



2022 BofA Securities Global Metals, Mining & Steel Conference

Eduardo Bartolomeo, CEO

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Disclaimer

“This presentation may include statements that present Vale's expectations about future events or results. All statements, when based upon expectations about the future involve various risks and uncertainties. Vale cannot guarantee that such statements will prove correct. These risks and uncertainties include factors related to the following: (a) the countries where we operate, especially Brazil and Canada; (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; and (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.”

We are building a better Vale

De-risking



- Brumadinho
- Mariana
- Dam safety
- Production resumption

Reshaping



- Focus on core business
- Elimination of cash drains
- Accretive growth opportunities
- Cost efficiency

Re-rating



- Benchmark in safety
- Best-in-class reliable operator
- Talent-driven organization
- Leader in low carbon mining and ESG practices
- Reference in creating and sharing value

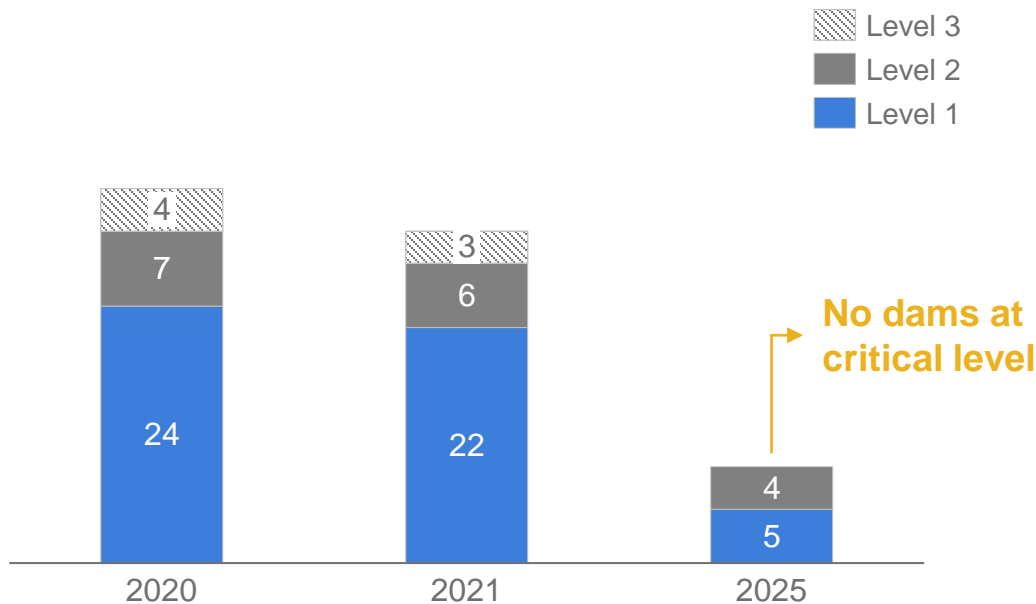
Sound cash flow generation

Discipline in capital allocation

Best practices supporting key achievements in dam management

Structures at emergency level

structures



3 backup dams built for the structures at emergency level 3



40% of upstream structures to be de-characterized by 2022



100% of TSF¹ with HIRA² implemented by 2022



~90% adherent to GISTM³⁴ in 2022

¹ Tailings Storage Facility. ² Hazard Identification and Risk Assessment. ³ Global Industry Standard on Tailings Management. ⁴ Based on the external audit results. Structures held by joint-ventures are not included.

Building a sustainable performance in H&S underpinned by VPS best practices



Strengthening the **culture of safety**

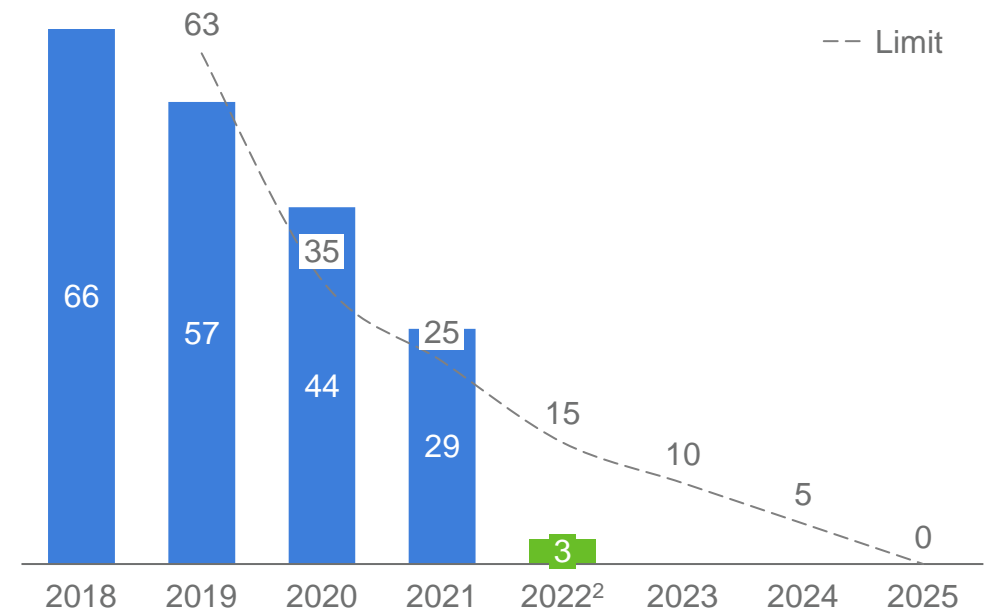


Reinforcing **risk management** through **HIRA**¹, with 100% of Vale's sites assessed in 2021



