Vale’s Performance in 2Q23

July 28th , 2023

Disclaimer

"This presentation may include statements that present Vale's expectations about future events or results, including without limitation our maintenance plan in some sites on slide 5, production plan at Salobo III on slides 6, GISTM implementation plan on slide 7, cost guidance on slides 13, 14 and 15. 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; 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."

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1. Opening remarks

Business and Financial highlights

Strengthening the core	• Major milestone achieved by signing strategic partnership for the Energy Transition Metals business – Attractive valuation at US$ 26.0 billion (Enterprise Value)
Iron Solutions	• On track to deliver the guidance: production up 6% y/y • Lower costs y/y and q/q • Improving portfolio quality after Torto dam commissioning at Brucutu
Energy Transition Metals	• Copper production up 41% y/y: Successful ramp up of Salobo III • Nickel production up 8% y/y: better operational performance in Sudbury and Indonesia
Sustainable mining	• Global Industry Standard for Tailings Management (GISTM) implemented for all prioritized tailings facilities, adherent to the industry's timeframe
Stay disciplined	• US$ 1.74 billion announced for 1H23 as Interest on Capital • 3rd buyback program 69% completed[1]

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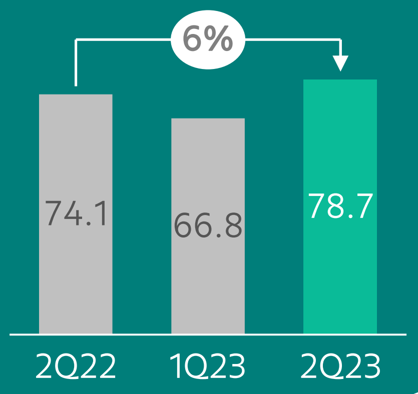
[1] Until July 27th, 2023.

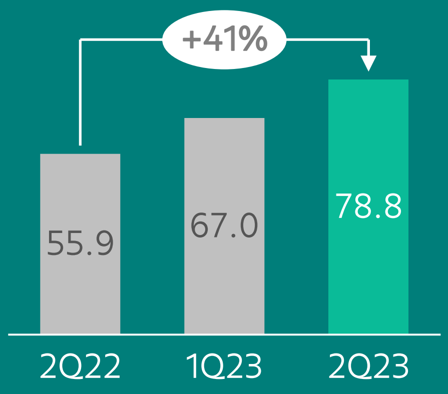
A solid operational performance in 2Q23

Iron ore production
(Mt)



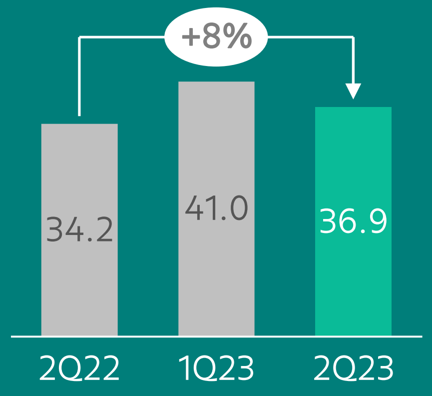
- Record Q2 production from S11D
- Strong output from Itabira and Vargem Grande Complexes
- Average quality improvement
- Torto dam commissioning

Copper production
(kt)



- Successful ramp-up of Salobo III
- Improved performance at Sossego
- Maintenance activities at Salobo I & II and Sudbury mines in Q3

Nickel production
(kt)

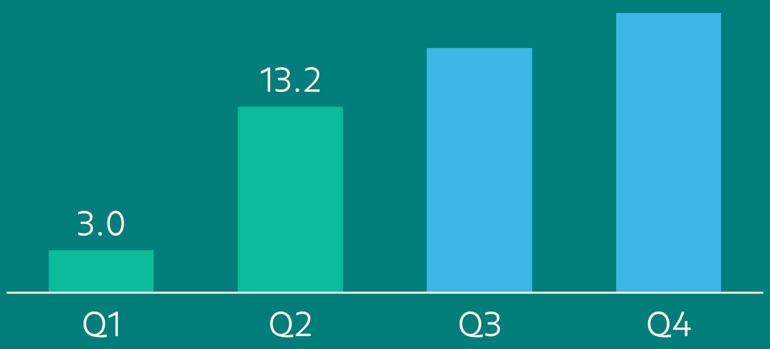


- Sudbury and PTVI production up y/y
- Maintenance activities in Sudbury and Thompson mines in Q3
- Onça Puma furnace revamp in Q4

Salobo III ramping up ahead of schedule

Planned ramp-up progress in 2023

Production, in kilotons of copper per quarter
Salobo III plant only



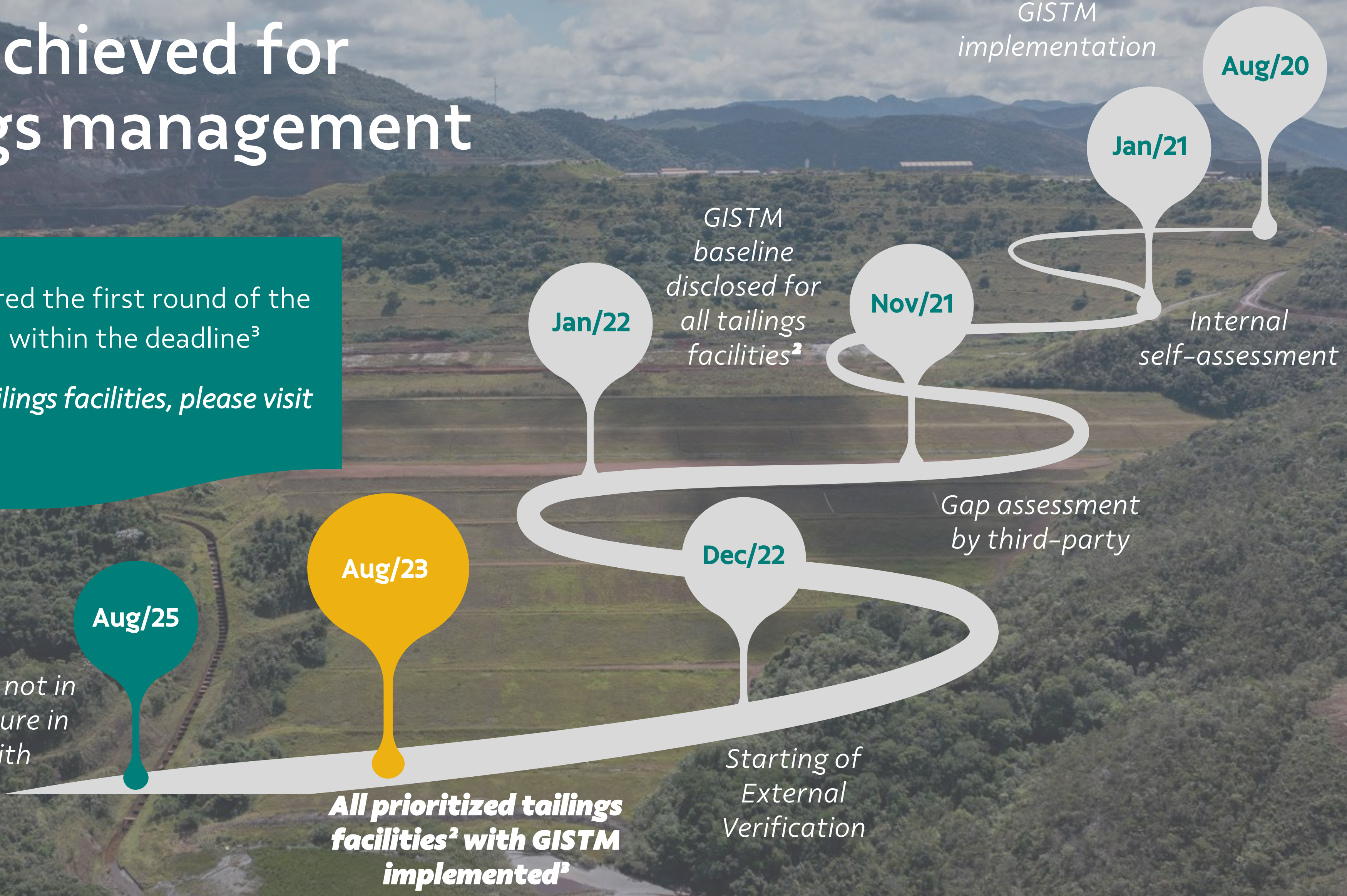
- 16 kt of copper produced in 1H23
- Full capacity in Q4 2024

Milestone achieved for safer tailings management

Vale successfully delivered the first round of the GISTM[1] implementation within the deadline[3]

To learn about Vale's tailings facilities, please visit www.vale.com/esg

Sul Superior dam, Gongo Soco mine Barão de Cocais (Minas Gerais, Brazil).



[1] Global Industry Standard for Tailings Management. [2] Prioritized facilities are those with the consequence classification as "Extreme" and "Very high" according to the GISTM consequence classification table. Including all tailings facilities within the GISTM Conformance Protocols criteria. Conformance is determined by evaluating whether Vale can demonstrate the implementation of all applicable Requirements in a manner that aligns with the Standard and is not in conflict with the law, using Conformance Protocols to support the integration of the Standard into the assurance and validation processes. The outcome for each requirement can fall into one of three categories: "Meets," "Partially Meets," or "Does not Meet." In some cases, a requirement may not be applicable depending on the circumstances of a tailings facility.

2. Unlocking value in Energy Transition Metals

Unlocking value and accelerating growth

Unique attributes...	...in a more focused, agile and efficient company...	...boosted by new investments
Large resources and reserves in key critical minerals jurisdictions	Single vehicle with a leaner structure	Partnership with global diversified investors to accelerate growth
Robust pipeline to grow copper from ~350kty to 900ktpy and nickel from ~175ktpy to 300ktpy	Fully dedicated governance with industry expertise	Access to more competitive capital to fund US$ 25–30 bn capex over the next decade
Verified low-carbon products and sustainable relationships with communities	Readiness to attract and retain top talent in the industry	Execution of the long-term strategy faster and at scale

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Strategic investment to further strengthen the Energy Transition Metals business

Transaction summary

- **13% equity interest;** 10% Manara Minerals[1] and 3% Engine No. 1
- Enterprise Value: **US$ 26.0 billion**
- Pre-money equity value: **US$ 25.1 billion**
- Net proceeds: **US$ 3.4 billion**
- Closing expected for the 1Q24

Use of proceeds

US$ 1 billion will be retained in VBM to establish a healthy capital structure

Excess cash to be used for intercompany loan repayment with Vale

Vale + Manara Minerals + Engine No. 1: A Groundbreaking Partnership

Validation of VBM investment thesis at **attractive valuation**

Access to **competitive capital**

Commitment and alignment to long-term **decarbonization strategy**

Proven **track record in previous partnerships**

Pathway to extend partnerships in **key geographies** for our portfolio

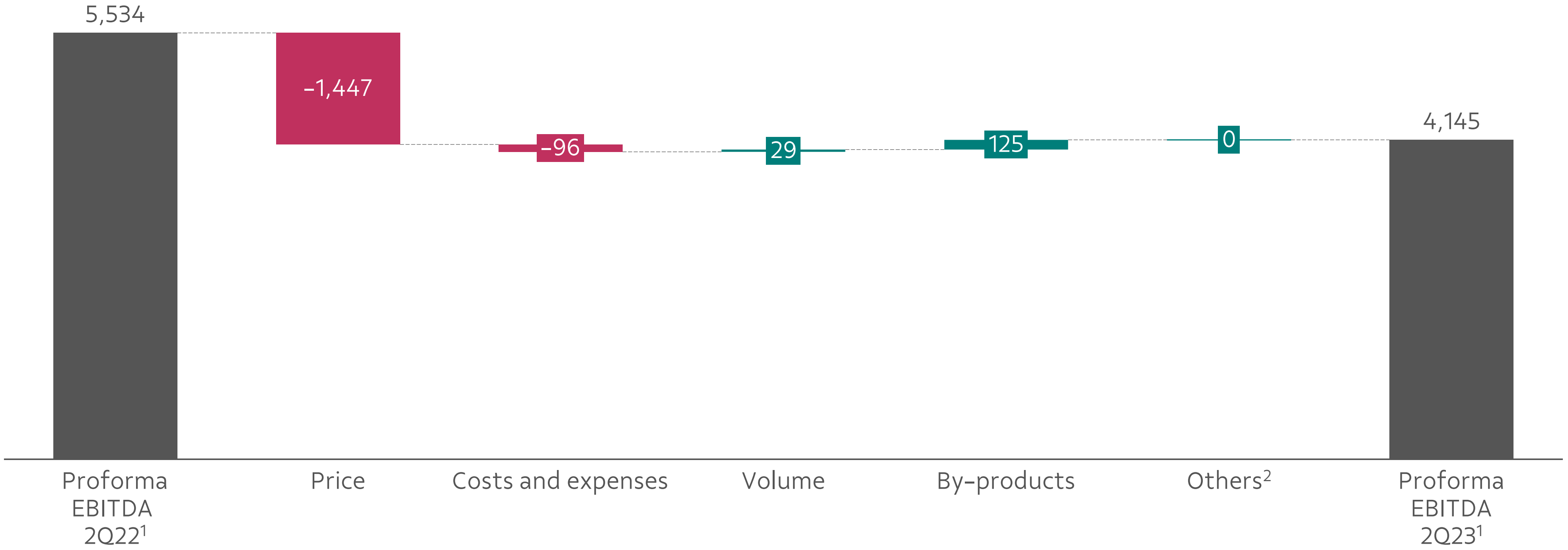
[1]Manara Minerals Investment Company is a new venture between the Saudi Arabian Mining Company (Ma'aden) and the Public Investment Fund (PIF).

3. Financial Performance

EBITDA mostly impacted by lower market prices

Proforma EBITDA – 2Q23 vs. 2Q22

US$ million



[1] Excluding Brumadinho expenses. [2] Includes US$ 31 million of FX effect, US$ 34 million of dividends and a negative effect of US$ 65 million including energy and the divestment of segments.

Significant q/q improvement of iron ore costs despite the negative FX effect

Iron ore fines & pellets EBITDA break-even

US$/t

	2Q22	1Q23	2Q23
Vale's C1 cash cost ex-third-party purchase cost	20.9	23.6	23.5
Third-party purchases cost adjustments	3.3	3.1	3.0
Vale's iron ore cash cost (ex-ROM, ex-royalties), FOB	**24.2**	**26.7**	**26.5**
Iron ore fines freight cost	21.3	17.8	17.6
Iron ore fines distribution cost	2.2	3.2	2.5
Iron ore fines expenses & royalties	6.9	7.6	6.2
Iron ore fines moisture adjustment	4.9	5.0	4.7
Iron ore fines quality adjustment	(1.1)	1.4	(0.6)
Iron ore fines EBITDA all-in costs (US$/dmt)	**58.4**	**61.7**	**56.9**
Iron ore fines pellet adjustment	(6.2)	(3.5)	(3.9)
Iron ore fines and pellets EBITDA all-in costs (US$/dmt)	**52.2**	**58.2**	**53.0**

- Slightly lower q/q despite BRL appreciation of US$ 0.7/t
- Significant reduction expected in the 2H

- Improved product mix, with more Northern System ore
- Pellet premiums increased expected in Q3

C1 guidance 2023: US$ 21.5-22.5/t
- *Changes in FX assumption*

All-in guidance 2023: US$ 52-54/t
- *Changes in FX assumption*
- *Lower premiums expectation*

Lower COGS after by-products y/y and q/q on the back of production increase and by-products revenues

Copper all-in costs

US$/t

	2Q22	1Q23	2Q23
COGS	7,734	6,256	6,046
By-product revenues	-2,977	-2,664	-3,177
COGS after by-product revenues	**4,757**	**3,592**	**2,869**
Other expenses[1]	1,051	782	-325
Total costs	**5,808**	**4,374**	**2,544**
TC/RCs penalties, premiums and discounts	465	518	544
All-in costs (EBITDA break-even)[2]	**6,273**	**4,892**	**3,088**
All-in costs (EBITDA break-even) ex-Hu'u	**5,657**	**4,464**	**3,112**

- Increased production diluted fixed costs at both operations
- Higher gold volumes and prices
- Supported by one-off tax credits in Q2

All-in guidance 2023: US$3,200/t [3]
Higher production as Salobo III ramps up

[1] Includes sales expenses, R&D, pre-operational and stoppage expenses as well as other expenses.
[2] Considering only the cash effect of streaming transactions, copper operations EBITDA break-even would increase to US$ 4,445/t.
[3] Guidance for all-in costs (EBITDA breakeven) ex-Hu'u.

