2-2 Entities included in the organization's sustainability reporting	3					
	2-3 Reporting period, frequency and contact point	3					
	2-4 Restatements of information	None.					
	2-5 External assurance	3, 84					
Activities and workers							
GRI 2: General disclosures 2021	2-6 Activities, value chain and other business relations	9, 12					
	2-7 Employees	51, 53, 54					8, 10
	2-8 Workers who are not employees	51, 54					8

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
Governance							
GRI 2: General disclosures 2021	2-9 Governance structure and composition	65					5, 16
	2-10 Nomination and selection for the highest governance body	65					5, 16
	2-11 Chair of the highest governance body	65					16
	2-12 Roles of the highest governance body in overseeing the management of impacts	65					16
	2-13 Delegation of responsibility for managing impacts		All	Information not available (INA)	Data will be improved to report in the next cycle.		
	2-14 Role of the highest governance body in sustainability reporting	65					
	2-15 Conflicts of interest	64					16
	2-16 Communication of critical concerns	64					
	2-17 Collective knowledge of the highest governance body	Whenever necessary, information is directed to the executive committee, indicating opportunities and risks, besides relevant changes concerning the sustainable development.					
	2-18 Performance review of the highest governance body		All	Information not available (INA)	Data will be improved to report in the next cycle.		
	2-19 Remuneration policies		All	Confidential information	CBMM maintains this information restricted, as it discusses sensitive and strategic data.		
	2-20 Process to determine remuneration						
	2-21 Annual total compensation ratio						

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
Strategy, policies and practices							
GRI 2: General disclosures 2021	2-22 Statement of sustainable development strategy	6					
	2-23 Policy commitments	68					16
	2-24 Embedding policy commitments	68					
	2-25 Processes to remediate negative impacts	68					
	2-26 Mechanisms for seeking advice and raising concerns	4					16
	2-27 Compliance with laws and regulations		All	The indicator's complete information is not consolidated.	Data will be improved to be reported in the next cycle.		
	2-28 Membership associations	Brazilian Institute of Mining (IBRAM); Federation of Industries of the State of Minas Gerais (FIEMG).					
Stakeholder *engagement*							
GRI 2: General disclosures 2021	2-29 Approach to stakeholder *engagement*	4, 36, 44, 51, 52, 64					
	2-30 Collective bargaining agreements	52					8

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
Material topics							
GRI 3: Material topics 2021	3-1 Process to determine material topics	4, 5					
	3-2 List of topic materials	5					
Innovation & technology							
GRI 3: Material topics 2021	3-3 Management of material topics	16					
GRI 203: Indirect economic impacts 2016	203-1 Infrastructure investments and services supported	48					5, 9, 11
	203-2 Significant indirect economic impacts	44					1, 3, 8
Employee health, well-being and safety							
GRI 3: Material topics 2021	3-3 Management of material topics	55					
GRI 403: Occupational health and safety 2018	403-1 Occupational health and safety management system	55					8
	403-2 Hazard identification, risk assessment and incident investigation	55					8
	403-3 Occupational health services	55					8
	403-4 Worker participation, consultation, and communication on occupational health and safety	55					8, 16
	403-5 Worker training on occupational health and safety	55					8
	403-6 Promotion of worker health	55					3
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	55					8
	403-8 Workers covered by an occupational health and safety management system	No exclusion of any worker. Systems cover 100% of employees and workers.					8
	403-9 Work-related injuries	57					3, 8, 16
	403-10 Work-related ill health	55					3, 8, 16
GRI 404: Training and education 2016	404-1 Average hours of training per year	60					4, 5, 8, 10

