

CBA DAY 2024



10:00 | 10:05

Opening Remarks

Amábile Silva (RI)

10:05 | 10:20

CBA's Evolving Strategy

Luciano Alves (CEO)

10:20 | 10:35

CBA's Growth Portfolio

Camila Abel (CFO and IRD)

10:35 | 10:50

Recycling

Roseli Milagres (Head of Supply Chain & Procurement)

10:50 | 11:05

Innovation and DigitALL

Fernando Varella (Head of Downstream,
Innovation and DigitALL)

11:05 | 11:15

Closing Remarks

Luciano Alves (CEO)

11:15 | 11:35

Aluminum Market Outlook

Ross Strachan (CRU's Principal Aluminium Analyst)

11:35 | 12:00

Q&A

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CBA's Evolving Strategy

Luciano Alves
CEO



Growth



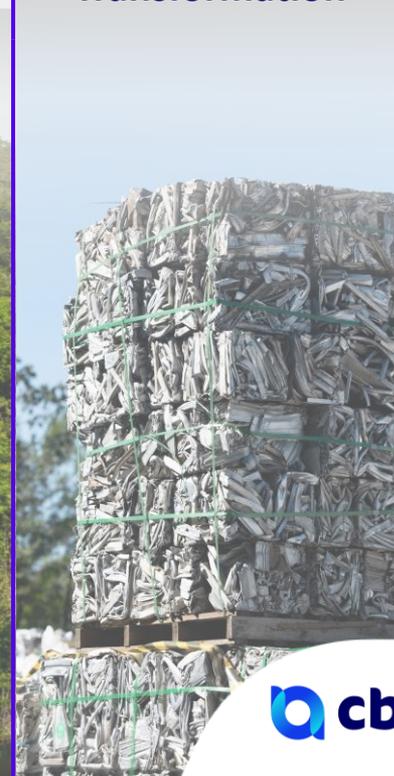
Competitiveness



Positive impact



Transformation





Growth

Maximize CBA's value through risk-return balanced growth

Drive growth by optimizing **synergies** across CBA's existing businesses



Increase **aluminum production** with a focus on higher value-added products



Develop **strategic partnership** opportunities



Fine-tune the portfolio to improve **risk-return** profile





Competitiveness

Strengthen competitive differentiators to ensure resilience and long-term sustainability

Remain among the global leaders in **costs and lower CO₂ emissions**



Maintain a fully **integrated** operation with renewable power generation capacity



Maximize the **capture of synergies** between operations



Expand **Innovation and DigitALL** initiatives to boost competitiveness and profitability





Positive impact

Producing aluminum production with positive impact, engaging the entire supply chain in building a more prosperous and sustainable future

Deliver **low carbon aluminum** through technology, recycling and renewable energy

Promote the appreciation of the integrated human being, being a **diverse, equitable, and inclusive company**

Continuously improve working conditions to **ensure employee health and safety**

Prepare CBA to **capitalize on carbon pricing or green premiums** in the future

Engage and influence the entire aluminum value chain around **ESG best practices** through strategic partnerships





Transformation

Innovation, digitalization and partnership-building to transform CBA

Accelerate CBA's
Innovation and Digital Transformation



Strengthen partnerships throughout the value chain to develop new applications to **boost aluminum consumption**



Invest in **technological development** with a focus on industrial processes, aiming to increase **competitiveness** combined with **sustainability**



2018

2020

- ⇒ Evolving and strengthening of CBA's Culture
- ⇒ Transformation Program
- ⇒ Significant inroads in the US market
- ⇒ Sustainability embedded into CBA's Strategy
- ⇒ Itapissuma acquisition
- ⇒ Launched CBA 4.0 Journey

2021

2023

- ⇒ IPO on B3 Novo Mercado
- ⇒ Delivered major growth and modernization projects
- ⇒ Recycling and Energy established as new business units
- ⇒ Consolidated leadership as a low-carbon aluminum producer
- ⇒ CBA as a consolidated reference in ESG
- ⇒ DigitAll: evolving our Digital & Innovation Culture
- ⇒ Focus on people - high levels of satisfaction, engagement, training, and ethics