Ni all-in costs increase y/y and flat q/q mainly due to own sourced production impact on fixed cost dilution

Nickel all-in costs
US$/t

	2Q22	1Q23	2Q23
COGS ex-third party	15,809	22,434	21,135
COGS[1]	16,591	23,653	21,969
By-product revenues	-5,863	-7,687	-7,232
COGS after by-product revenues	**10,728**	**15,966**	**14,737**
Other expenses[2]	592	1,117	2,516
Total costs	**11,320**	**17,083**	**17,253**
Nickel average aggregate (premium) discount	(100)	60	(170)
All-in costs (EBITDA breakeven)	**11,220**	**17,143**	**17,083**

- Lower fixed cost dilution of own source production y/y
- Longer maintenance at Long Harbour (2wks vs. 8wks.) and VBME transition

- Write-down of inventories resulting from continued mine transition at Voisey's Bay and Long Harbour maintenance

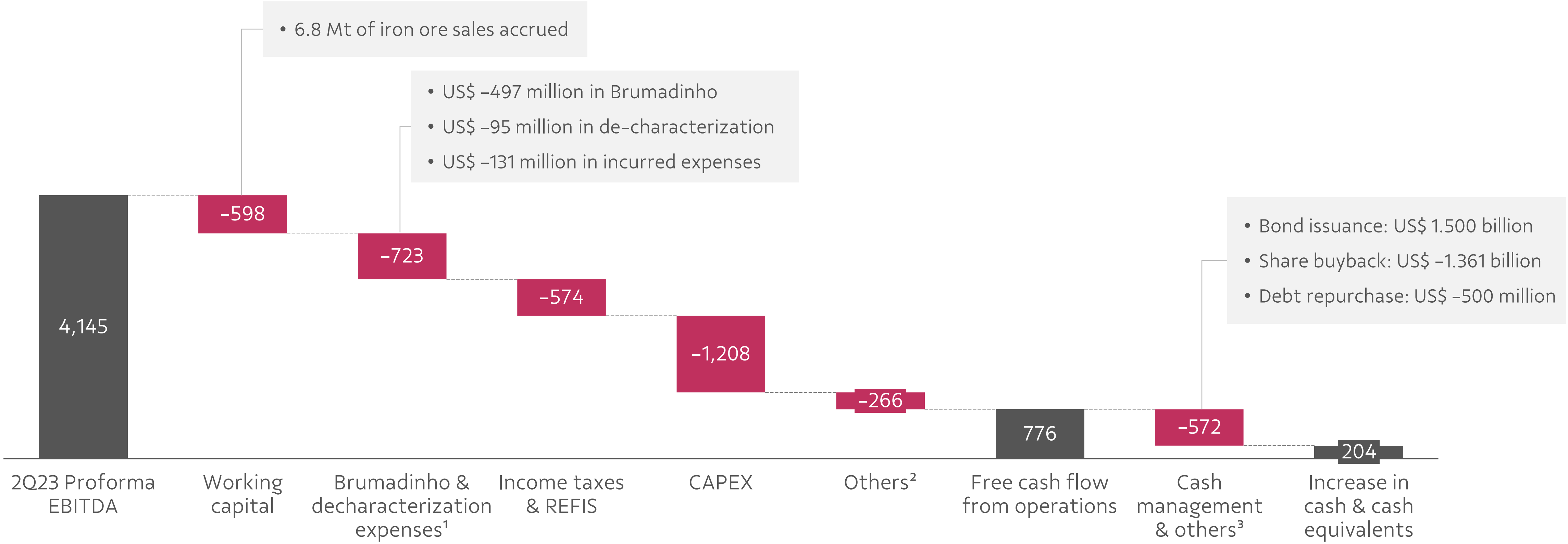
All-in guidance for 2023 : US$15,500-16,000/t
- *Mostly due to lower-than-expected by-products prices and volumes*

[1] Excluding marketing activities
[2] Includes sales expenses, R&D, pre-operational and stoppage expenses as well as other expenses.
[3] Considering only the cash effect of streaming transactions, nickel operations EBITDA break-even would increase to US$17,391/t.

FCF used for liability management and shareholder return

Free cash flow – 2Q23

US$ million

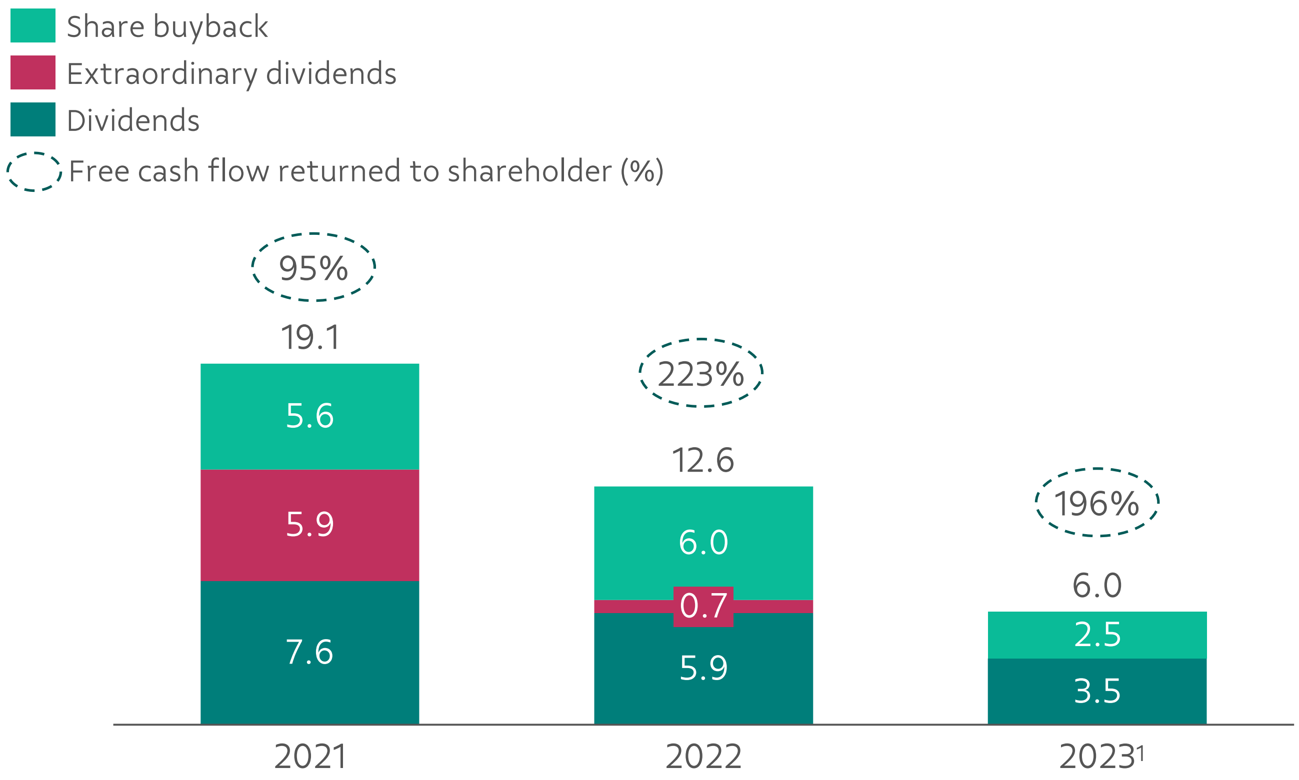


[1] Includes US$ 592 million of disbursement of Brumadinho and de-characterization provisioned expenses and US$ 131 million of Brumadinho incurred expenses.
[2] Includes interest on loans, derivatives, leasing, dividends paid to noncontrolling interest, shareholders debentures, payments to Renova and others.
[3] Includes US$ 130 million for the stake acquisition on Oman pellet plant.

Generating and distributing value while maintaining the discipline capital allocation

Shareholder remuneration

US$ billion



27% of dividend yield accumulated in 3 years[2]

16% of outstanding shares bought since April 2021

[1] Includes dividends announced in Jul/23 and the share buyback up to Jul 27th, 2023.

[2] Considers the sum of dividends and Vale's share price on December 30th, 2020. Includes dividends announced in Jul/23.

Closing remarks

Significant progress on operational performance

Transformational partnership in ETM to speed up growth and value creation

Conformance with GISTM on all prioritized structures

Remain committed to a disciplined capital allocation process

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Vale's performance in 2Q23

Rio de Janeiro, July 27th, 2023. *"We continue to make substantial progress on operational excellence across all businesses. In Iron Solutions we set a new production record for a second quarter at S11D, alongside solid performances from Itabira and Vargem Grande. The Torto dam license is a significant milestone, enhancing our portfolio's overall quality. Our Energy Transition Metals (ETM) business has also performed very well with the successful ramp-up of Salobo III and improved performance at Sossego. Today´s annoucement to form a strategic partnership with Manara Minerals and Engine No.1 is another major milestone in ETM´s journey to accelerate accretive growth and unlock significant long-term value for all our stakeholders. Furthermore, we delivered on our commitment and implemented GISTM for our prioritized tailings facilities. This is an important milestone in the evolution of our dam management and the safety of our operations and surrounding communities. We will continue advancing with the incorporation of the best international practices so that Vale becomes an increasingly safe and sustainable company"*, commented Eduardo Bartolomeo, Chief Executive Officer.

Selected financial indicators

US$ million	2Q23	2Q22	1Q23
Net operating revenues	9,673	11,157	8,434
Total costs and expenses (ex-Brumadinho and de-characterization of dams)[1]	(6,412)	(6,504)	(5,403)
Expenses related to Brumadinho and de-characterization of dams	(271)	(280)	(111)
Adjusted EBIT from continuing operations	**3,095**	**4,444**	**2,920**
Adjusted EBIT margin (%)	32%	40%	35%
Adjusted EBITDA from continuing operations	**3,874**	**5,254**	**3,576**
Adjusted EBITDA margin (%)	40%	47%	42%
Proforma adjusted EBITDA from continuing operations[2]	**4,145**	**5,534**	**3,687**
Net income from continuing operations attributable to Vale's shareholders	892	4,093	1,837
Net debt [3]	8,908	5,375	8,226
Capital expenditures	1,208	1,293	1,130

[1] Includes adjustment of US$ 52 million in 2Q23 and US$ 35 million in 1Q23, to reflect the performance of the streaming transactions at market price.
[2] Excluding expenses related to Brumadinho.
[3] Including leases (IFRS 16).

Highlights

Business Results

- Proforma adjusted EBITDA from continued operations of US$ 4.1 billion in Q2, down US$ 1.4 billion y/y, mainly reflecting lower realized prices of iron ore fines and nickel.

- Free Cash Flow from Operations of US$ 0.8 billion in Q2, representing an EBITDA-to-cash conversion of 19%.

Disciplined capital allocation

- Capital expenditures of US$ 1.2 billion in Q2, including growth and sustaining investments, in line y/y.

- Gross debt and leases of US$ 13.9 billion as of June 30, 2023, US$ 1.0 billion higher q/q, resulting from a US$ 1.5 billion bond issuance and US$ 0.5 billion tender offer in the quarter, as part of Vale's liability management.

- Expanded Net Debt of US$ 14.7 billion as of June 30, 2023, US$ 0.3 billion higher q/q mainly driven by the US$ 1.4 billion share buyback program in the quarter and the US$ 0.8 billion in Free Cash Flow from Operations. Vale's target leverage is US$ 10- 20 billion.

Value creation and distribution

- Disbursement in Q2 as part of the 3rd buyback program was US$ 1.4 billion. At the end of Q2, the 3rd buyback program was 64% complete, with a disbursement of US$ 4.9 billion to repurchase approximately 320 million shares[1].

- Today, the Board of Directors approved the distribution of US$ 1.7 billion in interest on capital, scheduled to be paid in September. The amount is based on the financial results from the first half of the year, in accordance with the Shareholder Remuneration Policy.

Focusing and strengthening the core

- Delivering iron solutions:

  - The Torto dam, at the Brucutu site, has obtained its operating license and commissioning is underway. The dam, together with the tailings filtering plant, will substantially improve overall ore quality, resulting in increased availability of pellet feed to Vale's pellets plants and an improved product mix, which will command higher price premiums.

  - In May, several Memorandums of Understanding ("MoUs") and land reservation agreements were signed with authorities and partners in the United Arab Emirates, Saudi Arabia, and Oman. These agreements aim to advance studies to develop industrial complexes, Mega Hubs, to produce low-carbon emission products for steelmaking.

  - Also in May, an MoU was signed with GravitHy, a French Direct Reduction Iron ("DRI") producer, to jointly evaluate the construction of a co-located briquetting plant in GravitHy's DRI plant project in Fos-sur-Mer, France. The plant is expected to start-up production in 2027 with a 2 Mtpy DRI production capacity.

- Building a unique Energy Transition Metals vehicle:

  - Signed a binding agreement with Manara Minerals, a joint venture between Ma'aden and the Public Investment Fund, under which Manara Minerals will invest in Vale Base Metals ("VBM"), the holding entity of Vale's Energy Transition Metals business, at an implied enterprise value of US$ 26.0 billion. Concurrently, entered into a binding agreement with the investment firm Engine No. 1 pursuant to which Engine No. 1 will make an equity investment in VBM under the same economic terms. The total consideration to be paid to VBM under both agreements is US$ 3.4 billion, for a 13% equity interest. These strategic partnerships will accelerate value generation from the unique set of assets and projects, being a key enabler of the global energy transition.

  - Reorganization of the Energy Transition Metals operations in Brazil was successfully concluded on July 1st. This involved transferring the copper assets in Brazil to Salobo Metais S.A. and the nickel assets to a newly established entity called Mineração Onça Puma S.A., both of which remain under the consolidation and control of Vale. The reorganization will enable a more efficient management of copper and nickel assets in Brazil.

- Advancing the project pipeline:

  - Salobo III plant ramp-up is progressing well, with strong production rates achieved in Q2. Once the plant reaches full capacity, it is expected to yield a 10% to 15% reduction in overall unit costs.

- Samarco:

  - Vale, BHP, Samarco, and certain creditors have entered into a binding agreement for Samarco's debt restructuring. The plan aims to implement a consensual restructuring, with Samarco emerging with a lean capital structure.

[1] Related to the April 2022 3rd buyback program for a total of 500 million shares.

Payments to creditors will be linked to operational ramp-up and cash flow. Samarco's contribution to reparation is capped at US$ 1 billion from 2024 to 2030, with the remaining balance equally shared between Vale and BHP.

Promoting sustainable mining

- Successfully achieved conformance with the Global Industry Standard on Tailings Management (GISTM) for all prioritized tailings facilities[2], within the industry's timeframe. As of now, the company implemented the GISTM for 48 tailings facilities, 37 of them located in Brazil and 11 in Canada, with actions plans in place. By August 2025, all 50 tailings facilities will be in conformance.

- De-characterization works have started at the Campo Grande dam at the Alegria mine, as well as the Grupo and Área IX dams at the Fábrica mine. With that, a total of 8 out of the remaining 18 upstream dams to be eliminated have started de-characterization works. Since 2019, significant progress has been made, with 12 out of the 30 upstream dams already eliminated, representing 40% of the overall program.

- The Sol do Cerrado solar energy complex, one of the largest solar parks in Latin America has reached its full capacity of 766 Megawatts. The complex, located in Minas Gerais state, will supply 16% of all energy requirements from operations in Brazil, in line with the company´s strategy to zero CO_2 emissions by 2050.

[2] Including those with the highest damage potential associated.

Adjusted EBITDA

Adjusted EBITDA

US$ million	2Q23	2Q22	1Q23
Net operating revenues	9,673	11,157	8,434
COGS	(5,940)	(5,950)	(4,949)
SG&A	(139)	(127)	(118)
Research and development	(165)	(151)	(139)
Pre-operating and stoppage expenses	(103)	(111)	(124)
Expenses related to Brumadinho & de-characterization of dams	(271)	(280)	(111)
Other operational expenses[1]	(65)	(165)	(73)
Dividends and interests in affiliated companies and JVs	105	71	-
Adjusted EBIT from continuing operations	**3,095**	**4,444**	**2,920**
Depreciation, amortization & depletion	779	810	656
Adjusted EBITDA from continuing operations	**3,874**	**5,254**	**3,576**
Proforma Adjusted EBITDA from continuing operations[2]	**4,145**	**5,534**	**3,687**
Adjusted EBITDA total	**3,874**	**5,254**	**3,576**
Proforma Adjusted EBITDA total[2]	**4,145**	**5,534**	**3,687**

[1] Includes adjustments of US$ 52 million in 2Q23 and US$ 35 million in 1Q23, to reflect the performance of the streaming transactions at market price.
[2] Excluding expenses related to Brumadinho.

Proforma EBITDA - 2Q23 vs. 2Q22

[1] Excluding Brumadinho expenses. [2] Includes US$ 31 million of FX effect, US$ 34 million of dividends and negative US$ 65 million related to the energy business and other divested assets.

Sales & price realization

Volume sold - Minerals and metals

'000 metric tons	2Q23	2Q22	1Q23
Iron ore fines	63,329	62,769	45,861
ROM	2,236	1,550	1,665
Pellets	8,809	8,843	8,133
Nickel	40	39	40
Copper[1]	74	51	63
Gold as by-product ('000 oz)[1]	88	62	72
Silver as by-product ('000 oz)[1]	518	391	406
PGMs ('000 oz)	89	46	74
Cobalt (metric ton)	660	450	621

[1] Including sales originated from both nickel and copper operations.

Average realized prices

US$/ton	2Q23	2Q22	1Q23
Iron ore - 62% Fe reference price	111.0	137.9	125.5
Iron ore fines Vale CFR/FOB realized price	98.5	113.3	108.6
Pellets CFR/FOB (wmt)	160.4	201.3	162.5
Nickel	23,070	26,221	25,260
Copper[2]	6,986	6,411	9,298
Gold (US$/oz)[1,2]	2,082	1,884	1,845
Silver (US$/oz)[2]	23.96	20.56	22.07
Cobalt (US$/t)[1]	34,694	81,915	32,830

[1] Prices presented above were adjusted to reflect the market prices of products delivered related to the streaming transactions.
[2] Including sales originated from both nickel and copper operations.

Costs

COGS by business segment

US$ million	2Q23	2Q22	1Q23
Iron Solutions	4,282	4,248	3,290
Energy Transition Metals	1,617	1,424	1,620
Others	41	278	39
Total COGS of continuing operations[1]	**5,940**	**5,950**	**4,949**
Depreciation	737	777	613
COGS of continuing operations, ex-depreciation	**5,203**	**5,173**	**4,336**

[1] COGS currency exposure in 2Q23 was as follows: 47.38% BRL, 46.55% USD, 5.85% CAD and 0.22% Other currencies.

