

# Vale's 4Q22 and 2022 Performance

February 17, 2023



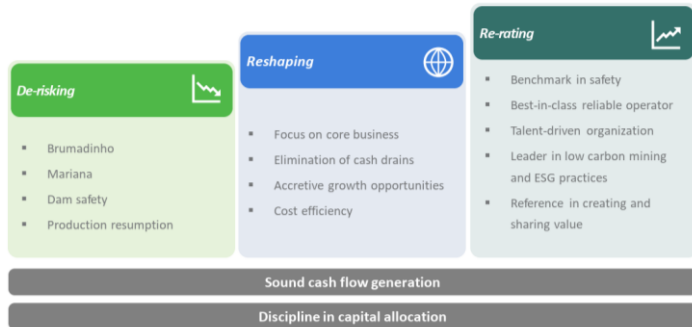
# Disclaimer

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# 1. Opening remarks

# We have materially de-risked Vale

## Strategic roadmap 2019–2022



## Strategy to the Vale of the future

### promote sustainable mining

- *People-driven*
- *Reliable operator*
- *Benchmark in safety and dam management*
- *Shared value*
- *Nature positive*

### foster low carbon solutions

- *Focused on high quality products and resources*
- *Energy transition materials*
- *Iron Solutions*
- *Circular mining*

### stay disciplined

- *Efficient capital allocation*
- *Attractive cash return to shareholders*
- *Strong balance sheet*
- *Cost and capex efficiency*

*We exist to improve life and transform the future. Together.*

# Business and Financial highlights

## Focusing and strengthening the core

- New organizational design
- Jerome Guillen announced as independent Director for the Energy Transition Materials business

## Iron Solutions

- Strong iron ore fines sales, up 24% q/q
- Strong price realization, All-in cost decline
- Gelado project commissioning

## Energy transition materials

- Strong nickel sales up 32% q/q, 6% production increase y/y
- Sudbury mines with the highest quarterly production rates since 2Q19
- Salobo III project successful start-up
- Long-term nickel sulfate supply agreement with General Motors (GM)

## Sustainable mining

- Human Rights due diligence completed for 100% of operations in Brazil
- Multi-company initiative to restore and protect 4 million ha of forests<sup>1</sup>
- B3/B4 dam emergency level lowered from 3 to 2

## Capital allocation

- US\$ 1.8 billion dividend announced, with payment in March
- 43% of current buyback program completed<sup>2</sup>

# Organizational improvements to better support business

## New Executive Committee design

- Greater focus on core assets
- Accelerate management model implementation for greater operational reliability
- Foster execution and innovation in high-quality products
- Continuously promote technical excellence

