

Sustainability Report 2020



**See what issues are important to CBMM,
find out more here!**

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Partial view of the
Industrial Park in Araxá, MG

Welcome

This cycle was challenging on many fronts due to the Covid-19 pandemic but it brought with it many opportunities that made us look at tools and solutions in a different way and these lessons will probably continue to be a part of our activities in coming years.

In this *Sustainability Report*, structured on the Global Reporting Initiative Standards methodology – Core option – with external assurance of GRI indicators conducted by PwC, we present the main highlights of the period from January 1 to December 31, 2020. In the publication, we contextualize our results, describe our plans of action to insert niobium in the global market, the technologies we use, our presence in the communities and our commitment to our employees, as well as set out our material issues as discussed with our stakeholders. [GRI 102-1, 102-46, 102-50, 102-52,](#)
[102-54, 102-56](#)

The information covers all of CBMM's activities in Brazil and abroad. The subsidiaries abroad, however, do not contemplate the GRI indicators since data collection is not applicable to those units. [GRI 102-45](#)

The structure of this report is aligned with the key points of this cycle, of which the information is divided into chapters organized by material topic and their connection to the United Nations' Sustainable Development Goals (SDGs), and the commitments undertaken with basis on them. It is our intent to improve governance as well as our interaction with all stakeholders.

Have an enjoyable read!

Message from the management

GRI 102-14, 102-15

The world has experienced three crises over the past 20 years that have impacted people and business: September 11, 2001 (the terrorist attack on the United States), September 2008 (the American housing bubble) and 2020 (the onset of the novel coronavirus pandemic). The Covid-19 crisis is the longest of the three and has had the greatest impact on the economy and people's lives. However, lessons and opportunities can always be found in times of adversity.



At CBMM, we were able to reinforce the importance of health and safety first, operate with as few people as possible in the plant and offices, make the work model more flexible, improve the management system by prioritizing a reduction in environmental impact, costs and expenses, boost productivity and, even from a distance, strengthen the relationship with our clients.

We believe in the power of collaboration so we never hesitated in putting into practice actions to fight Covid-19 in favor of the well-being and health of our employees

and the communities where we operate. During the year, we stood behind initiatives to fight the coronavirus and reinforced our commitments to the city of Araxá, the state of Minas Gerais and Brazil.

We maintained our investments in research and development of new applications for niobium technologies, capable of transforming materials into more intelligent, sustainable, and efficient solutions. We have formed very relevant partnerships on the innovation front, and have started to see results from our participation in 2DM, a Singaporean company that is a benchmark in the development of graphene, in addition to advances with the first niobium batteries available in the market (micromobility sector, with light and individual means of transport).

We have also maintained our plans to boost our production capacity to 150.000 tons of niobium products and concluded the work at our industrial plant in Araxá.

We continued to work on our main focuses through a structured dialog that involved internal and external stakeholders. This process is important because it helps us understand how the public sees CBMM's impacts and management. The material topics we identified, as well as the respective targets set for each of them, are connected to the United Nations' Sustainable Development Goals (SDGs) and to environmental, social, and governance (ESG) factors.

We believe in and value relationships based on open dialogue and respect. We understand that this is the only way we can improve our actions, face challenges, and contribute positively to society. We share with you below the main highlights of our work in 2020 and our vision for the future.

Have an enjoyable read!

Eduardo A. Ayoza Galvão Ribeiro
CEO of CBMM

Covid-19 actions

We are overcoming the difficulties created by the pandemic through respectful and collaborative interaction with stakeholders. We created a committee to fight the disease, which was primarily aimed at maintaining the safety and health of our employees and of society as a whole. The committee has actively worked on implementing contagion prevention initiatives, prioritizing the preservation of people's well-being and the continuity of our activities in a safe way. All preventive actions were taken following the recommendations of national and international agencies and entities.

"Separated and more together than ever," our slogan illustrates our commitment to initiatives aimed at maintaining the health of employees and society

Throughout the year, more than 50 actions were implemented, among them: the home office model for employees in administrative areas; an exclusive 24-hour hotline for answering questions; furlough for people belonging to risk groups (with full pay during the period); expansion of hygiene practices and social distancing; psychological support programs for employees and their families; restrictions on national and international travel, and periodic bulletins updating employees in Brazil and in subsidiaries.

As a way of keeping all employees informed and integrated even during social distancing, we launched the internal campaign #TodosJuntos (All Together), which covers three pillars: employee, family, and well-being. Through them, we put in place actions aimed at the physical and mental well-being of these professionals and their families, regardless of where they are located and the way they work, remotely or in person.

In partnership with the State Industry Federation of Minas Gerais (FIEMG), we made available BRL 5,5 million for the purchase of respirators and other equipment for hospitals in Minas Gerais. The city of Araxá received 24 units in August and another six were sent to three neighboring cities. Also in Araxá, we donated to the health department a total of 19.000 Covid-19 detection tests, in addition to personal protection equipment for use by the municipality's health professionals and to support infectious disease doctors involved in the prevention strategies.

At the national level, we adhered to the "All for Health" campaign by donating BRL 5 million. This campaign brings together companies from various sectors in favor of public health. We supported the Syrian-Lebanese Social Responsibility Institute to improve the service capacity of Hospital Geral do Grajaú in São Paulo, and we donated protection equipment to the Santa Casa de Misericórdia hospital, also in São Paulo.

In addition to internal actions and donations, and in alignment with social distancing measures, we offered webinars on topics of general interest. The events, which were attended by renowned specialists in their areas, were open to the public and free of charge.

The topics discussed were: the reinvention of art and culture in times of lockdown; the Brazilian potential in the areas of science and technology; the Cerrado biome; the role of sports as a tool for education; and the reinvention of the metals industry and its role in the economy.

We also created an external awareness campaign that reinforces the importance of the concept "distance saves" and the use of masks. The campaign's slogan perfectly illustrates what we believe in and our actions to overcome the pandemic: "Separated and more together than ever."



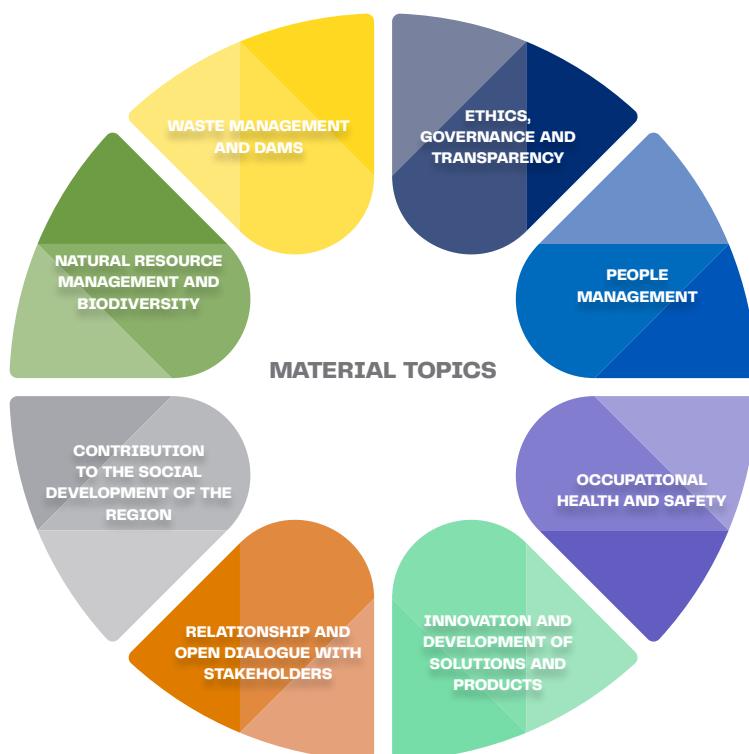
During the year, we allocated BRL 12,7 million to initiatives to fight the coronavirus and reinforced our commitments to the city of Araxá in the state of Minas Gerais and Brazil





CBMM and its sustainability agenda

GRI 102-21, 102-40, 102-42, 102-43, 102-44, 102-46, 102-47, 102-49, 103-1



We worked on building a new identification of our material topics through a structured engagement that involved internal and external stakeholders. This process was divided into four stages – identification, prioritization, analysis, and validation – with review and approval from our leadership based on observing the developments and challenges of each topic.

We took into consideration the last materiality process (year 2017, with a review in 2019), searches of industry-related documents, studies linked to global sustainability and to CBMM's main sectors of direct or indirect operation, such as technology, steelmaking and metallurgy.

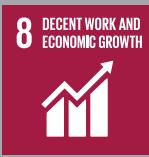
The eight material topics identified are connected to the Global Reporting Initiative (GRI) indicators, the United Nations Sustainable Development Goals (SDG), and the environmental, social, and governance (ESG) criteria . CBMM's good practices in terms of these factors are present in the many chapters of this report, which shows that these criteria have always been present in the company's way of thinking and doing business.

The materiality processes are important tools for understanding how the public views CBMM's impacts and management, prioritizing the issues to be addressed by the leadership and informed to society through public documents such as this report.

ESG Fields Material Topics	Description of the material topic	Main associated actions developed in 2020	SDG	Goals SDG	GRI Indicators
ENVIRONMENTAL Natural Resource Management and Biodiversity	Responsible management and use of water; efficient management and use of mineral reserves; efficient management and use of energy; use of clean renewable energy; investment in research and development of solutions for the preservation of fauna and flora; investment in environmental education initiatives in the community; management of production processes aimed at eco-efficient practices and environmental improvements.	<ul style="list-style-type: none"> CBMM participated in the Renascer Project, a partnership with several local institutions and rural producers, which aims at the environmental recovery of springs and riparian forests in the municipality of Araxá and region, with seedlings grown by substance abusers from the Senhor Jesus Farm. CBMM employees participated in the Pro-Mananciais Program, through the Araxá Local Environmental Collective (Colmeia), a technical body that brings together environmental experts from various institutions in the municipality aimed at environmental preservation through research, scientific studies and field work. Vegetation protection was carried out in previously anthropized environments, in permanent preservation areas and legal reserves. 		6.4	302-1, 302-2, 302-3, 302-4, 303-1, 303-2, 303-3, 303-4, 303-5, 304-1, 304-2, 304-3, 304-4, 305-1, 305-2, 305-3, 307-1
	Impact Limit: inside and outside the Company.	<ul style="list-style-type: none"> Solar power generation study (100%). The feasibility of its implementation will be assessed after the pandemic. Start of the analysis regarding the establishment of indicators and automation via the Industrial Automation Technology Indicator Management software – Viridis. 		7.a	

ESG Fields - Material Topics	Description of the material topic	Main associated actions developed in 2020	SDG	Goals SDG	GRI Indicators
ENVIRONMENTAL Natural Resource Management and Biodiversity	Responsible management and use of water; efficient management and use of mineral reserves; efficient management and use of energy; use of clean renewable energy; investment in research and development of solutions for the preservation of fauna and flora; investment in environmental education initiatives in the community; management of production processes aimed at eco-efficient practices and environmental improvements. Impact Limit: inside and outside the Company.	<ul style="list-style-type: none"> A survey of environmental, social and governance aspects, defined as indicators, which will soon be better monitored. Structured in the SAP Ariba System, a monitoring of suppliers' environmental activities to enable us to better recognize good practices or act to incentivize improvements, as of 2021. 		12.2	
		<ul style="list-style-type: none"> R&D investments include projects involving renewable energy. Since 2013, CBMM has been a member of the GHG Protocol, registering its greenhouse gas emissions inventory. The use of niobium products optimizes the use of materials with a resulting reduction in greenhouse gas emissions. 		13.3	302-1, 302-2, 302-3, 302-4, 303-1, 303-2, 303-3, 303-4, 303-5, 304-1, 304-2, 304-4, 305-1, 305-2, 305-3, 307-1
		<ul style="list-style-type: none"> Endangered species of flora and fauna were housed in our Environmental Development Center. Environmental education program: The Scientists of the Cerrado Project for students at institutions in Araxá, and the Keeping an Eye on the Future Project, for company employees and interns. 			
		<ul style="list-style-type: none"> Maintenance of compensatory afforestation with native species of the region and fencing to protect permanent preservation areas (wellheads and water courses) and legal reserves, which involves the protection and development of existing vegetation and promotes the natural regeneration of previously anthropized environments. Both tasks are directly linked to wildlife conservation. Webinar about the Cerrado biome held with presentation of company actions. Cerrado biodiversity conservation work carried out with research projects, wildlife management and reproduction, and educational actions. 		15.1 15.5	

ESG Fields - Material Topics	Description of the material topic	Main associated actions developed in 2020	SDG	Goals SDG	GRI Indicators
SOCIAL Contribution to the social development of the region	Getting prepared for changes in society and the market; ESG agenda; SDG, SASB; relationship with communities; support for economic activity and local entrepreneurship; support for communities for health and community development; investment in social projects and volunteer program.	<ul style="list-style-type: none"> BRL 12,7 million in donations to fight the pandemic. 		3.d 3.9	202-2, 204-1, 413-1, MM1, MM11
		<ul style="list-style-type: none"> Plan to become a development agent and contribute to the education of young people and children in Araxá. BRL 15,5 million in private-sector social investment (incentivized and non-incentivized) in the areas of health, sports, education, and culture. 		4.4	
	Impact Limit: outside the Company.	<ul style="list-style-type: none"> Startup of negotiations aimed at partnerships in programs to develop entrepreneurship in the local community. 		8.3	
GOVERNANCE Ethics, governance and transparency	Preparation to incorporate changes in anti-corruption policies and practices; management conduct; constant placement of executives and CBMM via internal and external communication channels; reinforcement of the practices of the commitments declared by CBMM; conduct in the relationship with stakeholders and business. Impact Limit: inside and outside the company.	<ul style="list-style-type: none"> Zero non-compliance regarding laws and/or regulations in the social and economic areas. The periodic assessment of compliance risk, including corruption, is maintained, as well as the analysis of the program's effectiveness. 		16.5	205-3, 419-1
ENVIRONMENTAL Solid waste management and dams	Waste and operational safety management; reduction, treatment, and correct disposal of different wastes, including mining and hazardous wastes; effluent treatment and remediation; management of pollutant emissions; management of environmental liabilities; contamination prevention, process traceability, and emergency preparedness. Impact Limit: outside the Company.	<ul style="list-style-type: none"> Planning for the construction and start of licensing for the Waste Disposal Structure (EDR) 9 for the disposal of scraps in a denser form and with less water volume, which increases safety. 		6.a	306-1, 306-2, 306-3, 306-4, 306-5, MM3
		<ul style="list-style-type: none"> Constant monitoring by means of the Integrated Monitoring Center. Expansion of technology for monitoring the dams. In 2020, the company reduced the generation of scraps from ore processing by around 38%, especially due to a drop in the manufacture of niobium products. 	 	9.5 12.5	

ESG Fields - Material Topics	Description of the material topic	Main associated actions developed in 2020	SDG	Goals SDG	GRI Indicators
SOCIAL Innovation and development of solutions and products	Promotion and investment in new solutions and technologies; product development and quality; promotion of innovation in a collaborative and participative way with the involvement of different partners. Impact Limit: inside and outside the Company.	<ul style="list-style-type: none"> The company ended the year with 130 development projects in progress, 89 of them involving direct and indirect customers. 		9.5	416-1
		<ul style="list-style-type: none"> CBMM Science and Technology Award, an incentive to the production of innovative scientific and technological research. Charles Hatchett Award. Young Persons' Lecture Competition (YPLC) Award. 		17.17	
SOCIAL Occupational health and safety	Investments in the integral health and well-being of employees; diligent monitoring of the safety indexes of employees and third parties; maintenance of ongoing improvement processes for workplace conditions and safe behavior at CBMM. Impact Limit: Inside the Company.	<ul style="list-style-type: none"> Changes in procedures for adapting to the pandemic period, among which: increase of meetings via videoconferencing; work from home; restaurant practices; and travel cutbacks. Created commission and developed procedures, campaigns, webinars, partnerships, adherence to the All for Health movement. 		3.9	403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10
		<ul style="list-style-type: none"> Certification of compliance to ISO 45001 standard, evolution of OHSAS 18001. Improved security management systems for service providers. In 2021, the aim is to increase the use of tools to identify deviations and to act preventively in security. The occupational illness rate was zero in 2020 and remains unchanged. Structured safe behavior program (safety value). 		8.8	

ESG Fields - Material Topics	Description of the material topic	Main associated actions developed in 2020	SDG	Goals SDG	GRI Indicators
GOVERNANCE Relationship and open dialogue with stakeholders	<p>Strengthen the relationship and dialogue with the different stakeholders (employees, shareholders, academia, community, customers, suppliers, business partners, and government); implement engagement practices aimed at transparency and collaboration that include territorial, regional, and global challenges in terms of sustainability principles.</p> <p>Impact Limit: inside and outside the Company.</p>	<ul style="list-style-type: none"> Training on the Conflict of Interest Policy to reinforce the compliance commitments established. The new General Data Protection Law (GDPL 13.709/2018), which regulates the processing of personal data by public and private companies, came into force in 2020 and we have already adapted to it. 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	16.5	203-1, 203-2
SOCIAL People management	<p>Fair labor practices and remuneration for employees; fighting all forms of discrimination, forced, compulsory and child labor; responsible leadership; people development; commitments and practices aimed at diversity and inclusion in the organization, in all its aspects (gender, race, ethnicity, origin, work styles, etc.); creation of listening and dialogue spaces for an inclusive organizational environment.</p> <p>Impact Limit: inside the Company.</p>	<ul style="list-style-type: none"> Reinforcing the principles of ethics, compliance, and business transparency are part of the organizational culture, through the Code of Conduct and training. In 2020, the topic "I say no to harassment" campaign referencing bullying and sexual harassment was addressed in depth with employees. 	8 DECENT WORK AND ECONOMIC GROWTH	8.8	401-1, 412-1, 412-2





New dephosphorization unit
to open in 2020

Essence and performance

GRI 102-2, 102-7

We have been investing in the niobium value chain for 66 years. Since our foundation, we have challenged ourselves to develop smart and sustainable solutions and to incentivize the application of niobium technology in various sectors, such as: mobility, infrastructure, aerospace, and energy.

Thanks to ongoing investments in research, technology, and innovation, we continue to head the world list for the production and sale of niobium products, positioning Brazil at the top of the world market of the world market. In 2020, we concluded the expansion of our production capacity to 150.000 tons, reinforcing our commitment to meet global demand.

We invest in new applications for niobium technology, capable of transforming materials into more intelligent, sustainable and efficient solutions

Our sustainable growth is directly linked to the technological insertion of niobium in the market. Through strategic national and international partnerships and about 130 ongoing projects, we were able to develop products with high added value.

Today, we are the only company with a presence in all sectors of the niobium market. We have in excess of 400 customers in more than 50 countries, supply more than 90% of the niobium consumed in Brazil and meet 75% to 80% of world demand. [GRI 102-6](#)

We constantly invest in research and development of new applications for niobium in order to collaborate with the expansion and diversification of the market. In the Technology Center labs in Araxá, Minas Gerais state, we operate one of the most advanced research centers in the world, with quality controls that enable us to offer increasingly efficient products for different applications.



We have completed the expansion of our production capacity to 150.000 tons of niobium products

Equally important are the investments in the Brazilian scientific community – with 41 partnerships signed with universities and research centers – and the support to groups abroad that develop cutting-edge studies involving niobium.