Expenses

Operating expenses

US$ million	2Q23	2Q22	1Q23
SG&A	139	127	118
Administrative	118	103	100
Personnel	52	44	45
Services	30	30	28
Depreciation	14	12	11
Others	22	17	16
Selling	21	24	18
R&D	165	151	139
Pre-operating and stoppage expenses	103	111	124
Expenses related to Brumadinho and de-characterization of dams	271	280	111
Other operating expenses	117	165	108
Total operating expenses	**795**	**834**	**600**
Depreciation	42	33	43
Operating expenses, ex-depreciation	**753**	**801**	**557**

Brumadinho

Impact of Brumadinho and De-characterization in 2Q23

US$ million	Provisions balance 31mar23	EBITDA impact	Payments	FX and other adjustments[2]	Provisions balance 30jun23
De-characterization	3,464	-	95	292	3,661
Agreements & donations[1]	3,358	140	497	275	3,276
Total Provisions	**6,822**	**140**	**592**	**567**	**6,937**
Incurred Expenses and others[3]	58	131	187	2	
Total	**6,880**	**271**	**779**	**569**	**6,937**

[1] Includes Integral Reparation Agreement, individual, labor and emergency indemnifications, tailing removal and containment works.
[2] Includes foreign exchange, present value and other adjustments.
[3] Brumadinho and decharacterization expenses reached US$ 723 million in 2Q23, excluding the US$ 56 million provisioned for the agreement signed with the Securities and Exchange Commission ("SEC").

Impact of Brumadinho and De-characterization from 2019 to 2Q23

US$ million	EBITDA impact	Payments	PV & FX adjust [2]	Provisions balance 30jun23
De-characterization	5,038	(1,311)	(66)	3,661
Agreements & donations[1]	8,798	(5,623)	101	3,276
Total Provisions	13,836	(6,934)	35	6,937
Incurred expenses	2,752	(2,752)	-	-
Others	180	(178)	(2)	-
Total	16,768	(9,864)	33	6,937

[1] Includes Integral Reparation Agreement, individual, labor and emergency indemnifications, tailing removal and containment works.
[2] Includes foreign exchange, present value and other adjustments

Cash outflow of Brumadinho & De-characterization commitments[1,2]:

US$ billion	Since 2019 until 2Q23 disbursed	2H23	2024	2025	2026	2027	Yearly average 2028-2035[3]
De-characterization	1.3	0.2	0.6	0.6	0.6	0.5	0.3
Integral Reparation Agreement & other reparation provisions	5.6	0.8	1.3	0.8	0.6	0.2	0.3[4]
Incurred expenses	2.8	0.3	0.4	0.3	0.2	0.2	-
Total	9.7	1.3	2.3	1.7	1.4	0.9	

[1] Estimate cash outflow for 2023-2035 period, given BRL-USD exchange rates of 4.8192.
[2] Amounts stated without discount to present value, net of judicial deposits and inflation adjustments.
[3] Estimate annual average cash flow for De-characterization provisions in the 2028-2035 period is US$ 209 million per year.
[4] Disbursements related to the Integral Reparation Agreement ending in 2028.

Net income

Reconciliation of proforma EBITDA to net income

US$ million	2Q23	2Q22	1Q23
EBITDA Proforma	**4,145**	**5,534**	**3,687**
Brumadinho and de-characterization of dams	(271)	(280)	(111)
Adjusted EBITDA from continuing operations	**3,874**	**5,254**	**3,576**
Impairment reversal (impairment and disposals) of non-current assets, net [1]	(118)	(82)	(39)
Dividends received	(105)	(71)	-
Equity results and net income (loss) attributable to noncontrolling interests	(31)	(108)	(96)
Financial results	(157)	821	(530)
Income taxes	(1,792)	(911)	(418)
Depreciation, depletion & amortization	(779)	(810)	(656)
Net income from continuing operations attributable to Vale's shareholders	**892**	**4,093**	**1,837**

[1] Includes adjustment of US$ 52 million in 2Q23 and US$ 35 million in 1Q23, to reflect the performance of the streaming transactions at market price.

Financial results

US$ million	2Q23	2Q22	1Q23
Financial expenses, of which:	(397)	(372)	(320)
Gross interest	(185)	(162)	(180)
Capitalization of interest	5	17	5
Others	(179)	(188)	(107)
Financial expenses (REFIS)	(38)	(39)	(38)
Financial income	106	137	121
Shareholder Debentures	321	537	(47)
Financial Guarantee	-	356	-
Derivatives[1]	563	(270)	192
Currency and interest rate swaps	558	(287)	216
Others (commodities, etc)	5	17	(24)
Foreign exchange and monetary variation	(750)	433	(476)
Financial result, net	**(157)**	**821**	**(530)**

[1] The cash effect of the derivatives was a gain of US$ 134 million in 2Q23.

Main factors that affected net income for 2Q23 vs. 2Q22

	US$ million	
2Q22 Net income from continuing operations attributable to Vale's stockholders	**4,093**	
Δ EBITDA proforma	(1,389)	Lower realized prices for iron ore fines and nickel.
Δ Brumadinho and de-characterization of dams	9	
Δ Impairment & disposal of non-current assets	16	
Δ Dividends received	(34)	
Δ Equity results and net income (loss) attributable to noncontrolling interests	27	
Δ Financial results	(978)	BRL appreciation; decrease in marked-to-market prices of shareholder debentures.
Δ Income taxes	(881)	Derecognition of deferred income tax assets related to Renova Foundation provisions following the Judicial Reorganization.
Δ Depreciation, depletion & amortization	29	
2Q23 Net income from continuing operations attributable to Vale's shareholders	**892**	

Δ: difference between 2Q23 and 2Q22 figures

CAPEX

Growth and sustaining projects execution

US$ million	2Q23	%	2Q22	%	1Q23	%
Growth projects	**376**	**31.2**	**449**	**34.7**	**326**	**28.8**
Iron Solutions	255	21.1	199	15.4	236	20.9
Energy Transition Metals	95	7.9	90	7.0	72	6.4
Nickel	63	5.2	9	0.7	20	1.8
Copper	32	2.6	81	6.3	52	4.6
Energy and others	26	2.2	160	12.4	18	1.6
Sustaining projects	**832**	**68.8**	**844**	**65.3**	**804**	**71.2**
Iron Solutions	472	39.1	477	36.9	512	45.3
Energy Transition Metals	326	26.9	343	26.5	263	23.3
Nickel	282	23.3	293	22.7	204	18.1
Copper	44	3.6	50	3.9	59	5.2
Energy and others	34	2.8	24	1.9	29	2.6
Total	**1,208**	**100.0**	**1,293**	**100.0**	**1,130**	**100.0**

Growth projects

Investments in growth projects under construction totaled US$ 376 million in Q2, a 16% decline y/y, driven by the lower investments in Salobo III and Sol do Cerrado projects, which are already under commissioning, partially offset by investments in Iron Solutions projects and Onça Puma 2nd furnace nickel project.

Growth projects progress indicator[3]

Projects	Capex 2Q23	Financial progress[1]	Physical progress	Comments
Iron Solutions				
Northern System 240 Mtpy *Capacity: 10 Mtpy* *Start-up: 1H23* *Capex: US$ 772 MM*	26	74%	87%[2]	For the mine and plant, the regularization yard flexibilization scope is complete. Assisted operation of the product yard has started. Commissioning of the silo is ongoing. Mechanical works on the reclaimer at port have been completed on schedule.
Capanema's Maximization *Capacity: 18 Mtpy* *Start-up: 1H25* *Capex: US$ 913 MM*	58	28%	47%	Assembly of the long-distance conveyor belt has advanced. The disassembly of older structures at site has been completed, making it possible to finalize the civil concrete construction in the Timbopeba mine. Works on the electrotechnical assembly of tertiary screening silos, the electrical infrastructure of the primary crushing plant, and the welding of the main beam of the reclaimer have all begun in Q2.
Serra Sul 120 Mtpy[3] *Capacity: 20 Mtpy* *Start-up: 2H25* *Capex: US$ 1,502 MM*	81	43%	50%	1/3 of the reinforced earth wall of the crusher at the mine was concluded. The electrotechnical assembly contract is in the final phase of negotiations. Suppression work on the conveyor belt has been concluded and piling and earthwork activities have begun. Changes in the piling methodology at the plant have significantly improved construction execution.
Briquettes Tubarão *Capacity: 6 Mtpy* *Start-up: 3Q23 (Plant 1) and 4Q23 (Plant 2)* *Capex: US$ 256 MM*	37	67%	93%	Load tests of the fines cycle at Plant 1 started in July, and start-up is expected in Q3. The project's budget and start-up date were revised as we advanced in the scope of this state-of-the-art technology project and with the revamp of existing assets at pellet plants 1 & 2 in Tubarão.
Energy Transition Materials				
Salobo III *Capacity: 30-40 ktpy* *Start-up: 2H22* *Capex: US$ 1,056 MM*	31	95%	100%	Performance gradually improved with good production rates achieved in Q2. The ramp-up is expected to be fully completed in 2024.
Onça Puma 2nd Furnace *Capacity: 12-15 ktpy* *Start-up: 1H25* *Capex: US$ 555 MM*	21	7%	14%	Construction physical progress performing slightly above the plan with main activities ongoing, including the detailed engineering, disassembly of the second furnace and equipment acquisition

[1] CAPEX disbursement until end of 2Q23 vs. expected CAPEX.
[2] Considering physical progress of mine, plant and logistics.
[3] The project consists of increasing the S11D mine-plant capacity by 20 Mtpy.

[3] Pre-operating expenses included in the total estimated capex information, in line with Vale's Board of Directors approvals.

Sustaining projects

Investments in sustaining our operations totaled US$ 832 million in Q2, flat y/y, as a result of the combined effect of investments in enhancement of operations and lower investments in tailings filtration plants in the Iron Solutions business, after the start-up and commissioning of the four plants in 2022.

Sustaining projects progress indicator[4]

Projects	Capex 2Q23	Financial progress[1]	Physical progress	Comments
Iron Solutions				
Gelado *Capacity: 10 Mtpy* *Start-up: 2H22* *Capex: US$ 428 MM*	16	87%	100%	Advances on production commissioning and tests protocols, and in parallel, evaluating improvements on assets and operational routines aiming for the reliability of the dredgers and system.
Compact Crushing S11D *Capacity: 50 Mtpy* *Start-up: 2H26* *Capex: US$ 755 MM*	15	7%	12%	The civil works of the primary crusher have started, pile foundations reached 81%, and concrete structures are expected to start in Q3.
Energy Transition Materials				
Voisey's Bay Mine Extension *Capacity: 45 ktpy (Ni) and 20 ktpy (Cu)* *Start-up: 1H21[2]* *Capex: US$ 2,690 MM*	125	83%	85%	After commissioning the paste plant main subsystems, the first paste test was concluded successfully. The tailings system and paste line are near ready for the integrated test, and the start-up is expected in Q3. Reid Brook's bulk material handling system is expected to be delivered in Q3. The lateral development is advancing on the Eastern Deeps, with early works for bulk material handling ongoing.

[1] CAPEX disbursement until end of 2Q23 vs. expected CAPEX.
[2] In 2Q21, Vale achieved the first ore production of Reid Brook deposit, the first of two underground mines to be developed in the project. Eastern Deeps, the second deposit, has started to extract development ore from the deposit and is scheduled to start the main production ramp-up in the second half of 2023.

Sustaining capex by type - 2Q23

US$ million	Iron Solutions	Energy Transition Materials	Energy and others	Total
Enhancement of operations	259	134	1	394
Replacement projects	18	144	-	162
Filtration and dry stacking projects	26	-	-	26
Dam management	25	3	-	28
Other investments in dams and waste dumps	47	10	-	57
Health and Safety	31	24	-	55
Social investments and environmental protection	48	3	-	51
Administrative & Others	18	8	33	59
Total	**472**	**326**	**34**	**832**

[4] Pre-operating expenses included in the total estimated capex column, in line with Vale's Board of Directors approvals.

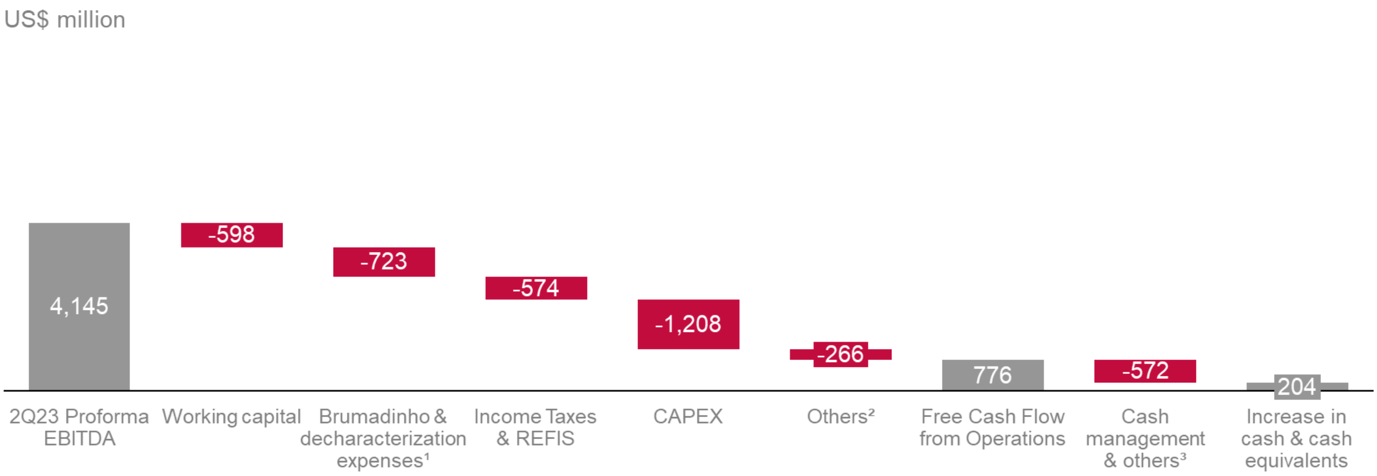
Free cash flow

Free Cash Flow from Operations reached US$ 776 million in 2Q23, US$ 1.519 billion lower than in 2Q22, mainly due to (i) the lower Proforma EBITDA generation (US$ 1.389 billion) and (ii) the lower working capital (US$ 1.026 billion), partially offset by (i) the lower income tax paid (US$ 639 million) and (ii) the lower interests paid on shareholders' debentures (US$ 108 million).

In the quarter, the working capital had a negative impact of US$ 598 million in cash generation, largely explained by 6.8 Mt increase in iron ore sales accrued in the end of the quarter.

The cash generated in the quarter combined with the issuance of US$ 1.5 billion in bonds was primarily used to the repurchase US$ 1.361 billion in shares and US$ 500 million in bonds. Cash & cash equivalents position increased by US$ 204 million in the quarter.

Free Cash Flow 2Q23



[1] Includes US$ 592 million of disbursement of Brumadinho and de-characterization provisioned expenses and US$ 131 million of Brumadinho incurred expenses. Excludes the US$ 56 million paid in April 2023 for the agreement with the United States Securities and Exchange Commission ("SEC").
[2] Includes interest on loans, derivatives, leasing, dividends paid to noncontrolling interest, shareholders debentures, payments to Renova and others.
[3] Includes US$ 1,361 million of share buyback, US$ 130 million of the acquisition of a stake in Oman and US$ 81 million debt repayment, partially offset by the net issuance of US$ 1.0 billion in bonds.

Debt

Debt indicators

US$ million	2Q23	2Q22	1Q23
Gross debt [1]	**12,417**	**11,031**	**11,464**
Lease (IFRS 16)	1,520	1,577	1,520
Gross debt and leases	**13,937**	**12,608**	**12,984**
Cash, cash equivalents and short-term investments	5,029	7,233	4,758
Net debt	**8,908**	**5,375**	**8,226**
Currency swaps[2]	(895)	241	(421)
Brumadinho provisions	3,276	3,680	3,358
Samarco & Renova Foundation provisions[3]	3,401	3,191	3,196
Expanded net debt	**14,690**	**12,487**	**14,359**
Average debt maturity (years)	8.4	9.1	8.4
Cost of debt after hedge (% pa)	5.7	5.0	5.3
Total debt and leases / adjusted LTM EBITDA (x)	0.9	0.5	0.8
Net debt / adjusted LTM EBITDA (x)	0.6	0.2	0.5
Adjusted LTM EBITDA / LTM gross interest (x)	24.1	38.1	27.1

[1] Does not include leases (IFRS 16).
[2] Includes interest rate swaps.
[3] Does not include provision for de-characterization of Germano dam in the amount of US$ 217 million in 2Q23, US$ 203 million in 1Q23 and US$ 195 million in 2Q22.

Gross debt and leases totaled US$ 13.9 billion as of June 30th, 2023, US$ 1.0 billion higher q/q mainly due to the net effect of US$ 1.5 billion in bonds issued and a US$ 500 million tender offer during the quarter.

Expanded net debt reached US$ 14.7 billion as of June 30th, 2023, US$ 0.3 billion higher q/q, mainly driven by the US$ 1.4 billion share buyback program in the quarter and the US$ 0.8 billion in FCF from Operations. Vale's target leverage is US$ 10-20 billion.

The average debt maturity of 8.4 years continues from March 2023. The average cost of debt after currency and interest rate swaps per annum rose slightly to 5.65% per annum from the 5.35% in March 2023.

