



VALE

Analyst & Investor Tour

2025

Minas Gerais, September 10th, 2025

Disclaimer

"This presentation may include statements that present Vale's expectations about future events or results, including without limitation (i) iron ore reserves on slide 5; (ii) iron ore supply and grades on slide 9; (iii) sales of Pellet Feed China on slide 12; (iv) sales of mid-grade Carajás on slide 13; (v) autonomous truck fleet on slide 24; (vi) production capacity and production mix from Brucutu on slide 26 and 27; (vii) production costs on slide 27 and 28; (viii) production mix and tailing Fe content from Conceição II plant on slide 29; (ix) implementation of projects on slide 30; (x) unitary costs on slide 34; and (xi) capital expenditures on slide 35.

These risks and uncertainties include factors relating to our ability to perform our production plans and to obtain applicable environmental licenses.

It include risks and uncertainties relating to the following:

- (a) the countries where we operate, especially Brazil, Canada and Indonesia;
- (b) the global economy;
- (c) the capital markets;
- (d) the mining and metals prices and their dependence on global industrial production, which is cyclical by nature;
- (e) global competition in the markets in which Vale operates;
- (f) the estimation of mineral resources and reserves, the exploration of mineral reserves and resources and the development of mining facilities, our ability to obtain or renew licenses, the depletion and exhaustion of mines and mineral reserves and resources.

To obtain further information on factors that may lead to results different from those forecast by Vale, please consult the reports Vale files with the U.S. Securities and Exchange Commission (SEC), the Brazilian Comissão de Valores Mobiliários (CVM) and in particular the factors discussed under "Forward-Looking Statements" and "Risk Factors" in Vale's annual report on Form 20-F."

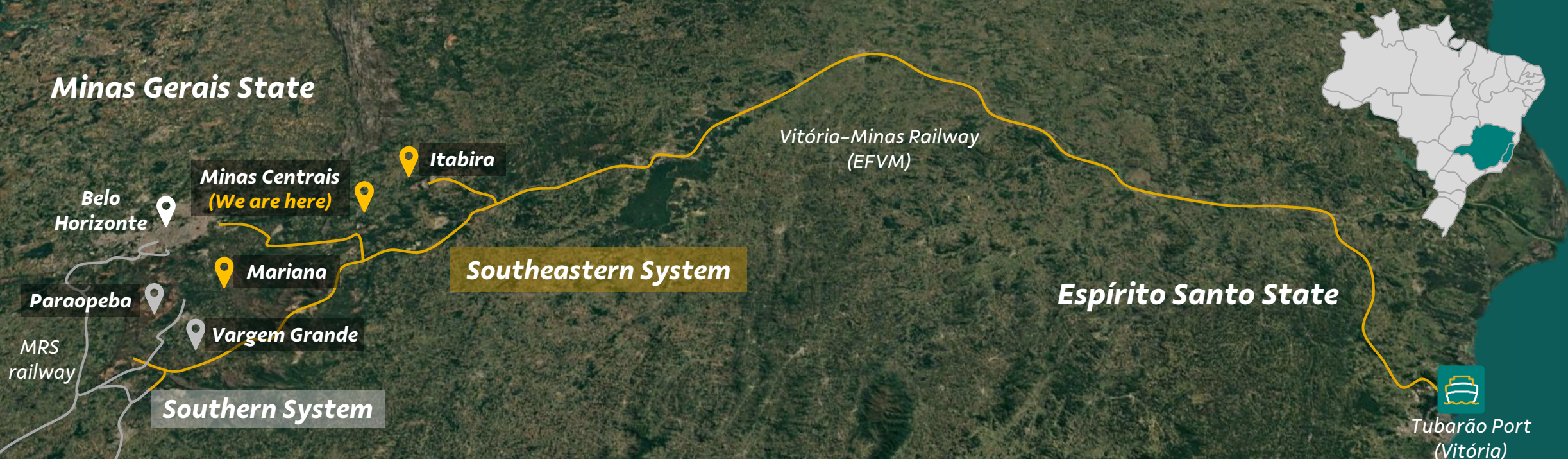


Analyst & Investor Tour 2025

Marcelo Bacci



Welcome to Minas Gerais, where Vale was born



Significant presence in Minas Gerais,
with **83 years of operation**



>6 Bt reserves of iron ore distributed
in **5 operating complexes**



45% of Vale's iron ore production¹



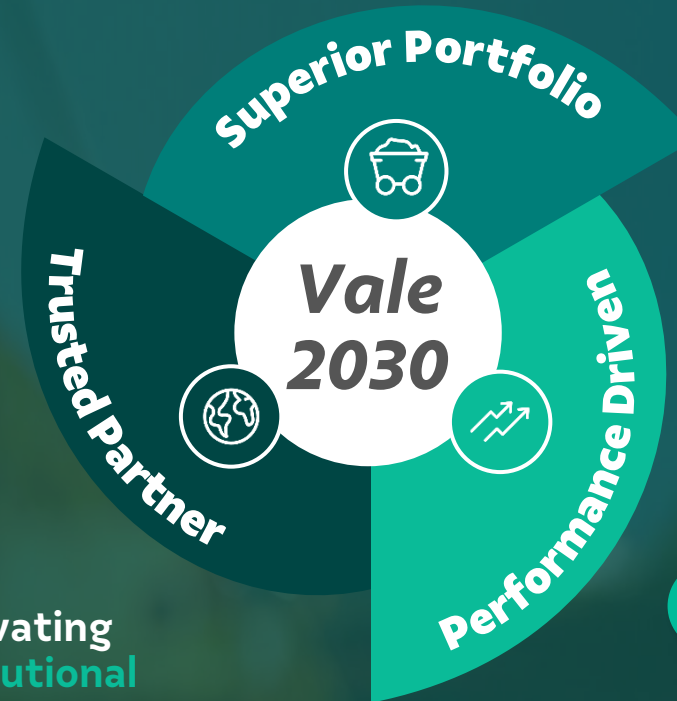
Protection of 73,000 ha, equivalent to
2x the size of Belo Horizonte

¹ In 2023 and 2024.