OUR PROFILE

We are a genuinely Brazilian company that offers fully-integrated manufacturing lines of niobium products. We continually invest in management, manufacturing, and sales with the purpose of expanding our share in the world market and, as a result, boosting the production capacity of our Industrial Park. CBMM is a private corporation with 70% of its capital equity held by the Moreira Salles Group and 30% is divided between two consortia belonging to China, Japan, and South Korea. [GRI 102- 3, 102-4, 102-5](#)

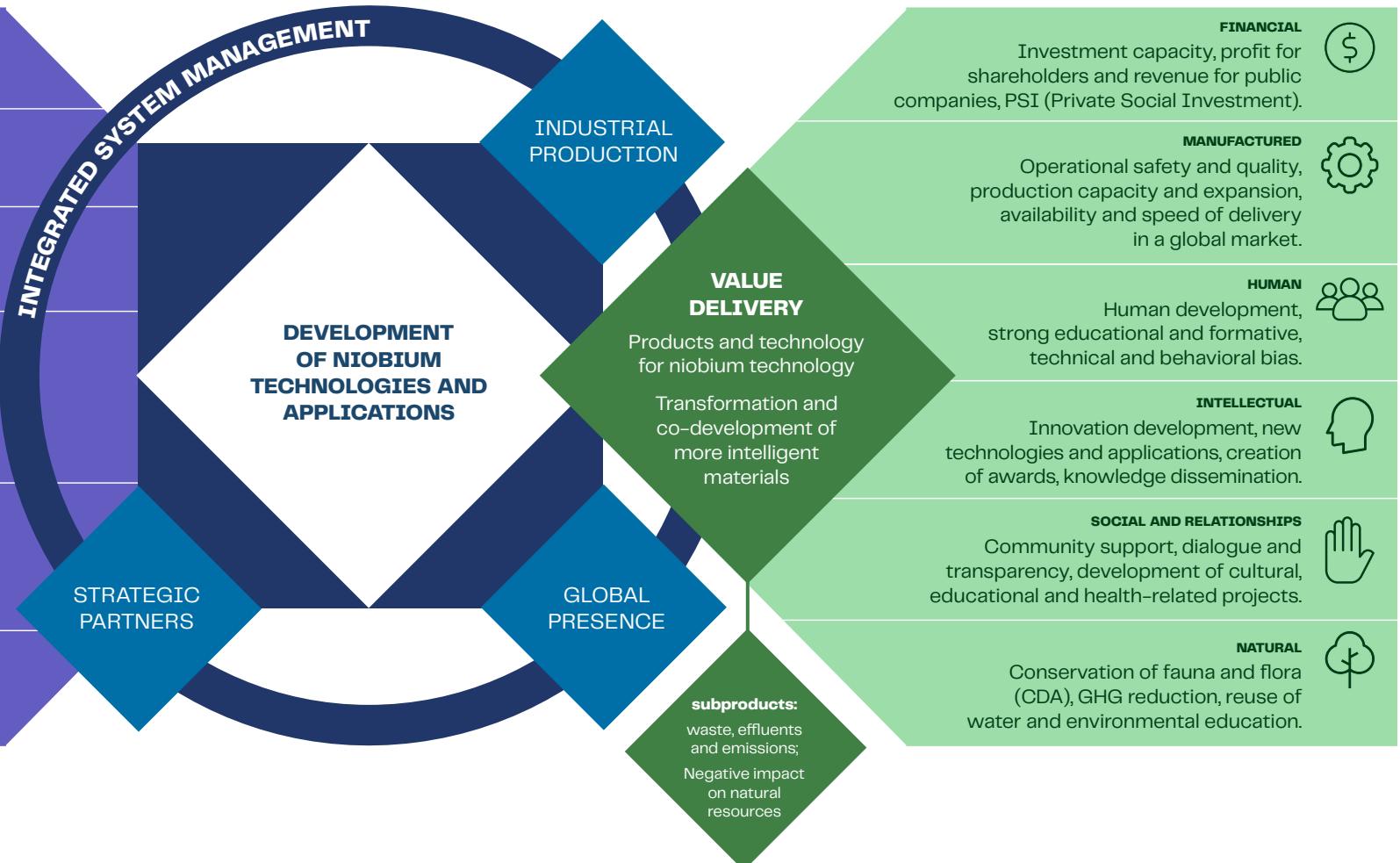
Business model

We focus our inputs, activities, key activities, results and impacts towards value creation. The International Integrated Reporting Council (IIRC) guidelines were used as a reference to demonstrate which resources we access and how we turn them into deliverables for society.

INPUTS

FINANCIAL	Shareholders' capital, revenue from sales of products and financing.
MANUFACTURED	Industrial Park, transport assets (partners).
HUMAN	Trained and skilled employees and third parties.
INTELLECTUAL	International certifications and licenses, brands (CBMM and Niobium), technology and know-how about niobium, integration with universities and research, science and technology centers.
SOCIAL AND RELATIONSHIPS	Identity relation with community, strategic suppliers and partners, partnerships with public entities.
NATURAL	Pyrochlore, energy (hydroelectric power), and water (dam reservoirs).

CORE BUSINESS ACTIVITIES



From Araxá to the world

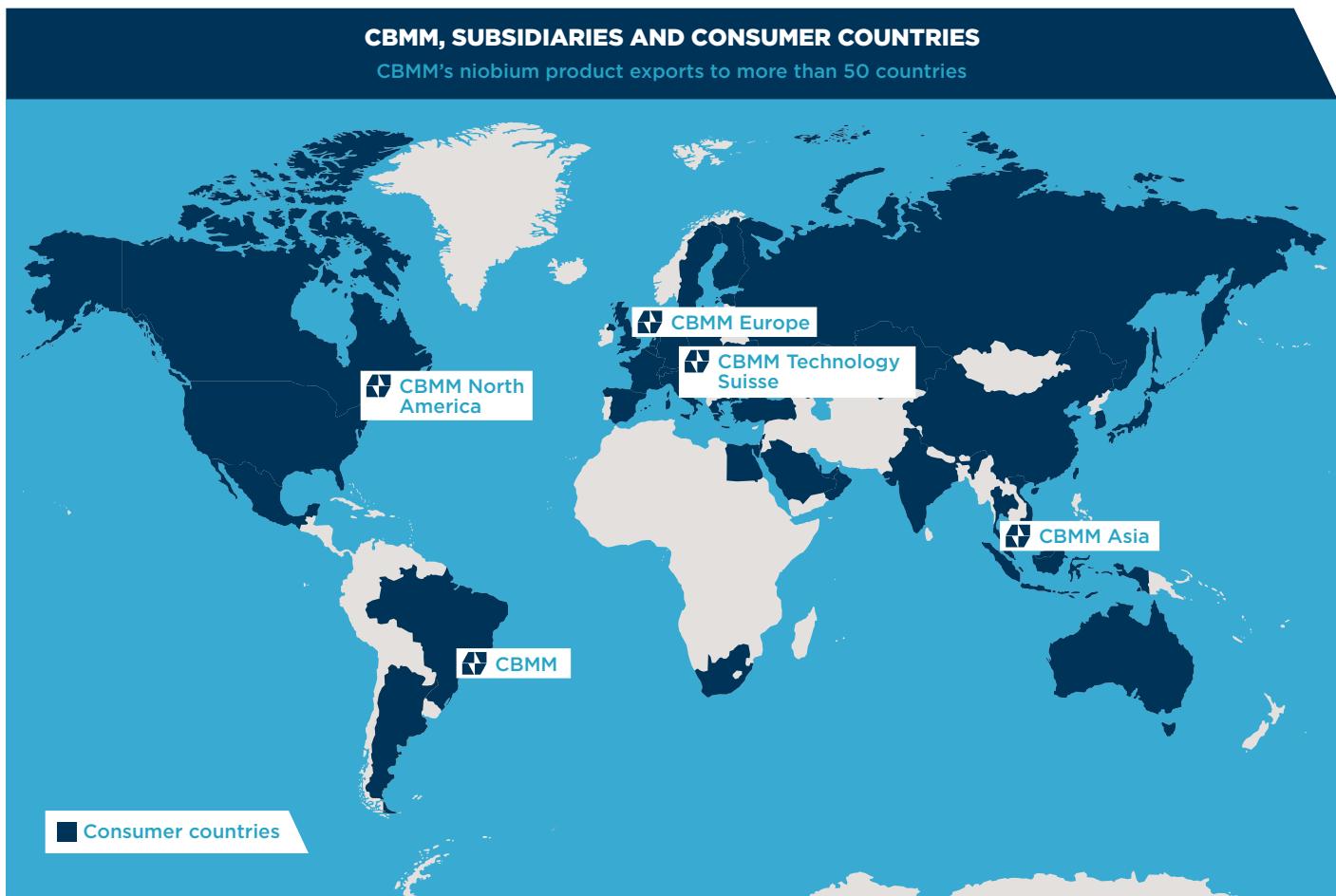
Our industrial plant is located in the municipality of Araxá in Minas Gerais state and it is where we produce the niobium technology that is exported and used in 50 countries.

The manufacture of the different niobium products is done in an integrated manner in up to 15 stages at our 17 production facilities, with technologies developed entirely by our company. We invest massively in developing each step of the process with innovation and efficiency, reducing our environmental impact.

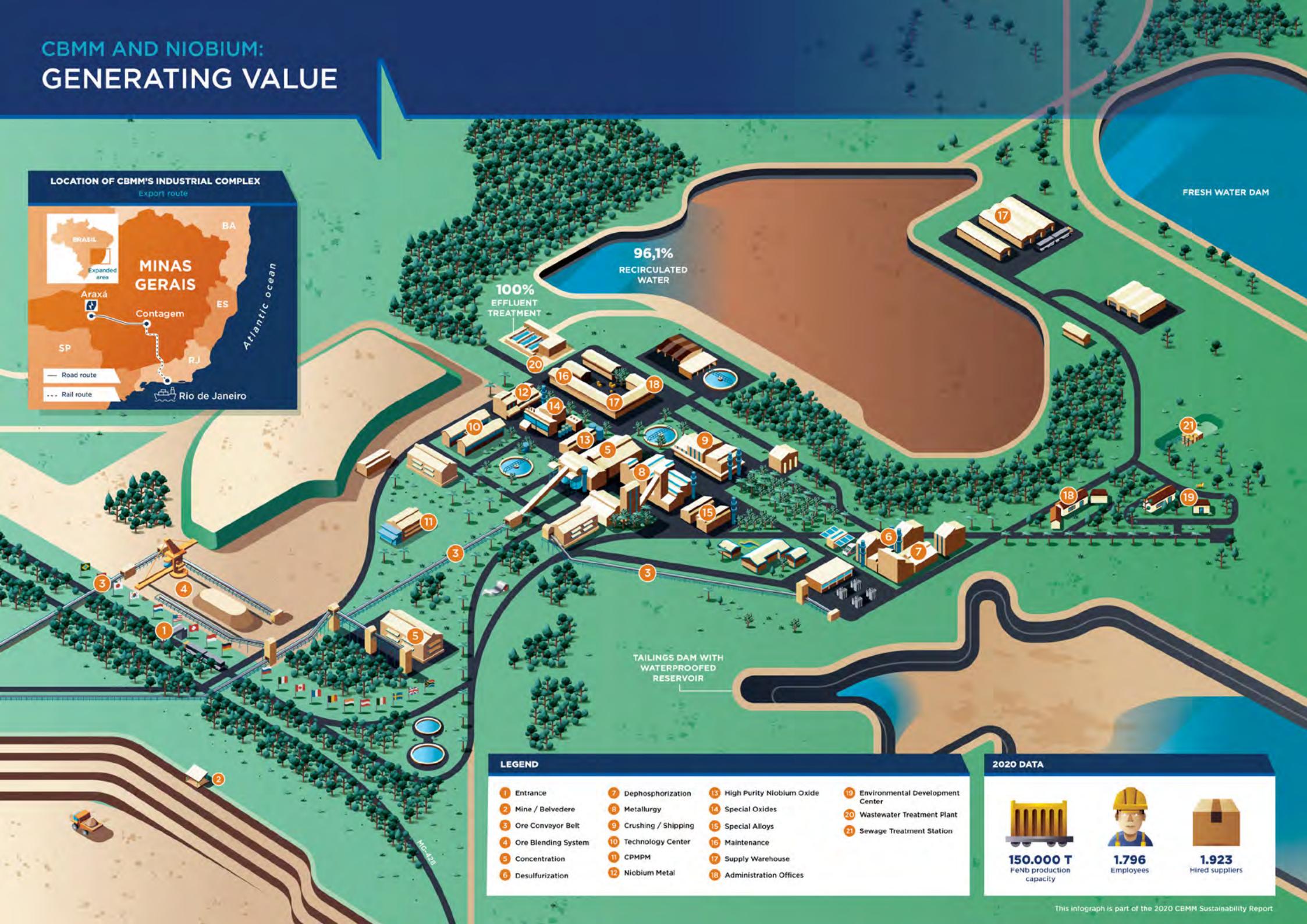
Our subsidiaries and offices abroad (China, the United States, the Netherlands, Singapore, and Switzerland) are responsible for customer relations and the development of new

applications and markets. We have distributors, sales representatives – Citic Metal in China, and Sojitz Corporation in Japan, South America, India, and Taiwan – and 26 warehouses, strategically positioned to ensure a high level of logistical service to our customers. From our base in Araxá, we have managed to build partnerships all over the world. [GRI 102-4](#)

To see more, scan the QR code below:



CBMM AND NIOBIUM: GENERATING VALUE



2020 IN THE SPOTLIGHT

SOCIAL



1.796
collaborators

5.055 direct
and indirect jobs

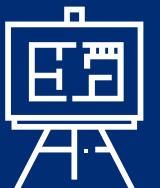
1.923 hired
suppliers

HEALTH AND SAFETY

0%

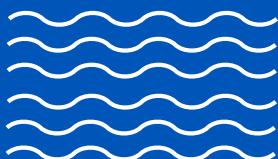
Zero is the occupational illness rate

WASTE DISPOSAL



Planning of the construction of the
Waste Disposal Structure (EDR 9)
and respective environmental licensing

WATER



27,4 m³ of fresh water is used to produce one tonne
of ferroniobium products

24,7 m³ of fresh water is used to produce one tonne
of niobium products¹

96,1 % water is recirculated

¹ Mainly niobium oxides, high purity alloys and metallic niobium.



ENERGY

23,16 GJ

of energy is consumed
to produce one tonne
of ferroniobium

24,49 GJ of energy is
consumed to produce
one tonne of niobium
products

73% of energy derives from renewable sources



EMISSIONS

0,75 tCO₂e

is emitted of
GHG² per tonne of
ferroniobium

0,84 tCO₂e

is emitted per tonne
of niobium products

² Greenhouse Gases.

**From 2018 to 2020, emissions
of CO₂e dropped by 11%**

0,51 tCO₂e

is emitted per tonne
of ferroniobium
produced
(market-based
method)

0,60 tCO₂e

is emitted per tonne
of niobium products
(market-based
method)

Energy and emission intensities are calculated considering Scopes 1 and 2.

PRODUCTION

The production capacity is
150.000 tons/year
of ferroniobium

FINANCIAL

BRL 2,1 billion
net equity

BRL 7 billion
net revenue

BRL 2,5 billion
net profit

GENERAL

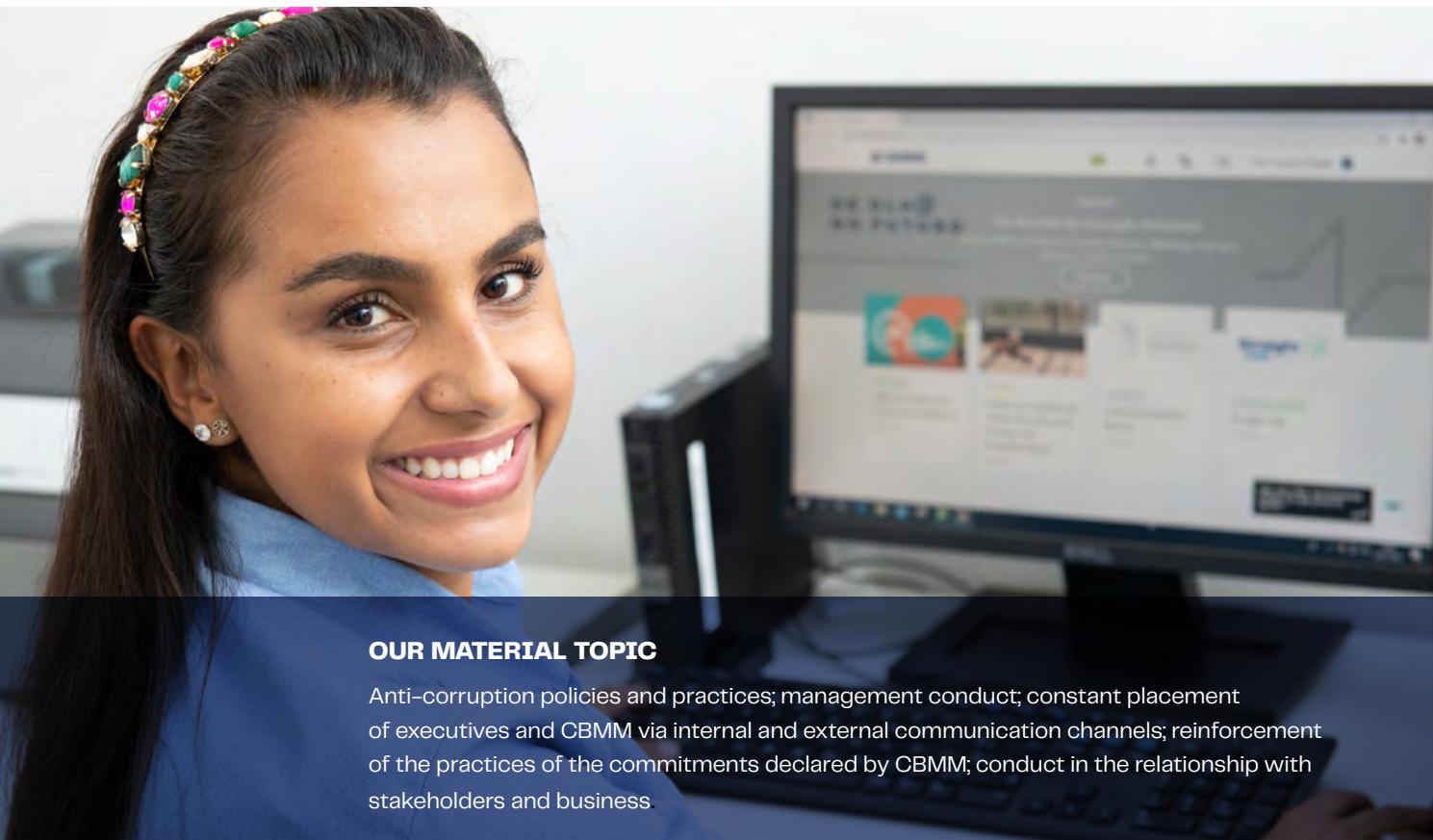
BRL 3,5 million invested
in employee training and skill development

2nd edition of the CBMM Science and Technology Award, which values the legacy of Brazilian professionals and encourages young researchers to contribute to the development of the country



Ethics, governance and transparency

GRI 102-16, 102-18



OUR MATERIAL TOPIC

Anti-corruption policies and practices; management conduct; constant placement of executives and CBMM via internal and external communication channels; reinforcement of the practices of the commitments declared by CBMM; conduct in the relationship with stakeholders and business.

16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS



Strategic management

GRI 103-2, 103-3 | 205 | 419

Ethics, integrity and respect for laws and regulations in the evolution of our business are principles exercised in all our relationships with stakeholders in Brazil and abroad. We believe in disseminating a culture of ethics as a tool for transparency and best practices, which is essential for market competitiveness and long-term sustainability.

Over the years, we have evolved in our management processes through the steady improvement of our corporate governance. To advise the Board of Directors and the Executive Board, we created the People, Strategy, Technology, Audit and Risks, and Finance committees. To keep up with the advances in our corporate practices, we

established a set of specific rules for our board meetings that define actions, duties, and follow-up of next steps.

We also invested in setting up in-house commissions made up of members of the boards and managements, which have contributed to strengthening our governance. We implemented two new committees in 2020: the Economic Sanctions and Embargoes committee, as a tool to monitor sanction and embargo laws and measures in the countries where we do business, and the Sustainability committee, to consolidate concepts, define strategies and management actions linked to environmental, social and governance (ESG) aspects at CBMM.

Leadership roles

The Board of Directors monitors the company's overall performance, analyzing risk and opportunity scenarios, as well as issues related to sustainability impacts. The term for members is one year and they meet every quarter or whenever necessary. The selection process for board members considers several aspects, such as experiences related to economic, environmental, and social issues.

