The future is made of aluminum

Annual Report 2022

Daughters of Elielton Rodrigues de Almeida, boiler worker at the Sorocaba Facility (SP), and Flavio Guilherme dos Santos, Sustainability Analyst at the Energy Business

alennium

cba

The Legado das Águas Reserve (SP), Reservas Votorantim

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Message from the Board of Directors

Luis Ermirio de Moraes
Chairman of the Board
of Directors, Companhia
Brasileira de Alumínio (CBA)

MAKING OUR ALUMINUM MORE SUSTAINABLE THAN EVER

CBA made notable progress across several key projects in 2022, spanning greenfield development, modernization, production expansion, and productivity improvements. But our standout achievement in the year, garnering attention in various media outlets, was the successful delivery of our ESG 2030 program and strategy. Our leadership team has proven over the years that we can achieve business growth while elevating sustainability standards. This elevation occurred both in our production processes and in our approach to Corporate Social Responsibility (CSR), while engaging openly and transparently with our stakeholders.

Our Board of Directors actively supports efforts to address sources of emissions in our production processes, and our management team is dedicated to making CBA a global leader in environmental performance within the aluminum industry. While we already source our entire electricity requirement from co-owned hydroelectric power plants, we have continued to diversify our energy mix through consistent investments in wind and solar projects. This will ensure we remain a top performer for low carbon emissions and positioned in the 25th percentile of the global cost curve.

At CBA we believe that the most effective strategy for sustainable growth is to increase the share of recycled aluminum inputs into our production process, as much as technically feasible for each product line.

Our recent acquisition of Alux do Brasil and our scrap processing expansion at Metalex are two examples of our ongoing initiatives on this front. These efforts are enhancing not only our financial performance, but also improving our positive social and environmental impact. Recycling aluminum requires much less energy than producing primary aluminum. Thus resulting in significant energy savings of up to 95% and equally significant carbon emissions reductions. In addition, recycling provides an opportunity to extend our social programs to the scrap collection and the recycling value chain. CBA, with the unrestricted support of the Votorantim Institute, is working to gain a better understanding of this complex supply chain and recommend innovative solutions to the Board to improve living standards for everyone involved in this process.

We remain committed to improving occupational health and safety across the board, focusing not only on our processes but also on our culture. We work to raise awareness that cutting corners or shortcuts are never worthwhile if they jeopardize the health and/or safety of our employees. And we recognize that sustained and meaningful improvement requires alignment between our processes and organizational culture.

Turning to our financial performance, China's industrial slowdown and worldwide inflation led to highly volatile commodity prices and increased production costs, creating significant

The Legado Verdes do Cerrado reserve, a CBA-sponsored protected area in the state of Goiás

economic and financial challenges for CBA and our management throughout the year. But amid the economic headwinds, CBA continued to deliver the initiatives in connection with our IPO and even accelerated the restart of a newly upgraded Pot room with energy-efficient and low-emission technology that signals our entire management's strong commitment to stakeholders.

In addition, CBA has made strides in diversifying our workforce, with an increased number of women holding operational, administrative, and senior leadership positions. At year-end 2022, women held 21% of leadership positions at CBA, more than double the figure five years ago. Starting from May 2023, CBA's executive board will include three women out of ten men, with plans to extend our diversity performance beyond gender in the near future. However, this challenge transcends CBA, and Brazil as a whole, must work to raise educational levels among all segments of the population.

During the year we strengthened the Board's governance structure with the creation of a Financial Committee of three members, including one independent member, to ad-vise CBA on business strategy and economic and financial trends.

We have continued to effectively deliver on our 2030 ESG Strategy, with virtually all projects under our IPO (97%) providing ESG-related benefits. These projects position us to reconcile business growth with our targets for decarbonization, advancing the circular economy, and other important environmental, social, and governance objec-tives. We are confident that the CBA will continue to lead the way for sustainable practices globally, inspiring our partners and the broader industry to join us in aligning business practices with the highest standards for corporate social responsibility.

Lastly, I would like to express our gratitude to Ricardo Carvalho, who will be leaving his executive role in May 2023 and taking on a position on the Board of Directors. He has been a valuable asset with his unwavering commitment and dedication over the years to advancing compliance and ESG practices to the highest levels. With his boundless energy, Ricardo has inspired our managers to embark on an exciting new cultural journey that is just beginning, where respect for others and the environment are inseparable from our core business objectives.

Luis Ermirio de Moraes

Chairman of the Board of Directors,
Companhia Brasileira de Alumínio (CBA)

Message from the CEO

Ricardo Carvalho
CEO, Companhia Brasileira de Alumínio (CBA)

THE FUTURE IS MADE OF ALUMINUM—AND AT CBA, THAT FUTURE IS HERE

We believe aluminum is the metal for the future. It is strong, durable, formable, lightweight and infinitely recyclable, making it ideally suited for a wide range of innovative, sustainable and low carbon applications. As the world faces an urgent need to decarbonize the economy and combat the climate crisis, we have been proud to be at the forefront of these efforts for several years. In 2022 we achieved an important milestone with the approval of our greenhouse gas emissions (GHG) emissions reduction targets by the Science Based Targets initiative (SBTi), and our inclusion on the Disclosure Insight Action (CDP) "A List"—both were an industry first among primary aluminum producers.

Globally, emissions in aluminum smelting average is 12.6* tons of CO_2 equivalent (tCO_2e) per ton produced. At CBA, our emissions are a fraction of that figure at 3.03 tCO_2e. This forms the basis of our brand new low-carbon aluminum seal, Alennium, which can be displayed on products made with our low-emission aluminum.

But we want to be even better, and we have a structured agenda for this on all ESG fronts. Our sustainability strategy has earned recognition from prestigious organizations such as the Global Compact, where I have been named spokesperson for SDG 17 (Partnerships for the Goals) as part of Leading with Impact, a program which aims to build global partnerships for sustainable development.

CBA's 2030 ESG Strategy was updated in 2022 and now comprises a set of 33 targets. Our ambition is to continue to lead the industry in sustainability, and our performance on sustainability indexes and rankings during the year shows that we are on the right path. For instance, we received a "Best for ESG" award in the Mining, Metals and Steelmaking category from Brazilian newsmagazine Exame. Just one year and a half since our IPO, and in our first year as a candidate for the Brazilian stock exchange ESG indexes, we ranked fifth in the Corporate Sustainability Index (ISE B3) and were also named a constituent of the Carbon-Efficient Index (ICO2 B3) and IGPTW B3, which brings together companies that are certified and recognized as best workplaces in Brazil.

As another important highlight from the year, we issued our first carbon credits linked to Brazil's Cerrado biome within the Reducing Emissions from Deforestation and Forest Degradation (REDD+) Cerrado Program. This program has the potential to issue an average of 50,000 credits annually for 30 years, and marks an important step in establishing Brazil's presence in the international voluntary carbon market.

Recycling has remained high on our sustainability agenda at CBA. In addition to helping us increase our aluminum output and revenues, recycling also supports our efforts to reduce GHG emissions. To further this strategy, we acquired the remaining 20% interest in Alux do Brasil in 2022 and integrated the company into our operations, marking our entry into the secondary aluminum alloy market.

** Note: Greenhouse Gas Emissions Intensity - Primary Aluminium. International Aluminium Institute (international-aluminium.org)*

On the energy front, we merged the previously separate energy business fully into CBA, as part of our goal to supply our entire electricity requirement from renewable sources.

These many accomplishments came with equally strong financial performance. The economic environment in 2022 was challenging—the Russian war on Ukraine and China's zero-COVID policy drove up inflation and created volatility in foreign exchange rates and aluminum prices. But our position in the first quartile of the global cost curve and our vertically integrated supply chain gave us the business resilience to weather the economic turbulence.

In 2022, our revenue was R$ 8.8 billion and our adjusted EBITDA was R$ 1.6 billion, a gain of respectively 5% and 6% in 2021. Sales volume fell from 485,000 metric tons in 2021 to 474,000 metric tons in 2022. During our first year since going public, we successfully launched a new offering to enhance liquidity and attract international investments.

We recognize that continued progress on these fronts will rely not only on our own efforts and team, but also on our partners. With this in mind, in 2022 we continued to roll out our Sustainable Procurement program, extending our ESG practices to the broader value chain.

CBA's commitment to caring for people is evident in every aspect of our operations. Investment in health and safety has remained an unyielding priority for us, and we are equally committed to promoting diversity and inclusion. In 2022, we conducted a census to better understand our professionals and inform more effective initiatives to create a welcoming and collaborative workplace, where individuals can feel free to be themselves.

In our communities, throughout the year we ran 59 social programs across our four pillars of education, public management support, economic development, and protecting child and adolescent rights.

What we have achieved through these initiatives holds a special significance for me, marking the culmination of six years as CEO of CBA, and 13 years with Votorantim. It has been an honor to lead a company that embodies values such as integrity, collaboration, and courage in its DNA, and puts them into practice through constructive disagreement, a sense of ownership, teamwork, and an ambition for competitiveness.

Starting in May 2023, I will be stepping down from my position as CEO to become a member of CBA's Board of Directors. It has been an absolute privilege to have contributed to and led the company's transformation journey in recent years and to have worked with key people who have shown a true passion for our business.

I am pleased to announce that Luciano Alves, our current CFO, will be stepping up to take on the role of CEO and will continue moving our growth and ESG programs forward. I would like to take this opportunity to express my gratitude to everyone I have had the pleasure of working with over the past six years. Together, we have built a strong company that is committed to our society and our planet, and has a positive restlessness that drives it to do more. I will continue to be involved as a Board member, supporting the company on its journey forward. I have no doubt that we will celebrate many more achievements in the next chapter of our company's story. CBA's purpose of creating aluminum solutions that transform people's lives is what makes us unique, competitive, sustainable, and a great place to work.

Ricardo Carvalho
CEO, Companhia Brasileira de Alumínio (CBA)

An aluminum extruded profile produced at Aluminio Plant (SP)

Sustainability vision

As the global economy transitions to renewable energy, CBA's long-standing transition efforts have given it a head start as well as an important competitive advantage. CBA's commitment to environmental and social responsibility—as expressed in a set of performance targets against which it monitors each of its projects—are an integral part of the company's culture. As members of the Sustainability Committee, we have provided support and new ideas to help the executive leadership team remain on a path to success."

Franklin Feder, member of the CBA Board of Directors and Sustainability Committee

I'm especially excited about the prospects of our recycling business. With its potential to catalyze transformation, I believe it will become our primary avenue for growth in the years to come. I see much of our development over the next 15 years coming from this front. By increasing our aluminum output through recycling, we can not only boost our bottom line but also make a profoundly positive impact on society."

José Roberto Ermirio de Moraes Filho, member of the CBA Board of Directors and Sustainability Committee

Effective governance is fundamental for driving progress on any agenda, including ESG. At CBA, we place a strong emphasis on robust, sound governance that is consistent with the best practices. A core component of governance is transparency around our policies, practices and initiatives. Our employees and leaders have a deep understanding of our mission, the need to be transparent, and how this positively impacts the business. This extends to our leadership team in dealing with issues that are critical to sustainability, such as decarbonization. As an industry-leading company, when CBA stakes a firm position and demonstrates its commitment to achieving progress on these issues, we inspire our peers and the broader industry and market to follow suit."

Sonia Consiglio, member of the CBA Sustainability Committee

The Legado das Águas Reserve (SP), Reservas Votorantim

Report overview

GRI 2-3, 2-4, 2-5

The Legado das Águas Reserve (SP), Reservas Votorantim

Report for the period from January 1 to December 31, 2022

Developed in accordance with the GRI Standards and SASB reporting framework

Information on the Energy Business is also responsive to ANEEL disclosures

Report chapters are framed around the SDGs and Global Compact principles

Caster roll produced at the Aluminum Plant (SP)

GRI

SASB STANDARDS
Now part of IFRS Foundation

Welcome to the Companhia Brasileira de Alumínio (CBA) Annual Report, an account of our key strategies and initiatives in 2022. The contents of the report cover key environmental, social, economic, operational and governance aspects across all of CBA's operations. This year's report includes our newly acquired recycling business, Alux do Brasil, and the hydroelectric plants we have taken over from our formerly separate energy business. Consequently, the reported figures are inherently higher than in previous reports. Any restatements of information are noted for each disclosure.

This report has been developed in accordance with the GRI Standards and is for the period from January 1 to December 31, 2022, the same as our fiscal year. It also incorporates disclosures in line with the Sustainability Accounting Standards Board (SASB) Metals and Mining Standard, for our mines and industrial plants, as applicable. With the recent merger of our previously separate energy business into CBA, this edition of the report also includes disclosures for electric utility companies as required by the Brazilian power sector regulator, ANEEL and the SASB Electric Utilities & Power Generators Standard. These disclosures are provided in the Additional Disclosures Supplement to this report.

The chapters in this report are organized around CBA's 2030 ESG Strategy, and each chapter has a related hashtag linking to CBA's culture pillars (learn more in pages 16 and 74). Chapter headings include a reference to the relevant material topics, Sustainable Development Goals (SDGs), Global Compact principles and ESG levers. Throughout the report, we also flag projects and initiatives that support the SDGs.

This edition has been independently assured by Bureau Veritas to ensure transparency and integrity.

Sons and daughters of CBA employees

The future is made of aluminum

The future is made of aluminum: this motto sets the tone for this year's Annual Report. As the world transitions to renewable energy, and with the current drive to develop technologies aligned with sustainability practices, aluminum has become an important enabler of low carbon products and solutions that are better for both the environment and society.

As such, aluminum is set to play an increasingly prominent role in the market, particularly when produced using best sustainability practices.

The future of aluminum is already here at CBA—our facilities use fully renewable and traceable electricity to produce aluminum oxide and molten aluminum, boasting one of the lowest emissions levels in the global industry. We have also set a target to further reduce our carbon emissions by 40% across the value chain, from mine to casthouse.

CBA's aluminum—the aluminum of the future—is also a top performer in several different ratings, indexes and certification frameworks (learn more on page 22). For instance, we were the first primary aluminum producer in the world to achieve a Leadership-level score of "A" for CBA's climate-change disclosures to the Disclosure Insight Action (CDP). The Company was also the first in the segment to secure approval of our emissions reduction targets from the Science Based Targets initiative (SBTi), attesting that they are effectively helping to mitigate climate change.

The Annual Report has been developed around CBA's aluminum lifecycle, from production and the circular economy to our efforts to reduce carbon emissions and the solutions we have codeveloped with our customers. This report also describes the high standards of governance we adhere to in each of our processes, and our social impact—both internally through our health, safety, diversity, equity and inclusion practices; an externally through our support for community development—all in line with CBA's ESG agenda.

Materiality

GRI 3-1, 3-3 (Transparency and stakeholder engagement)

The boundary of this report has been set based on CBA's materiality matrix, which was reviewed and updated in 2022. The materiality review used the double materiality approach, covering both financial as well as environmental and social materiality. The process was structured into five steps:

1. Building a shortlist of high-level topics compiled from internationally recognized rating frameworks and sustainability questionnaires as well as internal documentation. These high-level topics provide a starting point of potential impacts and risks for CBA.

2. Prioritizing stakeholders based on their reliance and influence on CBA's activities.

3. Narrowing the 19 high-level topics to those that are most material to CBA based on the views of priority stakeholders. Each stakeholder group was asked to assess the topics it is specifically involved in: leadership personnel and lenders were asked about financial issues, and experts were asked about social and environmental issues. They then either completed an online survey or were interviewed.

4. Reviewing the survey results and assigning a survey quality rating to each stakeholder group, which was then used to weight survey responses. Survey results were largely focused on financial, social and environmental impact, and the matrix was accordingly sectioned so the topics could be more easily prioritized.

5. Following a review by consultants and CBA, the final list was narrowed to 15 material topics: 12 were produced by the materiality assessment and another three were added by CBA due to their relevance to the Company's strategy.

Halana Kelly Rodrigues Bueno, Management System Assistant, Aluminio Plant (SP)

The materiality assessment process surveyed a total of 1,260 people, including in-house, industry (Brazilian Aluminum Association (ABAL) and Brazilian Association of Self Generators (ABIAPE)), and external (UN Global Compact and GVCes) experts; CBA's senior leadership team; investors and lenders; customers; communities and community associations; suppliers; and employees and contractors. Our administrative, mining and aluminum operations; hydroelectric power plants; nature reserves; and the nickel business were all included in the assessment.

This was supplemented by an additional ESG Perception assessment to capture the views of our investors and creditors about the relevance of different ESG topics to our performance as a company. We conducted ten interviews in which respondents provided a brief background about their involvement with CBA, ESG practices, and unprompted comments on materiality. We then conducted a prompted survey on the topics listed as most material to the aluminum industry. Each stakeholder group's view on a topic carried a different weight in determining the resulting materiality matrix.

Lastly, the resulting 2022 materiality matrix was recommended to the Sustainability Committee and then approved by the Board of Directors.

Geraldo dos Santos Serra, Production Operator at the Aluminum Plant (SP)

The Legado das Águas Reserve (SP), Reservas Votorantim

Material topics GRI 3-2

Core topics for the aluminum industry

- Circular aluminum
- Climate strategy
- Renewable energy and energy efficiency
- Dam safety management
- Biodiversity and ecosystem services
- Waste management
- Local development

Topics material to aluminum production

- Health, safety and quality of life
- Ethics, integrity and compliance
- Innovation, technology and business resilience
- Water and wastewater management
- Risk and crisis management
- Transparency and stakeholder engagement
- Diversity, equity and inclusion
- Sustainable supply chain

Throughout this report and in the Additional Disclosures Supplement, you will find descriptions of the material topics, their impacts on CBA and our stakeholders, and how they are related to the SDGs.

If you have any questions, suggestions or comments about this Annual Report, the report team can be contacted by email to: comunicacaocorpcba@cba.com.br. **GRI 2-3**

About CBA

#OurCBA

- The only vertically integrated aluminum producer in Brazil
- Progress on our strategic plan 2023-2027
- Value Creation Model CBA 2022
- Certifications, ratings, indexes, commitments and other recognition

From left to right: José Henrique Paes de Araújo, Dilson Silva, Andrea Duarte, Anna Paola Teixeira Bentini, Fernando Beira, Gabrielle Mara do Nascimento, Wannder Cabral, Daniella Stamborovski, employees from the Energy Business

The only vertically integrated aluminum producer in Brazil GRI 2-1, 2-6

Since our founding in 1941, Companhia Brasileira de Alumínio (CBA) has produced aluminum using a responsible approach to our impacts on the environment and society. We are a publicly traded company, listed in an enhanced governance (Novo Mercado) segment of the Brazilian stock exchange, and a member of Brazilian conglomerate Votorantim S.A.

CBA is the only vertically integrated aluminum producer in Brazil, and one of the few in the world, with operations that span from bauxite mining to the production of a comprehensive portfolio of primary aluminum (ingots, slabs, billets and rod) and dowstream products (sheets and coils, foils and extruded profiles).

Our self-sufficient bauxite and alumina capacity, combined with vertical integration across the value chain and 100% renewable generation capacity for our electricity requirement, position us in the first quartile of the global aluminum cost curve.

In addition to our primary aluminum operations, CBA is also a major player in recycling. Adding to our scrap processing capacity at Metalex, in 2022 we took over and integrated Alux do Brasil, expanding our operations in the secondary alloy segment.

Sustainability and innovation are at the core of our strategy, and our low-carbon aluminum and ESG 2030 program are setting the standard for our industry. CBA's success over the years has been enabled by valuable partnerships with our employees, customers, suppliers, communities, investors and other business partners.

Material topic related to this chapter:

- Innovation, technology and business resilience

SDG related to this chapter:

Aluminio Plant (SP)

PURPOSE

Aluminum solutions that transform people's lives

Our purpose describes the underlying reason for everything we do: to transform and build a world of new possibilities through aluminum.

Strategic pillars guide our day-to-day operations as well as our long-term ambitions:

- Accelerate growth
- Build competitiveness
- Drive innovation and collaboration
- Build Leadership in ESG

CULTURE PILLARS

In 2022 we revisited our culture pillars to better express the practices and principles we promote and apply at CBA.

Sense of ownership

#GetAhead
#OurCBA
#Trustworthy

Teamwork

#InThisTogether
#WeAreAllCBA
#ValuablePartnerships

Ambition for Competitiveness

#InnovationHappensHere
#CustumersCentered
#ESGInOurBlood

Constructive Disagreement

#DisagreeingWell
#AMoreDiverseCBA
#Transparency

Click here

and read more about our culture pillars.

VALUES

As a member of the Votorantim Group, we share a common set of values that express our way of doing things, of being and of going beyond:

Integrity

- Doing what's right
- Valuing differences
- Respect and ethics

Courage

- Leadership
- Innovation
- Building the future

Collaboration

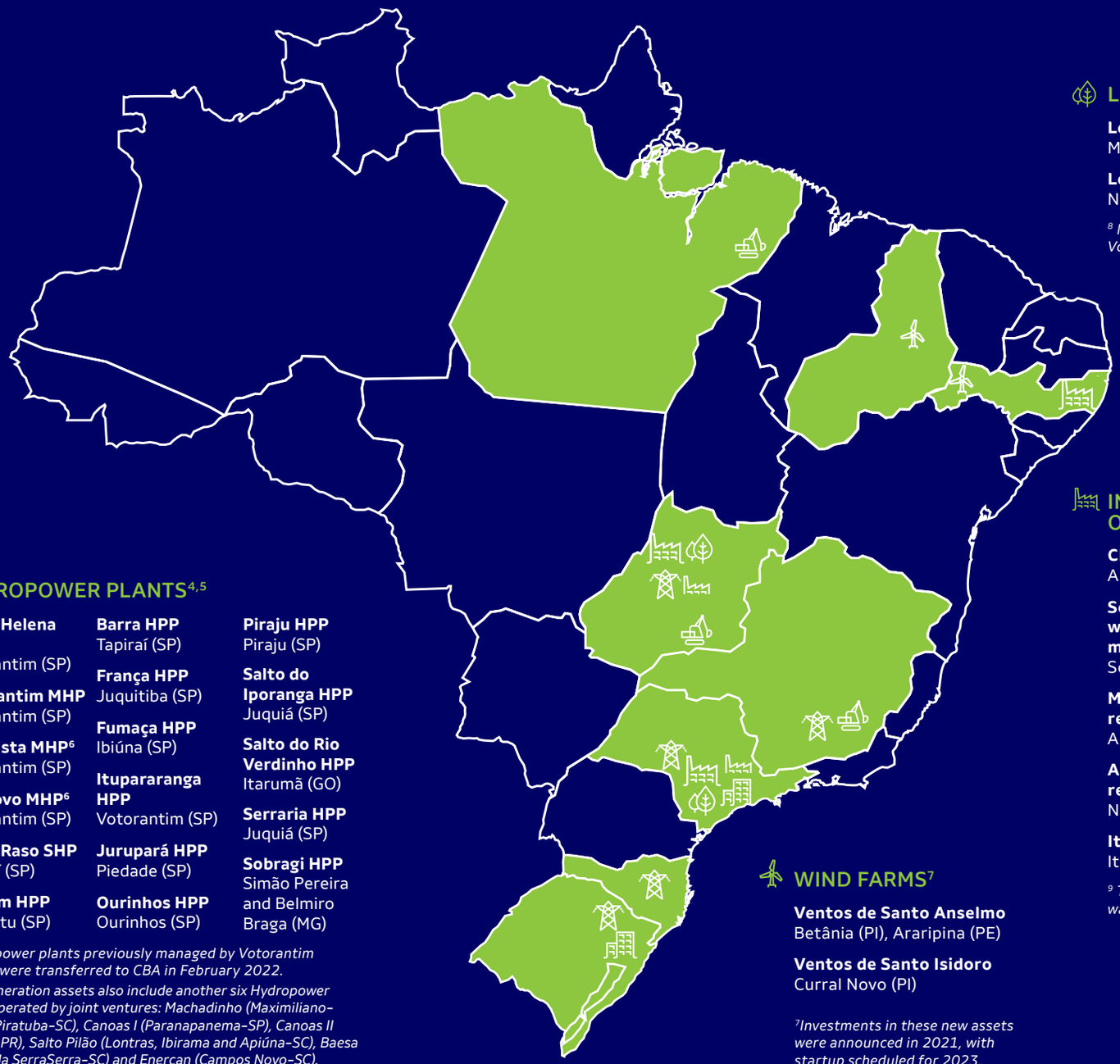
- Creating shared value
- Networking
- Valuing people

Denisia Soares da Silva and Gislaine da Silva Souza, Dowstream Operators at the Alumínio Plant (SP)

Our presence in Brazil

GRI 2-1

Our units and operations



ADMINISTRATIVE UNITS

Corporate Office São Paulo
São Paulo (SP)

Distribution Center and Solutions & Services Center
Caxias do Sul (RS)

Solutions & Services Center
Alumínio (SP)

NICKEL BUSINESS[1]

Niquelândia
Niquelândia (GO)

[1] Operation currently on care and maintenance.

MINES

Itamarati de Minas Mine
Itamarati de Minas (MG)

Miraí Mine
Miraí (MG)

Poços de Caldas Mine
Poços de Caldas (MG)

Barro Alto Mine[2]
Barro Alto (GO)

Rondon Project[3]
Rondon (PA)

[2] Operated by a partner.
[3] Currently under licensing.

HYDROPOWER PLANTS[4,5]

Santa Helena MHP
Votorantim (SP)

Votorantim MHP
Votorantim (SP)

Boa Vista MHP[6]
Votorantim (SP)

Rio Novo MHP[6]
Votorantim (SP)

Porto Raso SHP
Tapiraí (SP)

Alecrim HPP
Miracatu (SP)

Barra HPP
Tapiraí (SP)

França HPP
Juquitiba (SP)

Fumaça HPP
Ibiúna (SP)

Itupararanga HPP
Votorantim (SP)

Jurupará HPP
Piedade (SP)

Ourinhos HPP
Ourinhos (SP)

Piraju HPP
Piraju (SP)

Salto do Iporanga HPP
Juquiá (SP)

Salto do Rio Verdinho HPP
Itarumã (GO)

Serraria HPP
Juquiá (SP)

Sobragi HPP
Simão Pereira and Belmiro Braga (MG)

[4] Hydropower plants previously managed by Votorantim Energia were transferred to CBA in February 2022.

[5] Our generation assets also include another six Hydropower plants operated by joint ventures: Machadinho (Maximiliano-RS and Piratuba-SC), Canoas I (Paranapanema-SP), Canoas II (Andirá-PR), Salto Pilão (Lontras, Ibirama and Apiúna-SC), Baesa (Pinhal da SerraSerra-SC) and Enercan (Campos Novo-SC).

[6] Units are not operational.

WIND FARMS[7]

Ventos de Santo Anselmo
Betânia (PI), Araripina (PE)

Ventos de Santo Isidoro
Curral Novo (PI)

[7] Investments in these new assets were announced in 2021, with startup scheduled for 2023.

LEGACY RESERVES[8]

Legado das Águas
Miracatu (SP)

Legado Verdes do Cerrado
Niquelândia (GO)

[8] Managed by Reservas Votorantim.

INDUSTRIAL OPERATIONS

CBA plant
Alumínio (SP)

Sorocaba facility (metal work and equipment machining)
Sorocaba (SP)

Metalex (aluminum recycling)
Araçariguama (SP)

Alux Brazil[9] (aluminum recycling)
Nova Odessa (SP)

Itapissuma rolling mill
Itapissuma (PE)

[9] The acquisition of this facility was completed in February 2022.

Primary products

GRI 2-6

- Bauxite
- Hydrate
- Alumina
- Molten aluminum
- Ingots
- Secondary ingots
- Slabs
- Billets
- Rod

Downstream products

GRI 2-6

- Caster rolls
- Sheet and coil
- Foil
- Extruded profiles
- Roofing and siding
- Parts and components
- Advanced parts and components

CBA products and services are supplied to the following markets:

GRI 2-6

- Automotive
- Building and construction
- Energy
- Agribusiness
- Consumer goods
- Packaging
- Transportation
- Metalworking

Ingots produced in the Aluminio Plant (SP)

Learn more about CBA's operations in the Additional Disclosures Supplement.

CBA primarily serves markets in the Americas, in particular customers located in Brazil and other countries in South and North America, as well as Europe.

Progress on our strategic plan 2023–2027

CBA is currently advancing a pipeline of projects supporting each of our strategic pillars.

Key achievements

ACCELERATE GROWTH

- Acquisition of Alux do Brasil
- Restarting Pot Room 3 ahead of schedule
- Increase in Metalex's capacity

BUILD COMPETITIVENESS

- CBA is in the 1st quartile despite the recent rampant inflation in costs
- Modernization projects announced in the IPO approved and underway
- Four times lower GHG emissions than the global average, and 24.4% emissions reduction from a 2019 baseline, progressing toward our target reduction of 40%
- Recognition from customers and the market

DRIVING INNOVATION AND COLLABORATION

- Partnership with Gerdau to leverage the capture of aluminum scrap
- DigitAll Movement
- Progress in ReAl project
- New developments in progress: support for electric vehicle batteries; foil for lithium-ion batteries; aluminum powder for additive manufacturing

BUILD LEADERSHIP IN ESG

- First primary aluminum company with targets approved by the SBTi and rating A in the CDP Climate Change questionnaire
- Market recognitions such as the ECO Amcham Award, ESG Exam and CEO Ricardo Carvalho as a spokesperson at SDG Brazil for the SDG 17
- Issuance of the first Cerrado carbon credit
- Number of women's leadership rising to 21%
- 100% of strategic suppliers accredited in the Sustainable Procurement Program

See below the status of each project under our strategic plan 2023-2027—all developed to high standards of sustainability:

Growth and modernization projects

progressing on track with discipline in capital allocation and a focus on value creation

	INCREASE PRODUCTION OF PRIMARY ALUMINUM	MODERNIZATION & ESG INITIATIVES	GROWTH IN RECYCLING
Total CAPEX (in million)	R$ 1,050	R$ 1,040	R$ 115
	Pot room 3 restart brought forward to 2022 from 2023	Smelter technology upgrade Phased startup from 2023 to 2025 **CAPEX: R$ 620 million**	Sidewell furnace installed at Metalex, raising capacity from 75 ktpa to 90 ktpa
	Pot room 1 restart to be completed by 2025	Dry waste disposal: Startup scheduled for 2024 **CAPEX: R$ 420 million**	Scrap Treatment Line: startup slated for 2023

CBA also works with renewable energy projects, the Rondon project for bauxite mining and mergers and acquisitions (M&A) projects.

Value Creation Model
CBA 2022

FINANCIAL CAPITAL

Inputs
- Land, raw materials, inputs and services
- Asset maintenance
- Sustainability-linked investments

Outputs
- R$ 8.8 billion in net revenue
- R$ 1.6 billion in adjusted EBITDA
- 18% adjusted EBITDA margin
- 100% of financing transactions linked to sustainability criteria, amounting to a total of R$ 817 million raised in 2022
- CBA listed in all three B3 ESG indexes

MANUFACTURED CAPITAL

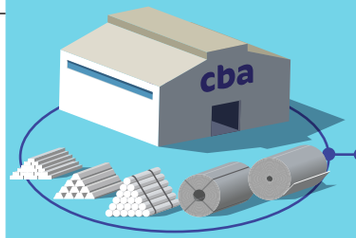
Inputs
- Operations in 10 Brazilian states

Outputs
- 2 million metric tons of bauxite processed
- 347.3 million metric tons of molten aluminum produced
- More than 500,000 tons of primary and downstream products
- 5,897 GWh of electricity generated at 23 hydroelectric plants
- Pot Room 3 restarted ahead of schedule
- R$ 32 million invested in industry 4.0 initiatives in the last four years

INTELLECTUAL CAPITAL

Inputs
- Knowledge and data management
- Research and development
- Tailored solutions co-engineered with customers and strategic partners

Outputs
- Created a digital innovation office and the DigitALL Program
- Launched "Digital Passports" with technical product information including certification, engagement around the climate agenda and emissions performance.
- Created Alennium, a new seal displayed on products made with CBA's low-carbon aluminum.



ACCELERATE GROWTH · BUILD COMPETITIVENESS · BUILD LEADERSHIP IN ESG · DRIVING INNOVATION AND COLLABORATION

cba

ALUMINUM SOLUTIONS THAT TRANSFORM PEOPLE'S LIVES

HUMAN CAPITAL

Inputs
- Direct and third-party employees

Outputs
- 6,639 direct employees, 17% women
- 168 women trained in partnership with SENAI to work in operational roles
- Revitalized organizational culture pillars
- Carried out a Diversity Census
- One of the 100 Best Workplaces in Brazil as ranked by GPTW

SOCIAL AND RELATIONSHIP CAPITAL

Inputs
- Relations with customers, suppliers, investors, trade associations, government and other stakeholders
- Spending on social programs and health initiatives supporting community development

Outputs
- R$ 8.7 million invested in 59 social initiatives
- 679 people participated in a Volunteering Challenge with 90 different activities benefiting 5,458 people
- 60 families earned total revenue of R$ 798,000 through the ReDes program
- 100% of strategic suppliers screened against ESG criteria as part of the Sustainable Procurement Program

NATURAL CAPITAL

Inputs
- Land for our operations, especially mine operations
- Mined bauxite ore, other inputs, materials and scrap
- Electricity and fuels
- Water resources

Outputs
- Emissions for cast products reduced by 26.1% from a 2019 baseline
- GHG reduction targets approved by the Science Based Targets initiative (SBTi)
- 684.7 km² of habitat protected or restored
- REDD+ Cerrado program: issued first carbon credits linked to preserved Cerrado forests
- More than 200,000 tons of scrap consumed

Inputs (resources) **Outputs 2022**

Certifications, ratings, indexes, commitments and other recognition

CERTIFICATIONS

- Great Place to Work Certification – One of the 100 top workplaces in Brazilian industry
- Aluminum Stewardship Initiative (ASI) Performance and Chain of Custody Standards
- Mine Resource and Reserve Certification
- ISO 14001:2015 – Environmental Management Systems
- ISO 9001: 2015 - Quality Management System
- ISO/IEC 17025-2017 - General requirements for the competence of testing and calibration laboratories
- IATF 16949:2016 - International Automotive Task Force

RATINGS AND INDEXES

- **A Leadership-level score of "A"** for CDP Climate Change questionnaire—an industry first—and a score of "B" for Water Security questionnaire, the highest in the industry
- **Joined all three B3 ESG indexes**: ICO2, IGPTW and Corporate Sustainability Index (ISE). See also page 153
- **Joined the B3 IBrX100**, an index that tracks the performance of 100 of the top traded assets in Brazil's stock market
- MSCI ESG AA Ratings - Leadership position

RECOGNITION

- CEO Ricardo Carvalho named Mineral Industry Person of the Year 2022 by *Brasil Mineral*
- "Best for ESG" 2022 award from business magazine *Exame*
- Mining & Metals Industry Excellence Award from Minérios & Minerales, for our "Miraí Dam Colloid Settlement" project
- Diamond award presented to Alux by Moto Honda Manaus as a top supplier in 2021
- AmCham Brazil ECO Award 2022 for Sustainability Practices, in the Large Corporates category
- "100+ Innovative IT use awards"
- *Inovativos* award in the Manufacturing & Agribusiness category, for an "Advanced process control" project
- The Brazilian Ministry of the Environment selected a case study on our REDD+ *Cerrado* program to be presented during the United Nations Climate Conference (COP27)
- A case study on our paper: "The SDG ambitions of Brazilian companies"

* Jatobá PR Innovation Award, in the ESG Communication category

COMMITMENTS

- Science Based Targets (SBTi)
- Task Force on Climate Related Financial Disclosures (TCFD)
- Joined the First Movers Coalition
- Joined Global Compact's Net Zero Ambition Movement
- Joined Global Compact's 100% Transparency Movement, of which CBA was one of the pioneers in joining and is now an ambassador (see more on page 68)
- Global Compact Leading with Impact Program - CEO Ricardo Carvalho as spokesperson for SDG 17
- Joined as a forum member of the Taskforce on Nature-related Financial Disclosures (TNFD)

The aluminum cycle

#WeAreAllCBA

- Producing aluminum responsibly
- Primary Business
- Downstream Business
- Recycling
- Energy business – **our competitive advantage**
- Supplier relations **– #ValuablePartnerships**
- Customer relationships **– #CustomerCentered**
- Competitiveness management

Eliane Pereira Brito Borba, Production Operator, Aluminio Plant (SP)

Material topics related to this chapter:

- Renewable energy and energy efficiency
- Circular aluminum
- Innovation, technology and business resilience
- Sustainable supply chain
- Transparency and stakeholder engagement

ESG Strategy levers related to this chapter:

- Renewable energy
- Circular aluminum
- Sustainable value chain

SDGs related to this chapter:

Global Compact Principles addressed in this chapter:

9. Encourage the development and diffusion of environmentally friendly technologies.

Foil produced in the Aluminio Plant (SP)

Producing aluminum responsibly

GRI 2-6

The aluminum of the future is here at CBA. CBA's entire production process, from power generation, to bauxite mining and to delivering final products, is compliant with the ESG (environmental, social and governance) principles we operate by. This commitment extends not only to aluminum production but also across our broader value chain and to our relations with stakeholders.

Primary Business

MINING

Mining is the first step in the aluminum production process. The bauxite ore supplied to our Alumínio (SP) plant is currently mined and beneficiated in the states of Minas Gerais (Itamarati de Minas, Miraí and Poços de Caldas) and Goiás (Barro Alto – a mine operated by a third party).

CBA's approach to sustainable mining provides significant social and environmental benefits, and has made us a leader for sustainability in the mining industry by creating positive impacts that extend beyond the aluminum value chain.

Mine rehabilitation, reforestation and water conservation are an important legacy that is left by this approach, providing environmental, social and economic benefits in surrounding areas, including biodiversity, local development and land improvement. Mined land is fully reclaimed for use in agricultural activities, and blends in within the surrounding landscape. Reforestation efforts have helped to restore Atlantic Forest formations, creating wildlife corridors that are now attracting wildlife back into the region. And CBA's rehabilitation and reclamation approach includes initiatives to preserve natural hydrological processes. After mine closure, mined land is always returned in the same or better condition to farmers .

Rondon Project (PA)

Currently one of CBA's biggest investments, the Rondon project will develop a bauxite mine in Rondon, a municipality in Brazil's northern state of Pará, with an estimated 4.5 Mtpa capacity. In 2022 we completed feasibility studies and surveys to inform the development of the mine. As one of the project's differentiators, waste materials will be dewatered and stored within the mine pit itself, rather than in tailings dams.

Miraí Mine (MG)

Click here

and read more about these initiatives in the Enviromental Protection chapter.

Sustainable Mining at CBA

CBA's bauxite mines differ from other mining operations. The mining cause minimal land disturbance, and is developed incrementally, one small area at a time. In addition, mined land is fully reclaimed for agricultural use, while providing environmental benefits and improved farm yields. CBA has developed a sustainable mining for more than 80 years.

1 Mineral exploration is the first stage, done decades before a mine is developed. This stage begins with drilling using small core drills. Laboratory tests on the drilled core samples inform geological modeling and ultimately the design of the mine.

2 The next step is developing the Mine Plan, the basis for the social and environmental assessments for the future mine and the environmental licensing process.

3 After securing the licenses, CBA enters into mining easement agreements with landowners, allowing mining to begin in areas currently being used for farming or forestry. Mine development and bauxite extraction are completed in less time than with a typical mine, ranging from a few months to one to two years.

4 Mining operation begins with mine development. This stage includes activities such as fencing operations areas, clearing vegetation, stockpiling the topsoil, and building service roads and drainage systems. Precautions are also taken to retrieve fauna and flora to preserve biodiversity. At this stage, the topsoil covering the area to be mined is carefully removed. This soil is rich in organic matter, microorganisms and seeds, and plays a valuable role in post-mine environmental rehabilitation.

5 Bauxite is mined in an open-cut bench system using hydraulic excavators, without the use of explosives or the formation of mine pits. This facilitates re-sloping of the area to its original, natural relief.

6 The next stage is aerating the soil to improve water infiltration and reestablish plant cover. The nutrient-rich soil is returned and fertilized, and either crops or forests are planted. These areas are then managed and monitored. On average, within 4 to 5 years the property is returned to its owners fully reclaimed and with a higher yield than before it was mined.

7 Mined bauxite is loaded into trucks and transported to a beneficiation plant. Here, the bauxite concentration process begins at a crushing plant to reduce the ore's particle size. Water is then added to break down the particles, followed by washing (at the Miraí mine only). The next step is screening, where bauxite particles are separated by particle size from clay minerals. The water used in the process is recycled for subsequent use for washing.

8 The beneficiated bauxite is now ready to be transported by roads and rail to the Alumínio Plant (SP) to produce aluminum.

In the last six years, CBA has reforested 121 hectares of land with more than 170 native Atlantic Forest species as part of its forest restoration programs.

CBA has a 15-year partnership with the Federal University of Viçosa (UFV) for research and development across three areas: Environmental Rehabilitation, Reforestation and Water Conservation.

For the last 21 years, our Environmental Education Program (PEA) has provided local communities with information about CBA's sustainable mining practices and raised awareness about environmental conservation.

In summary, CBA conducts mineral exploration and formalizes easement agreements over the course of several decades; mines the land in a matter of months; then rehabilitates and manages the mined land over the course of several years. The company leaves a social, environmental, and economic legacy of enhanced biodiversity and economic diversification in the region, increasing land value and farm yields, and empowering local communities.

ALUMINA REFINERY

GRI 2-6

On arrival at the plant, the bauxite ore is blended to achieve desired physical and chemical properties. At the Refinery, the first step in the process is extracting aluminum oxide (alumina) from the bauxite. This is achieved through chemical reactions using alkaline solutions at high temperatures, in what is known as the Bayer process. The bauxite residue, or red mud, is stored in a dam.

A recently installed biomass boiler has reduced annual emissions by approximately 60% since installation, **with our Refinery now having the smallest carbon footprint in the world**, as measured by consulting firm CRU.

Liquor purification project

Liquor purification helps to improve the alumina refinery's efficiency and productivity. This project will ensure a reliable supply of alumina to our smelters, including the newly restarted and upgraded pot rooms. The project will also help to reduce the facility's energy (steam) intensity. A new evaporation and crystallization system will remove impurities from the caustic solution used in the production process. These impurities, which are detrimental to the alumina refining process, are converted into coproducts used in applications such as soil amendments and cement production.

SMELTERS

Refined alumina is carried in silo trucks to smelting facilities. In what is referred to as a pot room, the alumina is added into Soderberg cells, or "pots", along with anode paste (a mix of coal-tar pitch and petroleum coke), aluminum fluoride and electrolyte bath. Electrolytic reduction in the Soderberg cells converts the alumina into molten aluminum, which is then carried in trucks to different departments at the Casthouse.

Accelerated restart of Pot Room 3

Pot Room 3 was restarted in 2022 with most cells incorporating a new technology supporting lower-emission aluminum production (learn more on page 104). This is one of several projects being funded with the proceeds from our IPO in 2021 to expand production capacity. Pot Room 3 will add 26,000 metric tons of smelter production capacity, from 350,000 to 376,000 metric tons. The accelerated restart generated savings of R$ 15 million, as it allowed spent anodes to be recovered that would otherwise have been sold as fuel. The pot room upgrade has improved cell stability, reduced electricity consumption, and avoided 13,000 metric tons of CO_2e in emissions.

Diversity, equity and inclusion are embedded in everything we do. During the Pot Room 3 project, **we added more than 120 people to our workforce, 30% of whom were women**. We believe that increasing the representation of women in our industry is a crucial step toward driving positive cultural change.

Eliane Pereira Borba, Production Operator, Aluminio Plant (SP)

In addition to expanding production capacity, Pot Room 3 now incorporates a new pot feed technology. Accelerating the upgrade shows our commitment to producing cleaner aluminum with lower emissions, as part of our broader strategy to supply low-carbon aluminum to the market."