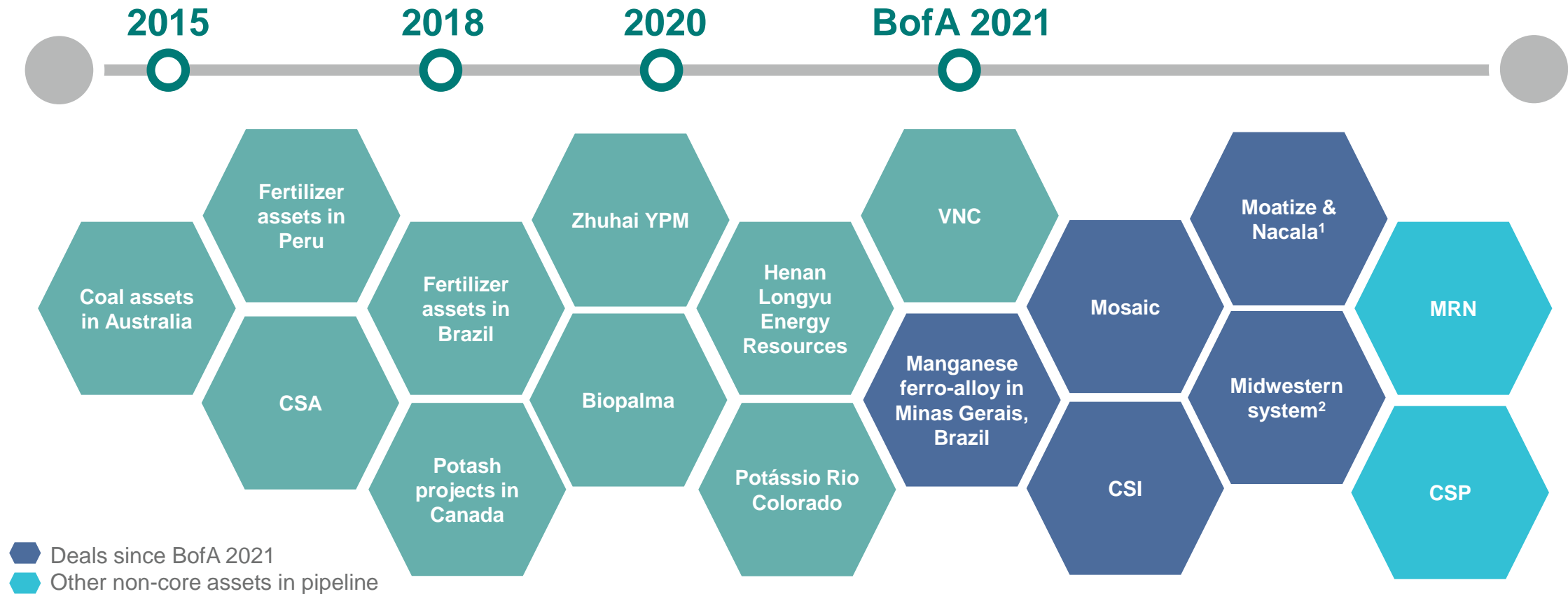
Empowering our workforce with **Transparency, Leadership and Performance** through **VPS**

Reduction of high-potential recordable injuries
N2 – absolute values



¹ Hazard Identification and Risk Assessment. ² Up end of April 2022.

We made substantial progress in **reshaping our portfolio**



¹ Vale entered into a bidding in December 2021 and announced the closing of the transaction in April 2022. The completion of the transaction is subject to compliance with the usual precedent conditions.

² Vale announced in April 2022 that it has signed a binding agreement for the sale. The completion of the transaction is subject to compliance with the usual precedent conditions.

Vale is uniquely positioned to benefit from secular trends affecting mining

**Energy transition and decarbonization:
resilient demand (including for Class I Iron Ore!)**

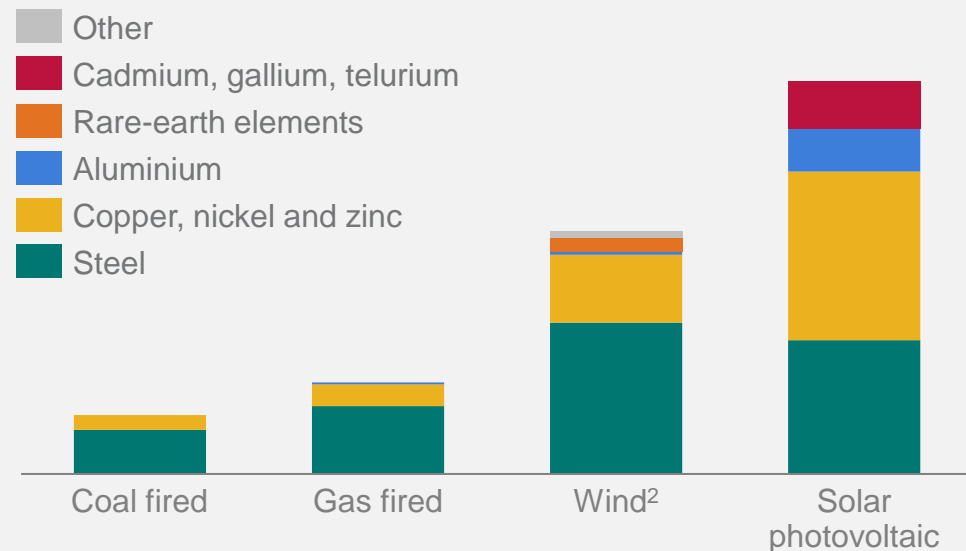
**Supply constraints:
depletion, ESG, complex jurisdictions, slower time-to-market**

**Geopolitics dynamics:
rising restrictions on sourcing, nearshoring, scarcity value**

Metals intensity should increase in an energy-transition world

Energy transition requires a high-intensive metals consumption...