Vale 2030:

A trusted partner with the most competitive and resilient portfolio



 Delivering a **high quality**, and **flexible** iron ore portfolio

 Focusing on **customer-oriented** solutions

 Accelerating **copper** growth

 Reference in **safety** and **operational** excellence

 Securing competitiveness through a **talent-driven** and **agile** company

 Fostering **innovation** and **digital** solutions

 Cultivating **institutional** relationships

 Generating a **positive impact** for people and nature

 Ensuring **greater trust** through **increased transparency**



Analyst & Investor Tour 2025

Rogério Nogueira

Maximizing product portfolio value in any scenario

Short-term

Traditional steelmaking routes



Adjusting portfolio for value optimization

Portfolio optimization

Long-term
New steelmaking routes



Developing solutions for greener steelmaking processes

Portfolio re-design

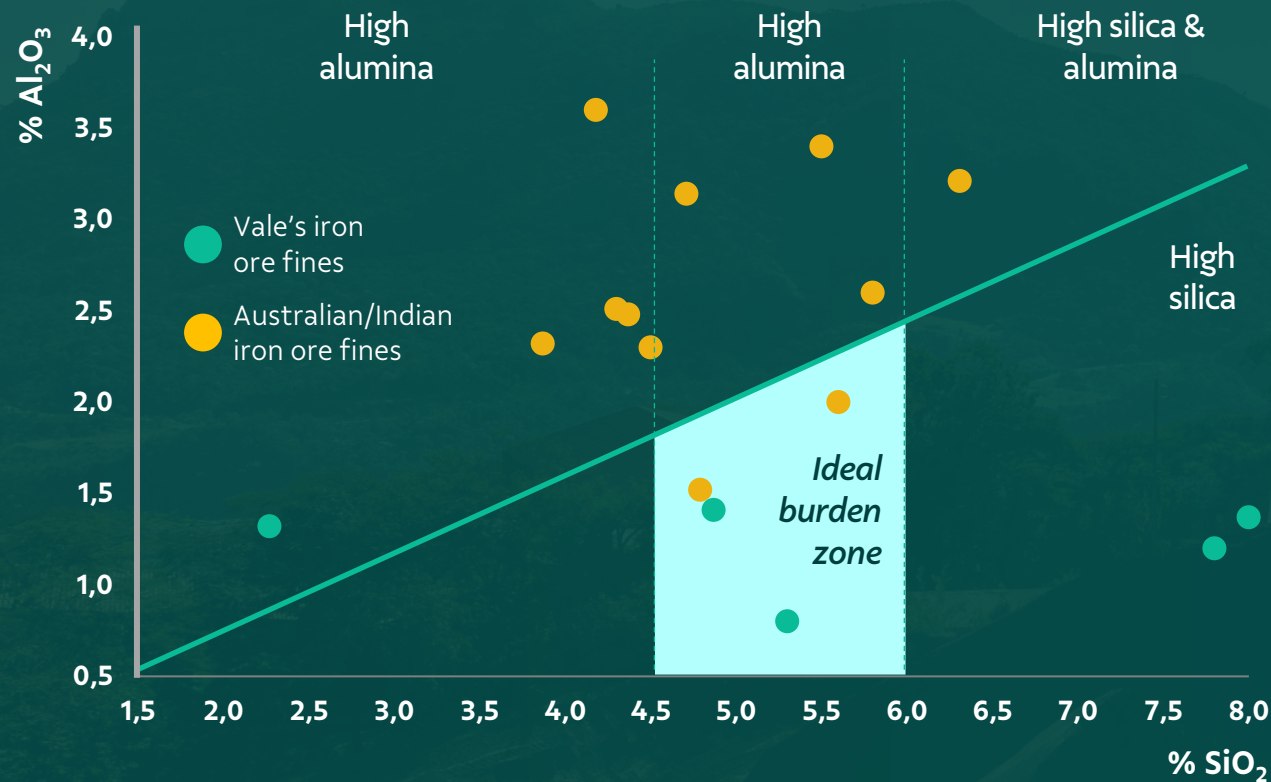
Decarbonization journey



Achieving the sweet spot zone requires steelmakers to use different types of ore

$\text{Al}_2\text{O}_3/\text{SiO}_2$ diagram¹

Vale's 2024 product portfolio



Silica – SiO_2

- Affects sinter stability and reducibility impacting blast furnace performance
- Optimal range between 4.5% and 6.0%

Alumina – Al_2O_3

- Impacts slag quality and viscosity
- High-alumina content requires more coke to keep slag flowing

$\text{Al}_2\text{O}_3/\text{SiO}_2$ ratio

- Plays a critical role in slag formation and viscosity
- Impacts coke rate and productivity

¹ The isocurve shows the $\text{Al}_2\text{O}_3/\text{SiO}_2$ ratio limit for an efficient sintering and blast furnace operation.



Concentrating high-silica ores



Launching new **mid-grade** products



Adjusting **Carajás silica specification**

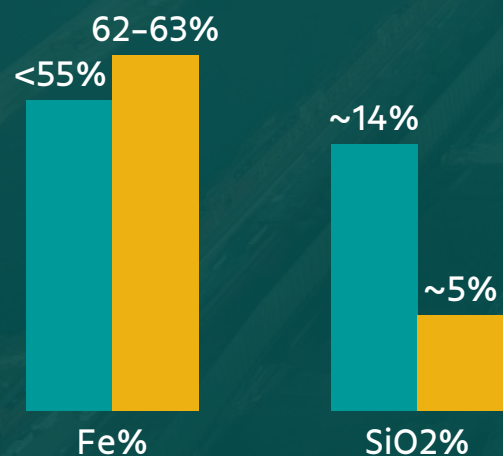


Improving **supply chain flexibility**

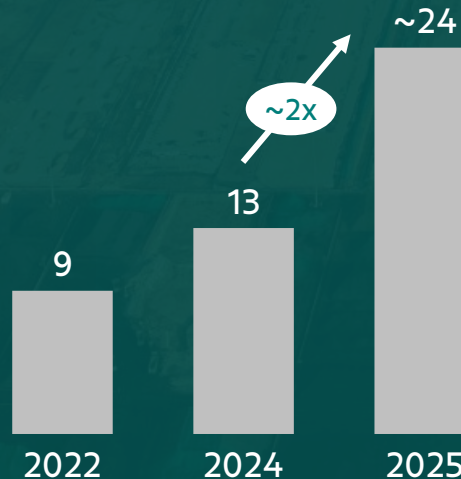
**Decisions
centered on
value creation**

Concentration of high-silica products as a catalyst for portfolio repositioning

Avg. quality (%)



PFC¹ product sales (Mt)



Unlocking concentration capacity through partnerships



Improved overall margin

- PFC margins are similar to high-silica ore products
- Lower high-silica ore supply leads to lower silica discounts, which benefits Vale's overall portfolio



Finding solutions for sand tailings as by-products

¹ Pellet Feed China.