Eduardo Bartolomeo  
CEO

### Executive Vice-Presidents

Alexandre Pereira  
Projects

Marcello Spinelli  
Iron Solutions

Alexandre D'Ambrosio  
Corporate & External Affairs

Maria Luiza Paiva  
Sustainability

Carlos Medeiros  
Operations

Marina Quental  
People

Deshnee Naidoo  
Energy Transition Materials

Rafael Bittar  
Technical

Gustavo Pimenta  
Finance & Investor Relations

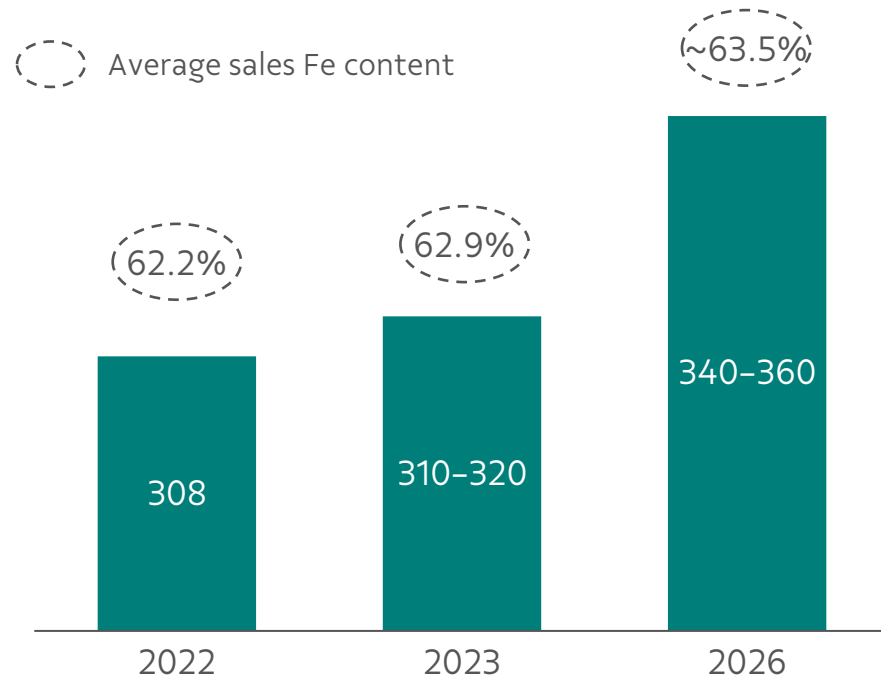
\*Main changes

# Strengthening our portfolio and building iron solutions

## Focus on increasing high-quality volumes

### Iron ore production

Mt



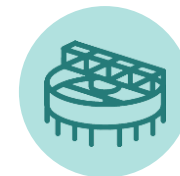
## Supplying green iron solution for steelmaking



Announcement of Mega Hubs in the Middle East for DR production



Start-up of first green briquette plant in 1H23



Improving concentration to deliver high-quality feedstock

# Progressing on Energy Transition Materials agenda

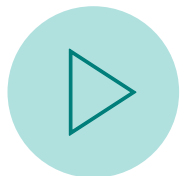
## Progressing on the strategic agenda



Key agreements with EV players: Northvolt, Tesla and GM



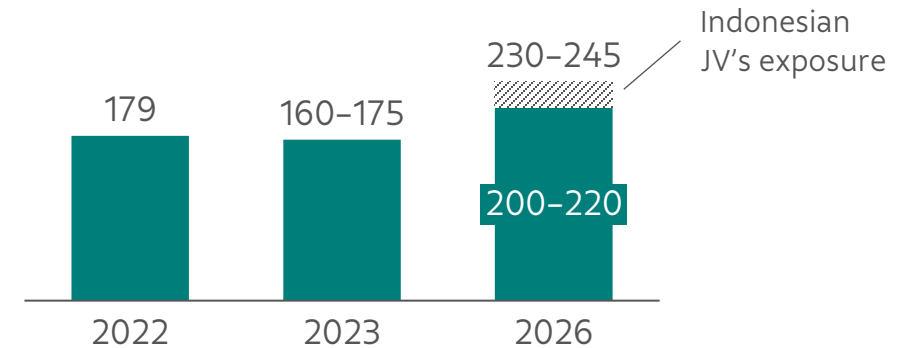
LT agreement with GM to supply nickel sulfate from plant in Quebec



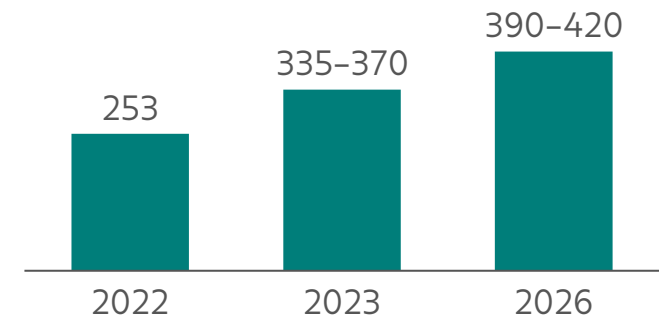
Salobo 3 successful start up

## Stabilizing operations for growth

### Nickel kt



### Copper kt





# A lasting safety approach



~80% decrease in high potential recordable injuries (N2) for critical activities



TRIFR<sup>1</sup> at 1.12, the lowest since the beginning of the historical series



40% completion<sup>2</sup> of our Upstream Dam De-characterization Program






~90% adherence to the GISTM requirements<sup>3</sup>



- *B3/B4 dam had its emergency level reduced from 3 to 2 after successful safety improvements*