Alexandre Vianna da Silva, Primary Products VP

Primary Business Highlights

SASB EM-MM-000.A

2 million
metric tons of bauxite beneficiated (2022)

63 hectares
rehabilitated (2022)

R$ 15 million
saved with the anticipation of the Pot Room 3 restart

347 thousand
metric tons of molten aluminum produced

We commissioned and started operation of a pitch melting plant to mitigate issues with variance in quality and domestic market shortag

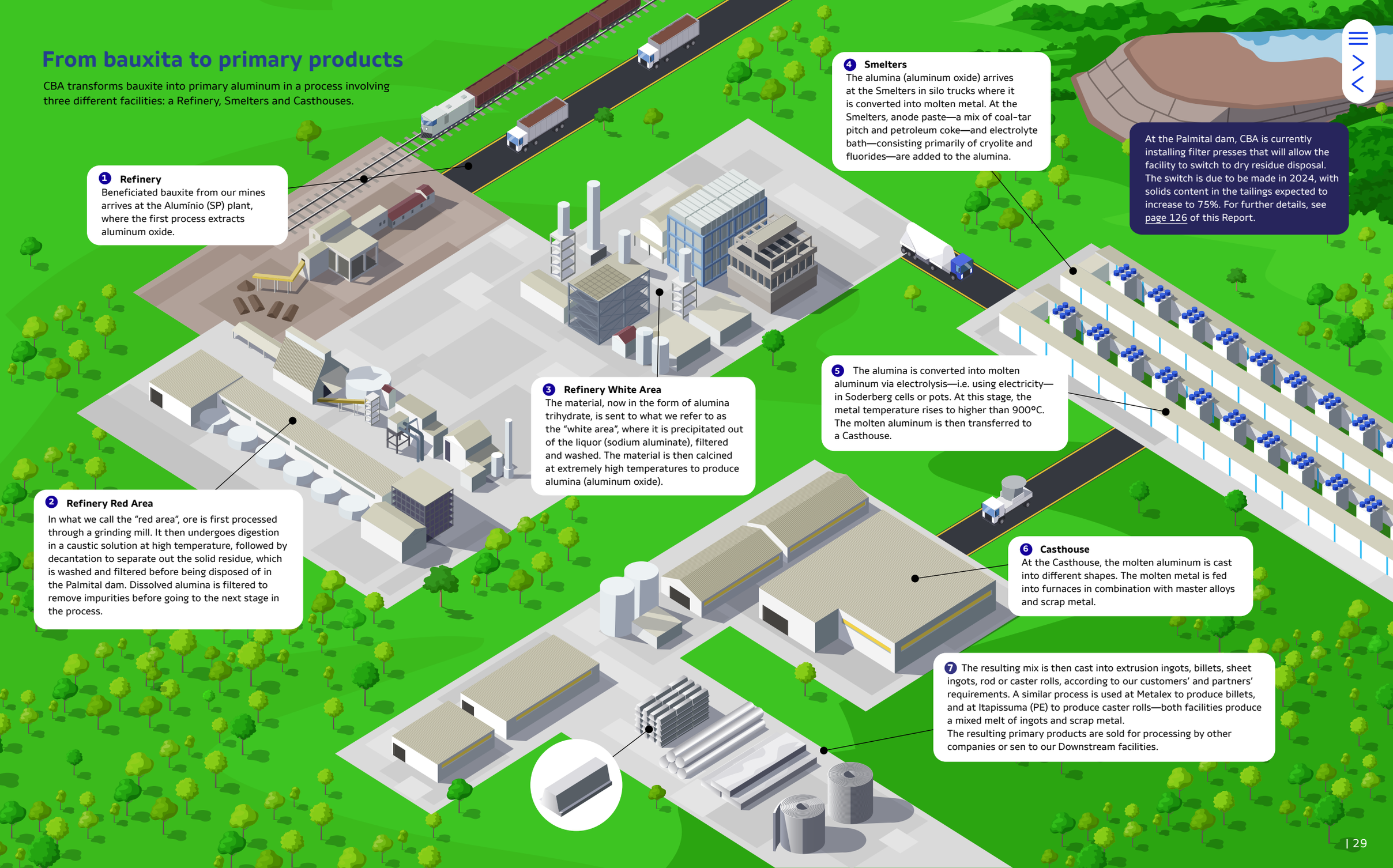
483 thousand tons
of cast products produced at our Alumínio and Metalex plants

CASTHOUSE

The molten aluminum is fed along with master alloys and scrap into the Casthouse furnaces, where it is cast into ingots, billets, plate sheet, caster rolls and rod. Besides the Aluminio plant (SP), this process is also used at our Metalex plant in Araçariguama (SP) to produce billets, and at Alux do Brasil in Nova Odessa (SP), to produce ingots made of secondary alloys. At Itapissuma (PE), a casthouse produces sheet ingots and caster rolls that are used as feedstocks to produce downstream products. All three plants produce aluminum products using both ingots and scrap metal.

From bauxita to primary products

CBA transforms bauxite into primary aluminum in a process involving three different facilities: a Refinery, Smelters and Casthouses.



1 Refinery
Beneficiated bauxite from our mines arrives at the Alumínio (SP) plant, where the first process extracts aluminum oxide.

2 Refinery Red Area
In what we call the "red area", ore is first processed through a grinding mill. It then undergoes digestion in a caustic solution at high temperature, followed by decantation to separate out the solid residue, which is washed and filtered before being disposed of in the Palmital dam. Dissolved alumina is filtered to remove impurities before going to the next stage in the process.

3 Refinery White Area
The material, now in the form of alumina trihydrate, is sent to what we refer to as the "white area", where it is precipitated out of the liquor (sodium aluminate), filtered and washed. The material is then calcined at extremely high temperatures to produce alumina (aluminum oxide).

4 Smelters
The alumina (aluminum oxide) arrives at the Smelters in silo trucks where it is converted into molten metal. At the Smelters, anode paste—a mix of coal-tar pitch and petroleum coke—and electrolyte bath—consisting primarily of cryolite and fluorides—are added to the alumina.

5 The alumina is converted into molten aluminum via electrolysis—i.e. using electricity—in Soderberg cells or pots. At this stage, the metal temperature rises to higher than 900ºC. The molten aluminum is then transferred to a Casthouse.

6 Casthouse
At the Casthouse, the molten aluminum is cast into different shapes. The molten metal is fed into furnaces in combination with master alloys and scrap metal.

7 The resulting mix is then cast into extrusion ingots, billets, sheet ingots, rod or caster rolls, according to our customers' and partners' requirements. A similar process is used at Metalex to produce billets, and at Itapissuma (PE) to produce caster rolls—both facilities produce a mixed melt of ingots and scrap metal.
The resulting primary products are sold for processing by other companies or sen to our Downstream facilities.

At the Palmital dam, CBA is currently installing filter presses that will allow the facility to switch to dry residue disposal. The switch is due to be made in 2024, with solids content in the tailings expected to increase to 75%. For further details, see page 126 of this Report.

Downstream Business

GRI 2-6

CBA's downstream business produces rolled, extruded, surface-treated and customized products with higher added value. Our downstream products are made at the Alumínio (SP) and Itapissuma (PE) mills or at our Solutions & Services Centers.

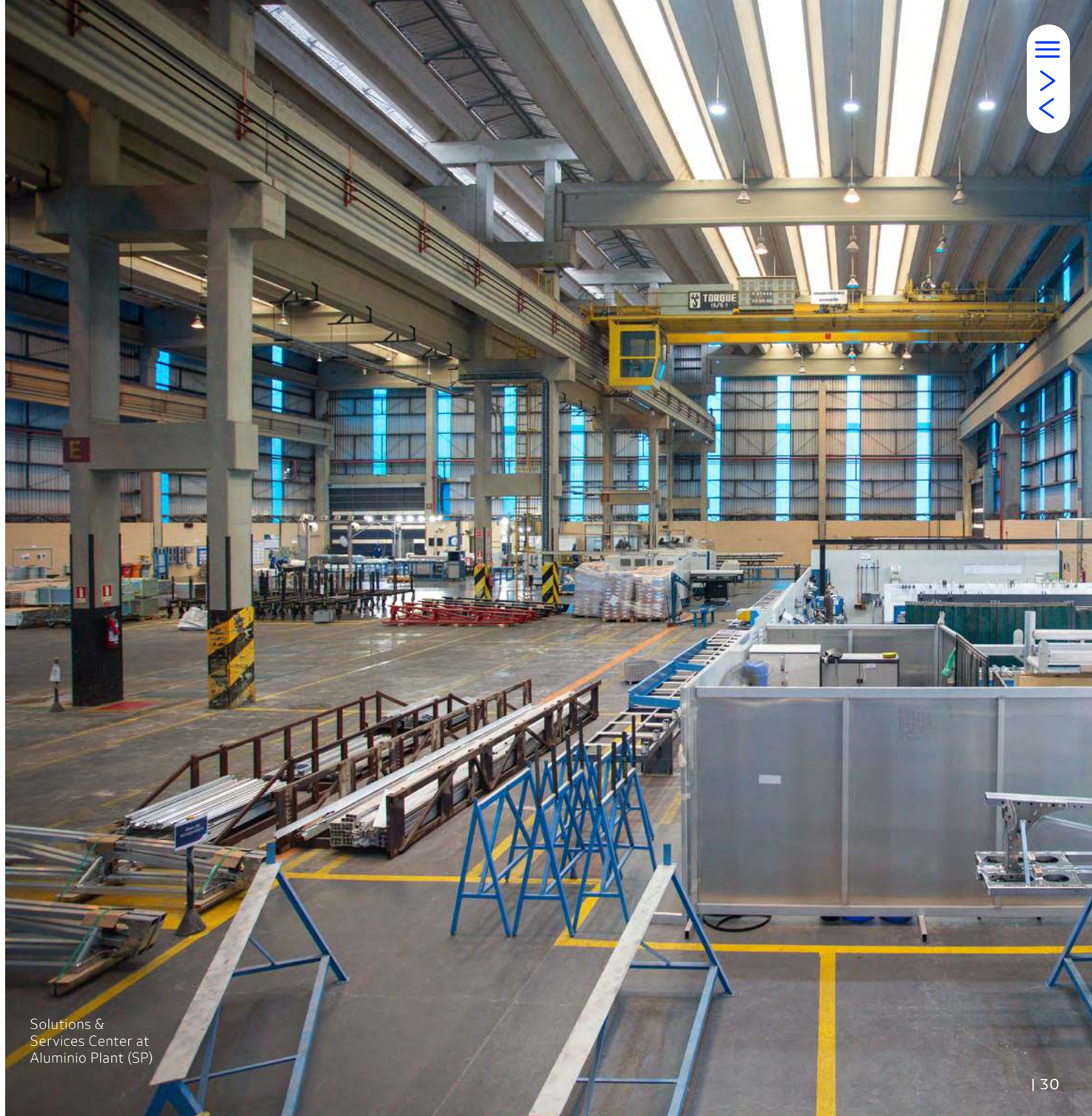
SOLUTIONS & SERVICES CENTERS (SSCs)

GRI 2-6

CBA has an Extruded Profile Surface Treatment Center in Alumínio (SP) and Solutions & Service Centers (SSCs) in Alumínio (SP) and Caxias do Sul (RS) to develop co-created products.

These centers cater to customers' aluminum processing needs within co-engineering projects – such as grit blasting, anodizing, coating, special cutting operations, welding, machining and part assembly.

Examples of products we have cocreated with customers at these centers include bus roof solutions codeveloped with Brazilian bus and coach manufacturer Marcopolo, and decks for truck trailers (for further information, see the chapter DigitALL).



Solutions & Services Center at Aluminio Plant (SP)

PRIMORA BRAND LAUNCH

GRI 2-6

One of the highlights of the year in the Downstream business was the launch of our Primora range of door and window frames and facades, designed for medium to high-end real estate developments.

The new range will expand our market share in the building and construction segment, with an offering of frame systems for real estate developers. These products are custom-made in a partnership with German door and window hardware manufacturer Roto Fermax.

Primora is the culmination of two years of research and development led by a multidisciplinary group of product development, strategy, processing and marketing experts.

One of CBA's competitive advantages in the building and construction segment is that we are the only aluminum player in Brazil with a fully vertically integrated value chain, from mine to end product. This ensures our products are always in stock and offer CBA's unique quality and services. To maintain this quality, our frame systems are designed to meet industry standards, and we have joined the Aluminum Frame Quality Program managed by the Brazilian Association of Aluminum Window and Door Manufacturers (AFEAL) and Brazilian Aluminum Association (ABAL).

Low carbon aluminum is another differentiator of our Primora product range, and is responsive to growing demand in the building and construction industry to find suppliers and partners for LEED (Leadership in Energy and Environmental Design) certified developments.

Learn more in an exclusive episode of Conecta CBA.

Primora-branded products

* **Primora System:** designed for medium-end real estate developments, and especially for framing businesses and installers.
* **Primora Building System:** designed for high-end real estate developments requiring tailor-made frame systems.

In 2022:

90 real estate developments completed with Primora aluminum frame products

CBA exhibited its Primora offering in the 2022 edition of the **International Frame Industry Trade Fair (FESQUA).** This provided a valuable opportunity to showcase the unique features of our framing systems, meet prospective customers and partners, and discuss potential future business opportunities.

Click here and learn more on the Primora brand.

OTHER DOWNSTREAM INITIATIVES

Aluminum in agriculture: in 2022 CBA helped design crop spray booms made of aluminum for weight reduction and improved durability. This helps to minimize soil compaction as well as maintenance and therefore downtime. CBA provided engineering support from part design to delivery to the equipment manufacturer.

Transportation: in transportation, CBA worked with Marcopolo to develop a ready-to-assemble bus roofing system that is delivered directly to the assembly line. The result of several years of development, the new solution builds on our strategy to go further downstream in the value chain.

Better quality packaging: CBA has implemented a new quality control system that has improved the quality of its packaging foils by a factor of 20%. The system monitors the entire production process, identifying past defects and automatically correcting them in the future. CBA is recognized for providing superior-quality foil products that are used in a wide range of applications by customers in South America and the US.

Training powered by technology: maintenance training sessions at Alumínio (SP) and Itapissuma (PE) are using virtual reality to optimize the training experience for employees. This allows employees to take more regular training that simulates real-world situations without exposing them to actual hazards.

Extrusion Area at the Alumínio Plant (SP)

“In 2022 we had to manage the rising costs that affected the entire market, but we also used the opportunity to build closer relationships with customers and partnerships that will drive future growth. During this time, we also focused on quality improvements and developing new businesses, including our newly launched Primora brand”

Fernando Varella, Downstream Products, Innovation and Digital Transformation VP

Downstream

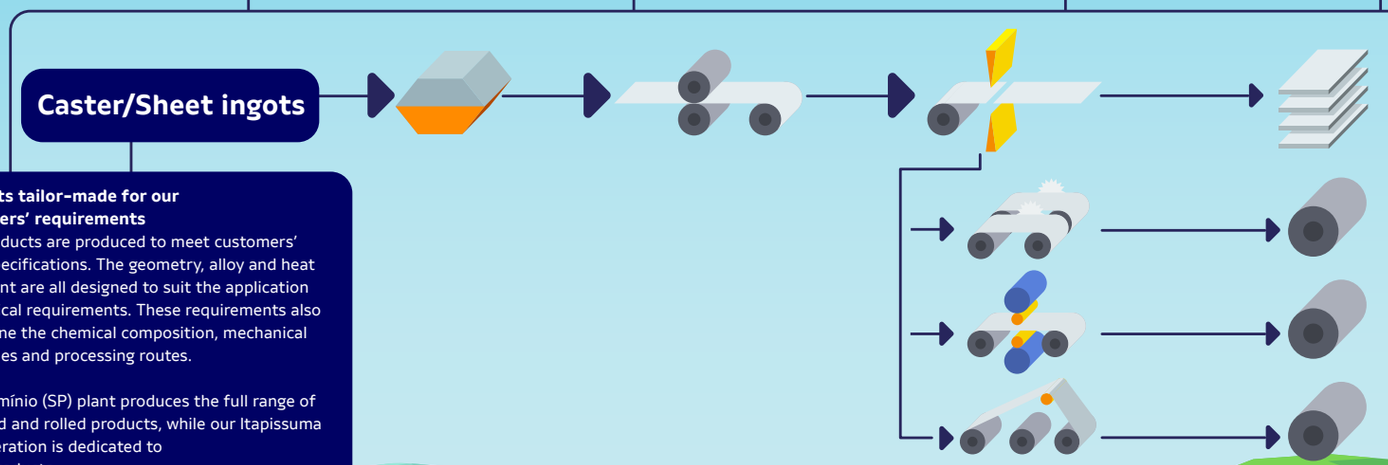
Primary aluminum products (billets, caster rolls and sheet ingots) are processed into semi-fabricated products such as sheet, foil and extruded profiles, sold to a wide range of industries.

1. Rolling
Rolled products are produced from sheet ingots and caster rolls supplied from the Casthouse. The rolling process produces sheet (thickness larger than 0.40 mm) and foil (0.06 mm to 0.30 mm thickness) across a wide range of thickness, alloy and surface treatment specifications.

2. Sheet rolling
The sheets undergo the following sequence of processes: milling (removal of a surface layer), heating, rolling (both hot and cold rolling) and, finally, heat treatments, depending on the final application. The resulting coils or flat sheet products are sold directly to customers in a wide variety of industries—from transportation through consumer goods—to manufacture products ranging from bus and truck bodies to cookware and light fixtures. CBA produces sheet with a width of up to 2 meters, the largest available in the Americas.

3. Foil rolling
Foil is rolled from caster rolls to produce materials less than a hair's breadth thick (up to 6 microns). The foil rolling process includes cold rolling, cutting and heat treatment. The final product is used primarily to make packaging, including food, beverage and pharmaceutical packaging.

4. Some foil products are coated in polytype-converting equipment, which performs coatings such as heat-sealing varnishes and is widely used for pharmaceutical and food packaging customers.



Products tailor-made for our customers' requirements
CBA products are produced to meet customers' exact specifications. The geometry, alloy and heat treatment are all designed to suit the application and critical requirements. These requirements also determine the chemical composition, mechanical properties and processing routes.

Our Alumínio (SP) plant produces the full range of extruded and rolled products, while our Itapissuma (PE) operation is dedicated to rolled products.

Using advanced technology and innovative solutions, CBA meets customers' specific requirements by co-engineering solutions at a dedicated market development and innovation department. Read more about our co-creation projects in the DigitALL chapter of this Report.

1. Extrusion
Billets are processed at an extrusion plant to produce profiles with different geometries, tempers and alloys. The material is homogenized, extrusion-pressed, stretched and heat-treated to produce bare or surface-treated (anodized or coated) aluminum profiles.

2. Surface treatment
Our dedicated surface treatment facility is one of the most modern of its kind in Latin America, and is the first and only facility to receive two internationally recognized certifications: Qualicoat, for coating process quality, and Qualanod, for anodizing quality. This improves strength and aesthetic quality, and is used to produce profiles with different finish colors and textures.

3. To meet specific customer requirements, we have a dedicated team of extrusion engineers and designers who review the customer's specifications and develop tailor-made extruded profiles either locally engineered or co-engineered with the customer. Profiles can also be processed at our Solutions and Services Centers at Alumínio (SP) and in Caxias do Sul (RS). At these facilities, CBA handles some of the final fabrication processes including cutting, bending, welding, machining, and other processing.

CBA also has external partners to perform fabrication operations not available from CBA to high standards of quality and efficiency, enabling us to deliver complete solutions to our customers.

4. Extruded products are sold to different industries, including building and construction, transportation, automotive, agriculture, energy, consumer goods, etc. Our customers fabricate our profiles into items such as windows and bus parts.

Recycling

GRI 3-3 (Circular aluminum), 301-2

Recycling plays a central role in our business strategy. Aluminum has a unique advantage: it is infinitely recyclable. Compared to producing primary aluminum, recycling aluminum uses 95% less energy, making it a key enabler of better ESG practices in the industry in the future. At CBA, the future of aluminum is already here.

Using aluminum scrap from our own and third-party production processes, as well as post-consumer scrap, can provide enormous savings on raw materials, inputs and electricity. This has led CBA to increase the amount of aluminum scrap we use by offering aluminum recycling as a service to aluminum manufacturing companies. New casthouse technologies being implemented at Metalex and CBA will enable even higher levels of aluminum scrap usage in the production of billets as from 2023.

Scrap bales at the Metalex Plant, Araçariguama (SP)

While Metalex and Alux are exclusively dedicated to scrap recycling, Itapissuma and Alumínio also have recycling capabilities.

ALUX DO BRASIL

In 2022 CBA completed the acquisition and integration of Alux do Brasil in another major step in its recycling strategy. CBA had acquired an 80% equity interest in 2021, and completed the acquisition of the remaining 20% in November 2022. Learn more about Alux on pages 109 and 155.

METALEX

Metalex is another facility dedicated to recycling aluminum scrap. In 2022, the facility commissioned a new sidewell furnace and continued work on a new recycling line that is due to start operation in 2023, with the capability to process post-consumer scrap containing higher levels of contaminants. Learn more about Metalex on page 110.

Learn more about CBA's recycling operations here.

Click here

and learn more about CBA's recycling projects within the ESG agenda on page 107.

More than

83,000

tons of external scrap used in the production process

65%

of recycled content in billets produced at Metalex

91%

of recycled content in ingots produced at Alux

Energy business – our competitive advantage

GRI 2-6, 3-3 (Renewable energy and energy efficiency) | SASB IF-EU-000.E

CBA has sourced its entire electricity requirement from hydroelectric power plants for many years. These plants were previously managed by Votorantim Energia (now renamed Auren) under service agreements, but in 2022 were merged into CBA as part of an ongoing reorganization of Votorantim S.A., to give portfolio companies greater independence.

INTEGRATION PROCESS

Following the merger, all employees in the energy business were migrated into CBA while retaining their previous roles in managing our energy assets. The integration process spanned all business fronts, including internal controls, audits, policies, and the end-to-end governance structure.

ENERGY BUSINESS ACTIVITIES

- **Power plant** operation
- **Interfaces** with electric utilities
- **Power plant** maintenance and improvements
- **Social and environmental** management of surrounding areas
- **Project licensing**
- **Occupational health and safety**
- **Regulatory and commercial** management
- **Managing existing assets and new developments**

In 2022:

23
hydropower plants
in six Brazilian states, including 17 owned by CBA and 6 via joint ventures

1,434 MW
of installed capacity

5,897GWh
of 100%
renewable energy generated

32 million GJ
of energy (eletricity and fuels) consumed in processes:

82% from renewable sources and

18% from non-renewable sources

72%
of energy consumption comes from electricity:

76% self-production

24% with renewable energy certificates

THE SIGNIFICANCE OF ELECTRICITY IN ALUMINUM PRODUCTION

Aluminum production is energy-intensive, with electricity serving as one of its primary inputs. Electric power accounts for 25% of overall smelting costs. According to data from the Câmara de Comercialização de Energia Elétrica (CCEEL), CBA is the single largest consumer of electricity in the state of São Paulo. This illustrates the sheer volume of electricity consumed in aluminum making, and the competitive advantage that CBA has derived from developing its own generation assets—we have an installed capacity equivalent to that of the largest generation companies in Brazil.

BUSINESS AND GROWTH STRATEGY

The mission of our energy business is to ensure a reliable, sustainable and competitive supply of electricity to our operations. CBA outlined a set of strategic initiatives in 2022 and 2023 to further this mission.

Our energy business to ensure a reliable supply of electricity by developing high-quality generation assets and implementing robust maintenance processes that optimize availability. We are constantly improving our maintenance processes, alongside investments in information technology and automation for operational improvement.

The electricity we generate is 100% renewable, largely from hydroelectric plants. In the future, we plan to diversify into new energy sources such as solar and wind. This will improve the resilience of our energy portfolio while maintaining a fully renewable supply of electricity.

CBA's energy pipeline comprises investments in either our own generation assets or long-term power supply agreements, depending on the impact on future aluminum production costs.

This not only positions us in the first quartile of the global aluminum cost curve, but also enables us to produce low-carbon aluminum with a resilient supply of electricity.

Ourinhos HPP,
Ourinhos (SP)

Generating our own electricity is more cost-competitive then having to source it from electric utilities. **This gives CBA a significant competitive advantage over peers.**

"The fact that CBA is able to produce aluminum with energy exclusively from a renewable source brings a significant competitive advantage when compared to other players worldwide. Both the investor and the end consumer of aluminum see us in a special way. They know they are buying sustainable aluminum."

Daniel Marrocos, Energy Business VP

CBA's electricity generation is

100% renewable

ENERGY EFFICIENCY

GRI 302-4

In 2022 CBA launched three energy efficiency projects at our Alumínio plant, providing potential electricity savings of 5 MW in the production process. Learn more on pages 132 and 133.

- **Compressed air (Alumina Refinery)**: a project to replace old air compressors with new ones, with an average reduction of 1MW
- **Lighting (Alumina Refinery, Casthouse and Extrusion):** replacing conventional light bulbs with energy-efficient models, delivering electricity savings of 0.5 MW in 2022
- **Electric motors/frequency inverters (Refinery, Smelters and Casthouse):** replacement of old low-performance motors for high-performance ones, with installation of frequency inverters. The installation process will be completed in 2023

Diversifying in renewables

GRI 3-3 (Renewable energy and energy efficiency) | SASB IF-EU.000.D

CBA is committed to generating its electricity exclusively from renewable sources. In 2022 our energy portfolio was 100% hydropower, but in 2023 part of our electricity requirement will come from two wind farms: Ventos de Santo Anselmo (in the municipalities of Betânia, Piauí and Araripina, Pernambuco) and Ventos de Santo Isidoro (in Curral Novo, Piauí). These windfarms will supply power to our Alumínio (SP) plant as well as our Itapissuma (PE) rolling mill. CBA's wind assets have an installed capacity of 171.6 MW—or 10.8% of our electricity requirement—and a guaranteed average capacity of 74.4 MW.

Since the merger of the Energy Business, CBA has also taken over portfolio management and generation and energy contracts risks. Learn more on page 71.

CBA's energy business also exercises social and environmental responsibility in the areas surrounding our hydroelectric plants. Learn more in the Additional Disclosures Supplement.

Click here

to view CBA's Energy Business webpage.

CBA's power generation facilities

SASB IF-EU-000.C

1 At a hydroelectric dam, a reservoir stores river water much like a water tank.

2 The reservoir level is controlled by a spillway and/or floodgate. The streamflow into the turbines is also controlled by valves/gates.

3 Intakes and penstocks channel the water from the reservoir into the powerhouse. At the end of the penstock, a valve controls the flow of water into the turbine.

4 Inside the powerhouse, the flowing water spins the turbine blades and the connected generator.

5 The generator converts this mechanical energy into electric energy.

6 The voltage from the generator is increased by a step-up transformer at a substation.

7 The electricity is then delivered to a transmission line, which transports the electricity to consumers, i.e. CBA's facilities. The transmission lines are 305 km long.

The electricity generated at CBA's hydroelectric dams is distributed via two different routes:

- **Via direct line:** when the transmission lines of the Hydroelectric Plant are directly connected to the Alumínio Plant (SP).
- **Via the grid:** the electricity is supplied to the National Grid.

HYDROELECTRIC DAMS

With 1.4 GW combined installed capacity, CBA's 23 hydroelectric dams (fully or jointly owned) supply electricity to our Alumínio Plant (SP) processes.

CBA'S HYDROELECTRIC PLANTS

State of São Paulo:
- **Juquiá System** (7 hydroelectric plants)
- **Sorocaba System** (4 hydroelectric plants)
- **Paranapanema System** (4 hydroelectric plants)

State of Minas Gerais:
- **Sobragi HPP**

State of Goiás:
- **Salto do Rio Verdinho HPP**

States of Paraná, Santa Catarina and Rio Grande do Sul:
- **Joint ventures** (6 HPPs)

Learn more about the geographic distribution of CBA's hydroelectric plants.

WIND POWER

CBA is diversifying its renewable energy portfolio. In 2023, the Alumínio (SP) and Itapissuma (PE) Plants will be supplied by the Ventos de Santo Anselmo (PI and PE) and Ventos de Santo Isidoro (PI) complexes.

When the generated electricity exceeds our facilities' requirement, the surplus is sold to the market.

CBA has enough hydroelectric generation capacity for its full electricity requirement. But depending on weather, streamflow and water-use priorities, available generation capacity may fall short of our requirements. In these cases, we purchase electricity from the National Grid and an equivalent amount of Renewable Energy Certificates (RECs), ensuring our entire electricity supply is traceable to renewable sources.

Supplier relations
#ValuablePartnerships

GRI 2-6, 3-3 (Sustainable supply chain), 3-3 (Transparency and stakeholder engagement)

Throughout 2022, CBA remained committed to building strong, collaborative relationships with our suppliers amid the significant challenges faced by our Supply Chain and Procurement departments. The pandemic, the energy crisis in China, and the war between Russia and Ukraine led to global commodity shortages and rising inflation.

The Covid-19 pandemic caused major disruptions in supply chains, especially as a result of China's zero-Covid policy—Chinese authorities implemented stringent containment measures that included shutting down entire cities, directly affecting logistics services, and especially international shipping.

The war between Russia and Ukraine has also created constraints in international markets, and hampered trade in the region. In addition, the political and economic consequences of the war have become global in scale, affecting costs, reducing the supply of certain commodities, and creating global inflation. The conflict has also directly affected the aluminum market, as Russia is the world's second-largest producer of aluminum.

NEW SUPPLIERS TO MINIMIZE INFLATION IMPACTS AND IMPROVE ACCESS TO RAW MATERIALS

During the year, the prices of strategic raw materials used in our production process (petroleum coke, coal-tar pitch, caustic soda and natural gas) rose precipitously, by as much as 100%, while their availability decreased.

We have worked to diversify our supplier base geographically to mitigate these impacts and minimize shortage risks. This is in line with a major trend in global supply chains to increasingly invest in and develop regional suppliers.

Our suppliers

GRI 2-6

CBA has more than 4,000 suppliers across different categories:

- Services (employee transportation, catering, janitorial services, grounds maintenance, etc.);
- Capital investment (equipment and process upgrades and maintenance, infrastructure and system modernization projects, etc.);
- Operation and maintenance (maintenance materials, Personal Protective Equipment (PPE), lubricants, etc.);
- Feedstocks (petroleum coke, coal-tar pitch, lime, etc.);
- Logistics (Road and maritime freight, port operations, customs agents, etc.).

Our suppliers are largely based in Brazil but also in South America, North America, Europe, Asia and Oceania. The estimated monetary value of payments made to suppliers is approximately R$ 4 billion per year.

SUSTAINABLE PROCUREMENT PROGRAM

GRI 2-6, 3-3 (Sustainable supply chain)

To make our aluminum increasingly sustainable, we believe our ESG practices need to extend across the broader value chain, including our suppliers. Working together, we can achieve positive impact at scale.

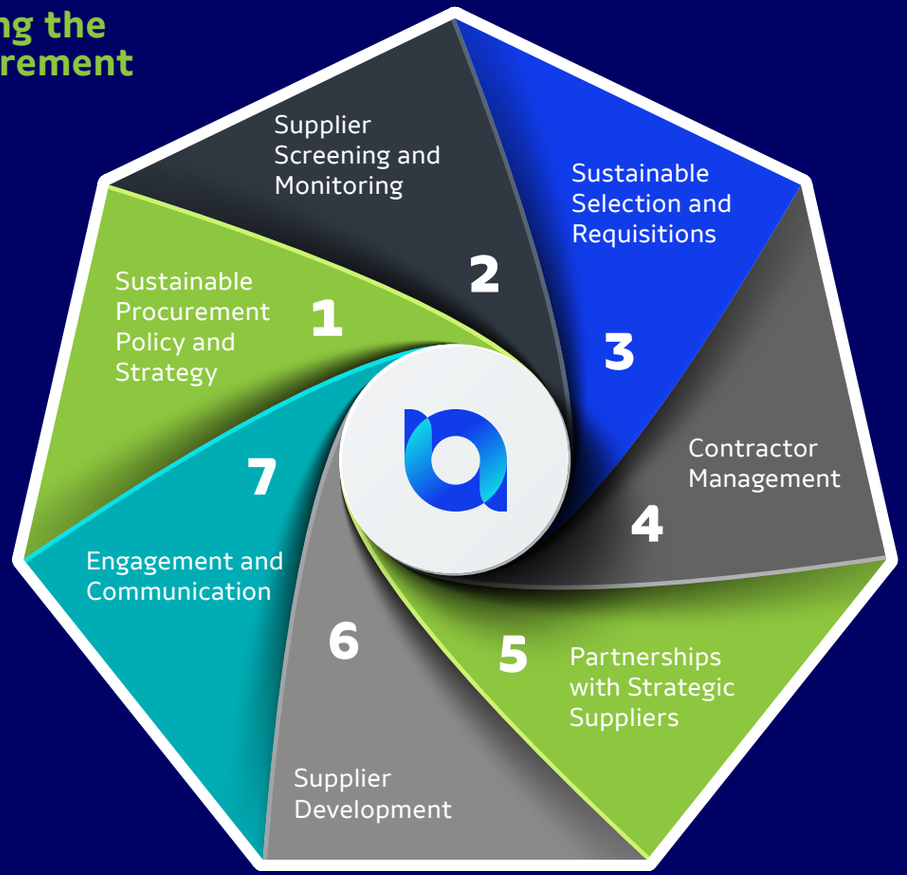
CBA has set an ambition to build leadership in sustainable supply chain management. In 2021 we launched a Sustainable Procurement Program to support this ambition. Our goals through this program are to: disseminate a new sustainable procurement culture; select, screen and monitor suppliers against ESG criteria; manage supplier contracts in line with our commitments; partner with strategic suppliers to jointly design sustainable solutions; and develop our suppliers, including small and medium-sized local suppliers, especially those in remote locations where we operate. Watch a special Conecta CBA episode featuring one of CBA's suppliers.

The program has been designed in accordance with ISO 20400 and supports the "Sustainable value chain" lever of our 2030 ESG Strategy.

Click here

and learn more in the Additional Disclosures Supplement.

Projects supporting the Sustainable Procurement Program



Sustainable Procurement Program

AMBITION: CBA as a benchmark in sustainable supply chain management.

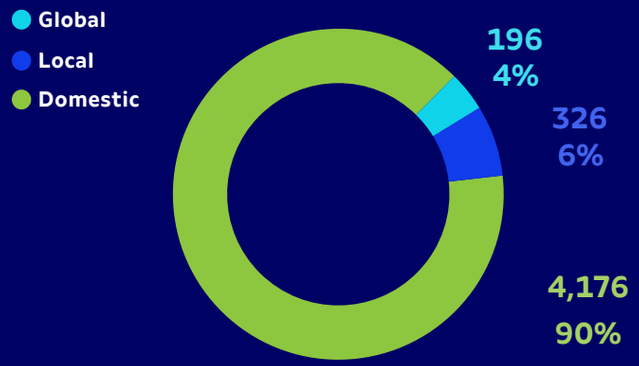
MANDATE: Being among the best-performing companies for sustainable procurement, ensuring CBA's competitiveness and leveraging the positive impact on business and people.

Our Sustainable Procurement Program has set a target to **increase spending on local suppliers by 10%**, and to **ensure 100% of suppliers are compliant** with CBA's Sustainable Procurement Policy.

Local suppliers are defined as suppliers located in the municipalities where CBA has operations, or in neighboring cities. Domestic suppliers are suppliers located in Brazil but that do not fall under the definition of local suppliers. International suppliers are companies located outside Brazil.

In 2022, CBA's active vendor list was broken down as follows, with domestic suppliers accounting for most of our supplier spend.

Active Suppliers (4,698)



Note: The number of local suppliers does not include Energy business suppliers. This information will be included in our 2023 report.

Active Suppliers – Local (326)

Sustainable Procurement Policy

GRI 2-23, 308-2, 414-2

The program is governed by our Sustainable Procurement Policy, which sets out the commitments we have undertaken and extend to our suppliers.

These commitments are structured into environmental, social and governance dimensions, and address aspects such as energy and water efficiency, collaboration in tackling climate change, providing decent working conditions and respecting human rights, protecting workers' and communities' health and safety, promoting diversity and inclusion, cultivating fair and transparent relationships, and acting with ethics and integrity.

Under the policy, assessments, due diligence and audits are carried out to monitor compliance with these guidelines.

Click here

to learn more about our Sustainable Procurement Policy.

From left to right: Thiago Marani Duque, Luiz Cesar Guireli, Murilo Stankevix, Leticia dos Santos Silva, Roseli Milagres, Karen Cristina Araujo Facio and Thales da Costa Avelar, Supply Chain and Procurement employees

NEW SUPPLIER CODE OF CONDUCT

GRI 2-23, 2-24, 3-3 (Sustainable supply chain), 3-3 (Ethics, Integrity and Compliance), 3-3 (Transparency and stakeholder engagement), 308-2, 414-2 | SASB EM-MM-510a.1

In June 2022 CBA took another step in promoting ethical and transparent business practices with the introduction of a dedicated Supplier Code of Conduct. This Code is based on the existing corporate Code of Conduct, which previously governed relations with suppliers. The new Code sets out a clear set of standards on ethical and transparent conduct that all suppliers must adhere to when doing business with CBA.

Key topics covered by the new Code of Conduct include supplier conduct, commitment to people and communities, and ethical considerations in doing business with CBA. Suppliers are required to read and accept the code during onboarding. A dedicated training program on the new Code will be launched in 2023.

Click here

to read the CBA Supplier Code of Conduct.

MAPPING OUT STRATEGIC SUPPLIERS

GRI 3-3 (Disclosures supplement), 308-2, 414-2

In 2021 CBA launched a process to screen strategic suppliers against ESG requirements, with each supplier being assessed on its level of maturity in sustainable practices. Out of the 117 suppliers assessed, 49% met the minimum aggregate score, indicating that they take a strategic approach to or have robust processes and initiatives relating to ESG practices.

Throughout the year, these assessments were also extended to other suppliers in our active vendor list.

We expect suppliers to achieve at least a tier 3 ESG maturity rating on a medium-term scale, which means they can provide material evidence of having a structured ESG governance system in place.

Following the assessment, we organized a supplier webinar to present the program, the screening results and the next phase of the program, which aims to enhance collaboration in implementing ESG practices and build engagement along the entire value chain.

Suppliers falling short of the minimum rating were encouraged to develop an action plan with support from CBA—this stage was initiated in 2022 with strategic suppliers. Suppliers rated at tiers 3 and 4 will be engaged in joint initiatives to further advance ESG practices.

How we assess supplier maturity:

From left to right: Murilo Stankevix, Bruna Orlandi, Lígia Carvalho, Priscila Silva, Michelle Godoy, Leandro Faria, Tabata Yamata, Roseli Milagres, Karen Facio, Rosana Andreosi and Leticia dos Santos Silva, part of the Sustainable Procurement Program team.

SUSTAINABLE SOURCING

During the year we ran two pilot procurement processes using a new format that considers ESG criteria in supplier selection. After reviewing the pilots, we identified areas for improvement and developed a final proposed method to be integrated into procurement processes beginning in 2023. This method will enable us to identify suppliers that meet CBA's environmental, social, and governance requirements, in addition to standard procurement criteria such as pricing, schedule, and product or service quality. This will create a more systematic and comprehensive approach to selecting suppliers in procurement processes.

ESG IN PERFORMANCE ASSESSMENTS

In November 2022, CBA revised its supplier performance scorecard and expanded its supplier performance dashboard. The new method will be implemented in 2023 to assess suppliers across the Financial, Governance, Operational, Business Relations and ESG dimensions.

RECYCLING SUPPLY CHAIN

Recycling has become an increasingly important part of our business. Using scrap metal is not only more sustainable but also more profitable, with recycled aluminum saving 95% of the energy needed to make new aluminum, according to the International Aluminium Institute (IAI).

Over the past two years, our investments in recycling have included our recent acquisition of Alux and the installation of a sidewell furnace at Metalex. Furthermore, we are currently working on installing a new scrap separation line at Metalex, which is expected to begin operating in 2023 (read more on page 111).

In 2022 our Supply Chain and Procurement departments successfully integrated Alux's systems with Metalex, consolidating our recycling operations. Standardizing procurement processes and tools will help to simplify and streamline our recycling operations.

Throughout the year, our team actively sought out new sources of scrap in each segment, and developed a business plan to purchase these materials. Learn more about our recycling operations in the chapter "Environmental protection – #ESGInOurBlood".

COMMUNICATION AND ENGAGEMENT

In 2022 both our employees and our suppliers received communications about our Sustainable Procurement Program. Internal communications included content in newsletters, on Workplace, and via WhatsApp. We also launched a dedicated Sustainable Sourcing website to inform employees about progress on the program.

Our participation in CBA's Sustainable Procurement Program has presented a valuable opportunity to advance our ESG agenda. This program is closely aligned with many of our own material topics, and is proving instrumental in helping us achieve our related targets. We recognize that meeting these goals can be a complex undertaking, and that success hinges on a company's ability to engage every link in its value chain. Collective and collaborative efforts like these can help to achieve genuine results."

Patrícia dos Santos Pereira, Corporate Sustainability Manager at Simpar, a conglomerate of seven logistics, mobility, sanitation, utility and financial services companies

As an aluminum company, we recognize that we are the critical first link in our customers' value chain. So it's important that we share our vision for sustainability through our Sustainable Procurement Program. This ensures that customers can rely on us to deliver sustainably-sourced aluminum that meets their needs while minimizing supply-chain risks. CBA is well positioned as a sustainability role model for our partners, while also helping them to improve their own reputation."

Roseli Milagres, Supply Chain and Procurement VP

Click here

to listen to the podcast Conecta CBA.

Suppliers were reached through different communication channels:

- Members of our leadership team recorded videos about the Program that were then sent to suppliers by email or via our "CBA News" newsletter
- We ran a campaign on our LinkedIn page featuring posts and articles
- Our Supply Chain managers participated in webcasts, podcasts and other events with customers and suppliers
- One of our suppliers, Simpar, was featured in a special Conecta CBA episode about Sustainable Procurement

Customer relationships
#CustomerCentered

GRI 2-6, 3-3 (Transparency and stakeholder engagement)

After going through each stage in the value chain—from mining and sourcing raw materials, through refining and smelting, to casting and downstream production or recycling—CBA's aluminum is finally delivered to customers.

They are at the center of many of our initiatives to improve the quality of our products and develop innovative solutions. At CBA, we pride ourselves on not only providing the best and most sustainable aluminum available, but doing so with superior quality, efficiency and fitness for purpose.

To ensure we deliver unparalleled service, we are constantly investing in process quality, operational efficiency and tech-enabled systems and controls. In addition, our salesforce engineers are prepared to develop tailor-made solutions for our customers as needed.

In 2022, we focused on building even closer relationships with our customers through co-creation, with our engineers working alongside customers to design innovative, custom-made solutions that meet their specific requirements. Learn more about our co-creation projects in the chapter "DigitALL – #InnovationHappensHere".

One of the ways we strengthened our relationships with customers in the year was through an intensive agenda of in-person meetings and workshops, after two years meeting online due to the Covid-19 pandemic.

In addition, we conducted a comprehensive customer satisfaction survey in 2022, which included feedback from both our Primary Aluminum and Downstream customers. The insights gathered from this survey will help us assess our performance and identify areas for improvement. The survey results will help us work with customers to meet the unique needs of each market.

CBA has a customer base of around **500 companies**, primarily in the extrusion and metalworking sectors, selling products in both the wholesale and retail markets.
GRI 2-6

Click here

to watch the video. The meeting was livestreamed to customers who were unable to attend in person.

Valuable partnerships

In November 2022 we held a customer meeting—titled Valuable Partnerships 2022—to share information about our performance and to listen to new demands and suggestions from our clients This was the first event to bring primary and downstream customers together in a common program. A total of 151 delegates attended in person, and another 90 watched the livestream.

Guests also interacted in side panels on different topics, such as our Upstream and Downstream initiatives, Brazil's economy in 2022, sustainable supply chains and the global outlook for the aluminum industry. During the event we also unveiled our new Alennium seal and digital passport, which CBA customers can feature on their products to advertise that they are made with low-carbon aluminum. This also extends to brand owners who purchase products from CBA customers to manufacturer consumer goods.

And the successful results from these efforts have been recognized by our customers. In 2022, **Alux was presented with an award from Moto Honda Manaus as a top supplier in 2021**.

ALENNIUM – THE SEAL FOR THE NEW MILLENNIUM

CBA's new seal, unveiled in November 2022, represents our commitment to supplying low-carbon aluminum—the aluminum of the future.

The new seal can be displayed on products made with our low-carbon aluminum—less than 4 tons of CO_2e per ton of molten aluminum.

Consumers can now quickly identify products that are helping to build a more sustainable world for everyone in the next millennium. Alennium is another step in creating the future we aspire for—a future built through partnership and respect for the environment and society.

Click here

to learn more.

"The term Alennium concatenates the words aluminum and millennium, indicating that CBA's sustainable aluminum represents the future of the industry. The seal is supported by environmental certifications and provides a way for our customers to communicate these attributes to consumers."

Leandro Faria, Sustainability General Manager

Daughters of the employee Márcio Roberto Dias, Supervisor of Production at the Sorocaba Facility (SP)

Aluminum foil produced at Alumínio Plant (SP)

Digital passport

GRI 3-3 (Transparency and stakeholder engagement)

In 2022 some of CBA's products featured Digital Passports with technical information about certification, engagement around the climate agenda and our products' emissions performance. To view the data, customers can scan a QR code on products featuring our digital passport. A total of six passports were launched, in Portuguese and English, using blockchain technology. All passport information is third-party-verified, audited and traceable, helping to build trust with customers.