2024

2026

- ⇒ Focus on **key business drivers**: bringing higher value-added to products, increasing the resilience of the integrated portfolio, and **improving risk/return profile**
- ⇒ **Maximize value from integration by capturing synergies** in the production process—a core competitive advantage
- ⇒ **Prioritize structuring CAPEX investment** to enhance **competitiveness and value**
- ⇒ Develop **strategic partnerships for additional value** capture in the aluminum chain
- ⇒ **Innovation and digital transformation** to accelerate gains in competitiveness and financial return, generating positive impact
- ⇒ **Strengthen CBA as a reference in low-carbon aluminum** production and **ESG** initiatives



Primary

- Invest to **boost efficiency and capacity** in primary aluminum production
- Upgrade smelter technology** to enhance aluminum production
- Position CBA as a **100% low-carbon aluminum** producer



Downstream

- Expand production capacity for foil**, CBA's highest value-added product, to meet both domestic and international demand
- Growth of market share in the Primora line** with the development of more sophisticated solutions and services in the CSS (Solutions and Services Center)
- Develop projects to innovate in **new aluminum applications**



Energy

- Add energy capacity** with investments in generation projects utilizing complementary energy sources, including **wind and solar, alongside hydro**
- Enhance competitiveness through **efficient contract management and energy generation portfolio**



Recycling

- Strengthen ESG leadership as a **low-carbon aluminum producer** by **further reducing emissions**
- Increased aluminum production with **reduced LME exposure** and better risk/return profile
- Organic growth in scrap collection** driven by a multi-channel strategy

Favorable long-term fundamentals, resonating with CBA's strategy, enhance value capture

A balanced market with low inventory levels, minimal greenfield investment, and China's capacity cap create a possible favorable outlook for the future

Global Implications



Growth in aluminum demand

New applications in electrification and decarbonization are anticipated to drive demand, with aluminum also serving as a substitute for other metals, such as copper

Supply chain disruptions

Geopolitical conflicts, logistical challenges, and extreme weather events can disrupt global supply chains, posing challenges for producers in certain regions

Preference for green aluminum

A potential rise in demand for low-carbon aluminum could translate into market share gains for CBA

Implications for CBA



Presence across various market segments

Comprehensive portfolio, with a highly flexible production mix

New custom applications

Integrated production of bauxite, alumina, and electricity

Collaboration and strategic partnerships across different regions: near-sourcing and friendly-sourcing

A focus on high value-added products with higher premiums

A focus on Brazil, benefiting from proximity to key customers

100% renewable power generation

Competitive positioning on global CO₂ emissions curves for smelters and refineries

Alennium mark and Digital Passport

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CBA's Growth Portfolio

Camila Abel
CFO



Growth in Recycling

R\$ 243

- Newly installed Sidewell furnace at Metalex to increase production capacity from 75 to 90 ktpy

Completed in 2021

- Scrap treatment line

Completed in 2023

- **ReAl:** multilayer packaging recycling

Ramp-up in 2024



M&A – Acquisition of Alux do Brasil

R\$ 207

Entered the secondary alloy segment via recycling

Completed in 2021



Restart of 78 pots Potline 3

R\$ 191

Adding 30ktpa capacity

Completed in 2022



Dry Waste Disposal

R\$ 400

This facility uses filter presses for dry disposal, enhancing safety and extending the residue dam's lifespan by 20 years, while recovering soda in the process

Completed in 2024

(Post-2024, ~R\$100 million CAPEX will be allocated for dam drainage until future decommissioning)



Investments in expansion and modernization total R\$2.3 billion

When completed, they will generate more than R\$800 million¹ of EBITDA per year

R\$MM

Projects in progress

Modernization of potroom technology

670

Reduce emissions and enhance energy efficiency

Phased start-up since 2023

Paste Plant Upgrade

130

Improve anode paste quality, allowing for a reduction in coal-tar pitch content

Start-up in 2025

Refinery Liquor Purification

350

Increase refinery productivity and installed capacity

Start-up from 2026 to 2029

Potroom 1 Restart

750

Adding 50ktpa capacity

Sequential start-up of Paste Plant and Liquor Purification projects



New projects in the pipeline

Foil Capacity Expansion

100

8ktpa increase in thin and ultra-thin foil—both higher value-added products—via upgrades and installation of new equipment