Power generation - Material intensity
ton of Cu eq.¹ per terawatt-hour



...while other drivers are also working to shift demand to new levels



Population and income growth will still be major drivers for commodities demand



EV has **6x the mineral requirements** vs. an ICE car



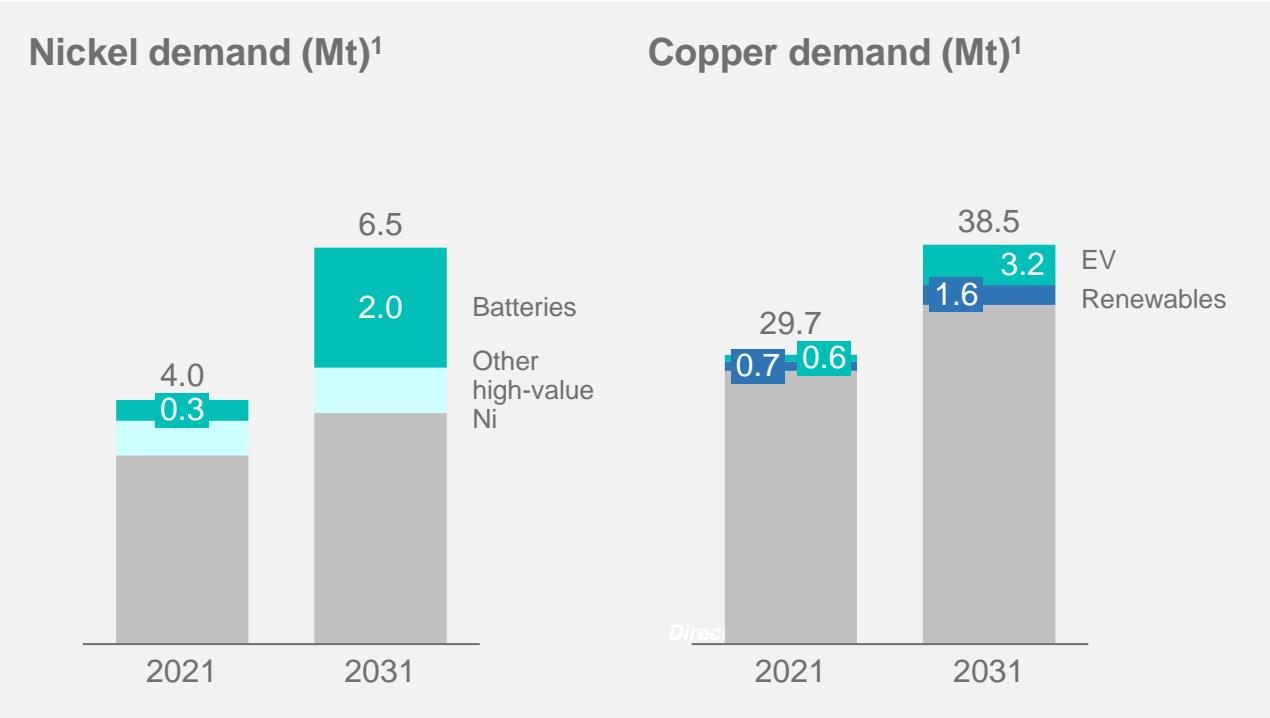
Industrial reshoring/onshoring leading to new investments

Source: World Steel Association, IEA, BofA and McKinsey & Company.

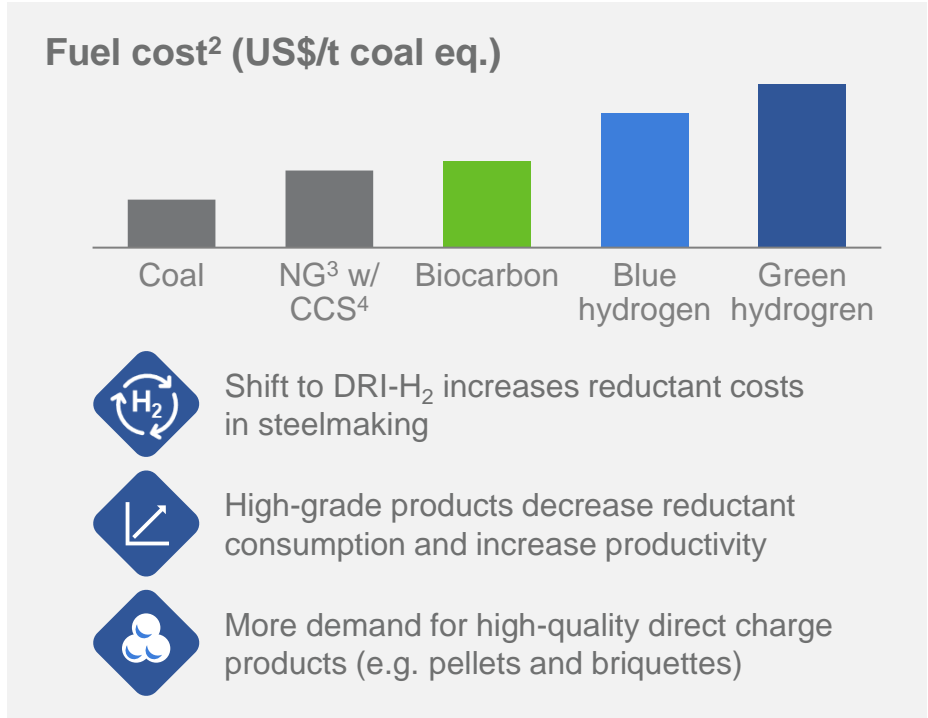
¹ Copper equivalent. Cu eq, conversion used 2015–21 average prices for each metal. ² Estimated average across different technologies, for onshore and offshore.

Energy is the name of the game

Low-carbon nickel and copper are the basis for energy transition



High-grade iron ore enabling steelmaking decarbonization



Source: Vale's estimates.

¹ Total demand. Includes secondary demand (scrap). ² Assumptions: Biochar@\$250/ton; Electricity@\$30/MWh; CCS@\$60/ton.CO₂ ³ Natural gas. ⁴ Carbon capture and storage.

Underestimated supply restrictions lead to a stronger-for-longer commodities cycle