Click here

to learn more.

"Product quality is a number one concern for Wyda. Using Alennium-labeled low-carbon aluminum is a way we can help to create a more sustainable world for the next generations. We believe a better world is made of sustainable choices that protect biodiversity and help to keep nature thriving. We want customers to recognize us as a company that thinks about the future, and our partnership with CBA supports this aspiration."

Roberto Carvalho, Executive Director at Wyda, a producer of disposable aluminum packaging

Competitiveness management

At CBA, Competitiveness Management (CM) serves as a powerful tool to support and accelerate our technology projects, enabling us to capture new opportunities for business growth and development, while connecting our various departments together. CM is a methodology designed to maintain discipline, prevent initiatives from overlapping with day-to-day routines, and measure sustainability outcomes.

Weekly CM status meetings discuss ongoing initiatives to improve processes, increase competitiveness or create value for the Company.

CM initiatives in 2022 have already delivered a range of sustainability outcomes for CBA*

CBA-5

	2020	2021	2022
Initiatives assessed	464	635	522
Initiatives with sustainability benefits	181	124	71
Completed initiatives (L4+) assessed	49	35	59

**** Figures updated for initiatives producing recurring benefits.***

Competitiveness Management results to date:

Results	2020	2021	2022
Climate change	• 279,489 tCO_2e in emissions reductions	• 108,932 tCO_2e in emissions reductions	• 27,339 tCO_2e in emissions reductions
Waste	• 20,000 metric tons of waste either avoided or sold for profitable use	• 557 metric tons of wood waste materials avoided • 35,000 m³ of water returned from the Palmital dam to the Alumina production process	• 8 metric tons of filter media waste avoided
Natural resources	• 3,000 MWh of electricity savings • 17,000 metric tons of savings on inputs and materials, including lime, caustic soda and steel bar • 359,000 m³ of savings on nitrogen	• 2,500 MWh of electricity savings • 944,000 metric tons of savings on materials such as fluoride, caustic soda and flocculants • 27,000 L of savings on rolling oil	• 52,000 m³ of water savings • 5,600 metric tons of savings on materials such as fluoride, caustic soda and flocculants • 300,000 L of savings on rolling oil • 420,000 m³ of savings on natural gas
Financial benefits from sustainability enhancement projects	• R$ 40.4 million	• R$ 40.5 million	• R$ 51.8 million

Note: The reduction in greenhouse gas (GHG) emissions does not include avoided emissions.

Sons and daughters of CBA employees
The future is made of aluminum
#InThisTogether

CBA's growth strategy is intrinsically linked to our ESG agenda: we believe our business can only be truly successful if we combine growth with best sustainability practices.

2030 ESG Strategy

GRI 3-3 (Transparency and stakeholder engagement)

In 2020 we further developed our 2030 ESG Strategy, establishing a set of commitments across the environmental, social and governance dimensions. In 2022 certain aspects of the program were revised to reflect the integration of the Energy business and the acquisition of Alux do Brasil. In addition, an new people-related intermediate goal was added in the year: achieve 25% gender diversity by 2025.

The newly reformulated strategy is now organized around ten levers, with five focused on environmental issues, two on social matters, and three on governance. These levers are broken down into 15 programs spanning 33 goals. ESG Communication is a cross-cutting lever in the strategy, for which a target has also been set.

ASPIRATION: CBA as a benchmark in sustainability.

MANDATE: deliver an offering of low-carbon aluminum products and sustainable solutions in partnership with our stakeholders, while developing the communities where the Company operates and positively influencing the end-to-end aluminum value chain.

ESG 2030 Strategy Levers

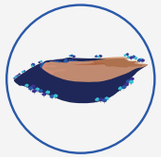
ESG as a corporate target

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business.

PROGRAMS WITHIN OUR 2030 ESG STRATEGY AND PROGRESS TO DATE

Pillar	Lever	Program	Goal	Status in 2022	Progress toward goals	Learn more in
ENVIRONMENTAL	01. Climate Change Management	P1. Climate mitigation and adaptation	1.1 Reduce CO_2e emissions by 40% (on average for cast products, cradle-to-gate)	●	• 26.1% reduction in GHG emissions since 2019 • The main projects contributing to this reduction were CBA's biomass-fueled boiler project, smelter technology update and recycling expansion	Environmental protection – #ESGInOurBlood
			1.2 Offer customers a carbon-neutral product range	●	• Issuance of the first CBA carbon credits (REDD+ Cerrado) in partnership with Reservas Votorantim. . A total of 316,000 credits were issued for vintages 2017-2021 • Expanded Reflora CBA with the launch of a new call for projects and newly prospected reforestation sites	Environmental protection – #ESGInOurBlood
			1.3 Create a roadmap to becoming emissions neutral by 2050	●	• CBA secured approval from the Science Based Targets initiative (SBTi) for its emissions reduction targets for 2030 • A roadmap for neutralizing emissions is under development and a feasibility assessment for Carbon Capture, Utilization and Storage (CCUS) has been initiated with suppliers and startups	Environmental protection – #ESGInOurBlood
			1.4 Develop a climate change adaptation plan	●	• Continued to track climate risks and adaptation projects • Completed assessment on TCFD compliance and mapped out gaps	Environmental protection – #ESGInOurBlood
			1.5 Public Management Support in mitigating and adapting to climate change	in progress	• New commitment included in review process. Its objective is to provide municipal governments with public management solutions for climate mitigation and adaptation. This includes efforts to mobilize partnerships and funds, provide training to public managers, and support efforts to mitigate the social and environmental impacts from climate change	
	02. Renewable Energy	P2. Renewable power generation	2.1 Source 100% of our plants' power requirement from renewable sources	●	• 100% of electricity consumed is renewable and traceable	Environmental protection – #ESGInOurBlood
			2.2 Diversify renewables capacity beyond hydro	●	• New commitment included in review process, aligned with CBA's strategy to diversify the energy mix. • Investments in wind farms, with 171.6 MW of installed capacity due to come online at the Ventos de Santo Anselmo and Ventos de Santo Isidoro Wind Farm Complex in 2023	The aluminum cycle – #WeAreAllCBA
		P3. Energy efficiency	3.1 Reduce energy intensity (electric power and fuels)	●	• Implement three energy efficiency projects: Compressed Air (Refinery), Lighting (Refinery, Casthouse and Extrusion) and Motors/Drives (Refinery, Smelter and casthouse) • Reduction of 1.5 MW with these projects	The aluminum cycle – #WeAreAllCBA

Pillar	Lever	Program	Goal	Status in 2022	Progress toward goals	Learn more in
ENVIRONMENTAL	03. Circular aluminum	P4. Aluminum recycling	**4.1** Increase the ratio of aluminum recycled from industrial and end-of-life scrap at Metalex to 80%	●	• 65.1% billet recycling rate at Metalex in 2022 • Started operation of Sidewell furnace • Scrap treatment line at Metalex progressing on schedule, with startup planned for 2023	Environmental protection – #ESGInOurBlood
			4.2 Increase the ratio of aluminum recycled from industrial and end-of-life scrap in billet production at the Alumínio Plant (SP) to 50%	●	• 24% billet recycling rate at Alumínio Plant in 2022 • Implemented initiatives to expand scrap consumption at Alumínio, including the Blending and GOLF projects	Environmental protection – #ESGInOurBlood
			4.3 Increase the ratio of scrap collected from external sources for recycling	●	• More than 83,000 tons of external scrap used in CBA's production processes • Partnerships agreed to expand external scrap sourcing	Environmental protection – #ESGInOurBlood
		P5. Carton and flexible packaging recycling	**5.1** Recycle 40,000 metric tons of cartons and flexible packaging per year	●	• Continued to develop partnerships with raw materials suppliers, customers and the polymers supply chain • Started construction work to implement ReAl-based carton and flexible packaging recycling project	Environmental protection – #ESGInOurBlood
	04. Natural resources	P6. Water stewardship	**6.1** Reduce water withdrawals per metric ton of molten aluminum by 20%	●	• 17.2% reduction in water withdrawals from 2019 to 2022 • Conducted an assessment at Alumínio Plant (SP) on the potential implementation of a closed-loop system in the coming years	Environmental protection – #ESGInOurBlood
			6.2 Implement water stewardship initiatives to improve water security in partnership with stakeholders	●	• New commitment included in review process • Active participation in river basin committees • Created Water Resilience Working Group • "B" rating for Water Security disclosures to the CDP, the highest in the global primary aluminum sector	Environmental protection – #ESGInOurBlood
		P7. Biodiversity	**7.1** Create/expand 1 hectare of ecological corridors for every 10 hectares of mined and reclaimed land	●	• 21,000 saplings planted and 2.7 hectares restored in Zona da Mata Mineira in 2022, an area the size of 12 soccer pitches • 311 hectares of new properties registered within the Reflora CBA program in 2022	Environmental protection – #ESGInOurBlood
			7.2 Have 10% of key suppliers and customers co-investing in forest and biodiversity programs	●	• Developed a portfolio of projects in partnership with Reservas Votorantim • Identified potential customers to work with in the coming years	Environmental protection – #ESGInOurBlood

Pillar	Lever	Program	Goal	Status in 2022	Progress toward goals	Learn more in
ENVIRONMENTAL	05. Dam management 	P8. Dams	**8.1** Eliminate tailings disposal in dams	●	• Filter press project in progress to implement dry tailings storage at the Palmital dam • Developed mobile beneficiation and Tecnosolo technology to eliminate the need for dams. In 2022 CBA completed conceptual engineering for the project and secured environmental licensing for a pilot at a mine face	Environmental protection – #ESGInOurBlood
			8.2 Send 100% of dry red mud residue for use in cement production and other applications	●	• Studies conducted on the potential reuse of red mud in construction and cement making applications. • Industrial-scale testing in progress in partnership with two cement manufacturers	Environmental protection – #ESGInOurBlood
SOCIAL	06. Valuing people	P9. Diversity, equity and inclusion	**9.1** Achieve 25% gender diversity in leadership positions (managers or above) by 2025.	●	• 21% women in leadership positions, an increase of 4% on 2021[1] • Completed a Diversity Census • 168 women trained as metallurgical process operators, in partnership with the National Industrial Training Service (SENAI)	Social value – #ValuablePartnerships
		P10. Health and safety	**10.1** Zero fatalities or severe injuries[2] in operations	●	• Despite CBA's best efforts to enhance safety, there were regrettably two serious injuries and one fatal injury in 2022. In response, CBA created a new Safety Management tool—the Fatality Prevention Program—that combines existing practices with a dedicated process that will enhance the company's safety standards	Social value – #ValuablePartnerships
			10.2 Achieve an injury frequency rate lower than 1[3]	●	• An injury frequency rate of 2.26	Social value – #ValuablePartnerships
	07. Social legacy	P11. Social legacy	**11.1** 100% SLA conformity in social programs	●	• A Social SLA of 112.4%, with projects exceeding planned deliverables for 2022 • 59 initiatives implemented, in an investment of R$ 8.7 million	Social value – #ValuablePartnerships
			11.2 Provide 1-to-1 match funding for corporate social investment	in progress	• Currently being structured for implementation in the coming years	
			11.3 Contribute to strengthening recycling cooperatives in Brazil	●	• Conducted research toward creating a nationwide flexible and carton packaging recycling network, and identified potential business opportunities	Environmental protection – #ESGInOurBlood

Note 1: Excludes employees on leave.
Note 2: Fatal accident or injury that generates permanent disability (level V and VI).
Note 3: Base 1 million HHT. Includes own employees and third parties.

Pillar	Lever	Program	Goal	Status in 2022	Progress toward goals	Learn more in
GOVERNANCE	08. Responsible Value Chain	**P12.** Sustainable Procurement	**12.1** 100% of suppliers compliant with CBA's Sustainable Procurement Policy	●	• 100% of strategic suppliers screened against ESG criteria and non-strategic in progress • Action plans agreed with suppliers not meeting minimum score • Structured contract management programs, partnerships and supplier development programs • Developed and disseminated Supplier Code of Conduct	The aluminum cycle – #WeAreAllCBA
			12.2 Increase local sourcing from SMEs by 10%	in progress	• Established definition of "local supplier" and mapped supplier base to determine baseline	The aluminum cycle – #WeAreAllCBA
		P13. Sustainable solutions for customers	**13.1** 100% of billets produced at Metalex with greenhouse gas emissions lower than 1.4 tCO_2e/t	●	• 2.18 $tCO_2e/$ t of billets at Metalex, a 67% reduction from 2019 • Started operation of Sidewell furnace • Scrap treatment line at Metalex progressing on schedule, with startup planned for 2023	The aluminum cycle – #WeAreAllCBA
			13.3 Increase revenue from sustainable solutions for downstream customers	●	• All projects assessed on sustainability across ESG aspects. • A portfolio of 30 projects with attributes directly linked to sustainability, representing 35% of the project pipeline in 2022, an increase of 7% on 2021	DigitALL – #InnovationHappensHere
	09. Ethics and transparency	**P14.** Ethics and transparency	**14.1** Achieve an average rating of 4 for our third-party-audited Compliance Program	●	• A score of 3.3 in 2021. Third-party audit conducted every 3 years. • CBA has been named an ambassador of the Global Compact's 100% Transparency Movement to the manufacturing sector, and reports on progress toward the Movement's 5 targets	Governance is key – #Trustworthy

Pillar	Lever	Program	Goal	Status in 2022	Progress toward goals	Learn more in
GOVERNANCE	10. ESG ownership	P15. ESG ownership	**15.1** 100% of operations certified to the ASI Performance and Chain of Custody standards	●	• CBA was recertified against the Performance standard and maintained certification to the Chain of Custody Standard. • Preparations underway for certification to the new ASI standards, with an expanded scope of covered sites"	The aluminum cycle – #WeAreAllCBA
			15.2 100% of employees with assigned ESG targets	●	• 100% of Aluminum and Energy business employees have ESG-linked variable compensation targets	The future is made of aluminum – #InThisTogether
			15.3 Apply ESG criteria in 100% of funding and investment analysis	●	• 100% of financing transactions linked to sustainability criteria in 2022, amounting to a total of R$720 million	Financial management – #Transparency
			15.4 Embed ESG considerations in all pillars of CBA's culture and business practices	●	• With its culture pillars newly revitalized, CBA believes ESG is now an integral part of all pillars Company-wide. This commitment has therefore been met.	Social value – #ValuablePartnerships
CROSS-CUTTING	ESG Communication (Cross-cutting Lever)	ESG Communication (Cross-cutting Lever)	Achieve and maintain an "Excellent" RepTrak® score	●	• Reputation Score: 70.5 (strong)	

● Within expectations

● Below expectations

SDG alignment

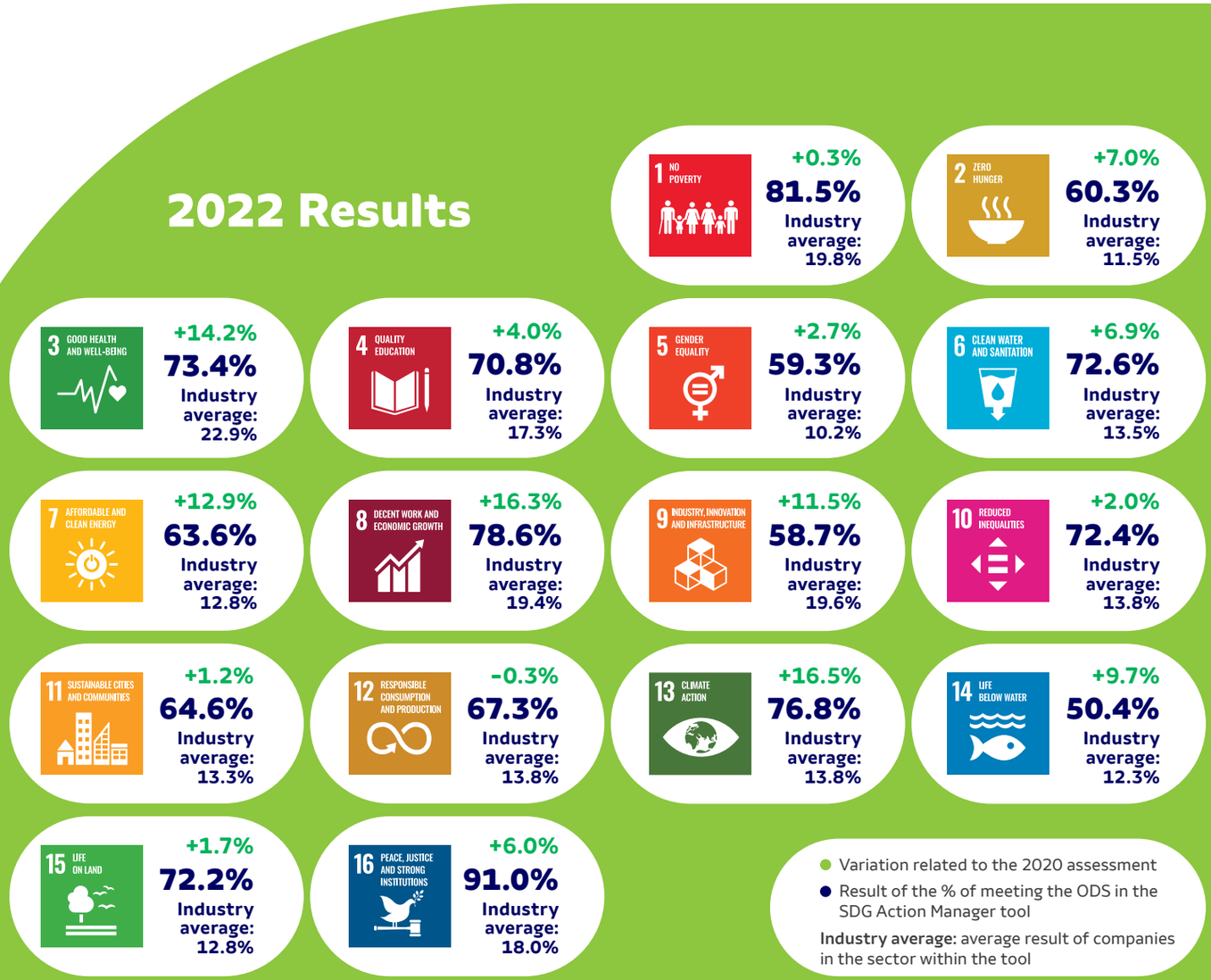
In 2022 CBA conducted an assessment of the extent to which our initiatives align with the United Nations (UN) Sustainable Development Goals (SDGs) and are helping to build a fairer and more equal society for a better planet. The assessment was conducted using SDG Action Manager, an online assessment tool developed by the Global Compact in collaboration with B Lab—a non-profit network that administers B Corp Certification—to help businesses take action for the SDGs by 2030. The tool was created to help companies get a clear view of how their operations, supply chain, and business model create positive impact, through dynamic self-assessment and benchmarking.

The assessment found that business alignment improved across virtually all SDGs compared to 2020, the year of our most recent assessment.

The following are some of the most notable improvements:

- Extended **ESG criteria to our supply chain** through our Sustainable Procurement Program
- Partnered with SENAI to administer **training courses for women**
- Improved **gender diversity** at the operational and leadership levels
- Created a **parental policy**
- Supported the development of **municipal basic sanitation plans for cities** in the areas where we operate
- Co-developed **sustainable products** with customers
- **Products 100% (ASI) certified**
- 100% **renewably sourced** electricity
- Increased **investment in R&D**

2022 Results



Source: SDG Action Manager (Global Compact)

Governance is key

#Trustworthy

- Corporate governance
- Ethics and compliance
- Transparency toward our stakeholders
- Risk and crisis management

Vanessa Vidal,
Enviromental Analyst,
Aluminio Plant (SP)

Material topics related to this chapter:

- Ethics, integrity and compliance
- Transparency and stakeholder engagement
- Risk and crisis management

ESG Strategy levers related to this chapter:

- Sustainable Value Chain
- Ethics and transparency

SDGs related to this chapter:

Global Compact Principles addressed in this chapter:

1. Businesses should support and respect the protection of internationally proclaimed human rights.
2. Make sure that they are not complicit in human rights abuses.
4. The elimination of all forms of forced and compulsory labour.
5. The effective abolition of child labour.
10. Businesses should work against corruption in all its forms, including extortion and bribery.

Corporate governance

At CBA, each of our actions and decisions is aimed at leaving a legacy of corporate responsibility and best practice. Integrity, courage and collaboration are three values we practice daily to ensure we uphold the highest standards of corporate governance.

Doing the right thing is nonnegotiable, and is the way we achieve sustainable operations and profitable business.

In 2022, one year after our IPO, we built further on the governance practices that we had implemented ahead of going public. The first year after listing on the Novo Mercado (enhanced governance) segment of the Brazilian stock exchange transpired smoothly, as our governance structure was already robust and aligned with the highest standards of corporate governance.

Even so, during the past year we created or updated a number of policies. For example, we:

- **Created a Finance Committee** with three members, including one independent member, led by a member of the Board of Directors. Committee members are responsible for reviewing economic scenarios and trends; monitoring our budget and investment plan; evaluating merger and acquisition (M&A) transactions; analyzing our capital structure; planning fundraising and indebtedness limits; monitoring financial risks and controls; among other related duties. Click here to view the Finance Committee's rules of procedure.

- **Development of new policies** on Information Security, Human Rights, Stakeholder Engagement and Relationships, Social Responsibility and Independent Audit Hiring Policy.

- **Updated our** Financial, Emotional Health, Compensation, Nomination and Diversity, Equity and Inclusion policies.

CBA Executive Board. Left to right: Renato Maia (Legal, Governance and Compliance VP), Albino Mercado (Engineering and Technology VP), Ricardo Carvalho (CEO), Luciano Alves (CFO and Investor Relations Officer), Roseli Milagres (Supply Chain and Procurement VP), Fernando Varella (Downstream Products, Innovation and Digital Transformation VP), Andressa Lamana (Human and Organizational Development, Health, Safety, Environment and Sustainability VP), Alexandre Vianna (Primary Products VP), Daniel Marrocos (Energy Business VP)

OWNERSHIP AND ORGANIZATIONAL STRUCTURE

GRI 2-9, 2-10, 2-12, 2-13, 2-17

Our **General Shareholders' Meeting** approves the company's accounts and financial statements, and appoints members of the Board of Directors. It may also propose amendments to the Company's bylaws.

The **Board of Directors (BoD)** is responsible for establishing general business strategy and policies. It is fully independent and is supported by four advisory committees (Statutory Audit, Remuneration and People, Sustainability, and Finance), each of which includes at least one Board member who is responsible for steering discussions as instructed by the Board. In accordance with best governance practices, the Board has six members, including three independent members, who meet annually or as often as required in the interests of the Company.

The **Sustainability Committee** comprises three members—two of whom are independent—who meet four times per year. This committee advises the Board of Directors on environmental, social and governance matters, and on ways CBA can help to address global and emerging issues, such as climate change. It also plays an important role in tracking performance against commitments under our 2030 ESG Strategy.

The **Statutory Audit Committee** is responsible for issuing opinions on the engagement and performance of independent auditors; reviewing and overseeing the preparation and issuing of quarterly information and financial statements; monitoring internal controls and risk and crisis management; overseeing internal audit activities and procedures; and developing the company's annual reports. The matters discussed are also submitted to the Board of Directors, especially matters relating to the committee's review of the financial statements. This committee comprises three members, all of whom are independent and appointed on the basis of their relevance and expertise.

The **Finance Committee** has three members, including two external members, one of whom is independent. This committee is responsible for reviewing economic scenarios and trends; monitoring our budget and investment plan; evaluating merger and acquisition (M&A) transactions; analyzing our capital structure; planning fundraising and indebtedness limits; monitoring financial risks and controls; among other related duties.

Lastly, the **Remuneration and People Committee's** advises the Board of Directors on matters relating to the remuneration of Board and committee members. This committee is also responsible for nominating candidates to senior management positions, including seats on the Executive Board and Board of Directors, and for overseeing talent management and other related matters. The committee is composed of three members, two of whom are independent.

The Executive Board consists of nine executives who meet on a weekly basis. Members are responsible for the day-to-day management of the business and for representing CBA to its stakeholders. Executive Board members are

From left to right, José Roberto Ermirio de Moraes Filho, Sonia Aparecida Consiglio e Franklin Lee Feder, members of CBA Sustanability Committe

also responsible for ensuring that all programs, projects and initiatives within their departments are aligned with our ESG Strategy. The Executive Board is advised by six executive committees: Dams, Business Conduct, Data Protection, Diversity, Crisis Management, Sustainable Procurement, and Sustainability—the latter committee will be supported by working groups starting in 2023: Water Resilience and Climate Change.

ORGANIZATIONAL CHART

GRI 2-9, 2-17

The composition of the Board of Directors, the Executive Board and their advisory committees is available in the Additional Disclosure Supplement to this report and on our Investor Relations website.

Click here

and learn more in the Additional Disclosures Supplement.

Click here

to visit our Investor Relations website.

Ethics and compliance

GRI 3-3 (Ethics, Integrity and Compliance)
SASB EM-MM-510a.1

CBA seeks to conduct business with integrity and transparency, and to uphold the highest ethical standards. To achieve this, we have developed a range of tools, training, codes and policies, and a robust Compliance Program that ensures our activities are conducted responsibly.

We carry out risk assessments every three years. In our most recent assessment in 2021, we identified 67 issues and established action plans to address them. In 2022, we followed up on these action plans and found that 88% of them had been completed.

+Compliance

In 2022 we created a +Compliance page within MaisCBA, our intranet platform for employees. This page serves as a central hub for instructional content on our policies and procedures and on how to attend training, complete Compliance Declarations, stay up-to-date on applicable regulations, and find the compliance communications directory.

Wannder Cabral Gonçalves, Hydropower Plant Manager, and Anna Paola Bentini, Performance, Control and Management Coordinator of the Energy Business, Corporate Office (SP)

COMPLIANCE PROGRAM

GRI 2-15, 2-23 2-24, 2-25, 3-3 (Ethics, Integrity and Compliance)
SASB EM-MM-510a.1

CBA's Compliance Program is designed to ensure that we conduct business with the highest standards of compliance, ethics, and transparency, both internally and in our relationships with partners and communities. It also helps to mitigate the risk of any violations of laws and regulations, contracts, licenses and certifications, or antitrust rules. Since the program's inception, CBA has continuously evolved its integrity practices to build trust with employees, suppliers, customers and business partners.

The program comprises a set of policies, procedures and manuals on best practices in integrity. These include our Code of Conduct, Supplier Code of Conduct, Policy, Compliance Program Handbook, Antitrust Handbook and Managerial Standards on Donations and Sponsorship and Dealings with Government Officials. We provide regular training to employees, board members, committee members, and contractors on these topics. Another vital component of our Compliance Program is due diligence, a tool used to mitigate reputational risks for stakeholders. Due diligence is conducted on suppliers, surface landowners, banks and, more recently, customers.

In preparation for our public listing in 2022, our Compliance department implemented a comprehensive set of requirements for listed companies as established by the Brazilian Securities Commission (CVM). We reviewed and updated our Conflict of Interest Declaration for compliance with capital market requirements. In August, all CBA team members were asked to complete the declaration form. Each response was then carefully reviewed by our Compliance team against our Managerial Standard on Conflict of Interest, published in 2022. Any potential conflicts of interest are reported to the Business Conduct Committee and to the employee's manager. The Compliance department then issues an opinion with guidance on mitigation, involving other departments as necessary.

The year was also marked by the integration of Alux and the Energy business, including in relation to legal and compliance requirements.

Data protection

CBA's Compliance Program includes procedures to safeguard stakeholder data. As part of our efforts in 2022 to implement the Brazilian General Data Protection Regulation (BR GDPR), we updated the CBA and Metalex websites, monitored data protection risks, communicated our Incident Management Plan to strategic departments, developed related contractual clauses, and provided training.

- We also launched an e-learning training program on the BR GDPR in July 2022.

Aroldo Mendonça Fiuza, Topography Technician, Legado Verdes do Cerrado (GO)

Compliance Week

In 2022 we organized a new edition of Compliance Week, an annual employee event with a comprehensive program on compliance-related topics at CBA.

In this edition, participants watched a livestreamed presentation by Estevan Sartoreli, the CEO and cofounder of Dengo Chocolates, about "Integrity in the supply chain: how to create impact beyond the company walls". The event also featured a roundtable discussion with our Legal, Governance and Compliance VP, Renato Maia, and our Supply Chain and Procurement VP, Roseli Milagres. This year's edition also featured a lecture for our leadership team presented by compliance consultant Olga Pontes.

There were several important launches during the week, including an e-learning training program on Dealings with Government Officials, our Human Rights Policy, and a quiz about CBA's Code of Conduct.

Human Rights Policy

GRI 2-23

Launched officially during Compliance Week, our Human Rights Policy applies to all employees, contractors and suppliers and is based on the principles of safeguarding, respecting, promoting, raising awareness about, and mitigating violations of human rights throughout our operations and value chain.

Click here

to read the policy.

Know your customer

In 2022 we created a Know Your Customer (KYC) program to conduct due diligence on customers served by CBA, Itapissuma, Alux, Metalex and our Energy business. During the first year of the program, our complete customer base was benchmarked against Votorantim Group and third-party companies, and any significant risks were identified and reported. This program is planned to continue into 2023.

Ana Regina da Silva, Production Operator, Alumínio Plant (SP)

TRADE COMPLIANCE SYSTEM

In 2022 we began running trade compliance checks after integrating CBA's SAP environment with our Compliance search tool. The system cross-checks information about our customers and suppliers against blocklists published by different regulators. This helps to prevent the risk of inadvertently providing funds or goods to individuals or entities that are directly or indirectly involved in activities that could harm our reputation.

ZERO TOLERANCE FOR CORRUPTION

GRI 205-1, 205-2, 205-3

Fighting corruption across the internal, political, economic and social fronts is one of our priorities at CBA. We provide regular communications on these issues to our customers, employees, shareholders, suppliers, government agencies, the media, our communities and wider society.

All employees are expected to be familiar with the rules and controls in our Anti-corruption Policy—which is available on our intranet and the CBA website—and to report any corruption concerns via the appropriate channels. As of year-end 2022, 90% of employees had received training on our anti-corruption policies and practices, and 100% had received communication on these topics.

In 2022 more than 800 transactions were screened for corruption risks, including transactions involving customers, surface landowners, banks, energy counterparties, trade associations, and lastly suppliers, who were already being screened. No incidents of corruption were confirmed in the year.

In 2022 we also extended our anti-corruption efforts across the wider supply chain with the launch of our Supplier Code of Conduct (read more on page 42).

Learn more

in the Anti-corruption Policy

Jorge Marcos do Nascimento, Production Operator, Alumínio Plant (SP)

ETHICS HOTLINE

GRI 2-26

Our Ethics Hotline is CBA's official channel for receiving and addressing reports on violations of our Code of Conduct, applicable laws and regulations and internal policies and standards.

The hotline is accessible to all stakeholders, including employees, community members, suppliers, customers, and business partners. Reports can be submitted by telephone (0800 300 4535) or on the Ethics Hotline Website, in either Portuguese or English.

Whistleblower reports and identities are kept confidential, and whistleblowers are protected from retaliation. Any questions and reports are addressed transparently and impartially via an independent channel managed by a third-party firm.

Reports are reviewed by a Business Conduct Committee of four permanent members and three guest members. The committee discusses each case in detail, and periodically reports on its activities to the Audit Committee.

In 2022 hour Ethics Hotline was extensively communicated within CBA. This included providing step-by-step instructions on how to submit a report and follow the investigation. These communications also addressed our commitment to impartiality, confidentiality and non-retaliation against whistleblowers, ensuring that individuals feel safe and comfortable to come forward with any issue.

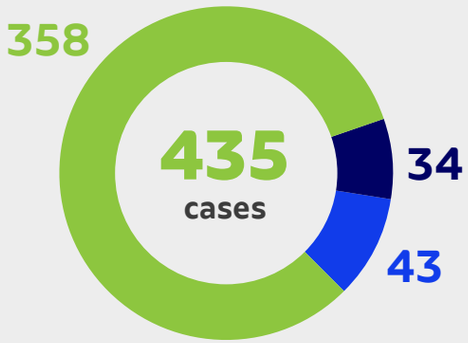
LINHAÉTICA

In July 2022, CBA engaged an audit firm to assess our Ethics Hotline processes and identify any opportunities for improvement. The findings from the audit indicated only a few areas needing improvement. The audit found that 62 (91%) best-practice controls had been partly or fully implemented (71% fully implemented) and 6 (9%) had opportunities for improvement to achieve industry best practice. These will be addressed during 2023.

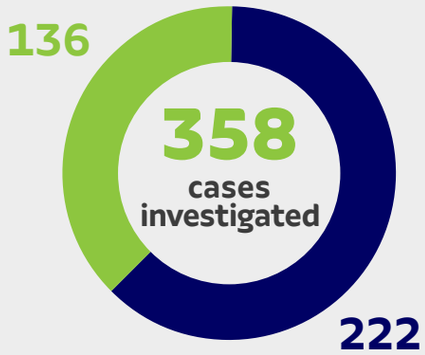
Each year we review our Ethics Hotline performance indicators to inform improvements to our Compliance Program.

The Ethics Hotline by the numbers in 2022

GRI 2-26



- **confirmed cases**
- **cases closed due to lack of information**
- **cases under investigation in 2022**

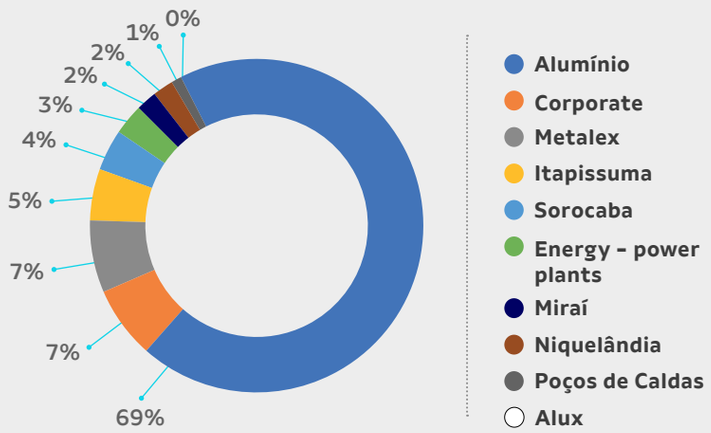


- **substantiated cases**
- **unsubstantiated cases**

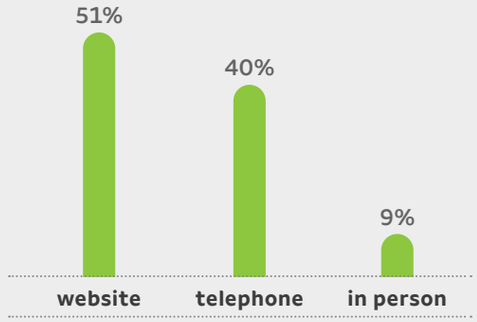
Click here

to view detailed performance indicators for our Ethics Hotline.

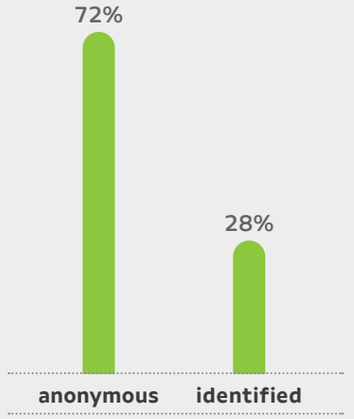
Location



Reporting channel



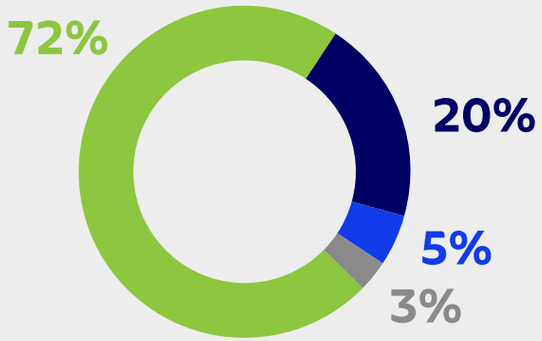
Anonymity



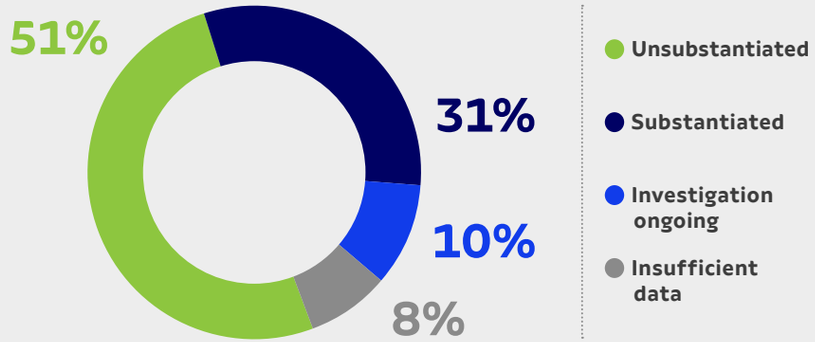
New cases received	435	Cases closed in the period	358	Cases pending	43	Average time to respond (days)	21

197 similar

Cases by subject



Report outcomes



COMPLIANCE TRAINING

GRI 2-24, 3-3 (Ethics, Integrity and Compliance), 205-2
SASB EM-MM-510a.1

CBA regularly administers compliance training to employees, executives, board members, and committee members to reiterate the importance of ethical conduct and fighting corruption.

In 2022 we created an e-learning training program providing guidance on dealing with government officials, initially geared to employees and third parties representing CBA in dealings with government agencies.

Other training held in 2022:

- **Code of Conduct:** this online training course is mandatory for all newly hired employees, and refresher training is provided every two years—6,296 people were trained in the year
- **Anti-corruption:** this online training is mandatory for some strategic positions and departments; 341 people, or 94% of required employees, received training
- **Anti-trust:** this online training is mandatory for some strategic positions and departments; 346 people, or 86% of required employees, received training
- **Dealings with Government Officials:** this online training program, launched in October 2022, is mandatory for employees involved in dealings with government officials—41 people were trained in the year
- **Integrity:** supplementing our online training programs, we administered 27 in-person or videoconference training sessions on integrity-related subjects at all CBA operations—around 600 people received training
- **Trade Compliance –** 95 people were trained

“We are committed to upholding ethical and responsible business practices, which we achieve through a rigorous compliance program, comprehensive risk assessments, and ongoing training for both our leadership and employees. This year we extended this training to strategic suppliers.”

Renato Maia, Legal, Governance and Compliance VP

100% Transparency Movement

GRI 3-3 (Ethics, Integrity and Compliance)
3-3 (Transparency and stakeholder engagement)
SASB EM-MM-510a.1

In 2022 CBA became an ambassador of the 100% Transparency Movement, an initiative linked to the Global Compact Network Brazil. We are proud to have been one of the first companies to join this initiative in 2021.

The 100% Transparency Movement is aimed at promoting and empowering companies to exceed legal requirements and improve their corporate transparency and integrity mechanisms. By doing so, it helps to make companies more resilient while providing a blueprint that others can follow.

The initiative has set five targets to be achieved by 2030:

Target 1 – 100% transparency in dealings with government officials

Target 2 – 100% integrity in top management compensation

Target 3 – 100% of the high-risk value chain trained on integrity

Target 4 – 100% transparent compliance and governance structure

Target 5 – 100% transparent whistleblowing channels

In November 2022 CBA launched a dedicated webpage to report on its progress within the Movement. Here, visitors can track CBA’s status for each of the targets, with updates provided every six months.

EMPRESA EMBAIXADORA

MOVIMENTO TRANSPARÊNCIA 100%

UMA INICIATIVA DO PACTO GLOBAL DA ONU DO BRASIL

Diego Narciso,
Logistics Analyst,
Alumínio Plant (SP)

Transparency toward our stakeholders

GRI 2-29, 3-3 (Transparency and stakeholder engagement)

At CBA, our relationships with stakeholders are an integral part of our business model, and are guided by our purpose, ethical principles and Code of Conduct. CBA strives to build enduring bonds and relationships with stakeholders based on dialog, transparency, clarity and reliability, fostering the construction of collective innovative solutions that create value for all parties.

In 2022 we conducted an exercise to map out our stakeholders as part of a materiality assessment (learn more on page 11), identifying the main stakeholder groups we engage with. We evaluated their dependence, influence and the nature of their relationship with the business, and then ranked them by priority for engagement as part of the assessment.

Our most important stakeholders include investors and financial institutions, academia, universities, shareholders, multilateral associations, trade associations and nongovernmental organizations. We also recognize the importance of other stakeholders, including customers, suppliers, contractors and other business partners, local communities, employees, government agencies and regulators, the media, influencers and social media, and unions.

CBA seeks to understand what issues are most important to, and to enhance engagement with, these stakeholders. We use the approach outlined in AA1000 to determine engagement levels and methods. We then design stakeholder-specific engagement strategies, including communication channels such as support desks, email, events, in person meetings, workshops, training, working groups, materiality assessments, focus groups, or surveys.

Examples of our engagement activities include our CBA News newsletter, our Conecta CBA podcast, our official Instagram and LinkedIn pages, communication campaigns on social and mainstream media, and investor and customer events such as CBA Day and Diálogos CBA.

In 2022, CBA launched a Stakeholder Engagement and Relations Policy setting out guidelines on managing our relationships and engagement with stakeholders. In addition, our relationships with stakeholders are governed by policies such as our Sustainable Procurement, Anti-Corruption, Human Rights, Related Party Transactions, Diversity, Equity and Inclusion, Social Responsibility and External Communications policies.

As part of our stakeholder engagement practices, we assess potential impacts on stakeholders in designing new initiatives, services and products. This enables us to identify risks and opportunities, detect potential conflicts of interest, and manage any crisis situations effectively. We provide a range of channels for communication, feedback, complaints and reports, including our Ethics Hotline. These channels encourage stakeholders to share information and views, and allow us to measure stakeholder satisfaction with our relationship with them.

On a monthly basis, reputation management firm RepTrak assesses CBA's reputation across key stakeholder touch points, and identifies areas where our communication can improve. At year-end, we carry out a reputation survey of our suppliers and communities to gage their perceptions of the company. The survey findings inform our communications in the following year.

Cinthia Miranda, Economic and Financial Consultant, and Fernanda Borges, Project Analyst, New Business Strategy, Corporate Office (SP)

Risk and crisis management

GRI 3-3 (Risk and crisis management)

At CBA we take a conservative approach to risk and crisis management, based on our Risk Management Policy. This policy is regularly updated to keep our processes aligned with our strategy and business growth.

We assess each risk on a scale that includes both the magnitude of impact and likelihood of occurrence, covering seven risk dimensions: reputational; environmental; health and safety; information security; operational; social and human rights; and legal and regulatory. The combination of magnitude of impact and likelihood of occurrence determines the level of risk and the type of response required. To facilitate clear communication and understanding of risks, we employ a Risk Dictionary that classifies risks into five high-level categories: financial, operational, social and environmental, governance, and compliance.

Since 2021, our risk assessment approach also addresses ESG and climate risks, in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). Read more in the Additional Disclosures Supplement.

In 2022 we revised our risk appetite to align with our updated Strategic Plan. As part of this revision, we assessed risks, established appropriate responses to each risk, and implemented 20 risk indicators to track our key controls for and exposure to 15 risks. In 2023 we will continue to refine our risk management approach, as well as implementing risk and crisis management policies and processes at Metalex and Alux.