Carajás mid-grade product well received by customers



Steelmaking with a cost-efficiency focus

- New product tailored to current market needs
- No blending required; competitive C1 cash cost



Premium product over 62% Fe index

- Pricing similar to BRBF
- ~63% Fe content



Maximizing value from Carajás reserves

- Improved strip ratio and reduced license requirement

**Mid-grade
Carajás**

**~25 Mt
to be sold in 2025**

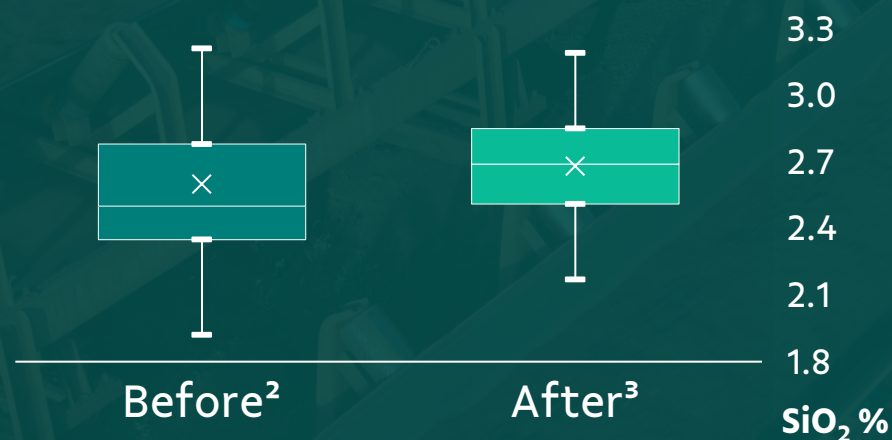


IOCJ new spec makes Northern System's mine plan more flexible

IOCJ specification

	Fe%	SiO ₂	Al ₂ O ₃	P	LOI ¹
Before ²	65.0%	2.2%	1.4%	0.07%	3.0
After ³	65.0%	2.7%	1.4%	0.07%	2.7

IOCJ batches SiO₂ variability:



Production optimization

- Improved mass availability mitigates licensing risks
- Potential use of “contact material”: volume and C1 benefits along with low phosphorous



Portfolio simplification

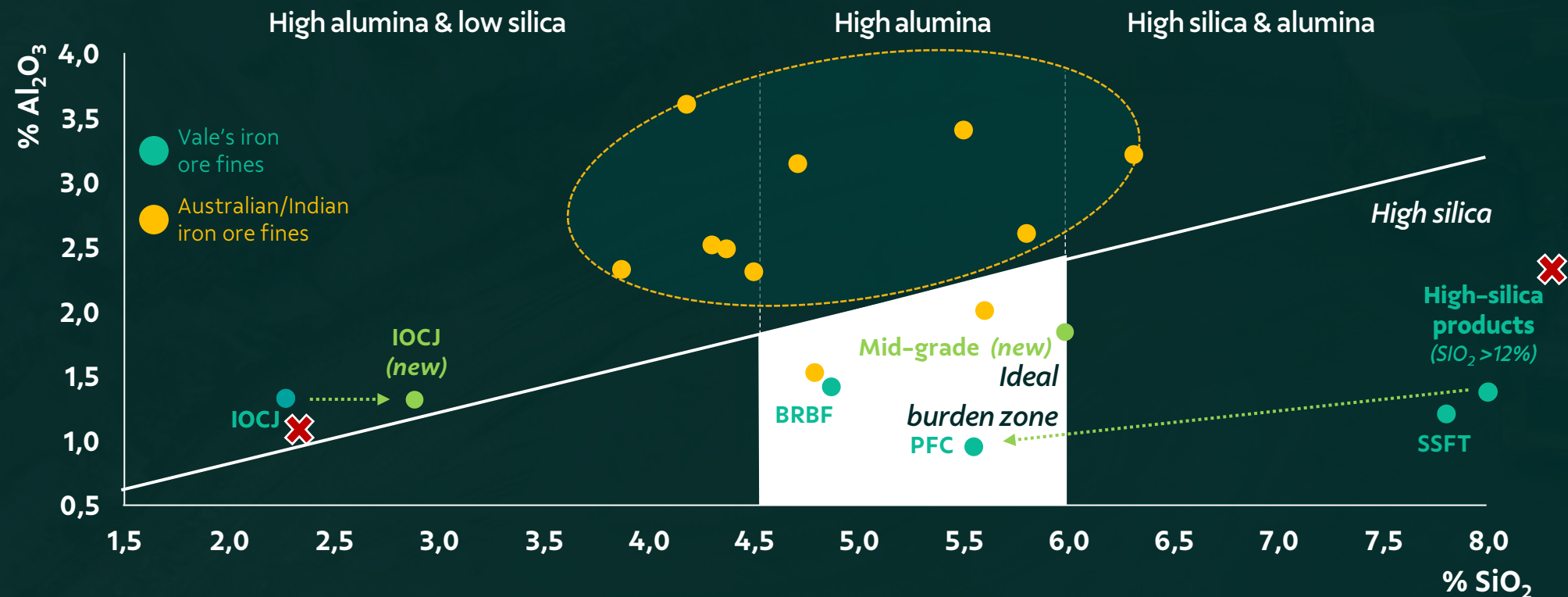
- Leaner product mix from the Northern System

¹ Loss on Ignition. The higher the LOI the higher the fuel consumption in the sintering process. ² IOCJ cargoes from January to April 2025. ³ IOCJ cargoes from May to July 2025.