[GRI 102-19, 102-20, 102-24, 102-30, 102-31](#)

The primary responsibilities of the board members are to establish the business strategies, approve the income and capital budgets, define the general compensation criteria and the benefits policy, elect and remove directors, set their assignments, and supervise their management, among other duties set forth in the bylaws. [GRI 102-26](#)

The directors, in turn, have the responsibility of preparing the budgets that contain the business plans and submitting the report of the financial statements for each fiscal year to the Board of Directors, in addition to overseeing management. The members serve a one-year term, with the possibility of reelection. The Executive Management must also keep the Board members informed about the company's activities and the progress of its operations, among other responsibilities defined in the bylaws.



We implemented the Sustainability Committee in 2020 to help us on our path to ongoing ESG improvement

MEMBERS OF THE BOARD OF DIRECTORS [GRI 102-22](#)

CHAIRMAN

Pedro Moreira Salles



VICE-CHAIRMAN

Fábio Colletti Barbosa

MEMBERS

Demosthenes Madureira de Pinho Neto; João Fernando Gomes de Oliveira; Mauro Agonilha; Mitsunori Okimura; Youngseob Jang; Maurício Novis Botelho¹; Siegfried Kreutzfeld²; Yuan Ying³; and Sun Yufeng.

¹ Member until March 2020

² Elected in May 2020

³ Replaces board member Zhihai Wang, effective as of March 2020

MEMBERS OF EXECUTIVE MANAGEMENT

CEO

Eduardo Augusto Ayroza Galvão Ribeiro

DIRECTORS

Adalberto Guimarães Parreira; Alex Silva e Amorim; Ricardo Fonseca de Mendonça Lima; and Rogério Contato Guimarães.

COMMITTEES



STRATEGY COMMITTEE

Pedro Moreira Salles; Demosthenes Madureira de Pinho Neto; Fabio Colletti Barbosa; João Fernando Gomes de Oliveira; Maurício Novis

Botelho¹; Mauro Agonilha; Siegfried Kreutzfeld²; Eduardo Augusto Ayroza Galvão Ribeiro; Adalberto Guimarães Parreira; Alex Silva e Amorim; Ricardo Fonseca de Mendonça Lima; and Rogério Contato Guimarães.

¹ Member until February 2020

² Elected in May 2020

STAFF COMMITTEE

Pedro Moreira Salles; Fabio Colletti Barbosa; Maurício Novis Botelho¹; Demosthenes Madureira de Pinho Neto²; Eduardo Augusto Ayroza Galvão Ribeiro; and Ricardo Fonseca de Mendonça Lima.

¹ Member until February 2020

² Elected in May 2020

FINANCE COMMITTEE

Fabio Colletti Barbosa; Mauro Agonilha; Demosthenes Madureira de Pinho Neto; and Alex Silva e Amorim.

TECHNOLOGY COMMITTEE

João Fernando Gomes de Oliveira; Maurício Novis Botelho¹; Siegfried Kreutzfeld²; and Ricardo Fonseca de Mendonça Lima.

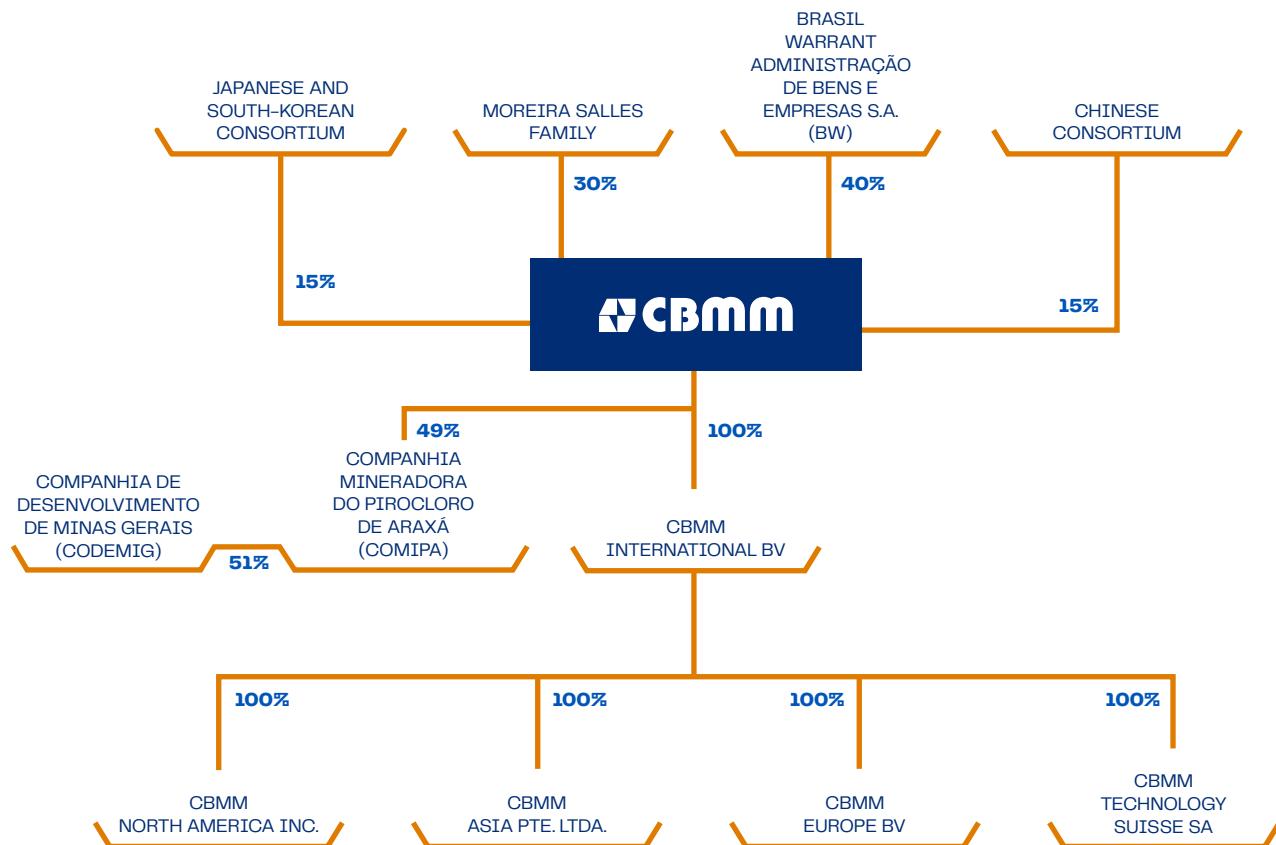
¹ Member until February 2020

² Elected in May 2020

AUDIT AND RISK COMMITTEE

Fabio Colletti Barbosa; Mauro Agonilha; and Ricardo Baldin. [GRI 102-15](#)

SHAREHOLDER BREAKDOWN



COMMITMENT AS A GUIDE

Our Integrated Management Policy is aimed at maintaining all company activities in line with the Code of Ethics and Conduct.

As such, we agree to:



- 1) Provide a safe and healthy workplace to prevent occupational accidents, injuries and illnesses in business processes.



- 2) Manage occupational safety and health hazards and risks and environmental impacts through integrated and dynamic practices.



- 3) Ensure involvement and discussions with employees, service providers and, when applicable, their representatives on matters related to health and safety at work.



- 4) Protect the environment with pollution prevention measures, attitudes and the management of risks and opportunities deriving from its activities.



- 5) Elevate the competence, impartiality and consistent operation of its activities.



- 6) Ensure competence, impartiality and the consistent operation of its activities.



- 7) Engage people (employees and service providers) in participative management and ethical performance to achieve results.



- 8) Comply with laws and other requirements applicable to its activities, products and services.



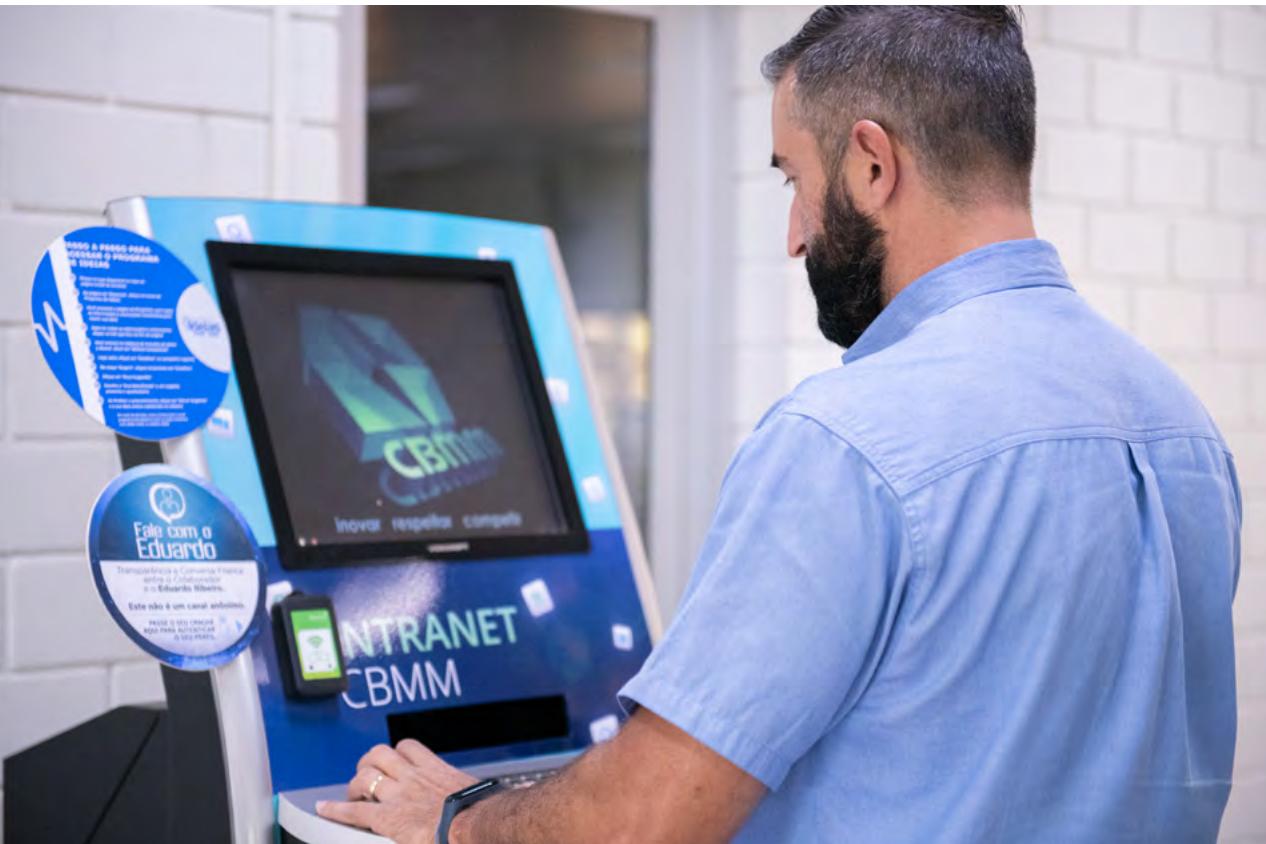
- 9) Continuously improve Management Systems in order to increase performance.

All our employees are responsible for the good performance and efficiency of the Management Systems and for their ongoing improvement. By the same token, external partners are also responsible for maintaining the confidentiality, integrity, and availability of information related to the processes, products, and services to which they have access.



Over the years, we have evolved in our management processes by consistently improving our corporate governance.

This is how we became the first institution in the industry to be certified in accordance with the requirements of ISO 14001 (environment). Our Integrated Management System (IMS) is regularly audited by ABS – Quality Evaluations and also includes compliance with the requirements of ISO 9001 (quality), OHSAS 18001 (occupational health and safety), and ISO/IEC 27001 (information security). We were recently granted the National Aerospace and Defense Contractors Accreditation Program (NADCAP) accreditation; AS9100 compliance certification (aviation, space, and defense industry); and ISO 45001 compliance certification, an evolution of OHSAS 18001.



Risks and compliance

GRI 102-11, 102-15, 102-16, 102-17, 103-2, 103-3 | 307

We treat risk management as a key tool for detecting critical business exposure factors to protect our reputation and improve our policies and strategies. In addition to minimizing risk, this management strengthens our corporate governance structure, increases transparency in our relationship with stakeholders, and paves the way for us to reach our long- and short-term goals.

Every year, we choose a topic to be worked on in depth with our collaborators

The new General Data Protection Law (GDPL 13.709/2018), which regulates the processing of personal information by public and private companies, came into force in 2020 and we have already adapted to it.

At CBMM, corrupt practices are not tolerated. The commitment towards preventing corruption is disseminated and reiterated in internal training sessions and is discouraged by means of instruments, such as: internal policies; communication channels (Ethics and Reporting Channel) open to collaborators and the public in general; due diligence of third parties (identifying risks from service providers, representatives, business partners, suppliers and consultants) and entities benefited by donations and sponsorships; specific training; anti-corruption clauses; and internal auditing.

Annually, we perform a risk assessment of the compliance risks, including corruption, as well as an analysis of the program's effectiveness, following the recommendations that will be prioritized. For 2021, we have planned a new cycle of training in the area of compliance, focusing on the launch of the Compliance Champions Program, training on the Code of Ethics and Compliance Policy; implementation of the Meritum system (to systematize flows in the area) and the creation and improvement of performance indicators for service providers,

covering Brazil and subsidiaries in the United States, Asia and Europe.

Every year, we define the compliance actions that will be worked on in the following year. The subject chosen in 2020 was moral and sexual harassment, addressed through the campaign "I say no to harassment", which included booklets and videos to raise awareness and guide the internal audience on the subject, in addition to conducting training and a live session with a guest psychologist.

CONFIDENTIAL LINE



We value an ethical and honest work environment, guiding and recognizing behavior and dialogue based on respect, transparency, and honesty. Our Compliance Program has as its main goal to guide, prevent, detect, and remedy possible discrepancies in conduct and violations of the company's bylaws, as well as the laws and regulations applicable to our business. The Ethics and Reporting Channel is a secure and totally confidential means of communication through which all employees and third parties can and should report, in good faith, discrepancies or violations of the Code of Ethics and Conduct and bylaws. In 2020, a total of 253 new reports were registered, of which 115 were finalized in the same year and the rest are still under internal analysis.

Contact us

Website: www.cbmmcompliance.com

Phones are available 24 hours a day, seven days a week:



BRAZIL: 0800 7210754



USA: 1 800 982 0934



SWITZERLAND: 0800 835 088



NETHERLANDS: 0800 022 2352

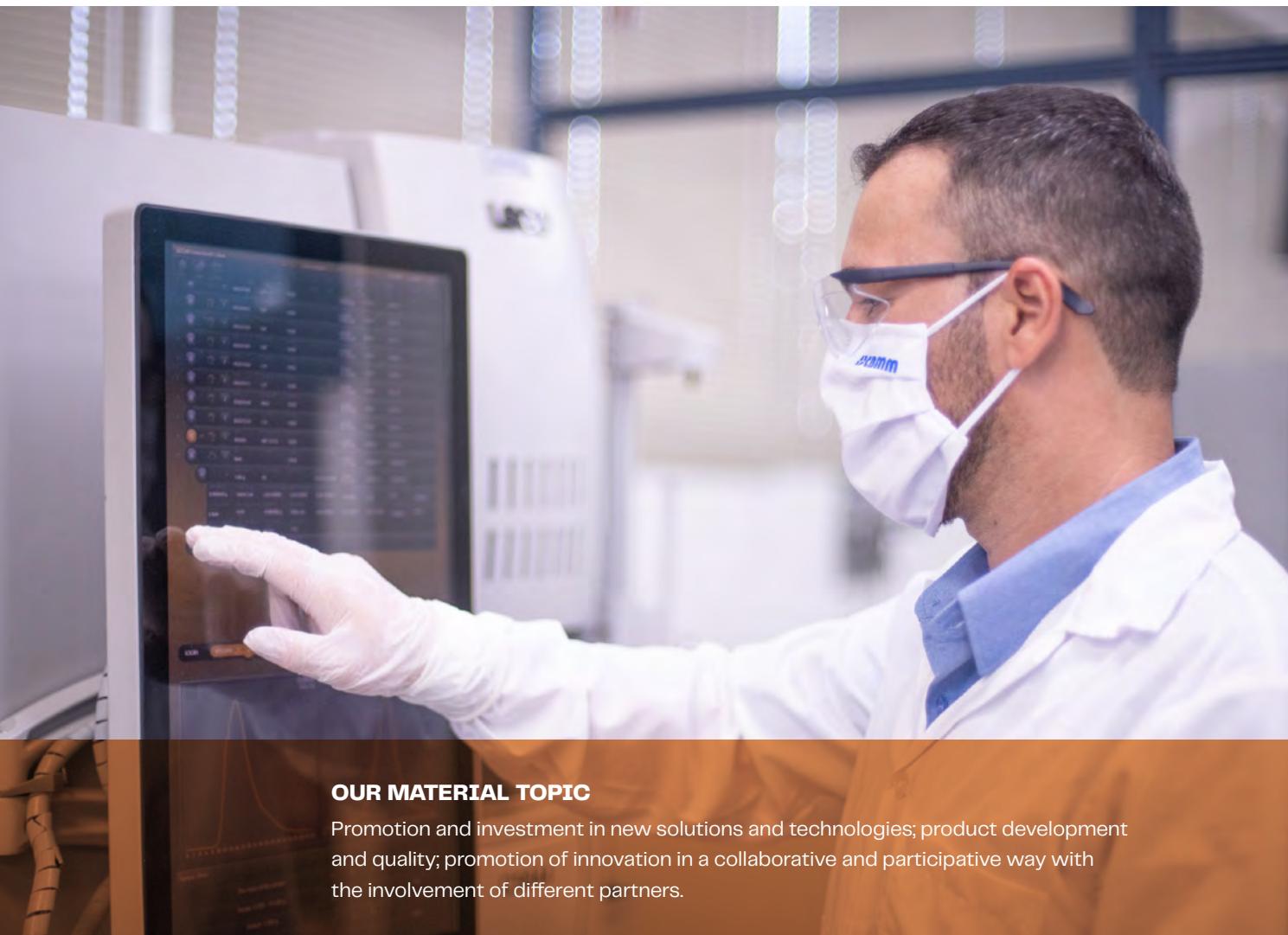


SINGAPORE: 800 852 3836

OTHER COUNTRIES: +55 11 27394508 (this number accepts collect calls)



**Innovation
and development of
solutions and products**

**OUR MATERIAL TOPIC**

Promotion and investment in new solutions and technologies; product development and quality; promotion of innovation in a collaborative and participative way with the involvement of different partners.