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
Waste and dams management							
GRI 3: Material topics 2021	3-3 Management of material topics	35					
GRI 301: Materials 2016	301-1 Materials used by weight or volume	39					8, 12
	301-2 Raw materials or recycled materials	39					8, 12
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	35					3, 6, 11, 12
	306-2 Management of significant waste-related impacts	35					3, 6, 8, 11, 12
	306-3 Waste generated	38					3, 6, 12, 15
	306-4 Waste diverted from disposal	38					3, 11, 12
	306-5 Waste directed to disposal	39					3, 6, 11, 12
Mining Sector Supplement– effluents and waste	MM3 Total amounts of sterile, tailings and sludge, and associated risks	35, 38					6, 12
Ethics, integrity & compliance							
GRI 3: Material topics 2021	3-3 Management of material topics	63					
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	64	C, D and E				16
	205-3 Confirmed incidents of corruption and actions taken	No confirmed incidents of corruption at CBMM.					16
GRI 206: Anti-competitive behavior 2016	206-1 Legal actions for anti-competitive behavior, trust and monopoly practices		All	Information not available	We are surveying information to report in the next cycle.		16

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
Mining Sector Supplement– biodiversity	MM1 Quantity of land (proprietary or leased, used in production and extraction activities) altered or rehabilitated		All	Information not available	Data will be improved to be reported in the next cycle.		3, 6, 7, 9, 12, 13, 14, 15, 17
Mining Sector Supplement– local communities	MM6 Number and description of significant conflicts related to the use of land, and customary rights of local communities and indigenous people.	There are neither significant conflicts, nor goal for the indicator in 2023.					1, 2
Mining Sector Supplement– local communities	MM7 To what extent the mechanisms to send demands and complaints were used to solve conflicts relating to the use of land, customary rights of local communities.	No event of this type was registered, without any conflict.					1, 2
Mining sector supplement - materials management	MM11 Programs and advances related to materials management	37					7, 9, 12, 13, 17
Employee attraction, development and retention							
GRI 3: Material topics 2021	3-3 Management of material topics	58					
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	53, 60					5, 8, 10
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	58					3, 5, 8
	401-3 Parental leave	61					5, 8
GRI 402: Labor relations	402-1 Minimum deadline for notice on operational changes.		All	Not applicable	At CBMM, there is no minimum term procedure to report notices on operational changes implemented.		8

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
GRI 404: Training and education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	58					8
	404-3 Percentage of employees receiving regular performance and career development reviews	61					5, 8, 10
Water and effluents management							
GRI 3: Material topics 2021	3-3 Management of material topics	40					
GRI 303: Water and effluents 2018	303-1 Interactions with water as a shared resource	40					6, 12
	303-2 Management of water discharge-related impacts	40					6
	303-3 Water withdrawal	41					
	303-4 Water discharge	41					6
	303-5 Water consumption	41					6
Climate change							
GRI 3: Material topics 2021	3-3 Management of material topics	32					
GRI 201: Economic performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	68					13
GRI 302: Energy 2016	302-1 Energy consumption within the organization	32, 34					7
	302-2 Energy consumption outside the organization	34					7,8,12,13
	302-3 Energy intensity	34					7, 8, 12, 13
	302-4 Reduction of energy consumption	32					7, 8, 12, 13
	302-5 Reductions in energy requirements of products and services	32					7, 8, 13
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		All	Information not available	Not applicable as these units are not located in protected or biodiversity high-value area.		6, 14, 15
	304-2 Significant impacts of activities, products and services on biodiversity		All	Information not available	Data will be improved to be reported in the next cycle.		6, 14, 15

GRI Standards	Content	Location	Omission			Reference No. of GRI sector standard	SDG
			Omitted requirements	Reason	Explanation		
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored		All	Information not available	Data will be improved to be reported in the next cycle.		6, 14, 15
	304-4 Species included in IUCN red list and Brazilian national list of conservation with habitats in areas affected by the organization's operations.		All	Information not available	Data will be improved to be reported in the next cycle.		6, 14, 15
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	33					3, 12, 13, 14, 15
	305-2 Energy indirect (Scope 2) GHG emissions deriving from energy acquisition	33					3, 12, 13, 14, 15
	305-3 Other indirect (Scope 3) GHG emissions	33					3, 12, 13, 14, 15
	305-4 GHG emissions intensity	33					13, 14, 15
	305-5 Reduction of GHG emissions	32, 34					13, 14, 15
Local development							
GRI 3: Material topics 2021	3-3 Management of material topics	44, 49					
GRI 201: Economic performance 2016	201-1 Direct economic value generated and distributed	72	II and III	Confidential information	Information will not be disclosed as it includes information strategic and sensitive to business.		8, 9
GRI 204: Procurement practices 2016	204-1 Proportion of spending on local suppliers	49					8
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	44					
	413-2 Operations with significant actual and potential negative impacts on local communities	44					1, 2