Vale's flexible portfolio brings solutions closer to blast furnaces' baseload burden

$\text{Al}_2\text{O}_3/\text{SiO}_2$ diagram¹

2025 product portfolio



¹ The isocurve shows the $\text{Al}_2\text{O}_3/\text{SiO}_2$ ratio limit for an efficient sintering and blast furnace operation.

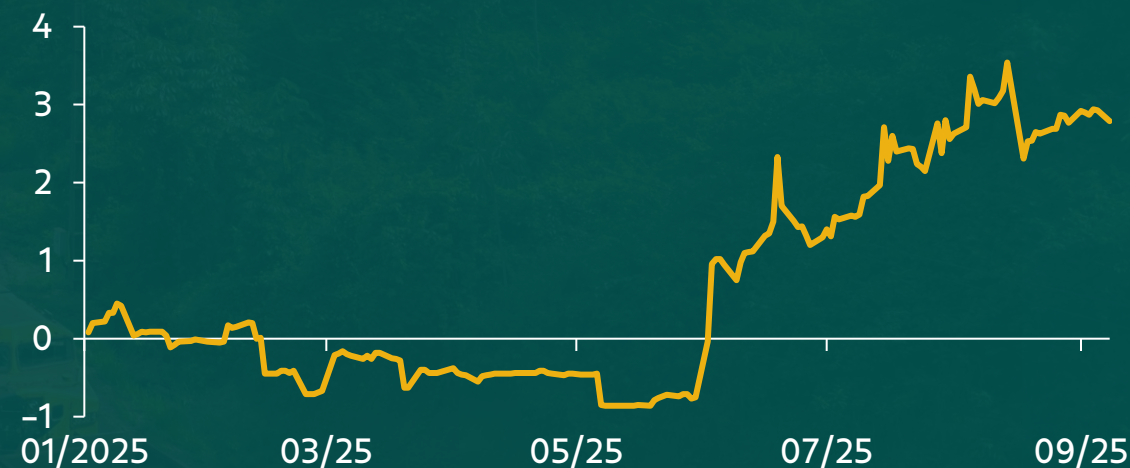
Portfolio strategy begins to unfold

Silica and alumina discounts¹ (US\$/t)



Silica penalty correction supporting Vale's price realization

62%Fe low alumina premium² (US\$/t)

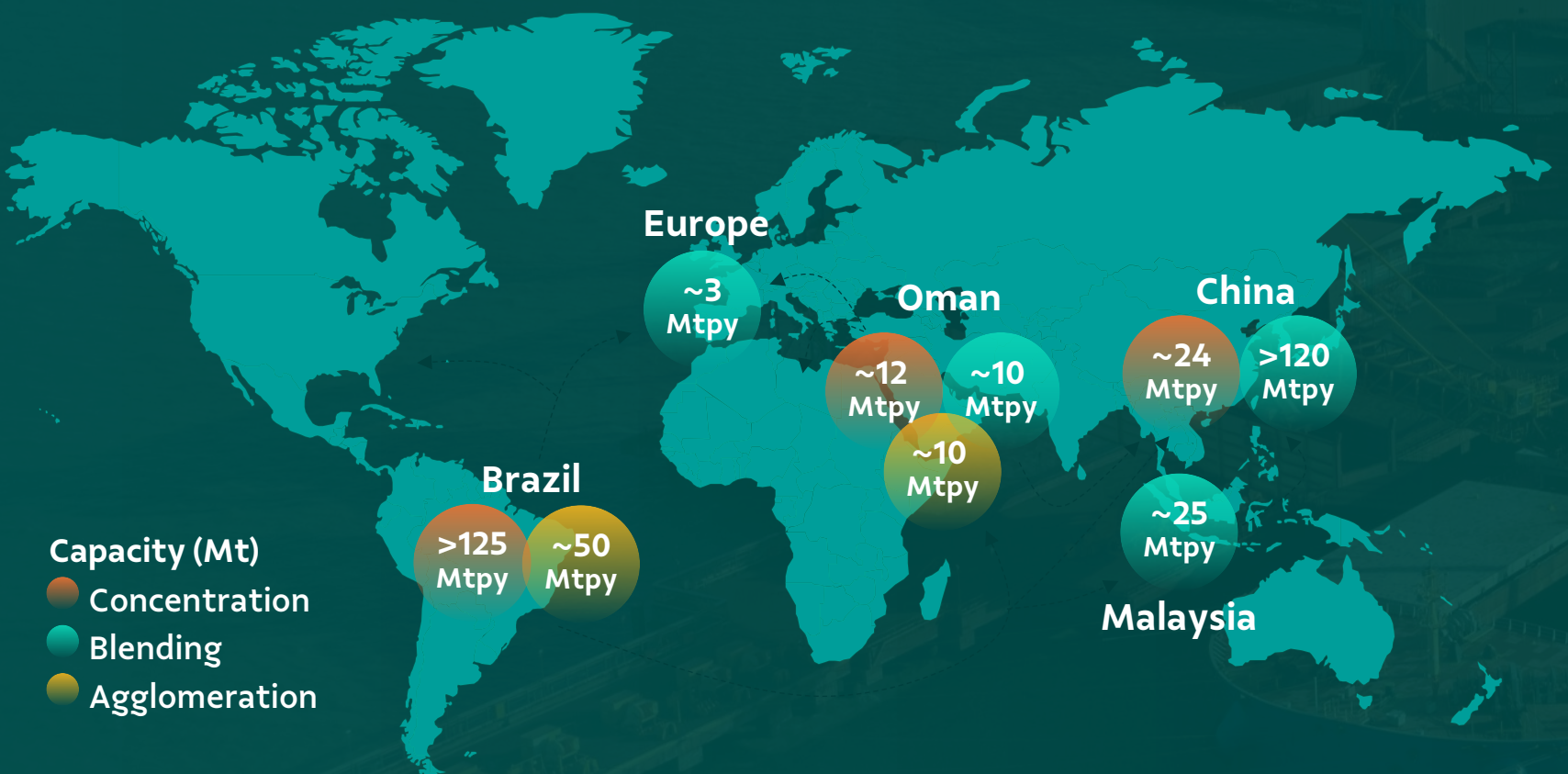


Demand for low alumina products, like BRBF and Carajás mid-grade, improving gradually

¹ Metal Bulletin indexes. ² Metal Bulletin 62%Fe low alumina index vs. 62%Fe index.