Performance of the business segments

Proforma Adjusted EBITDA from continuing operations, by business area

US$ million	2Q23	2Q22	1Q23
Iron Solutions	**3,941**	**5,147**	**3,320**
Iron ore fines	3,087	3,975	2,638
Pellets	818	1,140	667
Other Ferrous Minerals	36	32	15
Energy Transition Metals[1]	**476**	**603**	**573**
Nickel	235	572	328
Copper	236	23	220
Other	5	8	25
Others	**(272)**	**(216)**	**(206)**
Total	**4,145**	**5,534**	**3,687**

[1] Includes an adjustment of US$ 52 million increasing the adjusted EBITDA in 2Q23, to reflect the performance of the streaming transactions at market prices, which will be made until the proceeds received on the streaming transactions are fully recognized in the adjusted EBITDA of the business. Based on the current projections for volumes and commodities prices, it will be fully realized by 2027

Segment information 2Q23

US$ million	Net operating revenues	Cost[1]	Expenses			Dividends and interest received from associates and JVs	Adjusted EBITDA
			SG&A and others[1]	R&D[1]	Pre operating & stoppage[1]		
Iron Solutions	**7,776**	**(3,801)**	**19**	**(61)**	**(80)**	**88**	**3,941**
Iron ore fines	6,235	(3,048)	26	(57)	(69)	-	3,087
Pellets	1,413	(674)	(4)	(1)	(4)	88	818
Others ferrous	128	(79)	(3)	(3)	(7)	-	36
Energy Transition Metals	**1,871**	**(1,363)**	**29**	**(60)**	**(1)**	**-**	**476**
Nickel[2]	1,222	(886)	(72)	(29)	-	-	235
Copper[3]	538	(319)	49	(31)	(1)	-	236
Others[4]	111	(158)	52	-	-	-	5
Brumadinho and de-characterization of dams	**-**	**-**	**(271)**	**-**	**-**	**-**	**(271)**
Others	**26**	**(39)**	**(231)**	**(44)**	**(1)**	**17**	**(272)**
Total	**9,673**	**(5,203)**	**(454)**	**(165)**	**(82)**	**105**	**3,874**

[1] Excluding depreciation, depletion and amortization.
[2] Including copper and by-products from the nickel operations.
[3] Including by-products from the copper operations.
[4] Includes an adjustment of US$ 52 million increasing the adjusted EBITDA in 2Q23, to reflect the performance of the streaming transactions at market prices, which will be made until the proceeds received on the streaming transactions are fully recognized in the adjusted EBITDA of the business. Based on the current projections for volumes and commodities prices, it will be fully realized by 2027.

Iron Solutions

Selected financial indicators - Iron Solutions

US$ million	2Q23	2Q22	1Q23
Net Revenues	7,776	9,025	6,411
Costs[1]	(3,801)	(3,771)	(2,918)
SG&A and Other expenses[1]	19	(46)	(41)
Pre-operating and stoppage expenses[1]	(80)	(86)	(89)
R&D expenses	(61)	(46)	(43)
Dividends and interests on associates and JVs	88	71	-
Adjusted EBITDA	**3,941**	**5,147**	**3,320**
Depreciation and amortization	(502)	(497)	(403)
Adjusted EBIT	**3,439**	**4,650**	**2,917**
Adjusted EBIT margin (%)	**44.2**	**51.5**	**45.5**

[1] Net of depreciation and amortization.

Iron Solutions EBITDA Variation 2Q23 vs. 2Q22

		Drivers				
US$ million	2Q22	Volume	Prices	Others	Total variation	2Q23
Iron ore fines	3,975	8	(966)	70	(888)	3,087
Pellets	1,140	(2)	(372)	52	(322)	818
Others	32	4	(4)	4	4	36
Iron Solutions	**5,147**	**10**	**(1,342)**	**126**	**(1,206)**	**3,941**

The 23% decrease in EBITDA y/y is explained mainly by lower realized prices (US$ 1.342 billion), due to a 20% reduction in the benchmark average iron ore price. This was partially offset by better unit costs and expenses, as a result of a decline in freight costs and lower third-party ore acquisition costs (included on “Others” US$ 126 million in the table above).

Revenues

Iron Solutions' volumes, prices, premiums and revenues

	2Q23	2Q22	1Q23
Volume sold ('000 metric tons)			
Iron ore fines	63,329	62,769	45,861
ROM	2,236	1,550	1,665
Pellets	8,809	8,843	8,133
Share of premium products[1] (%)	79%	77%	76%
Average prices (US$/t)			
Iron ore - 62% Fe reference price	111.0	137.9	125.5
Iron ore - Metal Bulletin 62% low alumina index	112.9	141.6	128.7
Iron ore - Metal Bulletin 65% index	124.2	160.8	140.3
Provisional price at the end of the quarter	110.1	119.9	126.0
Iron ore fines Vale CFR reference (dmt)	110.6	128.9	121.7
Iron ore fines Vale CFR/FOB realized price	98.5	113.3	108.6
Pellets CFR/FOB (wmt)	160.4	201.3	162.5

contd.

Iron Solutions' volumes, prices, premiums and revenues *(contd.)*

	2Q23	2Q22	1Q23
Iron ore fines and pellets quality premium (US$/t)			
Iron ore fines quality premium	0.6	1.1	(1.4)
Pellets weighted average contribution	3.9	6.2	3.5
Total	4.5	7.3	2.1
Net operating revenue by product (US$ million)			
Iron ore fines	6,235	7,113	4,982
ROM	34	29	26
Pellets	1,413	1,780	1,322
Others	94	103	81
Total	**7,776**	**9,025**	**6,411**

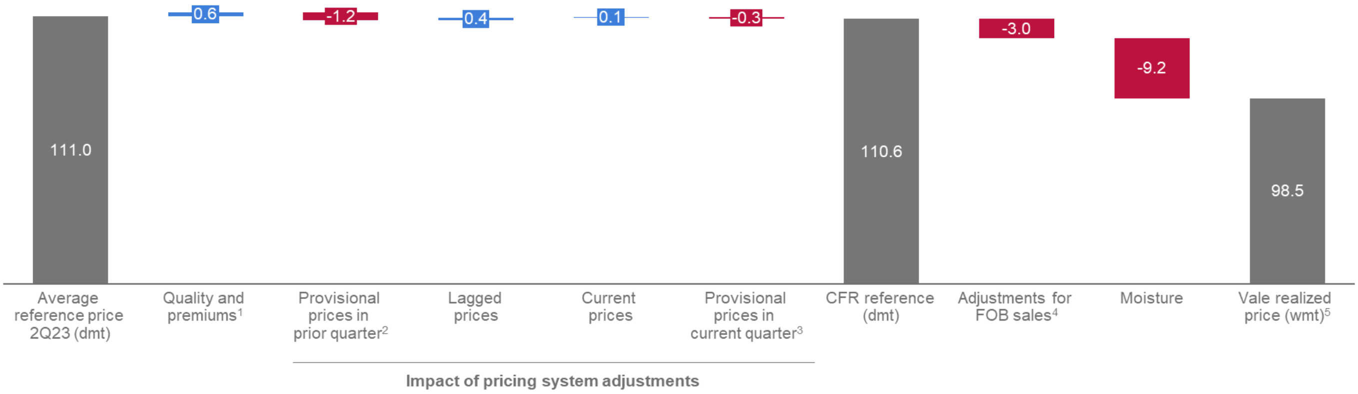
[1] Pellets, Carajás (IOCJ), Brazilian Blend Fines (BRBF) and pellet feed.

The share of premium products in total sales totaled 79% in Q2. All-in premium totaled US$ 4.5/t (vs. US$ 7.3/t in 2Q22), mainly driven by the lower market premiums for high-grade iron ore fines and pellets. Quarter on quarter, the all-in premium increased US$ 2.4/t, mainly driven by more Northern System products in our sales mix and an increased contribution from the pellet business as a result of seasonal dividend received from Tubarão pellet plants joint ventures.

Iron ore fines, excluding Pellets and ROM

Revenues & price realization

Price realization iron ore fines – US$/t, 2Q23



[1] Includes quality (US$ 0.8/t) and premiums/discounts and commercial conditions (US$ -0.2/t).
[2] Adjustment as a result of provisional prices booked in 1Q23 at US$ 126.0/t.
[3] Difference between the weighted average of the prices provisionally set at the end of 2Q23 at US$ 110.1/t based on forward curves and US$ 111.0/t from the 2Q23 average reference price.
[4] Includes freight pricing mechanisms of CFR sales freight recognition.
[5] Vale's price is net of taxes.

Iron ore fines realized price was US$ 98.5/t, down US$ 14.8/t y/y, mainly due to lower benchmark prices (US$ 26.9/t lower y/y). This decline was partially offset by a smaller impact of pricing system adjustments (US$ 9.1/t higher y/y) due to the narrower gap between provisional prices and the average price of the quarter.

Iron Ore fines pricing system breakdown (%)

	2Q23	2Q22	1Q23
Lagged	16	16	19
Current	48	63	62
Provisional	36	21	19
Total	**100**	**100**	**100**

Costs

Iron ore fines cash cost and freight

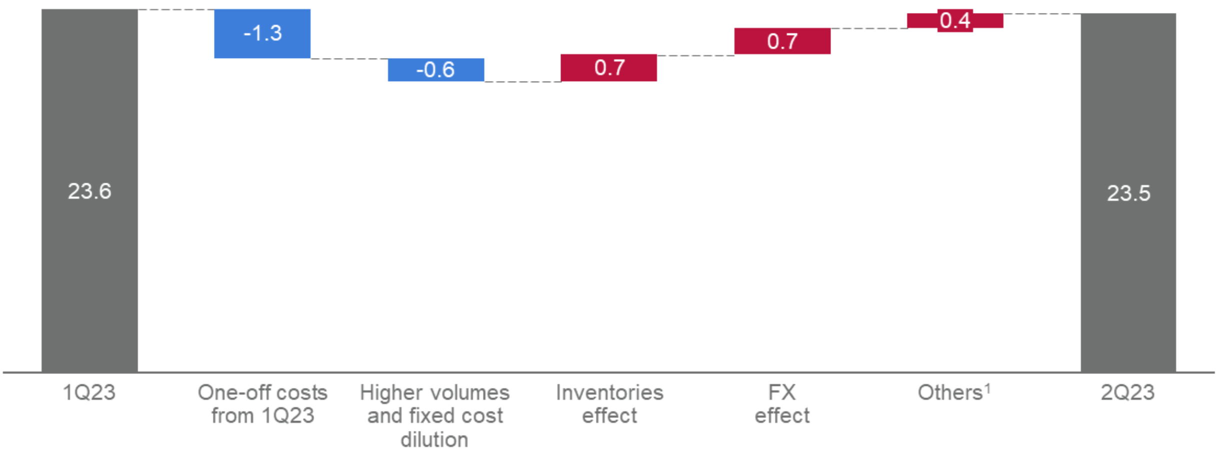
	2Q23	2Q22	1Q23
Costs (US$ million)			
Vale's iron ore fines C1 cash cost (A)	1,676	1,520	1,222
Third-party purchase costs[1] (B)	320	302	222
Vale's C1 cash cost ex-third-party volumes (C = A – B)	1,356	1,218	1,000
Sales Volumes (Mt)			
Volume sold (ex-ROM) (D)	63.3	62.8	45.9
Volume sold from third-party purchases (E)	5.6	4.5	3.5
Volume sold from own operations (F = D – E)	57.8	58.2	42.3
Iron ore fines cash cost (ex-ROM, ex-royalties), FOB (US$ /t)			
Vale's C1 cash cost ex-third-party purchase cost (C/F)	23.5	20.9	23.6
Average third-party purchase C1 cash cost (B/E)	57.4	66.6	62.8
Vale's iron ore cash cost (A/D)	26.5	24.2	26.7
Freight			
Maritime freight costs (G)	920	1,053	622
% of CFR sales (H)	83%	79%	76%
Volume CFR (Mt) (I = D x H)	52.3	49.4	34.9
Vale's iron ore unit freight cost (US$/t) (G/I)	17.6	21.3	17.8

[1] Includes logistics costs related to third-party purchases

Iron ore fines COGS - 2Q22 x 2Q23

		Drivers				
US$ million	2Q22	Volume	Exchange rate	Others	Total variation	2Q23
C1 cash costs	1,520	14	(5)	147	156	1,676
Freight	1,053	63	-	(196)	(133)	920
Distribution costs	137	1	-	19	20	157
Royalties & others	261	2	-	32	34	295
Total costs before depreciation and amortization	**2,971**	**80**	**(5)**	**2**	**77**	**3,048**
Depreciation	334	3	(1)	13	15	349
Total	**3,305**	**83**	**(6)**	**15**	**92**	**3,397**

C1 cash cost variation (excluding 3rd party purchases) – US$/t (2Q23 x 1Q23)



¹ Including cost net effect related to geological inflation, new way to operate, energy, demurrage and others.

Vale's C1 cash cost, ex-third-party purchases, was slightly lower q/q, despite the significant negative effect of the BRL appreciation. The main drivers were (i) the absence of the one-off events that occurred in Q1, such as the anticipation of maintenance activities and loading restrictions at Ponta da Madeira Terminal, and (ii) the higher volumes, mainly from Northern System, which carries a lower production cost, which was partially offset by the consumption of inventories from the previous quarter at higher costs.

C1 cash cost ex-third-party purchases for 2023 guidance was adjusted to US$ 21.5-22.5/t (vs. US$ 20-21/t previously), mainly due to the average USD/BRL exchange rate expectation change to 4.94 for 2023 (vs. 5.20 previously). Additionally, the iron ore all-in cost[5] guidance was adjusted to US$ 52-54/t (vs. US$ 47/t previously) to reflect the potential impact from external factors such as reduced premiums paid for high-quality products, bringing Vale's all-in premiums to around US$ 4/t (vs. around US$ 8/t previously), and changes in the average USD/BRL. For simulation purposes, a 10-cent appreciation of BRL represents around US$ 0.3/t increase of C1 cash cost ex-third-party purchases and a US$ 0.5/t increase of all-in cost for 2023.

Vale's maritime freight cost was flat q/q and down US$ 3.7/t y/y, mainly reflecting lower bunker fuel costs. CFR sales totaled 52.3 Mt in Q2, reflecting 83% of total iron ore fines sales.

Expenses

Expenses - Iron Ore fines

US$ millions	2Q23	2Q22	1Q23
SG&A	17	16	15
R&D	57	45	39
Pre-operating and stoppage expenses	69	74	79
Other expenses[1]	(43)	32	14
Total expenses	**100**	**167**	**147**

¹ Including the positive effect of tax credits.

[5] Including iron ore fines quality adjustment and iron ore fines pellet adjustment.

Iron ore pellets

Pellets – EBITDA

US$ million	2Q23	2Q22	1Q23	Comments
Net revenues / Realized prices	1,413	1,780	1,322	Realized price was US$ 160.4/t, US$ 40.9/t lower y/y, mainly due to lower 65%Fe index prices and pellet premiums.
Dividends from leased pelletizing plants	88	71	0	
Cash costs (Iron ore, leasing, freight, overhead, energy and other)	(674)	(707)	(648)	Mainly due to lower freight costs. FOB sales were 58% of total sales.
Pre-operational & stoppage expenses	(4)	(6)	(5)	
Expenses (Selling, R&D and other)	(5)	2	(2)	
EBITDA	**818**	**1,140**	**667**	
EBITDA/t	**93**	**129**	**82**	

Iron ore fines and pellets cash break-even landed in China[6]

Iron ore fines and pellets cash break-even landed in China

US$/t	2Q23	2Q22	1Q23
Vale's C1 cash cost ex-third-party purchase cost	23.5	20.9	23.6
Third party purchases cost adjustments	3.0	3.3	3.1
Vale's iron ore cash cost (ex-ROM, ex-royalties), FOB (US$ /t)	26.5	24.2	26.7
Iron ore fines freight cost (ex-bunker oil hedge)	17.6	21.3	17.8
Iron ore fines distribution cost	2.5	2.2	3.2
Iron ore fines expenses[1] & royalties	6.2	6.9	7.6
Iron ore fines moisture adjustment	4.7	4.9	5.0
Iron ore fines quality adjustment	(0.6)	(1.1)	1.4
Iron ore fines EBITDA break-even (US$/dmt)	**56.9**	**58.4**	**61.7**
Iron ore fines pellet adjustment	(3.9)	(6.2)	(3.5)
Iron ore fines and pellets EBITDA break-even (US$/dmt)	**53.0**	**52.2**	**58.2**
Iron ore fines sustaining investments	7.2	6.8	9.4
Iron ore fines and pellets cash break-even landed in China (US$/dmt)	**60.2**	**59.0**	**67.6**

[1] Net of depreciation and includes dividends received. Including stoppage expenses.

[6] Measured by unit cost + expenses + sustaining investment adjusted for quality. Does not include the impact from the iron ore fines and pellets pricing system mechanism.

Energy Transition Metals

Energy Transition Metals EBITDA overview – 2Q23

US$ million	Sudbury	Voisey's Bay & Long Harbour	PTVI (site)	Onça Puma	Sossego	Salobo	Others	Subtotal Energy Transition Metals	Marketing activities and others[1]	Total Energy Transition Metals
Net Revenues	850	119	296	79	112	426	(122)	1,760	111	1,871
Costs	(672)	(188)	(170)	(59)	(83)	(235)	202	(1,205)	(158)	(1,363)
Selling and other expenses	(3)	(55)	-	(3)	(3)	30	11	(23)	52	29
Pre-operating and stoppage expenses	-	-	-	-	-	(1)	-	(1)	-	(1)
R&D	(17)	(6)	(3)	-	(9)	(2)	(23)	(60)	-	(60)
EBITDA	**158**	**(130)**	**123**	**17**	**17**	**218**	**68**	**471**	**5**	**476**

[1] Includes an adjustment of US$ 52 million increasing the adjusted EBITDA in 2Q23, to reflect the performance of the streaming transactions at market prices, which will be made until the proceeds received on the streaming transactions are fully recognized in the adjusted EBITDA of the business. Based on the current projections for volumes and commodities prices, it will be fully realized by 2027.