Mines depletion

- Volume replacement needs + grades lowering



Complex licensing process

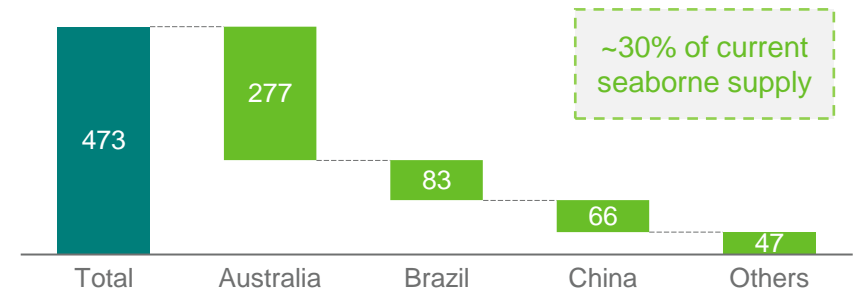
- Stringent ESG standards



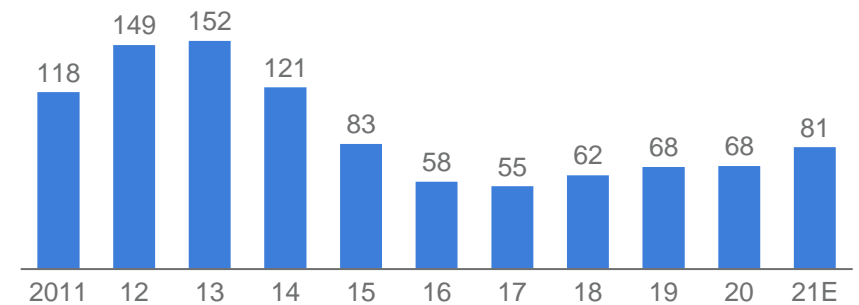
Industry capital discipline

- Lessons learned from last super-cycle and incentives misaligned

Iron ore volumes depletion (2021-2030) – Mt



Mining industry Capex – US\$ bn¹

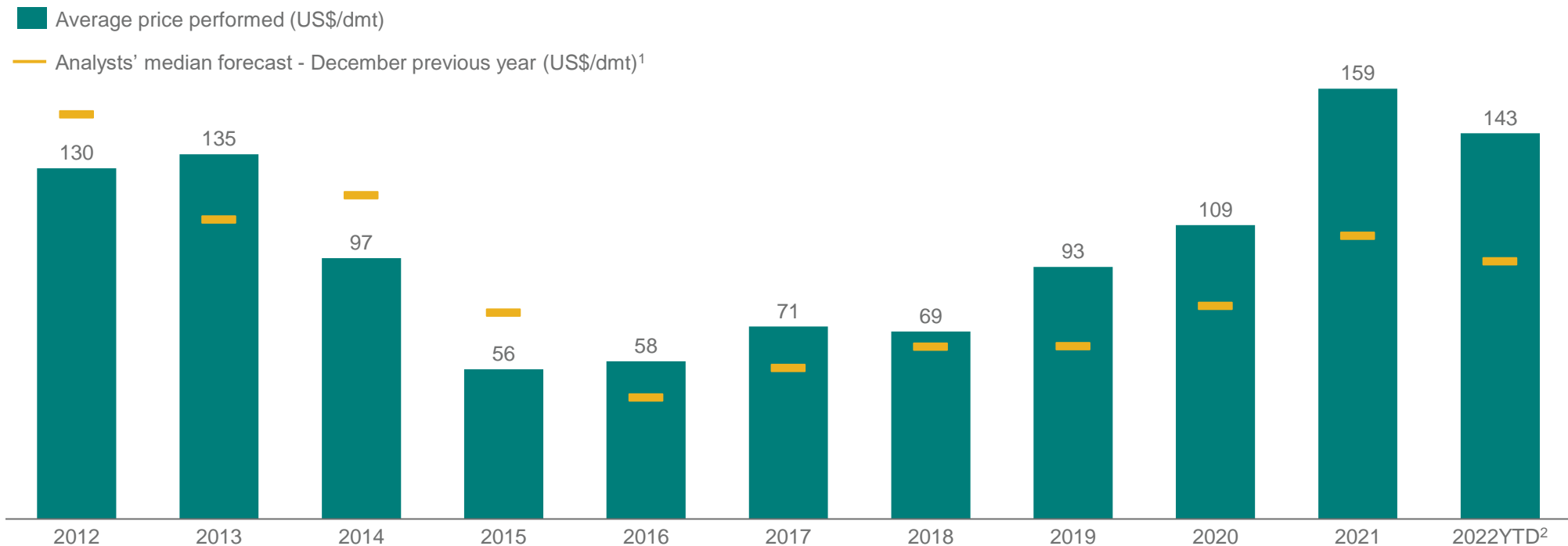


Source: Vale analysis and PWC Mine 2021 Report.

¹ Considers Top 40 Metals & Mining companies. Capex adjusted by US PPI (\$2021 real).

Since 2016, forecasts have underestimated iron ore prices

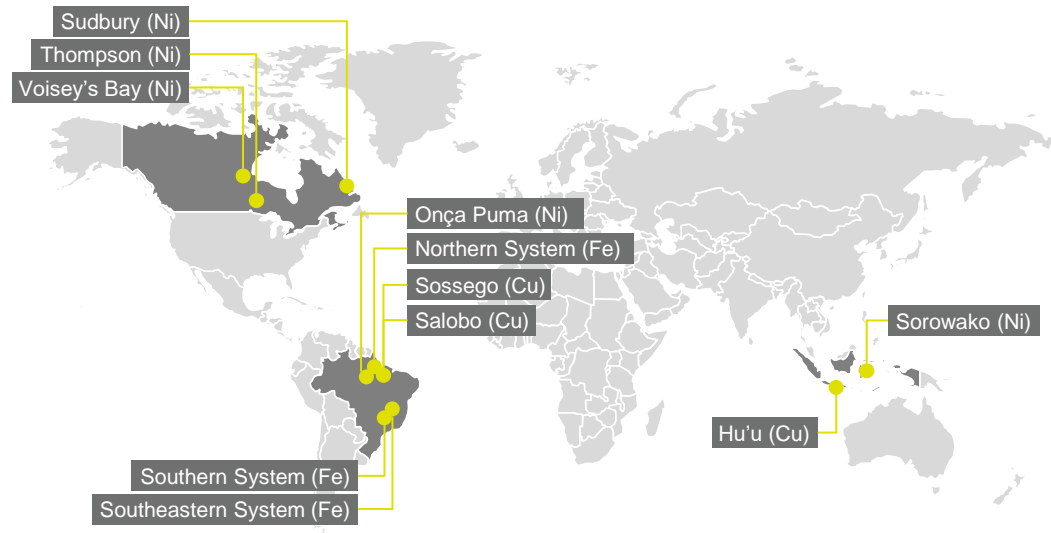
Iron ore CFR China price (US\$/dmt)



¹ Median based on estimates from December Y-1 of each year. ² Up to April 13th, 2022. Median estimate is a yearly forecast.