ENERGY BUSINESS RISKS

With the recent integration of the Energy business, CBA now also handles risk and crisis management in this segment, which includes risks in the following categories:

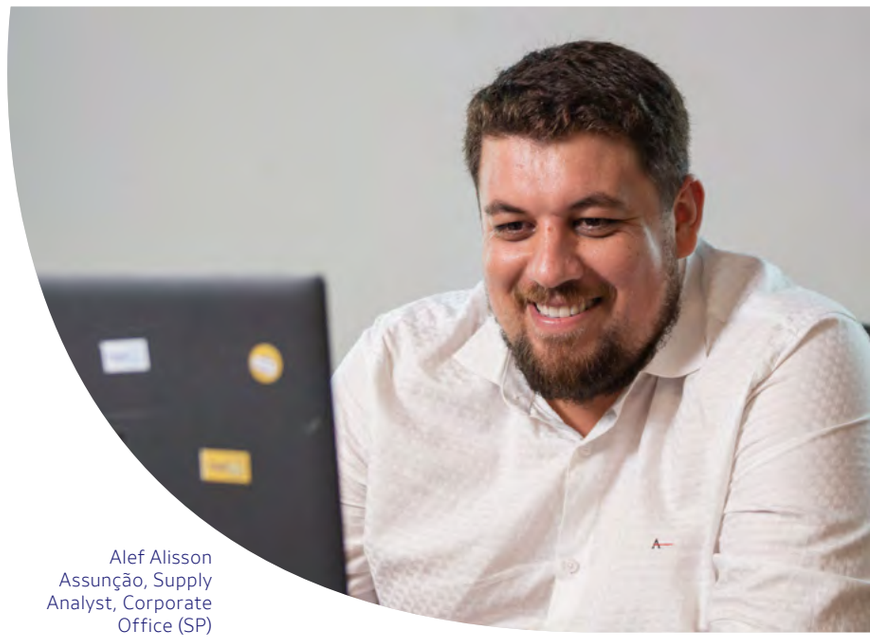
Operational risks: we regularly assess and inspect our power plant machinery to ensure high levels of reliability. Equipment malfunctions and the status of equipment variables are monitored to populate a statistical model that informs preventive and corrective actions. This allows us to anticipate risk of operational malfunctions. Our risk approach also includes plant equipment maintenance to keep operational risks low.

Commercial and energy availability risk: financial metrics are used to assess generation output versus consumption and changes in market pricing. In October 2022 we created a new metric to measure financial risks, which our operations team tracks on a weekly basis.

Credit and counterparty risk: we developed a credit and counterparty risk policy for assessing counterparties in electricity purchase and surplus sales agreements.

Regulatory risks: we closely monitor general regulatory developments and stay up-to-date with any new regulations issued by the Brazilian power sector regulator, ANEEL, and ensure they are complied with. As part of this, we actively participate in trade associations to mitigate any risks arising from regulatory changes.

In addition, in 2022 CBA implemented a Business Continuity Policy outlining guidelines and principles for designing, implementing and maintaining our Business Continuity Management System. In 2023 we plan to implement Operations Continuity Plans for our Primary and Downstream businesses.



Alef Alisson Assunção, Supply Analyst, Corporate Office (SP)

Social value

#ValuablePartnerships

Ecotourism at the Legado das Águas Reserve (SP), Reservas Votorantim

- Taking care of our employees and communities
- #AMoreDiverseCBA
- Social transformation

Material topics related to this chapter:

- Diversity, equity and inclusion
- Health, safety and quality of life
- Transparency and stakeholder engagement
- Local development

ESG Strategy levers related to this chapter:

- Valuing people
- Sustainable value chain
- Social legacy

SDGs related to this chapter:

Global Compact Principles addressed in this chapter:

1. Businesses should support and respect the protection of internationally proclaimed human rights.
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
6. The elimination of discrimination in respect of employment and occupation.

Joel Pereira Vaz Filho and Eliane Pereira Borba, Production Operators, Alumínio Plant (SP)

Taking care of our employees and communities

The path that will allow CBA to deliver the aluminum of the future goes beyond the metal's supply chain and manufacturing process. It is CBA employees who make these results a reality. It is they who incorporate the Company's culture into their day-to-day activities and, together, work to position the Company as an ESG and industry leader.

There can be no achievements and no sustainability without involving people, including all those that make up the communities where CBA is active. Dedicating projects to, and caring for these groups are essential components of our strategy.

#AMoreDiverseCBA

At CBA, everyone is welcome. Our work environment is welcoming, respectful, and inclusive. We care for our employees and encourage their personal and professional growth.

REVITALIZED CULTURE

CBA's organizational culture pillars our behaviors, habits, symbols, and principles. It is present in the day-to-day lives of all of us, and guides how each one of us works.

In 2022, we revitalized our culture dimensions, adding current trends and practices such as digital transformation, innovation, and ESG, and simplifying processes and empowering people. The goal was to modernize and simplify communication and create more connection with and between employees.

This process took the form of workshops with leaders, who subsequently cascaded information to their teams. In the end, the culture pillars were translated into messages in the form of hashtags.

CBA Culture Strategy

- Foster connection between our values and the aspirations of our people
- Be an organization that enables new ways of working and partnerships
- Having the capabilities to rapidly create value from emerging technologies
- Foster diversity to provide different business outlooks

Great Place To Work. Certificada Jun/2022 - Jun/2023

CBA again makes the GPTW list

CBA was again ranked as a top 100 workplace in Brazil by Great Place to Work (GPTW), a global consulting firm that helps organizations get the best results with a culture of trust, high performance, and innovation.

CBA is among the 50 best among Large Companies.

Ana Regina da Silva, Production Operator, Alumínio Plant (SP)

Our People

GRI 2-7, 2-8, 405-1 | SASB EM-MM-000.B

Approximately **90%** of our employees are based in the state of São Paulo

6,639
direct employees

1,673
permanent outsourced workers

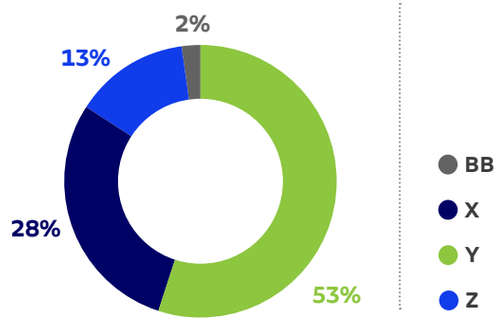
Integration

The acquisition of Alux and merger of the Energy Business added respectively 91 and 247 employees to CBA's headcount. CBA held in-person and online meetings to induct them into our internal processes and organizational culture. Employees were also informed of CBA benefits and the most relevant aspects of its current business strategy, such as recycling projects, digital, and the ESG agenda.

% Workforce by generation

CBA employees are an average of 38.1 years old

1,388 employees (22%) are 30 years old or younger



DIVERSITY, EQUITY AND INCLUSION

GRI 3-3 (Diversity, equity and inclusion)

To be a diverse, equitable, and inclusive company with an open and safe environment where opportunities are available to all. This is CBA's aspiration, which guides its programs and initiatives to value people.

It is also part of the Company's 2030 ESG Strategy, along with the Diversity, Equity, and Inclusion program. An interim goal was added to this program in 2022—to achieve 25% gender diversity among company executives by 2025.

To reach this aspiration and make this commitment reality, the Company implemented structuring measures in 2022. During the year, eight official events were organized to train all CBA employees. In addition, a third-party consulting firm was retained to help create affinity groups and our Diversity Committee, as well as the 2030 Diversity Agenda, defining our aspiration, levers, and programs. The goal of these initiatives was to provide consistency and make our diversity efforts more professional. We also performed our first diversity census to learn of the profile of our people, helping guide and prioritize actions in this regard.

We expect to implement our 2030 Diversity Agenda in 2023, sharing CBA's strategy for Diversity, Equity, and Inclusion with the public in general. We will seek to reach our goals in this area with corporate governance, education, attractiveness, and retention levers, along with impactful projects in our value chain.

Diversity Census

In 2022, CBA ran a diversity census. This consisted of a 33-question online questionnaire sent to the employees in all business units with the exception of Alux, which was still in the process of being integrated.

This allowed us to analyze our population profile based on the four existing affinity groups: gender, gender identity, race/color, LGBTQIAP+, and people with disabilities. The questionnaire also captured people's perceptions regarding racism, sexism, LGBT-phobia, ableism, confidence in management, and a comfortable environment where people can be themselves.

The result enabled CBA to design specific programs for each under-represented group, supporting its 2030 Diversity, Equity, and Inclusion Strategy, with initiatives aligned with the 2030 ESG Strategy to start in 2023, 2025, and 2027. These include initiatives in professional training and development, as well as social impact partnerships that focus on gender and racial equality, membership of forums and pacts, and coalitions designed to include women, people with disabilities, LGBTQIAP+, and racial diversity into the corporate world, as well as dedicated selection processes with accessible resources, and digital and physical accessibility, among others.

"I am proud to work for a company like CBA, which positions itself and works to ensure all spaces are respectful and safe. We have a support network and feel comfortable to be who we are. We have a team that understands we are plural."

Roberto Alves dos Santos Junior, Commercial Management Analyst, member of the Diversity Committee and sponsor in the LGBTQIAP+ Affinity Group

Diversity, Equity and Inclusion Strategy

ASPIRATION

To be a diverse, equitable, and inclusive company with an open and safe environment where opportunities are available to all.

LEVERS

CORPORATE GOVERNANCE

Ensure CBA has a set of policies and processes in place that are transparent and equitable to stakeholders and welcome diverse points of view in decision-making.

EDUCATION

Provide ongoing education to our leaders, employees and other stakeholders on Diversity, Equity and Inclusion, and support the development of our communities and minority groups.

EMPLOYEE ATTRACTION AND RETENTION

To be recognized as an employer brand that attracts and retains diverse talents through employee development and affirmative action.

SOCIAL IMPACT PROGRAMS

Accelerate social impact/innovation partnerships to sustainably reduce inequalities.

VALUE CHAIN

Engage and influence business partners to promote a diverse, equitable and inclusive workplace environment.

COMMUNICATION AND ENGAGEMENT

Foster accessible and inclusive communication that dialogues with different stakeholders and strategically positions CBA's commitments to the Diversity, Equity and Inclusion agenda.

Women at CBA

The Diversity Census also demonstrated CBA's progress in gender equality. Seventeen percent of CBA's headcount is female, 2.7% more than in 2021.

Women's Circle

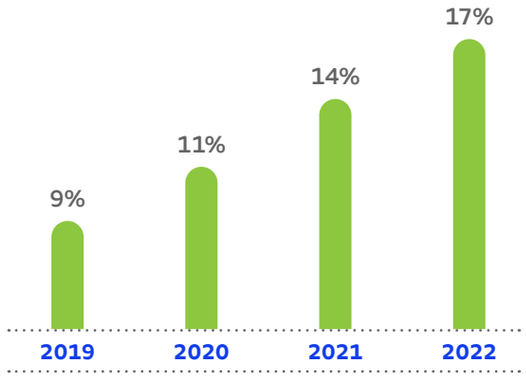
CBA screened and invited a select group of women leaders—supervisors, coordinators, and managers—to participate in a Women's Circle led by two experts. The goal of this initiative was to create a safe space where women feel confident to address themes they feel have a lot of impact on them, empowering them to cascade what they have learned within the company.

With experiences that include thousand-year-old practices, modern methodology, conversation rounds, guided rituals, and dynamics, the Women's Circle ensures experiences, concerns, needs, desires, and dreams are exchanged, opening up these women to other outlooks and expanding their awareness and resources. It also enabled the development of a support network that goes beyond professional activities. The women met monthly for ten months in a row, with the program ending in January 2023. The idea is that the Company will choose new leaders to expand this journey of female empowerment.

Diversity and Inclusion

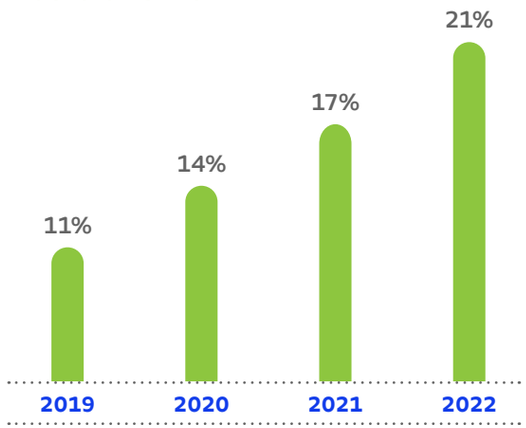
Significant increase in women's participation in the workforce

Women at CBA[1]



[1] *Excludes interns, apprentices and employees on leave.*

Women in Leadership Positions 2022[2]



[2] *Excludes employees on leave.*

Training for women in industry

In 2020, CBA partnered with SENAI (the National Industrial Learning Service) in a project that trains women to be metallurgical and other process operators. The goal is to increase the Company's diversity and the number of women in its workforce.

In 2022, this was rolled out to other regions and other activities beyond metallurgy. For example, in Legado Verdes do Cerrado (GO) machine operator courses were offered to women.

168
women were trained
in 2022: 125 in Alumínio (SP), 24 in Itapissuma (PE), and 19 in Niquelândia (GO)

courses were offered at 3 locations: Alumínio, Itapissuma, and Niquelândia. The following courses were offered: metallurgical process operator, machine operator, mechanical maintenance assistant, and quality inspector

CBA changed my life in so many ways. I was unemployed when I signed up for the rolling mill operator course at SENAI in October 2021. After 45 days of intensive training, in February 2022 I was hired to work at CBA. Both the team and my managers made me feel welcome from my first day at work. I now have a fresh outlook on life, and a desire to push myself further. I also met my husband at CBA, and we are expecting our first child."

Annayce Silva dos Santos, Rolling Mill Operator, Re-Melt Department, Itapissuma (PE)

Tools that support diversity management

Diversity Committee: focuses on implementing our 2030 diversity agenda and encouraging diversified thinking, respect, and empathy within the organization. The Committee brings together employees from different positions and organizational levels and representatives from minority groups.

Diversity, Equity and Inclusion Policy: contains guidance on and reiterates CBA's commitment to ensuring an equitable and respectful work environment and eliminating any form of discrimination within the Company. The Policy has been developed in accordance with the Brazilian Constitution and the Universal Declaration of Human Rights. Abiding by the rules in the Policy is a condition of continued employment with CBA, and this extends to outsourced workers and suppliers.

The Diversity, Equity, and Inclusion Guide: introduces the concepts of diversity in an inspirational and fun way. It also explains the difference between diversity, equity, and inclusion with references to gender, people with disabilities, LGBTQIAP+, and race.

Affinity groups: are working teams created in 2021 in four categories: gender, race, people with disabilities, and LGBTQIAP+. Working group members have been tasked with identifying opportunities for and organizing initiatives to foster respect and inclusion within the Company. Registration is open to new members each year.

From left to right: Valeria Medeiros Bastos, Camila Henrique Pedroso e Camile da Cruz Silva, Smelter Operators, Alumínio Plant (SP)

Nathalia Pinese, Environmental Engineer, Alux do Brasil (SP)

HOW TO START A CAREER AT CBA

CBA values its professionals and its relationship with its employees at all times. Our career management lifecycle spans across talent attraction and recruiting, onboarding, performance management, and retention.

Recruiting and selection remained virtual in 2022, as the model adopted during the pandemic proved to be efficient and agile. In-person meetings are now reserved for the final steps in the recruiting process only.

During the year, searching for new professionals was based on the Company's diversity goals. CBA also prioritizes candidates with competencies related to the company's digital transformation and Strategy.

Furthermore, CBA offers other paths for those who are just joining the job market and would like to join CBA:

Apprentice Program: a partnership with SENAI, this program is for youth 18 to 23 who have graduated from secondary school and live close to a CBA site where there are openings. Participants receive technical training and guidance and, at the end of the program, there is an in-house screening program to hire graduates if positions are available. In 2022, 27 apprentices were trained and 9 were hired.

Internship Program: this program offers internship positions to university students in diverse areas. Interns attend a series of development workshops throughout the program, in which they learn and share their impressions about our values, strategies and collective goals. **About 40% of the interns end up being hired by the company.**

In 2022:

22 apprentices from the Metallurgical Process Operator course were hired

In 2023:

10 Mechanical Maintenance apprentices to be hired

Hiring youth trained by SENAI in Pernambuco

CBA partnered with SENAI to train and then hire graduates. In 2022, CBA was among the ten companies that hired the most graduates from SENAI in Pernambuco. Since 2020, the CBA facility in Itapissuma (PE) has hired youth through the Apprentice Program as well as other professionals who graduated from that institution.

Professional Development

The Human and Organizational Development department at CBA has always put people at the center. In other words, we invest in our employees bearing in mind their well-being and inspiration, offering valuable experiences for personal and professional development.

Courses and training are available on e-CBA and on the self-service platform where employees can choose courses based on their career goals and interests.

Many of the training courses offered migrated to digital in 2022, increasing productivity and ease of access. However, there remain courses that must be in-person, although digital experiences and approaches enrich the content.

Main training programs offered in the year:

- **Workshop in non-linear careers for managers and teams** – groups for all leaders and a "live" event recorded and provided to all persons present;
- **Career Dialog Web Series** – ssix modules available;
- **Hybrid work workshop** (management policies and practices for teams and managers) - over 850 people trained;
- **Workshop to Revitalize Culture Pillars** – some 250 managers trained.

Other initiatives offered to promote professional development include:

- **Votorantim Academy**
- ***Potenciar***
- **Leadership Development**

These programs seek to increase and expand the competencies of participants, combining our digital culture and the concept of "Think differently, act differently, react differently".

The *Potenciar* program, for instance, accelerates young talents in an environment of collaboration, development, and innovation. It covers all Votorantim affiliates and connects more than 100 people in different countries and states that participate in training weeks, receiving knowledge and experience along diverse fronts—self-knowledge, strategy, culture, sustainability, diversity, and innovation.

Those who register for the Enable Program also participate in the Challenge Project, a hands-on experience to solve a real-life strategic problem. The theme for 2022 was "Adapt and mitigate the impact of the expansion projects in Alumínio (SP)".

Michele dos Santos, Communication Analyst, and Lucas Henrique Ribeiro, Occupational Safety Technician, Alumínio Plant (SP)

Given the expansion projects in CBA's IPO, the number of companies and service providers around the Alumínio Plant (SP) facility and the 18,700-inhabitant city itself should grow significantly. Members of the Enable Challenge analyzed how this would impact the social, environmental, health, safety, infrastructure, and people management dimensions.

Improvements and opportunities were mapped and identified along each dimension. The Challenge team then proposed adaptation and mitigation measures to be implemented together with several departments, and with the involvement of local government and other agencies. By late 2022 several of these had been implemented, while others have been validated with the departments in charge and are on-schedule for implementation in 2023.

Samantha de Moraes Xavier, Production Operator, Alumínio Plant (SP)

ESG Track

Created in 2021, the ESG Track is a training course on our 2030 ESG Strategy. Its goal is to internally communicate ESG practices such as low GHG aluminum, governance structures, behaving in a socially responsible manner, and engagement around environmental causes.

The focus for 2021 was to train all professional-level employees. In 2022, our efforts focused on operational employees, training a total of 4,780 people. This Track is part of our efforts to deliver our 2030 ESG Strategic Governance goals, integrating ESG into all CBA culture and business pillars. By end of 2022, 86.61% of CBA employees had been trained, a significant increase from 34% at the start of the year. Since January 2022 this training has been part of new employee onboarding at CBA.

“The Company’s digital transformation has reached new levels and includes modernization of our culture pillars. Non-linear careers and project implementation via multidisciplinary POD teams foster attractive talent development, creating value for professionals and for CBA.”

Andressa Rissato Brolacci Lamana, Human Resources, Health, Safety, Environment and Sustainability VP

Non-linear careers

Employee roles within organizations have experienced major shifts in recent years. New concepts have become important to people’s professional journeys, such as personalization, open communications, and a constructive vision, creating an environment that is far more flexible for professional growth.

CBA is playing close attention to these changes and seeks to offer its employees the best opportunities. In 2022 we embraced “non-linear careers”, a movement that seeks to accelerate projects while at the same time contributing to the growth of employees.

Choosing a non-linear career is up to the employee, who will apply for positions offered specifically in this format. These are generally for a limited period of time to address a specific solution. These activities supplement the linear work that person performs, giving him or her a chance to explore new areas, acquire new knowledge, and help with projects that are often in other departments. Examples include multidisciplinary POD (Product Oriented Delivery) teams, who work on specific themes for a defined period of time (read more on page 138).

Training in non-linear careers was provided to 250 leaders in an online workshop, and a recording of the video is available online to employees via digital platforms.

#SOULCBA

The #SoulCBA influencer program was created in 2022 to foster more decentralized communication, generating engagement and giving voice to CBA professionals. Just as social media influencers, members of #SoulCBA help disclose knowledge, improving people’s understanding of a number of issues.

To be a CBA influencer one must like to communicate, be passionate for the business, defend the brand, be engaged, know how to build relationships, and respect diversity.

In this first run, 60 people were added following a process that started in July 2021 and for which 117 employees registered. By July 2022, they were active in the form of meetings every two weeks, and suggesting content in WhatsApp and Workplace discussion groups. These influences take information to people within CBA, and capture issues for the Communication department. In this way they increase their reach within the company and participate in strategic actions and campaigns.

The Performance of this team is measured by the audience and viralization of its Workplace posts.

HEALTH AND CARE

GRI 403-3

In 2022, diversity and inclusion were extended to the health benefits provided to CBA employees. The former *Mamãe, Bebê e Cia* ("Mother, Baby & Co.") program was expanded to a parenting program, now named Ser Família ("Family Life").

The Company realizes that there are different types of families and groupings of people responsible for children and adolescents. For this reason, adopted children and same-sex couples are included in benefits, and paternity leave was extended from 20 to 30 days.

This new format also includes an added benefit in the case of premature babies (born before 37 weeks of gestation), in which case leave will start when the baby is discharged from the hospital (up to a limit of 60 days). The parent or secondary caregiver has the right to one day off a month in the first three months from the day the child arrives to go to doctor visits with the family.

A leaflet on "Family Life" was designed describing all of the benefits in the program.

Quality of life

GRI 3-3 (Health, Safety, and Quality of life), 403-3, 403-6

For You is a CBA quality of life program focused on prevention, nutrition, physical activity, and emotional well-being.

Gympass, which gives access to gyms, is one of the benefits offered. Running has also attracted numerous employees. During the year there were six in-person, virtual, and hybrid races for all sites, with 3,068 participants, 26% more than in 2021. Promoting quality of life has had such a positive impact that this year some of these activities had a waiting line of people interested in joining.

CBA also provides nutritional support for all units, both in-person and online, including bioimpedance analysis.

Flávio Guilherme dos Santos, Sustainability Analyst at the Energy Business, with his daughter

Other activities to foster employee health include preventive, emotional, and hearing campaigns as well as flu vaccines, HIV/AIDS guidelines, and cancer prevention (Pink October and Blue November).

The Company also has a program entitled "Plenamente" for psychological, legal, and financial support. This channel is available 24x7 and is extensive to employee family members. In 2022, 491 people (employees and dependents) reached out to this program, which provided 2,445 counseling sessions. CBA plans to increase its focus on mental health in 2023.

As part of an integrative approach to employee health, in 2022 CBA created an Emotional Health Policy, designed to destigmatize the theme and facilitate access to support and service.

A Health Week involving infectiologists was organized to discuss the outlook of the Covid-19 pandemic; other professionals involved included financial educators to teach employees about financial health, nutritionists, nutrition physicians, and sports experts.

Health Space
GRI 403-6

In 2021 we created Espaço Saúde ("Health Space"), an exclusive health clinic for employees at the Alumínio (SP) plant and our Corporate Office (SP)—or 75% of our workforce—run in partnership with Hospital Sírio Libanês. Employees can schedule appointments with a family physician, request and collect samples for laboratory tests, and perform other procedures. In-person services are available Monday to Friday, and telemedicine services are available 24/7.

Occupational health
GRI 403-6

Doctors and nursing professionals from the Company and partner clinics are responsible for the activities in the Occupational Medical Health Program, which monitors employee health with periodic tests, managing those who must be removed from their posts and instructing them as regards treatment. Health services are readily accessible directly at each site or via partner occupational health clinics.

The occupational health department, through its Programs for Medical Control of Occupational Health, Hearing Protection, and Respiratory Prevention promotes the health management of its employees, monitoring supplemental tests related to exposure agents, and analyzing periodic medical assessments.

Continued Covid-19 precautions

Early in 2022 CBA saw an increase in the number of Covid-19 cases among its employees. Measures adopted to reduce the impact of the disease helped keep sick-days to a minimum. All employees were required to take at least two doses of the coronavirus vaccine, which directly influenced the drop in serious cases.

A telephone hotline to receive calls from people with suspected Covid was essential to provide instructions early in the contamination period, avoiding the transmission of the virus to other employees. Thus, CBA did not have to interrupt its operations due to Covid-19 at any time during the year.

CBA Health Team

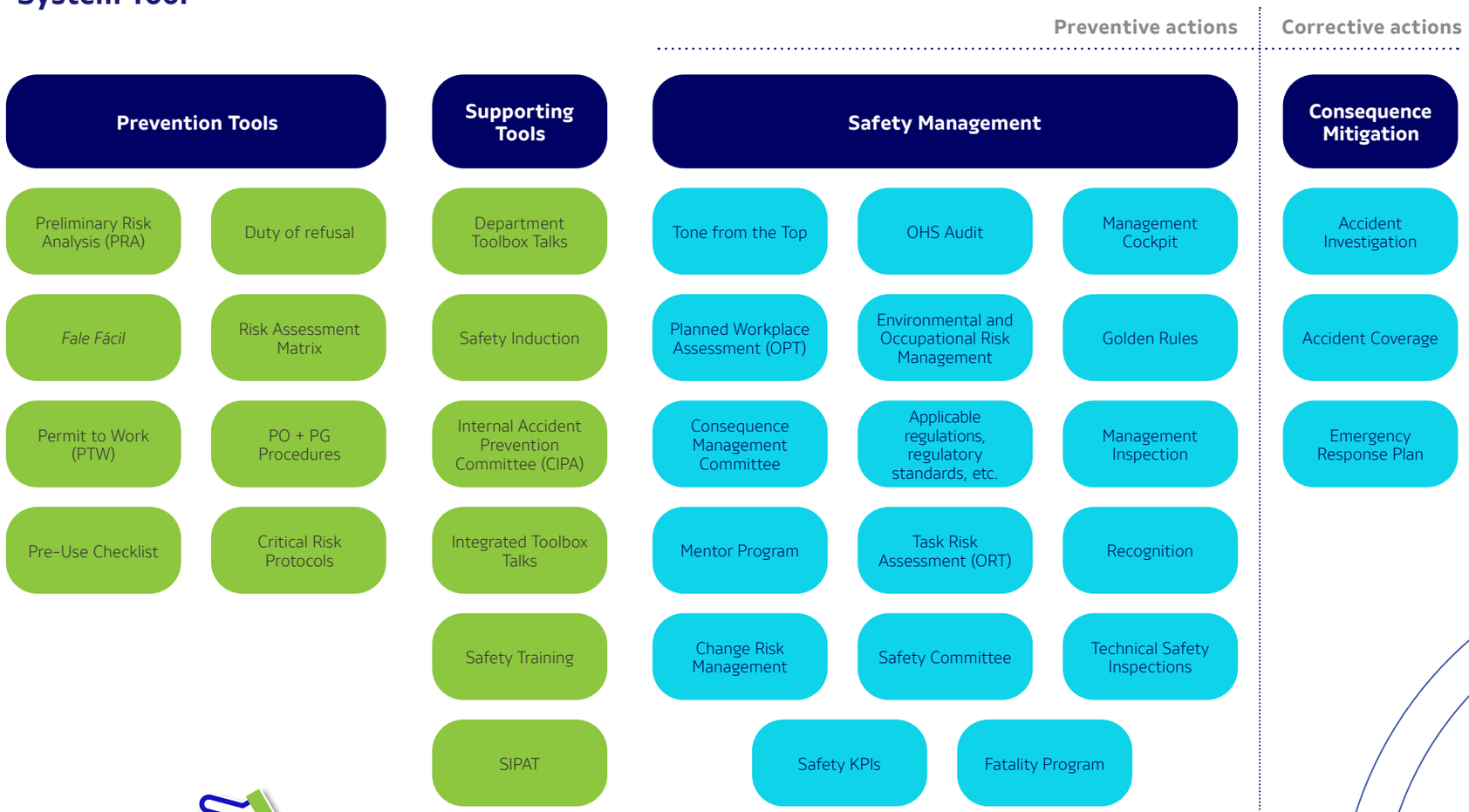
SAFETY AS A PRIORITY

GRI 3-3 (Health, Safety, and Quality of life), 403-1

Safety is non-negotiable. This statement is kept in mind and taken seriously at CBA each and every day. The ESG Social Strategy pillar has goals related to this theme for 2030: zero fatalities or severe injuries in our operations, and an incident frequency rate of less than 1.

This care also extends to the Alux and Energy operations. Their safety systems were analyzed and, in 2022, adopted CBA parameters. Currently 80% of the safety management at Alux already complies with CBA standards. In the Energy Business, 100% of the health and safety processes planned for 2022 were integrated into CBA.

Health and Safety Management System Tool



Click here

and learn more about health and safety tools in the Additional Disclosures Supplement.

Richard Wesley Ferreira da Silva, Saniel Claudio Romani and Nayara Gabrieli Borges de Alcantara. Casthouse employees at the Alumínio Plant (SP)

The 2022 online Safety Workshop provided a 10-year roundup of its activities. Results were also discussed at a presentation on Behavioral Triggers and the Safety Management System that included a show-room of initiatives planned over the coming months.

Health and safety management system

GRI 403-1, 403-2, 403-5

Our health and safety management systems uses tools that ensure that all risks and hazards (operational, legal, process, occupational environment, and engineering) are constantly identified, analyzed, and known by all to reduce accidents, potential losses due to liability, and legal exposure.

Technology is also used to improve health and safety, including virtual reality training on the theme, digital control of safety equipment distribution, and smart cameras that issue warnings that avoid accidents. CBA also has Respiratory Protection and Hearing Preservation programs. The health team is trained annually in pre-hospital care. Training is available for all employees and service providers in the area.

Despite our dedication to employee safety, unfortunately on February 23, 2022 there was an accident involving a Pot room employee in Alumínio Plant (SP). The employee received prompt first aid and was sent to a hospital, but unfortunately he died as a result of his injuries.

His family and company employees, especially Smelter employees, received all necessary support. The Company provided psychological support for the family of the deceased employee and for the employees working in the same location.

CBA also created a new Safety Management tool—the Fatality Prevention Program—that combines existing practices added to a dedicated process that will enhance the company's safety standards.

Caring for outsourced workers

As we advance our expansion projects, we expect to increase the number of outsourced employees.

A specific project on this theme was designed in 2021 and put into practice in 2022 as part of the *Potenciar* program (more on page 81). People management risks were mapped, especially those related to the addition of new third-party employees and their qualification and communication.

Health and safety highlights

Weekly managerial inspections at all operations departments, carried out by members of the CIPA, EHS (Environmental, Health and Safety) and leadership teams

Quarterly safety management system audits at all operations departments

29,004
behavioral observations as part of the ORT or Workplace Risk Observation program

98.6%
of CBA employees have been fully vaccinated against Covid-19

5,153
flu vaccine doses administered to employees free of charge

R$ 26.5 million
invested in health and safety

3,068
employees participated in in-person or virtual races

24
contractor firms participated in our Safety Marathon

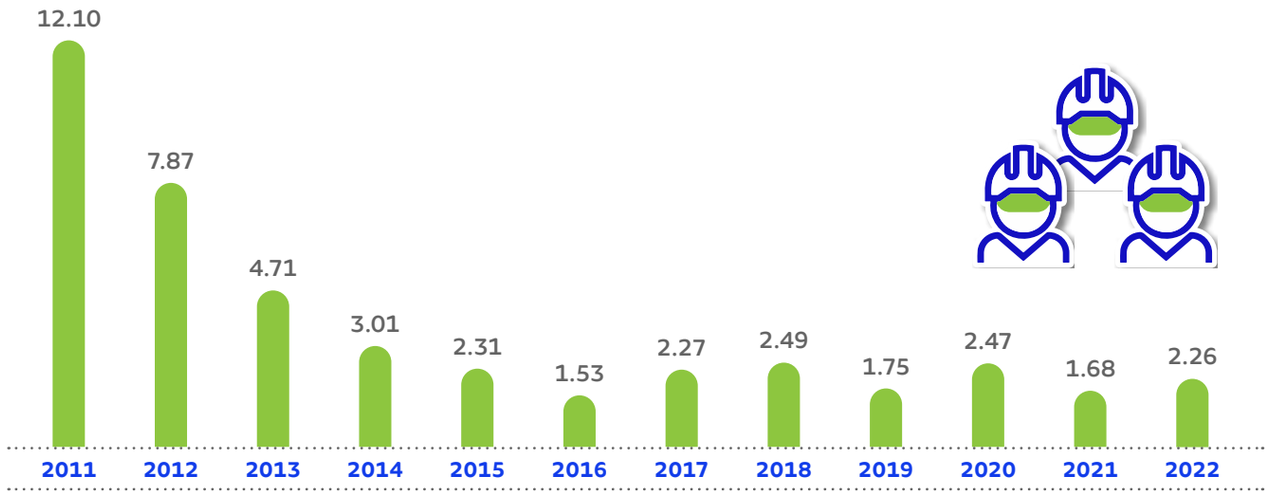
Total recordable case frequency

CBA's injury frequency rates in recent years illustrate our efforts and investments to improve safety. In 2022, however, our injury frequency rate was 2.26. Still, CBA outperformed both the national (4.23) and the international* (4.23) average injury frequency rates, as published by respectively the Brazilian Aluminium Association (ABAL) and the International Aluminium Institute (IAI). Our strong performance has not made us complacent, and CBA's efforts to reduce injuries and improve workplace safety are ongoing. The key actions taken in the year include improvements to working conditions, instructions on performing tasks, more frequent monitoring of tasks by leadership, routine safety campaigns and providing communications tools and channels.

**Most recent data: ABAL (2020) e IAI (2021).*

Lost-time and no-lost-time injury frequency rate per 1,000 MH (hours) worked

GRI 403-9



Note: The data are for direct and third party employee only.

Downstream employees at the Alumínio Plant (SP)

Social transformation

GRI 3-3 (Local development), 203-1 | SASB EM-MM-210b.1

The aluminum of the future is made using the best environmental, social and governance practices. As a leader for sustainability, CBA understands its responsibility and transformational potential in the communities where it is present.

For this reason, "Social Legacy" is one of the levers of our 2030 ESG Strategy. In practice, we promote local development and continuous dialog with communities, leading to lasting partnerships and a suitable environment for sustainable businesses. These initiatives all support the Sustainable Development Goals (SDGs).

CBA has a Social Responsibility Policy, and characterizes the features of all municipalities where it is present to learn about the surrounding communities, using social investments to engage them in the development of their territories. This study is a territorial assessment that includes social, economic and environmental data to identify the potential and weaknesses of the various locations, and an analysis of the operational profile and relevant stakeholders, and a history of their relationship with the Company. This data enables mapping the challenges and opportunities to develop a win-win relationship between Company and community.

In 2022

15 participating CBA sites

R$ 8.7 million invested in CBA operations, in generation joint ventures and in Barro Alto

59 social initiatives completed

Click here and learn more in the Additional Disclosures Supplement.

A PVE (Partnership for for Education) mobilization initiative

This data is used as an input into the annual planning of our social investment, based on joint analyses by social managers at CBA and the Votorantim Institute. The Votorantim Institute's Social Investment Standard and Social Investment Guide provide guidance on managing social programs.

CBA's social initiatives are designed based on the pillars of education, Public management support, economic development, and protecting child and adolescent rights. To enable these projects, CBA partners with NGOs, associations, cooperatives, and community leaders, as well as the Executive and Legislative branches of government.

SUPPORTING COMMUNITY DEVELOPMENT

GRI 3-3 (Local development)

EDUCATION

Education is a focus area in our social investments. We believe we can drive social transformation by helping to improve the quality of education.

Partnership for Education (PVE)

PVE is a CBA and Instituto Votorantim project that seeks to **contribute to improve public education** in cities and towns by supporting education and school management, and by enabling community social mobilization.

PVE turned 14 in 2022, and supported one of the year's main challenges in public education, which was to minimize the learning gap arising from social isolation during the Covid-19 pandemic. CBA and this program are present in 14 locations: Alumínio (SP), Araçariguama (SP), Divinolândia (SP), Muriaé (MG), São Sebastião da Vargem Alegre (MG), Niquelândia (GO), Caçu (GO), Chavantes (SP), Ibiúna (SP), Juquitiba (SP), Matias Barbosa (MG), Barro Alto (GO), Itapissuma (PE) and Pinhal da Serra (RS). Around 40,500 students are benefited by the program each year.

In 2022 our Itapissuma site received the 2021 PVE Award for the work performed in the year.

Number of schools participating in the project:
181 schools

Number of students benefited:
40,501

Hours of training with Department of Education professionals and school principals:
192 hours

Number of Department of Education managers and school principals involved:
370 professionals

0.48 percentage-point
average improvement in IDEB scores for early grades in 2015-2019, in municipalities supported by CBA-run PVE initiatives

0.53 percentage-point
average improvement in IDEB scores for last grades in 2015-2019, in municipalities supported by CBA-run PVE initiatives

Vocational Secondary Education

This initiative is a partnership of CBA, Instituto Votorantim, Fundação Itaú, the State of São Paulo Department of Economic Development, and the São Paulo State Department of Education. The goal is to offer vocational technical courses for secondary school students in Alumínio and Araçariguama, connecting them to the job market.

In Alumínio, the first course offered will be Systems Development at Escola Estadual Honorina Rios de Carvalho Mello, starting in the first semester of 2023. In Araçariguama (SP), students at Escola Estadual Humberto Victorazzo will be offered a course on logistics techniques and strategies, also in the first semester of the year.

Civics Agents

The purpose of Civics Agents is to foster civic engagement and youth participation in politics and the social development of their communities. This is a CBA political education initiative together with Instituto Votorantim. It is executed by the Instituto de Governo Aberto and Instituto Cidade Democrática.

In 2022 this social project selected 30 young people aged 16 to 29 in the cities of Alumínio, Mairinque, São Roque and Araçariguama (SP), and Muriaé, Miraí, São Sebastião da Vargem Alegre, and Rosário da Limeira (MG). Between June and December volunteers worked online and in-person in training workshops. In addition to learning about social participation, civics, representation, identity, and youth politics, these young people shared the knowledge they acquired with their communities and designed projects to fulfill demands in their cities.

> We have continued to implement initiatives to help students catch up and provide opportunities to share experience within each PVE Cycle, supporting improvements in school achievement. Being able to rely on strong partnerships such as with the PVE program keeps us motivated and determined to deliver increasingly high quality education."
>
> **Wesley Campos, Municipal Education Secretary, Niquelândia**

From left to right: Bárbara Barcaro, Larissa Marinho, Daniele Pedrosa, Gabriela Cotrim and Ágatta Pereira, Miraí mine employees

PUBLIC MANAGEMENT SUPPORT

GRI 3-3 (Local development)

CBA helps to improve government management practices in the cities where it is present through a partnership with Instituto Votorantim. Modernizing Management is of the approaches used in this program. This includes government planning, transparency, social participation, and fiscal balancing (tax, management, education, social services, and healthcare).

Another work front is Urban Planning, where the Company provides technical support to design sector plans (Master, Sanitation, Housing and Mobility Plans) and executive design to guide government programs and support claims for development funds.

Often it is the social institutions themselves that need management support. CBA provides this type of support in the form of technical and management training, in addition to financial sustainability and communication modules. One example is healthcare support in 13 cities São Paulo, Santa Catarina, Goiás, Minas Gerais, and Pernambuco. This involved 77 technicians and 432 hours of training. The Project to Support Public Healthcare Management helped during the pandemic and, since 2020, has helped territories provide basic care. *Previne Brasil* [Prevent Brazil] is a funding model to pass along federal funds to the cities.

Alumínio 50 Years Project

The goal of the Alumínio 50 Years Project is to help the city of Alumínio by training city government agents, enabling better management and social, fiscal, and economic indicators. Created in 2019, this project seeks to support structured, long-term city growth.

In 2022, the management group prioritized youth, culture, and the environment, the latter involving the Itupararanga Reservoir. The group also defined how it will continue networking with other civil society institutions. One of the network initiatives was an exhibit honoring Alumínio photographer Adriano Ávila.

Children of employees Valdir dos Santos, and Rodrigo Siqueira da Cruz, Production Operators at Alumínio Plant (SP)

ECONOMIC DEVELOPMENT

GRI 3-3 (Local development)

ReDes Program

This is a partnership between CBA, Instituto Votorantim, and the Brazilian Development Bank (BNDES) to support sustainable development of Brazilian cities. This initiative turned 12 in 2022, and is currently present in Niquelândia (GO).

ReDes helps create inclusive businesses and integrate production chains using approaches that include community participation in all steps.

Each project is a 5-year cycle, and in Niquelândia it ended in 2022. There, small farmers found sources of income in products derived from sugarcane and in manioc farming. By the end of the project in that town, 63 families had total revenue of R$ 798,000 in the year, or an average household income of R$ 13,000 in the period.

Empreende Alumínio

This program is a partnership between CBA, Instituto Votorantim, and Instituto Meio. It provided free training for 106 entrepreneurs in the town of Alumínio (SP) on topics related to business management, such as how to identify threats and opportunities in their areas, strategic planning, finance, and digitization. This training was provided entirely via WhatsApp, and the 10 best business plans were selected and analyzed by a review panel that awarded four seed-capital grants (Seed capital is a type of funding for start-ups and projects in the design and development stage).

In 2022 the four selected entrepreneurs worked on their business plans using seed capital and management support. These projects progressed and, between August and December 2022, brought in revenue of R$ 143,000.

60 families
earned an average monthly income of R$ 13,000 in 2022

106 aspiring
business owners received free training

CBA's support, through the ReDes Program, was essential for the factory to be in full operation today. We started supplying schools in the region and, little by little, we are improving to go further and further. It was really a leap of growth in our lives.

Wildes Gumber de Melo, President of Acorda Candy Factory

ENSURED RIGHTS

Votorantim Youth Fund (VIA)

VIA seeks to contribute to better quality of life for children and adolescents, and was created based on the Brazilian Constitution and the Children and Adolescent Statute. It focuses on reducing situations where there is a risk that the rights of children and adolescents will be violated, and works by training Municipal Child and Adolescent Rights Boards (CMDCAs) and helping develop a protection network, as well as their strategy and workflows. In 2022 VIA worked in Alumínio (SP), Niquelândia (GO), Barro Alto (GO), Muriaé (MG), and Chavantes (SP). Qualified CMDCAs meet the requirements of Framework Regulation, and systematize the selection of initiatives to promote the development of children and adolescents, such as the following projects:

Esporte + Educação

CBA and Instituto Votorantim support *Esporte + Educação*, an initiative of the Niquelândia Runners Association. This project uses sports as a tool for social transformation of the city's children and youth. In 2022, the project benefited 60 students aged 7 to 17 enrolled in public schools. Participants were given sports materials and uniforms to participate in the activities, plus afterschool classes. This year the initiative included soccer classes, with a record number of children enrolling—over 400. The project is also for fathers, mothers, and legal guardians who receive information on how to guide children and youth regarding tobacco, alcohol, and other drug use.

***Estrelinhas* (Little Stars) – Everyone can shine**

This project provides an area where 41 underprivileged and socially vulnerable children and adolescents, as well as those with learning disabilities, can exercise individual development, empowerment and independence. The project provides psychopedagogical and psychosocial resources, as well as art therapy.

VOLUNTEERING CHALLENGE

Our Volunteering Challenge is a healthy competition among employees and contractors of Votorantim portfolio companies, reaching its 8th edition in 2022. This is an Instituto Votorantim strategy to engage and recognize people who volunteer and promote social mobilization for the common good.

This competition also fosters integration among employees and contractors in different communities across Brazil and Latin America, helping the development of people, social organizations, and public schools.

The theme this year was "Civic Engagement", and the slogan was "Transforming through Civics". Suggested activities are split into categories that seek to promote citizen involvement through volunteering:

- Quality of life
- Employment and income
- Education
- Environmental education
- Diversity, equity and inclusion
- Civic engagement
- Donation

Tarsis Fortes, Maintenance Planner, and Leandro Bustamante, General Manager for Logistics Planning, in action during the 2022 Volunteering Challenge

CBA Highlights:

679
volunteers

90
initiatives

40
charities benefited

5,458
people benefited

Lightning challenges
Lightning challenges are organized concurrently with official competition legs, and are launched as surprise tasks that can be performed for additional points. One of the greatest challenges addressed by CBA teams was support for the town of Miraí, which was particularly hard hit by storms in February and March. CBA distributed hygiene kits and grocery packages, in addition to helping clean up the town.

Votorantim companies achieving the best outcome in the volunteer campaigns are recognized, as are the institutions served, and receive a cash prize and a trophy. In 2022 CBA received the following prizes:

1st Place
Large Sites
Alumínio

2nd Place
Medium-sized Sites
Miraí

1st Place
Small Sites
Poços de Caldas

2nd Place
Small Sites
Niquelândia Plant

Tax-deductible project sponsorship
In addition to self-funded projects, CBA is also involved in tax deductible projects, which accounted for 16% of social investments in 2023. One of these examples is a judo project, "Viva Judô".

Viva Judô
The judo project is organized by the Diviolândia (SP) Judo Association with the support of Metalex and Instituto Votorantim. This initiative teaches martial arts to students aged 6 to 17 free or charge, helping their physical, intellectual, and emotional development. In 2022, 180 children and youth participated.