Nickel operations

Selected financial indicators, ex- marketing activities

US$ million	2Q23	2Q22	1Q23
Net Revenues	1,222	1,262	1,321
Costs[1]	(886)	(652)	(949)
SG&A and other expenses[1]	(72)	(12)	(17)
Pre-operating and stoppage expenses[1]	-	-	-
R&D expenses	(29)	(26)	(27)
Adjusted EBITDA	235	572	328
Depreciation and amortization	(229)	(192)	(203)
Adjusted EBIT	6	380	125
Adjusted EBIT margin (%)	0.5	30.1	9.5

[1] Net of depreciation and amortization.

EBITDA variation - US$ million (2Q23 x 2Q22), ex-marketing activities

		Drivers					
US$ million	2Q22	Volume	Prices	By-products	Others	Total variation	2Q23
Nickel excl. marketing	572	9	(127)	61	(280)	(337)	235

EBITDA by operations, ex-marketing activities

US$ million	2Q23	2Q22	1Q23	2Q23 vs. 2Q22 Comments
Sudbury[1]	158	209	226	Lower nickel realized prices and higher third-party feed purchase, partially offset by higher by-product credits.
Voisey's Bay & Long Harbour	(130)	125	21	Lower nickel and by-products sales, as a result of the continued depletion of the open-pit mine and annual planned maintenance at the Long Harbour refinery. Further impacted by write-down of inventories and lower nickel realized prices.
PTVI	123	163	173	Lower nickel realizes prices, partially offset by higher sales volumes.
Onça Puma	17	87	19	Lower nickel realized prices and lower sales volumes.
Others[2]	67	(12)	(111)	
Total	**235**	**572**	**328**	

[1] Includes the Thompson operations and Clydach refinery.
[2] Includes Japanese operations, intercompany eliminations, purchase of finished nickel. Hedge results have been relocated to each nickel business operation.

Revenues & price realization

Revenues & price realization

	2Q23	2Q22	1Q23
Volume sold ('000 metric tons)			
Nickel	40	39	40
Copper	21	17	20
Gold as by-product ('000 oz)	11	10	11
Silver as by-product ('000 oz)	276	198	236
PGMs ('000 oz)	89	46	74
Cobalt (metric ton)	660	450	621
Average realized prices (US$/t)			
Nickel	23,070	26,221	25,260
Copper	6,888	6,240	8,928
Gold (US$/oz)	1,931	1,780	1,915
Silver (US$/oz)	22	19	22
Cobalt	34,694	81,915	32,830
Net revenue by product - ex marketing activities (US$ million)			
Nickel	930	1,032	1,013
Copper	145	105	174
Gold as by-product[1]	21	18	21
Silver as by-product	6	4	5
PGMs	85	65	75
Cobalt[1]	23	37	20
Others	12	1	12
Total	**1,222**	**1,262**	**1,321**

[1] Revenues presented above were adjusted to reflect the market prices of products delivered related to the streaming transactions.

Breakdown of nickel volumes sold, realized price and premium

	2Q23	2Q22	1Q23
Volumes (kt)			
Upper Class I nickel	22.7	19.8	23.9
- of which: EV Battery	0.6	1.0	1.6
Lower Class I nickel	4.5	6.8	4.1
Class II nickel	9.7	11.1	8.1
Intermediates	3.5	1.7	4.1
Nickel realized price (US$/t)			
LME average nickel price	22,308	28,940	25,983
Average nickel realized price	23,070	26,221	25,260
Contribution to the nickel realized price by category:			
Nickel average aggregate premium/(discount)	170	100	(60)
Other timing and pricing adjustments contributions[1]	94	(2,819)	(663)
Premium/discount by product (US$/t)			
Upper Class I nickel	1,820	1,540	1,550
Lower Class I nickel	1,250	770	1,340
Class II nickel	(2,340)	(1,880)	(2,770)
Intermediates	(4,930)	(6,100)	(5,560)

[1] Comprises (i) the Quotational Period effects (based on sales distribution in the prior three months, as well as the differences between the LME price at the moment of sale and the LME average price), with a negative impact of US$ 245/t , (ii) fixed-price sales, with a negative impact of US$ 151/t and (iii) the effect of the hedging on Vale's nickel price realization, with a positive impact of US$ 490/t in the quarter.
Note: The nickel realized price for 2Q23 was impacted by a settlement price in the quarter of circa US$ 22,393/t. The average strike price for the complete hedge position was flat at US$ 34,929/t.

Nickel realized price in 2Q23 decreased by 12% y/y, mainly due to lower LME prices (US$ 22,308/t in 2Q23 vs. US$ 28,940/t in 2Q22). The average realized nickel price was 3% or US$ 762/t higher than LME average price, primarily due to a larger share of Upper Class I products in the mix combined with higher average Class I premiums.

Product type by operation

% of source sales	North Atlantic	PTVI & Matsusaka	Onça Puma	Total 2Q23	Total 2Q22
Upper Class I	81.7	-	-	56.3	50.3
Lower Class I	16.1	-	-	11.1	17.2
Class II	1.4	57.6	100.0	24.1	28.1
Intermediates	0.8	42.4	-	8.6	4.4

Costs

Nickel COGS, excluding marketing activities - 2Q23 x 2Q22

		Drivers				
US$ million	2Q22	Volume	Exchange rate	Others	Total variation	2Q23
Nickel operations	652	16	(21)	239	234	886
Depreciation	192	5	(7)	31	29	221
Total	**844**	**21**	**(28)**	**270**	**263**	**1,107**

Unit cash cost of sales by operation, net of by-product credits

US$/t	2Q23	2Q22	1Q23	2Q23 vs. 2Q22 Comments
Sudbury[1,2]	16,594	17,879	16,328	Higher volumes of third-party feed purchased, partially offset by higher by-product revenues.
Voisey's Bay & Long Harbour[2]	34,713	16,639	24,170	Lower fixed cost dilution and higher maintenance costs due to the annual planned maintenance at the Long Harbor refinery.
PTVI	10,297	11,876	11,030	Higher fixed cost dilution due to higher production volumes. 2Q22 unit cost was impacted by the furnace rebuild.
Onça Puma	11,623	10,678	12,284	Lower fixed cost dilution due to lower production volume.

[1] Sudbury figures include Thompson and Clydach costs.
[2] A large portion of Sudbury, including Clydach, and Long Harbour finished nickel production is derived from intercompany transfers, as well as from the purchase of ore or nickel intermediates from third parties. These transactions are valued at fair market value.

EBITDA break-even

EBITDA break-even

US$/t	2Q23	2Q22	1Q23
COGS ex. 3rd-party feed	21,135	15,809	22,434
COGS[1]	21,969	16,591	23,653
By-product revenues[1]	(7,232)	(5,863)	(7,687)
COGS after by-product revenues	14,737	10,728	15,966
Other expenses[2]	2,516	592	1,117
Total Costs	**17,253**	**11,320**	**17,083**
Nickel average aggregate (premium) discount	**(170)**	**(100)**	**60**
EBITDA breakeven[3]	**17,083**	**11,220**	**17,143**

[1] Excluding marketing activities.
[2] Includes R&D, sales expenses and pre-operating & stoppage.
[3] Considering only the cash effect of streaming transactions, nickel operations EBITDA break-even would increase to US$ 17,391/t.

Unit COGS, excluding 3rd-party feed purchases, have increased by US$ 5,326 y/y on the back of lower own source volumes, mainly related to the mine transition in Voisey's Bay and the impact of the 8-week maintenance at Long Harbour refinery (vs. 2-week in 2Q22), in addition to inflation pressure on materials and high fuel costs due to mix of products. Q/q, the unit COGS has stayed at relatively stable levels.

All-in costs increased by US$ 5,863 y/y, primarily due to higher unit COGS, as described above, and the write-down of high costs inventories related to Voisey's Bay and Long Harbour operations. The write-down of high costs inventories is also the main reason for the US$ 1,399/t increase in expenses q/q.

The all-in cost guidance for 2023 has been revised up to US$ 15,500-16,000/t from US$ 13,000/t mostly driven by (i) the lower-than-expected prices for by-products, namely cobalt and PGMs, which dropped 30-40% since the guidance was provided; (ii) lower-than-expected by-products volumes, mainly resulting from the higher-than-anticipated impact of the change in mining method at Coleman mine; and (iii) higher-than-expected nickel and copper prices, impacting 3rd party feed purchase costs.

Copper operations – Salobo and Sossego

Selected financial indicators - Copper operations, ex-marketing activities

US$ million	2Q23	2Q22	1Q23
Net Revenues	538	328	524
Costs[1]	(319)	(268)	(270)
SG&A and other expenses[1]	49	(3)	(6)
Pre-operating and stoppage expenses[1]	(1)	(3)	(3)
R&D expenses	(31)	(31)	(25)
Adjusted EBITDA	236	23	220
Depreciation and amortization	(34)	(35)	(37)
Adjusted EBIT	202	(12)	183
Adjusted EBIT margin (%)	37.5	(3.7)	34.9

[1] Net of depreciation and amortization.

EBITDA variation - US$ million (2Q23 x 2Q22)

		Drivers					
US$ million	2Q22	Volume	Prices	By-products	Others	Total variation	2Q23
Copper	23	10	22	64	117	213	236

EBITDA by operation

US$ million	2Q23	2Q22	1Q23	2Q23 vs. 2Q22 Comments
Salobo	218	110	186	Higher sales volumes resulting from the successful ramp-up of Salobo III, increased copper realized prices and by-products credits as well as tax credits.
Sossego	17	(65)	52	Higher sales volumes, following the extended maintenance work that impacted last year's performance.
Others copper[1]	1	(22)	(18)	
Total	**236**	**23**	**220**	

[1] Includes a positive EBITDA of US$ 1 million related to the Hu'u project in 2Q23, as a result of the reclassification of expenses to capitalized costs.

Revenues & price realization

Revenues & price realization

US$ million	2Q23	2Q22	1Q23
Volume sold ('000 metric tons)			
Copper	53	35	43
Gold as by-product ('000 oz)	77	52	61
Silver as by-product ('000 oz)	242	193	170
Average prices (US$/t)			
Average LME copper price	8,464	9,513	8,927
Average copper realized price	7,025	6,493	9,465
Gold (US$/oz)[1]	2,103	1,904	1,832
Silver (US$/oz)	26	22	22
Revenue (US$ million)			
Copper	371	225	409
Gold as by-product[1]	161	99	111
Silver as by-product	6	4	4
Total	**538**	**328**	**524**

[1] Revenues presented above were adjusted to reflect the market prices of products delivered related to the streaming transactions.

Price realization – copper operations

US$/t	2Q23	2Q22	1Q23
Average LME copper price	8,464	9,513	8,927
Current period price adjustments[1]	(257)	(1,119)	228
Copper gross realized price	8,207	8,394	9,155
Prior period price adjustments[2]	(638)	(1,436)	829
Copper realized price before discounts	**7,569**	**6,958**	**9,983**
TC/RCs, penalties, premiums and discounts[3]	(544)	(465)	(518)
Average copper realized price	**7,025**	**6,493**	**9,465**

Note: Vale's copper products are sold on a provisional princing basis during the quater, with final prices determined in a future period.
[1] Current-period price adjustments: at the end of the quarter, mark-to-market of open invoices based on the copper price forward curve. Includes a small number of final invoices that were provisionally priced and settled within the quarter.
[2] Prior-period price adjustment: based on the difference between the price used in final invoices (and in the mark-to-market of invoices from previous quarters still open at the end of the quarter) and the provisional prices used for sales in prior quarters
[3] TC/RCs, penalties, premiums, and discounts for intermediate products.

The negative effects of the prior-period price adjustments of US$ 638/t and the current-period price adjustments of US$ 257/t[7] were mainly due the lower LME prices and the downward trend in prices in the quarter. Average TC/RCs discount was US$ 544/t in the quarter, US$ 79/t higher y/y, primarily driven by higher benchmark TC/RCs.

Costs

COGS - 2Q23 x 2Q22

		Drivers				
US$ million	2Q22	Volume	Exchange rate	Others	Total variation	2Q23
Copper operations	268	114	(1)	(62)	51	319
Depreciation	35	15	-	(17)	(2)	33
Total	**303**	**129**	**(1)**	**(79)**	**49**	**352**

Copper operations – unit cash cost of sales, net of by-product credits

US$/t	2Q23	2Q22	1Q23	2Q23 vs. 2Q22 Comments
Salobo	2,246	3,329	2,856	Higher fixed costs dilution due to stronger production volumes and by-product revenues.
Sossego	4,705	40,407	5,233	Higher fixed costs dilution and by-product credits, following the extended maintenance work that impacted last year's performance.

[7] On June 30th, 2023, Vale had provisionally priced copper sales from Sossego and Salobo totaling 45,105 tons valued at weighted average LME forward price of US$ 8,321/t, subject to final pricing over the following months.

EBITDA break-even – copper operations

US$/t	2Q23	2Q22	1Q23
COGS	6,046	7,734	6,256
By-product revenues	(3,177)	(2,977)	(2,664)
COGS after by-product revenues	**2,869**	**4,757**	**3,592**
Other expenses[1]	(325)	1,051	782
Total costs	**2,544**	**5,808**	**4,374**
TC/RCs penalties, premiums and discounts	544	465	518
EBITDA breakeven[2]	**3,088**	**6,273**	**4,892**
EBITDA breakeven ex-Hu'u	**3,112**	**5,657**	**4,464**

[1] Includes sales expenses, R&D, pre-operating and stoppage expenses and other expenses
[2] Considering only the cash effect of streaming transactions, copper operations EBITDA break-even would increase to US$ 4,445/t.

The realized price to be compared to the EBITDA break-even should be the copper realized price before discounts (US$ 7,569/t), given that TC/RCs, penalties, and other discounts are already part of the EBITDA break-even build-up.

WEBCAST INFORMATION

Vale will host a webcast on Friday, July 28, 2023, at 11:00 a.m. Brasilia time (10:00 a.m. New York time; 3:00 p.m. London time). Internet access to the webcast and presentation materials will be available on Vale website at www.vale.com/investors. A webcast replay will be accessible at www.vale.com beginning shortly after the completion of the call. Interested parties may listen to the teleconference by dialing in:

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Further information on Vale can be found at: vale.com

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Except where otherwise indicated, the operational and financial information in this release is based on the consolidated figures in accordance with IFRS. Our quarterly financial statements are reviewed by the company's independent auditors. The main subsidiaries that are consolidated are the following: Companhia Portuária da Baía de Sepetiba, Vale Manganês S.A., Minerações Brasileiras Reunidas S.A., Salobo Metais S.A, Tecnored Desenvolvimento Tecnológico S.A., PT Vale Indonesia Tbk, Vale Holdings B.V, Vale Canada Limited, Vale International S.A., Vale Malaysia Minerals Sdn. Bhd., Vale Oman Pelletizing Company LLC e Vale Oman Distribution Center LLC.