Start-up in 2026

Recycling Projects

310

Increase in installed processing capacity, increase in the consumption of recycled content linked to better efficiency (metal yield) of scrap, and growth in collection

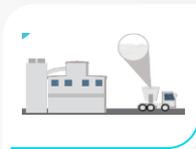
Phased start-up through 2029

Total CAPEX
(R\$ million)



130

Benefits for the business



Expanded installed capacity

+44 ktpa



Improved productivity

+6 t/h



Reduced coal-tar pitch %

Up to 5%

Paste Plant Upgrade

Higher quality and competitiveness



Project focus

- Produce higher quality anode paste with reduced coal-tar pitch content to support the pot room technology upgrade project
- Support increased supply of anode paste for the future restart of Potroom 1

Start-up in 2025

Total CAPEX
(R\$ million) **350**

Benefits for the business



Increased hydrate capacity

+300 ktpa



Improved alumina yield

+30% g/L



Reduction in energy consumption



Project focus

- Increase refinery productivity and installed capacity
- Implement an organic impurity removal system in the bauxite dissolution process

Start-up in 2029

Increased molten aluminum production capacity

Total CAPEX

(R\$ million)



750

Benefits for the business



Expanded installed capacity

+50 ktpa



Increased efficiency for specific inputs

- 5%/t



Green aluminum



Project focus



Increase molten aluminum capacity by restarting 158 pots

The Potline Restart is dependent on the prior completion of the **Paste Plant Upgrade** and **Liquor Purification** projects. However, the pace of progress **can be flexible** depending on **favorable economics**

Total CAPEX
(R\$ million)



100

Benefits for the business



Higher availability of
Thin/Extra-thin Foil

+8 ktpa



Fixed Cost Optimization

Up to -10%/t



Focus on high value-added products



Foil Capacity Expansion

Increased VAP production capacity



Project focus

Expand thin and extra-thin foil line capacity through upgrades and new equipment, optimizing production to serve both domestic and export markets

Start-up 2025 phase 1 Itapissuma

2026 phase 2 Alumínio

Total CAPEX
(R\$ million)



310

Benefits for the business



Recycling Capacity Expansion

+65 ktpa



Alux Capacity Expansion

+10%



**Lower CO₂/t emissions vs.
primary aluminum**

<1 tCO₂e/t

Recycling Projects



Project focus

- Increase scrap content by installing new furnaces, upgrading technology, and optimizing business models to enhance productivity and competitiveness
- A modular solution offering a flexible investment structure that is responsive to different market scenarios

Phased start-up through 2029

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Recycling

Roseli Milagres

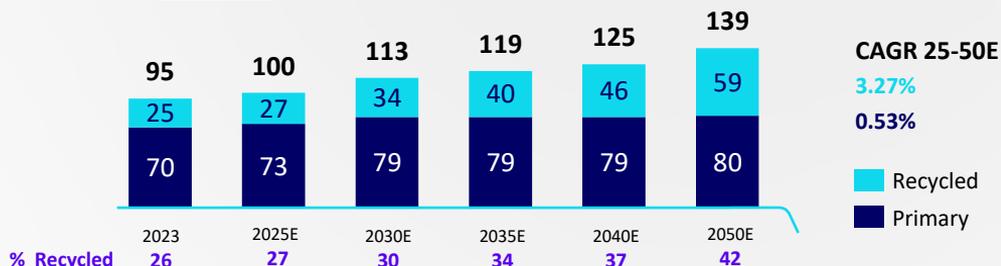
Head of Supply Chain and
Procurement

Scrap generation and demand is anticipated to increase in key geographies – the US and EU are net exporters

Global growth in aluminum scrap generation (2023 vs 2030, Mt)

Country	Net Exporter/Importer	CAGR
 US	Net exporter	3.6%
 Europe	Net exporter	3.5%
 India	Net importer	9.7%
 China	Net importer	3.0%
 Brazil	Net importer	3.0%

Global Primary and Recycled Aluminum Demand (Mt)