OWN INDICATORS

Own indicators—

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CBMM: Innovation & technology	CBMM-01 Promotion and investments in product new solutions and technologies, development and quality.	16
	CBMM-02 Promotion of innovation in a collaborative and participative manner, with involvement of various partners	16
CBMM: Production	CBMM-03 Materials Production Control Planning – GPLC	16, 70

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Topic	Code	Page or omission
GHG emissions	**EM-MM-110a.2** Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emission reduction goals, and a performance review related to these goals.	32
Water management	**EM-MM-140a.2** Number of incidents of non-compliance connected with water quality licenses, rules and regulations.	40
Waste	**EM-MM-150a.1** Total weight of tailing residues, percentage recycled	35
	EM-MM-150a.2 Total weight of mineral processing waste, percentage recycled	35
	EM-MM-150a.3 Number of residue impoundment, separated by low potential risk MSHA	The ore processing tailing is a non-hazardous and non-inert residue (Class IIA). There are no specific goals
Community relations	**EM-MM-210b.1** Discussion of the process to manage risks and opportunities related to the community's rights and interests.	43, 44

SUSTAINABLE DEVELOPMENT GOALS



ASSURANCE **LETTER** GRI 2-5

Independent auditor's limited assurance report on the non-financial information included in the 2022 Sustainability Report

To the Board of Directors and Stockholders
Companhia Brasileira de Metalurgia e Mineração
Araxá - MG

Introduction

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 2022 Sustainability Report of CBMM for the year ended December 31, 2022.

Our limited assurance does not cover prior-period information, or any other information disclosed together with the 2022 Sustainability Report, including any incorporated images, audio files or videos.

Responsibilities of the management of CBMM

The management of CBMM is responsible for:

- selecting or establishing adequate criteria for the preparation and presentation of the information included in the 2022 Sustainability Report;
- preparing the information in accordance with the criteria and guidelines of the Global Reporting Initiative (GRI-Standards) and with the basis of preparation developed by the Company;
- designing, implementing and maintaining internal controls over the significant information for the preparation of the information included in the 2022 Sustainability Report, which is free from material misstatement, whether due to fraud or error.

Independent auditor's responsibility

Our responsibility is to express a conclusion on the non-financial information included in the 2022 Sustainability Report, based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01 – Issuance of Assurance Reports 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 the auditor complies with ethical requirements, 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 on 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 2022 Sustainability Report, 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 2022 Sustainability Report taken as a whole might present significant 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 2022 Sustainability Report, other circumstances of the engagement and our analysis of the activities and processes associated with the significant information disclosed in the 2022 Sustainability Report in which significant misstatements might exist. The procedures comprised, among others:

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 2022 Sustainability Report;

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 2022 Sustainability Report; 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 guidelines and criteria of the Global Reporting Initiative (GRI-Standards) and the provisions established in the basis of preparation developed by the Company.

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. 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 2022 Sustainability Report. 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 guidelines of the Global Reporting Initiative (GRI-Standards), therefore, the information included in the 2022 Sustainability Report does not have the objective of providing 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.

Conclusion

Based on these 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 2022 Sustainability Report of CBMM has not been prepared, in all material respects, in accordance with the criteria of the basis of preparation and guidelines of the Global Reporting Initiative (GRI-Standards).

São Paulo, August 30, 2023

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

Maurício Colombari
Contador CRC 1SP195838/O-3

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