Environmental protection

#ESGInOurBlood

- CBA: doing our part against climate change
- Recycling and circular aluminum
- Biodiversity
- Dams
- Water resource management
- Waste management
- Energy management

Lazaro Evangelista, Electromechanical at Alux do Brasil (SP), and his daughter

Material topics related to this chapter:

- Renewable energy and energy efficiency
- Circular aluminum
- Dam safety management
- Innovation, technology and business resilience
- Water & wastewater management
- Waste management
- Climate strategy
- Biodiversity and ecosystem services

ESG Strategy levers related to this chapter:

- Climate change
- Renewable energy
- Circular aluminum
- Natural resources
- Dams

SDGs related to this chapter:

Global Compact Principles addressed in this chapter:

7. Businesses should support a precautionary approach to environmental challenges.
8. Undertake initiatives to promote greater environmental responsibility.
9. Encourage the development and diffusion of environmentally friendly technologies.

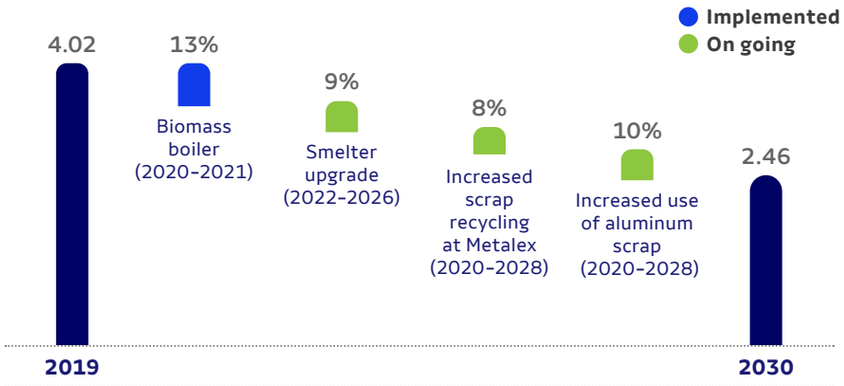
CBA: doing our part against climate change

GRI 3-3 (Climate strategy), 3-3 (Renewable energy and energy efficiency) – Managing emissions and CBA's position on the global emissions curve

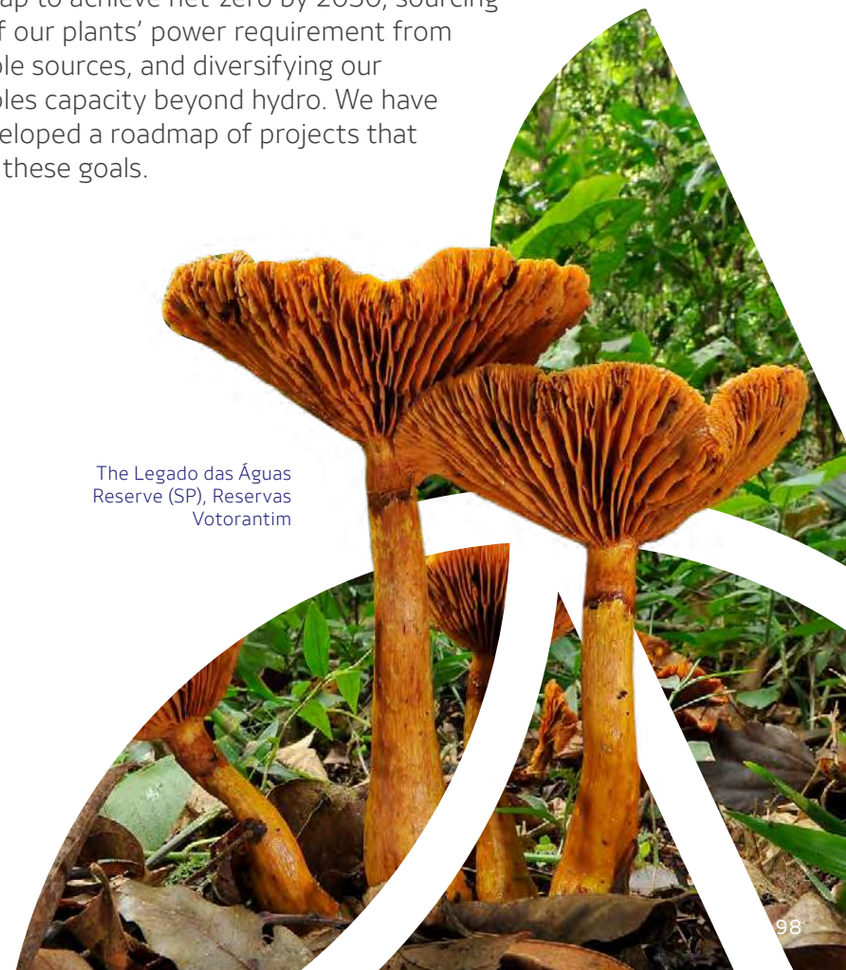
Climate change is a material issue for CBA, as the energy- and carbon-intensive nature of aluminum smelting can significantly contribute to global emissions. As the world rallies to combat climate change, companies are increasingly being called upon to improve their own emissions performance. At CBA, we have demonstrated a strong commitment to producing sustainable aluminum through various initiatives, such as our newly launched Alennium seal (read more on page 47). Furthermore, we have publicly committed to sustainability through our 2030 ESG Strategy, and we support organizations, initiatives, and frameworks such as the Global Compact, the Brazilian Business Council for Sustainable Development (CEBDS), the São Paulo Agreement, the Science Based Targets initiative (SBTi), the First Movers Coalition, and ASI Certification.

Our 2030 ESG Strategy addresses climate change through a dedicated lever and the Renewable Energy lever. These levers comprise three different programs and eight goals, including reducing casthouse emissions by 40% from a 2019 baseline; designing a roadmap to achieve net-zero by 2050; sourcing 100% of our plants' power requirement from renewable sources, and diversifying our renewables capacity beyond hydro. We have also developed a roadmap of projects that support these goals.

Reductions to date (tCO_2e/t Al)



Note: Reductions to date - Reduce emissions by 40% (considering emissions from all the aluminum chain, from mining to the cast-house). Further details on these projects are provided on pages 104, 105, 109 to 112. The biomass boiler project has been completed; the remaining projects are currently ongoing.



The Legado das Águas Reserve (SP), Reservas Votorantim

These initiatives have set CBA on a clear path to reducing carbon emissions, with our performance exceeding expectations. We attribute this success not only to the decarbonization projects themselves but also to the high level of engagement among our strategic departments, including Competitiveness Management, Technology, and Engineering. We have also addressed communications directly to plant personnel to raise awareness about this topic and communicate progress on our annual emissions targets for our most emissions-intensive operations.

As of 2022 we have achieved a

26.1%

reduction

in cast product emissions from a 2019 baseline, moving closer to our goal of 40%.

CAST PRODUCT EMISSIONS

Estimated primary aluminum emissions (tCO_2e/t of primary products)

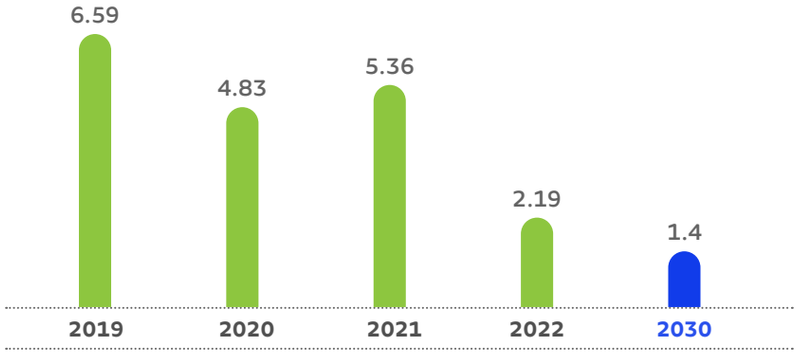
Note: The GHG emissions considered are: Scope 1 and Scope 2 GHG emissions from the chain (Mining, Alumina, Smelter, Casthouse and Support Areas) and Scope 3 relative to the purchase of ingots from Metalex and Alux. The production of the casthouse of the Alumínio (SP), Metalex (SP) and Alux (SP) Plants is considered.

The Legado das Águas Reserve (SP), Reservas Votorantim

In addition, as part of our Sustainable Value Chain Program, we aim to produce 100% of billets at Metalex with greenhouse gas emissions lower than 1.4 tCO_2e/t of product by expanding scrap inputs.

In 2022 we developed our first Climate Policy, which outlines our commitments to fighting climate change and criteria on climate management. We also created a multidisciplinary Working Group on Climate Change that will support the Executive Sustainability Committee and CBA's decarbonization and net zero efforts. The Working Group will meet regularly beginning in 2023.

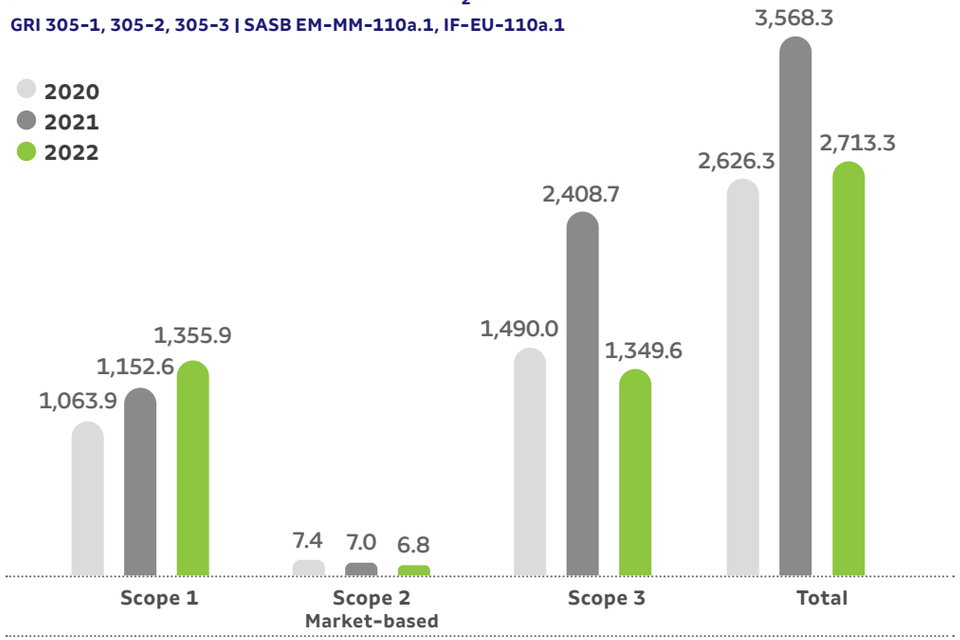
Metalex emissions per product (tCO_2e/t billets)



These initiatives support the following SDG:

Direct and indirect emissions (in thousands of metric tons of CO_2e)

GRI 305-1, 305-2, 305-3 | SASB EM-MM-110a.1, IF-EU-110a.1



Note 1: All greenhouse gases are included in the calculation (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3).
Note 2: The consolidation approach for emissions was operational control.
Note 3: Our Sorocaba facility, São Paulo office and Duque de Caxias distribution center have not been included in the scope of this disclosure, as their emissions are negligible.
Note 4: Some data for 2020 and 2021 has been restated. (GRI 2-4)

Net Zero Ambition Movement

The year 2022 also marked our entry into the Net Zero Ambition Movement, another initiative that reinforces CBA's commitment to sustainable development and to science-based targets.

The Movement is an initiative of the UN Global Compact Brazil, and aims to challenge and support signatories so they can establish robust science-based targets in order to reduce their greenhouse gas emissions and further sustainability. Its ambition is for participating organizations to reduce their aggregate emissions by 2 gigatons of CO_2e by 2030.

We are also a member of Race to Zero, a Global Compact campaign to rally leadership and support from signatories to combat climate change.

SCIENCE-BASED COMMITMENTS

GRI 305-5

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

In May 2022 we achieved a significant milestone on our decarbonization journey with the approval of our emissions reduction targets by the Science Based Targets initiative (SBTi), a joint effort of the CDP, the Global Compact, the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF).

This provides technical validation for our greenhouse gas (GHG) reduction targets, which are as follows:

- Reduce emissions intensity (scopes 1 and 2) by 40% in the refining and smelting stages from a 2018 baseline.

  Percent reduction as of 2022:

- By 2030, reduce absolute scope 1 and 2 emissions from other operations (Mines, Casthouse and Downstream) by 35% from a 2018 baseline.

  Percent reduction as of 2022:

- By 2030, reduce scope 3 emissions (categories 1, 3, 4 and 9) by 13.5% across all business units from a 2019 baseline.

  Percent reduction as of 2022:

We were the first primary aluminum producer in the world to have SBTi-approved targets supporting the Paris Agreement and its goal to limit global temperature rise to below 2°C above pre-industrial levels.

This approval followed an extensive exercise in 2021 to assess our methodology, build emissions reduction curves, and design a roadmap of consistent measures approved at different organizational levels. CBA will now turn its focus to scope 3 emissions while maintaining our efforts to meet the validated targets.

Legado Verdes do Cerrado, conservation area in Goiás

CDP "A" RATING FOR CLIMATE CHANGE DISCLOSURES

Another standout achievement in 2022 was CBA's inclusion on the A List of the CDP, a non-profit organization that runs the global environmental disclosure system, evaluating and recognizing the efforts of companies to mitigate the environmental impacts from their operations and reduce greenhouse gas emissions.

CBA was recognized for its leadership in transparency and performance around climate change.

This is the first time a primary aluminum company has made it onto the A List, confirming CBA's industry leadership on climate and how our commitments and practices are setting the standard for sustainability.

FIRST MOVERS COALITION

In 2022, CBA also became **the first Brazilian company to join the First Movers Coalition (FMC)**, a global initiative to decarbonize seven hard-to-abate industrial sectors, announced by US President Joe Biden during COP 26 (the 2021 United Nations Climate Change Conference) in a partnership with the World Economic Forum.

The FMC has just over 50 participating companies from the aluminum, steel, concrete, chemicals, shipping, aviation, and trucking sectors. These organizations have pledged to source only low-carbon products by 2030 to promote sustainable supply chains and meet climate goals. The goal is for these sectors to decarbonize at the necessary speed to keep the planet on a path that limits global warming to 1.5°C.

THE MISSION POSSIBLE PARTNERSHIP

CBA has also endorsed The Mission Possible Partnership, an alliance of climate leaders focused on supercharging efforts to decarbonize some of the world's highest-emitting industries in the next decade. As part of this initiative, we conducted an assessment of the aluminum industry to find emissions reduction solutions in three key areas: technology, energy transition, and recycling.

Sonia Consiglio (Independent Member of the Sustainability Committee), Bruna Orlandi Bicalho (Sustainability Analyst), Vivian Martins de Souza (Sustainability Analyst) and Raquel Martins Montagnoli (Sustainability Manager)

ALLIANCE TO DEVELOP THE CARBON MARKET

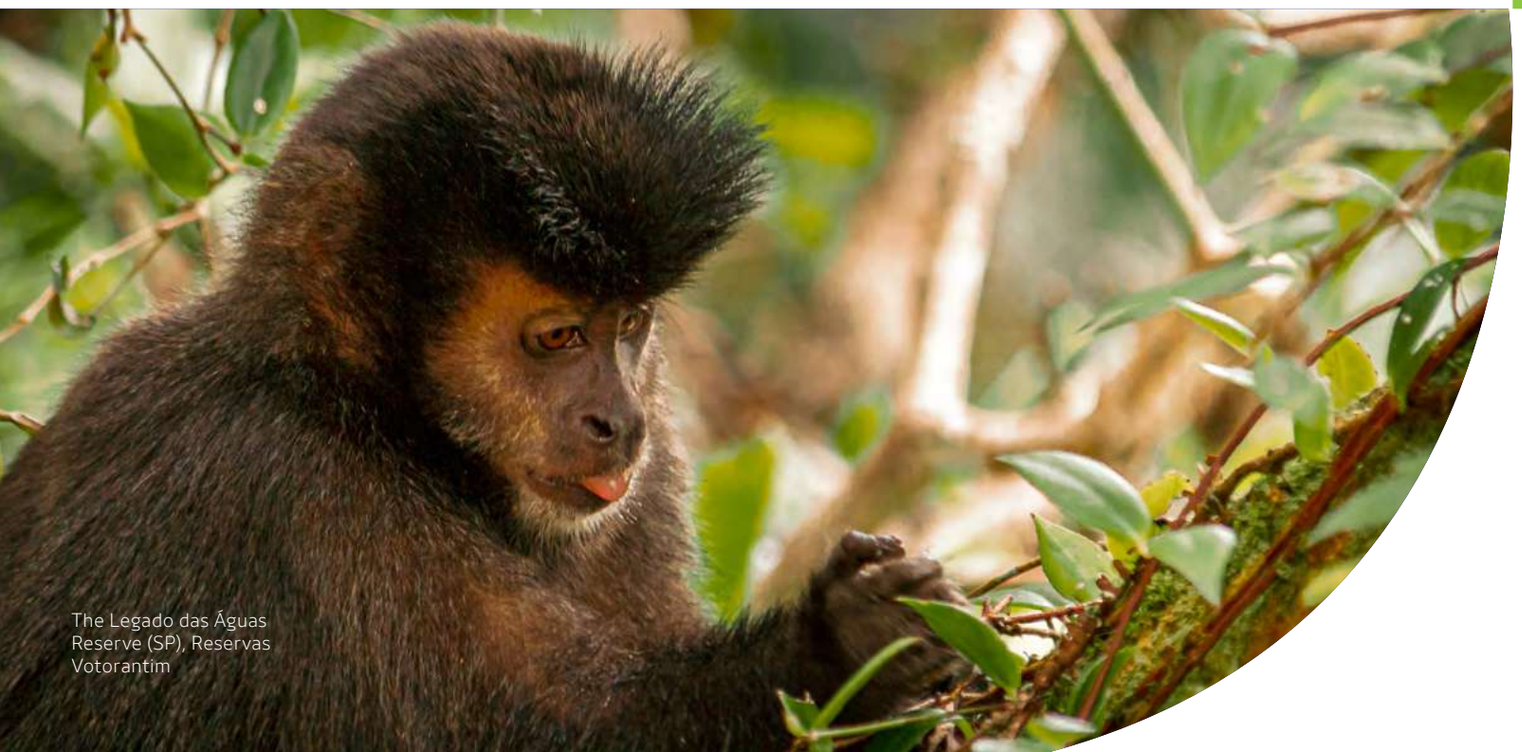
CBA is a member of an initiative led by McKinsey & Company to develop a voluntary carbon market in Brazil.

The initiative aims to expand Brazil's supply of carbon credits, develop financial instruments to connect demand to supply, establish requirements for a high integrity market, explore the key tax implications, design an independent governance body to regulate the market, and develop a strategy for engaging with strategic stakeholders.

This project is another illustration of how the market is rising to the challenge to create solutions to decarbonize the global economy.

Click here

and learn more about the initiative.



The Legado das Águas Reserve (SP), Reservas Votorantim

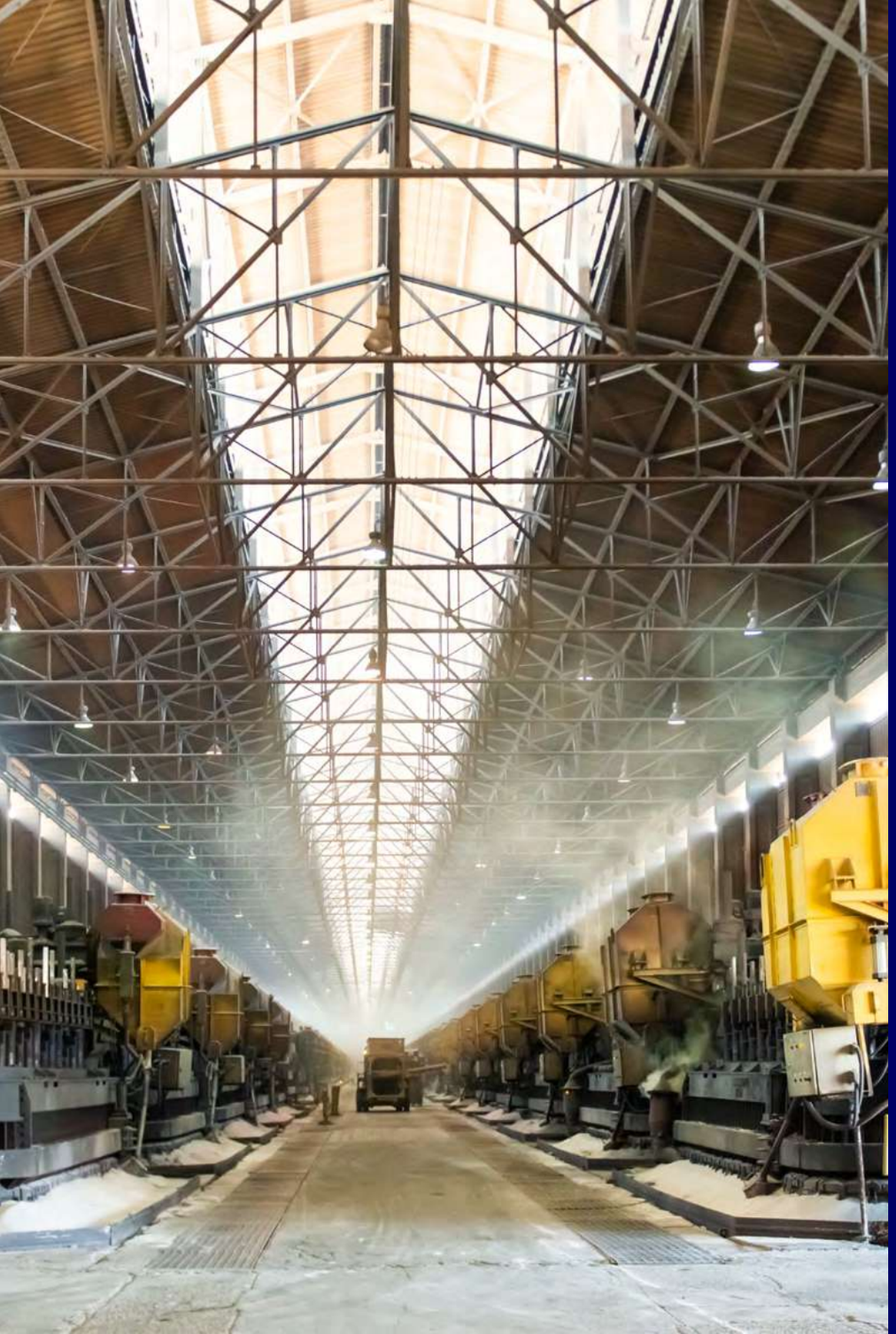
Greenhouse gas emissions intensity for Alumínio Plant (SP) (scope 1 and 2, in tCO2e/t Al)
GRI 305-4

	2020	2021	2022
Production of cast aluminum products (cradle to gate)	3.08	2.63	3.25
Production of downstream aluminum products (cradle to gate)	4.67	3.81	3.87
Smelters – molten aluminum (single stage)	2.66	2.56	3.03

All greenhouse gases are included in the calculation (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3).
The emissions intensity calculation is based on Scope 1 and Scope 2 GHG emissions across the value chain (Mines, Refinery, Smelters, Casthouse and Downstream) and production at the Alumínio plant (SP).

GGE inventory

CBA is committed to transparency in our annual greenhouse gas emissions inventories. These inventories are made available in Brazil's Public Emissions Register (RPE), and are prepared in accordance with the GHG Protocol methodology. We were again awarded Gold reporting status, which recognizes our efforts to transparently disclose comprehensive, third-party-verified information.



INITIATIVES TO MITIGATE GHG EMISSIONS

Learn below about what CBA is doing to meet its commitments to protect the planet.

Smelter technology upgrade

GRI 3-3 (Innovation and Technology and Resilience)

We made consistent progress on our Smelter technology upgrade project, which is modernizing 1,276 electrolysis cells, or pots, at our smelting facilities. The pot feeding process is being upgraded to an automated point feeder system that will reduce greenhouse gas emissions by 20%.

With Pot Room 3 restarting in 2022 (read more on page 27), and many of the pots already upgraded, CBA has now avoided 18,722 tCO_2e in emissions across all cells upgraded since 2018.

This project will also provide significant water an energy savings in the production process: around 3.6 million cubic meters of water and 17 MW of electricity per year. To put this in perspective, these savings are equivalent to the electricity consumption of 30,000 average homes.

In the coming years CBA will further reduce emissions and increase production volumes with the start of Pot Room 1, which will inject 54,000 metric tons of added capacity by 2025.

This year the Board of Directors approved the start of upgrade work at Pot Room 5. This project will install the new point feeder system across all pots by 2025, in a total investment of R$ 620 million.

Paste Plant Upgrade

This project will increase our paste plant capacity from 23.5 t/h to 29 t/h. This facility supplies anode paste to all our smelters, with a coal-tar pitch content of 29 to 33%.

This will support the restart of currently curtailed smelters, while reducing consumption of anode paste and improving operation stability.

Biomass boiler,
Alumínio Plant (SP)

Biomass boiler

CBA uses wood-chip biomass sourced from managed eucalyptus forests to power our boilers and replace natural gas and fuel oil. Our Refinery in São Paulo was one of the first to use only biofuel-generated steam, and now boasts the lowest carbon emissions per metric ton of alumina in the global industry, based on data from consulting firm CRU.

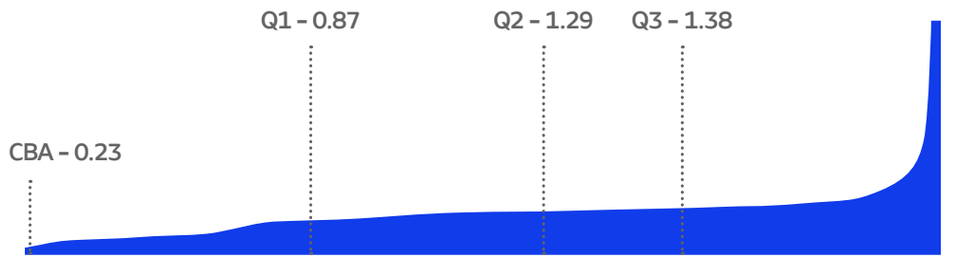
In addition to reducing greenhouse gas emissions of this process —around 60%—our biomass boiler has lower operating costs than equivalent boilers running on fossil fuels.

CBA's biomass boiler project has also been recognized by the AmCham Brazil ECO Awards 2022, which recognizes companies that adopt responsible corporate practices. CBA was presented with the Sustainability Practices award in the Large Corporates category.

Click here to learn more.

Refinery emissions intensity

(tCO_2e/t oxide)



In 2022 we also showcased our carbon reduction initiatives during a panel titled “Aluminum’s Contributions to a Low Carbon Economy” at the 27th Conference of the Parties (COP27) to the United Nations Framework Convention on Climate Change. During the event we also presented the first edition of our REDD+ carbon credit program in the Cerrado biome.

Click here to learn more.

MAPPING OUT CLIMATE RISKS

GRI 201-2

We consider the effects of climate change in our approach to risk and crisis management, and when developing scenarios to inform our 2030 ESG Strategy. We identify these risks in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), a climate reporting framework structured around four thematic areas: **governance**, **strategy**, **risk management**, and **metrics and targets**.

In 2022 we continued to monitor physical and transition risks that threaten the integrity of our facilities and the safety of people, or that directly or indirectly affect our financial performance, as well as other risks related to the Aluminum business.

Physical risks resulting from climate change can be event-driven (acute) or longer-term shifts (chronic) in climate patterns. Our assessment approach also classifies risks depending on the likelihood and magnitude of impacts. The physical risks with the highest likelihood of affecting our business are reduced hydroelectric generation capacity or plant shutdowns due to reduced streamflow. Transition risks include the imposition of new taxes and variance in pricing on certain commodities.

Our comprehensive approach to assessing risks affecting the business, and especially climate-change risks, enables us to create robust and more effective mechanisms for anticipating issues, making us more resilient to climate change.

In addition to enhancing our own resilience, in 2023 we will expand our Public Management Support program to help cities in our areas of influence build resilience against climate change. We recognize that our communities have an important stake in this agenda, and have incorporated this program as a target in our 2030 ESG Strategy, under the Climate Change pillar.

Recycling and circular aluminum

GRI 3-3 (Circular aluminum), 306-2

Recycling plays a central role in our business strategy, enabling us to increase our production volumes while further reducing our carbon footprint. We believe the future's aluminum will have recycling as a key enabler.

Aluminum offers several key sustainability benefits: it is infinitely recyclable while retaining its properties, and recycled aluminum requires 95% less energy to produce than primary aluminum, with scope 1 and 2 emissions* as low as 0.6 metric tons of CO_2e per metric ton of aluminum.

In looking at the market's projected future needs, CPA believes that recycled aluminum will play a key role in decarbonizing a wide range of industries, including the automotive, food packaging, building and construction, and power sectors.

Márcio Cardoso and Allan Douglas, employees at Alux do Brasil (SP)

Our 2030 ESG Strategy includes specific commitments on recycling:

- Increase the ratio of aluminum recycled from industrial and end-of-life scrap at Metalex to 80%
- Increase the ratio of aluminum recycled from industrial and end-of-life scrap in billet production at the Alumínio plant to 50%
- Increase the ratio of scrap collected from external sources for recycling
- Recycle 40,000 metric tons of cartons and flexible packaging per year

Our most important initiatives supporting these targets are our recycling operations at Alux do Brasil and Metalex, efforts to increase recycled content in primary and downstream products, and projects to develop external aluminum scrap logistics.

** IAI Report: 1.5 Degrees Scenario: A Model To Drive Emissions Reduction.*

Joao Graciano Netto,
Production Operator,
Metalex (SP)

Overall recycling rate

GRI 301-2, 301-3 | CBA-8 | SASB EM-MM-000.A

(Raw materials or recycled materials used, including internal scrap materials consumed)

	2020			2021			2022			
	Alumínio	Metalex	Itapissuma	Alumínio	Metalex	Itapissuma	Alux	Alumínio	Metalex	Itapissuma
Customer scrap recycled (t)	15,048	42,752	2,459	10,785	45,164	948	7,165	7,663	45,169	0
Third party-purchased scrap (t)	3,283	88	0	2,529	0	0	19,743	2,201	429	764
Internal scrap consumed (t)	62,525	7,234	29,774	77,432	8,198	34,232	0	80,715	7,803	32,228
Total external scrap consumed (t)	18,331	42,840	2,459	13,314	45,164	948	26,908	9,864	45,598	764
Total raw materials consumed (t)	80,856	50,074	32,233	90,746	53,362	35,180	26,908	90,579	53,401	32,991
Total raw materials consumed – including molten aluminum, ingots and scrap (t)	386,087	76,837	70,770	444,470	85,068	77,899	29,595	437,989	82,069	71,036
Percentage externally sourced scrap (%)	4.45%	55.80%	3.50%	3.00%	53.10%	1.20%	90.9%	2.3%	55.6%	1.1%
	11.1%			9.8%			13.4%			
Percentage scrap (internal and external) (%)	20.9%	65.2%	45.5%	20.4%	62.7%	45.2%	90.9%	20.7%	65.1%	46.4%
	30.6%			29.5%			32.8%			

Note 1: Only Aluminum Business sites included. Alux was acquired in 2022 and therefore no data is available from prior years.
Note 2: The lower figures for Alumínio reflect global macroeconomic conditions and the resulting reduction in scrap supply from customers.

ALUX IN OPERATION

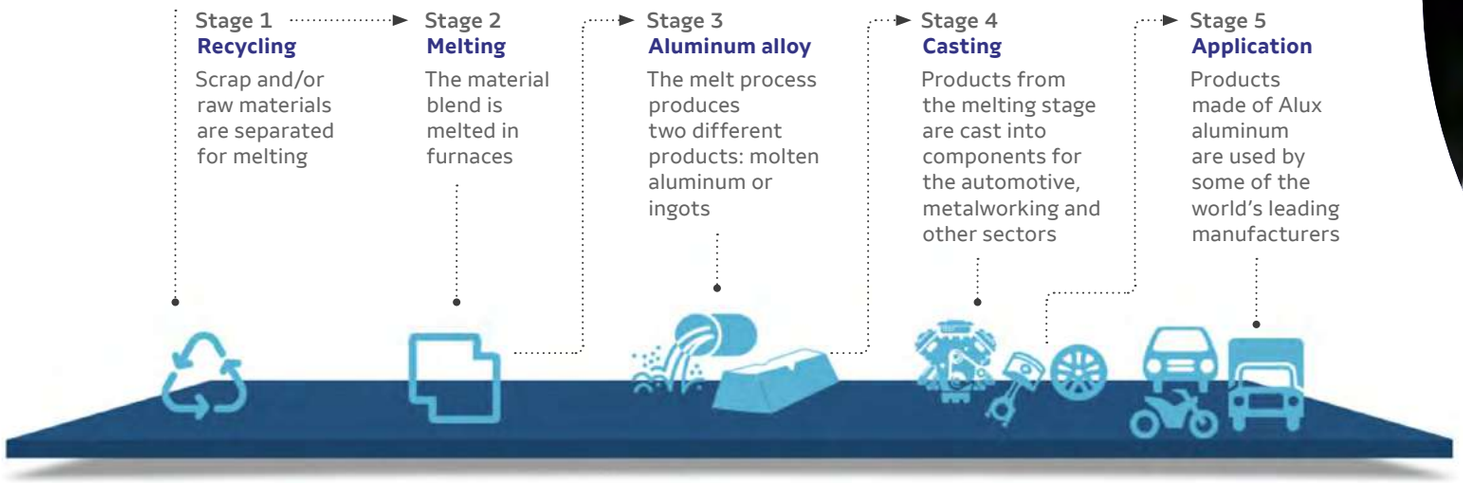
In 2022, we successfully integrated Alux do Brasil into our operations, marking our entry into the secondary alloys segment—secondary alloys are sold primarily to the automotive, two-wheeler and auto parts sectors.

Alux is located in Nova Odessa (SP), southeastern Brazil, and has a production capacity of 46,000 metric tons per year. The plant has been certified to ISO 9001 and 14001, and by the International Automotive Task Force (IATF) since 2006.

In its first year since integration, Alux increased externally sourced scrap throughput by 40%.

The plant will also leverage synergies with our Primary and Downstream customers' commercial operations by processing industrial and post-consumer scrap. In addition, Alux will help improve our own resource efficiency by processing internally generated scrap.

Alux production lifecycle



Andrey Henrique Buzoni, Operator, Alux do Brasil (SP)

R$ 115 million

invested in the recycling facility at Metalex

NEWS FROM METALEX

GRI 3-3 (Circular aluminum), 3-3 (Waste Management), SASB EM-MM-150a.10

Metalex, a CBA-owned recycling plant in Araçariguama, state of São Paulo, produces a wide range of standard, special and premium alloys for several different industries. In November 2021 the facility's new sidewell furnace started operation, expanding production capacity from 75,000 to 90,000 metric tons per year. In 2022, with the new furnace fully operational, recycled volumes reached 65.1%. The new sidewell furnace technology has helped to minimize waste by increasing the metal yields from scrap and thus reducing the production of residual aluminum slag.

During the year, work continued on the ongoing installation of a new scrap processing line, set to start up in 2023. This will be largest plant in Latin America for processing extrusion scrap. With its ability to separate out contaminants such as physical iron, rubber, plastic, timber and construction debris, the new line will improve recycled content from 60% to as high as 80%, ultimately increasing recycling volumes. The new technology will also allow us to process lower-cost materials and a wider variety of end-of-life scrap, providing customers with increased flexibility in the scrap they can ship to us.

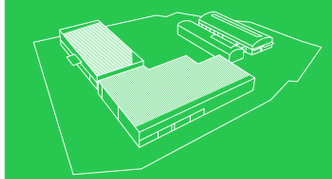
The two projects above, along with the new recycling line, involved a total investment of R$ 115 million, with the project scheduled to be fully completed in the second half of 2023.

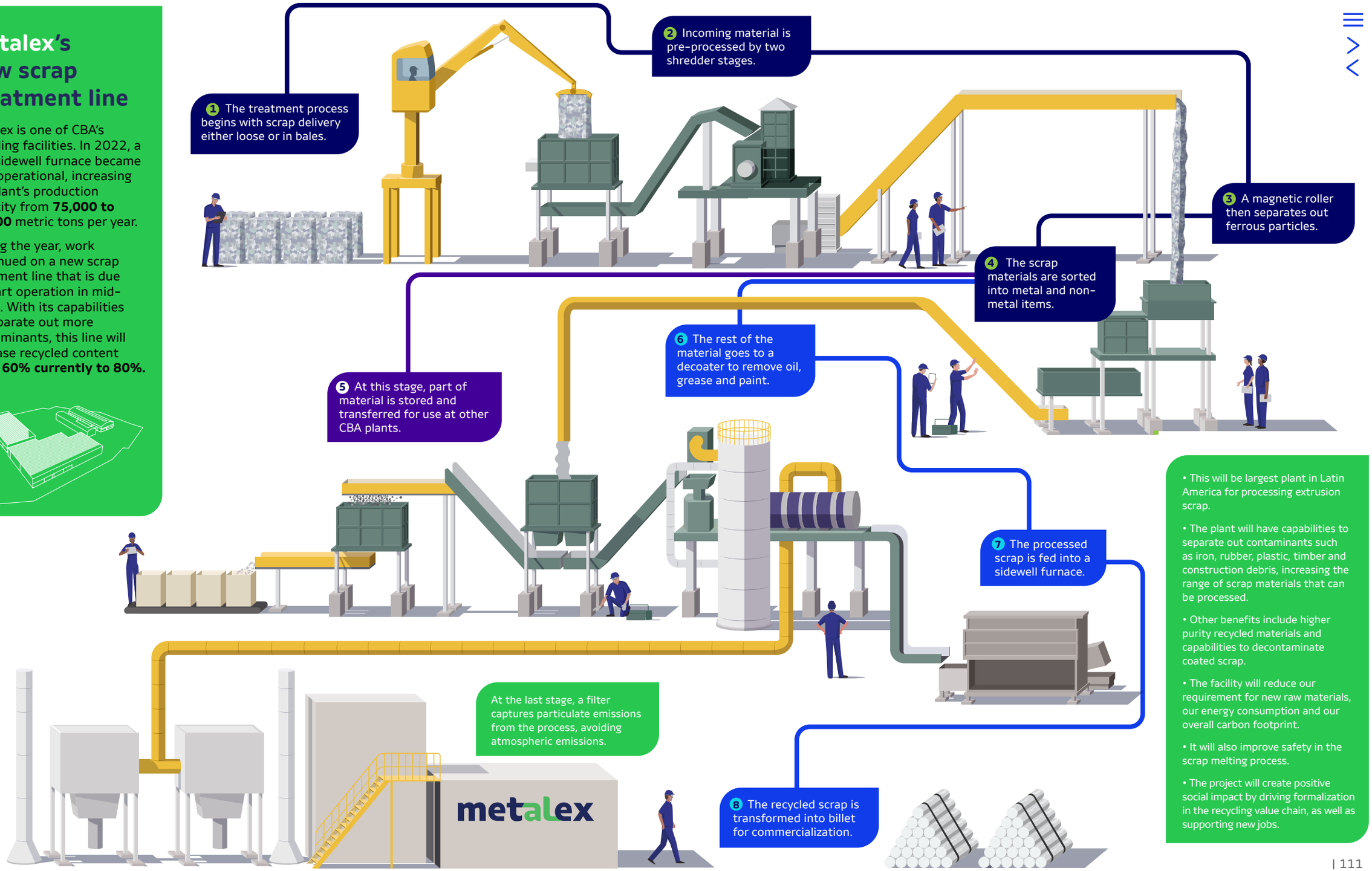
Talita Antunes Jacob, Business Partner, and Nanci Angelica Mesquita de Carvalho, Administrative Coordinator at Metalex (SP)

Metalex's new scrap treatment line

Metalex is one of CBA's recycling facilities. In 2022, a new sidewell furnace became fully operational, increasing the plant's production capacity from **75,000 to 90,000** metric tons per year.

During the year, work continued on a new scrap treatment line that is due to start operation in mid-2023. With its capabilities to separate out more contaminants, this line will increase recycled content **from 60% currently to 80%.**





- This will be largest plant in Latin America for processing extrusion scrap.
- The plant will have capabilities to separate out contaminants such as iron, rubber, plastic, timber and construction debris, increasing the range of scrap materials that can be processed.
- Other benefits include higher purity recycled materials and capabilities to decontaminate coated scrap.
- The facility will reduce our requirement for new raw materials, our energy consumption and our overall carbon footprint.
- It will also improve safety in the scrap melting process.
- The project will create positive social impact by driving formalization in the recycling value chain, as well as supporting new jobs.

PROGRESS ON OUR ReAI PROJECT

GRI 3-3 (Innovation & Technology and Resilience)

At the heart of this project is a breakthrough technology for recycling multilayer cartons and flexible packaging, developed and now patented by CBA. Recycling these composite materials into new foil was previously economically prohibitive. Instead, multilayered packaging waste was simply repurposed as an alternative material.

With our groundbreaking technology, CBA is able to effectively separate and recycle the aluminum and plastic components to very high levels of purity. The recycled materials can be used to produce new packaging, bringing the recycling loop full circle. This will create an entirely new recycling value chain, spearheaded by CBA.

In 2022, ReAI continued to develop partnerships with raw materials suppliers, customers and the polymers supply chain. Our recycled polymers underwent further testing to certify quality and applications. In previous testing, the material had already been proven for applications such as secondary packaging. The recovered aluminum will return to the market in the form of new packaging foil. During the year, work also continued on the social dimension of the initiative, including communication with cooperatives.

The new separation plant will start operation in the second half of 2023, increasing recycling rates while reducing waste and emissions and supporting Brazil's National Waste Management Program.

SCRAP SOURCING

CBA collects a variety of aluminum scrap materials from different sources: customers, our own production processes, the broader market, imports and partnerships.

Click here

to learn about the ReAI process here and here.

One example is our recent partnership with Brazilian steel producer Gerdau, expanding our available sources of scrap material in 2022. Gerdau runs several ferrous scrap depots across Brazil where incoming scrap is frequently mixed with aluminum. This scrap is now sold to CBA.

In another initiative, we plan to develop our own network of recycling centers in 2023. These centers will purchase, receive, sort and process scrap materials delivered by our plants in Alumínio, Araçariguama and Nova Odessa (SP), and Itapissuma (PE).

"Sustainability is no longer just a part of our business strategy; it is the core of our strategy. And CBA has been a valuable partner in these efforts, helping us to deliver on our purpose to the best of our potential. Brazil's recycling sector is still faced with a number of challenges in terms of increasing waste segregation and overall environmental awareness. But we are very excited about the way ReAI technology can boost our recycling rates, creating added value from post-consumer materials while also cascading prosperity along the value chain."

Marco Dorna, CEO, Tetra Pak Brazil

We're very excited about our aluminum scrap recycling program at CBA. As part of this program, we've developed a technology-enabled roadmap to sustainably source post-consumer scrap for our low-carbon aluminum. Advancing the circular economy will also leave a social legacy of income opportunities for waste pickers, cooperatives and local communities."

José Cilon, Commercial Manager, CBA Metals Division

THE SOCIAL VALUE OF RECYCLING

No recycling strategy is complete without addressing its social dimension. One of the major barriers to expanding this market in Brazil is the informal supply chain.

CBA hopes to spearhead efforts to progressively formalize the scrap recycling value chain in Brazil.

Other recycling initiatives

- **BLEND:** This project has helped to boost consumption of different types of scrap by increasing plant flexibility, thus maximizing overall scrap use. In 2022, CBA consumed 100% of the scrap delivered to our Casthouses.
- **GOLF:** this project was launched in 2021 to optimize Casthouse metal streams at the Alumínio Plant (SP). GOLF leverages artificial intelligence for decision support to improve value chain management and maximize scrap consumption by blending slow-moving scrap inventories with metal from the Smelters, as well as optimizing scrap consumption in the process. The system minimizes human intervention in blending decisions, thereby optimizing scrap consumption, improving aluminum sourcing logistics, and generating savings on natural gas and master alloys.

Metalex, Araçariguama (SP)

Biodiversity

GRI 3-3 (Biodiversity and Ecosystem Services)

CBA has several policies and standards in place on protecting biodiversity and eco-system services. These include our Integrated Management System Policy, Biodiversity Standard, Code of Conduct, and Biodiversity Action Plans at most sites, which our corporate department follows up on monthly.

We also have a Risk, Aspect and Impact Matrix that identifies impacts on biodiversity, their level of criticality and mitigation measures.