Supply chain flexibility supporting portfolio strategy and value creation

Vale's extended supply chain



20 blending ports
worldwide, increasing product offering flexibility

~165 Mtpy of concentration capacity
to offer optimized portfolio

Leadership in agglomerates market
supporting clients' productivity¹

¹ Agglomerates refers to iron ore pellets and briquettes.

A winning freight strategy

Freight rate Brazil-China (US\$/t)



Margin protection

- Competitive freight rates with protection against fly-ups



Mixed-sized fleet providing flexibility

- Large vessels driving scale
- Smaller vessels granting capillarity



State-of-the-art vessels

- High energy efficiency
- Vessels prepared for alternative fuels

¹ C3 refers to dry bulk Tubarão to Qingdao route.

Progressing towards low-carbon ironmaking



Partnerships



- Accelerating technology development
- MoUs¹ signed for 35% of Vale's Scope 3
- Jinnan DR² concentration plant (~12 Mtpy) to start-up in 2027



Mega Hubs



- Gas supply agreements in place for HBI plants in Oman
- Locking-in potential demand of 30+ Mt of DR feed in the next decade



Agglomerates



- Low-carbon solution for ironmaking
- 15 industrial tests concluded successfully

¹ Memorandum of Understanding. ² Direct reduction.

Key takeaways



Iron ore depletion reshaping supply

Quality deterioration leading to lower Fe and higher contaminants



Flexible portfolio to maximize value

Active portfolio strategy driving value generation



Supply chain leveraging portfolio

Comprehensive blending, concentration and distribution facilities



Progressing towards low-carbon

Advancing on Mega Hubs and partnerships





Analyst & Investor Tour 2025

Carlos Medeiros

Strategic foundations for production growth



Safety is our core value



Continuous improvements in
operational **stability & efficiency**



Enhancing **flexibility** across
operations and product portfolio



Safety is the core value in our pursuit of excellence

N2¹ events

*High-potential
recordable injuries*

-33%

7M25 vs. 7M24

Advancing towards an
accident-free work
environment

N3² record

*Reporting of
high potential events*

+21x

7M25 vs. 7M23

Reinforcing the preventing
mindset before accidents
materialize

Critical Risk Management³

>45%

Maintenance staff trained⁴
by 7M25

Focus on fatalities
prevention through
inspections and
conversations

P events

*Process safety events of
greater severity⁵*

-32%

7M25 vs. 7M24

through preventive actions
and critical controls
integrity

Note: All the numbers do not include Base Metals. ¹ N2 are events with high potential that causes lost time injuries and medical restrictions injuries. ² N3 are events with high potential that causes First aid, medical treatment and other high potential events. By registering them, Vale learns and carries out preventive actions to avoid N1 and N2 events. ³ Methodology that prevents fatalities, strengthens our safety conversations, and helps us ensure that everyone returns home safely. ⁴ Inspections carried out by qualified staff to use the CRM tool. ⁵ Process safety events are incidents that generate an unplanned or uncontrolled release of hazardous material or energy involving equipment or material involving operating assets (P1 and P2).

Improving stability & efficiency through technology and automation

Our approach



Monitoring



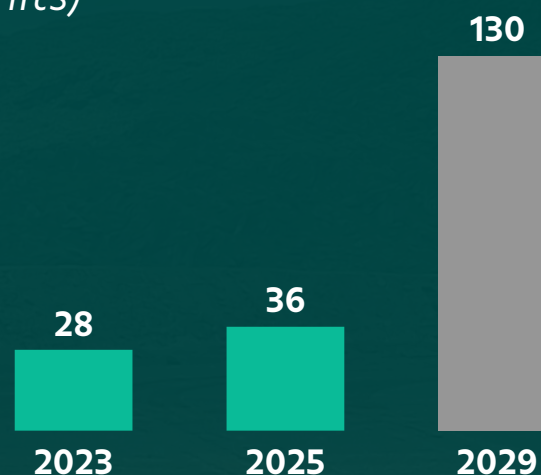
Optimization



Automation

Autonomous Program Case:

Vale's autonomous fleet
(units)



**100% autonomous fleet at
Brucutu and Capanema
70 trucks at Serra Norte by 2029**

Results vs. conventional fleet

Asset utilization¹: **+4 p.p**

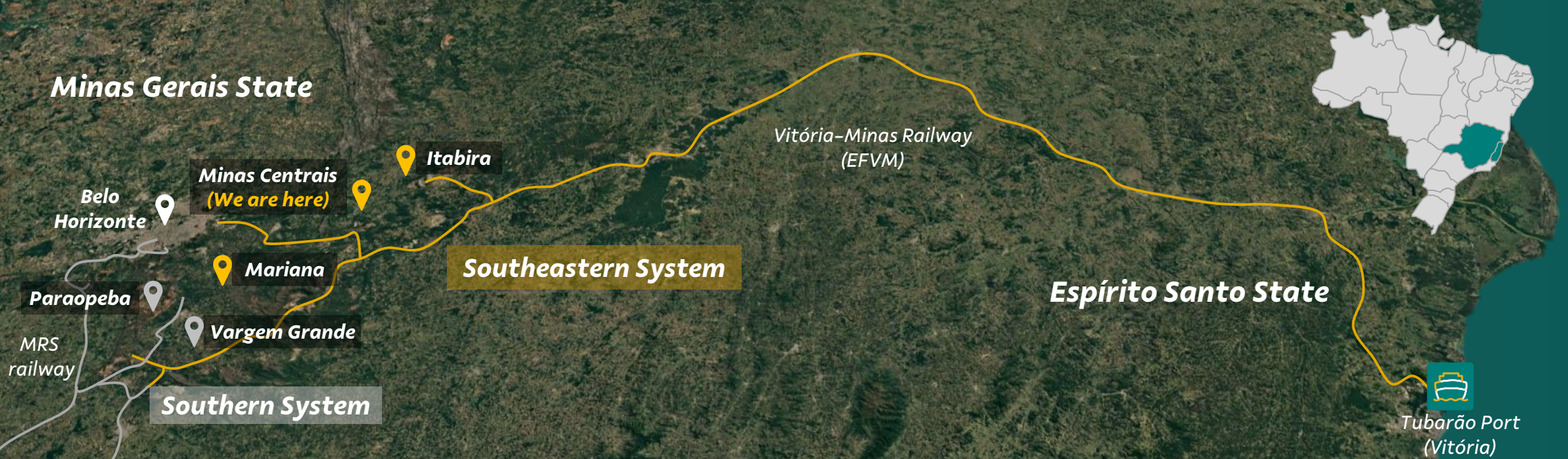
Fuel consumption: **-15%**

Average speed: **+10%**

C1 cash cost: **US\$ -0.30/t**

¹ Asset utilization rate represents the percentage of hours the asset has been in operation.