Vale is uniquely positioned to thrive

Over 100 years of technical expertise aligned with the right assets in the right jurisdictions



Large resource base

- Carajás mining province (Fe and Cu)
- Top 3 or better resource position in each jurisdiction in Base Metals

Cost competitive

- 1st and 2nd quartile in most of assets
- Quality premiums and by-products revenues

Green portfolio

- Premium iron ore (IOCJ, BRBF pellets, briquettes)
- Nickel class 1
- Copper

Growth opportunities

- Capacity resumption in iron ore
- Base metals projects

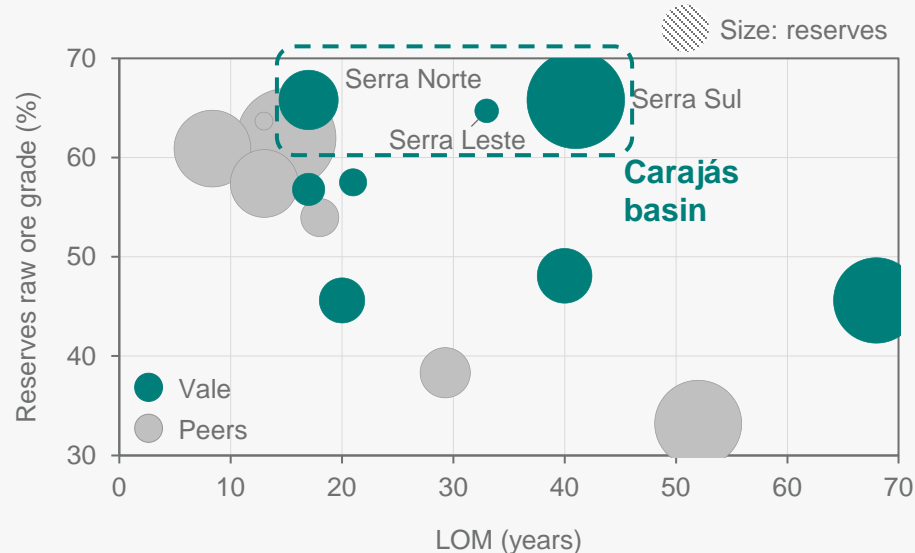
Sizable reserves and resources enable supply optionality and long-life valuation

Large resource base	Cost competitive
Green portfolio	Growth opportunities

Vale is positioned in tier 1 mining jurisdictions

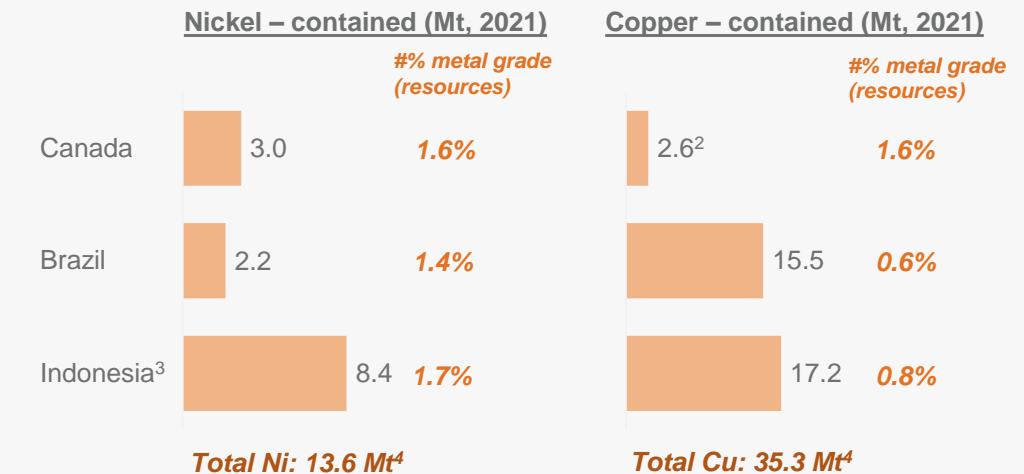
Iron ore

Carajás is the best iron ore reserve basin in the industry



Base Metals

Top 3 or better resource positioned in each jurisdiction for primary mined metals¹



Source: Vale and peers annual reports.

Note: Vale's 2021 Mineral Resource estimates as of December 31, 2021. Mineral Resources are inclusive of reserves measured, indicated and inferred categories. All tonnage information has been rounded to reflect the relative uncertainty in the estimates. ¹ Primary mined metals refers to nickel for Canada, copper and nickel each for Brazil and Indonesia. For Canadian copper, which is a byproduct, Vale is not Top 3 in resources. ² Copper is a byproduct of Canadian nickel operations. ³ Minerals resources are shown in 100% basis. Considering Vale's interest in PTVI (44.3%) and PT STM - Hu'u project (80%), resources in Indonesia in equity basis would be 3.7 Mt for Nickel and 13.7 Mt for Copper. ⁴ Total minerals resources are shown in 100% basis. Considering Vale's interest, resource in equity basis would be 8.8 Mt for Nickel and 31.8 Mt for Copper.

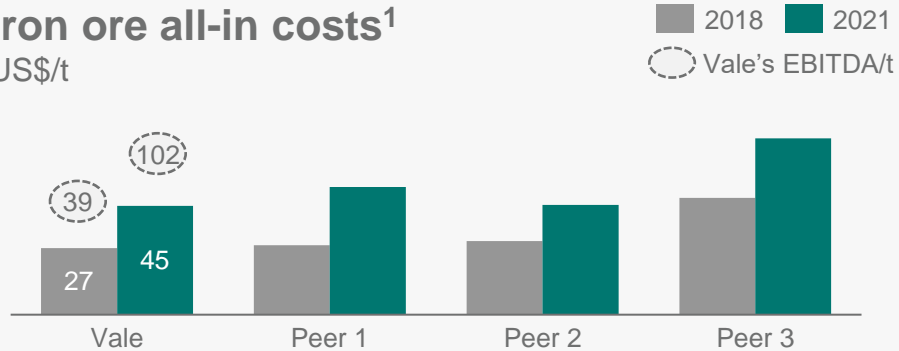


Competitive cost structure to deliver value across the cycle

Large resource base	Cost competitive
Green portfolio	Growth opportunities

Iron ore

Iron ore all-in costs¹
US\$/t



Solid and growing premiums
(US\$ 9.1/t all-in premiums in 1Q22)



Winning shipping strategy
(LT contracts and Valemaxes/Guaibamaxs)

Nickel

Less than
US\$ 8,500/t
average cost² in 2021



1st quartile in
Canada operations



~US\$ 8,700
EBITDA/t in 2021

Copper (Brazil)