# Sustainable mining at the core

## Environmental

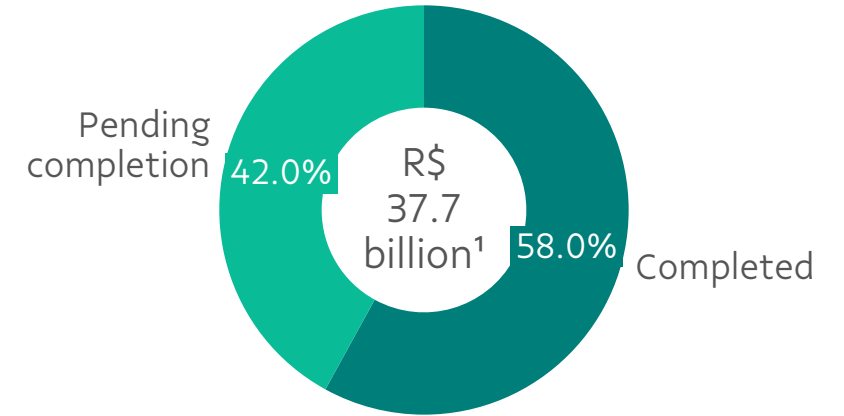
-  Natural gas supply agreement for São Luis pelletizing plant (starting in 2024)
-  Low-carbon agreements with clients (50% of our scope 3 emissions)
-  +172,000 ha of forests protected / recovered since 2019

Non-exhaustive

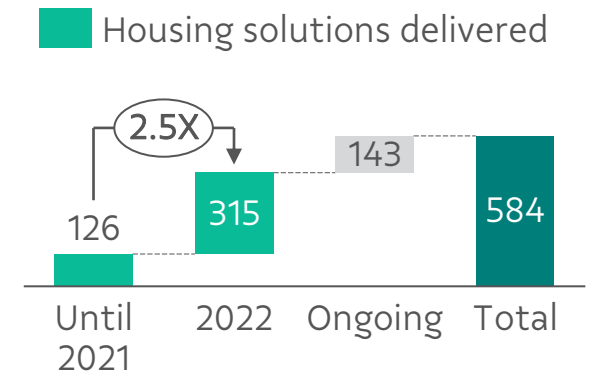
## Social

-  100% of Brazilian operations with Human Rights due diligences
-  78% of priority communities in Brazil with relationship plans
-  Tackling extreme poverty: initiatives for 30,000 people