Annexes

Simplified financial statements

Income Statement

US$ million	2Q23	2Q22	1Q23
Net operating revenue	**9,673**	**11,157**	**8,434**
Cost of goods sold and services rendered	(5,940)	(5,950)	(4,949)
Gross profit	**3,733**	**5,207**	**3,485**
Gross margin (%)	38.6	46.7	41.3
Selling and administrative expenses	(139)	(127)	(118)
Research and development expenses	(165)	(151)	(139)
Pre-operating and operational stoppage	(103)	(111)	(124)
Other operational expenses, net	(388)	(445)	(219)
Impairment reversal (impairment and disposals) of non-current assets, net	(66)	(82)	(4)
Operating income	**2,872**	**4,291**	**2,881**
Financial income	106	137	121
Financial expenses	(397)	(372)	(320)
Other financial items, net	134	1,056	(331)
Equity results and other results in associates and joint ventures	5	(56)	(55)
Income before income taxes	**2,720**	**5,056**	**2,296**
Current tax	(404)	(1,181)	(218)
Deferred tax	(1,388)	270	(200)
Net income from continuing operations	**928**	**4,145**	**1,878**
Net income (loss) attributable to noncontrolling interests	36	52	41
Net income from continuing operations attributable to Vale's shareholders	**892**	**4,093**	**1,837**
Discontinued operations			
Net income (Loss) from discontinued operations	-	2,058	-
Net income (Loss) from discontinued operations attributable to Vale's shareholders	**-**	**2,058**	**-**
Net income	**928**	**6,203**	**1,878**
Net income (Loss) attributable to Vale's to noncontrolling interests	36	52	41
Net income attributable to Vale's shareholders	**892**	**6,151**	**1,837**
Earnings per share (attributable to the Company's shareholders - US$):			
Basic and diluted earnings per share (attributable to the Company's shareholders - US$)	0.20	1.32	0.41

Equity income (loss) by business segment

US$ million	2Q23	%	2Q22	%	1Q23	%
Iron Solutions	89	91	52	85	(96)	109
Energy Transition Metals	-	-	1	2	-	-
Others	9	9	8	13	8	(9)
Total	**98**	**100**	**61**	**100**	**(88)**	**100**

Balance sheet

US$ million	6/30/2023	3/31/2023	6/30/2022
Assets			
Current assets	**15,547**	**14,508**	**16,022**
Cash and cash equivalents	4,983	4,705	7,185
Short term investments	46	53	48
Accounts receivable	2,967	2,687	2,148
Other financial assets	522	381	229
Inventories	5,193	4,992	5,154
Recoverable taxes	1,502	1,345	744
Other	334	345	240
Non-current assets held for sale	-	-	274
Non-current assets	**14,402**	**14,785**	**13,931**
Judicial deposits	1,326	1,255	1,328
Other financial assets	698	393	210
Recoverable taxes	1,229	1,143	1,147
Deferred income taxes	9,904	10,799	10,360
Other	1,245	1,195	886
Fixed assets	**61,568**	**58,254**	**54,405**
Total assets	**91,517**	**87,547**	**84,358**
Liabilities			
Current liabilities	**13,556**	**12,977**	**12,117**
Suppliers and contractors	5,240	4,464	3,664
Loans, borrowings and leases	912	543	935
Other financial liabilities	1,599	1,581	1,584
Taxes payable	882	672	331
Settlement program ("REFIS")	416	388	356
Provisions	849	722	835
Liabilities related to associates and joint ventures	1,044	2,133	1,783
Liabilities related to Brumadinho	1,201	1,122	1,060
De-characterization of dams and asset retirement obligations	899	785	692
Dividends payable	-	-	-
Other	514	567	750
Liabilities associated with non-current assets held for sale	-	-	127
Non-current liabilities	**37,670**	**35,689**	**35,259**
Loans, borrowings and leases	13,025	12,441	11,673
Participative shareholders' debentures	2,528	2,846	3,219
Other financial liabilities	2,771	2,805	1,820
Settlement program (REFIS)	1,886	1,856	1,976
Deferred income taxes	1,411	1,379	1,759
Provisions	2,700	2,548	2,477
Liabilities related to associates and joint ventures	2,575	1,266	1,603
Liabilities related to Brumadinho	2,075	2,236	2,620
De-characterization of dams and asset retirement obligations	6,786	6,462	6,238
Streaming transactions	1,693	1,636	1,637
Other	220	214	237
Total liabilities	**51,226**	**48,666**	**47,376**
Total equity	**40,291**	**38,881**	**36,982**
Total liabilities and equity	**91,517**	**87,547**	**84,358**

Cash flow

US$ million	2Q23	2Q22	1Q23
Cash flow from operations	**3,259**	**5,738**	**4,280**
Interest on loans and borrowings paid	(200)	(277)	(169)
Cash received (paid) on settlement of Derivatives, net	134	(42)	38
Payments related to Brumadinho	(497)	(319)	(124)
Payments related to de-characterization of dams	(95)	(83)	(78)
Interest on participative shareholders debentures paid	(127)	(235)	-
Income taxes (including settlement program) paid	(574)	(1,213)	(337)
Net cash generated by operating activities from continuing operations	**1,900**	**3,569**	**3,610**
Net cash generated by operating activities from discontinued operations	-	-	-
Net cash generated by operating activities	**1,900**	**3,569**	**3,610**
Cash flow from investing activities			
Short-term investment	67	101	(55)
Capital expenditures	(1,208)	(1,293)	(1,130)
Additions to investment	(1)	-	(7)
Dividends received from joint ventures and associates	105	71	-
Proceeds (payments) from the sale of investments, net	-	-	(67)
Other investment activities, net	(30)	48	(67)
Net cash used in investing activities from continuing operations	**(1,067)**	**(1,073)**	**(1,326)**
Net cash used in investing activities from discontinued operations	-	(65)	-
Net cash used in investing activities	**(1,067)**	**(1,138)**	**(1,326)**
Cash flow from financing activities			
Loans and financing:			
Loans and borrowings from third parties	1,500	200	300
Payments of loans and borrowings from third parties	(581)	(1,433)	(39)
Payments of leasing	(45)	(57)	(47)
Payments to shareholders:			
Dividends and interest on capital paid to Vale's shareholders	-	-	(1,795)
Dividends and interest on capital paid to noncontrolling interest	(5)	(4)	(3)
Share buyback program	(1,361)	(2,596)	(763)
Stake acquisition on subsidiaries	(130)	-	-
Net cash used in financing activities from continuing operations	**(622)**	**(3,890)**	**(2,347)**
Net cash used in financing activities from discontinued operations	-	-	-
Net cash used in financing activities	**(622)**	**(3,890)**	**(2,347)**
Net increase (decrease) in cash and cash equivalents	**211**	**(1,459)**	**(63)**
Cash and cash equivalents in the beginning of the period	4,705	9,061	4,736
Effect of exchange rate changes on cash and cash equivalents	67	(417)	32
Cash and cash equivalents at the end of period	**4,983**	**7,185**	**4,705**
Non-cash transactions:			
Additions to property, plant and equipment - capitalized loans and borrowing costs	5	17	5
Cash flow from operating activities			
Income before income taxes	**2,720**	**5,056**	**2,296**
Adjusted for:			
Provisions related to Brumadinho	140	126	-
Equity results and other results in associates and joint ventures	(5)	56	55
Impairment (impairment reversal) and results on disposal of non-current assets, net	66	82	4
Depreciation, depletion and amortization	779	810	656
Financial results, net	157	(821)	530
Change in assets and liabilities			
Accounts receivable	(247)	902	1,686
Inventories	(157)	(305)	(363)
Suppliers and contractors	570	432	(105)
Other assets and liabilities, net	(764)	(600)	(479)
Cash flow from operations	**3,259**	**5,738**	**4,280**

Reconciliation of IFRS and "non-GAAP" information

(a) Adjusted EBIT

US$ million	2Q23	2Q22	1Q23
Net operating revenues	9,673	11,157	8,434
COGS	(5,940)	(5,950)	(4,949)
Sales and administrative expenses	(139)	(127)	(118)
Research and development expenses	(165)	(151)	(139)
Pre-operating and stoppage expenses	(103)	(111)	(124)
Brumadinho and dam de-characterization of dams	(271)	(280)	(111)
Other operational expenses, net[1]	(65)	(165)	(73)
Dividends received and interests from associates and JVs	105	71	-
Adjusted EBIT from continuing operations	**3,095**	**4,444**	**2,920**

[1] Includes adjustment of US$ 52 million in 2Q23 and US$ 35 million in 1Q23, to reflect the performance of the streaming transactions at market price.

(b) Adjusted EBITDA

EBITDA defines profit or loss before interest, tax, depreciation, depletion and amortization. The definition of Adjusted EBITDA for the Company is the operating income or loss plus dividends received and interest from associates and joint ventures, and excluding the amounts charged as (i) depreciation, depletion and amortization and (ii) impairment reversal (impairment and disposals) of non-current assets. However, our adjusted EBITDA is not the measure defined as EBITDA under IFRS and may possibly not be comparable with indicators with the same name reported by other companies. Adjusted EBITDA should not be considered as a substitute for operational profit or as a better measure of liquidity than operational cash flow, which are calculated in accordance with IFRS. Vale provides its adjusted EBITDA to give additional information about its capacity to pay debt, carry out investments and cover working capital needs. The following tables shows the reconciliation between adjusted EBITDA and operational cash flow and adjusted EBITDA and net income, in accordance with its statement of changes in financial position.
The definition of Adjusted EBIT is Adjusted EBITDA plus depreciation, depletion and amortization.

Reconciliation between adjusted EBITDA and operational cash flow

US$ million	2Q23	2Q22	1Q23
Adjusted EBITDA from continuing operations	**3,874**	**5,254**	**3,576**
Working capital:			
Accounts receivable	(247)	902	1,686
Inventories	(157)	(305)	(363)
Suppliers and contractors	570	432	(105)
Provisions related to Brumadinho	140	126	-
Others	(921)	(671)	(514)
Cash flow from continuing operations	**3,259**	**5,738**	**4,280**
Income taxes paid (including settlement program)	(574)	(1,213)	(337)
Interest on loans and borrowings paid	(200)	(277)	(169)
Payments related to Brumadinho	(497)	(319)	(124)
Payments related to de-characterization of dams	(95)	(83)	(78)
Interest on participative shareholders' debentures paid	(127)	(235)	-
Cash received (paid) on settlement of Derivatives, net	134	(42)	38
Net cash generated by operating activities from continuing operations	**1,900**	**3,569**	**3,610**
Net cash generated by operating activities	**1,900**	**3,569**	**3,610**

Reconciliation between adjusted EBITDA and net income (loss)

US$ million	2Q23	2Q22	1Q23
Adjusted EBITDA from continuing operations	**3,874**	**5,254**	**3,576**
Depreciation, depletion and amortization	(779)	(810)	(656)
Dividends received and interest from associates and joint ventures	(105)	(71)	-
Impairment reversal (impairment) and results on disposals of non-current assets,net[1]	(118)	(82)	(39)
Operating income	**2,872**	**4,291**	**2,881**
Financial results	(157)	821	(530)
Equity results and other results in associates and joint ventures	5	(56)	(55)
Income taxes	(1,792)	(911)	(418)
Net income from continuing operations	**928**	**4,145**	**1,878**
Net income (loss) attributable to noncontrolling interests	36	52	41
Net income attributable to Vale's shareholders	**892**	**4,093**	**1,837**

[1] Includes adjustment of US$ 52 million 2Q23 and US$ 35 million 1Q23, to reflect the performance of the streaming transactions at market price.

(c) Net debt

US$ million	2Q23	2Q22	1Q23
Gross debt	12,417	11,031	11,464
Leases	1,520	1,577	1,520
Cash and cash equivalents[1]	(5,029)	(7,233)	(4,758)
Net debt	**8,908**	**5,375**	**8,226**

[1] Including financial investments.

(d) Gross debt / LTM Adjusted EBITDA

US$ million	2Q23	2Q22	1Q23
Gross debt and leases / LTM Adjusted EBITDA (x)	0.9	0.5	0.8
Gross debt and leases / LTM operational cash flow (x)	0.8	0.6	0.7

(e) LTM Adjusted EBITDA / LTM interest payments

US$ million	2Q23	2Q22	1Q23
Adjusted LTM EBITDA / LTM gross interest (x)	24.1	38.1	27.1
LTM adjusted EBITDA / LTM interest payments (x)	20.1	23.0	22.1

(f) US dollar exchange rates

R$/US$	2Q23	2Q22	1Q23
Average	4.9485	4.9266	5.1963
End of period	4.8192	5.2380	5.0804

Revenues and volumes

Net operating revenue by destination

US$ million	2Q23	%	2Q22	%	1Q23	%
North America	**554**	**5.7**	**585**	**5.2**	**653**	**7.7**
USA	431	4.5	474	4.2	511	6.1
Canada	123	1.3	111	1.0	142	1.7
South America	**1,098**	**11.4**	**1,434**	**12.9**	**1,067**	**12.7**
Brazil	994	10.3	1,222	11.0	919	10.9
Others	104	1.1	212	1.9	148	1.8
Asia	**6,278**	**64.9**	**7,024**	**63.0**	**4,726**	**56.0**
China	4,638	47.9	5,102	45.7	3,407	40.4
Japan	824	8.5	1,014	9.1	689	8.2
South Korea	374	3.9	359	3.2	312	3.7
Others	442	4.6	549	4.9	318	3.8
Europe	**1,227**	**12.7**	**1,426**	**12.8**	**1,563**	**18.5**
Germany	294	3.0	315	2.8	428	5.1
Italy	182	1.9	207	1.9	183	2.2
Others	751	7.8	904	8.1	952	11.3
Middle East	**162**	**1.7**	**348**	**3.1**	**238**	**2.8**
Rest of the World	**354**	**3.7**	**340**	**3.0**	**187**	**2.2**
Total	**9,673**	**100.0**	**11,157**	**100.0**	**8,434**	**100.0**

Volume sold by destination – Iron ore and pellets

'000 metric tons	2Q23	2Q22	1Q23
Americas	**10,784**	**9,422**	**10,151**
Brazil	9,512	8,551	8,749
Others	1,272	871	1,402
Asia	**56,618**	**55,498**	**38,058**
China	44,908	43,668	28,295
Japan	6,269	6,666	5,545
Others	5,441	5,164	4,218
Europe	**4,022**	**5,265**	**5,168**
Germany	426	753	964
France	742	972	1,080
Others	2,854	3,540	3,124
Middle East	**953**	**1,510**	**1,240**
Rest of the World	**1,997**	**1,466**	**1,042**
Total	**74,374**	**73,161**	**55,659**

Net operating revenue by business area

US$ million	2Q23	%	2Q22	%	1Q23	%
Iron Solutions	**7,776**	**80%**	**9,025**	**81%**	**6,411**	**76%**
Iron ore fines	6,235	64%	7,113	64%	4,982	59%
ROM	34	0%	29	0%	26	0%
Pellets	1,413	15%	1,780	16%	1,322	16%
Others	94	1%	103	1%	81	1%
Energy Transition Metals	**1,871**	**19%**	**1,875**	**17%**	**1,998**	**24%**
Nickel	930	10%	1,032	9%	1,013	12%
Copper	516	5%	330	3%	583	7%
PGMs	85	1%	65	1%	75	1%
Gold as by-product[1]	131	1%	117	1%	97	1%
Silver as by-product	12	0%	8	0%	9	0%
Cobalt[1]	22	0%	37	0%	21	0%
Others[2]	175	2%	286	3%	200	2%
Others	**26**	**0%**	**257**	**2%**	**25**	**0%**
Total of continuing operations	**9,673**	**100%**	**11,157**	**100%**	**8,434**	**100%**

[1] Exclude the adjustment of US$ 52 million in 2Q23 and US$ 35 million in 1Q23, related to the performance of streaming transactions at market price.
[2] Includes marketing activities.

Projects under evaluation and growth options

Copper		
Alemão	**Capacity: 60 ktpy**	**Stage: FEL3**
Carajás, Brazil	Growth project	Investment decision: 2023-2024
Vale's ownership: 100%	Underground mine	115 kozpy Au as byproduct
South Hub extension	**Capacity: 60-80 ktpy**	**Stage: FEL3[1]**
Carajás, Brazil	Replacement project	Investment decision: 2023-2024
Vale's ownership: 100%	Open pit	Development of mines to feed Sossego mill
Victor	**Capacity: 20 ktpy**	**Stage: FEL3**
Ontario, Canada	Replacement project	Investment decision: 2024
Vale's ownership: N/A	Underground mine	5 ktpy Ni as co-product; JV partnership under discussion
Hu'u	**Capacity: 300-350 ktpy**	**Stage: FEL2**
Dompu, Indonesia	Growth project	200 kozpy Au as byproduct
Vale's ownership: 80%	Underground block cave	
North Hub	**Capacity: 70-100 ktpy**	**Stage: FEL1**
Carajás, Brazil	Growth project	
Vale's ownership: 100%	Mines and processing plant	
Nickel		
Sorowako Limonite	**Capacity: 60 ktpy**	**Stage: FEL3**
Sorowako, Indonesia	Growth project	Investment decision: 2023
Vale's ownership: N/A[2]	Mine + HPAL plant	8 kpty Co as by-product
Pomalaa	**Capacity: 120 ktpy**	**Stage: FEL 3**
Kolaka, Indonesia	Growth project	Investment decision: 2023 (mine)
Vale's ownership: N/A[2]	Mine + HPAL plant (under construction)	15 ktpy Co as by-product
Creighton Ph. 5	**Capacity: 15-20 ktpy**	**Stage: FEL3**
Ontario, Canada	Replacement project	Investment decision: 2023-2024
Vale's ownership: 100%	Underground mine	10-16 ktpy Cu as by-product
CCM Pit	**Capacity: 12-15 ktpy**	**Stage: FEL3**
Ontario, Canada	Replacement project	Investment decision: 2023-2024
Vale's ownership: 100%	Open pit mine	7-9 ktpy Cu as by-product
CCM Ph. 3	**Capacity: 5-10 ktpy**	**Stage: FEL3**
Ontario, Canada	Replacement project	7-13 ktpy Cu as by-product
Vale's ownership: 100%	Underground mine	
CCM Ph. 4	**Capacity: 7-12 ktpy**	**Stage: FEL2**
Ontario, Canada	Replacement project	7-12 ktpy Cu as by-product
Vale's ownership: 100%	Underground mine	
Iron ore		
Dry concentration plant	**Capacity: 8 Mtpy DR pellet feed**	**Stage: FEL3**
Oman	Replacement project	Investment decision: 2023
Vale's ownership: N/A	Cleaner to produce DR pellet feed	
Green briquette plants	**Capacity: Under evaluation**	**Stage: FEL3 (two plants)**
Brazil and other regions	Growth project	Investment decision: 2023-2029
Vale's ownership: N/A	Cold agglomeration plant	8 plants under engineering stage, including co-located plants in clients' facilities
Serra Leste expansion	**Capacity: +4 Mtpy (10 Mtpy total)**	**Stage: FEL2**
Northern System (Brazil)	Growth project	
Vale's ownership: 100%	Open pit mine	
S11C	**Capacity: Under evaluation**	**Stage: FEL2**
Northern System (Brazil)	Growth project	
Vale's ownership: 100%	Open pit mine	

contd.

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Iron ore		
Serra Norte N1/N2[3]	**Capacity: Under evaluation**	**Stage: FEL2**
Northern System (Brazil)	Replacement project	
Vale's ownership: 100%	Open pit mine	
Mega Hubs	**Capacity: Under evaluation**	**Stage: Prefeasibility Study**
Middle East	Growth project	
Vale's ownership: N/A	Industrial complexes for iron ore concentration and agglomeration and production of direct reduction metallics	Vale signed three agreements with Middle East local authorities and clients to jointly study the development of Mega Hubs

[1] Refers to the most advanced projects (Bacaba and Cristalino).
[2] Indirect ownership through Vale's 44.34% equity in PTVI. PTVI will own 100% of the mine and has the option to acquire up to 30% of the plant as part of the JV agreement.
[3] Project scope is under review given permitting constraints.