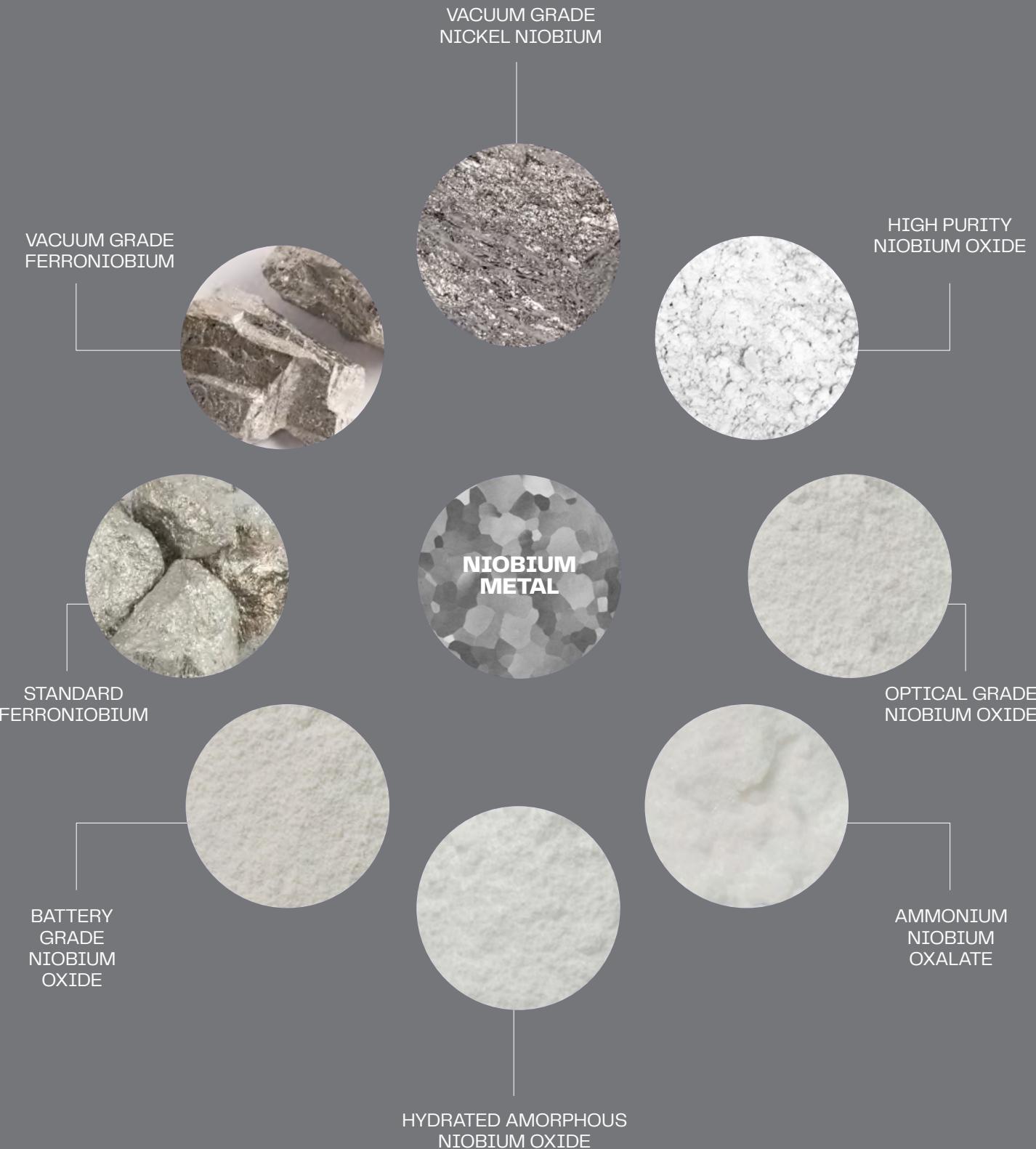
9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE**17** PARTNERSHIPS
FOR THE GOALS

Technology as an ally

GRI 103-2, 103-3 | 416

We strive to find bold and efficient answers to today's big challenges. We invest time and energy improving the applications of niobium in the sectors where the product is already in use and, through our Technology Program, we are always searching and developing new possibilities.

Our currently marketed products are recognized by the European Chemicals Agency (ECHA) as safe and harmless to health and the environment. We also have satisfied the requirements of the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) aimed at the health and safety of chemical product users and a European Union regulation. GRI 416-1

CBMM'S MAIN NIOBIUM PRODUCTS

Two years ago, we launched a digital platform (niobium.tech) aimed at disseminating niobium technology and its benefits for use in so-called smart cities. The environment connects the scientific community, customers, material designers, and end users, extending the frequency and scope of the company's developments. Here are a few of the main solutions found using niobium technologies:

- **BATTERIES:** new generation batteries made from materials with shorter charge time, higher energy density and more safety, and durability;
- **STRUCTURAL STEELS:** offers the steel industry the option of producing more competitive steels

by optimizing alloy components, and in complex engineering issues by lowering material consumption during all stages of construction (dematerialization);

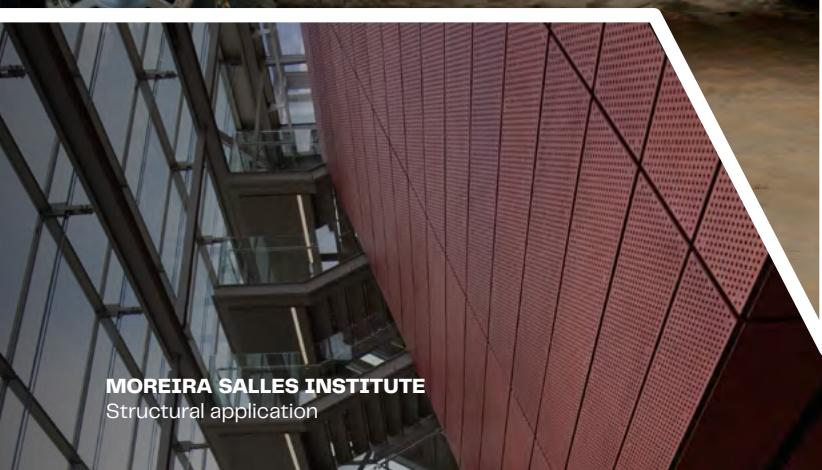
- **PIPELINES:** more safety and integrity for the world's natural gas transmission and distribution infrastructure, since steels with niobium provide the properties required for structures that transport gas at high pressure over long distances; and
- **VEHICLES:** makes materials stronger, lighter, and safer while increasing safety, reducing weight and emissions, and improving performance .

See how niobium transforms materials into smarter solutions that can build green structures, help generate clean energy and more sustainable mobility.

Niobium N₅

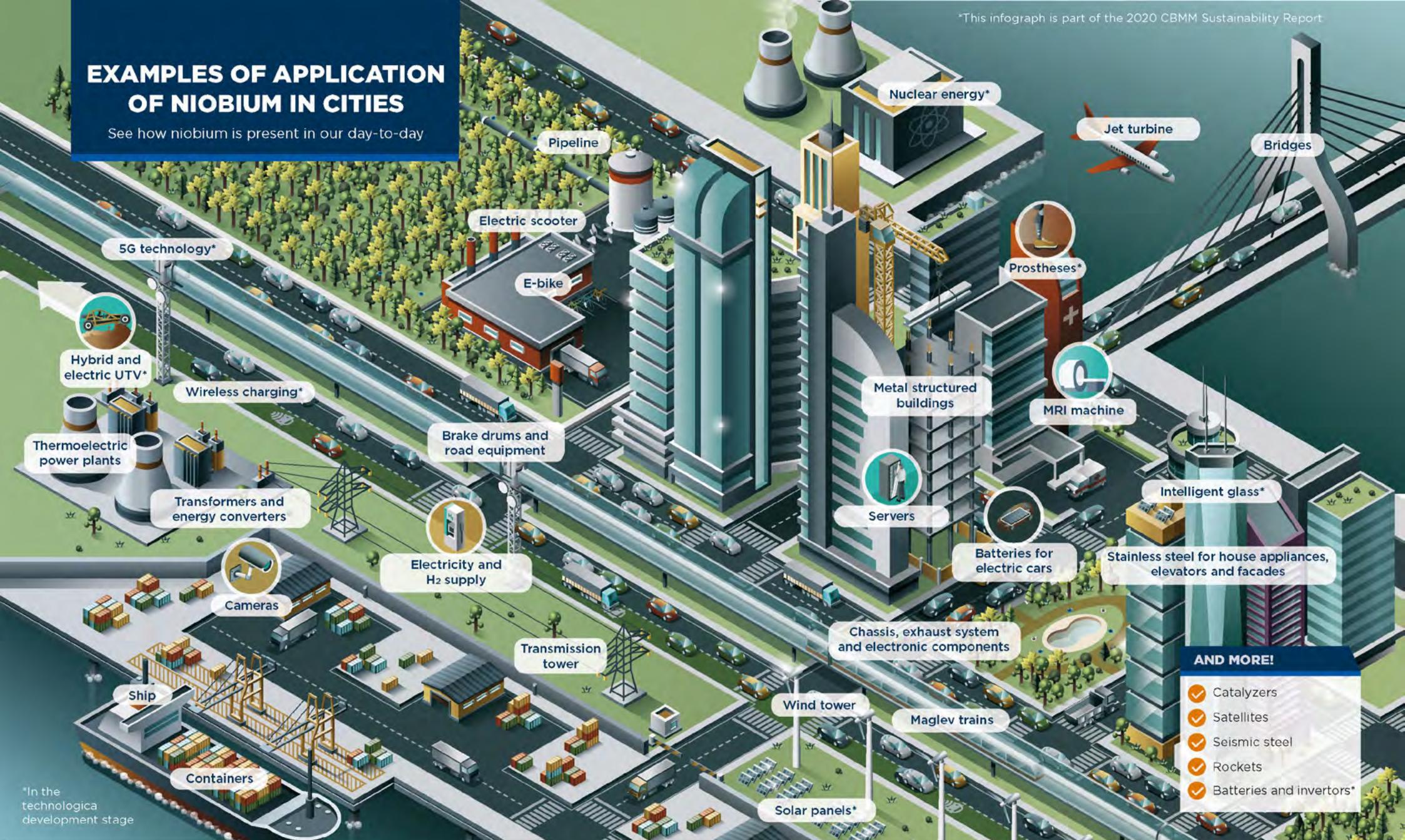
[Go to niobium.tech and get access to exclusive content about niobium technology.](#)

NIOBIUM TECHNOLOGIES



EXAMPLES OF APPLICATION OF NIOBIUM IN CITIES

See how niobium is present in our day-to-day



*In the
technological
development stage

APPLYING NIOBIUM ADDS VALUE TO PRODUCTS

Increased value

More financial return in manufacturing costs, more component durability and lower fuel costs

Environment

Less input, fuel and raw material use, as well as lower GHG emissions during life cycle

Cutting-edge technology

Improves properties of advanced steel, cast aluminum, glass, batteries and electronic equipment

Better performance

Malleability, weldability, uniformity and more lightweight

More safety

Lighter and more resistant structures

Digital transformation – Industry 4.0

For the development of new products and solutions, as well as research and partnerships, we focus on the concept of Industry 4.0. For three years now, we have been applying resources and efforts in this smart factory model – composed of cyber systems and the Internet of Things – characterized by adaptability and resource efficiency, as well as by the integration of customers and business partners.



The convergence of disruptive technologies allows the industry to take a new productive leap

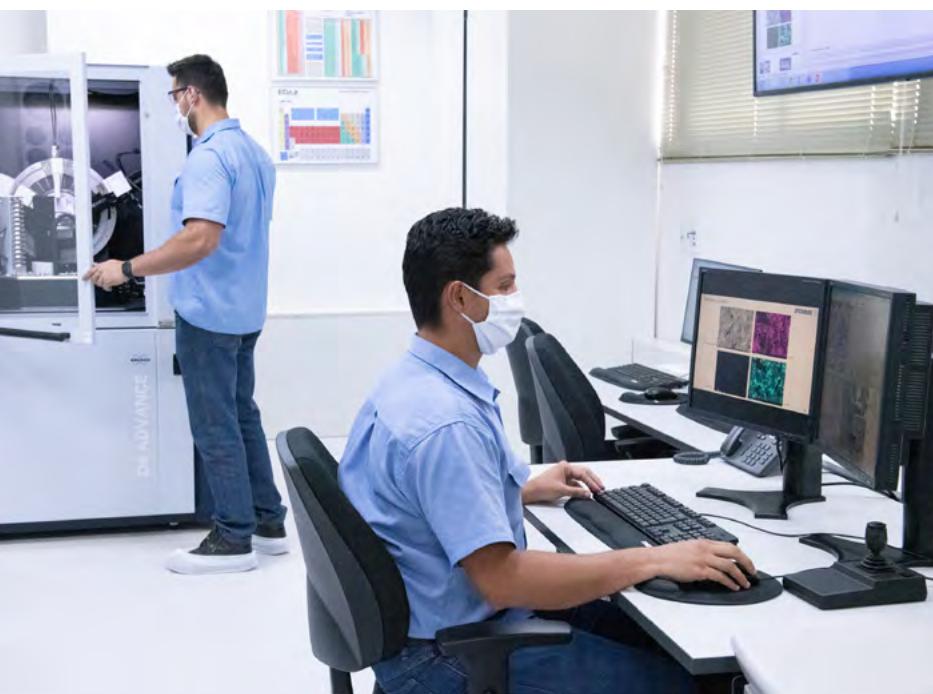
The combination of several technologies has the purpose of accelerating efficiency gains in our Industrial Park and preventing failures in the user interface, with data, operations and asset management, and supply chain management. To this end, hundreds of thousands of sensors record quality and production data throughout the chain to create a solid foundation for real-time control and analysis of production processes. This allows us to plan, make decisions, and deliver results faster.

Industry 4.0 is the basis of the digital transformation that is underway within the company. We deployed management applications (to follow up on managerial indicators, such as sales, stocks, and financials); maintenance and quality applications; access to updated customer information; and speed in data analysis, with the use of artificial intelligence, algorithms, among other aspects.



Research and knowledge building

GRI 102-10, 102-15



Innovation and scientific and technological development have been present since the beginning. Therefore, we are partners with several institutes and universities and have a dedicated budget for R&D actions. In 2020, we invested BRL 141,5 million, representing 1,8% of our consolidated net revenue.

In our pursuit to always be on the cutting edge technologically, we became a shareholder in 2DM in 2019, a Singapore-based company that produces and develops graphene technologies. The material has great synergy potential with niobium, and can accelerate our Battery Program. Other initiatives are underway, such as:



Implementation of a lab for advanced battery materials with the purpose of teaching and the supply of nanostructured niobium materials for fast-charge batteries.



Disseminate niobium use throughout the steel supply chain with the intention of boosting sales for the production of rebars or structural frames.



Use of niobium microalloyed solutions in PH steels (Press Hardening) for application in passenger cars (lighter and safer) and commercial vehicles, such as trucks and buses.



Disseminate the application of niobium in nanocrystals, present in electrical components such as chargers and wireless filters.



Production of master alloys of aluminum, niobium and boron used to refine grains of aluminum-silicon alloys for auto parts.



Pilot scale production of low nitrogen superalloy ingots for testing in the aircraft industry in turbine manufacturing.

CBMM Science and Technology Award

We are committed to leaving a legacy beyond the global development of the niobium market. As such, we promote the CBMM Science and Technology Award, which encourages scientific and technological production in the country, and recognizes the legacy of researchers dedicated to improving the society in which we live.

In the second edition, which had more than 270 entries, the winners were physician Cesar Victora from the Federal University of Pelotas (UFPel) in Rio Grande do Sul state, and chemist Fernando Galembeck from the State University of Campinas (Unicamp) in São Paulo. The winner in each category was awarded a prize of BRL 500.000.



O epidemiologista brasileiro que contribuiu para reduzir a mortalidade infantil em todo o planeta

Meet Cesar Victora: the epidemiologist who has reduced infant mortality worldwide



O químico brasileiro que descobriu como captar energia do ar

Victora was recognized in the Science category for his contributions in the areas of maternal and child health and nutrition, with emphasis on documenting the importance of breastfeeding alone in preventing newborn mortality and the construction of infant growth curves, now used to assess the development of fetuses and babies in more than 140 countries. The epidemiologist has worked as an advisor for the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF).



Meet Fernando Galembeck: the chemist who discovered how to capture energy from the air

In the Technology category, Galembeck was awarded for his performance in projects with several companies, developing advanced and sustainable processes for the production of industrial raw materials, energy, and high-tech products, with application in several sectors. With an extensive career as a university professor, the researcher has published 286 papers and filed 36 patents, several of them extended to more than 20 countries. Eight products based on these patents have been introduced to the market.

Charles Hatchett Award



Since 1979, we have been a sponsor of the Charles Hatchett Award promoted by the Institute of Materials, Minerals and Mining (IOM3) in England. The award recognizes published works on the application of niobium technology and its alloys. The winners of the 42nd edition of the award are the authors of the paper "Ultra-high current density niobium

disulfide catalysts for hydrogen evolution", which supports the performance of niobium in catalyst improvement, as well as the benefits of cost cuts and safe supply. Hydrogen energy is being explored as an alternative to fossil fuels, complementing battery power in transport applications.

► **Details of the award can be seen at the Award website**

► **The article published by the winners was featured in Nature magazine, one of the world's most important scientific publications.**

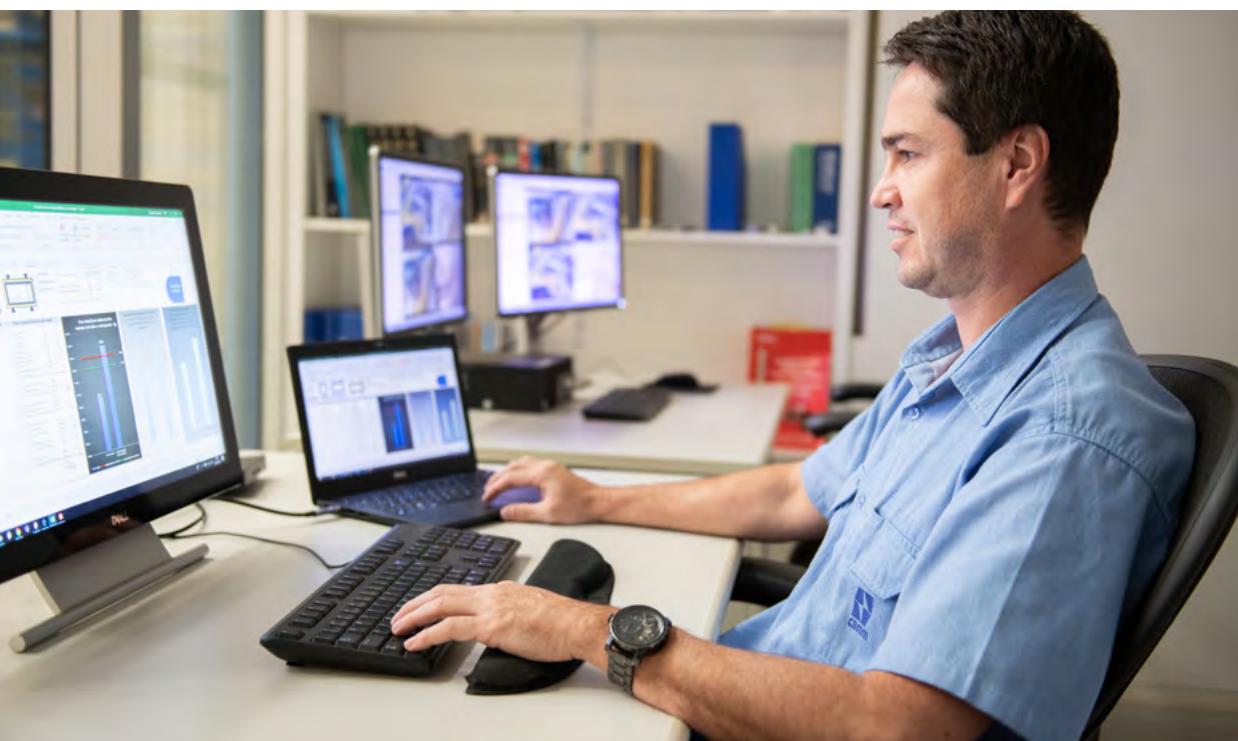


Young Scientist Award

Since 2011, we have been the main sponsor of the Young Person's World Lecture Competition (YPWLC), an award also organized by IOM3 to encourage and enhance the communication skills of students and young professionals up to the age of 28. GRI 102-12

► **Click here for more information about YPWLC.**

The role of innovation



To transform niobium into high value-added products and increase our market slice, we rely on innovation garnered by technical cooperation with universities, research institutes, and customers around the world, promoted by our Technology Program. We have two hubs in our Industrial Park.

Metallurgical Processes and Materials Research Center

Pioneering and unprecedented in the world, this center enables the development of prototypes of superalloys in addition to collaborating with the insertion of special and innovative niobium products in the aerospace and energy industries. The center's processes are supported by three patents and by NADCAP accreditation and AS9100 (Aviation, Space, and Defense Industry) certification.

Technology Center

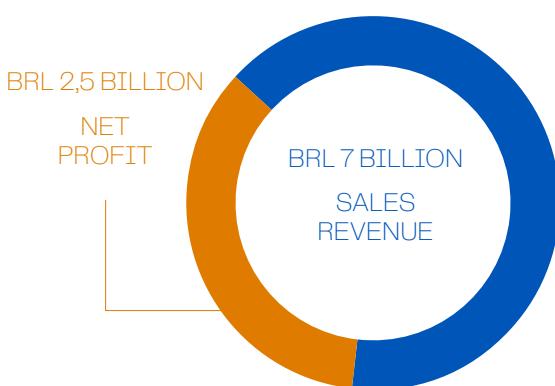
At the Technology Center, we develop new products and applications for niobium technology and invest in the technological improvement of the processes employed in production. In 2020, the 61 researchers of the area developed 69 projects.