Southeastern System at the heart of our strategy



Brucutu (Minas Centrais)

Resuming efficient capacity through new processing lines and asset optimization

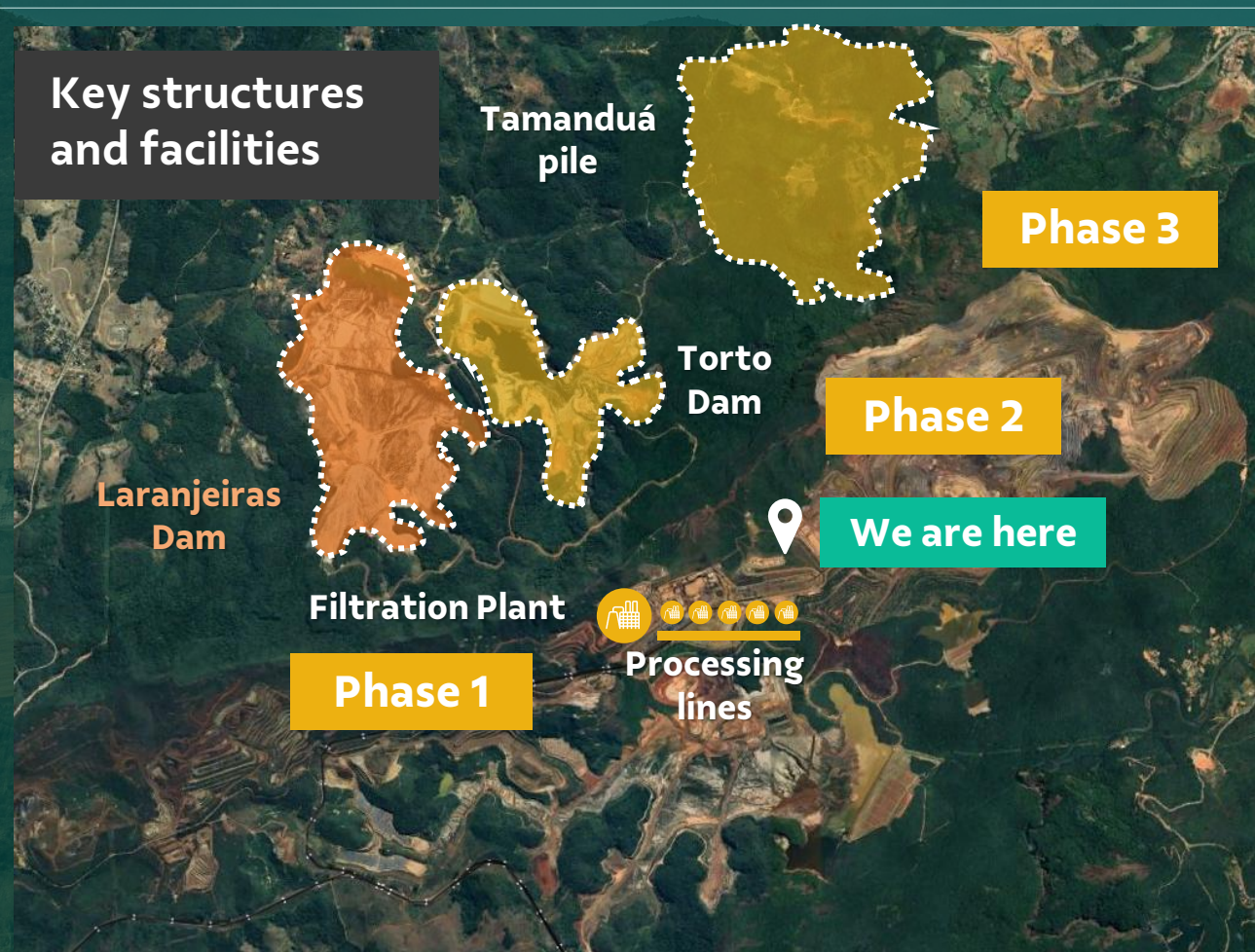
Capanema (Mariana)

Supporting blending strategy with low-cost volumes

Conceição II (Itabira)

Increasing high-quality pellet feed production through innovative solutions

Brucutu: Bringing back efficient capacity with product flexibility



Phase 1 Filtration plant

- Commissioned in 2021
- Operations restricted to ~11 Mtpy until then

**~20
Mtpy**

Phase 2 Torto Dam and 4th line

- Torto Dam commissioned in 2023
- 4th line re-started in Sep 2024

**~25
Mtpy**

Phase 3 Tamanduá and 5th line

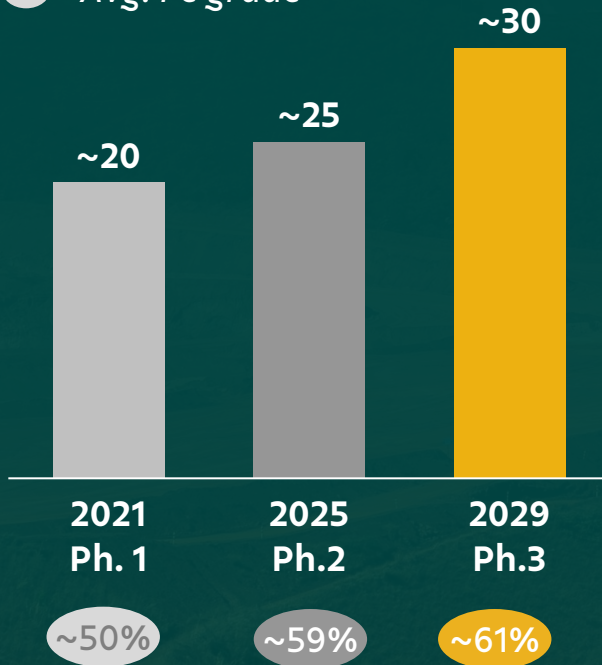
- Tamanduá pile license obtained in Dec 2024
- Project brought forward by 2 years (start-up in 2028)
- 5th line planned to re-start in 2029