In addition, our 2030 ESG Strategy includes a dedicated program on biodiversity and the following related targets:

- Create/expand 1 hectare of ecological corridors for every 10 hectares of mined and reclaimed land
- 10% of key suppliers and customers co-investing in forest and biodiversity programs

In support of these targets, we actively engage in forest conservation in the areas where we operate, and work to minimize environmental impacts from our operations through rehabilitation, reforestation and community awareness initiatives.

Our Itapissuma facility in northeastern Brazil is nested within a protected area (Santa Cruz), and our mine operations each have their own Private Natural Heritage Reserve (PNHR).

CBA also owns the Legado Verdes do Cerrado ("Cerrado Green Legacy") and is a co-founder of Legado das Águas ("Water Legacy"), two private reserves that combine conservation with profitable business activities.

Click here

and learn more about biodiversity stewardship at CBA.

Habitats protected or restored (in km²)

GRI 304-3

	2020	2021	2022
Total areas protected	360.5	364.3	679.0
Total areas restored	0.5	0	5.7

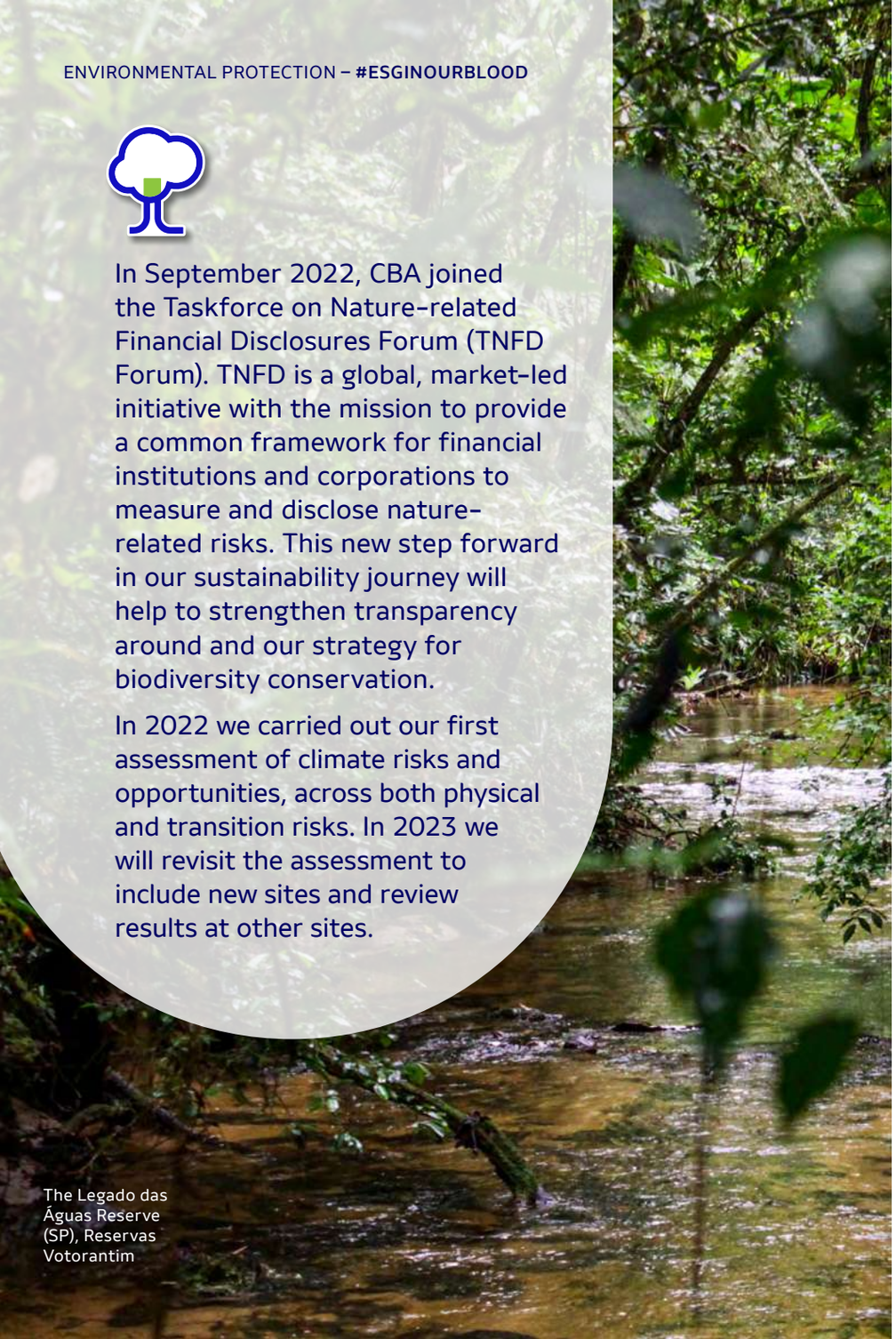
Note 1: This disclosure is inclusive of Alux, Alumínio, our mines, the Energy business, and the Legado das Águas and Legado Verdes do Cerrado nature reserves.

Note 2: Of the three rehabilitated sites, one had restoration measures approved by independent spe-cialists or in accordance with external parameters/protocols, and one is in the process of approval.

The Legado Verdes do Cerrado reserve, a CBA-sponsored protected area in the state of Goiás

In September 2022, CBA joined the Taskforce on Nature-related Financial Disclosures Forum (TNFD Forum). TNFD is a global, market-led initiative with the mission to provide a common framework for financial institutions and corporations to measure and disclose nature-related risks. This new step forward in our sustainability journey will help to strengthen transparency around and our strategy for biodiversity conservation.

In 2022 we carried out our first assessment of climate risks and opportunities, across both physical and transition risks. In 2023 we will revisit the assessment to include new sites and review results at other sites.



The Legado das Águas Reserve (SP), Reservas Votorantim

REFLORA

GRI 3-3 (Climate strategy), 3-3 (Biodiversity and ecosystem services)

In 2022 we launched a program, called Reflora, to reforest disturbed land in legal reserves or protected areas on smallholder properties. The project provides saplings, training and planting support to help smallholders reforest their land.

The CBA Reflora Program is being run in partnership with the Votorantim Institute—which assists in managing, prospecting for and providing capacity building to landowners—and Reservas Votorantim, which supplies native seedlings for reforestation as well as providing strategic training and methodological support, drawing on its expertise in reforestation offsets in Brazil.

The first phase of the project was a pilot on 17 small and medium-sized farms that had registered in 2021. In October 2022, we launched an invitation for other farms to register for the program, expanding the its scope to an additional 30 municipalities in Brazil's Southeast, Midwest and South.

Click here

to learn more about Reflora.

In the medium to long term, the reforested areas will provide ecosystem services such as climate regulation, higher spring flow, local biodiversity and carbon sequestration.

The Reflora program supports the goal under our 2030 ESG Strategy to develop the communities where we operate and positively influence the entire aluminum value chain. It also aligns with the climate change lever, as carbon credits generated by the program can potentially be used to offset our emissions.

R$ 9.3 million
in total estimated program investment from 2021 to 2026.

instituto VOTORANTIM

reservas VOTORANTIM

LEGADO DAS ÁGUAS RESERVA VOTORANTIM

LEGADO VERDES DO CERRADO RESERVA VOTORANTIM

Reflora program to date:

21,150
seedlings planted

311
hectares
of new properties registered in 2022

12.7
hectares
restored in Zona da Mata Mineira in 2022, an area the size of 12 soccer pitches

32
cities

The Reflora program will avoid 50,000 to 80,000 tCO_2e in emissions over a period of
20 years

Click here
and learn more about Reflora's first planting run.

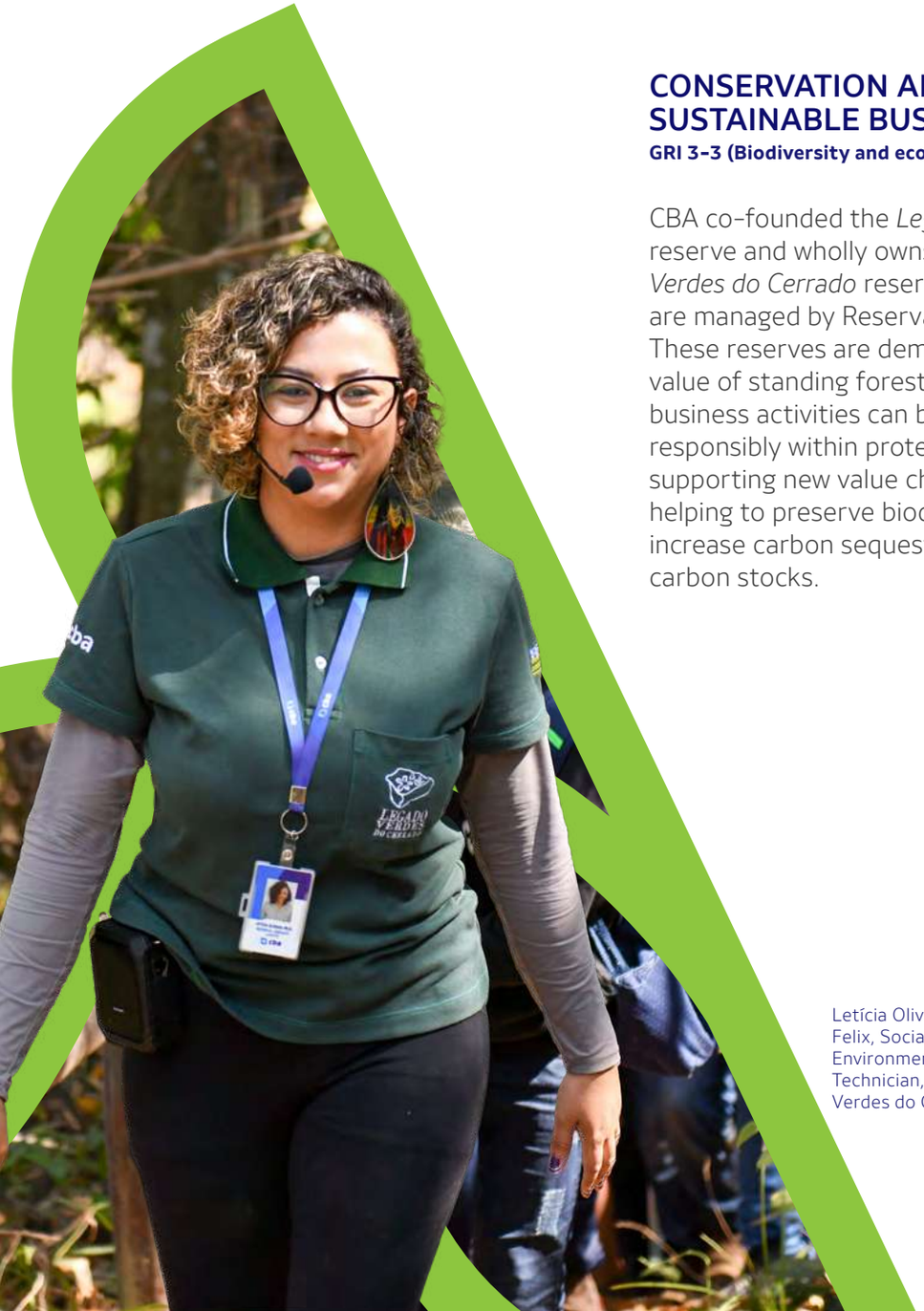
Municipalities covered by Reflora

Goiás
- Barro Alto
- Caçu
- Itarumã
- Niquelândia

Paraná
- Jacarezinho
- Ribeirão Claro

Minas Gerais
- Cataguases
- Descoberto
- Itamarati de Minas
- Leopoldina
- Miraí, Muriaé
- Rosário da Limeira
- São João Nepomuceno
- São Sebastião da Vargem Alegre

São Paulo
- Alumínio
- Araçariguama
- Avaré
- Canitar
- Chavantes
- Ibiúna
- Juquiá
- Juquitiba
- Mairinque
- Manduri
- Miracatu
- Ourinhos
- Piedade
- Piraju
- Sarutaiá
- Tapiraí
- Votorantim



Letícia Oliveira Felix, Social and Environmental Technician, Legado Verdes do Cerrado (GO)

CONSERVATION AND SUSTAINABLE BUSINESS

GRI 3-3 (Biodiversity and ecosystem services)

CBA co-founded the *Legado das Águas* reserve and wholly owns the *Legado Verdes do Cerrado* reserve, both of which are managed by Reservas Votorantim. These reserves are demonstrating the value of standing forests, proving that business activities can be carried out responsibly within protected areas, supporting new value chains while helping to preserve biodiversity and increase carbon sequestration and carbon stocks.

Legado Verdes do Cerrado

Legado Verdes do Cerrado is a 32,000 hectare reserve in Niquelândia (GO), with 80% of its area consisting of either native vegetation or land used for new-economy activities, such as plant production and forest restoration, as well as hosting scientific research projects and environmental education initiatives; the remaining 20% is used for traditional economic activities (agriculture), but employing farming practices that are symbiotic with the surrounding nature.

In 2022 the reserve continued to play an important role in supporting biodiversity conservation:

- **Research:** in 2022 the reserve completed the first cycle of its partnership with the Goiás Research Funding Foundation (FAPEG). For three years, more than 100 researchers were involved in a research project on the reserve that identified 16 new plant species and monitored the quality of watercourses in the area. Sustainable farming techniques were also introduced that integrate agriculture with the surrounding forests, including agroforestry and Integrated Crop-Livestock-Forest Systems (ICLFS). These systems can be replicated by other smallholders to improve their income while also preserving the environment.
- **Visitor experiences:** during the year the reserve was opened to the public on three occasions on a trial basis, as part of our Open Doors program. Visitors from schools and education and research institutions were given free entry, giving the program a social dimension to it. The reserve also scheduled a visiting day for employees' families, and organized a race on the property with 45 participants.
- **Biodiversity Center:** the center introduced a number of improvements during 2022, including new reforestation services for external clients, and improvements to native plant production processes and sales.

Legado Verdes do Cerrado, CBA's conservation area, in State of Goiás

First Cerrado carbon credits in Latin America

GRI 3-3 (Climate strategy), 3-3 (Biodiversity and ecosystem services)

The year 2022 saw several important milestones in our biodiversity efforts. CBA and Reservas Votorantim issued the very first carbon credits linked to preserved Cerrado forests. This is the culmination of extensive work done at the *Legado Verdes do Cerrado* reserve, which has now been integrated into the REDD+ Cerrado Program.

The program covers 11,500 hectares of land yielding an average of 50,000 carbon credits per year. The first issuance generated 316,000 carbon credits for the period 2017 to 2021, and an auction has been organized to invite bids for the first batch.

More than two years of work went into adapting the methodology—originally designed for the Amazon—to the Cerrado, an ecoregion of tropical savanna, adding a new biome to the REDD+ (Reducing Emissions from Deforestation and Forest Degradation) framework. The *Legado Verdes do Cerrado* credits are audited and have been registered with the Verra registry. They are also certified to the Social Carbon standard, attesting that the reserve's nature conservation activities provide adjacent social benefits.

The proceeds from the sale of these credits will be used toward expanding initiatives including research, biodiversity conservation, training, forest fire response, and new-economy incentive programs.

Click here and learn more.

The Legado das Águas Reserve (SP), Reservas Votorantim

Legado das Águas

Legado das Águas is the largest private Atlantic Forest reserve in Brazil, covering an area of 31,000 hectares in the municipalities of Juquiá, Miracatu and Tapiraí, in Brazil's southeastern state of São Paulo. In addition to serving as a natural barrier around water resources, the reserve harbors plant species at an advanced stage of conservation, and provides a host of other social, environmental and economic benefits sustainably.

Some of the positive impacts from the reserve include: local hiring and sourcing; business opportunities provided by forest conservation; scientific research; and knowledge shared through education materials or training that support community development and social and environmental initiatives tailored for local needs across education, culture, sports, health, the environment, public management support, and the economy.

In 2022 the reserve was again fully operational after two years shut down due to the Covid-19 pandemic. Some of the key programs on the reserve are highlighted below:

- **Payment for Ecosystem Services (PES) from the Atlantic Forest:** Reservas Votorantim, in a partnership with ECCON, has developed a new methodology for implementing payment for ecosystem services schemes, including carbon credit schemes, linked to the Atlantic Forest. The methodology, dubbed PSA-Carbonflor, outlines strategies to link conservation, PES and voluntary carbon markets together in support of conservation efforts in Atlantic Forest remnants—which represent only 12.4% of the biome's original forest cover. Reservas Votorantim presented the new methodology during the UN Biodiversity Conference (COP 15) in Montreal, Canada.

- **Environmental offsets:** Brazil's Forest Code allows farms that fail to meet the minimum native forest cover requirements to offset the deficit against forests in other locations, such as *Legado das Águas*. In 2022, demand for forest offsets grew considerably, making this a viable business model that is high in demand.

- **Tourism:** as the tourism market rebounded post-pandemic, so did the number of visitors to Legado das Águas for ecotourism. This included a growing number of birdwatchers on the reserve, many coming from abroad, confirming the region's environmental significance. Additionally, there has been a rise in demand to host corporate events on the reserve. In 2022, companies in different industries chose the location as a venue immersed in nature yet with complete infrastructure.

- **Biodiversity Center:** during the year, the *Legado das Águas* Biodiversity Center carried out several reforestation programs, many commissioned by companies looking to support environmental conservation by rehabilitating disturbed land. Throughout the year, the Center rehabilitated a total of 200 hectares, demonstrating the huge potential of this initiative. Additionally, the Biodiversity Center saw an increase in sales of plants grown on the reserve for landscaping, especially to São Paulo, indicating a growing interest in creating city spaces that are more integrated with nature.

- **Hackathon:** Reservas Votorantim was a master sponsor of *Florestas Inteligentes* ("Smart Forests"), a program that combines sustainability with technology to help riverine communities in the Amazon through projects created and led by university students. In addition to assisting in the selection process and as a member of the judge panel, CBA opened the *Legado das Águas* reserve to university students from Sorocaba (SP), Belo Horizonte (MG) and Belém (PA) so they could learn firsthand about the reserve's initiatives and draw inspiration for their projects in Pará.

"This year we made significant progress in our efforts to preserve standing forests. We're immensely proud of the pioneering role we played in issuing the first Cerrado-linked carbon credits in Latin America, and in developing a Payment for Ecosystem Services scheme, including carbon credits, linked to the Atlantic Forest."

David Canassa, Reservas Votorantim VP

SUSTAINABLE MINING

GRI 3-3 (Biodiversity and ecosystem services)

CBA has a track record of 80 years of sustainable bauxite mining in Poços de Caldas and Zona da Mata, two regions in Brazil's southeastern state of Minas Gerais. As part of our responsible mining approach, CBA has developed several innovative partnerships, such as our 20-year Environmental Education Program, and our 15-year partnership with the Federal University in Viçosa (UFV) for research and development of rehabilitation, forest restoration and water conservation methods.

CBA's bauxite mines differ from other mining operations in that they are localized, cause minimal land disturbance, and are developed incrementally, one small area at a time. As the following mine face is mined, the previous one is reclaimed concurrently, allowing agricultural or ecosystem land uses to be promptly restored. As noted by the State Environmental Foundation (FEAM) in its book, "Fundamentals on Sustainable Development", **"the fact that mined land can be reclaimed to its original land use cancels out the negative social and economic impacts from the operation, allowing mining activities to run without interfering with local agriculture."**

Project team, UFV (Federal University in Viçosa)

CBA reclaims disturbed land and returns it to farmers in the same or better condition, fully integrated with the surrounding landscape through reforestation.

The methods and technologies used in all steps of the process have improved significantly since 2008, as a result of three lines of research with UFV: Environmental Rehabilitation (Soil), Forest Restoration (Forests) and Water Stewardship (Forest Hydrology).

Below are some of the highlights from 2022:

– Hydrological studies: One of our research projects in collaboration with UFV last year was a hydrological study in the area hosting our bauxite mines in Miraí (MG), helping to perfect our approach to mine sustainability. The study monitored water infiltration rates into the soil, and the extent to which mined and reclaimed land is more water repellent than undisturbed soil.

Early findings indicate that hydrological processes perform better in reclaimed land compared to undisturbed land. Reclaimed bauxite mines had 112% higher water infiltration rates, which means more water is available for plant development and groundwater recharge.

Reclaimed land had an average water repellency of 1%, compared to 6% in undisturbed land. This demonstrates that reclaimed land performs exceptionally well in absorbing surface runoff.

– Fauna monitoring studies: CBA has gone above and beyond its legal obligations by conducting studies on the avifauna, mastofauna, and herpetofauna in the region. The research has been compiled into a paper submitted to the Rio Preto EPA Board.

These insights will help to improve the protected area's quality and conservation, and thus its score with the State Forestry Institute, which analyzes the environmental quality of protected areas in the state of Minas Gerais. Both factors carry a high weight in the Institute's environmental conservation index.

In addition to providing valuable information for the environmental improvement of the protected area, this initiative is expanding knowledge of the species in the territory, contributing to the environmental conservation of the entire region.

An open space for information sharing

Our Environmental Education Program (PEA) is an initiative through which CBA has continued to promote environmental education in our communities, providing information about our sustainable mining practices and raising awareness about environmental conservation. In 2022, one of the program's key initiatives was to raise awareness among our communities about sustainable mining practices, including topics such as environmental preservation, safety measures, mine rehabilitation, forest restoration, and dam safety management. This initiative was designed to engage a wide range of stakeholders, including students, community members, government agencies, and participants in our social programs.

90,000+ tall saplings planted in CBA reforestation areas in 2022

Tall saplings: a pioneering forest restoration method

CBA has developed a novel reforestation approach that involves planting mature, tall saplings of native Atlantic Forest species to accelerate reforestation and the creation of habitat for wildlife.

The new technique, which is helping to preserve biodiversity in the Zona da Mata region, was developed in collaboration with the Federal University in Viçosa (UFV), with the help of sampling nurseries in and around Dona Eusébia (MG). So far, CBA has used the technique for reforestation around our Itamarati de Minas (MG) mine, creating a large wildlife corridor connecting the Boa Esperança and São Lourenço private natural heritage reserves to other private protected areas. The newly connected forest areas now form the largest continuous expanse of forests in the region.

The new technique was developed to address one of the main challenges of forest restoration—competition between grasses and native saplings. Native saplings suffer from aggressive competition from invasive species such as brachiaria (signalgrass), which normally results in high mortality of planted saplings. To avoid this, taller saplings—averaging 2.5 meters, which is five times taller than the standard 50 cm—are being planted in CBA reforestation areas.

This project has a number of benefits for the communities and sapling nurseries in the region, creating a new market niche. It also provides environmental benefits, by accelerating forest restoration. In addition, the tall saplings act as perches that attract seed-dispersing birds, helping to maintain and increase biodiversity in the area being rehabilitated. For academia, the new approach is supporting the development of technologies with local sampling nurseries, allowing other industries and even government agencies to benefit from the method in their own reforestation programs.

11,572 people have visited our Poços de Caldas mine and **17,181 people** have visited our Zona da Mata mines since 2001

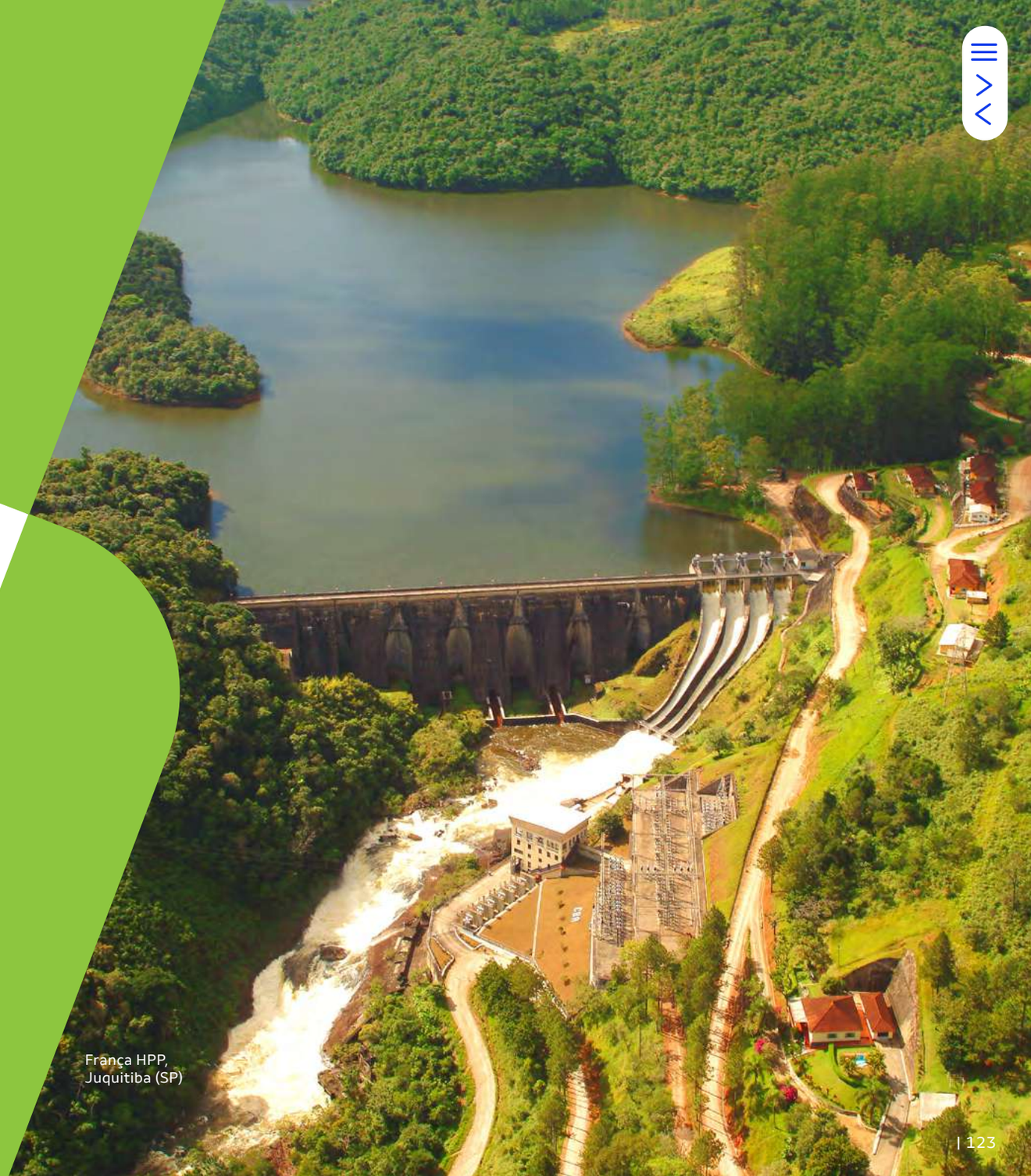
Dams

GRI 3-3 (Risk and emergency management), 3-3 (Dam safety management) SASB EM-MM-540a.2., EM-MM-540a.3

After taking over the operations of our previously separate Energy business in 2022, CBA now directly manages the division's 17 hydroelectric dams (including large and small hydro dams), as well as another six dams co-owned as joint ventures. As a result, in addition to our tailing dams, we now manage a fleet of hydroelectric dams.

CBA has a robust dam safety management system that is consistent with best practices and includes quarterly, monthly and biannually inspections as well as independent audits by specialized firms. Dams are also periodically inspected by the appropriate government agencies and have valid dam safety certificates as required by law. Some of the procedures we have in place for managing dam safety include Periodic Safety Reviews (RPS), Dam Safety Plans (PSB), Emergency Response Plans (PAE)—which are kept systematically up to date and audited by specialized third-party firms—and early warning systems (sirens) and drills. These procedures apply both to our hydroelectric dams and to our mine tailings and bauxite residue dams.

Our dam management system and damn structures have been verified by external reviewers as being sound and low risk. CBA conducts regular internal audits on its dams, and has developed a dam governance manual establishing roles and responsibilities within the company for dam safety.



França HPP,
Juquitiba (SP)

Two significant dam safety initiatives in 2022 were:

- The unification of our Dam Safety department, including hydroelectric dams and tailings dams. As a result, a single corporate department now manages all 23 dams across the company, under a common dam safety standard.

- Internal training on dam safety and Emergency Response Plans, and desktop drills.

The Dam Safety team currently provides this training to departments involved in dam operations: Operation and Maintenance, Sustainability, Health and Safety, Generation Control Centers, and Engineering. We also carry out desktop drills to identify areas for improvement. This helps to increase alignment with good dam safety practices and enhance team preparedness for emergencies.

Our Dam Committee takes leadership decisions and shares information about dam safety in meetings held periodically or whenever required on demand. In parallel, dam safety teams address routine matters, such as structural maintenance, taking readings and assessing safety instruments, ensuring compliance with legal requirements and internal and external audit findings, and supporting the development of dam projects.

HYDROELECTRIC DAMS

CBA's Dam Management Plan outlines rules and procedures for company-managed dams that are consistent with the Brazilian Dam Safety Policy. This policy outlines dam safety standards and requirements to minimize the risk of dam breaches and their consequences for downstream residents.

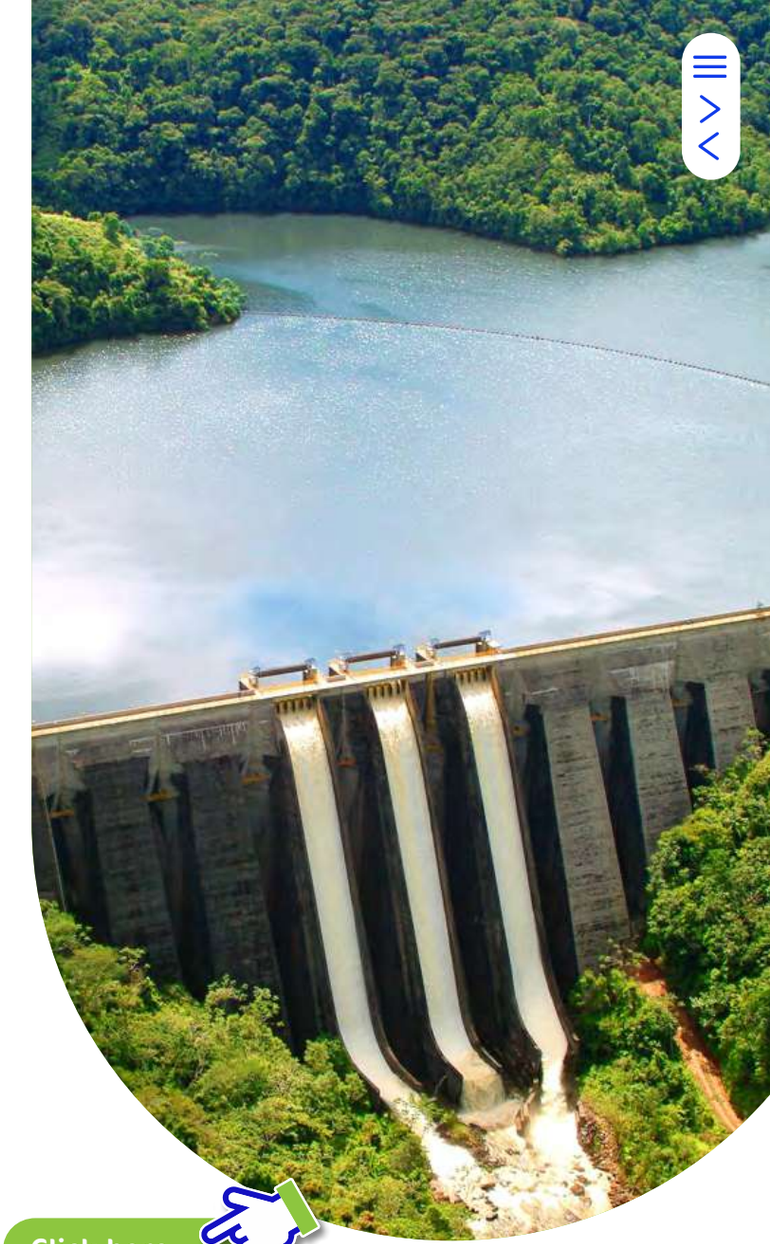
In accordance with Brazilian National Dam Safety Policy (PNSB) rules, in 2022 CBA conducted a survey of residents in Sorocaba and Votorantim, the two municipalities hosting its Itupararanga, Votorantim and Santa Helena hydroelectric dams; and in Ourinhos and Piraju, where our two like-named dams are all located in São Paulo state.

Emergency Preparedness Plans are prepared based on assessments to map out the flood inundation area. During construction, in addition to surveying residents living in the self-rescue zone, escape route signs and sirens are installed that are then used for emergency evacuation drills.

Dam drills

In 2022 we organized dam emergency response drills in the areas downstream from the Ourinhos, Piraju, Salto do Iporanga, Serraria (SP) and Sobragi (MG) dams.

Emergency drills, a requirement under Brazilian dam safety regulations, are carried out in coordination with the Municipal Civil Defense Authority and law enforcement agencies. They are designed to develop a dam safety culture in local communities within the self-rescue zone, and to ensure emergency equipment is in good working order.



Barra HPP, Tapiraí (SP)

Click here and learn more in the Additional Disclosures Supplement.

Palmital Dam, Alumínio (SP)

MINE TAILINGS AND BAUXITE RESIDUE DAMS

CBA currently has six active mine tailings and bauxite residue dams, distributed as follows: two bauxite residue dams in Alumínio (SP) and Niquelândia (GO), two mine tailings dams in Itamarati de Minas (MG) and Miraí (MG), and two water storage dams in Itamarati (MG) and Niquelândia (GO).

Protecting downstream communities is a priority for CBA. We ensure their safety through our Dam Safety Management System (SIGBAR) and by complying with applicable federal and state regulations in maintaining the physical integrity of our tailings storage facilities; coordinating routine dam monitoring (daily, weekly, fortnightly and monthly); and ensuring regulatory agencies are kept informed about safety performance.

Our dam monitoring activities also include regular instrument readings and field inspections, and monthly dam assessments by independent geotechnical firms vis-à-vis the data from monitoring, controls and routine inspections. In 2019 we set up a Dam Safety Committee that meets on a weekly basis.

In 2022 we carried out emergency drills at the Jacuba and Mosquito dams in Niquelândia (GO), the tailings dams in Miraí (MG) and Itamarati de Minas (Mg) and the bauxite residue dam in Alumínio (SP), involving residents in the downstream self-rescue zones. More than 1,300 people participated in the drills. Emergency drills are conducted annually, involving both our own personnel as well as municipal governments, civil defense departments, fire departments, and police departments. In 2022, we resumed in-person drills after two years carrying out virtual drills because of the Covid-19 pandemic. As a result, the number of drill participants increased relative to 2020 and 2021.

Participants in emergency drills by site (CBA-3)

	2020	2021	2022
Alumínio plant	588	364	1,157
Mines	29	25	154
Niquelandia	29	28	57
Total	**646**	**417**	**1,842**

Note 1: For the Niquelândia indicators, only local residents are considered within the number of participants.
Note 2: The Energy Business was accounted from 2022 and therefore no data is available from prior years.

INITIATIVES TOWARD ZERO TAILINGS DISPOSAL

GRI 3-3 (Risk management), 3-3 (Innovation & Technology and resilience)

One of the goals under our 2030 ESG Strategy is to achieve zero tailings disposal in dams by 2030. To achieve this goal, we have been developing solutions to use tailings and bauxite residue as raw materials.

Dry disposal

CBA is developing a filter press project that will introduce a new residue disposal method at the Palmital dam in Alumínio (SP), switching from wet disposal to dry disposal. The filter press facilities, which are scheduled to start operation in 2024, will remove a fraction of the liquid from the bauxite residue before it is disposed of in the storage facility. Currently, the solids ratio in stored bauxite residue is 45%, and we have set a target to reach 75%, a ratio at which the material will behave like a solid. The project is expected to involve an investment of R$ 420 million.

A new technology has been deployed that allows the water within the dam to be reused at the Refinery. **This has helped to reduce the volume of water within the dam by approximately 85.9%**. The dry residue can be repurposed as a raw material in other processes, such as in producing pozzolan cement. In 2022 we partnered with two companies to develop potential applications. In the last quarter of the year, around 6,000 metric tons of bauxite residue were sent to these companies to begin testing at industrial scale.

Mobile beneficiation

At our mines in Zona da Mata Mineira, we are developing a project to eliminate the need for tailings dams by using a small-scale, mobile beneficiation plant that is transported directly to the mine face. The bauxite is separated from the clayey soil, which after being blended with organic materials and other additives, becomes a soil rich in nutrients that is then returned to the mine site. This method of creating fertile soil, known as technosol, was developed in a collaboration with the Federal University of Viçosa (UFV). CBA plans to invest a total of R$ 100 million in this proprietary technology as part of a goal under our 2030 ESG Strategy to achieve zero tailings disposal in dams.

In 2022 we completed the conceptual engineering for the project, and secured environmental licensing for a test at one of our mine faces. In 2023, we will initiate testing at operational scale and we expect to initiate full-scale operation of the first plant in 2024.

Mobile beneficiation, Miraí (MG)

Water resource management

GRI 3-3 (Water and effluent management), 303-1

Water is essential in aluminum production. Recognizing this, and the need to protect this precious resource, CBA has implemented enhanced water management practices and is working toward a target to reduce water withdrawal intensity per metric ton produced (m^3/t Al) at the Alumínio plant by 20%—this plant accounts for 82.1% of our entire water requirement. To mitigate risks and ensure we meet our targets, we have ongoing programs to reduce water consumption, improve efficiency, raise employee awareness, detect leaks, ensure proper maintenance and encourage reuse.

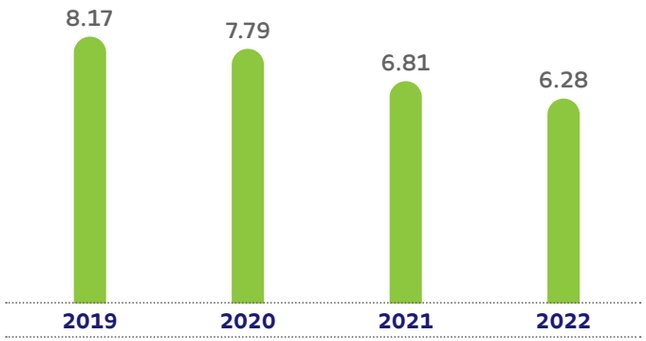
After the merger of the Energy business, in 2022 CBA took over water management activities related to hydroeletric plants from Votorantim Energia.

Our water management policies and practices include the following:

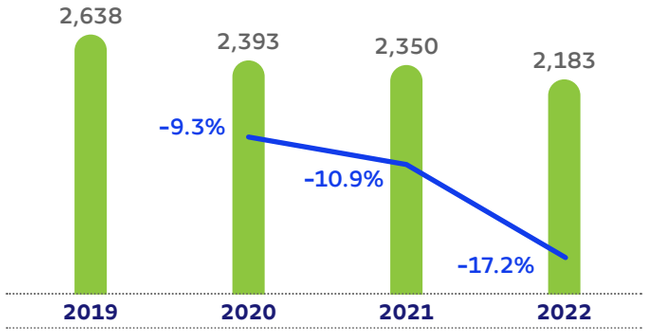
- **Integrated Management Policy:** guidelines on environmentally responsible and sustainable operations and on identifying risks in order to eliminate or mitigate environmental impacts.
- **Water and Effluent Management Policy:** principles and guidelines on sustainable water and effluent management to support environmental protection and biodiversity preservation and enrichment in the areas surrounding our operations.

CBA follows a set of best practices in water management. These include: providing all employees and contractors with training on our Water and Effluent Management Plan, ensuring they understand how to identify and mitigate risks; mapping out risks associated with water and effluents in department-specific environmental aspect and impact worksheets; procedures for building drainage systems at operation sites; and environmental emergency response plans.

Water intensity
(m^3/t of molten aluminum) GRI 303-5



Reduction in water consumption
(megaliter)



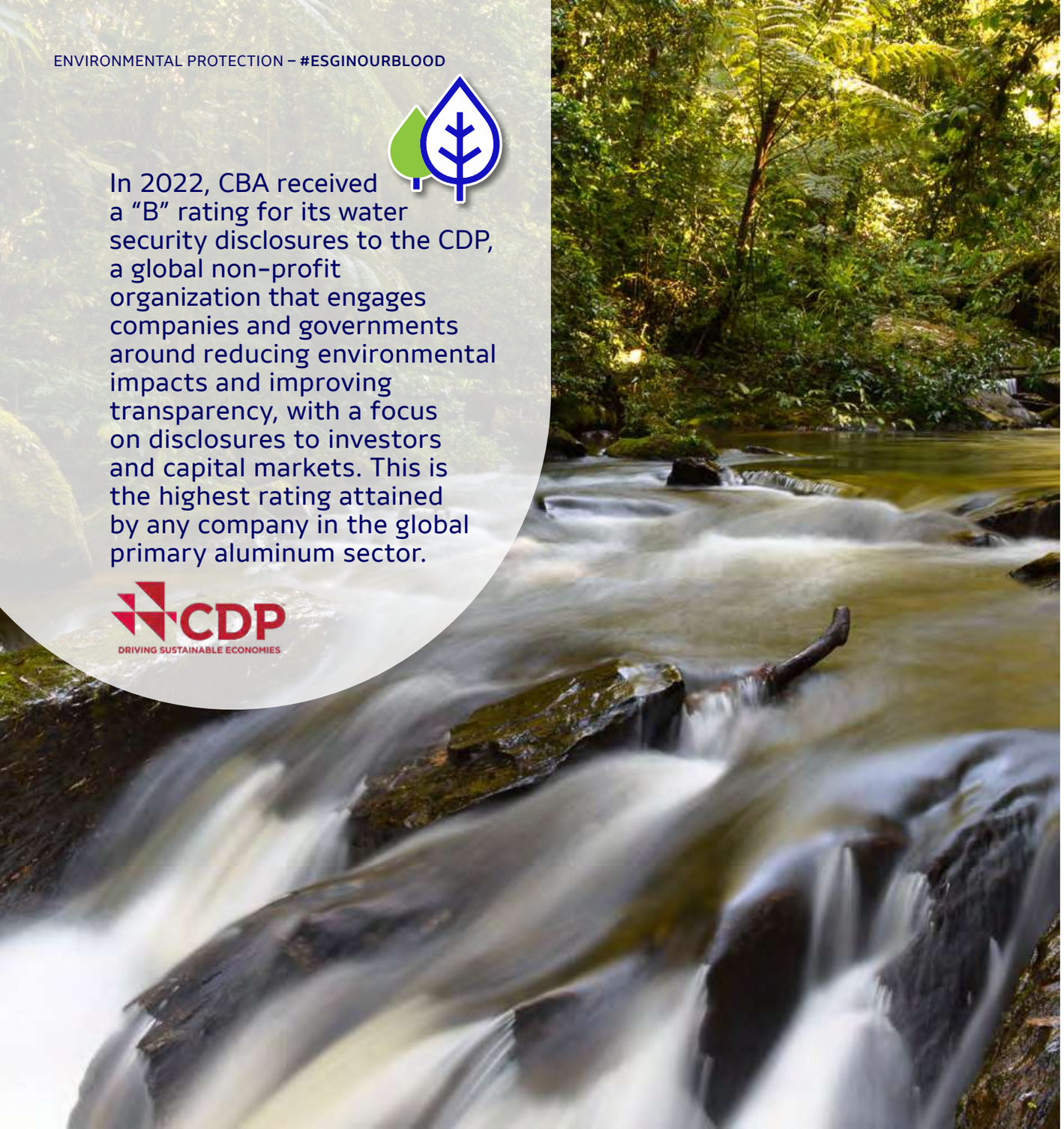
Note: Base year 2019. For this indicator, it is considered freshwater consumption in Alumínio (SP).

Click here

and learn more in the Additional Disclosures Supplement.

In 2022, CBA received a “B” rating for its water security disclosures to the CDP, a global non-profit organization that engages companies and governments around reducing environmental impacts and improving transparency, with a focus on disclosures to investors and capital markets. This is the highest rating attained by any company in the global primary aluminum sector.

CDP
DRIVING SUSTAINABLE ECONOMIES



Legado Verdes do Cerrado, CBA’s conservation area, in State of Goiás

WATER RESILIENCE

Water is the primary input used by our power generation facilities. CBA is committed to preserving the ecosystems and communities hosting the 17 hydroelectric plants we wholly own and the 6 plants we own through joint ventures. Following the merger of the Energy business, in 2022 CBA created a new Working Group on Water Resilience. This group carried out an assessment of business risks and opportunities, dam management and water crisis preparedness, and has since developed a working plan addressing its findings.