Vale's 2Q23 production and sales report

Rio de Janeiro, July 18th, 2023

- Iron ore production increased 6% y/y driven by a record output for a second quarter at S11D, followed by solid performance at Itabira and Vargem Grande complexes, improving Vale's average product portfolio quality. Torto dam received its license to operate, and commissioning is underway. Pellet production increased 5% y/y driven by the higher production at Tubarão plants as a result of higher pellet feed production.
- Iron ore fines and pellet sales increased 1% y/y as Ponta da Madeira Terminal restored productivity during Q2, after restrictions due to heavy rains affected shipments and sales in Q1. Vale expects a lower production-to-sales gap in Q3 with the sale of the inventories from the first semester, depending on market conditions.
- Copper production increased 41% y/y and 18% q/q largely attributed to the successful ramping up of Salobo III plant and the improved performance of the Sossego operation. Copper sales increased 43% y/y and 18% q/q as result of higher production volumes.
- Nickel production increased 8% y/y largely attributed to better operational performance in Sudbury and Indonesia. Q/q, production was impacted by planned maintenance shutdowns, particularly at the Long Harbour and Clydach refineries. Nickel sales increased 3% y/y driven by improved production, remaining relatively stable q/q due to inventory buildup in Q1.

Production summary

						% change			2023
000' metric tons	2Q23	1Q23	2Q22	1H23	1H22	2Q23/1Q23	2Q23/2Q22	1H23/1H22	Guidance
Iron ore[1]	78,743	66,774	74,108	145,517	137,236	17.9%	6.3%	6.0%	310-320 Mt
Pellets	9,111	8,318	8,672	17,429	15,596	9.5%	5.1%	11.8%	36-40 Mt[2]
Copper	78.8	67.0	55.9	145.9	112.5	17.6%	41.0%	29.7%	335-370 kt
Nickel	36.9	41.0	34.2	77.9	79.9	-10.0%	7.9%	-2.5%	160-175 kt

[1] Including third-party purchases, run-of-mine and feed for pelletizing plants.
[2] Iron ore agglomerates guidance, including iron ore pellets and briquettes.

Sales summary

						% change		
000' metric tons	2Q23	1Q23	2Q22	1H23	1H22	2Q23/1Q23	2Q23/2Q22	1H23/1H22
Iron ore fines[1]	63,329	45,861	62,769	109,190	114,080	38.1%	0.9%	-4.3%
Iron ore pellets	8,809	8,133	8,843	16,942	15,854	8.3%	-0.4%	6.9%
Iron ore ROM	2,236	1,665	1,550	3,900	2,585	34.3%	44.3%	50.9%
Copper	73.8	62.7	51.5	136.5	101.8	17.7%	43.3%	34.1%
Nickel	40.3	40.1	39.3	80.4	78.3	0.5%	2.5%	2.7%

[1] Including third-party purchase sales.

Price realization summary

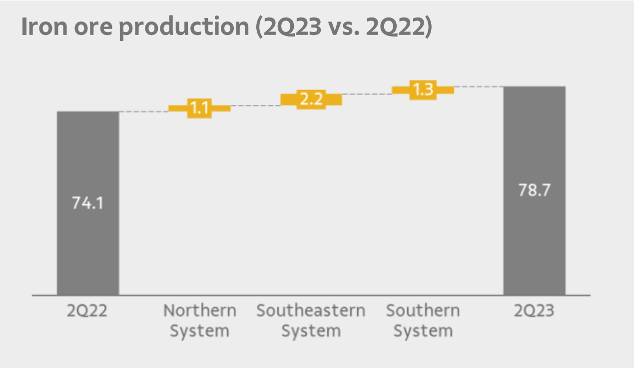
						% change		
US$/t	2Q23	1Q23	2Q22	1H23	1H22	2Q23/1Q23	2Q23/2Q22	1H23/1H22
Iron ore fines (CFR/FOB, wmt)	98.5	108.6	113.3	102.7	126.0	-9.3%	-13.1%	-18.5%
Iron ore pellets (CFR/FOB, wmt)	160.4	162.5	201.3	161.4	198.3	-1.3%	-20.3%	-18.6%
Copper[1]	7,025	9,465	6,240	8,123	8,653	-25.8%	12.6%	-6.1%
Nickel	23,070	25,260	26,221	24,162	24,216	-8.7%	-12.0%	-0.2%
Gold (US$/oz)	2,082	1,845	1,780	1,975	1,873	12.8%	17.0%	5.4%
Silver (US$/oz)	22.3	22.4	19.0	22.3	21.3	-0.4%	17.4%	4.7%
Cobalt	34,694	32,830	81,915	33,790	80,077	5.7%	-57.6%	-57.8%

[1] Average realized price for copper operations only (Salobo and Sossego). Average realized copper price for all operations, including copper sales originated from nickel operations, was US$ 6,986/t in 2Q23.

Business highlights in 2Q23

Iron Ore and Pellets operations

- **S11D production increased by 2.6 Mt y/y, a record production for a second quarter**. This performance reflects the positive results from continued initiatives to improve asset reliability and from installing new crushers in 2022. At Serra Norte, despite lower y/y production due to reduced run-of-mine availability, mine movement at the site improved 16% y/y with increased waste removal, enabling better execution of the mining plan in the 2H23.



- **Southeastern System production was 2.2 Mt higher y/y**, mainly driven by (i) Itabira performance as a result of better run-of-mine quality improving the plants' productivity, and (ii) higher third-party purchases. Torto dam at the Brucutu site received its license to operate, and commissioning is underway. The dam, together with the tailings filtering plant, will substantially improve overall average quality, increasing the availability of pellet feed to Vale's pellet plants.

- **Southern System production increased by 1.3 Mt y/y** mainly due to (i) better performance at Vargem Grande as a result of improvements in the wet processing and tailings disposal system and from asset reliability initiatives, and (ii) additional production and sales of run-of-mine from the Paraopeba complex, which were partially offset by unscheduled maintenance at Viga site in April and May.

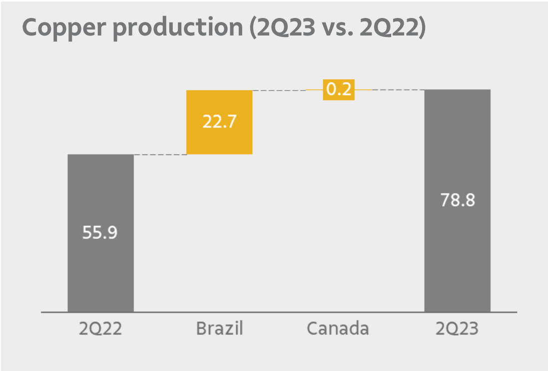
- **Pellet production increased by 0.4 Mt y/y**, driven by production at the Tubarão plants, with more pellet feed from Itabira, partially offset by the lower output at the São Luis plant due to maintenance activities. Vale expects to start-up one of two briquette plants in Tubarão in Q3. After the commissioning phase, both plants together will have a total capacity of 6 Mtpy.

- **Iron ore fines and pellet sales increased by 0.5 Mt y/y** as Ponta da Madeira Terminal restored productivity during 2Q23, after loading restrictions due to heavy rains affected shipments and sales in 1Q23. **All-in premium totaled US$ 4.5/t**[1], US$ 2.8/t lower y/y, mainly driven by the lower quality market premiums for iron ore fines and pellets. Quarter on quarter, the all-in premium increased US$ 2.4/t, mainly driven by more Northern System products in our product mix and an increased contribution from the pellet business.

- **Iron ore fines realized price was US$ 98.5/t**, US$ 14.8/t lower y/y, mainly due to lower benchmark prices (US$ 26.9/t lower y/y), partially offset by a lower impact of pricing system adjustments (US$ 9.1/t higher y/y). **Iron ore pellets realized price was US$ 160.4/t**, US$ 40.9/t lower y/y, mainly due to lower 65%Fe index prices and pellet premiums.

[1] Iron ore premium of US$ 0.6/t and the weighted average contribution of the pellet business of US$ 3.9/t.

Copper operations



- **Salobo copper production was 13.1 kt higher y/y** due to the successful and ongoing ramp-up of Salobo III, which contributed 13.2 kt to overall production from the complex, surpassing our plan for the quarter. This was partially offset by planned maintenance activities and additional work on the crushers at Salobo I and II. The maintenance activities will continue in 2H23 as planned.

- **Sossego copper production increased by 9.6 kt y/y and 1.7 kt q/q**, driven by improved operational performance, following the extended maintenance work that impacted last year's performance.

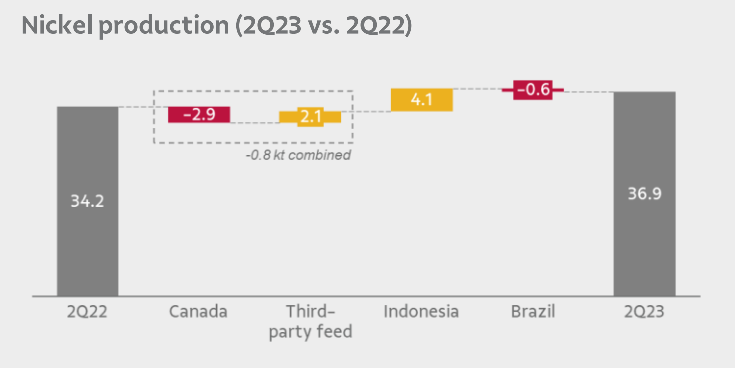
- **Copper production in Canada was flat y/y**. There was a slight decrease in production from Canadian ore sources, mainly due to the VBME ramp-up and changes in mining method at the high-copper-grade Coleman mine in Sudbury. This decline was offset by higher consumption of third-party feed. Annual planned maintenance of the Sudbury mines and mill will take place in 3Q23.

- **Copper sales were 22.3 kt higher y/y**, in line with higher copper production in the same period.

- **The average realized copper price was US$ 7,025/t in the quarter**, up 13% y/y, mainly due to the lower impact of provisional price adjustment that offset lower LME prices (US$ 8,424/t in 2Q23 vs. US$ 9,513/t in 2Q22) and higher TC/RC discounts. The realized prices in the quarter were negatively affected by the downward trend in prices and the effect of associated provisional pricing adjustments.

Nickel operations

- **Finished nickel production from Sudbury sourced ore increased by 3.5 kt y/y**. Sudbury mine operations continue to improve y/y. The increase is also due to the lower production in 2022 as a result of the 28-day maintenance shutdown at the Sudbury smelter and refinery which began in early April and reached full production again in June.



- **Finished nickel production from Thompson sourced ore decreased by 1.1 kt y/y**, mainly as a result of planned maintenance activities at the Long Harbour refinery.

- Annual mine-mill maintenance is planned for 3Q23 at the Sudbury and Thompson operations. Nickel concentrates inventories accumulated in 2Q23 will offset the lower production during this period.

- **Finished nickel production from Voisey's Bay sourced ore was 5.2 kt lower y/y** since the annual maintenance schedule at the Long Harbour refinery (from May to July) was planned longer than the previous year. Voisey's Bay continues to be impacted by the ongoing transition period between the depletion of the Ovoid mine and ramp-up to full production of the Voisey's Bay underground project.

- **Finished nickel production sourced from third parties increased by 2.1 kt y/y**. For 2H23, consumption of feed from third parties is expected to remain at higher levels, as planned, to maximize the utilization and performance of our downstream operations.

- **Finished nickel production from Indonesia sourced material was 4.1 kt higher y/y**. Nickel-in-matte production reached 16.9 kt in 2Q23. In 1H22, PTVI matte deliveries to downstream operations were reduced as a result of the planned furnace rebuild. During the 2Q23, the Clydach refinery had to extend planned maintenance beyond the planned period, returning to activities in early July, while the Matsusaka refinery performed well.

- **Onça Puma production was 0.6 kt lower y/y** as the furnace is currently operating at a lower rate in preparation for the furnace rebuild later in the year.

- **Nickel sales were 1.0 kt higher y/y** as a result of higher production. Sales remained relatively stable q/q due to inventory buildup in Q1 to meet sales commitments during planned maintenance at Long Harbour and Clydach refineries.

- **The average realized nickel price was US$ 23,070/t in the quarter**, representing a 12% decrease y/y, mainly as a result of lower LME prices (US$ 22,308/t in 2Q23 vs. US$ 28,940/t in 2Q22). The average realized nickel price was 3% (US$ 762/t) higher than LME average price primarily driven by a higher share of Upper Class I products in the mix combined with higher average Class I premiums.

ANNEX – Production and sales summary

Iron ore

000' metric tons	2Q23	1Q23	2Q22	1H23	1H22	% change 2Q23/1Q23	% change 2Q23/2Q22	% change 1H23/1H22
Northern System	**40,157**	**35,771**	**39,073**	**75,928**	**76,805**	**12.3%**	**2.8%**	**-1.1%**
Serra Norte and Serra Leste	21,000	19,450	22,548	40,450	45,134	8.0%	-6.9%	-10.4%
S11D	19,156	16,321	16,525	35,477	31,672	17.4%	15.9%	12.0%
Southeastern System	**21,795**	**18,604**	**19,557**	**40,399**	**34,512**	**17.2%**	**11.4%**	**17.1%**
Itabira (Cauê, Conceição and others)	8,362	7,439	7,061	15,801	13,259	12.4%	18.4%	19.2%
Minas Centrais (Brucutu and others)	6,537	5,411	5,950	11,948	9,519	20.8%	9.9%	25.5%
Mariana (Alegria, Timbopeba and others)	6,895	5,753	6,547	12,648	11,735	19.9%	5.3%	7.8%
Southern System	**16,792**	**12,399**	**15,477**	**29,191**	**25,918**	**35.4%**	**8.5%**	**12.6%**
Paraopeba (Mutuca, Fábrica and others)	7,483	4,326	6,968	11,809	10,978	73.0%	7.4%	7.6%
Vargem Grande (Vargem Grande, Pico and others)	9,308	8,074	8,510	17,382	14,942	15.3%	9.4%	16.3%
IRON ORE PRODUCTION[1]	**78,743**	**66,774**	**74,108**	**145,517**	**137,236**	**17.9%**	**6.3%**	**6.0%**
OWN PRODUCTION	**73,020**	**63,490**	**69,473**	**136,511**	**130,191**	**15.0%**	**5.1%**	**4.9%**
THIRD-PARTY PURCHASES	**5,723**	**3,284**	**4,637**	**9,007**	**7,048**	**74.3%**	**23.4%**	**27.8%**
FINES AND PELLET SALES	**72,138**	**53,994**	**71,612**	**126,132**	**129,934**	**33.6%**	**0.7%**	**-2.9%**
FINES SALES[2]	**63,329**	**45,861**	**62,769**	**109,190**	**114,080**	**38.1%**	**0.9%**	**-4.3%**
PELLET SALES	**8,809**	**8,133**	**8,843**	**16,942**	**15,854**	**8.3%**	**-0.4%**	**6.9%**
ROM SALES	**2,236**	**1,665**	**1,550**	**3,900**	**2,585**	**34.3%**	**44.3%**	**50.9%**
SALES FROM 3RD PARTY PURCHASE	**5,572**	**3,545**	**4,536**	**9,117**	**7,236**	**57.2%**	**22.8%**	**26.0%**

[1] Including third-party purchases, run-of-mine and feed for pelletizing plants. Vale's product portfolio Fe content reached 62.3%, alumina 1.2% and silica 6.2% in 2Q23.
[2] Including third-party purchases.

Pellets

000' metric tons	2Q23	1Q23	2Q22	1H23	1H22	% change 2Q23/1Q23	% change 2Q23/2Q22	% change 1H23/1H22
Northern System	**665**	**784**	**836**	**1,449**	**1,574**	**-15.2%**	**-20.5%**	**-7.9%**
São Luis	665	784	836	1,449	1,574	-15.2%	-20.5%	-7.9%
Southeastern System	**4,633**	**4,668**	**4,088**	**9,301**	**7,777**	**-0.7%**	**13.3%**	**19.6%**
Itabrasco (Tubarão 3)	1,004	951	930	1,955	1,240	5.6%	8.0%	57.7%
Hispanobras (Tubarão 4)	57	-	-	57	-	n.m.	n.m.	n.m.
Nibrasco (Tubarão 5 and 6)	1,130	1,208	921	2,338	1,985	-6.5%	22.7%	17.8%
Kobrasco (Tubarão 7)	800	948	963	1,748	1,932	-15.6%	-16.9%	-9.5%
Tubarão 8	1,642	1,562	1,273	3,204	2,619	5.1%	29.0%	22.3%
Southern System	**1,200**	**1,147**	**1,136**	**2,347**	**1,815**	**4.6%**	**5.6%**	**29.3%**
Fábrica	-	-	-	-	-	-	-	-
Vargem Grande	1,200	1,147	1,136	2,347	1,815	4.6%	5.6%	29.3%
Oman	**2,613**	**1,719**	**2,612**	**4,332**	**4,430**	**52.0%**	**0.0%**	**-2.2%**
PELLET PRODUCTION	**9,111**	**8,318**	**8,672**	**17,429**	**15,596**	**9.5%**	**5.1%**	**11.8%**
PELLET SALES	**8,809**	**8,133**	**8,843**	**16,942**	**15,854**	**8.3%**	**-0.4%**	**6.9%**

Copper – Finished production by source

000' metric tons	2Q23	1Q23	2Q22	1H23	1H22	% change 2Q23/1Q23	% change 2Q23/2Q22	% change 1H23/1H22
Brazil	**57.7**	**46.1**	**35.0**	**103.8**	**72.7**	**25.2%**	**64.9%**	**42.8%**
Salobo	42.7	32.8	29.6	75.5	63.6	30.2%	44.3%	18.7%
Sossego	15.0	13.3	5.4	28.3	9.1	12.8%	177.8%	211.0%
Canada	**21.1**	**20.9**	**20.9**	**42.1**	**39.8**	**1.0%**	**1.0%**	**5.8%**
Sudbury	16.7	16.3	16.9	33.0	30.8	2.5%	-1.2%	7.1%
Thompson	0.05	0.1	0.2	0.2	0.5	-50.0%	-75.0%	-60.0%
Voisey's Bay	2.2	2.0	2.5	4.3	5.6	10.0%	-12.0%	-23.2%
Feed from third parties[1]	2.1	2.5	1.3	4.6	2.9	-16.0%	61.5%	58.6%
COPPER PRODUCTION	**78.8**	**67.0**	**55.9**	**145.9**	**112.5**	**17.6%**	**41.0%**	**29.7%**
COPPER SALES	**73.8**	**62.7**	**51.5**	**136.5**	**101.8**	**17.7%**	**43.3%**	**34.1%**
Copper Sales Brazil	52.7	43.2	34.6	95.9	68.7	22.0%	52.3%	39.6%
Copper Sales Canada	21.0	19.5	16.9	40.5	33.1	7.7%	24.3%	22.4%

[1] External feed purchased from third parties and processed into copper in our Canadian operations.