- ⇒ The US and Europe have high scrap availability
- ⇒ China is expected to ramp up investments and expand its recycled aluminum industry in line with environmental targets and primary aluminum cap
- ⇒ US investments in aluminum recycling are projected to add over 2Mt of smelting capacity
- ⇒ Regulations may limit global aluminum scrap trade, driving more intra-regional flows
- ⇒ Aluminum scrap demand is expected to more than double by 2050, driven by the push for emission reductions

Advancing in recycling is one of CBA's core strategic initiatives

Strategic Drivers

Increase metal output through greater use of recycled content, with **expanded** scrap collection

Create value through the **reduction of metal costs** and new opportunities for revenue growth

Diversification of the portfolio by reducing exposure to the LME through natural hedging and **improving the risk/return ratio**

Modular investment at a lower level than the primary business, **enabling better capital allocation**

Strengthen the ESG positioning by enabling the **capture of the 'Green Premium'**



Growth

- ⇒ Multi-channel scrap sourcing strategy designed to increase scrap capture and reach CBA's ambition in recycling
- ⇒ Supports expansion in primary and secondary alloy markets



Competitiveness

- ⇒ Capture of synergies between units and better allocation of metal and scrap
- ⇒ Positive impact with tax reform by reducing the informality of the industry



Positive impact

- ⇒ Strengthening the ESG positioning
- ⇒ Supplier and partner compliance



Transformation

- ⇒ A focus on innovation and technology to improve profitability and mitigate compliance risk

Our operating model entails a set of strategy-critical components

CBA is advancing efforts to put these components in place



Operations

- Expanded **partnerships with customers and industries**, securing contracts for recurring orders
- Development of both domestic and international suppliers**, with recurring orders from over **5 countries, more than 20 suppliers in Brazil, and 18 globally**
- Increased scrap utilization rates at CBA** plants while improving post-consumer scrap processing
- Optimized logistics costs**, particularly for imported scrap
- Opening of the **1st Recycling Center in 2023, with a second center planned for launch in 2024**
- Metalex's scrap treatment line makes **CBA an important player in the transformation of post-consumer scrap in Latin America**



Compliance

- Expanding recycling capacity increases **engagement with stakeholders** who may have less stringent compliance standards. Comprehensive measures to ensure compliance:
 - Supplier compliance program** with audits, training, and regular on-site visits
 - Efforts to position** CBA as the Brazilian industry leader for "clean scrap"
 - Advocacy** efforts with other industry players, governments, entities, and customers to level regulations and strengthen oversight
 - Leveraging technology to mitigate compliance risks



Organization

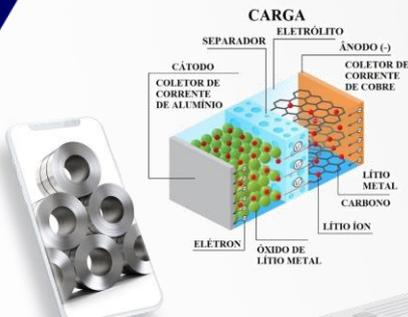
- Initiated the implementation of the operational structure, sourcing, and planning** framework to manage the complexity of the operation and the increase in scrap sourcing volumes
- Continued to advance a **mindset shift** within the organization

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Innovation

Fernando Varella

Head of Downstream, Innovation
and Digital



Battery Foil

- ⇒ Research into **lithium-ion battery foil** production
- ⇒ Positioning CBA and Brazil as a **player in the electric vehicle market**
- ⇒ **Projected 700kt/year** demand in the US and Europe by 2026



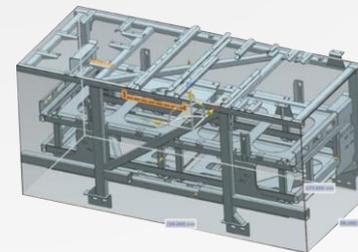
Vehicle Optimization

- ⇒ **Bus roofs**
 - ⇒ Weight reduction
 - ⇒ Improved range/efficiency
- ⇒ **Emissions reduction**
- ⇒ **3300+ vehicles** produced



Battery Racks

- ⇒ **-280 kg weight** reduction
- ⇒ **~12t CO₂e savings/bus**
- ⇒ **100% natively developed** project