Based on the premise of scientific development, our team works to improve and expand industrial processes, contemplating aspects that cover all stages of the production chain. The center's structure is accredited under the NBR ISO/IEC 17025:2005 standard and by NADCAP (National Aerospace and Defense Contractors Accreditation Program).

See more at <https://cbmm.com/pt/our-company/technology>



Business, scenarios and results

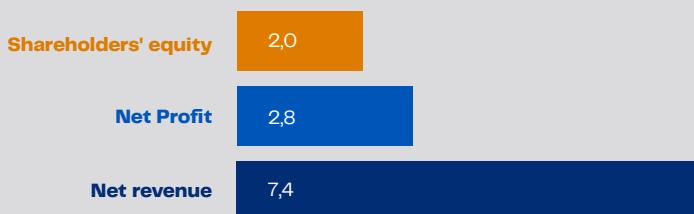


Our financial results were close to those of 2019, benefited by the exchange rate variation, despite our sales volume having dropped 30,89% due to the global market. Net revenue reached BRL 7 billion (18,6% down from the previous year) and net income was BRL 2,5 billion, 13,8% less than in 2019. Our current ferroniobium production capacity stands at 150.000 tonnes per year.



**MAIN
ECONOMIC
INDICATORS
(BRL billion)**

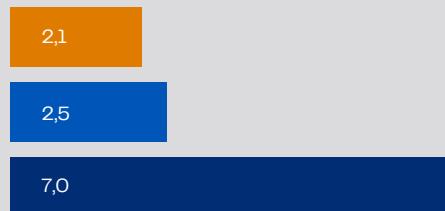
2018



2019



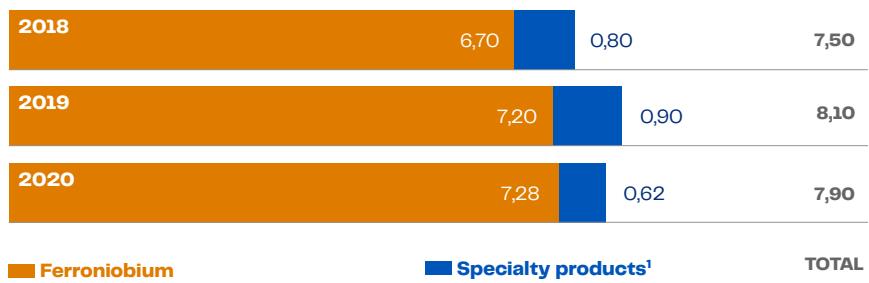
2020



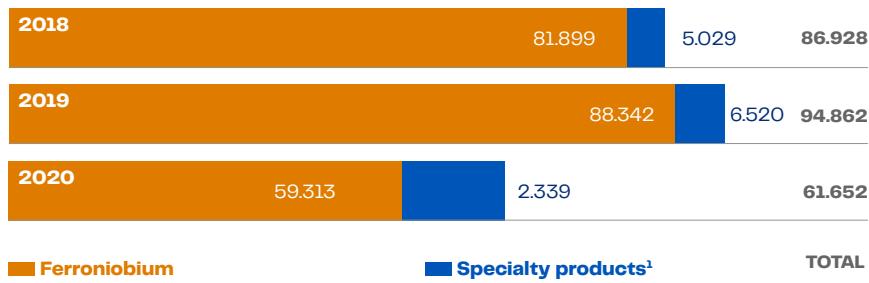
PRODUCTION DATA (thousand tons)



EVOLUTION OF EXPORT REVENUE (BRL billion)

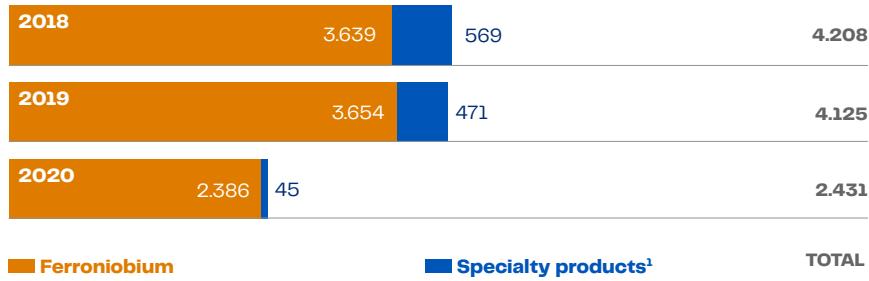


EVOLUTION OF EXPORTS (t)



The exported amount refers to sales to market and to the replenishment of stocks for future needs.

EVOLUTION OF THE AMOUNT SOLD TO THE DOMESTIC MARKET (t)



The export volume is as reported above (61.652 t), however, the market sales volume is different (72.172 t).

¹ Mainly niobium oxides, high purity alloys and metallic niobium.

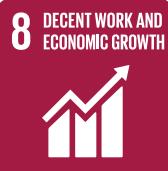


People management: practices and strategies



OUR MATERIAL TOPIC

Fair labor practices and remuneration for employees; fighting all forms of discrimination, forced, compulsory and child labor; responsible leadership; people development; commitments and practices aimed at diversity and inclusion in the organization, in all its aspects (gender, race, ethnicity, origin, work styles, etc.). Creation of listening and dialogue areas for an inclusive organizational environment.



Attracting and retaining talent

GRI 103-2, 103-3, 202 | 401

We believe that a productive work environment, capable of creating a portfolio of high-tech solutions, needs to be supported by a culture that values people's development and well-being. Our Commitments guide our actions and behavior and are important tools for building the CBMM we want for the future.

We are investing in improving our organizational environment and in finding opportunities. The latest work environment survey, applied by the Mercer consultancy firm, showed positive results regarding the benefits and satisfaction of employees in working for the company. A new survey will be conducted in 2021.

In the past five years, we have improved management in the Human Resources area by systematizing processes via SAP and by reviewing and adjusting the Position and Salary Policy. We have also evolved in employee performance assessment processes in alignment with organizational competencies.

We have improved our HR management and enhanced our employee assessment processes

We ended the year with a staff of 1.796 highly trained employees committed to providing innovative technologies and products for the world. [GRI 203-2](#)

Benefits

We offer differentiated benefits in the areas of healthcare, education, retirement, housing and wellness. Currently, we have an incentive plan for home buyers, amortization of property financing, remodeling projects and construction wrap-up.

One of CBMM's most significant employment benefits is educational assistance. Besides motivating staff to study, whether a technical course or for a university degree, the company also extends the coverage to dependents. Children of employees receive subsidies during every stage of their education through to college graduation. Children from four months to five years of age have no-cost access to the CBMM-sponsored Human Development Center (CDH). Maintained by CBMM since 1980, this center serves 510 children and applies its own methodology for language development, reasoning, and socialization through playful, interactive activities.

With the purpose of ensuring a retirement of greater value for our employees, we offer a private pension plan, in which we contribute with 5% of the base salary, including the

13th salary, and the employees with 2,5%. Participation in the plan is voluntary, global, and offered to all CBMM employees.

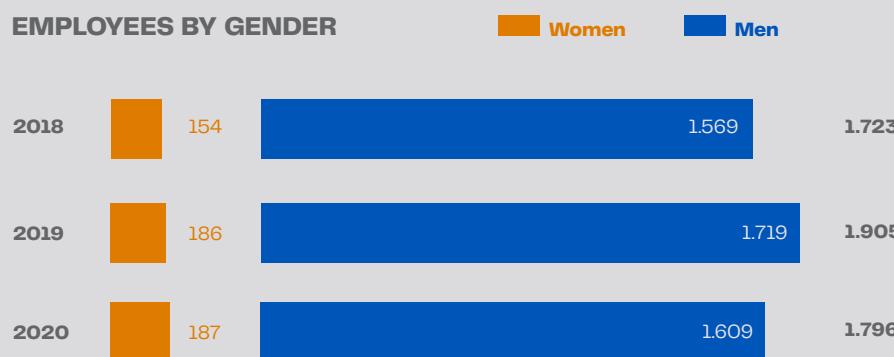
Gateway Programs

We have programs aimed exclusively at training, professional growth, and career development for young talents. One of the main ones is the Young Apprentice Program, which fosters the inclusion in the labor market of teenagers and young adults in operator and technical assistant jobs after training provided by Senai. In 2020, 65 young people participated in this project.

In the Internship Program, we provide practical experience with the possibility of hiring students from technical and higher education levels.

The Trainee Program, on the other hand, gives the newly-graduated candidate the opportunity to get to know all the company's processes in a strategic way so they can build a career aimed at leadership. In 2020, we hired four trainees (out of 5.200 participants in the selection process).

Our team: main indicators GRI 102-8



EMPLOYEES BY EMPLOYMENT CONTRACT AND TYPE OF JOB¹

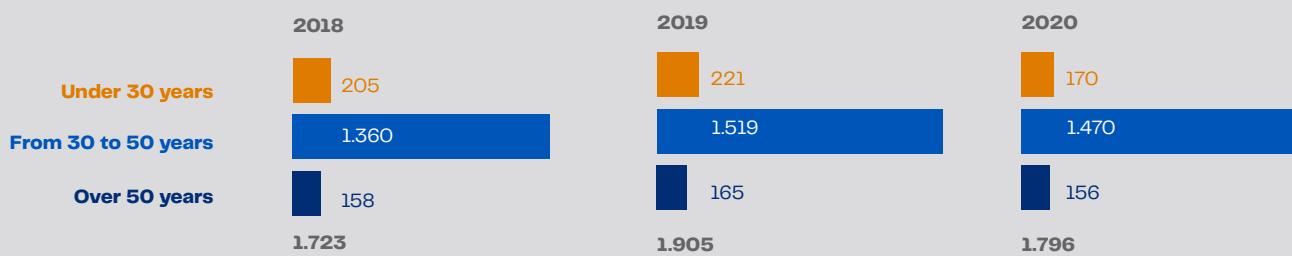
Job type	2018			2019			2020		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Full time	1.566	147	1.713	1.716	180	1.896	1.608	181	1.789
Part time	3	7	10	3	6	9	6	1	7
TOTAL	1.569	154	1.723	1.719	186	1.905	1.614	182	1.796

¹ Due to the 30,89% drop in sales, it was necessary to adjust production to our new reality, which led to a 5,7% cut in the number of employees.

EMPLOYEES BY EMPLOYMENT CONTRACT AND REGION

Region	2018			2019			2020		
	Defined time	Undefined Time	Total	Defined time	Undefined Time	Total	Defined time	Undefined Time	Total
Araxá	33	1.620	1.653	31	1.796	1.827	18	1.701	1.719
São Paulo	0	70	70	0	78	78	0	77	77
TOTAL	33	1.690	1.723	31	1.874	1.905	18	1.778	1.796

OWN EMPLOYEES BY AGE GROUP

EMPLOYEES BY JOB CATEGORY AND GENDER¹

Job category	2018			2019			2020		
	Men	Women		Men	Women		Men	Women	
Board of Directors	10	0		10	0		10	0	
Executive management	6	0		5	0		5	0	
Management	51	10		54	11		59	11	
Leadership/coordination	34	6		49	8		71	15	
Technical/supervision	115	6		400	40		363	40	
Administrative	268	84		144	102		155	110	
Operational	1.095	48		1.067	25		956	11	
Trainees	0	0		4	4		0	0	
Third Parties (COMIPA)	170	9		176	10		156	16	
Third parties (others)	0	0		0	0		0	0	
Trainees	26	17		29	15		31	17	
Interns	11	5		2	4		3	9	
Total by gender	1.786	185		1.940	219		1.809	229	
TOTAL		1.971			2.159			2.038	

¹ Board, third parties, interns, and trainees are not considered employees. Subtracting these roles, CBMM closed 2020 with 1.796 employees.

Incentives for improvement

GRI 103-2, 103-3 | 404 | 412

With a view to innovation and technology, we invest in training our employees to ensure excellence in all our processes. We have developed an internal training policy with guidelines to foster training courses and professional and technical improvement. Our employees follow a plan for the development of technical and behavioral skills that is aimed at improving their job performance.

In addition, we encourage the ongoing improvement of different skills and invest in national and international specialization and language courses. In 2020, about BRL 3,5 million were invested in actions aimed at professional improvement and development. As a result of the pandemic, we have prioritized distance learning (EAD) initiatives for training in regulatory standards and for leadership.

We have also defined training indicators and standards (an average of 15,81 hours per professional in 2020) to monitor the use of employees in the programs and make the opportunities for development within the company clear. [GRI 404-1](#)

Commitments put into practice

In order to translate and provide guidance for behavior expected from each employee, we implemented a year ago the Our Commitment program which includes five organizational commitments and two leadership commitments: Candor; Leave it to Us; Building the Future; Excellence in Every Detail; Performance Defines Us; Leaders Developing Leaders; and Always Connected.

Each includes the development of different skills, such as motivation, discipline, critical thinking, collaboration, transparency, and prioritization of deliverables. This initiative was the basis for the launch of Ciclo Gente (People Cycle), a performance assessment and career development process. [GRI 404-3](#)

During 2020, virtual training campaigns were put in place to raise awareness among employees so that they could consolidate good practices within the company's work routine.

OUR COMMITMENT



FRANK
TALK



LEAVE IT
TO US



BUILDING
THE FUTURE



EXCELLENCE
IN EVERY
DETAIL



PERFORMANCE
DEFINES US



LEADERS
SHAPING
LEADERS



ALWAYS
CONNECTED

EMPLOYEES RECEIVING PERFORMANCE REVIEWS BY JOB CATEGORY¹ (%) GRI 404-3

Job category	2019			2020		
	Men	Women	Total	Men	Women	Total
Executive management	100	0	100	100	0	100
Management	94,74	90,91	92,82	85,9	107,14 ²	89,13
Leadership/coordination	100	100	100	56,52	0	35,14
TOTAL³	97,30	94,74	96,92	97,96	35,71	74,75

¹ The functional technical/supervisory, administrative, operational, and trainee levels are not eligible for regular performance and career reviews.

² The total of women at management levels assessed in 2020 includes a number of assessments from the end of 2019 that were not covered in the previous report.

³ The final percentage refers to the total number of eligible employees who received the reviews.



Internal communication and employee engagement

Internal communication is responsible for the strategies and actions that foster the integration and engagement of employees. Through campaigns, press releases, and internal marketing actions, circulating in communication channels, this area keeps employees informed about projects, operational results, and various initiatives. It also offers educational campaigns in different contexts, such as health and wellness, safety, among others.

In synergy with marketing, HR and the Board, the communication area promotes actions to reinforce the organizational culture and adherence to Our Commitment, attributing the necessary behaviors and attitudes for the attainment of organizational goals. Another important role of communication is to carry out the deployment of the Company's global business strategy to foster understanding and a sense of belonging in the employees.

Hierarchy without distance

For the purpose of encouraging frank and transparent conversation among employees, area leaders, and the board of directors, we offer the Direct Connection and Talk to Eduardo (CEO) channels. The messages sent to Direct Connection were no longer anonymous as of 2020 to encourage constructive dialogue between the parties.

The employee can send suggestions, criticism, and questions with the aim of contributing to the company's development. This channel is complementary to others, such as the Compliance and Ideas Program. In 2020, we also set up forums where employees and leaders can discuss issues of interest to the organization.



We have invested
in training our employees
as a way to ensure
excellence in all processes

Shaping leaders

With the help of a specialized consulting firm, we implemented in 2020 the Career Paths project to provide greater visibility about career opportunities at CBMM. The employees are encouraged to talk about the topic with their managers, taking the lead in their own professional development.



Employees have a direct channel to the leadership

Employee turnover in 2020 GRI 401-1

Hires by age group, gender, and region

Age group						Gender				Region				
Under 30		From 30 to 50		Over 50		Man		Women		Araxá (MG)		São Paulo (SP)		
No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	
2018	45	0,22	89	0,07	1	0,01	119	0,08	116	0,75	126	0,08	9	0,13
2019	76	0,34	184	0,12	7	0,04	227	0,13	40	0,22	247	0,14	20	0,26
2020	22	0,13	56	0,04	3	0,02	55	0,03	26	0,14	73	0,04	8	0,10

Departures by age group, gender, and region

Age group						Gender				Region				
Under 30		From 30 to 50		Over 50		Man		Women		Araxá (MG)		São Paulo (SP)		
No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	
2018	4	0,02	39	0,03	19	0,12	49	0,03	13	0,08	50	0,03	12	0,17
2019	6	0,03	52	0,03	27	0,16	77	0,04	8	0,04	77	0,04	8	0,04
2020	20	0,12	134	0,09	37	0,24	162	0,1	29	0,16	179	0,1	12	0,16



Most employees hired in 2020 are between 30 and 50 years old

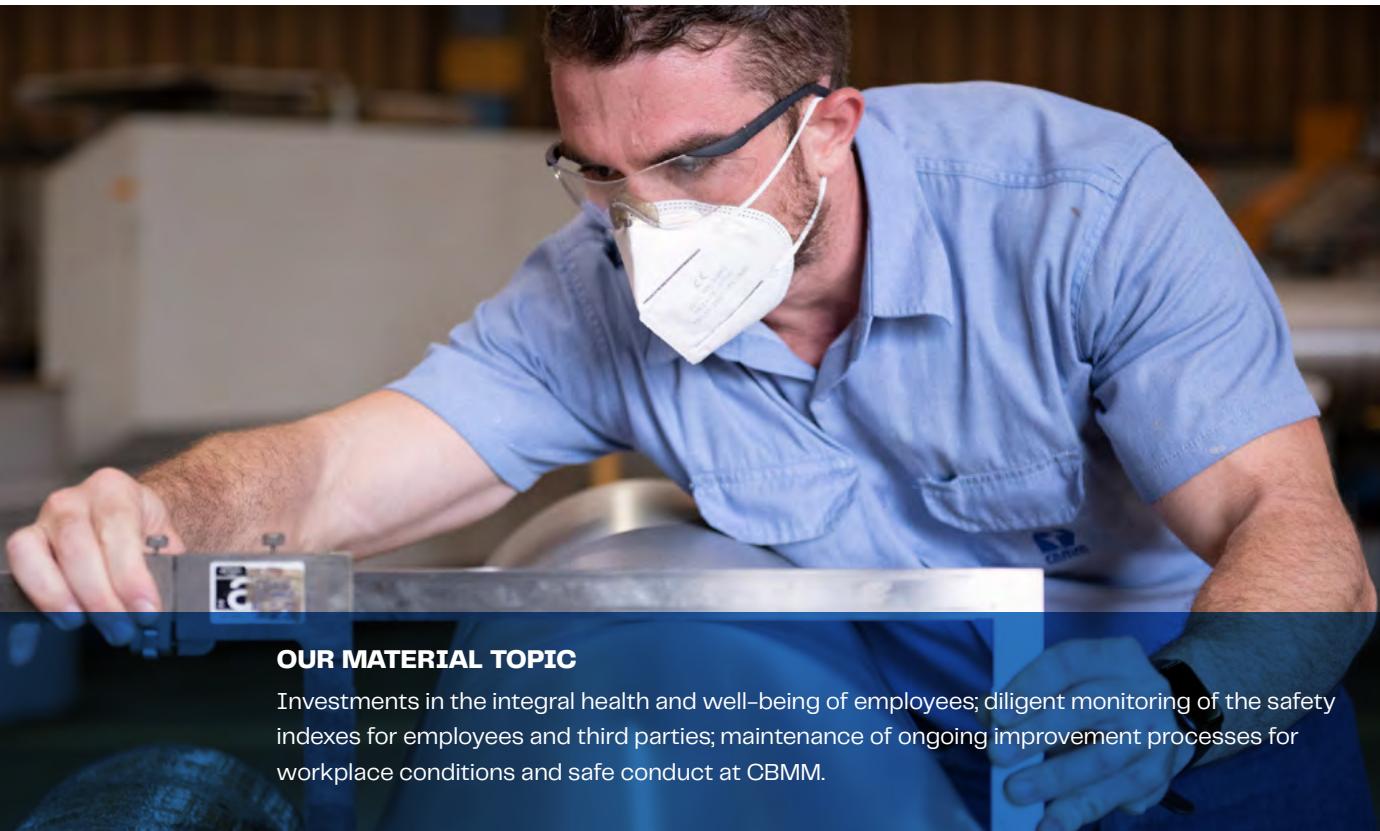
Total of hires and departures

	2018		2019		2020	
	No.	Rate	No.	Rate	No.	Rate
Hired	135	0,08	267	0,14	81	0,05
Departures	62	0,04	85	0,04	191	0,11

Senior management members hired from the local community¹ GRI 202-2

CBMM head office and SP branch office	2018	2019	2020
Total upper management members	6,00	5,00	5,00
Upper management members hired in the local community	4,00	3,00	3,00
Percentage of upper management members hired in the local community	67%	60%	60%

¹ State of Minas Gerais for the Araxá head office and State of São Paulo for the São Paulo branch.