Less than
US\$ 1,500/t
average cost² in 2021



~US\$ 750/t Salobo
average net cost²



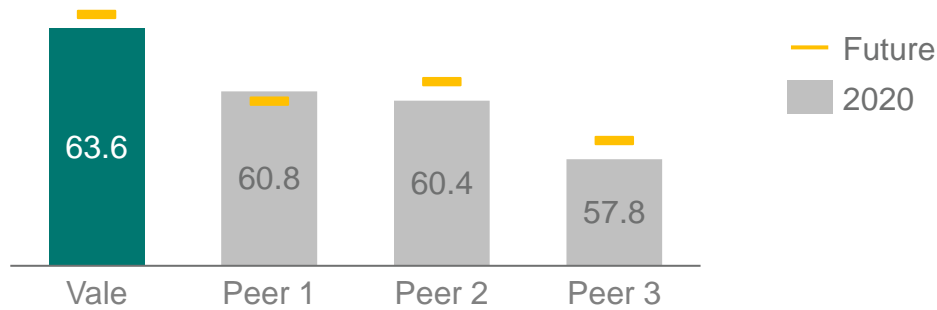
~US\$ 7,500
EBITDA/t in 2021

¹ Iron ore fines and pellets EBITDA break-even. Does not include sustaining investments. ² COGS after by-products revenues in 2021.

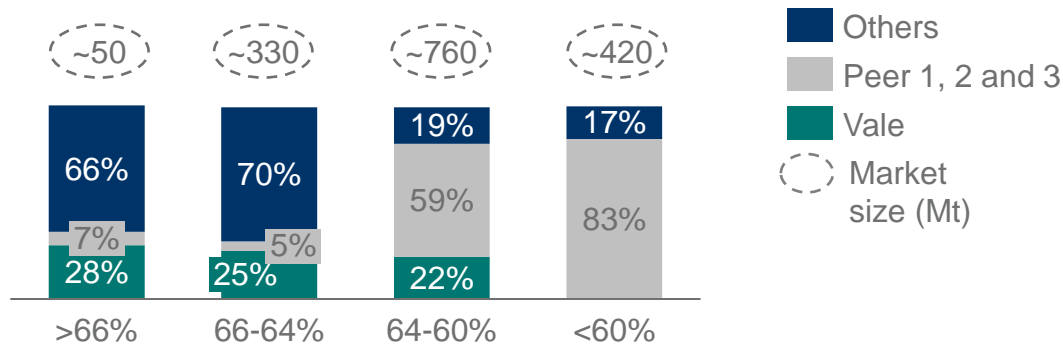
We are growing our **Class-1 iron ore** portfolio to decarbonize steelmaking...

Large resource base	Cost competitive
Green portfolio	Growth opportunities

Average Fe content (%Fe)



Seaborne supply by Fe grade (% , 2020)¹



Source: Vale's analysis.

¹ Considering final products sales grade, including blended products. Does not include Chinese domestic production. Brikette is a breakthrough technology developed in-house and patented by Vale.

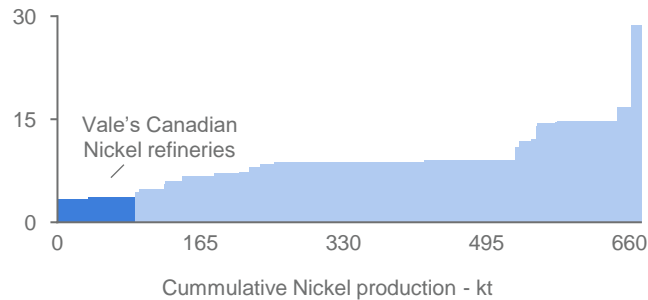
² Considering the substitution of sintering process in steelmaking plants (BF-BOF route). Green

... while supporting **economy electrification in Base Metals**

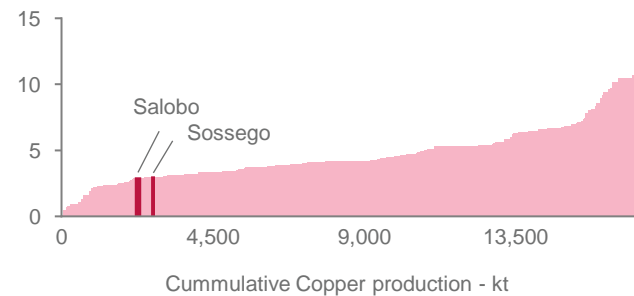
Large resource base	Cost competitive
Green portfolio	Growth opportunities

Low-carbon base metals operations

Ni Sulphide producers finished nickel, CO₂ Mt/t Ni cont.¹, 2020



Cu Copper in concentrates and SxEw, Mt CO₂/t Cu cont.¹, 2020



Leveraging our **low-carbon footprint** and market-leading position as North America's largest producer of finished nickel:



Recently announced **agreements** with Northvolt and Tesla



Target to deliver **30% to 40% of Class 1 nickel** sales into the fast-growing **EV industry**











Certificate of carbon footprint for nickel products:

- Rounds from Long Harbour
- Pellets and powders from Sudbury **NEW**
- Pellets from Clydach **NEW**

Source: Vale and Skarn.
¹ Scope 1 and 2.

One of the **best project portfolio** in the industry...

Large resource base	Cost competitive
Green portfolio	Growth opportunities

	 Exploration/ Conceptual	 Scoping study	 Pre-feasibility study	 Definitive feasibility study	 Execution
Iron ore 	<ul style="list-style-type: none"> S11A and S11B Carajás new ore bodies Expansions in Minas Gerais 	<ul style="list-style-type: none"> Serpentina Dry concentration plants Itabirite projects 	<ul style="list-style-type: none"> Apolo Morro 2 S11C Serra Leste expansion 	<ul style="list-style-type: none"> N1/N2 Dry concentration Oman Alegria expansion Other briquette plants 	<ul style="list-style-type: none"> Northern System 240 Mtpa Serra Sul 120 Gelado + Usina 1 conversion Capanema N3 Briquette plants¹ VGR dry concentration
Nickel 	<ul style="list-style-type: none"> Pipe Pit SN Ella South Mystery Manitoba Ultramafics Sudbury Exp. Targets Voisey's Bay Exp. Targets 	<ul style="list-style-type: none"> Stobie Pit Cryderman 	<ul style="list-style-type: none"> CCM 3 & 4 Manitoba Ext Ph2 Blezard CCM Pit Creighton Ph 5 Ella Capre Sorowako Limonites 	<ul style="list-style-type: none"> Victor² Discovery Hill Open Pit Pomalaa Bahodopi Onca Puma 2nd Furnace 	<ul style="list-style-type: none"> CCM 1 VBME Manitoba Ext Ph. 1
Copper 	<ul style="list-style-type: none"> South Hub Exp. Targets Salobo Satellite Other Carajas Exp. Targets 	<ul style="list-style-type: none"> 118 Underground North Hub (PGG, Furnas & Paulo Afonso) 	<ul style="list-style-type: none"> Visconde Barão Salobo IV Sossego Exp (2nd Line) Hu'u 	<ul style="list-style-type: none"> Cristalino Alemao Bacaba 	<ul style="list-style-type: none"> Salobo 3