## Brumadinho Integral Reparation Program



## Mariana's housing rights restoration<sup>2</sup>

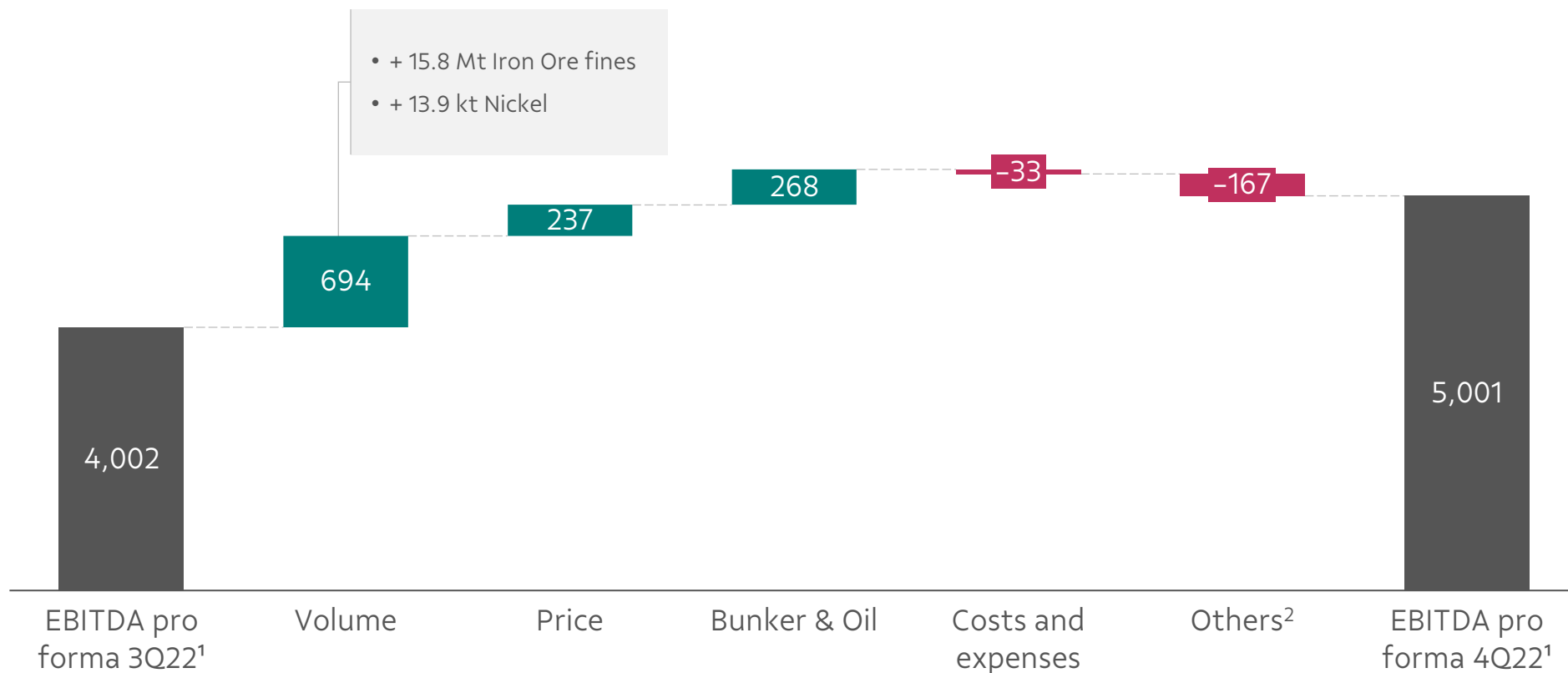


## 2. Financial Performance

# EBITDA \$1bn higher on better volumes, prices and freight

## EBITDA – 4Q22 vs. 3Q22

US\$ million

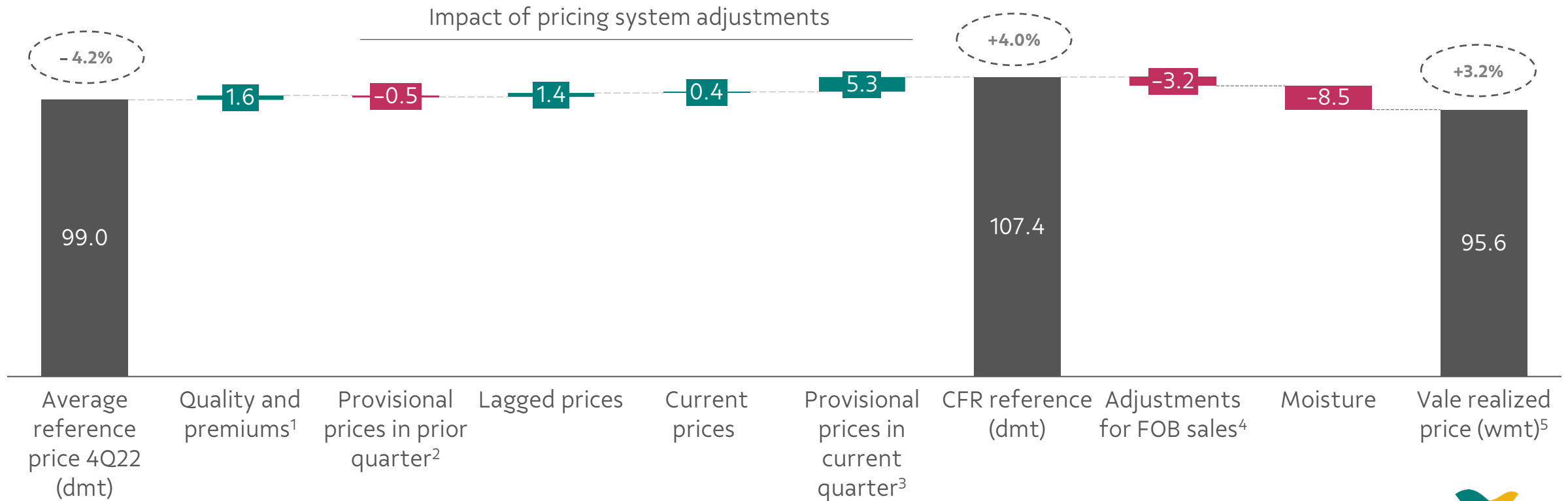


# Higher realized price despite lower reference price

## Price realization Iron ore fines – 4Q22

US\$/t

   % change vs. 3Q22



<sup>1</sup> Includes quality (US\$ 0.8/t) and premiums/discounts and commercial conditions (US\$ 0.8/t). <sup>2</sup> Adjustment as a result of provisional prices booked in 3Q22 at US\$ 95.2/t. <sup>3</sup> Difference between the weighted average of the prices provisionally set at the end of 4Q22 at US\$ 116.3/t based on forward curves and US\$ 99.0/t from the 4Q22 average reference price. <sup>4</sup> Includes freight pricing mechanisms of CFR sales freight recognition. <sup>5</sup> Vale's price is net of taxes.