OUR MATERIAL TOPIC

Investments in the integral health and well-being of employees; diligent monitoring of the safety indexes for employees and third parties; maintenance of ongoing improvement processes for workplace conditions and safe conduct at CBMM.

3 GOOD HEALTH
AND WELL-BEING



8 DECENT WORK AND
ECONOMIC GROWTH



Occupational health and safety

GRI 103-2, 103-3 | 403, 403-1, 403-2, 403-7

Ensuring the safety and occupational health of our employees is a priority and an integral part of our business. We monitor the area closely, tracking indicators such as attendance rates and accident figures.

We also rely on the support of formal commissions, which act in an integrated way to disseminate actions aimed at health, accident prevention, and emergency situations. These commissions are composed of the Safety Engineering and Occupational Medicine Specialized Service (SESMT) – the Internal Commission for Accident Prevention (CIPA); the e Emergency Response Action Brigade (BARE) – and the Occupational Health and Safety Facilitators. [GRI 403-4](#)

We have developed risk management tools to detect labor risks and implement elimination and mitigation actions. A training matrix is applied

to employees who perform activities that may involve a risk. Everyone has the right to refuse tasks that involve dangerous situations.

Accident records are included in the Integrated Management System (SIG) by means of Accident Reports (RCA) and are handled, as the case may be, by a Remedial Action Request (SAC) that registers the analysis of the occurrences, as well as the actions established in an action plan. The work accident registry, procedure, and classification are contemplated in NBR 14280 and ISO 45001.

We reinforce our commitment to maintain "zero" occupational illnesses, as recorded in 2020, and to keep documents and information related to employee health confidential, as directed by the General Law on Personal Data Protection (LGDP – Law 13.709/2018).

[GRI 403-6](#)

Prevention and quality of life

The Medical Control Program for Occupational Health (PCMSO) was developed as one of the ways to care for employee health. Through it, flows were established for the performance of admission, periodic, return to work, and dismissal exams. On another front, the Environmental Risk Prevention Program (PPRA) establishes measures that control, reduce or eliminate risks, preserving the physical and mental integrity of employees and third parties.

For the prevention and treatment of occupational diseases we promote actions for: obesity, hyperlipidemia (high cholesterol), prostate cancer, smoking; women's health, influenza vaccination, prevention and control of hypertension and diabetes, and appointment flows for mental health cases.

Other programs include: respiratory protection (identifies and controls exposure to dust, fumes, post-metal and solvents); hearing conservation (periodically monitors hearing acuity, preventing loss); control of inorganic lead for employees who are exposed to the risk inside the industrial unit; prevention of accidents with perforating-cutting materials (minimizes the risk of exposure for medical service staff); in addition to the management program for health service waste. [GRI 403-3](#)

All employees benefit from the health and safety management system, and we also offer a training program for third parties.

[GRI 403-5, 403-8](#)

WORK-RELATED INJURIES [GRI 403-9](#)

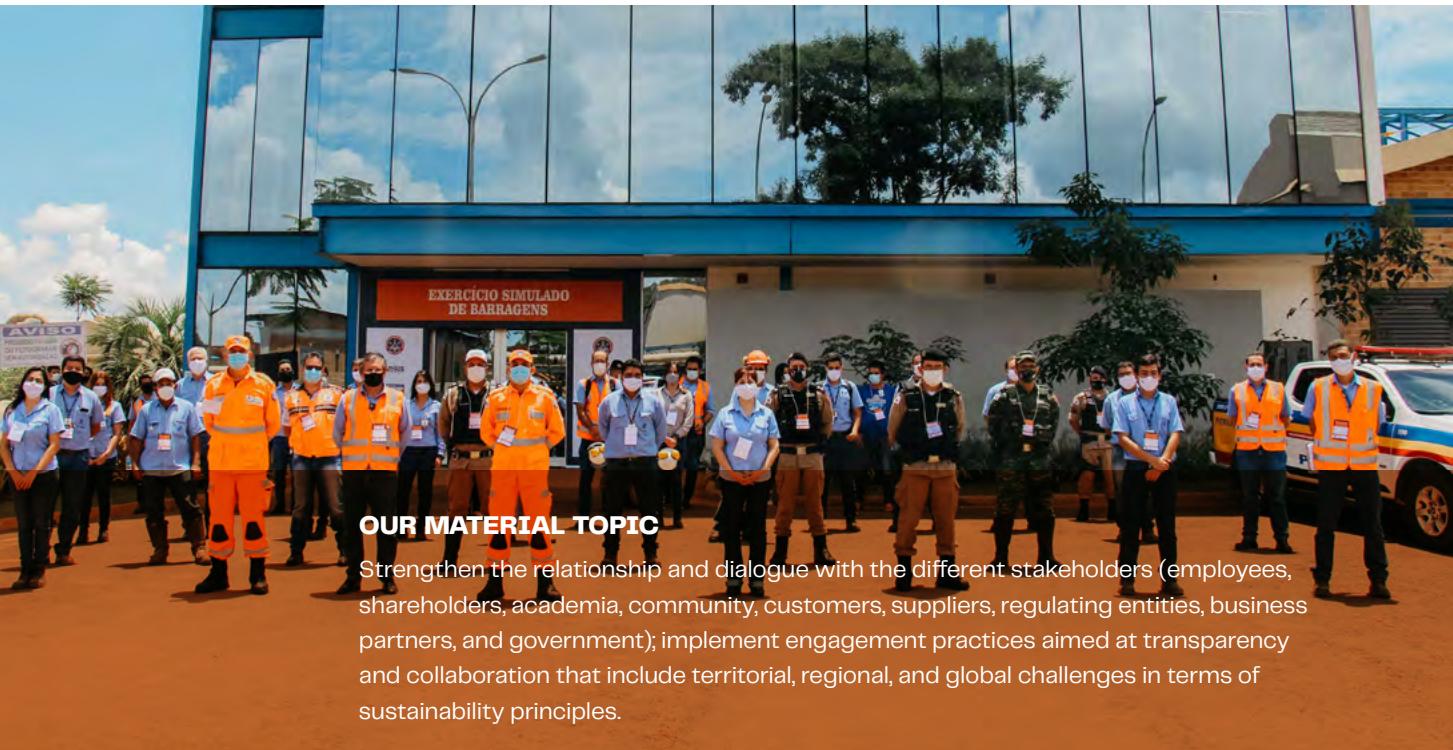
WORK ACCIDENTS ¹	2018		2019		2020	
	Employees	Workers who are not employees, but whose work and/or workplace is controlled by the organization	Employees	Workers who are not employees, but whose work and/or workplace is controlled by the organization	Employees	Workers who are not employees, but whose work and/or workplace is controlled by the organization
Number of hours worked	4.227.321	2.612.780	4.757.206	6.381.450	4.481.509	5.931.918
Number of serious work-related injuries (excluding deaths)	6	4	0	4	2	5
Rate of serious work-related injuries (excluding deaths)	1,42	1,53	0	0,63	0,45	0,84
Number of work-related injuries (including deaths)	11	9	6	15	8	12
Number of work-related injuries	2,60	3,44	1,26	2,35	1,79	2,02

¹ There were no deaths or fatalities resulting from work-related injuries in the reported period.



Partnerships: building bridges





OUR MATERIAL TOPIC

Strengthen the relationship and dialogue with the different stakeholders (employees, shareholders, academia, community, customers, suppliers, regulating entities, business partners, and government); implement engagement practices aimed at transparency and collaboration that include territorial, regional, and global challenges in terms of sustainability principles.



Relationship and open dialogue with stakeholders

We engage the public with our audience – employees, customers, suppliers, shareholders, governments, civil society entities, or the third sector – because we believe in generating mutual value.

We participate in actions linked to public commitments for sustainability, development and research, without any form of lobbying or advocacy. Our main concerns are linked to the reduction of greenhouse gas emissions, conservation of water and biodiversity, better use of soil in mining, development of products and processes, optimization of resources, and applications of cleaner and less costly technologies. Our activities in the development of public policies take place through forums, such as: the Mineral Forum, the Research and Development Forum, and the Araxá Environmental Policy Council (CODEMA).

With the federal government (Mining & Energy and Science & Technology Ministries),

we address institutional issues, such as complying with standards and technological demands. The relationship with the municipal government focuses on projects and partnerships with the city government of Araxá in infrastructure work and social, educational, environmental and cultural needs.

Our interactions with associations are meant to disseminate technological best practices related to the use of niobium, the transformation of materials and the development of more sustainable solutions. We support the Brazilian Association of Metallurgy, Materials and Mining (ABM) and we have a relationship with research institutes like Institute for Technological Research of the State of São Paulo (IPT) and the Center for Innovation and Technology (CIT/SENAI/FIEMG). We are also associated with the Brazilian Mining Institute (IBRAM), through which we participate in discussions with the business sector. [GRI 102-13](#).



BUSINESS INSPIRATION

For 40 years, we have maintained research lines with the Central Iron and Steel Research Institute (CISRI) in China for the development of steels containing niobium in all market segments. With clients and universities, we have established consortiums for market development, such as: Colorado School of Mines (USA); Shanghai University; and University of Science and Technology of Beijing (China). We also participate in technical standards committees, such as the American Society for Testing and Materials (ASTM International).

Suppliers and business partners GRI 102-9, 103-2, 103-3 | 204

Our trajectory is built, in part, by the important contribution of our suppliers: 85% of the products are purchased in Brazil, and 15% from the United States, China, and Europe. Our purchases value the traceability of raw materials and inputs, and the management of negative impacts in the chain. We require qualification certifications and conduct annual audits of major service providers to ensure compliance with legal requirements.

We are committed to developing new suppliers and helping them improve their processes through training, especially in health and safety. In 2020, our supply chain was made up of 1.923 companies, including manufacturers, distributors, retailers, and direct service providers. Of this total, 44% are from the state of Minas Gerais

totaling 842 suppliers, of which 327 are from Araxá. During the period, we acquired 16% in value of the products or services in Araxá, amounting to BRL 238 million. GRI 204-1

The restructuring of the Supply Chain area Supply Chain area in 2019 allowed us to completely revise our purchasing model, adopt long-term contracts and form partnerships with suppliers in different logistics modes. The SAP/R3 system monitors the performance of the areas in procurement practices. This change enabled better performance in 2020, such as: reaching the budgeted value in the acquisition of raw materials; buying preferably from suppliers with whom we have contracts; and negotiating via the SAP Ariba system, among others.

EXPENSES WITH LOCAL SUPPLIERS¹ GRI 204-1

CBMM Araxá ²	2018	2019	2020
Total amount of budget allocated for suppliers (BRL)	1.581.741.664	2.103.265.578	1.496.440.271
Total amount spent on local suppliers (BRL)	289.087.114	333.062.856	237.746.218
Percent of budget spent on local suppliers (%) ²	18,28%	15,84%	15,89%

¹ Only companies from Araxá (MG) are considered local.

² The Araxá (MG) Industrial Park is CBMM's only manufacturing unit.

Customer management

Our goal is to meet the immediate needs of our more than 400 customers, ensuring efficiency, safety, and savings in their operations. To make this happen, we have teams (sales, technical assistance and market development) in America, Europe and Asia, and niobium product inventories at strategic points around the world. Our Production, Laboratory, Sales, and Quality sectors analyze complaints and reports received from customers to measure the perception of satisfaction with our services and identify points for improvement.

Another relationship approach is technical seminars, which are aimed at disseminating niobium technology and reinforcing the sustainable aspects of its use. Online communication kept us fully in touch during the novel coronavirus pandemic, when in-person visits to our Industrial Park in Araxá and traveling were put on hold.



We serve more than 400 customers in over 50 countries with efficiency and safety

We act responsibly towards customers, investing our own funds to expand the size of the global niobium market.

The technical content, product launches with niobium technology and success stories can be found at the website niobium.tech.





OUR MATERIAL TOPIC

Getting prepared for changes in society and the market through agendas, such as ESG, SDG and SASB; relationship with communities; support for economic activity and local entrepreneurship; support for communities for health and community development; investment in social projects and volunteer program.

3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



8 DECENT WORK AND ECONOMIC GROWTH



Contribution to the region's social and economic development

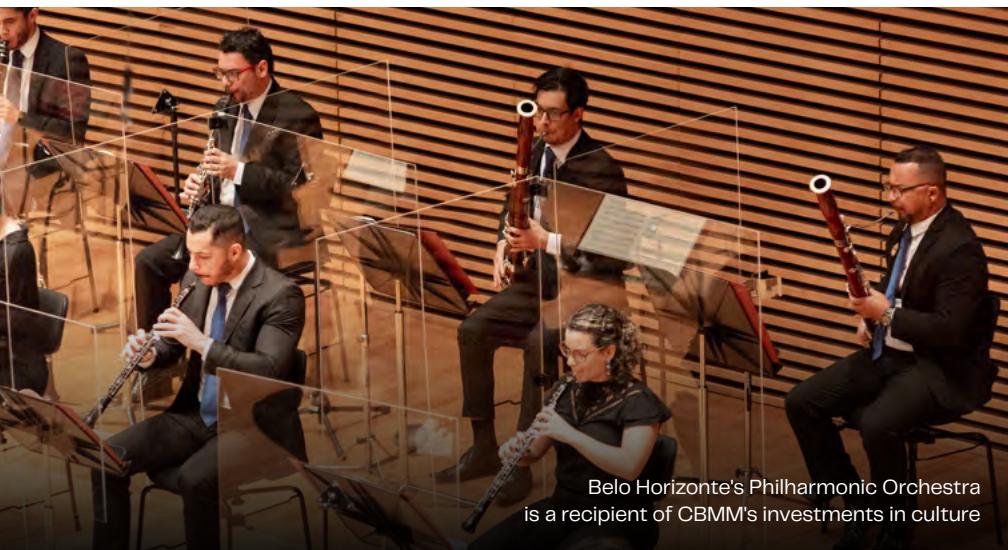
GRI 103-2, 103-3 | 203 | 413

In Araxá, we are committed to supporting the education of youth and children, and to encouraging sustainable local development so that the community can become more and more autonomous. In addition to the 1.702 direct jobs generated in the municipality, the Employment and Income Generation Model survey, produced by the National Bank for Economic and Social Development (BNDES), pointed out that CBMM's activities were responsible for the upkeep of 3.259 indirect jobs in 2020. [GRI 203-2](#)

As part of the evolution of our governance, we created the Technical Commission for Social Investment (CTIS), composed of professionals with different skills, to classify the projects received, evaluate the requests for donations and sponsorships (with incentives or not), ensure the projects' adherence to the Company's policies and the greatest impact for the actions. Another attribution of the committee is to oversee the implementation and evolution of projects supported by CBMM. [GRI 102-15](#)

We invested BRL 15,5 million through private-sector social funding (incentivized and non-incentivized) in Araxá, in health, sports, education, and culture pillars.

[GRI 203-1, 413-1](#)



INVESTMENTS IN INFRASTRUCTURE AND SERVICES (BRL) GRI 102-15, 203-1

Types	Current or expected impacts on local communities and economies	INVESTMENT		
		2018	2019	2020
Education	Promote a quality education for Araxá citizens	305.671	2.807.318	126.570
Health ¹	Encourage companies to continue doing what is best for the health of the communities they serve	4.164.607	8.822.093	12.974.994
Sports	Encourage the practice of sports in the community	5.067.630	4.059.138	4.516.490
Culture ²	Stimulate the public's interest and knowledge of culture in general	23.082.435	21.015.929	10.481.843
Other	Improve the standards of living of the communities served	11.260.285	11.956.327	12.462.227
TOTAL		43.880.628	48.660.805	40.562.124

¹ The investments in health refer to the purchase of donated materials for public hospitals in Araxá and the region to fight the novel coronavirus pandemic.

² The lower investments in culture and education were due to reduced activities in the institutions during the Covid-19 pandemic.



HOW WE MAKE DONATIONS AND SPONSORSHIPS

The Compliance program and the Code of Ethics and Conduct establish rules for our Donations and Sponsorship Policy. Requests for support of initiatives (cultural, social, educational, and others) are analyzed according to the requirements set forth in our policy. Every initiative is monitored by the Social Investment Technical Commission through reports, visits, participation in events, and dissemination in social media.



Environment as a commitment





OUR MATERIAL TOPIC

Responsible management and use of water; efficient use of mineral reserve; energy consumption and use of clean renewable energy. We invest in the research and development of solutions to protect fauna and flora; in environmental education initiatives within the community; and in the management of production processes aimed at eco-efficient practices and environmental improvements.

6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Natural resource management and biodiversity

We work on preserving Cerrado biodiversity by developing initiatives in research projects, wildlife management and reproduction, and educational actions. Our Environmental Development Center (CDA) is located in this biome. It occupies a six-hectare area in our Industrial Park, including a scientific breeding ground for wild fauna – regulated by the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama) – a seedling nursery, an environmental education center, and an area with native Cerrado species.

In the breeding area, which houses an average of 116 animal specimens, such as the maned wolf, giant anteater, blue-and-yellow macaw, tapir and rhea, the goal is to ensure the reproduction of the animals, promote scientific research and exchanges with institutions in Brazil and abroad, and train professionals in the area of handling and conservation of fauna.

Giant anteater, one of the species housed in the scientific breeding grounds





At the seedling nursery, we produce 250 species of plants, 24 of which are rare or endangered, and protected by law, such as the yellow ipê, cedar, pequi, jequitibá-branco, and aroeira-do-sertão, among others. In 2020, we distributed 32.500 seedlings for insertion or densification of green areas, as well as for the environmental recovery of areas in Araxá and its surroundings.

We consider the breeding area and the nursery as environmental heritage. For this reason, both are part of the Cientistas do Cerrado (Cerrado Scientists) Project, an environmental education program, maintained

for 28 years and aimed at teaching institutions in the Araxá region. The project, which will take place online in 2020, aims to share with children, teenagers, teachers, and employees the richness of the biome's fauna and flora, and all the environmental actions for the conservation of the Cerrado promoted by CBMM.

For our employees, contractors, and interns, we have the Eye on the Future Project. The purpose of this initiative is to strengthen the culture of sustainability. During 2020, the project was conducted online and in person, respecting all Covid-19 prevention protocols.





The Environmental Development Center occupies an area of six hectares

MONITORED AREAS GRI 103-2, 103-3, 304-1, 304-2, 304-3

CBMM maintains green areas of legal reserves, private reserves of natural heritage and compensation areas. Some parts are in the process of regenerating, with compensatory planting of Cerrado species, as a result of suppression of native vegetation for the construction of buildings, dams, and internal transport routes. The scientific information is consolidated and sent to environmental agencies.

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE**13** CLIMATE ACTION

Emissions GRI 103-2, 103-3 | 305

We have had an inventory available for consultation in the Brazilian GHG Protocol Program since 2013. The calculations cover Scopes 1, 2 and 3, which consider CBMM's emissions generated in its production process and from our main service providers.

The year of 2020 saw a drop in direct CO₂ emissions of Scope 1 (22,81 %); indirect emissions of Scope 2 (38,49 %) and other indirect greenhouse gas emissions, as compared with the previous year. The same happened with Scope 3 emissions (decline of 53,75%) due primarily to a drop in consumption of inputs and electricity, business travel and internal/external transport, and restrictions put in place by the company to contain Covid-19.