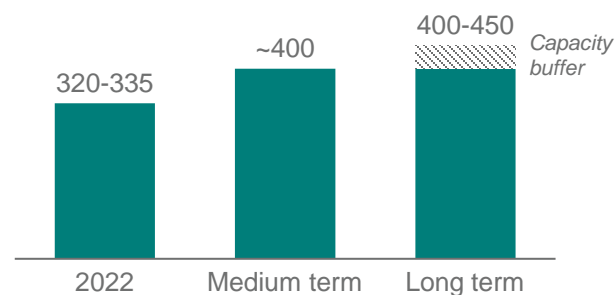
Note: Stages of development are not indicative of schedule of approval. Only those in execution have been approved.

¹ Includes Vargem Grande (0.75 Mtpy) and Tubarão 1&2 (6 Mtpy) briquette plant projects. ² Victor is expected to produce ~20kt of copper. It is allocated to the nickel business as it should feed into the North Atlantic nickel flowsheet.

... leading us to accretive and broad growth opportunities

Large resource base	Cost competitive
Green portfolio	Growth opportunities

Iron ore (Mt)



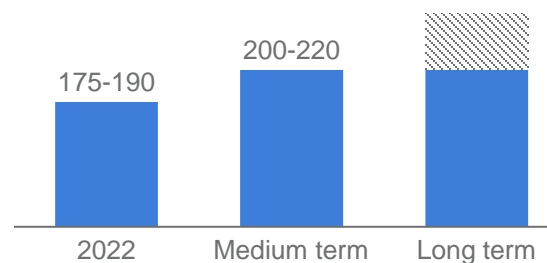
Medium term

- Tailings' filtration plants and start-up of Torto dam and raising of Itabiruçu dam
- S11D capacity/performance, licensing in Serra Norte and Gelado project
- Capanema project

Long term

- Production flexibility in Northern System
- Logistics expansion in Northern System

Nickel (kt)



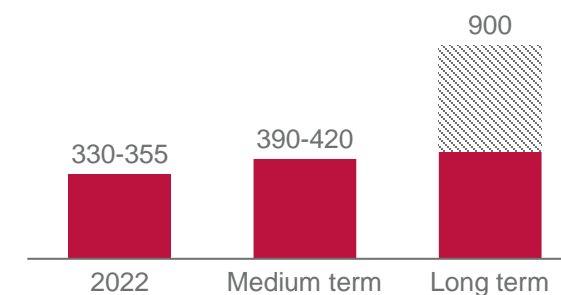
Medium term

- Stable production at North Atlantic and new projects (VBME, CCM 1 and Victor).
- Onça Puma stabilization
- PTVI furnace rebuild
- Onça Puma 2nd furnace

Long term

- Extensive drilling program in Canada and optionality in Indonesia

Copper (kt)



Medium term

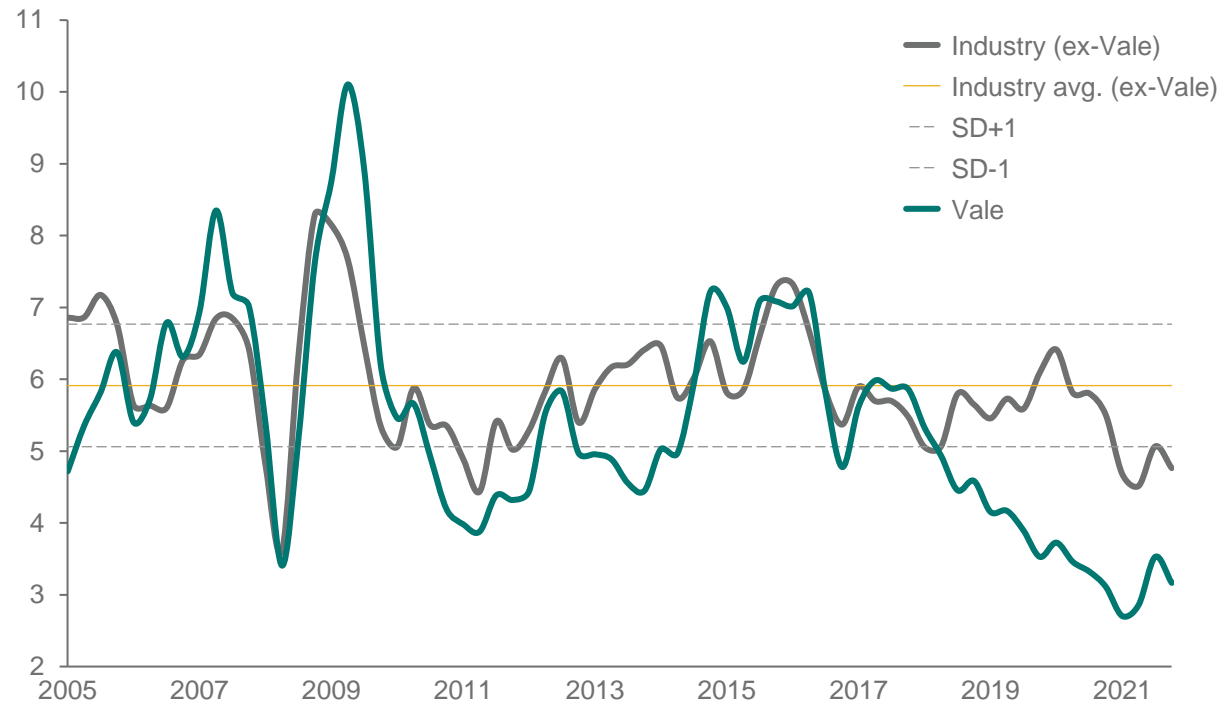
- Stable production at North Atlantic mines
- Salobo III start-up in 2H22

Long term

- Growth optionalities in Carajás region (e.g. Alemão, South Hub extension, North Hub extension Salobo IV)
- Hu'u development in Indonesia

We are walking the talk to **close the gap**, but **industry is also materially underrated**

EV/EBITDA¹



Progress of the **de-risking, reshaping and re-rating** agenda



Unlock Base Metals value achieving sector-specific multiples



Maintenance of **solid return to shareholders**

Source: Bloomberg. Includes data from Vale, Anglo American, Antofagasta, Barrick Gold, BHP, FMG, Freeport-McMoRan, Glencore, Nor Nickel (until end of 2021), Rio Tinto, South32, Teck and Xstrata (former).