**~30
Mtpy**

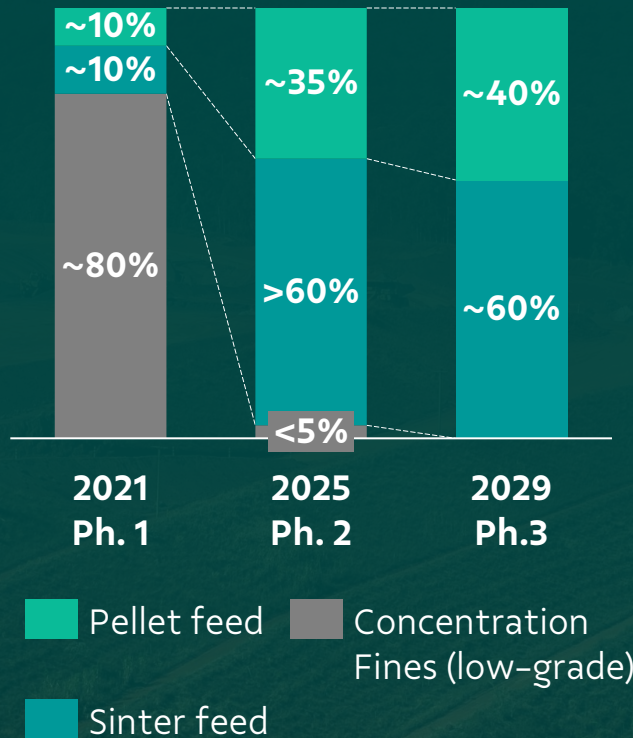
Brucutu: Bringing back efficient capacity with product flexibility

Prod. capacity (Mtpy)

● Avg. Fe grade



Product mix (%)



Improve in product mix

- Higher pellet feed availability
- Phasing out lower-grade materials
- Increase in sinter feed quality



Competitive volumes

- C1 cash cost currently at ~\$21/t; progressively decreasing to <US\$ 20/t
- ~US\$ 35/t capital intensity for Ph. 3

Capanema: Delivering quality stability at low cost, supporting blending strategy

Processing plants

Mine pit

WH
wastepile



Adding low-cost volumes

- +15Mt with low C1 (< US\$20/t)
- Very-low strip ratio (0.1x)



Lower SiO₂ supporting blending

- ~9% SiO₂ vs. 14% from high-silica portfolio

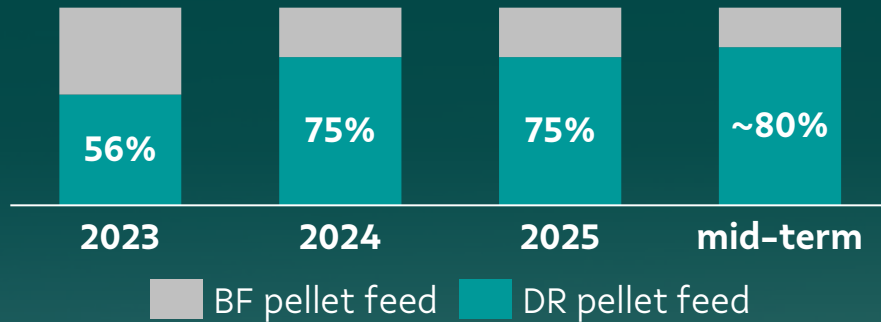


Leveraging from circularity

- 100 Mt production from wastepile until 2033

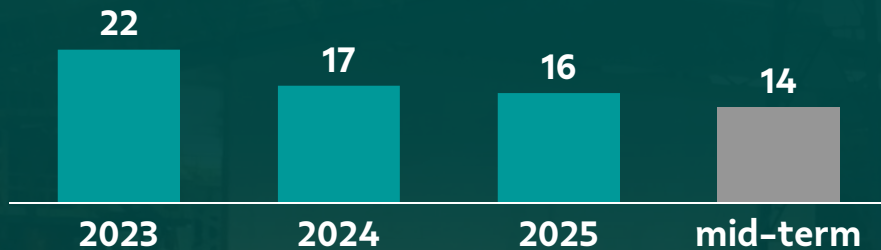
Itabira: Increasing high-quality pellet feed production through innovative solutions

Conceição II plant production¹ (Mt)



¹ Already included in Vale's production plan.

Fe content in the tailings (%)



Increasing iron recovery in the concentration process

Mine-plant integration driving stability

- Real-time adjustment of processing plants based on the physical and chemical composition of the ROM

Scalable model

- Roll-out planned for Brucutu and Vargem Grande

Enhanced product mix

- +2 Mt in DR pellet feed production capacity
- Improving profitability in US\$ 13/t vs. BF pellet feed

Building flexibility for the future



¹ Project approved. Installation license pending for construction advancement at Serra Norte. ² Includes works for waste and filtered/dry stacked tailings disposal in the Southeastern and Southern Systems.

³ Capacity to process run-of-mine and waste, including jaspilite.



