

# 2019 Sustainability Report

## **Executive summary**

# Message from our CEO

**Eduardo Ayroza Galvão Ribeiro**



Continuing to generate economic and social value through the transformation and co-development of smarter materials is what motivates us every day

We've built our history on strong investments in the development of niobium technologies and applications with our customers and partners in over 50 countries.

In 2019, we acquired the option to become a shareholder in 2DM, a Singapore-based company that is a world leader in the development of graphene, an advanced material with special properties. The potential synergy between graphene and niobium may spark the production of a new generation of more sustainable, safe electric batteries, which could help to accelerate the transformation to more sustainable mobility, as well as provide smarter energy storage and distribution systems for cities.

Within our sustainable growth strategy, in 2019, we generated net revenue of R\$8,4 billion, 7,8% above 2018. Net profit grew by 6,2% over the previous year, reaching R\$ 3 billion.

Aiming to expand and guarantee stable supplies for all our customers, in 2019 we made record investments in our industrial complex to increase production capacity to 150.000 tonnes of niobium products annually by 2020, the expected date of completion of the expansion work.

To support our sustainable growth model, governance, risk management and compliance practices have been enhanced to detect business exposures, mitigate them and leverage

opportunities to improve practices, policies and strategies.

We continue to develop programs designed to optimize resources, reduce greenhouse gas emissions – we aim to be a zero carbon (net emissions) company by 2050 – and preserve Cerrado biodiversity, among other activities linked to our material topics and Sustainable Development Goals, including economic, social and human development.

We are guided by the principle of excellence and our employees generate positive impacts for society by participating in the sustainable development of the company. Good performance is linked, simultaneously, to respect for people and the environment, positive interaction with the communities where we operate and financial results.

CBMM's sustainability is the result of a strong relationship with our stakeholders. We are committed to ensuring that these relationships continue to be based on candor and respect.

Urgent solutions for a sustainable economic model demand the use of smarter materials in applications in mobility, infrastructure and in the generation and distribution of energy. We understand that our expertise in transforming materials and solutions through the vast potential and versatility of niobium is even more vital in the current context, and for the future.

# 2019 highlights

## Social



**1.905**  
employees



**9.309**  
direct and indirect jobs  
generated or maintained<sup>1</sup>

**2.113**

suppliers contracted

**R\$ 48,7 million**

invested in social initiatives  
(incentivized and not incentivized)

## Health and safety



**Zero**

occupational illnesses

## Environmental

### Water consumption



**19,2 m<sup>3</sup> of fresh water**

used to produce 1 tonne of  
ferroniobium products

**17,1 m<sup>3</sup> of fresh water**

used to produce 1 tonne  
of niobium products



**96,4%**

of water recirculated  
at production facilities

The use of fresh water (m<sup>3</sup>/t of  
niobium products) dropped by

**8,1%**

between 2017 and 2019

### Energy consumption



**21,86 GJ**

of energy consumed  
to produce 1 tonne  
of ferroniobium



**20 GJ**

of energy consumed  
to produce 1 tonne of  
niobium products

**73,8%**

of energy from  
renewable sources

**100%**

of electricity from  
hydroelectric sources

1. Calculation based on the investment made in 2019 using the methodology published by BNDES.

2. CBMM's GHG Inventory is available at <https://registropublicodeemissoes.com.br/>

3. The calculation for purchased electricity used the location basis. To quantify scope 2 GHG emissions, the integrated national grid emission factor was used.

## Emissions



CBMM has been a member of the

## Brazilian Greenhouse Gas Protocol

since 2013, with data available for public consultation<sup>2</sup>

**0,96 tCO<sub>2</sub>**  
emitted per tonne of  
ferroniobium produced<sup>3</sup>

**0,88 tCO<sub>2</sub>**  
emitted per tonne  
of niobium products  
produced<sup>3</sup>

Between 2017 and 2019,  
emissions of CO<sub>2</sub>e dropped by

**19%**

per tonne of niobium  
products produced<sup>3</sup>

**0,71 tCO<sub>2</sub>**  
emitted per tonne of  
ferroniobium produced<sup>4</sup>  
(market-based method)

**0,65 tCO<sub>2</sub>**  
emitted per tonne of niobium  
products produced<sup>4</sup>  
(market-based method)

## Environmental education



**2.700 students and teachers**

from schools in the Araxá region participated  
in environmental education activities

## Production



Annual production capacity grew to  
**110.000 tonnes**  
of niobium products



Project to expand  
production capacity to  
**150.000 tonnes/year**  
scheduled for  
completion in 2020

## Financial



**R\$ 1,7 billion**  
net assets

**R\$ 8,6 billion**  
net revenue

**R\$ 3 billion**  
net profit

## General



R&D budget  
corresponded to **1,64%**  
of consolidated net revenue

**208** technical cooperation projects underway  
with customers, universities and research institutes

Work climate survey among employees  
showed engagement level of

**86%**

**R\$ 4,8 million** invested in employee  
training and skills development

**CBMM Science and Technology Prize**  
launched to recognize Brazilian professionals  
and encourage young researchers to contribute  
to national development

**Zero** non-compliance with social and  
economic laws and/or regulations

4. As certified by Cemig, 100% of the electricity consumed by CBMM came from renewable sources (hydroelectric). Thus, the calculation of electricity consumed by the company was performed using the purchased electricity option and therefore registering no scope 2 emissions.



## Stakeholder relationships and open dialogue

We strive to build strong relationships and open dialogue, continuously valuing the contributions of our partners



## Investing in our people

We prioritize workplace safety, healthcare and a positive work environment. We also provide professional development, encourage challenges and expand opportunities



## Environmental management

We are committed to respecting stakeholders and developing processes, products and services that are environmentally sound, socially just and economically viable



## Governance and transparency

We've strengthened our governance, risk management and compliance practices, and incorporate sustainability into our daily activities with engagement across all levels of the organization



## Developing technologies and innovative products

We invest in research, foster partnerships and apply best practices to develop new products and technologies

# Our way of doing business

We transform and improve materials through niobium technology

Sustainable solutions for mobility, infrastructure and the generation and distribution of energy start with more efficient and smarter materials.

We believe that people are the driving force for creating and promoting improvements and innovations that can transform everyone's life.

Having qualified, motivated people working in a safe environment with space to pursue ideas is

critical, as is building and maintaining genuine, transparent relationships with our partners in over 50 countries.

We maintain an open dialogue with stakeholders to develop activities that are environmentally sound, socially just and economically viable. We strive to constantly reduce negative impacts and continually improve, seeking to build a better, more sustainable world.



## Corporate contacts

### CBMM

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### Subsidiaries

CBMM TECHNOLOGY SUISSE SA  
CBMM ASIA PTE. LTD.  
CBMM EUROPE BV  
CBMM NORTH AMERICA, INC.

### Representative Offices

CBMM Beijing  
CBMM Shanghai