100% aluminum packaging for chocolate wafer



- ⇒ National development of a **single-layer aluminum foil packaging**
- ⇒ **Reduces waste** generation
- ⇒ Increases product longevity
- ⇒ Improves food quality (crispness)
- ⇒ 100% **recyclable**

Coated Foil



- ⇒ **Added portfolio value**
- ⇒ **Packaging aluminum foils** ready for coating applications

Cosmetic Packaging



- ⇒ New packaging solutions **co-developed** with major **brand owners**
- ⇒ Higher demand for CBA's **low carbon aluminum**

New Packaging Solutions Projects to improve quality and recyclability

Advantages of Aluminum



- ⇒ No need for **preservatives**
- ⇒ **Extends food shelf life**
- ⇒ **Protects medicines** and their continued efficacy
- ⇒ **Recyclable and returnable**
- ⇒ **Lightweight, sleek, and sophisticated** packaging
- ⇒ **Practical storage**
- ⇒ **Food safety with tamper-evident seals**
- ⇒ Provides structural integrity for other materials and enhanced **performance**

ReAl



- ⇒ A world-first **innovation**
- ⇒ **Multi-layer packaging recycling**
- ⇒ **CBA-patented**
- ⇒ Start of operation in **2024**

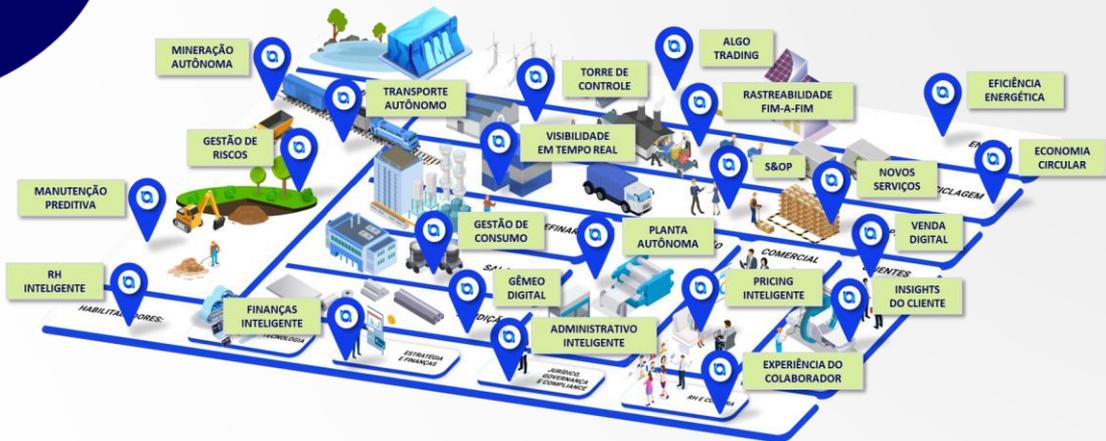
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DigitALL

Fernando Varella

Head of Downstream, Innovation and
Digital

Roadmap of exploration opportunities



100% of senior leadership involved in prioritizing projects for Exploration and Implementation

1300+ pessoas involved in the co-creation and execution process

Partnerships and Ecosystems:

Illumina CBA Program expands the open innovation ecosystem, in partnership with several universities

CBA has participated in several external hubs



3 awards

received in recognition of our Agile Governance Model and People Development Model for Digital Transformation



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Closing Remarks

Luciano Alves
CEO

- Our strategy is centered on **sustainable growth and enhancing competitiveness**, balancing risk and return to maximize value and ensure long-term resilience
- Maximizing the value of integration by capturing synergies** across the value chain, one of CBA's key competitive differentiators
- Flexible CAPEX allocation**, developing modular projects to boost business efficiency and expand production capacity
- New projects support **ongoing growth in recycling**, enabling increased production volume and efficiency in aluminum manufacturing with minimal carbon footprint
- Innovation and digital transformation** are key pillars driving operational efficiency and improved competitiveness across all CBA operations
- CBA's strategy is fully aligned with **best ESG practices**, strengthening its position as a low-carbon aluminum producer and generating positive impacts throughout the value chain
- CBA is well positioned** to capitalize on **market opportunities** and favorable long-term fundamentals, backed competitive advantages, portfolio of growth projects, solidity and resilience