# All-in cash cost improvement on better freight

## Iron ore fines & pellets EBITDA break-even

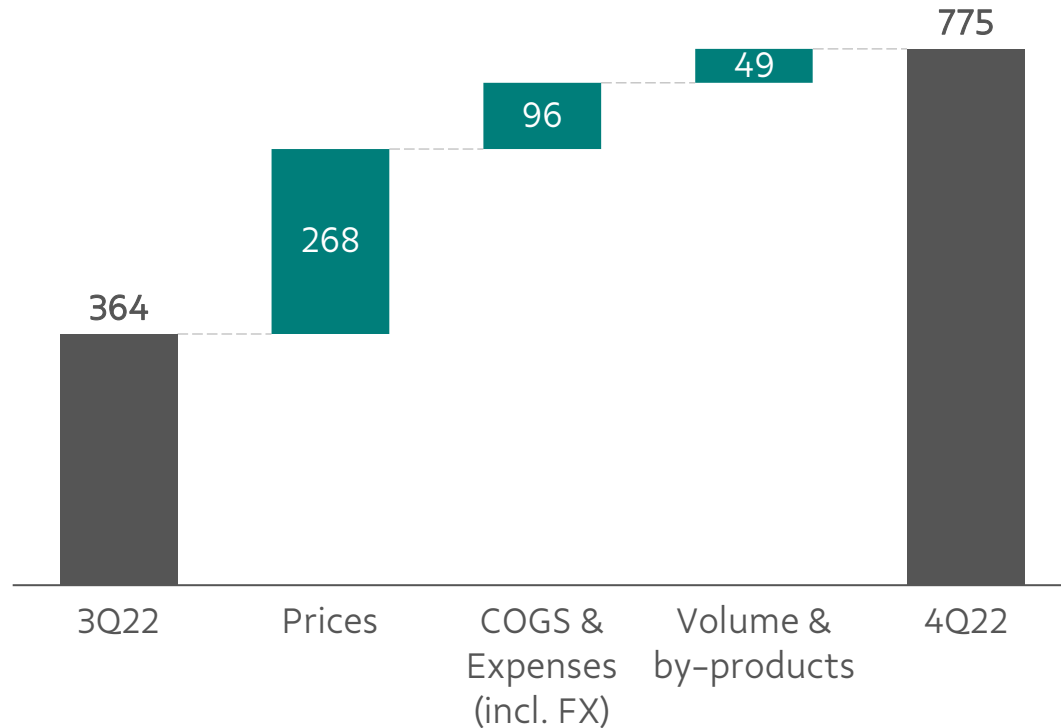
US\$/t

	2022	3Q22	4Q22	q/q main variation
Vale's C1 cash cost ex-third-party purchase cost	19.6	19.4	19.5	
Third-party purchases cost adjustments	2.8	3.4	2.2	• Lower third-party purchase volumes (-1.1 Mt) and lower share in total sales (6.3% vs. 9.5% in Q3)
<b>Vale's iron ore cash cost (ex-ROM, ex-royalties), FOB</b>	<b>22.5</b>	<b>22.8</b>	<b>21.7</b>	
Iron ore fines freight cost	20.2	22.4	18.8	• Lower bunker fuel costs (-US\$ 2.8/t) • Seasonally lower spot affreightment (-US\$ 0.5/t)
Iron ore fines distribution cost	2.0	2.2	1.9	
Iron ore fines expenses & royalties	6.9	5.8	7.2	• One-off tax settlement in Pará (US\$ 2.7/t) <sup>1</sup>
Iron ore fines moisture adjustment	4.6	4.7	4.3	
Iron ore fines quality adjustment	(1.8)	(0.6)	(1.6)	• Higher IOCJ and BRBF sales
<b>Iron ore fines EBITDA break-even (US\$/dmt)</b>	<b>54.4</b>	<b>57.3</b>	<b>52.3</b>	
Iron ore fines pellet adjustment	(5.1)	(6.0)	(3.8)	• Lower pellet premiums, after record in Q3 (-US\$ 20/t of contractual premiums)
<b>Iron ore fines and pellets EBITDA break-even (US\$/dmt)</b>	<b>49.3</b>	<b>51.3</b>	<b>48.5</b>	