Working with River basin Committees in the areas where we operate, we have also discussed matters related to the operation of our hydroelectric plants, such as safety policies, land and water use and conservation, sewage treatment, source rehabilitation, headwater preservation and initiatives to improve water resource management.

Click here
for further information about water management at CBA in the Additional Disclosures Supplement.

Waste management

GRI 3-3 (Waste Management), 306-1, 306-2. SASB EM-MM-150a.10

Compliantly managing waste is a core component of our sustainability strategy. CBA has a dedicated team to capture environmental and financial value from waste streams generated by our aluminum production processes, by either developing new applications, selling or reusing them in the production process, within a circular economy concept.

Any materials that cannot be reutilized or recycled are disposed of through partnerships with specialized firms, which we audit depending on the criticality of the process. All waste disposal is documented via the state regulator's Waste Transportation Manifest (MTR) system. The primary impacts we have identified from waste materials are related to changes in soil and water resource quality, and air and visual pollution. CBA mitigates these risks by using best practices in waste storage, transportation and disposal.

The bulk of the waste materials produced by our facilities are from bauxite washing at our mines, and from bauxite processing into alumina at our Alumínio (SP) refinery. At our mines, CBA is currently developing a mobile beneficiation project and a dry disposal project to mitigate waste generation (read more on page 126).

All CBA facilities, including our hydroelectric plants, follow our Waste Management Plan in monitoring and managing the disposal of waste materials generated in operations. They also prepare inventories of the quantities of waste generated, stored, transported and disposed of in accordance with federal and state environmental regulations.

During the year we conducted additional testing to produce cement from the red mud generated at our Refinery, as one of the objectives under our 2030 ESG Strategy.

Total weight of waste generated, by composition (in metric tons)

GRI 306-3

	2020			2021			2022			
	Aluminum Business	Nickel Business	Total	Aluminum Business	Nickel Business	Total	Aluminum Business	Nickel Business	Energy Business	Total
Hazardous waste (Class I)	6,821.0	2,857.9	**9,678.8**	8,909.0	588.9	**9,497.9**	10,307.9	10.3	23.4	**10,341.7**
Nonhazardous waste (Class II)	1,256,206.0	392.5	**1,256,598.5**	1,443,052.6	165.4	**1,443,218.1**	1,658,828.9	29.3	1,147.4	**1,660,005.6**
Total (hazardous + non-hazardous)	**1,263,027.0**	**3,250.4**	**1,266,277.4**	**1,451,961.6**	**754.3**	**1,452,716.0**	**1,669,136.8**	**39.7**	**1,170.8**	**1,670,347.3**

Note 1: This disclosure includes our Alumínio, Metalex, Itapissuma, Alux, Mining, Niquelândia and Energy operations.
Note 2: Our Niquelândia operation has been curtailed since 2016, which explains the reduction in waste generation.

Waste diverted from disposal (onsite and offsite, in tons)

GRI 306-4

	2020						2021						2022							
	Aluminum Business		Nickel Business		Total CBA		Aluminum Business		Nickel Business		Total CBA		Aluminum Business		Nickel Business		Energy Business		Total CBA	
	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite
Hazardous waste (Class I)	330.6	4,528.9	0.0	2,759.6	**330.6**	**7,288.5**	1,607.3	4,886.0	0.0	574.3	**1,607.3**	**5,460.3**	1,636.0	4,989.6	0.0	0.3	0.0	4.8	**1,636.0**	**4,994.6**
Nonhazardous waste (Class II)	17,196.0	36,817.4	0.0	169.6	**17,196.0**	**36,987.0**	15,550.8	45,977.1	0.0	139.9	**15,550.8**	**46,117.0**	29,625.0	43,495.4	0.0	0.0	0.3	0.0	**29,625.3**	**43,495.4**
Grand total	**61,802.00**						**68,735.30**						**79,751.3**							

Waste directed to disposal (onsite and offsite, in tons)

GRI 306-5

	2020						2021						2022							
	Aluminum Business		Nickel Business		Total CBA		Aluminum Business		Nickel Business		Total CBA		Aluminum Business		Nickel Business		Energy Business		Total CBA	
	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite
Hazardous waste (Class I)	0.0	1,962.1	0.0	1.7	**0.0**	**1,963.8**	0.0	2,412.0	0.0	561.8	**0.0**	**2,973.7**	0.0	3,685.9	0.0	10.1	0.0	25.7	**0.0**	**3,721.6**
Nonhazardous waste (Class II)	1,192,511.3	5,763.8	28.0	200.8	**1,192,539.3**	**5,964.5**	1,367,243.1	29,975.9	15.8	31.0	**1,367,258.9**	**30,006.8**	941,046.1	698,762.1	28.8	0.0	0.0	1,392.0	**941,074.9**	**700,154.1**
Grand total	**1,200,467.6**						**1,400,239.5**						**1,644,950.5**							

Note: Our Niquelândia operation has been curtailed since 2016, which explains the reduction in waste generation.

Poços de Caldas
Mining (MG)

Click here

for further information about waste management at CBA, see the Additional Disclosures Supplement.

Total weight of non-mineral waste, tailings, waste rock and hazardous waste generated (in thousands metric tons)

SASB EM-MM 150a.4, EM-MM 150a.5, EM-MM 150a.6, SASB EM-MM 150a.7.

	2020			2021			2022		
	Alumínio	Mines	Total	Alumínio	Mines	Total	Alumínio	Mines	Total
Tailings generated	110	0	110	106	0	106	106	0	106
Non-mineral waste generated (mud)	457	610	1,067	525	727	1,252	511	941	1,452
Waste rock generated	0	0	0	0	0	0	0	0	0
Total	**567**	**610**	**1,177**	**631**	**727**	**1,358**	**617**	**941**	**1,558**

Josué Camargo Barbosa,
Production Operator,
Alumínio Plant (SP)

Energy management

GRI 3-3 (Renewable energy and energy efficiency), 302-1, 302-2, 302-4 SASB EM-MM-130a.1

CBA regularly monitors energy and fuel consumption in its operations, and it's constantly seeking opportunities to improve resource efficiency. The electricity requirement for our Alumínio plant, for example, is entirely sourced from our own hydroelectric plants. Some mines, such as Poços de Caldas, have solar farms for power supply. Learn more on page 37.

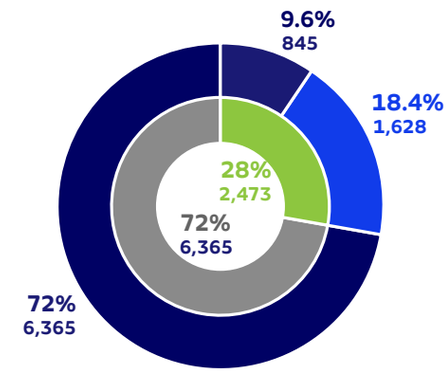
Our ESG Strategy sets the following goals for renewable energy and energy efficiency:

- Source 100% of our plants' power requirement from renewable sources
- Diversify our renewables capacity beyond hydro
- Reduce our energy intensity (electric power and fuels)

In 2022 CBA's operations consumed 32,000 GJ of energy. Of this total, around 72% is electricity, or approximately 6,400 MWh—76% self-generated and 23% sourced from the market. All purchased electricity is certified to ensure that 100% of the electricity we use is traceable to renewable sources.

Throughout the year, the Company made progress in the implementation and execution of projects that helped to conserve energy in its processes. This includes projects to reduce steam losses, improve plant yields and reduce consumption of natural gas, as well as lighting and compressed air system improvements.

TOTAL ENERGY CONSUMPTION
(thousands of MWh)



Energy consumption within the organization, by source (in thousands of GJ)

GRI 302-1

	2020			2021			2022			
	Aluminum Business	Nickel Business	Total	Aluminum Business	Nickel Business	Total	Aluminum Business	Nickel Business	Energy Business	Total
Energy consumption of renewable fuels	2,709	1	2,710	3,193	1	3,194	3,039	1	1	22,913
Energy consumption of non renewable fuels	5,035	7	5,042	5,146	11	5,157	5,844	15	3	5,862
Total electricity consumption	19,409	34	19,443	22,026	30	22,056	22,746	21	145	22,913
Total energy consumption within the organization	27,153	42	27,195	30,365	42	30,407	31,629	38	150	31,816
Percentage of eletricity	71%	81%	71%	73%	71%	73%	72%	56%	97%	72%
Percentage of renewable fuels	10%	2%	10%	11%	2%	11%	10%	3%	0%	10%

Note 1: The inputs are the same as used for calculating CO_2e emissions using the GHG Protocol tool.
Note 2: The conversion factors published in the Brazilian Energy Balance (Balanço Energético Nacional) 2022 were used.
Note 3: Electricity consumption is calculated as total electricity purchased/consumed minus total electricity sold. This explains why the total is negative for the Energy business.
Note 4: Total energy sales amounted to 7,344,000 GJ and were not included in energy consumption..
Note 5: The consumption of self-generated electricity was 17,384,000 GJ and represented 76% of the total electricity consumption.
Note 6: 100% of the electricity we consume is renewable and certified by i-RECs.

Click here and learn more about our energy management practices in the Additional Disclosures Supplement.

Energy intensity (in GJ/ton)

GRI 302–3

	2020			2021			2022		
	Electric power	Fuels	Total	Electric power	Fuels	Total	Electric power	Fuels	Total
Mines (beneficiated bauxite)	0.02	0.12	0.14	0.02	0.12	0.14	0.02	0.04	0.07
Smelters	56.68	0.23	56.91	55.76	0.21	55.97	57.32	0.28	57.6
Alumínio plant	63.68	21.99	85.67	58.51	19.49	78.00	58.82	20.07	78.89
Metalex (molten aluminum)	0.23	4.67	4.90	0.24	4.56	4.80	0.27	5.08	5.35
Alux do Brasil (molten aluminum)	n/d	n/d	n/d	n/d	n/d	n/d	0.35	6.2	6.55
Itapissuma (downstream products)	5.56	14.50	20.06	6.35	16.77	23.12	6.6	17.94	24.54

Note: The mine figures refer to beneficiated bauxite. The smelter figures refer to molten aluminum. The Alumínio figures refer to finished products. Metalex produces billets, and Itapissuma produces rolled products. The Potline and Alumínio plant stages are integrated together but presented separately for greater transparency.

DigitALL

#InnovationHappensHere

Andrea Duarte Sertari, Management Systems Consultant, and Fernando Stenke, Project Engineer, Corporate Office (SP)

- Accelerating our digital transformation
- DigitALL Program
- Other innovation
- IdeAI Program
- Advanced process control
- Supporting ESG-based startups
- Co-creating solutions

Accelerating our digital transformation

GRI 3-3 (Innovation, technology and business resilience)

At CBA, innovation and digital transformation are key enablers of sustainable performance and competitive advantage. Through these levers, we are able to stay future-ready and anticipate new technologies and digital trends to empower our business, talents, and operations. By doing so, we ensure that we can adapt swiftly to the ever-evolving needs of our customers and the marketplace.

In 2017, we embarked on a digital transformation journey in our processes and culture, fostering new mindsets to drive value creation. This is an ongoing process of continuous improvement that extends to all levels of our organization.

In 2022 we continued this journey with the launch of DigitALL, a transformation program to accelerate our digital maturity and help CBA navigate the future and capture value through digital.

CBA leadership summit

Material topic related to this chapter:

- Innovation, technology and business resilience

SDGs related to this chapter:

Global Compact Principles addressed in this chapter:

9. Encourage the development and diffusion of environmentally friendly technologies.

R$ 32 million

invested in industry 4.0 initiatives in the last four years, across artificial intelligence, process control rooms, expanded process and equipment sensorization to collect operational information, and Enterprise Data Management (EDM).

Employees who participate in the DigitALL Program

Major Milestones in Our Digital Transformation Journey

Foundation
2017

- A transformation process focused on business profitability
- RTS project
- New Brand

Sustainment
2018

- Increased demand for **tech-enabled solutions**
- Greater visibility around the need for digital transformation

Transformation
2019

- Positioning on what digital transformation means to the business
- Start of CBA 4.0 Journey
- Digital maturity assessment

Consolidation
2020

- 4.0 Project Pipeline
- New MVC (Minimum Viable Change) **initiatives to drive Digital in our culture**
- Tracked via Competitiveness Management (CM)

Progress in 2021
2021

- **Incorporated ESG** position within our Digital Culture
- Continued progress on MVCs and our Technology Roadmap
- Launch of the Innovation Manifesto

A new way of navigating the future
2022

- **A new way of navigating the future 2022: CBA Digital Transformation Program**
- **Future vision for Digital, with a value-oriented mindset**
- **Capabilities to manage, incubate and experiment with agile transformation initiatives**

DigitALL Program

GRI 3-3 (Innovation, technology and business resilience)

DigitALL is designed to catalyze progress on the priority levers in our strategy. It will accelerate projects that will enable us to continue creating aluminum solutions that transform people's lives. The program is organized into three tiers, from business requirements to execution: inform and direct (high-level narrative and investment commitments); design and experiment (sandbox environment for exploring value theses and confirming hypotheses); and scale and operate (implementation, execution, scale up and value creation initiatives).

Within this concept, CBA is advancing initiatives spanning innovation culture, production line upgrades, artificial intelligence (AI), advanced analytics, robotization and process automation, operational mobility, digital integration with customer value chains, and pilot production and prototyping for agile development.

Aspiration

Make CBA an industry leader for Innovation & Digital

Goals

- Rapidly evolve our innovation and digital transformation
- Capture opportunities to create value
- Evolve into a more modern organization that can attract and retain talents
- Have the capabilities to manage, incubate and experiment with initiatives
- Build the capabilities to sustain the program as a standalone initiative
- Attract new talents to increase diversity and foster new ideas

746 hours

dedicated by our senior leadership team and Innovation & Digital Office members to learning tracks about topics around digital transformation

More than R$ 100 million

(annualized) in benefits identified over the coming years

Valnei Avelino dos Santos, Integrated Systems Consultant, and Matheus Pelicheck, Data & Analytics Manager, Corporate Office (SP)

INNOVATION & DIGITAL OFFICE

One of the stand-out DigitALL initiatives in the early year was the creation of an Innovation & Digital Office to manage our digital transformation process. The team is responsible for managing the overall DigitALL program, including talents, value creation, change management, and the innovation ecosystem/partnerships. The office is staffed by individuals from various departments with diverse backgrounds, supporting non-linear career growth.

Using a streamlined, agile approach, the team is building an ecosystem of innovative ideas, technologies, methodologies, and expertise to generate value and gain competitive advantage in the short, medium, and long term.

The Innovation & Digital Office is a step forward in our digital journey, and is open to anyone at CBA looking to play a role in these initiatives

Catarina Braga, Commercial Analyst, at the Primora's booth at FESQUA 2022

PODs: EXPERIMENTATION AND PROBLEM-SOLVING TEAMS

As part of our DigitALL program, in 2022 we set up several Project Oriented Delivery (POD) teams—multidisciplinary teams devoted to addressing a specific problem within a given timeframe—to test value hypotheses and create value for the business through digital transformation, and to better leverage our collective intelligence.

Participants work to understand the problem being addressed with no hierarchical chain of command; instead, each team member's knowledge and experience is leveraged to achieve desired outcomes. The environment is open to diverse opinions and trial and error, with participants working together on a business plan for each POD, using different agile methodologies. This approach aligns with our non-linear career program at CBA.

- Teams from across the company directly involved in PODs
- More than 200 people were involved in POD projects
- 13,000 hours devoted to exploring value hypotheses
- Department-wide updates on innovation and digital trends

During the year, we ran two waves totaling 18 PODs, covering topics such as energy, supply chain, product pipeline management, and recycling. One of the PODs designed a new process model for our new product line, Primora.

Our senior leadership team meets on a quarterly basis to agree on a set of topics to be explored in the following DigitALL cycle.

Click here

to read more about Primora

A QR Code linking to the CEM frame calculator

Decoding DigitALL

In 2022 we launched Decoding DigitALL, a learning community for discussion and sharing experience and content through posts, livestreams, training, events and hands-on experience, helping to prepare our people to play an active role in our digital transformation and to champion DigitALL's new ways of working.

DIGITALL COMMUNICATION

In 2022 CBA developed new employee communications materials to support our digital journey. A new DigitALL Dictionary, for example, explains commonly used terms such as "backlog," "business case," and "agile."

We also created a monthly DigitALL Newsletter about the Digital Transformation Program, and a dedicated page on Workplace where all employees can interact. In addition, a new *maisCBA* website, called *+Inovação*, provides regular updates on progress and new developments.

PARTNERSHIPS AND ECOSYSTEMS

CBA's engagement in the innovation ecosystem has grown in scale and impact on the business. This includes partnerships with technology suppliers, startups and universities, as well as participation in innovation ecosystems such as technology parks and startup accelerators.

In 2022, our Technology department co-developed several initiatives with startups by leveraging partnerships such as Mining Hub, Up Lab Senai and AMCHAM Labs. In all, 84 startups registered for different challenges, and 13 proofs of concept were developed during the year.

"New technology uptake is a way to harness key innovations emerging around the world, from mining to recycling. This has enabled a wide range of initiatives, from simple things like using virtual reality for training, to more complex solutions, such as our mobile beneficiation project, which is creating a whole new approach to mining in Zona da Mata."

Albino Mercado, Engineering and Technology VP

Other innovation

GRI 3-3 (Innovation, technology and business resilience)

Rose: our Procurement robot

Process robotization has been another of our digital innovation fronts at CBA. One recent example is the development of "no-touch procurement" capabilities. A newly AI system, named "Rose", can automatically process recurring, low value purchases. Our plan is to expand Rose's capabilities to handle higher value transactions, further simplifying day-to-day procurement activities.

First remote maintenance of the roughing Mill at the Alumínio Plant (SP)

ALU: our virtual IT support agent

Another newly developed robotization system is ALU, a WhatsApp-based virtual IT support agent. Employees from all sites can use ALU 24/7 to get answers to frequently asked IT questions.

Digital Twin

CBA recently introduced digital twin technology at our distillation plant in Alumínio (SP). This system creates a digital copy, or "twin", of the entire plant, from processes to machinery, so engineers can test optimizations before they are implemented at the physical plant level.

The digital model of the plant was developed in just three months, without the need for extra funding. Thanks to the digital twin model, the time taken to tune the plant to its design performance was shortened two just three months of operation. If tuning had been done directly at the plant level, it would have instead taken eight months to a whole year. We estimate the project has delivered a return on investment of R$ 1.5 million in one year.

Building on the success of the project, CBA is now developing digital twins for several components of one of our roughing mills—an early-stage rolling mill used to reduce the thickness of aluminum ingots or slabs. The virtual models will help minimize equipment failure, extend equipment life, and mitigate shutdown risks.

The success of the digital twin project earned CBA recognition from *It Mídia* as one of the 100 most innovative companies in IT.

Training powered by virtual reality

CBA invested R$ 95,000 in 2022 in virtual reality technology to optimize maintenance training in the Downstream business at Alumínio (SP) and Itapissuma (PE). Using two virtual reality goggles, maintenance training can be extended to a larger audience while reducing costs. More than 200 technicians will benefit from the new system.

In January 2022, the scheduled annual maintenance of the Alumínio plant's roughing mill was carried out remotely and synchronously using this technology. A technician at the plant performed the maintenance under the direction of an expert based in London. A roughing mill of this size can cost up to US$ 40 million—the control system receiving maintenance was itself worth approximately US$ 2 million. The maintenance of this system demanded investments of R$ 240,000 per year from CBA and, with the use of virtual reality, the cost was reduced to R$ 34,000.

IdeAI Program

IdeAI is a platform where employees can pitch ideas for process improvements and new products, either individually or in groups. Ideas can be submitted in any of the following categories: Environment, Cost Reduction or New Revenue Streams, Operational Excellence, Product Development and, since 2019, Innovation.

In 2022:

1,545
ideas submitted

573
ideas implemented

215
projects in progress

IdeAI Program Trophy

Advanced process control

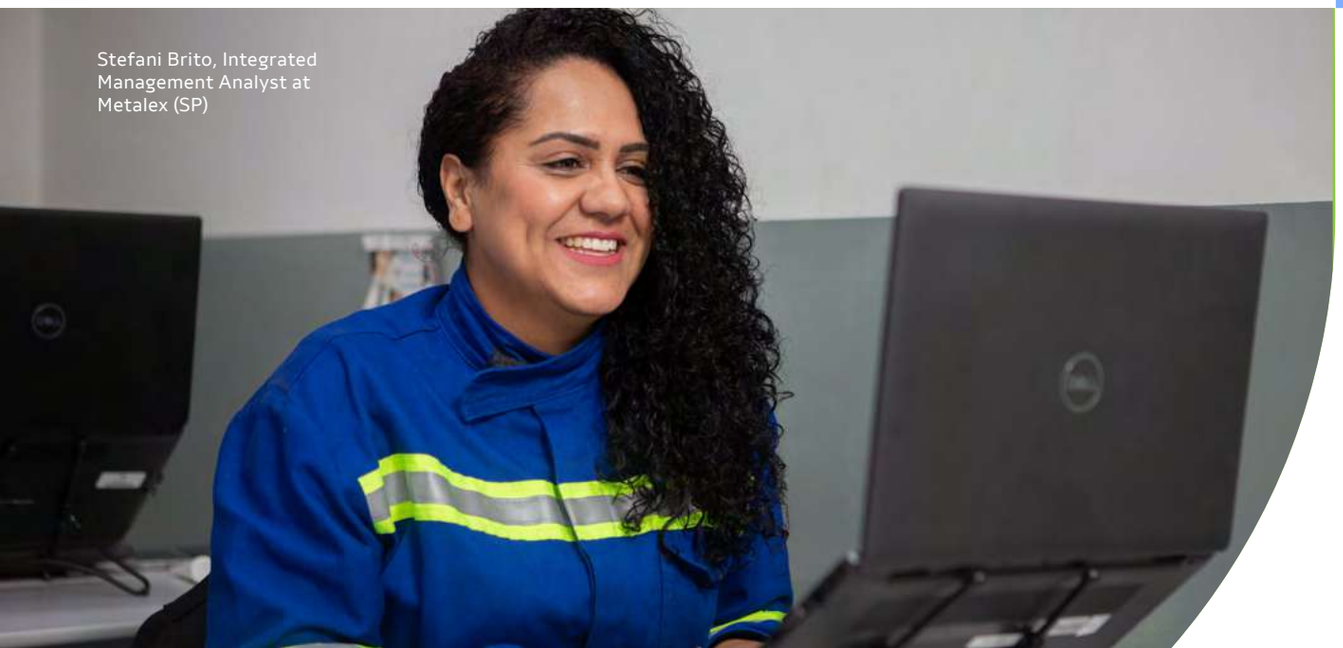
Using machine connectivity (rolling mills, presses, furnaces, utilities) and data analytics, CBA has taken its process control systems to increasingly advanced levels.

Smart data collection supports enhanced real-time monitoring, end-to-end materials traceability, process optimization, and the use of simulators and optimizers powered by artificial intelligence and machine learning algorithms.

Another stand-out feature of the system is its "Transformation Guru" chatbot, a natural-language chat tool for interacting with customers, employees or business partners on messaging apps, websites and other digital platforms. The system can provide either canned or AI-generated responses about topics such as casting, extrusion, sheet, foil, etc.

In 2022, CBA received an *Inovativo* award for innovation in the Industrial and Agribusiness category, recognizing its successful technology initiatives in the year.

Rodrigo Domingos de Oliveira, Quality Supervisor, Miraí (MG)



Stefani Brito, Integrated Management Analyst at Metalex (SP)

Supporting ESG-based startups

CBA is a member of i.V Ventures, a Votorantim Institute fund that supports startups developing breakthrough ESG solutions in the areas of Water & Sanitation, Low Carbon Economy, and Housing.

Startups receive support in the form of funding, shared markets, strategic development, and communication.

Co-creating solutions

GRI 3-3 (Innovation, technology and business resilience)

CBA actively collaborates with customers and partners to co-develop technologies and bring new ideas to life. By putting our talents and expertise to use in addressing customers' unique needs, we have delivered breakthrough solutions to the market.

ALUMINUM FOIL FOR LI-ION BATTERIES

One of our recent projects is a partnership with the Industrial Training Service (SENAI) in Paraná, southern Brazil, to develop locally produced aluminum foil for use in lithium-ion batteries. The foil used in most lithium-ion batteries for applications like smartphones, laptops and electric vehicles is largely imported from overseas.

The project will explore the possibility of developing and producing specialty aluminum foils in Brazil, positioning the country in the global battery market.

The initiative is an Industrial Alliance-category project within SENAI's Innovation Platform, with the costs shared among the participating companies and the platform. CBA will provide more than R$ 1.2 million in funding for the project.

MORE SUSTAINABLE TRUCK BODIES

CBA has supported several projects to develop aluminum solutions for truck bodies. In 2022, we developed a new range of truck decks for Brazil's leading truck body manufacturer, made of aluminum instead of steel to shed weight.

The new deck system can reduce vehicle weight by as much as 400 kg, as well as minimizing maintenance and improving grain discharge speed. Eliminating the use of timber also makes for a more sustainable solution.

Concurrently, CBA is developing an aluminum dump body design in partnership with two truck body manufacturers. The newly engineered design will reduce truck body weight by at least a full ton, thereby minimizing emissions, while also increasing payload capacity. A prototype of the new dump body is currently undergoing testing under real-world conditions.

Solutions & Services Center at Aluminio Plant (SP)

“We’ve been working with CBA since 2016 to replace our fiberglass roofs with aluminum models, as part of our sustainability efforts. Using a co-engineering approach was a key factor in the success of this initiative. The new roof system provides a range of benefits for our new coach models, including 30% weight reduction, which improves fuel savings, and the use of aluminum, which is fully recyclable and offers a far superior finish. The aluminum roof design has been very successful in the market, and we’re very happy with the results.”

Luciano Resner, Chief Operations Officer, Marcopolo

900+ BUSES BUILT WITH NEW ALUMINUM ROOF SYSTEMS

In 2022, an aluminum roof system developed in collaboration with Brazilian bus and coach manufacturer Marcopolo was brought into production, with more than 900 new buses now equipped with the new roof system. Using aluminum in replacement of fiberglass has improved overall finish, strength, and handling as well as fuel savings, and therefore emissions.

Throughout the year, we expanded our service offering to enhance production line productivity and finished product quality. CBA also kicked off a co-engineering project with Marcopolo Rail, a new business unit that designs and builds passenger rail cars, launched in response to growing demand in Brazil in monorail, light rail and other applications.

The Caxias do Sul DC CSS Team during visit to Marcopolo

Financial management

#Transparency

- Summary financials
- Market overview
- Sustainable loans
- CBA as a listed company
- CBA named to all three B3 ESG indexes
- Sale of São Miguel Paulista successfully completed
- Completion of Alux acquisition
- Shareholder and investor relations

Daniella Stamborovski and Dilson Araujo da Silva Júnior, Sustainability Analysts, Corporate Office (SP)

Billet produced at Metalex (SP)

Summary financials

Aluminum sales volume of
474,000 metric tons
(- 2% vs. 2021)

Net revenue of
R$ 8.8 billion
(+ 5% vs. 2021)

Net profit of
R$ 957 million
(+15% vs. 2021)

Adjusted EBITDA of
R$ 1,627 million
(+ 6% vs. 2021)

Adjusted EBITDA margin of
18% (stable vs. 2021)

Material topics related to this chapter:

- Transparency and stakeholder engagement

SDGs related to this chapter:

8 DECENT WORK AND ECONOMIC GROWTH

Market overview

ALUMINUM – MARKET OVERVIEW

The aluminum market was highly volatile in 2022, reflecting changes in demand and supply, macroeconomic conditions, the Russia-Ukraine conflict, and the performance of the Chinese economy.

Aluminum demand continued to be driven by industries such as building and construction, automotive and renewable energy, especially in the first quarter. The building and construction industry, especially in emerging countries (including Brazil, China and India), saw a surge in demand as low interest rates and higher government spending on infrastructure led to increased construction activity. The automotive industry has also been a significant driver of demand, especially in the context of automakers' efforts to enhance fuel efficiency, reduce vehicle weight, and minimize emissions. According to CRU, vehicle production increased by 3.7% YoY in 2022.

The renewable energy sector has been growing year on year and was an additional factor in demand for aluminum, which is extensively used in electric vehicles and for solar power applications.

Undermining growth expectations, the Russian war in Ukraine drove up electricity prices in Europe, and consequently inflation in the bloc. But with consumption rebounding faster than expected in post-pandemic 2022, high inflation rates became more than just a European problem, compelling central governments around the world to raise interest rates.

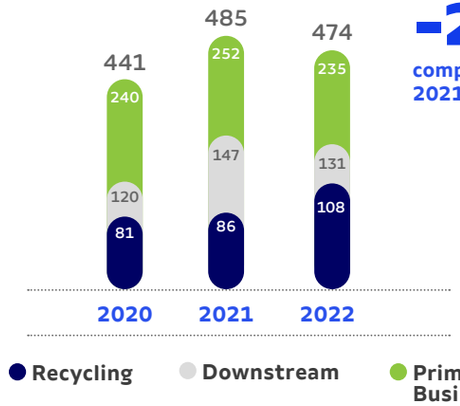
On the supply side, the primary factor affecting the market was the rise in electricity prices, particularly in Europe. In conjunction with a more pessimistic market sentiment in the second half of the year—which caused LME prices to drop—producers' margins were significantly impacted, forcing them to curtail several smelter operations. However, the restart of previously curtailed operations in China, which seemed unlikely earlier in the year, helped to mitigate the impact of curtailment in Europe and the US.

The performance of China's economy was also a key factor in the aluminum market in 2022. As the world's largest producer and consumer of aluminum, China had a significant impact on both supply and demand. Despite the lingering economic challenges posed by the Covid-19 pandemic, China's economy continued to expand throughout the year, driving up aluminum demand and buoying prices.

As a result, the primary aluminum market balance came in at -240kt in 2022, according to CRU—a smaller deficit than the -1.6Mt recorded in 2021. Still, the primary aluminum market has recorded deficits in 8 of the past 10 years. Consequently, total stocks (LME + SHFE + non-official) reached a low of 48 days of consumption, the lowest level since 2007.

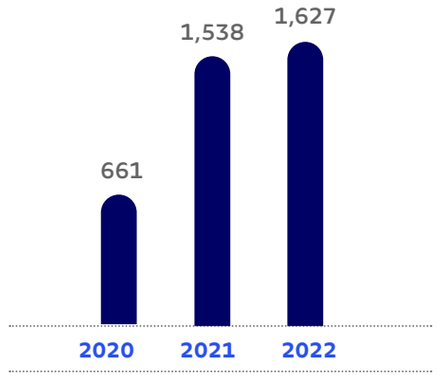
Casthouse area, Alumínio Plant (SP)

Aluminum Sales Volume
(thousand metric tons)



-2%
compared to 2021

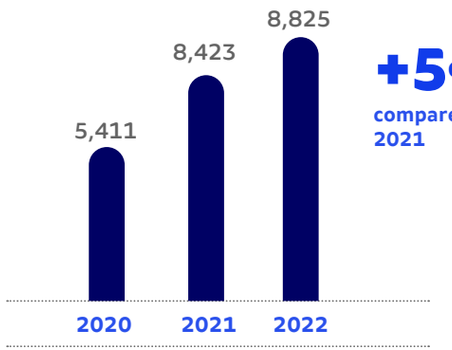
Adjusted EBITDA
(R$ million)



+6%
compared to 2021

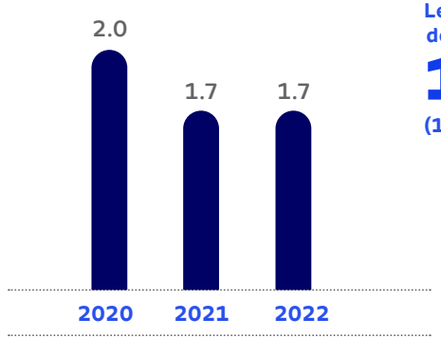
Adjusted EBITDA margin of
18%
(stability on 2021)

Net Revenue
(R$ million)

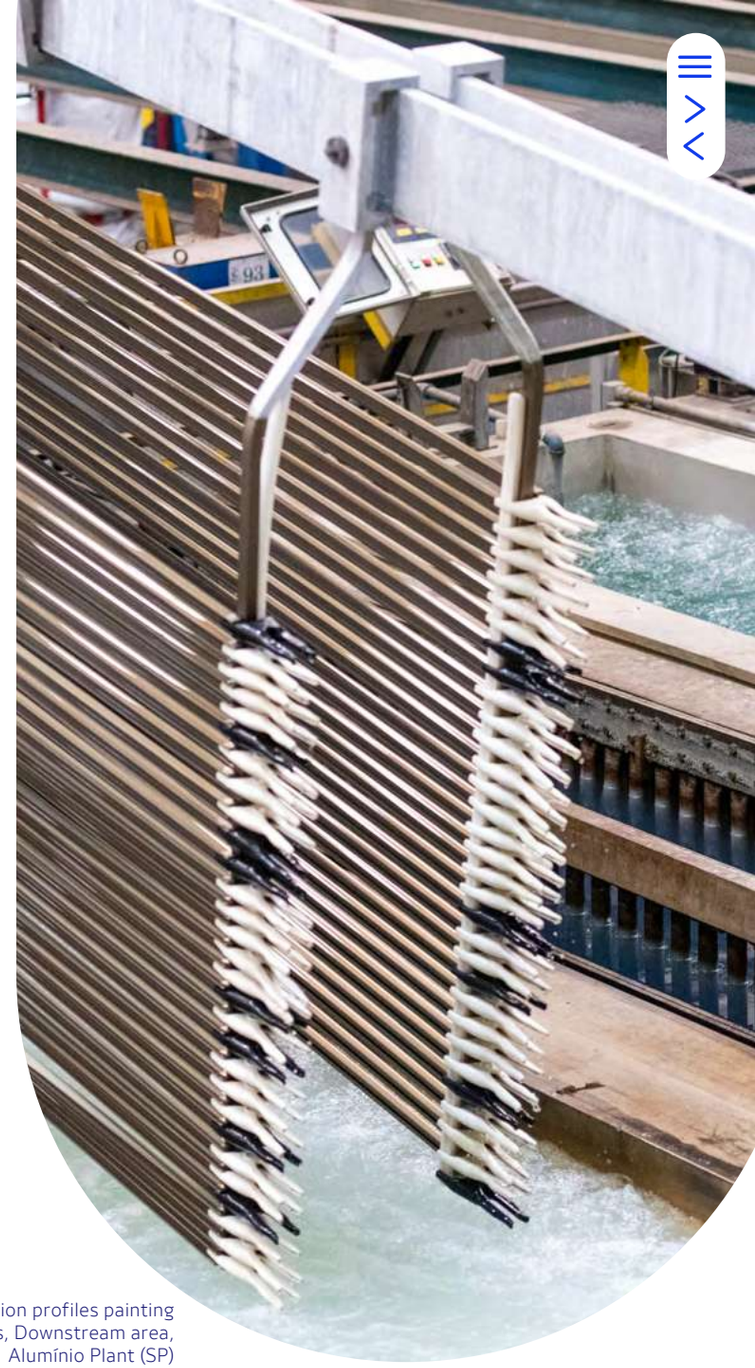


+5%
compared to 2021

Net Debt
(R$ billion)



Leverage decreased to
1.05x
(1.08x in 2021)



Extrusion profiles painting process, Downstream area, Alumínio Plant (SP)

Financial performance

R$ million	2022	2021	2022 vs. 2021
Aluminum Sales Volume (thousand metric tons)	**474**	**485**	**-2%**
Primary	235	252	-7%
Downstream	131	147	-10%
Recycling	108	86	25%
Net revenue	**8,825**	**8,423**	**5%**
Aluminum	**8,557**	**8,018**	**7%**
Primary	3,969	3,749	6%
Downstream	3,140	2,959	6%
Recycling	982	509	93%
Other	1,233	1,984	-38%
Strategic Hedge	(139)	(845)	-84%
Eliminations	(627)	(338)	86%
Energy	**634**	**727**	**-13%**
Energy eliminations[1]	**(388)**	**(348)**	**12%**
Nickel	**21**	**26**	**-21%**
Cost of goods sold	**(7,175)**	**(6,799)**	**6%**
Operating expenses	**(454)**	**(380)**	**19%**
Selling	(49)	(42)	17%
General and administrative	(405)	(338)	-20%
Other operating (revenue) expense	**(49)**	**98**	**-150%**
Depreciation, amortization and depletion	**540**	**496**	**9%**
Other additions and exceptional items	**(61)**	**(300)**	**-81%**
Adjusted EBITDA[2]	**1,627**	**1,538**	**6%**
EBITDA Margin	**18%**	**18%**	**-**

[1] Elimination of electricity sales to the aluminum business, also included in the COGS above.
[2] Adjustments reflect equity income and nonrecurring events in profit and loss, including the marking to market (MtM) of energy futures contracts.

Despite the challenges of a volatile aluminum market in 2022, CBA had one of its best financial years ever, with net revenue of R$ 8.8 billion, net income of R$ 957 million, and adjusted EBITDA of R$ 1.6 billion.

ALUMINUM SALES VOLUME

CBA's total aluminum volume sold was 474,000 tons in 2022, showing a slight decrease of 2% compared to 2021. The cooling of domestic demand, especially in the consumer goods and home improvement sectors, coupled with higher inventory levels in the supply chain, all contributed to the decline.

The primary segment recorded sales of 235,000 tons, a reduction of 7% compared to the previous year. The decline in residential renovations and the weaker performance of the aluminum can market were critical factors that contributed to the lower sales volume. However, it is worth noting that despite the lower volume, the average premium for primary aluminum did rise, and CBA was able to increase its market share in the P1020 ingot and rod market.

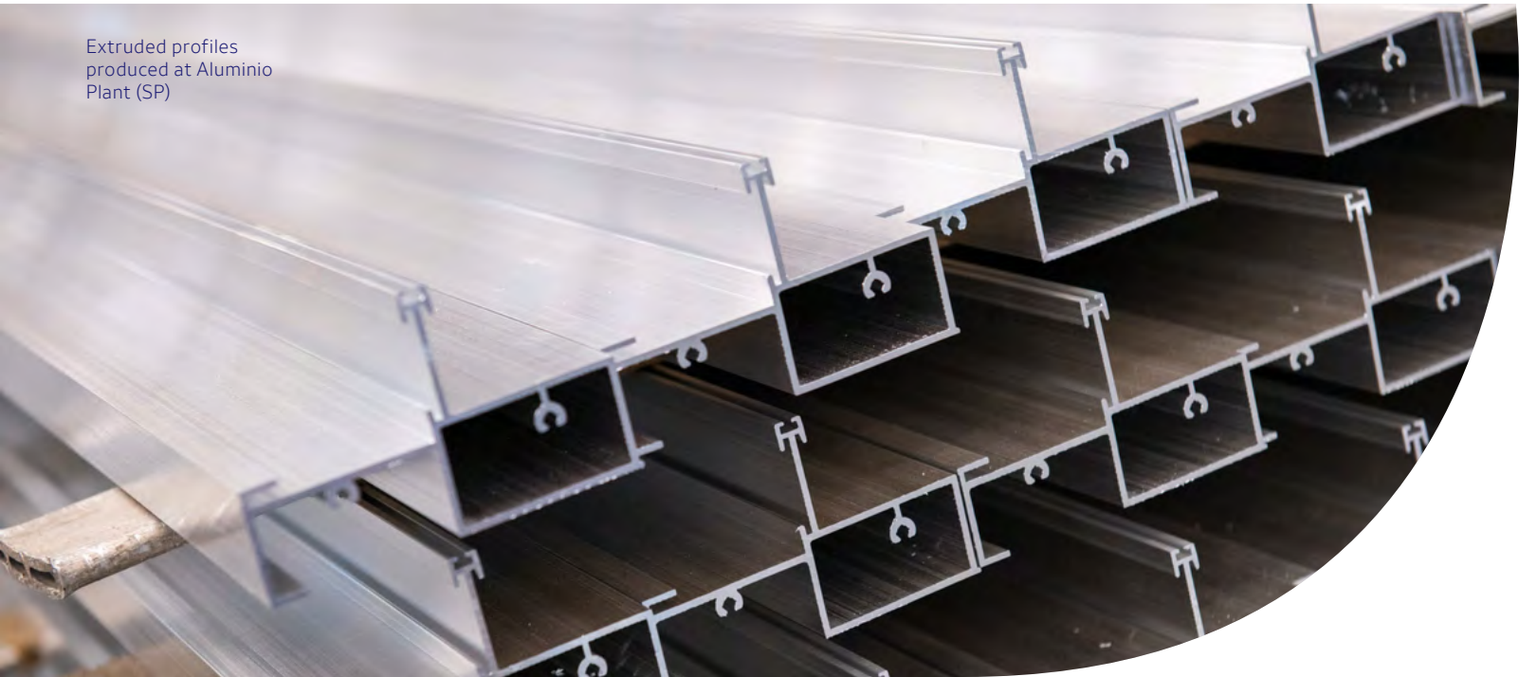
In the downstream segment, the sales volume was 131,000 tons, about 10% lower than in 2021. Sales of sheet and extruded products fell, especially in the consumer goods and construction sectors. Contrastingly, sales of packaging foil increased, led by the core segment flexible packaging. As in primary aluminum, the average premium for downstream products also rose on 2021, benefiting business margins.

Recycling sales grew 25% compared to the previous year, totaling 108,000 tons. In 2022, all Alux do Brasil's volumes were integrated, allowing us to enter a new market, that of secondary alloys. One of the main segments served by Alux do Brasil is the automotive sector, which recorded growth in 2022 after the semiconductor chip crisis eased.

NET REVENUE

CBA's consolidated net revenue was R$ 8.8 billion in 2022, an increase of 5% compared to 2021, due to the R$ 539 million increase in net revenue from aluminum sales, rising from R$ 8.0 billion in 2021 to R$ 8.6 billion in 2022.

The 7% increase in net revenue from aluminum sales in 2022 compared with 2021 was due to the 11% YoY increase in average LME prices (USD 2,707/metric ton in 2022 vs. USD 2,437/metric ton in 2021), and a reduced negative effect from strategic hedging of R$ 139 million in 2022 (vs. R$ 845 million in 2021), with the Company discontinuing strategic hedging in June 2021 and its remaining derivatives contracts expiring by May 2022.



Extruded profiles produced at Aluminio Plant (SP)

COST OF GOODS SOLD

CBA's consolidated cost of goods sold was R$ 7.2 billion in 2022, an increase of 6% on 2021. This growth was driven by a R$ 241 million increase in energy business costs, impacted by the 10% inflation in the average cost of energy contracts.

The aluminum business cost also increased by R$ 170 million in 2022 compared to 2021, due to rising input prices in the industry.

The average production cost of molten aluminum increased by 29% in the compared years, mainly influenced by the higher alumina cost (+37%), especially due to the increase in prices of key inputs for production, such as caustic soda (+82%) and natural gas (+63%), in addition to the increase in anodic paste cost (+60%), due to the increase in the price of coal-tar pitch (+37%) and petroleum coke (+61%).

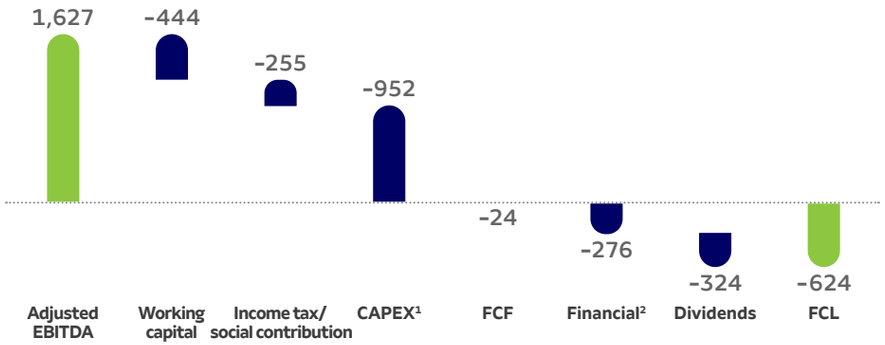
ADJUSTED EBITDA

In 2022 CBA recorded a record consolidated adjusted EBITDA of R$ 1.6 billion and an adjusted EBITDA margin of 18% in the year, an increase of 6% and stability on 2021. The increase is primarily attributed to higher average aluminum prices in the period (+11%), reflecting higher LME aluminum prices, which was sufficient to offset the lower sales volume of primary products, downstream products and other segments.

NET INCOME

The Company achieved historic net income of R$ 957 million in 2022 vs. R$ 838 million in 2021, an increase of 15% mainly due to the improved financial result, partially offset by a decrease in income tax and social contribution of R$ 174 million.