The emissions are monitored and evaluated by external audits. Emissions from stationary sources are periodically controlled. CBMM does not emit substances that are destructive to the ozone layer. The gases that cause this effect are kept in the cooling equipment and, when the equipment is serviced, are stored in pressurized tanks.

We have also developed initiatives to minimize impacts: equipment transported during the mining activity is irrigated with water to avoid the dispersion of particles into the air; we have conveyor belts to reduce truck traffic and its emissions; we use ethanol-powered Flex vehicles and hybrid (electric + gas) vehicles; we inspect all tanker trucks that transport inputs and products that enter the company; and monitor greenhouse gas emissions, including those of third-party equipment.

DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS, BY SOURCE (tCO₂e) GRI 305-1

Direct Emissions (Scope 1) ¹	2018	2019	2020
Generation of electricity, heat or steam	30.277	37.018	23.092
Physical-chemical processing	4.092	4.590	3.165
Transport of materials, products, waste, employees and passengers	10.866	11.789	14.684
Fugitive emissions	2.892	2.996	2.902
Solid waste and liquid effluents (category added by the Brazilian GHG Protocol Program – 2016 Inventory)	451	533	577
Change in soil use (category added by the Brazilian GHG Protocol Program – 2016 Inventory)	0	616	0
TOTAL DIRECT EMISSIONS (SCOPE 1)	48.578	57.542	44.419
Biogenic emissions of CO ₂ (from burning or biodegradation of biomass)	22.485	44.602	30.634
TOTAL INDIRECT EMISSIONS (SCOPE 2)² GRI 305-2	24.260	28.814	17.724

¹ Brazilian GHG Protocol methodology used, operational control consolidation approach. For calculations of atmospheric emissions, the following were considered: CO₂ – carbon dioxide; CH₄ – methane; N₂O – nitrous oxide. The base year is 2013, corresponding to the first publication of CBMM's GHG inventory under the Brazilian GHG Protocol Program. Total emissions in the base year were 3.186.092,95 tCO₂ equivalent. There was no need to recalculate base year emissions, since there were no significant changes in emissions.

² Brazilian GHG Protocol methodology used, operational control consolidation approach. Base Year: 2013 – first publication of CBMM's GHG inventory under the Brazilian GHG Protocol Program. Total emissions in the base year were 25.058.48 tCO₂ equivalent. There was no need to recalculate base year emissions, since there were no significant changes in emissions. Scope 2 emissions refer to third-party fuel consumption during CBMM activities, converted into energy, according to the Brazilian GHG Protocol.

OTHER INDIRECT GREENHOUSE GAS EMISSIONS (SCOPE 3)¹ (tCO₂e) GRI 305-3

	2018	2019	2020
<i>Upstream</i>			
Upstream transportation and distribution	5.781	13.565	4.996
Business travel	3.775	2.200	372
Employee transportation	639	828	1.059
Subtotal	10.195	16.593	6.427
<i>Downstream</i>			
Downstream transportation and distribution	4.410	5.604	3.840
TOTAL	14.605	22.197	10.267
Biogenic CO ₂ emissions	1.548	2.335	1.299

¹ For calculations of atmospheric emissions, the following were considered: CO₂ – carbon dioxide; CH₄ – methane; N₂O – nitrous oxide. The base year is 2013, corresponding to the first publication of CBMM's GHG inventory under the Brazilian GHG Protocol Program. Total emissions in the base year were 13.950,74 tCO₂ equivalent. There was no need to recalculate base year emissions, since there were no significant changes in emissions. CBMM's 2020 GHG Inventory is available at the Public Emissions Registry – a platform developed by the Brazilian GHG Protocol Program, at <http://registropublicodeemissoes.com.br/>

Valuable contributions

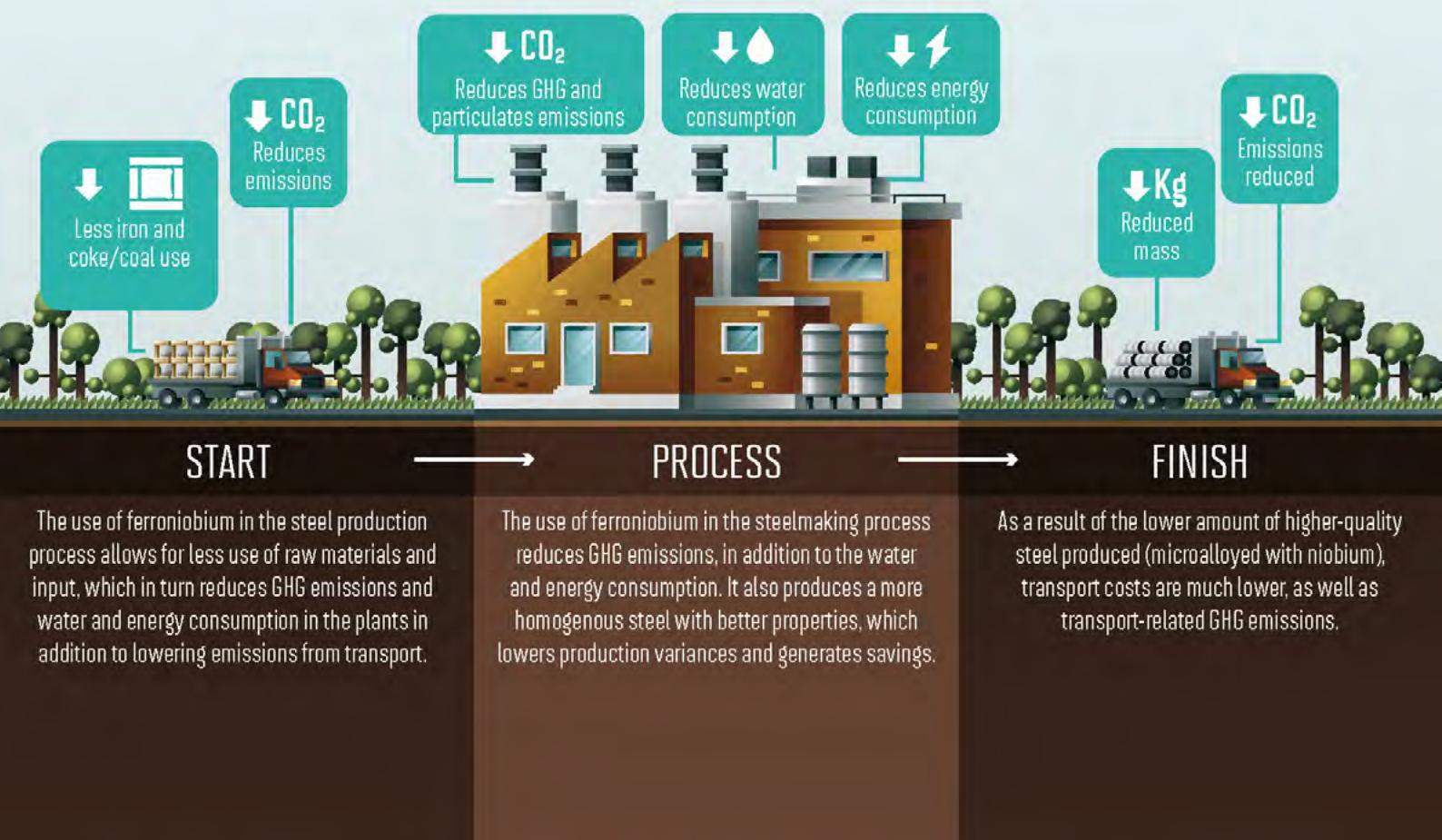
Niobium makes steel more resistant, enabling it to be used more efficiently in various areas. In the steel production chain, the element simultaneously reduces input consumption and negative impacts.

By conservatively estimating a 10% decrease in weight, provided by the use of niobium in

high strength steels, around 70 million tons of CO₂ can be reduced per year, worldwide, just by reducing the amount of steel produced (dematerialization). In addition, natural resources can be optimized and gains can be made in logistics, as well as other advantages, as a result of the more intelligent use of materials.

BENEFITS FROM THE USE OF FERRONIOBIUM IN STEELMAKING

Includes positive aspects from start to finish of steel process





6 CLEAN WATER AND SANITATION



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Water GRI 103-2, 103-3 | 303, 303-1, 303-2

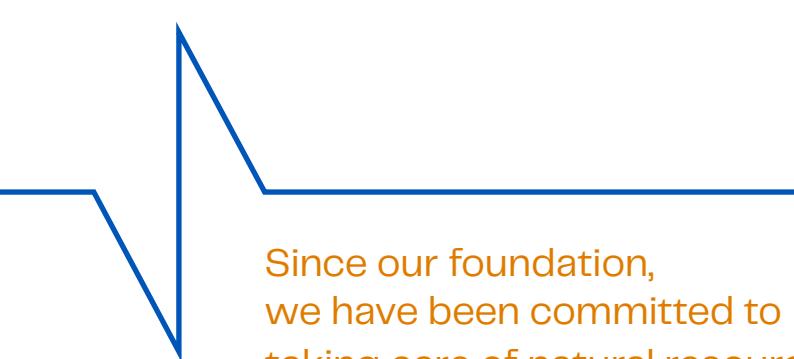
We are committed to taking care of natural resources. Therefore, we have used recycled water in our production process since our foundation. In 2020, water recirculation was 96,1%, down 0,3% from 2019, driven by operational downtime.

Our Effluent Treatment Station (ETE) receives all of the company's water discharges. Only after undergoing treatment can the discharge be sent to waterways, within the permitted standards, as monitored by our environmental program. [GRI 306-5](#)

WATER WITHDRAWAL AND CONSUMPTION (ML)¹ GRI 303-3, 303-5

	2018	2019	2020
Total water withdrawal by source – surface water (fresh)	1.658,18	2.106,21	1.832,54
Specific consumption (ML/t of niobium products)	0,0177	0,0171	0,0247
Specific consumption (ML/t of ferroniobium)	0,0200	0,0192	0,0274

¹ All numbers reported in this and other tables have been updated from m³ to ML (megaliters) in compliance with the 2018 GRI revision.



Since our foundation,
we have been committed to
taking care of natural resources

WATER CONSUMPTION (ML)¹ GRI 303-5

	2018	2019	2020
Total water stored at the start of the reporting period	3.550	3.550	2.900
Total water stored at the end of the reporting period	3.550	2.900	2.850
Changes in water storage ¹	0	-650	-50

¹ In 2020, we had lower rainfall, which directly affected the water volume stored in the new water dam.

WATER DISCHARGE¹ (ML) GRI 303-4

Total volume by destination	2018	2019	2020
Surface water	446	2.523	3.898
Water reused by the organization	46.700	57.047	45.534
Total volume of discharged water	446	2.523	3.898

¹ In 2020, we had to raise the volume of treated effluent in relation to the increase in the impermeable area (tailings dam 8).



ALLIANCE FOR PROTECTION

Thirty-six years ago, a cooperative technical and financial agreement was signed with the state government of Minas Gerais along with other companies for the protection of the Barreiro Hydromineral Resort in Araxá. The partnership came about after groundwater was found to be contaminated with barium chloride downstream from one of our dams. The change has not affected and continues not to affect the water quality of the Barreiro as a result of the measures put in place. At the time, the barium was neutralized, and the company started a remediation process that is still efficiently maintained today.



Energy GRI 103-2, 103-3 | 302

We encourage the optimized use of energy in our own facilities and those of third parties, and we work continuously on projects to reduce consumption. Energy management is assessed annually during the preparation of the greenhouse gas inventory and the Sustainability Report.

Our total consumption was 1.818.438 GJ, 26% lower than last year, due to lower consumption of inputs in the manufacturing process of niobium products. The same happened with the consumption of energy from renewable sources (renewable fuels and electricity), which dropped 27% as compared with 2019.

ENERGY CONSUMPTION WITHIN THE ORGANIZATION BY SOURCE (GJ) GRI302-1

Fuels from renewable sources	2018	2019	2020
LPG	310.164	380.918	239.104
Petroleum Coke	96.025	110.234	72.289
Diesel fuel	140.030	146.148	183.475
Aviation fuel	5.252	6.239	2.642
TOTAL	551.471	643.539	497.510
Fuels from renewable sources	2018	2019	2020
Charcoal	201.025	407.227	272.004
Biodiesel	14.540	15.732	21.905
TOTAL	215.565	422.959	293.909
Energy consumed	2018	2019	2020
Electricity ¹	1.163.750	1.393.006	1.027.019

¹ The electricity used by CBMM derives 100% from renewable sources



Total energy consumed within the organization (GJ)	2018	2019	2020
Fuels from renewable sources	551.471	643.584	497.510
Fuels from renewable sources	215.565	422.958	293.909
Energy consumed	1.163.750	1.393.006	1.027.019
TOTAL	1.930.786	2.459.548	1.818.438



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

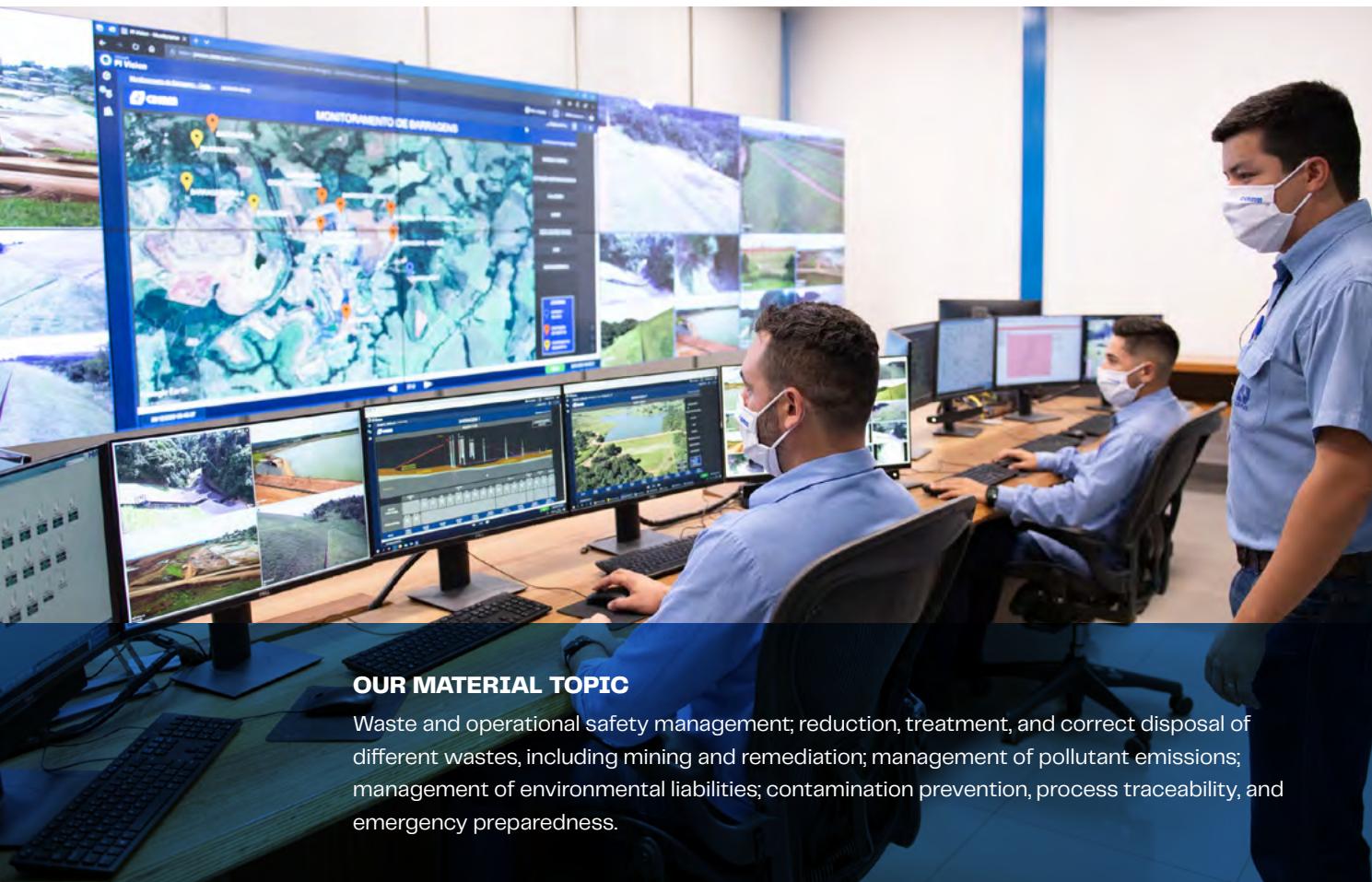


Energy Intensity (GJ/t) ¹ <small>GRI 302-3</small>	2018	2019	2020
Ferroniobium	20,00	21,86	23,16
Niobium products	20,60	20,00	24,49

¹ The calculation for energy intensity considers the organization's total internal energy consumption (Scopes 1 and 2) per tonne of ferroniobium and niobium products produced. In past years, the calculation had considered Scope 3, so no comparison can be made between 2020 and previous years.

Reductions in energy consumption achieved as a result of conservation and efficiency improvements (GJ) <small>GRI 302-4</small>	2020 ¹
Desulfurization – project to reduce charcoal grinder waste consumption	22.416
TOTAL	22.416

¹ Data for 2019 and 2018 is unavailable because CBMM did not answer for this indicator previously.



OUR MATERIAL TOPIC

Waste and operational safety management; reduction, treatment, and correct disposal of different wastes, including mining and remediation; management of pollutant emissions; management of environmental liabilities; contamination prevention, process traceability, and emergency preparedness.

6 CLEAN WATER AND SANITATION



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Waste management and dams

GRI 103-2, 103-3 | 306

Our Industrial Park has six dams designed and built with the best engineering techniques available at the time of their construction. The structures undergo constant checks and assessments for continuous improvement to ensure the highest safety standards. One such structure is used to contain sediments, one is for freshwater accumulation, and four for the disposal of waste/tailings from the niobium concentration process. Since the start of our operations, we have invested in processes to constantly improve the safety management of our structures and reinforce our transparent

relationship with environmental agencies, public agents, and the community.

All the structures are constantly monitored by the Integrated Monitoring Center, which operates 24/7. At the Center, technicians are able to check the instruments and the operation of the dams, and quickly and effectively communicate any anomaly detected. Actions taken in a possible emergency situation are mapped and simulated periodically with the support of the Protection and Civil Defense Agencies, even

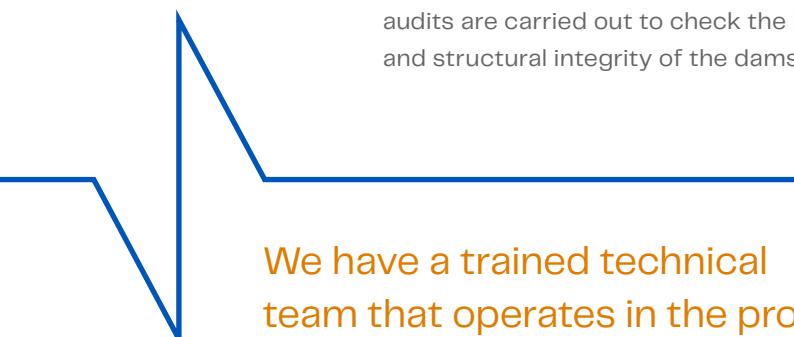
though there is no population in the self-rescue zone and no possibility of tailing flows to urban areas. All these procedures are described and consolidated in the Dams Emergency Action Plan, available at CBMM, the Araxá, Ibiá and Perdizes City Halls, the Araxá Fire Department and civil defense organizations.

In addition to the operational procedures carried out by our own team, independent audits are carried out to check the hydraulic and structural integrity of the dams and

attest to the safety of the structures. All information from dam safety management, external audits and Emergency Action Plans are managed based on the Dam Governance Policy, which establishes the procedures for engagement between the operational team, senior management and the Board of Directors.

We presented to the community at the end of 2020, through a public hearing, the project for the company's future tailings disposal system, which is in the initial environmental licensing stage. The Tailings Disposal Structures no.9 (EDR9) project will be designed to dispose of finer tailings in a denser form, using less water in an impermeable, raised downstream dam. The coarse tailings, after the drying process, will be deposited in compressed piles. Implementation is scheduled to begin in the second half of 2022.