**All-in guidance 2023**  
**US\$47/t**

# Energy Transition Materials EBITDA 113% higher due to better prices across the board and lower costs in Nickel

Energy Transition Materials EBITDA <sup>1</sup> – 4Q22 vs. 3Q22  
US\$ million



**Nickel realized price up 13%**

*Increase in reference price*

**Copper realized price up 32%**

*Increase in reference price and forward prices*

**Nickel sales up 32%**

*58 kt in 4Q22 vs. 44kt in 3Q22*


**Nickel unit COGS down 16%<sup>2</sup>**

# In Nickel, costs decreased q/q on the back of one-off event in 3Q22

## Nickel all-in costs

US\$/t

	2022	3Q22	4Q22	q/q main variation
COGS ex-third party	18,346	21,717	18,660	• Carryover of high-cost inventories in 3Q22; fixed cost dilution from higher nickel sales
COGS	19,351	23,214	19,577	
By-product revenues	(6,798)	(6,663)	(6,390)	
<b>COGS after by-product revenues</b>	<b>12,553</b>	<b>16,551</b>	<b>13,187</b>	
Other expenses <sup>1</sup>	847	705	1,017	• Maintenance expenses related to assets in C&M
<b>Total costs</b>	<b>13,400</b>	<b>17,256</b>	<b>14,204</b>	
Average aggregate premium/discount	40	(190)	250	• Higher share of Class II products in the mix
<b>All-in costs (EBITDA breakeven)</b>	<b>13,440</b>	<b>17,066</b>	<b>14,545</b>	



**All-in guidance 2023**  
**US\$13,000/t**



# All-in unit cost was impacted by lower volumes in Copper

## Copper all-in costs US\$/t

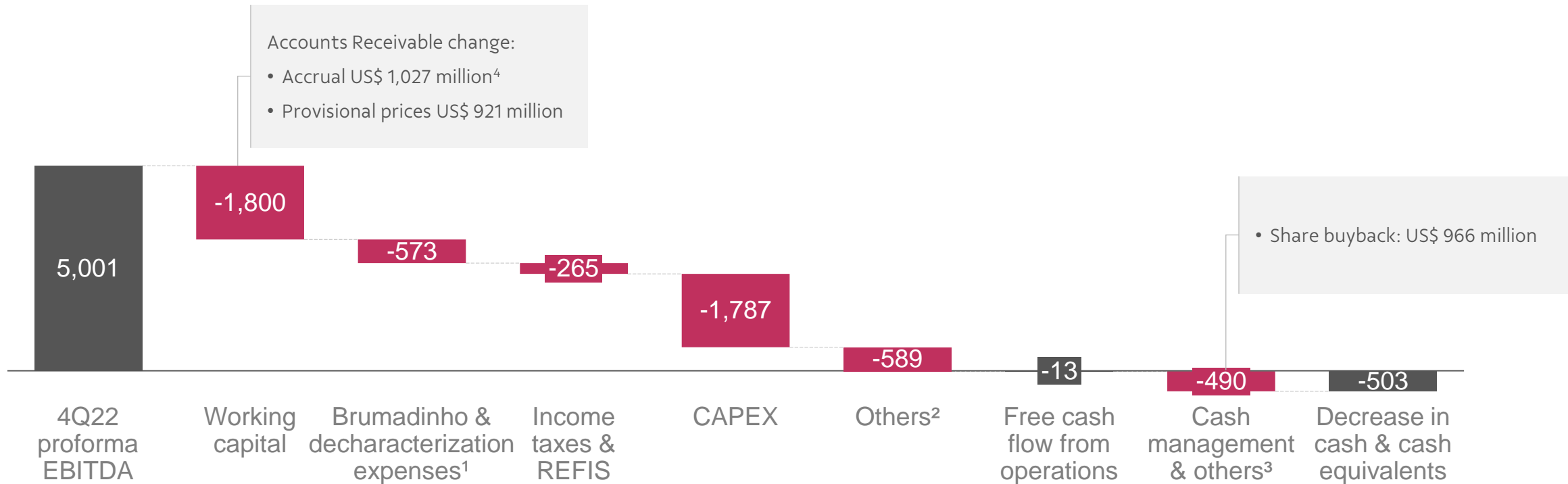
	2022	3Q22	4Q22	q/q main variation
COGS	6,304	5,170	6,264	• Lower volumes affecting fixed cost dilution
By-product revenues	(2,644)	(2,390)	(2,372)	
<b>COGS after by-product revenues</b>	<b>3,660</b>	<b>2,780</b>	<b>3,892</b>	
Other expenses <sup>1</sup>	970	952	1,201	• Lower volumes affecting dilution of expenses
<b>Total costs</b>	<b>4,630</b>	<b>3,732</b>	<b>5,093</b>	
TC/RCs penalties, premiums and discounts	461	452	470	
<b>All-in costs (EBITDA breakeven)</b>	<b>5,091</b>	<b>4,184</b>	<b>5,563</b>	
<b>All-in costs (EBITDA breakeven) ex-Hu'u</b>	<b>4,502</b>	<b>3,638</b>	<b>4,932</b>	