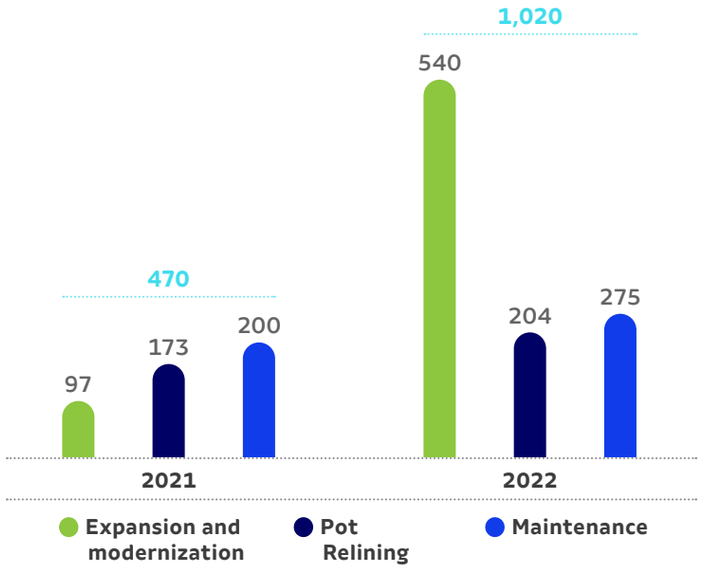
FREE CASH FLOW
R$ million



¹ Accrual basis CAPEX.
² Acquisition, sale of assets and net interest.

In 2022, CBA's Free Cash Flow (FCF) was negative by R$ 624 million.

CAPEX
R$ million



Total CAPEX (cash basis) in 2022 was 2.2x higher than in 2021, with 53% of investments going to modernization and expansion projects under multi-annual plans that are on track to meet the commitments under our IPO. Of the remaining CAPEX, 20% was allocated to smelter upgrades and 27% to maintenance.

Click here

to learn about our financial performance and visit our Investor Relations website.

CBA's financial statements are prepared in accordance with Brazilian Generally Accepted Accounting Principles (BR GAAP)—which include the standards issued by the Brazilian Securities Exchange (CVM) and the Financial Reporting Standards, Guidance and Interpretations issued by the Brazilian Financial Reporting Standards Committee (CPC)—and the International Financial Reporting Standards (IFRS) issued by the International Accounting Standard Board (IASB). We have practices in place for compliance with the Sarbanes-Oxley (SOx) Act, ensuring the effectiveness of internal controls over the financial statements is evaluated to a high standard.

Sustainable loans

INDEBTEDNESS AND LIQUIDITY

The Company has an extended debt profile with a 4 year average tenor and without relevant maturities by 2025. Its cash and cash equivalents position totaled R$ 1.2 billion in December 2022, on the top of a USD 100 million revolving credit facility, which provides an additional source of liquidity and can be drawn at any time during the contract.

In December 2022, CBA's net debt was R$ 1.7 billion and its financial leverage, measured as the ratio of net debt to adjusted last twelve months EBITDA, reduced from 1.08x in December 2021 to 1.05x in December 2022. Despite the cash position reduction on the period, the best operating result in the last twelve months, the reduction in gross debt, mainly due to the positive exchange variation in the period, and the improvement in the mark-to-market of derivative instruments, contributed to the reduction in the financial leverage of CBA.

SUSTAINABILITY-LINKED LOANS

GRI 3-3 (Climate strategy)

One of the financial highlights from the year was a US$ 96.5 million loan secured via bilateral transactions to finance exports. These facilities are classificed as Sustainability-Linked Loans, since they are tied to ESG performance indicators.

Under these loan agreements, CBA set annual targets to reduce greenhouse gas emissions in primary aluminum production, reinforcing its commitment to fight against climate change and guarantee low-carbon aluminum supply for the market.

The ESG indicators specified under these loans were validated by a Second Party Opinion (SPO) from Sustainalytics, and the performance against those indicators will be tracked periodically by independent auditors.

BNDES LOAN FOR SMELTER UPGRADE AND RECYCLING

In December 2022, CBA and Metalex secured loans worth a total of R$ 611 million from the Brazilian Development Bank (BNDES). The proceeds from the loans will be used toward the Pot Room 3 restart, the Smelter technology upgrade at Alumínio (SP) (two projects announced in connection with our IPO), and the recycling expansion at Metalex.

We anticipate that the new pot feed system will help to reduce greenhouse gas emissions at the smelting stage, where aluminum oxide is converted into molten aluminum. The new technology will also improve energy and water savings, plant efficiency and safety. The project will generate estimated energy savings equivalent to the electricity consumption of 30,000 average homes. The recycling project at Metalex, in Araçariguama (SP), will improve emissions performance by progressively increasing the amount of scrap used in producing aluminum.

As the three projects provide environmental benefits, they all qualified for sustainabilty credit lines carrying lower interest rates and maturities of up to 20 years.

CBA as a listed company

GRI 2-1

Companhia Brasileira de Alumínio (CBA) majority owns Alux do Brasil Indústria e Comércio Ltda., CBA Itapissuma Ltda. and Metalex Ltda., and is majority-owned by Votorantim S.A., which holds a 67.9% interest in the company. Our parent company, in turn, is wholly owned by Hejoassu S/A.

In April 2022 CBA conducted a secondary follow-on offering to improve liquidity, selling 47,600,000 shares held by our parent company Votorantim S.A., resulting in a current free float of 32.1%.

The offering was successful in its goal of boosting liquidity and attracting foreign funds.

Ownership structure*

GRI 2-1

Ownership structure	Common shares	%
Controlling shareholders	404,483,333	67.9%
Free float	191,350,000	32.1%
Total	**595,833,333**	**100%**

*Position at December 31, 2022.

CBA's IPO ceremony at B3

CBA named to all three B3 ESG indexes

Just 18 months after going public, and in our first year as a candidate for inclusion in the Brazilian stock exchange (B3) sustainability indexes, CBA was among the companies named to the 2023 Corporate Sustainability Index (ISE B3), ranking 5th. The ISE index brings together companies recognized as top performers for corporate sustainability, and is used as a benchmark for corporate social responsibility and ESG practices.

This underlines CBA's industry-leading position in ESG, supported by a long-term strategy, an company-wide agenda, well-structured programs, and high levels of engagement across the organization CBA will remain a constituent of the ISE index until it is recompiled on December 31.

CBA was also named to the Carbon Efficient Index (ICO2 B3) and IGPTW B3, which brings together the top workplaces as listed by Great Place to Work.

FINEP FUNDING FOR THE ReAl PROJECT AND R&D PIPELINE

In November 2022, CBA secured a R$ 109 million loan from Brazilian research funding agency FINEP to be used towards our ReAl project and broader R&D pipeline.

The ReAl project will enhance the circularity of CBA's aluminum products by increasing recycling rates, as well as helping to reduce CO_2 emissions, as recycling aluminum requires 95% less energy than producing aluminum through conventional processes.

Our R&D pipeline, in turn, is developing solutions to reduce emissions, repurpose waste materials and minimize water consumption. The technologies being tested in these projects range from biotechnology to advanced automation and industry 4.0.

The loan has a maturity of 10 years and carries low interest rates, because of its tangible environmental benefits.

Click here

and read more about ReAl.

Roberto Seno Júnior,
Technology Manager,
ReAl pilot plant

Sale of São Miguel Paulista successfully completed

On July 15, 2022 CBA completed the sale of its nickel refinery in São Miguel Paulista, in São Paulo, to Australian mining company Jervois Global Limited.

Jervois has plans to resume operation of the plant, harnessing synergies with its other operations and creating new employment and income opportunities in the region.

The deal is in line with CBA's strategy of maintaining its focus on its core aluminum business and seeking alternatives for its other nickel assets.

Alux do Brasil, Nova Odessa (SP)

Completion of Alux acquisition

On November 30, 2022, CBA completed the acquisition of the remaining 20% equity interest in Alux do Brasil for R$ 98 million.

This followed our acquisition of 80% of Alux for R$ 110 million in January this year, with approval from Brazil's antitrust regulator, CADE.

The acquisition is aligned with our long-term strategy to expand our aluminum recycling capacity and will deliver on our commitment to consistently reduce our carbon footprint. It will also allow us to enter a new business segment of selling secondary aluminum alloys.

Since listing, our communication with investors has provided a unique opportunity to share insights. They have learned about the aluminum market, while we have received feedback on where to focus and what to prioritize. This interaction has been highly constructive. I would also highlight that our industry leadership in ESG has been a key differentiator in attracting investors. Going forward, our challenge will be to maintain and build on our position as a standard-setter for corporate sustainability."

Luciano Alves, CFO, CBA

Shareholder and investor relations

GRI 3-3 (Management of material topics – Transparency and stakeholder engagement)

Transparency and effective communication are a vital element of our relationship with investors. We communicate with our investors through various channels—conference calls, live webcasts, Non-Deal Roadshows (NDR), visits to our Alumínio plant (SP), and other events—to provide updates on our initiatives, projects and results of operations while actively seeking feedback to ensure our strategic direction is aligned with the expectations of shareholders.

To maintain transparency and accountability towards investors, we strictly adhere to the regulations established by capital-market regulators, such as CVM and B3, and follow best practices in corporate governance. These practices supported our successful listing on Novo Mercado, the Brazilian stock exchange's enhanced governance segment, following our IPO.

In 2022 our investor communications were primarily through the following channels:

* **Investor Relations Website:** shareholders and prospective investors can find a wide range of information about CBA and our capital-market activity on our Investor Relations website.
* **CBA Talks – ESG:** in July, we hosted an event to discuss our ESG strategy and our future initiatives to enhance inclusion, diversity and corporate social responsibility. Click here to see how the event went.
* **CBA Day:** an event held on October 5 to present our strategy and results in 2022 to investors. The event, which investors attended in person and online, featured presentations and discussions with CBA executives and guests about developments at CBA since the IPO, trends in the aluminum industry, recycling, innovation, and digital transformation. More than 180 investors attended our CBA Day event.

Click here

to watch the full event program.

Invest in the Future; Invest in Aluminum

To communicate our recent listing and the advantages of investing in CBA, we launched a campaign under the slogan “Invest in the Future; Invest in Aluminum”, that ran from July to September. In addition to laying out a compelling case for why CBA is a great investment, the campaign materials highlighted how aluminum, an infinitely recyclable material, will play a central role in a sustainable future.

The campaign was featured on CBA’s social media channels (Instagram and LinkedIn), search engines, and a number of financial market websites. Campaign videos were also featured in podcasts and other electronic media, helping to attract traffic to the campaign hotsite and new subscribers to our newsletter. The newsletter is sent on a monthly basis to a mailing list, featuring CBA’s highlights from the month and recent developments in the aluminum industry.

Adriane Torres Vilares, Production Operator, Alumínio Plant (SP)

Future direction

#GetAhead

Son of employee Elenilton Lopes da Rosa, High Voltage Technician at the Alumínio Plant (SP)

Message from the Executive Sustainability Committee

At CBA, the future we envision is already here. Our company has chosen a path of responsible and transparent business growth, seeking to leave a better world for future generations. And we are keen to inspire our business partners to join us on this journey.

We believe that our greatest strength as a business is our ability to create and share value with the world through aluminum, leaving an innovative legacy across the social and environmental dimensions, while following best practices in governance.

Taking care of people is integral to our day-to-day activities, and we have spared no effort in our unrelenting commitment to health and safety. CBA remains committed to creating a diverse and welcoming environment for all employees and partners. We have recently revitalized our cultural pillars to reflect current trends and practices, such as digital transformation, innovation and ESG.

CBA's social engagement strategy spans four pillars: education, public management support, economic development, and protecting child and adolescent rights. Our social initiatives support the Sustainable Development Goals (SDGs) and are developed in collaboration with NGOs, community associations, cooperatives, community leaders, and policymakers.

This is how we deliver more than just economic results. We take care of and value people by establishing communication channels and partnerships with communities, and developing solutions to social challenges, while also developing the business.

In addition, we promote transformations that help to mitigate environmental impact and create benefits for all. CBA's Alennium seal, launched in 2022, represents this commitment to supplying low-carbon aluminum. It was created as a multidisciplinary team effort and is designed to demonstrate to customers, partners, suppliers and investors our commitment to transparency in producing the future's aluminum.

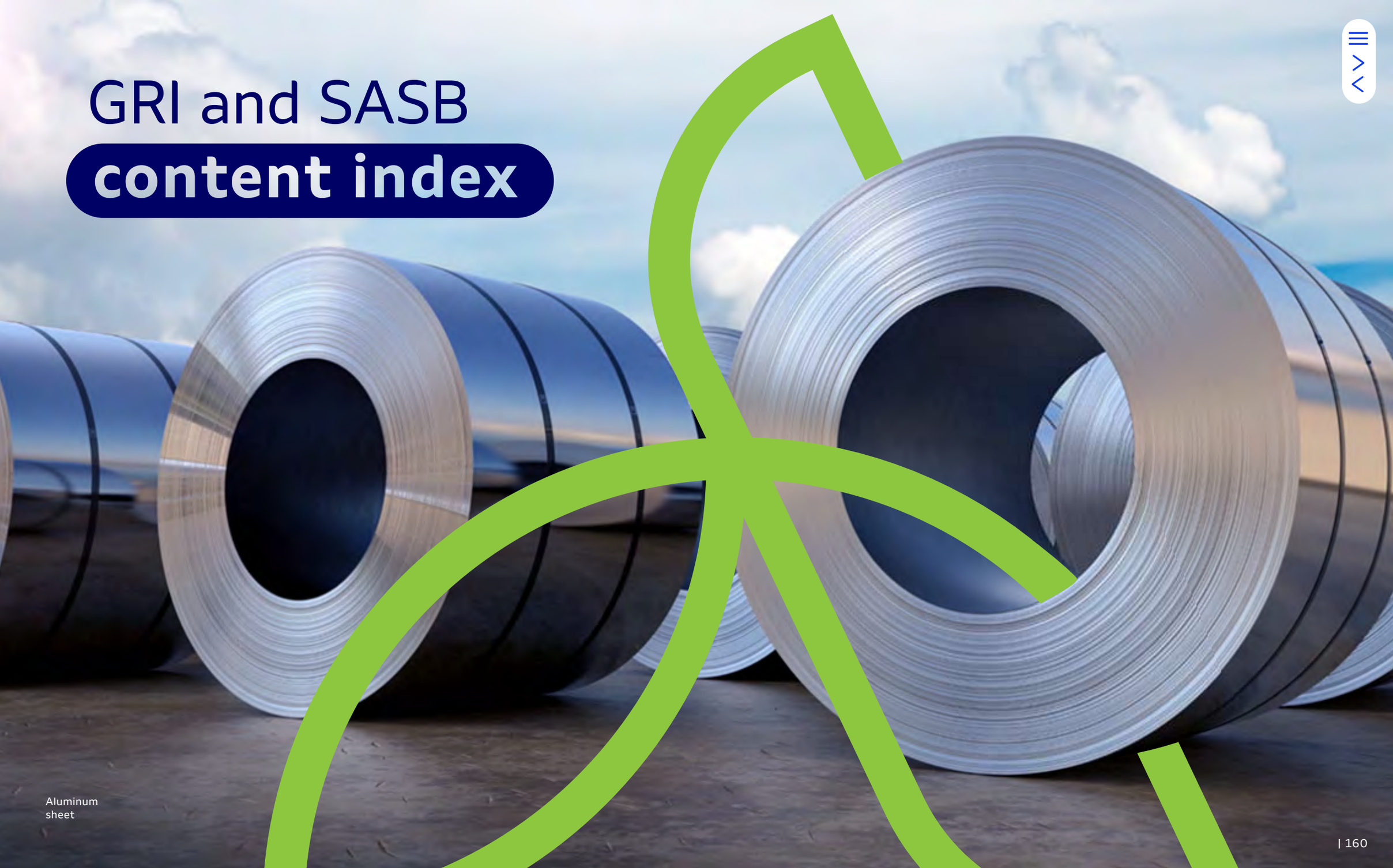
In 2023 we hope to make further progress in sustainable investments and projects. Recycling initiatives and diversification in renewable energy will be high on our agenda, supporting our mission of supplying low-carbon aluminum products and sustainable solutions in partnership with stakeholders.

And we remain focused on collaboration. We have decided to take on a leading role in building a better society, fulfilling our purpose to deliver aluminum solutions that transform people's lives. This is our ambition, and this is the path we will continue to follow.

Executive Sustainability Committee

The Legado das Águas Reserve (SP), Reservas Votorantim

GRI and SASB
content index



Aluminum sheet

GRI Content Index

Statement of use	CBA has developed its report in accordance with the GRI Standards for the period from January 1 to December 31, 2022.
GRI 1 Used	GRI 1 – Foundation 2021
Applicable sector standards	-

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
General disclosures				
GRI 2: General Disclosures 2021	**The organization and its reporting practices**			
	2-1 Organizational details	Annual Report: pages 15, 17, 153 Additional Disclosures Supplement: page 5		
	2-2 Entities included in the organization's sustainability reporting	Additional Disclosures Supplement: page 3		
	2-3 Reporting period, frequency and contact point	Annual Report: pages 9, 13 Additional Disclosures Supplement: page 4		
	2-4 Restatements of information	Information reformulations are indicated throughout the Annual Report and the Additional Disclousure Supplement with the indicator code.		
	2-5 External assurance	Annual Report: page 9 Additional Disclosures Supplement: page 4		Disclosure assured
	Activities and workers			
	2-6 Activities, value chain and other business relationships	Annual Report: pages 15, 18, 24, 27, 30, 31, 35, 39, 40, 46 Additional Disclosures Supplement: page 5		
	2-7 Employees	Annual Report: page 75 Additional Disclosures Supplement: pages 19, 20, 21		Disclosure assured
	2-8 Workers who are not employees	Annual Report: page 75 Additional Disclosures Supplement: pages 19, 22		Disclosure assured

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
GRI 2: General Disclosures 2021	**Governance**			
	2-9 Governance structure and composition		The composition of the highest governance body and its committees by additional indicators of diversity, such as age, ancestry and ethnic origin, citizenship, creed, disability, or any other indicators of diversity, has been omitted because lack of information	
	2-10 Nomination and selection of the highest governance body	Annual Report: pages 60, 61 Additional Disclosures Supplement: page 10		
	2-11 Chair of the highest governance body	Additional Disclosures Supplement: page 10		
	2-12 Role of the highest governance body in overseeing the management of impacts	Annual Report: pages 60, 61 Additional Disclosures Supplement: page 10		
	2-13 Delegation of responsibility for managing impacts	Annual Report: pages 60, 61		
	2-14 Highest governance body's role in sustainability reporting	Additional Disclosures Supplement: page 11		
	2-15 Conflicts of interest	Annual Report: page 63		
	2-16 Communicating critical concerns	Additional Disclosures Supplement: page 11		Disclosure assured
	2-17 Collective knowledge of the highest governance body	Annual Report: pages 60, 61 Additional Disclosures Supplement: page 10		
	2-18 Evaluation of the performance of the highest governance body	Additional Disclosures Supplement: page 11		
	2-19 Remuneration policies	Additional Disclosures Supplement: page 12		
	2-20 Process for determining remuneration	Additional Disclosures Supplement: page 12		
	2-21 Annual total compensation ratio		The information is confidential	

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
GRI 2: General Disclosures 2021	**Strategy, policies and practices**			
	2-22 Statement on sustainable development strategy	Annual Report: pages 3, 4, 5, 6		
	2-23 Policy commitments	Annual Report: pages 41, 42, 63, 64		
	2-24 Embedding policy commitments	Annual Report: pages 42, 63, 68 Additional Disclosures Supplement: page 12		
	2-25 Processes to remediate negative impacts	Annual Report: page 63		Disclosure assured
	2-26 Mechanisms for seeking advice and raising concerns	Annual Report: page 66		
	2-27 Compliance with laws and regulations	Additional Disclosures Supplement: page 13		Disclosure assured
	2-28 Membership associations	Additional Disclosures Supplement: page 14		
	Stakeholder engagement			
	2-29 Approach to stakeholder engagement	Annual Report: pages 69, 70		Disclosure assured
	2-30 Collective bargaining agreements	Additional Disclosures Supplement: page 22		
Material topics				
GRI 3 – Material topics 2021	**3-1** Process to determine material topics	Annual Report: pages 11, 12 Additional Disclosures Supplement: page 4		Disclosure assured
	3-2 List of material topics	Annual Report: page 13 Additional Disclosures Supplement: page 4		Disclosure assured

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
Circular aluminum				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 34, 107, 110		
GRI 301: Materials 2016	**301-1** Materials used by weight or volume	Annual Report: page 108		
	301-2 Recycled input materials used	Annual Report: pages 34, 108		Disclosure assured
	301-3 Reclaimed products and their packaging materials	Annual Report: pages 34, 108	CBA reports item a) partially. For the next cycle, the Company will evaluate how to report completely.	
CBA disclosure	**CBA-8** - Overall recycling rate	Annual Report: page 108		
Climate strategy				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 98, 99, 100, 101, 102, 103, 104, 105, 106, 115, 118, 152		
GRI 201: Economic performance 2016	**201-2** Financial implications and other risks and opportunities due to climate change	Annual Report: page 106 Additional Disclosures Supplement: pages 34, 35		Disclosure assured
GRI 305: Emissions 2016	**305-1** Direct (Scope 1) GHG emissions	Annual Report: page 100 Additional Disclosures Supplement: page 36		Disclosure assured
	305-2 Energy indirect (Scope 2) GHG emissions	Annual Report: page 100 Additional Disclosures Supplement: pages 36, 37		Disclosure assured
	305-3 Other indirect (Scope 3) GHG emissions	Annual Report: page 100 Additional Disclosures Supplement: pages 36, 37		Disclosure assured
	305-4 GHG emissions intensity	Annual Report: page 103 Additional Disclosures Supplement: pages 36, 37		Disclosure assured
	305-5 Reduction of GHG emissions	Additional Disclosures Supplement: pages 36, 37		Disclosure assured
	305-6 Emissions of ozone-depleting substances (ODS)	Additional Disclosures Supplement: page 38		Disclosure assured
	305-7 NOx, SOx, and other significant air emissions	Additional Disclosures Supplement: page 38		Disclosure assured

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
Renewable energy and energy efficiency				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 35, 37, 98, 99, 132		
GRI 302: Energy 2016	**302-1** Energy consumption within the organization	Annual Report: pages 132, 133 Additional Disclosures Supplement: pages 57, 58		
	302-2 Energy consumption outside of the organization	Additional Disclosures Supplement: page 59		
	302-3 Energy intensity	Annual Report: page 133		
	302-4 Reduction of energy consumption	Annual Report: pages 37, 132		
	302-5 Reductions in energy requirements of products and services	-	This disclosure does not apply to CBA's operations. In the next reporting cycle, CBA will look into ways to consistently track related information.	
Dam safety management				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 123, 124, 125 Additional Disclosures Supplement: pages 41, 42, 43, 44		
CBA disclosure	**CBA-3** - Number of participants in emergency drills	Annual Report: page 125		Disclosure assured
	CBA-4 - Volume of water removed from the dam	Additional Disclosures Supplement: page 44		Disclosure assured
Biodiversity and ecosystem services				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 114, 115, 117, 118, 119, 120, 121, 122 Additional Disclosures Supplement: page 39		
GRI 304: Biodiversity 2016	**304-1** Operational sites owned, leased or managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas	Additional Disclosures Supplement: page 40		Disclosure assured
	304-2 Significant impacts of activities, products, and services on biodiversity	Additional Disclosures Supplement: page 39		
	304-3 Habitats protected or restored	Annual Report: page 114 Additional Disclosures Supplement: page 39		Disclosure assured
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by the organization's operations	Additional Disclosures Supplement: page 40		Disclosure assured

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
Waste management				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 110, 126, 129, 130, 131 Additional Disclosures Supplement: pages 51, 52		
GRI 306: Waste 2020	**306-1** Waste generation and significant waste-related impacts	Annual Report: page 129 Additional Disclosures Supplement: pages 51, 52		
	306-2 Management of significant waste-related impacts	Annual Report: pages 107, 129 Additional Disclosures Supplement: pages 51, 52		
	306-3 Waste generated	Annual Report: page 129		Disclosure assured
	306-4 Waste diverted from disposal	Annual Report: page 130 Additional Disclosures Supplement: pages 53, 54		Disclosure assured
	306-5 Waste directed to disposal	Annual Report: page 130 Additional Disclosures Supplement: pages 55, 56		Disclosure assured
CBA disclosure	**CBA-7** Significant spills	Additional Disclosures Supplement: page 57		Disclosure assured
	CBA-9 Contaminated sites	Additional Disclosures Supplement: page 57		
Local Development				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 90, 91, 92, 93, 94, 95, 96 Additional Disclosures Supplement: pages 30, 31		
GRI 202: Market presence 2016	**202-1** Ratio of standard entry level wage by gender compared to local minimum wage	Additional Disclosures Supplement: page 24		
	202-2 Proportion of senior management hired from the local community	Additional Disclosures Supplement: page 33		
GRI 203 Economic impacts 2016	**203-1** Infrastructure investments and services supported	Annual Report: pages 90, 91, 92, 93, 94, 95, 96		
	203-2 Significant indirect economic impacts	Additional Disclosures Supplement: page 32		
GRI 411: Rights of indigenous peoples 2016	**411-1** Incidents of violations involving rights of indigenous peoples	Additional Disclosures Supplement: page 17		Disclosure assured
GRI 413: Local communities 2016	**413-1** Operations with local community engagement, impact assessments, and development programs	Additional Disclosures Supplement: page 33		Disclosure assured
	413-2 Operations with significant actual or potential negative impacts on local communities	Additional Disclosures Supplement: pages 30, 31		Disclosure assured
CBA disclosure	**CBA-10** - Social investments	Additional Disclosures Supplement: page 32		Disclosure assured

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
Health, safety and quality of life				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 84, 85, 86, 87, 88, 89 Additional Disclosures Supplement: page 25		
GRI 401: Employment 2016	**401-2** Benefits provided to full-time employees that are not provided to temporary or part-time employees	Additional Disclosures Supplement: page 25		Disclosure assured
GRI 403: Occupational health and safety 2018	**403-1** Occupational health and safety management system	Annual Report: pages 86, 87 Additional Disclosures Supplement: page 26		
	403-2 Hazard identification, risk assessment, and incident investigation	Annual Report: page 87 Additional Disclosures Supplement: page 26		
	403-3 Occupational health services	Annual Report: pages 84, 85		
	403-4 Worker participation, consultation, and communication on occupational health and safety	Additional Disclosures Supplement: page 26		
	403-5 Worker training on occupational health and safety	Annual Report: page 87		
	403-6 Promotion of worker health	Annual Report: pages 84, 85		
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Additional Disclosures Supplement: page 26		
	403-8 Workers covered by an occupational health and safety management system	Additional Disclosures Supplement: page 26		
	403-9 Work-related injuries	Annual Report: page 89 Additional Disclosures Supplement: pages 27, 28, 29		Disclosure assured
	403-10 Work-related ill health	Additional Disclosures Supplement: page 30		

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
Ethics, integrity and compliance				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 42, 62, 63, 64, 65, 66, 67, 68		
GRI 205: Anti-corruption 2016	**205-1** Operations assessed for risks related to corruption	Annual Report: page 65 Additional Disclosures Supplement: page 14		Disclosure assured
	205-2 Communication and training on anti-corruption policies and procedures	Annual Report: pages 65, 68 Additional Disclosures Supplement: page 15	CBA has only partially reported on disclosures a), b), d) and e) as it does not track anti-corruption communications and training by employee category and region. CBA does not track disclosure c), on business partners.	Disclosure assured
	205-3 Confirmed incidents of corruption and actions taken	Annual Report: page 65		Disclosure assured
Innovation, technology and business resilience				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 104, 105, 112, 126, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144		
CBA disclosure	**CBA-1** Investments in technology and innovation	Additional Disclosures Supplement: page 61		
	CBA-5 Financial and Sustainability Gains from Competitiveness Management	Annual Report: page 49		Disclosure assured
Water and effluent management				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 127, 128 Additional Disclosures Supplement: pages 45, 46		
GRI 303: Water and effluents 2018	**303-1** Interactions with water as a shared resource	Annual Report: pages 127, 128 Additional Disclosures Supplement: pages 45, 46		Disclosure assured
	303-2 Management of water discharge related impacts	Additional Disclosures Supplement: pages 45, 46		Disclosure assured
	303-3 Water withdrawal	Additional Disclosures Supplement: pages 46, 47		Disclosure assured
	303-4 Water discharge	Additional Disclosures Supplement: pages 48, 49		Disclosure assured
	303-5 Water consumption	Additional Disclosures Supplement: page 50		Disclosure assured
CBA disclosure	**CBA-2** Water reused or recycled	Additional Disclosures Supplement: pages 46, 48		
	CBA-11 Water intensity by product			

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
Risk and crisis management				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 71, 123, 124		
Transparency and stakeholder engagement				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 11, 12, 39, 42, 46, 48, 51, 156		
GRI 415: Public policy 2016	**415-1** Political contributions	Additional Disclosures Supplement: page 18		
Diversity, equity and inclusion				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 76, 77, 78, 79		
GRI 405: Diversity and equal opportunity 2016	**405-1** Diversity of governance bodies and employees	Annual Report: page 75 Additional Disclosures Supplement: page 23		
	405-2 Ratio of basic salary and remuneration of women to men	Additional Disclosures Supplement: page 24		Disclosure assured
GRI 406: Non-discrimination 2016	**406-1** Incidents of discrimination and corrective actions taken	Additional Disclosures Supplement: page 16		Disclosure assured

GRI Standard/Other source	Disclosure	Location	Omission	Assurance
Sustainable supply chain				
GRI 3: Management approach 2021	**3-3** Management of material topics	Annual Report: pages 39, 40, 41, 42, 43, 44, 45		
GRI 204: Procurement practices 2016	**204-1** Proportion of spending on locally-based suppliers	Additional Disclosures Supplement: page 6		
GRI 407: Freedom of association and collective bargaining 2016	**407-1** Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Additional Disclosures Supplement: page 6	CBA does not monitor the proportion of spending on local suppliers. The Company has established its definition of local suppliers and will collect further information on supplier spending in 2023.	
GRI 408: Child labor 2016	**408-1** Operations and suppliers at significant risk for incidents of child labor	Additional Disclosures Supplement: page 6		Disclosure assured
GRI 409: Forced or compulsory labor 2016	**409-1** Operations and suppliers at significant risk for incidents of forced or compulsory labor	Additional Disclosures Supplement: page 6		Disclosure assured
GRI 308: Supplier environmental assessment 2018	**308-1** New suppliers that were screened using environmental criteria	Additional Disclosures Supplement: page 6		Disclosure assured
	308-2 Negative environmental impacts in the supply chain and actions taken	Annual Report: pages 41, 42, 43		
GRI 416: Supplier social assessment 2016	**414-1** New suppliers that were screened using social criteria	Additional Disclosures Supplement: page 6		Disclosure assured
	414-2 Negative social impacts in the supply chain and actions taken	Annual Report: pages 41, 42, 43		
Other non-material disclosures				
GRI 412: Human rights assessment 2016	**412-1** Operations that have been subject to human rights reviews or impact assessments	Additional Disclosures Supplement: page 17		Disclosure assured
	412-2 Employee training on human rights policies or procedures	Additional Disclosures Supplement: page 18		
	412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Additional Disclosures Supplement: page 19		
CBA disclosure	**CBA-6** Payment of mining taxes	Additional Disclosures Supplement: page 60		

SASB-EM-MM Content Index

SASB Topic / Code	Accounting metric	Location	Omission	Assurance
Greenhouse gas emissions				
EM-MM-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations (excluding voluntary regulations)	Annual Report: page 100 Additional Disclosures Supplement: page 36		Disclosure assured
EM-MM-110a.2	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets	Annual Report: pages 98, 99		
Air quality				
EM-MM-120a.1	Air emissions for the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	Additional Disclosures Supplement: page 38		Disclosure assured
Energy management				
EM-MM-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Annual Report: pages 132, 133 Additional Disclosures Supplement: pages 57, 58		
Water management				
EM-MM-140a.1	(1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Additional Disclosures Supplement: pages 46, 47, 48		Disclosure assured
EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Additional Disclosures Supplement: page 51		Disclosure assured

SASB Topic / Code	Accounting metric	Location	Omission	Assurance
Waste & Hazardous Materials Management				
EM-MM-150a.4	Total weight of non-mineral waste generated	Annual Report: page 131 Additional Disclosures Supplement: pages 52, 53		Disclosure assured
EM-MM-150a.5	Total weight of tailings produced	Annual Report: page 131 Additional Disclosures Supplement: pages 52, 53		Disclosure assured
EM-MM-150a.6	Total weight of waste rock generated	Annual Report: page 131 Additional Disclosures Supplement: pages 52, 53		Disclosure assured
EM-MM-150a.7	Total weight of hazardous waste generated	Annual Report: page 129		Disclosure assured
EM-MM-150a.8	Total weight of hazardous waste recycled	Annual Report: page 130 Additional Disclosures Supplement: page 57		Disclosure assured
EM-MM-150a.9	Number of significant incidents associated with hazardous materials and waste management	Additional Disclosures Supplement: pages 51, 52		Disclosure assured
EM-MM-150a.10	Description of waste and hazardous materials management policies and procedures for active and inactive operations	Annual Report: pages 110, 129 Additional Disclosures Supplement: pages 51, 52		
Biodiversity Impacts				
EM-MM-160a.1	Description of environmental management policies and practices for active sites	Additional Disclosures Supplement: page 34		Disclosure assured
EM-MM-160a.2	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	-	This disclosure is not applicable to CBA.	
EM-MM-160a.3	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	Additional Disclosures Supplement: page 41		Disclosure assured

SASB Topic / Code	Accounting metric	Location	Omission	Assurance
Security, human rights and rights of indigenous peoples				
EM-MM-210a.1	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Additional Disclosures Supplement: page 41		
EM-MM-210a.2	Percentage of (1) proved and (2) probable reserves in or near indigenous land	Additional Disclosures Supplement: page 41		
EM-MM-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	Additional Disclosures Supplement: page 17		
Community relations				
EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Annual Report: page 90 Additional Disclosures Supplement: pages 30, 31		Disclosure assured
EM-MM-210b.2	Number and duration of non-technical delays	Additional Disclosures Supplement: page 31		Disclosure assured
Labor/management relations				
EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	Additional Disclosures Supplement: page 22		Disclosure assured
EM-MM-310a.2	Number and duration of non-technical delays	Additional Disclosures Supplement: page 22		Disclosure assured
Workforce health and safety				
EM-MM-320a.1	(1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees	Additional Disclosures Supplement: pages 37, 38, 39		Disclosure assured

SASB Topic / Code	Accounting metric	Location	Omission	Assurance
Business ethics and transparency				
EM-MM-510a.1	Description of the management system for prevention of corruption and bribery throughout the value chain	Annual Report: pages 42, 62, 63, 68		
EM-MM-510a.2	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	-	This disclosure is not applicable to CBA.	
Tailings storage facilities management				
EM-MM-540a.1	Tailings storage facility inventory table: (1) facility name, (2) location, (3) ownership status, (4) operational status, (5) construction method, (6) maximum permitted storage capacity, (7) current amount of tailings stored, (8) consequence classification, (9) date of most recent independent technical review, (10) material findings, (11) mitigation measures, (12) site-specific EPRP	Additional Disclosures Supplement: pages 42, 43		Disclosure assured
EM-MM-540a.2	Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities	Annual Report: pages 123, 124, 125 Additional Disclosures Supplement: pages 41, 42		
EM-MM-540a.3	Approach to development of Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities.	Annual Report: pages 123, 124, 125 Additional Disclosures Supplement: pages 41, 42		
Activity metrics				
EM-MM-000.A	Production of (1) metal ores and (2) finished metal products	Annual Report: pages 21, 28, 108		
EM-MM-000.B	Total number of employees, percentage contractors	Annual Report: page 75 Additional Disclosures Supplement: pages 19, 22		

SASB-IF-EU Content Index

SASB Topic / Code	Accounting metric	Location	Omission	Assurance
Greenhouse gas emissions and energy resource planning				
IF-EU-110a.1	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations	Annual Report: page 100 Additional Disclosures Supplement: page 36		Disclosure assured
IF-EU-110a.2	Greenhouse gas (GHG) emissions associated with power deliveries	Additional Disclosures Supplement: page 36		
IF-EU-110a.3	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets	Annual Report: pages 98, 99		
IF-EU-110a.4	Number of customers served in markets subject to renewable portfolio standards (RPS) and percentage fulfillment of RPS target by market	-	This disclosure is not applicable to CBA.	
Air quality				
IF-EU-120a.1	Air emissions for the following pollutants: NOx (excluding N_2O), SOx, particulate matter (PM 10), lead (Pb) and mercury (Hg)	Additional Disclosures Supplement: page 38		Disclosure assured
Water management				
IF-EU-140a.1	(1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Additional Disclosures Supplement: pages 46, 47, 48		Disclosure assured
IF-EU-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Additional Disclosures Supplement: page 51		Disclosure assured
IF-EU-140a.3	Discussion of water management risks and description of strategies and practices to mitigate those risks	Annual Report: page 127 Additional Disclosures Supplement: pages 45, 46		

SASB Topic / Code	Accounting metric	Location	Omission	Assurance
Coal ash management				
IF-EU-150a.1	Amount of coal combustion residuals (CCR), percentage recycled		This disclosure is not applicable to CBA.	
IF-EU-150a.2	Total number of coal combustion residual (CCR) dams, broken down by hazard potential classification and structural integrity assessment		This disclosure is not applicable to CBA.	
Affordable energy				
IF-EU-240a.1	Average retail electric rate for residential, commercial, and industrial customers		This disclosure is not applicable to CBA.	
IF-EU-240a.2	Typical monthly electric bill for residential customers		This disclosure is not applicable to CBA.	
IF-EU-240a.3	Number of residential customer electric disconnections for nonpayment		This disclosure is not applicable to CBA.	
IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity		This disclosure is not applicable to CBA.	
Workforce health and safety				
IF-EU-320a.1	(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)	Additional Disclosures Supplement: pages 27, 28, 29		
End-use efficiency & demand				
IF-EU-420a.1	Percentage of electric utility revenues from rate structures that (1) are decoupled and (2) contain a lost revenue adjustment mechanism (LRAM)		This disclosure is not applicable to CBA.	
IF-EU-420a.2	Percentage of electric load served by smart grid technology		This disclosure is not applicable to CBA.	
IF-EU-420a.3	Customer electricity savings from efficiency measures, by market		This disclosure is not applicable to CBA.	

SASB Topic / Code	Accounting metric	Location	Omission	Assurance
Nuclear safety and emergency management				
IF-EU-540a.1	Total number of nuclear power units, broken down by U.S. Nuclear Regulatory Commission (NRC) Action Matrix Column		This disclosure is not applicable to CBA.	
IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness		This disclosure is not applicable to CBA.	
Grid resiliency				
IF-EU-550a.1	Number of incidents of non-compliance with standards or regulations on physical and cyber security	Additional Disclosures Supplement: page 30		
IF-EU-550a.2	System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), and Customer Average Interruption Duration Index (CAIDI), inclusive of major event days		This disclosure is not applicable to CBA.	
Activity metrics				
IF-EU-000.A	Number of residential, commercial and industrial customers served			
IF-EU-000.B	Total electricity delivered by type of customer			
IF-EU-000.C	Length of transmission and distribution lines	Annual Report: page 38		
IF-EU-000.D	Total electricity generated	Annual Report: page 37		
IF-EU-000.E	Total wholesale electricity purchased	Annual Report: page 35		

DECLARATION OF INDEPENDENT VERIFICATION – BUREAU VERITAS

INTRODUCTION

Bureau Veritas Certification Brazil (Bureau Veritas) was hired by COMPANHIA BRASILEIRA DE ALUMÍNIO (CBA), to conduct an independent verification of its 2022 CBA Annual Report (hereinafter referred to as Report).

The information published in the report is the sole responsibility of the CBA management. Our responsibility is defined according to the scope below.

SCOPE OF WORK

The scope of this verification covered the Global Reporting Initiative™ standards and Principles[1] for Sustainability Reporting and refers to the rendering of accounts for the period from January 1 to December 31, 2022.

RESPONSIBILITIES OF CBA AND BUREAU VERITAS

The preparation, presentation and content of the Report are the sole responsibility of the CBA management. Bureau Veritas is responsible for providing an independent opinion to the interested parties, in accordance with the scope of work defined in this statement.

METHODOLOGY

The verification covered the following activities:

1. Interviews with those responsible for the material topics and the content of the Report;
2. Remote verification of corporate and operational processes (verification of material indicators GRI and SASB and sampling of information);
3. Analysis of documentary evidence provided by the CBA for the period covered by the Report (2022);
4. Evaluation of the systems used to compile data;
5. Analysis of engagement activities with interested parties (stakeholders) developed by CBA;
6. Evaluation of the system used to determine the material aspects included in the Report, considering the context of sustainability and scope of the published information.

The verification level adopted was Limited, in accordance with the requirements of ISAE 3000[2], incorporated into Bureau Veritas internal verification protocols.

LIMITATIONS AND EXCLUSIONS

Excluded from this verification was any assessment of information related to:

- Activities outside the reported period;
- Position statements (expressions of opinion, belief, objectives or future intentions) by CBA;
- Accuracy of economic and financial data contained in this Report, extracted from financial statements, verified by independent auditors;
- Greenhouse Gas (GHG) emissions inventory, including energy data;
- Data and information of affiliated companies or outsourced employees, over which there is no operational control by CBA.

The following limitations have been applied to this verification:

- The principles of Data Accuracy and Reliability were verified on a sample basis, exclusively in the light of the information and data related to the material themes presented in the Report;
- The economic information presented in the Report was specifically verified against the principles of Balance and Completeness of the GRI.

[1] *Materiality, Stakeholder Inclusion, Sustainability Context, Completeness, Balance, Comparability, Accuracy, Timeliness, Clarity and Reliability*

[2] *International Standard on Assurance Engagements 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information*

OPINION ON THE REPORT AND THE VERIFICATION PROCESS

- For the preparation of this Sustainability Report, CBA used the result of the materiality process carried out in 2022. The review followed the concept of dual materiality, in which both socio-environmental and financial impacts are considered;
- In our understanding, the CBA Sustainability Report presents the impacts of the company's activities in a balanced manner;
- The CBA demonstrated an adequate data collection and compilation method in relation to the GRI Reliability Principle;
- The inconsistencies found in the Report were adjusted during the process and were satisfactorily corrected.

RECOMMENDATIONS

- Describe explanation of what is significant impact to the CBA business. The mentioned example refers to the issue of dams and potential impacts in relation to local facilities and communities (Environment area).
- Regarding emergency drills, for Nickeland, also consider CBA employees within the number of participants (Niquelandia dams area).
- For communication and training data in anti-corruption policies and procedures, CBA uses several different sources to report the data, that is, because they are manual processes, there is a greater chance of error in the compilation. Suggestion is to feed the system and use it as the main source for reporting the data (Compliance area).
- Regarding waste data, they receive some data by email, and they need to manually compile the information. Our suggestion is to continue with the development of the system, to optimize data management (Environment area).
- Regarding the issue of Biodiversity, they carry out a technical inventory of species. The recommendation is to update the species monitoring study of the Aluminum Factory (Environment area – Aluminio).
- Regarding the relationship with stakeholders – social organizations, the recommendation is to record the interactions through attendance list or minutes (Energy area).

CONCLUSION

As a result of our verification process, nothing has come to our attention that could indicate that:

- The information provided in the Report is not balanced, consistent and reliable;
- CBA has not established appropriate systems for the collection, compilation and analysis of quantitative and qualitative data used in the Report;
- The Report does not adhere to the Principles for defining the content and quality of the GRI Standard for sustainability reporting.

CLAIM OF INDEPENDENCE AND IMPARTIALITY

Bureau Veritas Certification is an independent professional services company specializing in Quality, Health, Safety, Social and Environmental management with more than 190 years of experience in independent assessment services.

Bureau Veritas has implemented and applies a Code of Ethics throughout its business to ensure that its employees maintain the highest standards in their daily activities. We are particularly attentive to avoid conflicts of interest.

The verification team has no other link with CBA, other than the independent verification of the Sustainability Report. We understand that there is no conflict between other services performed by Bureau Veritas and this verification carried out by our team.

The team that conducted this verification for CBA has extensive knowledge in verifying information and systems that involve environmental, social, health, safety and ethical issues, which combined with the experience in these areas, allows us a clear understanding of the presentation and verification of good corporate responsibility practices.

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São Paulo, March 2023.

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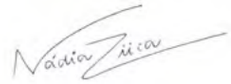

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