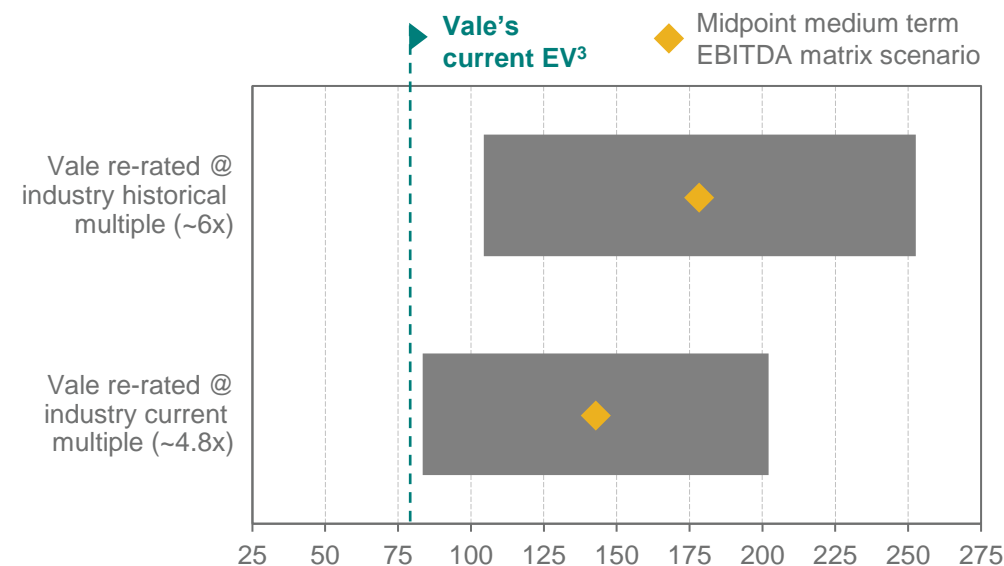
¹ Consensus analysts median 12M forecast EBITDA.

Coupled with growth, Vale can unlock substantial value

Medium term EBITDA¹ (US\$ billion)

		Iron ore margins ² (US\$/t)		
		40	70	100
Base metals margins ² (US\$/t)	Ni: 6,000 Cu: 4,500	~17.4	~28.9	~40.5
	Ni: 7,500 Cu: 6,000	~18.2	~29.8	~41.3
	Ni: 9,000 Cu: 7,500	~19.0	~30.6	~42.1

Enterprise value potential (US\$ billion)



¹ Sensitive analysis. Assuming ~385 Mt of iron ore and pellets sales (considering pelletizing process losses and inventory transportation and management), ~220 kt of Ni sales and ~420 ktpy of copper sales (including copper as by-product). Considers others non-related business costs and expenses. ² EBITDA per ton. Iron ore@US\$100/t, nickel@US\$9,000/t and copper@US\$7,500/t margin scenario refers to the approximately margins of 2021 and iron ore@US\$40/t, nickel@US\$6,000/t and copper@US\$4,500/t margin scenario refers to the approximately margins of 2018. ³ As of May 13th, 2022.

Committed to generate **solid shareholder returns**



Sustaining and growth opportunities

US\$ 5.0 – 6.0 bn of annual avg. CAPEX¹

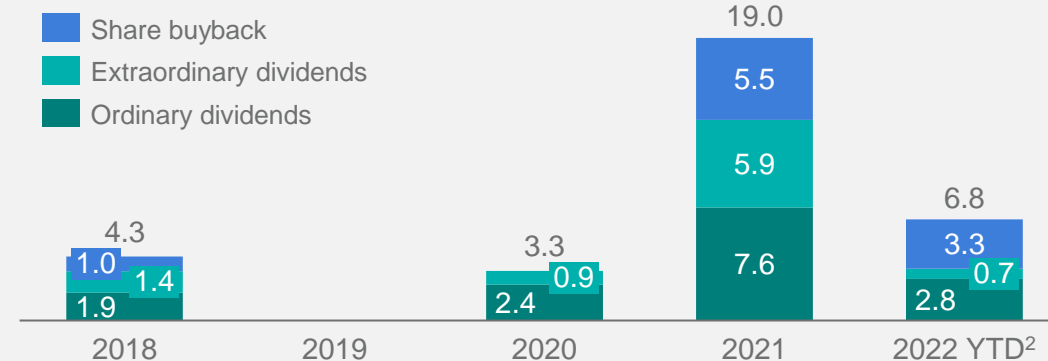


Stable dividends



Share buyback programs

Free cash flow returned to shareholder US\$ billion



- **~20% dividend yield since 2021³**
- **470 million shares or 9.2%⁴ of outstanding shares repurchased²**
- **Up to 500 million shares of new buyback program ongoing⁵**

¹ Including growth and sustaining capex. ² As of May 16th, 2022. Considers programs announced in April 2021 and October 2021. ³ Including ordinary and extraordinary dividends paid in 2021 and in March 2022. Considering share price and outstanding shares of December 31st, 2020. ⁴ Considering 5,130,801,436 outstanding shares as of March 2021. ⁵ Announced on April 27th, 2022.

On track to **deliver value to all stakeholders**

Materially de-risked and reshaped portfolio

Uniquely positioned to thrive from sector trends and asset base

Capital discipline and superior return to shareholders to remain a priority

Substantial value creation opportunity from growth and re-rating