Key takeaways



Increased productivity and reliability

Delivering safety and consistency supported by technology



Solid operational performance

Highly confident in achieving 2025 production guidance



Ramping-up key projects

Capanema, Brucutu and Vargem Grande supporting production growth



Flexibility to maximize value

Creating alternatives to generate value in different scenarios





Analyst & Investor Tour 2025

Marcelo Bacci

Superior portfolio gaining momentum in 2025



Scaling up **IO and copper** with highly accretive projects

- Vargem Grande and Capanema ramping-up
- Bacaba Preliminary License obtained
- Implementing Serra Sul +20



Flexible portfolio as key to competitiveness

- New mid-grade Carajás product
- Enhanced product mix
- Innovative solutions



Value-oriented decisions to optimize our assets

- Operational excellence driving cost improvements
- CAPEX efficiency
- Focus on asset-light opportunities

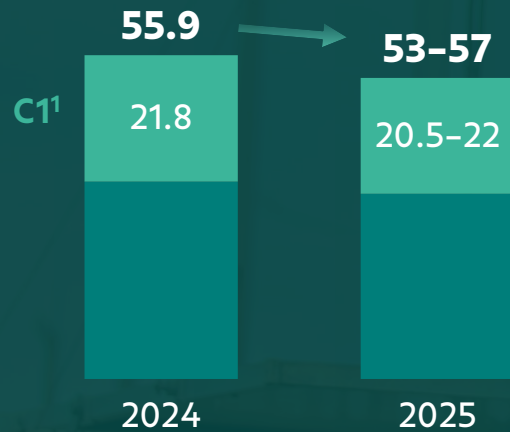


Comprehensive **cost reduction**

All-in costs

Iron Ore

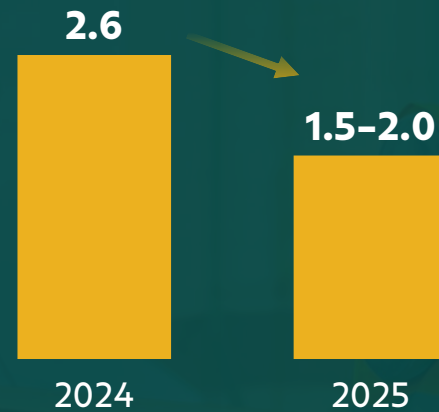
(US\$/t)



- Higher volumes leading to fixed cost dilution
- Efficiency program
- Product mix optimization

Copper

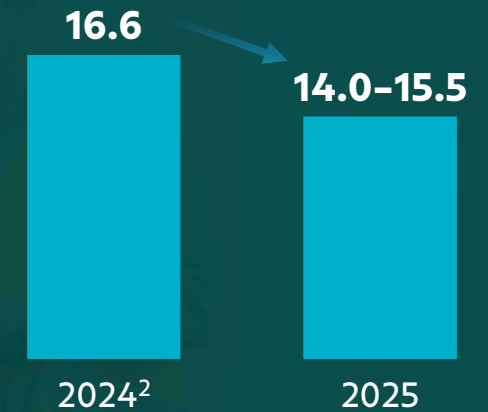
('000 US\$/t)



- Higher volumes leading to fixed cost dilution
- Higher by-product revenues

Nickel

('000 US\$/t)

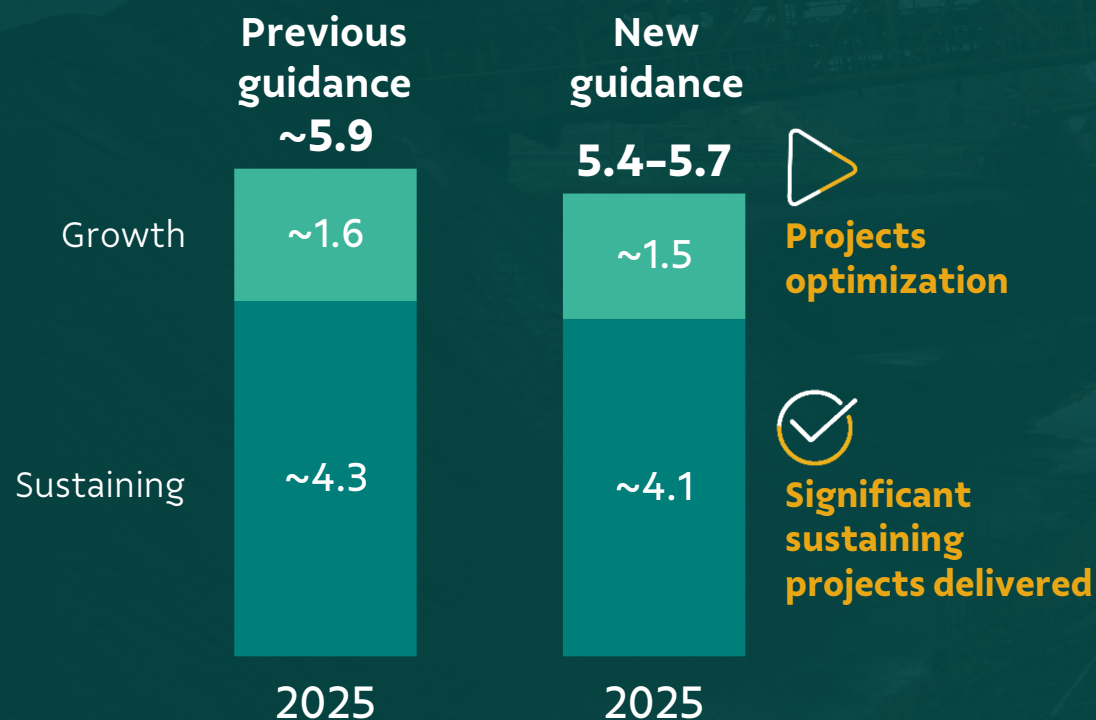


- VBME ramp-up and higher volumes at Sudbury
- Improved operational performance
- Portfolio optimization

¹ C1 ex-third party purchase cost. ² 2024 adjusted to reflect the deconsolidation of PTVI.

Capital allocation: **staying disciplined**

CAPEX (US\$ bn)



CAPEX optimization

supported by efficiency program

+ US\$ 1 billion

in proceeds from Aliança transaction

Healthy FCF generation

2x FCF yield vs diversified peers; supporting shareholder remuneration

Key takeaways



Portfolio set to generate long-term value

Building a resilient and flexible portfolio



Sustained cost reduction underway

Improving all-in costs securing competitiveness through-the-cycle



Value anchored in capital efficiency

Continuously capturing opportunities to optimize CAPEX



Robust and consistent returns

Strong returns while delivering on our commitments