We have a trained technical team that operates in the project stages, implementation, operation, and transformation phases of the dams. These professionals are responsible for verifying compliance with best practices and ensuring safe conditions



Dam 8, Industrial Park and new water dam

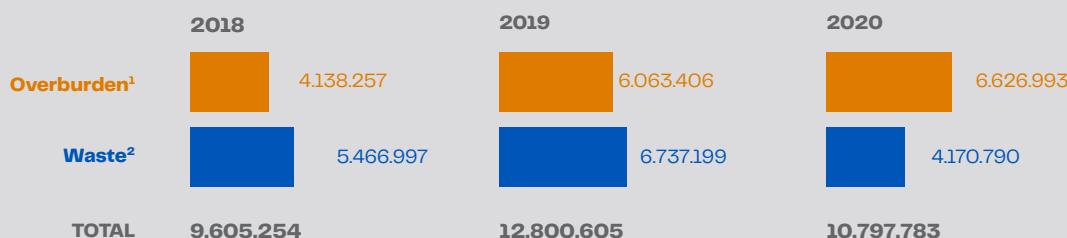


Waste GRI 103-2, 103-3 | 306

We invest in the best waste management practices in order to reduce the amount and impact of these materials on the environment. We continuously inform the environmental agencies about the destination and the amount generated. [GRI 306-1, 306-2](#)

We have adopted specific procedures to extend the life cycle of materials and encourage proper recycling, co-processing, disposal, and elimination. In 2020, the company reduced the generation of mining waste from ore processing by around 38%, especially due to a drop in the manufacture of niobium products.

TOTAL AMOUNTS OF SPECIFIC WASTE FROM MINING ACTIVITY (t) [GRI MM3](#)



¹ Overburden is non-hazardous, inert waste (Class IIB). The 8,50% increase, in 2020, is related to the use of the material in the closure of two tailings dams.

² Mining waste is non-hazardous and non-inert waste (Class IIA). The 38,09% drop in this mining waste in 2020 is linked to the decline in the manufacture of niobium products in the period.

WASTE GENERATED [GRI 306-3](#)

Total waste generated by type and destination (t)	2018	2019	2020
Non-hazardous ¹	5.856.279	7.149.344	4.494.880
Hazardous ²	3.163	4.362	2.719
TOTAL³	5.859.442	7.153.706	4.497.599

¹ Around 99% of the quantities of non-hazardous waste generated, including tailings, consists of process waste.

² In the hazardous waste category, it is mainly fine particles that are collected in the bag filters of the Refinery Departments.

³ In 2020, the drop in hazardous and non-hazardous waste generation compared to 2019 was due to reduced production of niobium products in this period.

WASTE NOT DESTINED FOR FINAL DISPOSAL [GRI 306-4](#)

Total waste not destined for final disposal, by breakdown in metric tons (t) ¹	2018	2019	2020
Total Recycling/Recovery ²	98.111	92.096	47.349
Percentage in relation to total waste generated	1,7%	1,3%	1,0%

¹ Data includes hazardous and non-hazardous waste

² In 2020, the drop in total waste not destined for final disposal as compared with the previous year is due to a decrease in waste generation caused by a drop in the manufacture of niobium products during the period.

Total waste not destined
for final disposal per
recovery operation in
metric tons (t)

2018

2019

2020

Non-hazardous waste	Within the organization	Outside the organization	Total	Within the organization	Outside the organization	Total	Within the organization	Outside the organization	Total
Preparation for reuse	3.044	0	3.044	3.896	0	3.896	3	0	3
Recycling	45.320	49.694	95.014	65.586	22.529	88.116	41.718	5.536	47.254
TOTAL	48.364	49.694	98.058	69.482	22.529	92.012	41.721	5.536	47.257

Hazardous waste¹

Recycling	0	45	45	0	80	80	0	56	56
TOTAL	0	45	45	0	80	80	0	56	56
Total waste not destined for final disposal²	48.364	49.739	98.103	69.482	22.609	92.092	41.721	5.592	47.313

¹ The recovery of hazardous waste is done through recycling.

² In 2020, the drop in total waste not destined for final disposal, by operation of recovery in comparison with 2019, is due to a decrease in waste generation caused by a drop in the manufacture of niobium products during the period.



WASTE DESTINED FOR FINAL DISPOSAL GRI 306-5

Total waste destined for final disposal, by breakdown in metric tons (t) ¹	2018	2019	2020
Total destination ²	5.761.331	7.061.610	4.450.250
Percentage in relation to the total waste generated	98,3%	98,7%	99,0%

¹ Data includes hazardous and non-hazardous waste.² In 2020, the drop in total waste destined for final disposal is due to a decrease in waste generation caused by a drop in the manufacture of niobium products during the period.

Total waste
destined for final
disposal per
operation in metric
tons (t)

2018 2019 2020

Non-hazardous waste ¹	Within the organization	Outside the organization	Total	Within the organization	Outside the organization	Total	Within the organization	Outside the organization	Total
Landfill	113.534	348	113.882	139.943	441	140.384	92.934	327	93.261
Other disposal op- erations (dams)	5.472.504	0	5.472.504	6.744.136	0	6.744.136	4.170.790	0	4.170.790
TOTAL	5.586.038	348	5.586.386	6.884.079	441	6.884.520	4.263.724	327	4.264.051
Hazardous waste²									
Incineration with energy recovery	0	8	8	0	4	4	0	10	10
Incineration without energy recovery	0	0	0	0	0	0	0	0	0
Landfill	3.107	0	3.107	4.274	0	4.274	2.649	0-	2.649
TOTAL	3.107	8	3.115	4.274	4	4.278	2.649	10	2.660
Total waste not destined for final disposal³	5.589.145	356	5.589.501	6.888.353	445	6.888.798	4.266.374	337	4.266.711

¹ Non-hazardous waste is disposed of in landfills and dams.² The disposal of hazardous waste is carried out by means of incineration with and without energy recovery and landfill.³ In 2020, the drop in total waste destined for final disposal is due to the decrease in waste generation caused by a drop in the manufacture of niobium products during the period.

GRI Content Summary

GENERAL CONTENT

GRI Standard	Content	Page/ URL	Omission	Sustainable Development Goals
GRI 101: Foundations 2016				
GRI 101 has no Content				
Organizational profile				
GRI 102: General content 2016	102-1 Organization Name	3		
	102-2 Activities, brands, products and services	13		
	102-3 Location of the organization's head office	14		
	102-4 Place of operation	14 and 16		
	102-5 Nature of ownership and legal structure	14		
	102-6 Markets served	14		
	102-7 Size of organization	13		
	102-8 Information about employees and other workers	41 and 43		8, 10
	102-9 Supply chain	53		
	102-10 Significant changes in the organization and its supply chain	34		
	102-11 Precautionary principle or approach	26		
	102-12 External Initiatives	36		
	102-13 Involvement in associations	53		
Strategy				
GRI 102: General content 2016	102-14 Statement from the most senior executive	4		
	102-15 Stakeholder engagement process	21		
Ethics and Integrity				
GRI 102: General content 2016	102-16 Values, principles, standards and codes of behavior	21 and 26		16
	102-17 Code of ethics	21		
Governance				
GRI 102: General content 2016	102-18 Governance structure	21		
	102-19 Internal audit function	21		

GENERAL CONTENT

GRI Standard	Content	Page/ URL	Omission	Sustainable Development Goals
Stakeholder engagement				
	102-40 List of stakeholder groups	7		
	102-41 Collective bargaining agreements		99,70% of employees are covered by collective bargaining agreements. The remaining 0,30% are part of the statutory board.	8
GRI 102: General content 2016	102-43 Approach to stakeholder engagement	7		
	102-44 Key topics and concerns raised	7		
Reporting practices				
	102-45 Entities included in the consolidated financial statements	3		
	102-46 Defining report content and topic boundaries	3 and 7		
	102-47 List of material topics	7		
	102-48 Restatements of information		There are no significant restatements. Revisions of numbers and data are pointed out on a case-by-case basis throughout the text.	
GRI 102: General content 2016	102-49 Changes in reporting	7		
	102-50 Reporting period	3		
	102-51 Date of most recent report	2019		
	102-52 Reporting Cycle	3		
	102-53 Contact point for questions regarding the report		cbmm@cbmm.com	
	102-54 Reporting statements in compliance with GRI standards	3		
	102-55 GRI Content Summary	74		
	102-56 External checks	3 and 82		

MATERIAL TOPICS

GRI Standard	Content	Page/URL	Omission	Sustainable Development Goals
Market presence				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	45		
	103-3 Assessment of management approach	45		
GRI 202: Market presence 2016	202-2 Proportion of senior management hired from the local community	42		8
Indirect economic impacts				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	55		
	103-3 Assessment of management approach	55		
GRI 203: Indirect economic impacts 2016	203-1 Infrastructure investments and support services	55		5, 9, 11
	203-2 Significant indirect economic impacts	55		1, 3, 8
Procurement practices				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	53		
	103-3 Assessment of management approach	53		
GRI 204: Procurement practices 2016	204-1 Ratio of expenses with local suppliers	53		8
Anti-corruption				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its limit	7		
	103-2 Management approach and its components	22		
	103-3 Assessment of management approach	22		
GRI 205: Anti-corruption 2016	205-3 Confirmed cases of corruption and actions taken		There were no cases involving corruption in the Company in 2018, 2019 and 2020.	16

MATERIAL TOPICS

GRI Standard	Content	Page/URL	Omission	Sustainable Development Goals
Energy				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	66		
	103-3 Assessment of management approach	66		
GRI 302: Energy 2016	302-1 Energy consumption within the organization	66		7, 8, 12, 13
	302-2 Energy consumption outside the organization	67		7, 8, 12, 13
	302-3 Energy Intensity	67		7, 8, 12, 13
	302-4 Reduction of energy consumption	67		7, 8, 12, 13
Water and effluents				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	64		
	103-3 Assessment of management approach	64		
GRI 303: Water and effluents 2018	303-1 Interactions with water as a shared resource	64		6, 12
	303-2 Management of water discharge related impacts	64		6
	303-3 Water withdrawal	64		6, 8, 12
	303-4 Water discharge	65		6
	303-5 Water consumption	64 and 65		6
Biodiversity				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	58		
	103-3 Assessment of management approach	58		

MATERIAL TOPICS

GRI Standard	Content	Page/URL	Omission	Sustainable Development Goals
GRI 304: Biodiversity 2016	304-1 Amount of units owned or leased, and managed within or adjacent to environmental protection areas and areas of high biodiversity value outside protected areas	60		6, 14, 15
	304-2 Significant impacts of activities, products and services on biodiversity	60		6, 14, 15
	304-3 Protected or rehabilitated habitats	60		6, 14, 15
	304-4 Species included in the IUCN Red List and in national conservation lists with habitats in areas affected by the organization's operations		The data is being collected and will be included in the 2021 report	6, 14, 15
Mining Sector – Biodiversity	MM1 Amount of land (owned or leased, used for productive or extractive activities) disturbed or rehabilitated		The total of disturbed and unrehabilitated land is 845 hectares, according to images available from Google Earth. In 2020, no areas were impacted by the Industrial Park nor were they recovered.	3, 6, 12, 14, 15
Emissions				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	61		
	103-3 Assessment of management approach	61		
GRI 305: Emissions 2016	305-1 Direct greenhouse gas emissions (Scope 1)	62		3, 12, 13, 14, 15
	305-2 Indirect greenhouse gas emissions (Scope 2)	62		3, 12, 13, 14, 15
	305-3 Other indirect greenhouse gas emissions (Scope 3)	62		3, 12, 13, 14, 15

MATERIAL TOPICS

GRI Standard	Content	Page/URL	Omission	Sustainable Development Goals
Effluents and waste				
	103-1 Explanation of the material topic and its boundary	7		
GRI 103: Management approach 2016	103-2 Management approach and its components	68 and 70		
	103-3 Assessment of management approach	68 and 70		
	306-1 Waste generation and significant waste-related impacts	70		3, 6, 11, 12
	306-2 Waste-related impact management	70		3, 6, 11, 12
GRI 306: Waste 2020	306-3 Generated waste	70		3, 6, 12, 14, 15
	306-4 Waste not destined for final disposal	70		3, 11, 12
	306-5 Waste not destined for final disposal	72		3, 6, 11, 12, 14, 15
Mining Sector Supplement – Effluents and waste	MM3 Total amounts of overburden, waste and sludge and associated risks	70		3, 6, 12
Environmental compliance				
	103-1 Explanation of the material topic and its boundary	7		
GRI 103: Management approach 2016	103-2 Management approach and its components	26		
	103-3 Assessment of management approach	26		
GRI 307: Environmental compliance 2016	307-1 Non-compliance with environmental laws and regulations		No cases of non-compliance with environmental laws and/or regulations have been identified.	16
Employment				
	103-1 Explanation of the material topic and its boundary	7		
GRI 103: Management approach 2016	103-2 Management approach and its components	42		
	103-3 Assessment of management approach	42		
GRI 401: Employment 2016	401-1 New hires and employee turnover	48		5, 8, 10

MATERIAL TOPICS

GRI Standard	Content	Page/URL	Omission	Sustainable Development Goals
Occupational health and safety				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	49		
	103-3 Assessment of management approach	49		
	403-1 Occupational health and safety management system	49		8
	403-2 Hazard detection, risk assessment and incident investigation	49		3, 8
	403-3 Occupational health services	50		3, 8
	403-4 Worker participation, consultation, and communication on occupational health and safety	49		8, 16
	403-5 Worker training on occupational health and safety	50		8
	403-6 Promotion of worker health	49		3
GRI 403: Occupational health and safety 2018	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	49		8
	403-8 Workers covered by an occupational health and safety management system	50		8
	403-9 Work-related injuries	50		3, 8, 16
	403-10 Work-related ill health		There are no significant restatements. Revisions of numbers and data are pointed out on a case-by-case basis throughout the text.	3, 8, 16
Training and education				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	45		
	103-3 Assessment of management approach	45		

MATERIAL TOPICS

GRI Standard	Content	Page/URL	Omission	Sustainable Development Goals
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	45		4, 5, 8, 10
	404-3 Percentage of employees receiving regular performance and career development reviews	45		5, 8, 10
Human rights assessment				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	45		
	103-3 Assessment of management approach	45		
GRI 412: Human rights assessment 2016	412-1 Operations subject to human rights or human rights impact assessments		100% of our operations undergo human rights or human rights impact assessments.	
	412-2 Training for employees in human rights policies or procedures		All the company's employees undergo mandatory training on the Code of Ethics, which includes our commitment to Human Rights.	
Local communities				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	7		
	103-2 Management approach and its components	55		
	103-3 Assessment of management approach	55		
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	55		

MATERIAL TOPICS

GRI Standard	Content	Page/URL	Omission	Sustainable Development Goals
Consumer health and safety				
	103-1 Explanation of the material topic and its boundary	7		
GRI 103: Management approach 2016	103-2 Management approach and its components	29		
	103-3 Assessment of management approach	29		
GRI 416: Consumer health and safety 2016	416-1 Assessment of health and safety impacts caused by product and service categories	29		
Socioeconomic compliance				
	103-1 Explanation of the material topic and its boundary	7		
GRI 103: Management approach 2016	103-2 Management approach and its components	22		
	103-3 Assessment of management approach	22		
GRI 419: Socioeconomic compliance 2016	419-1 Non-compliance with environmental laws and regulations		There was none. All lawsuits received and defended were part of the organization's routine.	16
Management of materials				
	GRI MM11 Programs and progress related to the management of materials		Material management is carried out in a safe manner, mainly with regard to mineral use and the appropriate disposal of these materials.	7, 8, 9, 12, 13, 17

Third-Party Assurance

Independent auditors' limited assurance report on the sustainability data contained in the Sustainability Report 2020

To the Board of Directors and Stockholders

Companhia Brasileira de Metalurgia e Mineração
Araxá – MG

INTRODUCTION

We were appointed by Companhia Brasileira de Metalurgia e Mineração (“Company” or “CBMM”) to submit our limited assurance report on the compilation of sustainability data contained in the Sustainability Report 2020 of CBMM for the year ended December 31, 2020.

MANAGEMENT'S RESPONSIBILITIES

The Company's management is responsible for the preparation and proper presentation of the sustainability data included in the Sustainability Report 2020, pursuant to the criteria of the Global Reporting Initiative (GRI STANDARDS) and for the internal controls that it deems necessary to support the preparation of this data free of material misstatement, whether due to fraud or error.

INDEPENDENT AUDITORS' RESPONSIBILITY

Our responsibility is to express a conclusion on the sustainability data included in the Sustainability Report 2020, based on our limited assurance engagement carried out pursuant to Technical Communication CTO 01 – “Issuance of an Assurance Report Related to Sustainability and Social Responsibility”, issued by the Brazilian 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 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). These standards require the enforcement of ethical and independence requirements, as well as other responsibilities, including as to the Brazilian Standard on Quality Control (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures for the fulfillment of ethical requirements, professional standards, and applicable legal and regulatory requirements.

These standards also require the engagement to be planned and performed to obtain limited assurance that the sustainability data included in the Sustainability Report 2020, taken as a whole, is free of material misstatement.

A limited assurance engagement conducted pursuant to Brazilian standard NBC TO 3000 and ISAE 3000 mainly consists of making inquiries to Company management and other professionals involved in the preparation of the sustainability data, as well as applying analytical procedures to obtain evidence that enables the issuance of a limited assurance conclusion on the data 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 the auditor to believe that the data taken as a whole might present material misstatements.

The selected procedures were based on our understanding of the aspects related to the compilation and presentation of the sustainability data included in the Sustainability Report 2020, on other conditions of the engagement and on our analysis of the areas in which material misstatements might exist. The following procedures were adopted:

(a) Planning the work, taking into account the materiality and the volume of quantitative and qualitative data, and the operating and internal control systems that were used to prepare the sustainability data included in the Company's Sustainability Report 2020;

- (b) Understanding the calculation methodology and the procedures adopted for the compilation of indicators through interviews with the managers responsible for the preparation of the data;
- (c) Applying analytical procedures to quantitative data and making inquiries regarding the qualitative data and its correlation with the indicators disclosed in the sustainability data included in the Sustainability Report 2020;
- (d) Comparing the financial indicators with the financial statements and/or accounting records.

The limited assurance engagement also included tests to assess compliance with the guidelines and criteria of the Global Reporting Initiative (GRI Standards), Core option, applied in the preparation of the sustainability data included in the Sustainability Report 2020.

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

SCOPE AND LIMITATIONS

The procedures applied in a limited assurance engagement are substantially less comprehensive than those applied in a reasonable assurance engagement, the objective of which is to issue an opinion on the sustainability data included in the Sustainability Report 2020. Consequently, we were not able to obtain reasonable assurance that we might become aware of all significant matters that might be identified in an assurance engagement, the objective of which is to express an opinion. If we had performed an engagement for the purpose of expressing an opinion, we might have identified other matters and possible misstatements in the sustainability data included in the Sustainability Report 2020. Therefore, we do not express an opinion on this data.

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

The sustainability indicators were prepared and presented in accordance with the criteria of the GRI Standards and, therefore, do not aim to provide assurance with regard to the compliance with social, economic, environmental, or engineering laws and regulations. However, the aforementioned standards establish the presentation and disclosure of possible cases of non-compliance with such regulations when meaningful sanctions or significant fines are applied. Our limited assurance report should be read and understood in this context, which is inherent to the selected criteria (GRI Standards).

CONCLUSION

Based on the procedures performed, described herein, no matter has come to our attention that leads us to believe that the sustainability data included in the Sustainability Report 2020 of CBMM has not been compiled, in all material respects, in accordance with the guidelines of the Global Reporting Initiative (GRI STANDARDS).

São Paulo, June 15, 2021

PricewaterhouseCoopers
Independent Auditors
CRC 2SP023173/O-4

Maurício Colombari

Accountant Regional Accounting Council CRC 1SP195838/O-3

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SUPPORT

CBMM employees who provided valuable information and suggestions

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GRI CONSULTANCY, EDITORIAL WORK AND DESIGN

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INFOGRAPHIC

Cássio Bittencourt

ASSESSMENT OF THE REPORT

PwC