**All-in guidance 2023  
US\$3,200/t**

# Higher sales and prices led to seasonal increase in accounts receivable

## Free cash flow – 4Q22

US\$ million



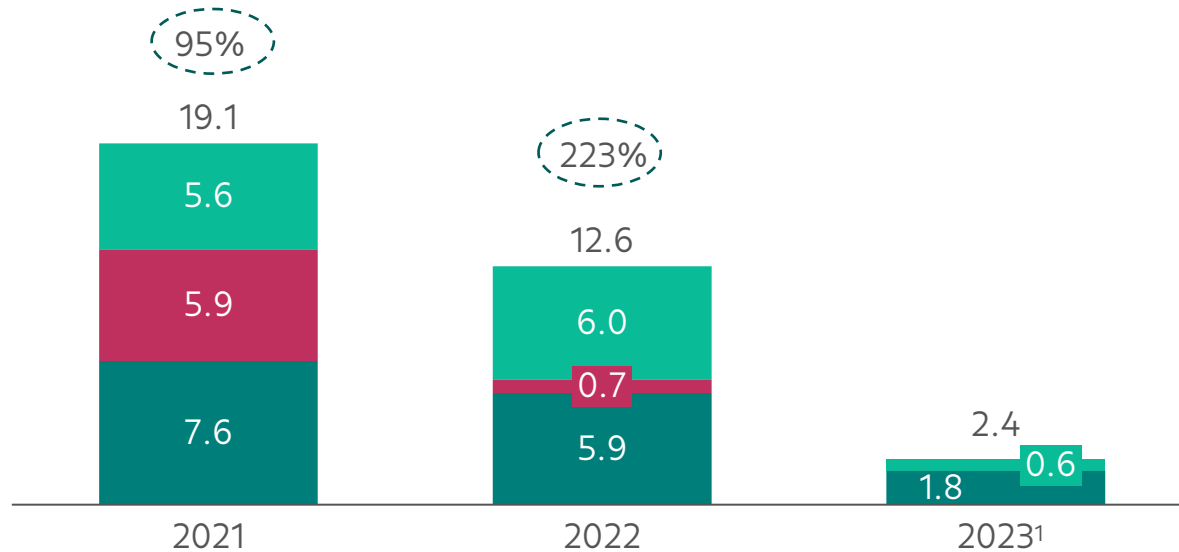
<sup>1</sup> Includes US\$ 389 million of disbursement of Brumadinho and de-characterization provisioned expenses and US\$ 184 million of Brumadinho incurred expenses. <sup>2</sup> Includes interest on loans, derivatives, leasing, dividends paid to noncontrolling interest, shareholders debentures, payments to Renova and others. <sup>3</sup> Includes US\$ 966 million of share buyback, US\$ 500 million of debt funding and US\$ 24 million of debt repurchased. <sup>4</sup> Includes volume and price variation

# Disciplined capital allocation focused on shareholder return

## Shareholder remuneration

US\$ billion

- Share buyback
- Extraordinary dividends
- Dividends
- Free cash flow returned to shareholder (%)



**25%** of dividend yield accumulated in 2 years<sup>2</sup>

**13%** of outstanding shares bought since April 2021

# Closing remarks

**A fit-for-purpose organization to deliver on Vale's long-term strategy**

**Taking actions to serve a growing market demand for quality products**

**Delivering on new projects for the energy transition**

**Capital discipline and shareholders' return remain a priority**



VALE