Nickel – Finished production by source

000' metric tons	2Q23	1Q23	2Q22	1H23	1H22	% change 2Q23/1Q23	% change 2Q23/2Q22	% change 1H23/1H22
Canada	**13.2**	**16.3**	**16.1**	**29.5**	**35.0**	**-19.0%**	**-18.0%**	**-15.7%**
Sudbury	10.6	9.5	7.1	20.1	15.7	11.6%	49.3%	28.0%
Thompson	0.9	2.5	2.0	3.3	4.9	-64.0%	-55.0%	-32.7%
Voisey's Bay	1.7	4.3	6.9	6.1	14.4	-60.5%	-75.4%	-57.6%
Indonesia	**13.2**	**14.0**	**9.1**	**27.2**	**26.7**	**-5.7%**	**45.1%**	**1.9%**
Brazil	**5.7**	**4.9**	**6.3**	**10.6**	**11.7**	**16.3%**	**-9.5%**	**-9.4%**
Feed from third parties[1]	**4.8**	**5.9**	**2.7**	**10.7**	**6.5**	**-18.6%**	**77.8%**	**64.6%**
NICKEL PRODUCTION	**36.9**	**41.0**	**34.2**	**77.9**	**79.9**	**-10.0%**	**7.9%**	**-2.5%**
NICKEL SALES	**40.3**	**40.1**	**39.3**	**80.4**	**78.3**	**0.5%**	**2.5%**	**2.7%**

[1] External feed purchased from third parties and processed into finished nickel in our Canadian operations.

Energy Transition Metals by-products – Finished production

	2Q23	1Q23	2Q22	1H23	1H22	% change 2Q23/1Q23	% change 2Q23/2Q22	% change 1H23/1H22
COBALT (000' metric tons)	361	597	541	958	1,296	-39.5%	-33.3%	-26.1%
PLATINUM (000' oz troy)	36	34	21	70	44	5.9%	71.4%	59.1%
PALLADIUM (000' oz troy)	46	40	28	86	58	15.0%	64.3%	48.3%
GOLD (000' oz troy)[1]	91	79	60	170	131	15.2%	51.7%	29.8%
TOTAL BY-PRODUCTS (000' metric tons Cu eq.)[2 3]	**39**	**34**	**28**	**73**	**59**	**14.7%**	**39.3%**	**23.7%**

[1] Includes Gold from Copper and Nickel operations.
[2] Includes Iridium, Rhodium, Ruthenium, and Silver.
[3] Copper equivalent tons calculated using average market metal prices for each quarter. Market reference prices: for copper and cobalt: LME spot; for Gold and Silver: LME spot for 2Q22 (also included in 1H22) and NYMEX from 3Q22 onwards; for Platinum and Palladium: NYMEX spot; for other PGMs: Johnson Matthey.

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Local Conference Call
Vale S/A (VALE3)
July 28th, 2023

Operator: Good morning, ladies and gentlemen. Welcome to Vale's conference call to discuss the 2023 second quarter results. All participants are currently in a listen-only mode. At the end of the presentations, we will provide instructions on how to participate in the question-and-answer session. This call is being translated simultaneously to Portuguese.

If you should require assistance during the call, please press the star key followed by zero. As a reminder, this conference is being recorded and the recording will be available on the Company's website at: VALE.COM in the area for Investors.

The slide presentation that accompanies this call is being broadcast on the internet and is also available in the investors area of the company´s website. There is a slight two-second delay between the audio and slide changes compared to the audio transmitted via phone.

Before proceeding, let me mention that forward-looking statements may be provided in this presentation, including Vale's expectations about future events or results, encompassing those matters listed in the respective presentation. We caution you that forward-looking statements are not guarantees of future performance and involve risks and uncertainties. To obtain 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.

With us today are:

- Mr. Eduardo de Salles Bartolomeo – Chief Executive Officer;
- Mr. Gustavo Pimenta – Executive Vice President of Finance and Investor Relations;
- Mrs. Deshnee Naidoo – CEO Vale Base Metals;
- Mr. Carlos Medeiros – Executive Vice President of Operations

Mr. Eduardo Bartolomeo will begin his presentation on Vale's second quarter performance, and after that he will be available for Questions and Answers.

It is now my pleasure to turn the call over to Mr. Eduardo Bartolomeo. Sir, you may now begin.

Eduardo Bartolomeo: Thank you very much. Good morning, everyone. I hope you are all well.

Let me start with the very significant milestone that we delivered and announced last night. We signed a strategic partnership with world class diversified investors for the Energy Transition Metals business. This partnership attributed a very attractive valuation for our ETM business, which shows that our partners recognize the value generation potential of our assets and how uniquely positioned they are. This is an encouraging starting point for what we believe is a powerful platform for growth. I will give you more details during the presentation.

Now let me cover our operating results. We delivered a solid production performance for our business this quarter.

In Iron Solutions, we are growing quarterly output year-on-year, while our all-in cost declined yearly and quarterly. We are also commissioning Torto dam which will increase availability of pellet feed for Brucutu operations and improve the average quality of our portfolio.

In Energy Transition Metals, Salobo III is ramping up ahead of schedule with a solid contribution to our copper growth year-to-date. In nickel, we are firmly marching towards our annual guidance.

Moving on to dam management, we reached the first deadline for implementing the Global Industry Standard for Tailings Management, the GISTM, with a positive outlook. All of our prioritized structures are in conformance with the standard with ongoing action plans to ensure that the best practices are in place. This is part of our commitment to being a safer company for our employees, communities and society.

On top of that, our discipline in capital location remains pristine. We announced the distribution of US$1.74 billion in shareholder remuneration with payment in September. Since 2021, the total amount distributed in dividends and interest on capital translated into a 27% yield to our shareholders. This shows Vale's solid track record in creating and sharing value.

In addition, our third share buyback program is now 69% complete. Since launching our first share buyback program in 2021, Vale has repurchased about 16% of its share base, representing a concentration in shareholder future earnings of almost 20%. With that, we are walking the talk, delivering on our commitments.

So, let me go over some details of our performance. Next slide. We reached the end of the first half of 2023 with strong results and a positive outlook, being well-positioned to deliver the production guidance for 2023.

In Iron Solutions, asset reliability initiatives have started to bear fruit this quarter and driving the solid performance across our 3 systems. We set a new production record for a second quarter at S11D. Itabira and Vargem Grande performed very well as well, and our mix improved substantially. As I mentioned, Torto is finally commissioned, which should allow for more pellet production, improving our mix and average price premium.

In Energy Transition Metals, copper production in the second quarter grew 41% year-on-year mainly due to the successful ramp-up of Salobo III and improved performance at Sossego, benefiting from the extended SAG mill maintenance done last year. Copper sales were exceptional for the period, growing 43% year-on-year.

Finished nickel production grew 8% year-on-year, given continued solid performance from our Sudbury mines and improved production sourced from Indonesia. With planned maintenance in the quarter, Voisey's Bay and Long Harbour operations had a lower output. Onça Puma furnace is currently operating at a lower rate in preparation for the furnace rebuilt later this year. Despite that, our outlook for 2023 nickel production remains solid.

Next slide. We are ramping up Salobo III ahead of schedule with strong production rates, we had an increment of 10 kilotons this quarter versus the first quarter with a total output of 16 kilotons in the first half of 2023, meaning 9% of our total copper output in the same period. Once at peak capacity expected at the end of 2024, Salobo III will add 30,000 to 40,000 tons per year of copper to our total Salobo complex output.

Next slide. In 2020, we committed to implement the GISTM, the Global Industry Standard for Tailings Management within the industry timeframe. I'm glad to inform that we have implemented this standard for all of our prioritized structures within the first deadline with ongoing action plans to ensure full conformance. This is an important milestone in the evolution of our dam management towards the safety of our employees, neighboring communities and society.

In addition, we are on track to full conformance for all our tailing facilities, not in state of closure by 2025. We are consistently reducing risks associated with our dams and implementing the best international practices in dam management while developing alternative solutions to reduce dam use. So, we will continue to deliver on our ESG commitments so that Vale becomes a leader in sustainable mining and a benchmark in safety.

Next slide. Finally, talking about our ETM business. As you all know, we have been working over the last 18 months on a series of initiatives to position our ETM business for success. We have completely redesigned our organization, ring-fenced the business into a single vehicle with a leaner structure, and a dedicated governance. We attracted industry experts for the Board, top talents like Jerome Guillen and Mark Cutifani, who needs no introduction. In addition, we defined management incentive plans tailored to foster business development. All of that to establish a more fit-for-purpose organization that will allow us to unlock the ETM business value over the next several years.

Today, I am very proud to announce the formation of a partnership with world-class strategic investors to ETM, which I am confident will create substantial long-term value to all of our shareholders. I am honored to partner with Manara Minerals Investment Company, a new venture between Ma'aden and PIF, the

Public Investment Fund, that brings in experience and helps us in accessing strategic geographies for Vale, including the iron ore business with our Mega Hubs. I am also honored to partner with Engine No. 1, a reference in sustainability-focused investments with solid ESG credentials.

The future ahead of us is very promising. The need for a lower carbon economy is a generational challenge, but at the same time it is an enormous opportunity as this simply will not be achieved without a significant increase in the supply of critical minerals.

We see ETM uniquely positioned to play a relevant role in this process, not only because we have a tremendous mineral endowment, but also because we are building the leading ESG future-facing minerals platform in our space, one that pursues long-term value creation to all stakeholders. We all share the same vision for long-term growth and value creation and the terms of our partnership is a validation of that. I said we would close a deal only at the right value and with the right partners. That is exactly what we achieved today.

So, now I pass the floor to Gustavo, who will detail the transaction and our financial results, and I'll get back to you on our Q&A at the end. And thank you for your attention.

Gustavo Pimenta: Thanks, Eduardo, and good morning, everyone.

As Eduardo explained, this partnership is another important milestone in building a leading future-facing commodities platform with significant mineral endowment and resources, inclusive of reserves amounting over 30 million tons for copper and 9 million tons for nickel. We see potential for ETM to invest US$ 25 to 30 billion in highly accretive projects over the next decade growing its copper production from approximately 350 kilotons per year to 900 kilotons per year, and its nickel production from around 175 kilotons per year to 300 kilotons per year.

With this exciting outlook, I now turn to the transaction details in the next slide. Given the strong interest to partner with ETM and the high caliber of potential partners, we, together with our Board, decided to accommodate a greater share of investors and increased the equity capitalization to 13% considering an enterprise value of US$26 billion. The implied pre-money equity value for Vale was US$25.1 billion. The total net proceeds are expected to reach US$3.4 billion, out of which US$1 billion will stay with VBM and the balance will be returned to the parent company for future use as per our capital allocation framework.

Now moving to our financial performance in the second quarter, let's start with our EBITDA. As you can see, with delivered an EBITDA of US$4.1 billion, US$1.4 billion below the same period in 2022. This decrease is explained by the US$15 per ton lower iron ore fines realized price and by the US$3,000 per ton lower nickel realized prices following the decline in the reference prices since second quarter 2022. The impact of costs and expenses on EBITDA was relatively small at US$96 million, mainly from transitory effects in the nickel business related to the maintenance and higher third-party nickel feed purchases.

In iron ore and copper, despite the year-on-year inflationary pressure, costs and expenses improved EBITDA by US$218 million. I will go into more details on costs later in my presentation. Sales volumes and by-products helped increase our EBITDA by US$154 million as a result of initiatives to improve asset reliability and we expect to continue seeing these positive results in the second half of 2023.

Now on to iron ore costs, our C1 cash cost ex-third-party purchases came down slightly to US$23.5 per ton quarter-on-quarter even considering a US$0.70 per ton negative effect from the Brazilian currency appreciation. Given the significant appreciation of the Brazilian Real and now considering an average exchange rate of 4.95 for the year versus our previous assumption of R$5.20 per dollar, we have adjusted our C1 guidance for the year to US$ 21.5 to 22.5 per ton. This means an expected C1 below US$22.00 per ton in the second half of this year, driven by more Northern System production in the mix and the continuous rollout of our productivity program with gains in asset reliability and procurement initiatives.

With regards to all-in costs, our EBITDA breakeven reached US$53 per ton, roughly flat year-on-year, and US$5.2 per ton lower quarter-on-quarter. This can be attributed to the improved product portfolio mix with more Northern System ore and lower high silica product sales in addition to greater volumes. We also adjusted our iron ore all-in cost guidance to US$ 52 to 54 per ton for the year. This change is essentially the result of external factors, such as the lower all-in premiums due to market conditions and the adjustment in C1 due to the Brazilian Real appreciation. Just to give us sensitivity, a 10-cent appreciation of the Brazilian Real converts into a 30 cent per ton increase in C1 cash costs ex-third-party purchases, and a 50 cent per ton increase in all-in costs in 2023.

In copper, we continue to see gains from higher production at both Salobo and Sossego, which supports the dilution of fixed costs at our operations. Higher gold prices and the one-off effect on tax credits contributed to reducing our total costs in the quarter. As a result, our all-in cost was just over US$3,000 per ton, approximately US$1,800 per ton lower than in the first quarter, which is in line with our expectations with the continued ramp up of Salobo III.

At our nickel operations, our COGS ex-third-party feed increased about 5,000 year-on-year due to lower availability of our own feed, which we were already expecting with the ongoing transition in Voisey's Bay mine and the relatively longer planned maintenance period at Long Harbour. Also, in connection with Voisey's Bay transition and Long Harbour maintenance, this quarter we have recognized a one-off decrease in the recoverable value of inventories, which were produced at higher costs. As a result, our all-in costs increased year-on-year but stayed essentially flat quarter-on-quarter at just over US$ 17,000 per ton.

The all-in cost guide for nickel in 2023 has been adjusted to US$ 15,500 to 16,000 per ton, mostly reflecting lower than expected by-product prices and volumes, which we expect to continue throughout the second half of 2023. For the second half, we expect all-in costs to decline as production increases and no other one-off events materializes.

Now moving to cash generation. As you can see, Q2 free cash flow was negatively impacted by working capital as we had 7 million tons higher accrual sales volumes in our iron ore, in addition to higher Brumadinho-related commitments. Also in the second quarter, Vale raised US$1.5 billion from bonds issuance, whose proceeds were mostly used to repurchase US$500 million of higher-cost debt and to repurchase US$1.4 billion of shares as part of our buyback program.

Looking specifically at our capital allocation strategy, yesterday our Board of Directors approved a distribution of US$1.7 billion in interest on capital to be paid in September based on financial results from the first half of the year. Since 2021, Vale generated 27% of dividend yield.

Additionally, we continue to see the repurchase of our shares as one of the best ways to create long-term value for our shareholders. Since the beginning of our share buyback program, Vale has repurchased 16% of our share base, representing a concentration in shareholder future earnings of almost 20%.

So, before we move on to the Q&A session, I'd like to reinforce the key messages from today's call. We continue to make substantial progress in our operational performance and are extremely confident in delivering our production targets for the year. At our Energy Transition Metals business, we are thrilled with today's announcement and believe the actions we have taken over the last 18 months will position the business to be a winner in the global energy transition. At the same time, we have been taking immediate and consistent actions to improve dam safety being now adherent to the GISTM for all critical structures. And finally, we remain highly committed to a disciplined capital allocation process, as evidenced by today's dividend announcement and the continuous execution of our highly accretive buyback program.

Now I would like to open the call for questions. Thank you.

Question and Answer Session

Operator: Thank you ladies and gentlemen, we will now begin the question-and-answer session. If you have the question, please press the star key followed by the one key on your touch tone phone. Now if at any time you would like to remove yourself from the questioning queue, press *2.

Please, ask your question in English and limit your questions to two at a time.

Our first question comes from Daniel Sasson, Itaú BBA.

Daniel Sasson: Hi, guys. Good morning. Thanks for the presentation. My first question is on the cost front. If you could give us more details on the cost difference between your Northern and Southern systems, that would be helpful and help us understand the evolution of your costs going forward given the increase of participation of the Northern system and total mix, and your total sales mix in the second half. And if you could remind us of your exposure, what percentage of your C1 is actually denominated in reais that would be great.

And my second question – congrats on the transaction for the base metals division –, if you could give us more color on your expectations on the potential contributions from Ma'aden and the PIF from a strategic standpoint to the development and stabilization of operations in your base metals division, that would be great, right. I'm trying to understand that in addition from the interesting valuation that you're able to read, what is your… what your partners could bring to the table and help us with unlocking value in those operations? Thanks a lot.

Eduardo Bartolomeo: Gustavo, you go first in the cost and we're going to detail a little bit more the partnership later.

Gustavo Pimenta: Thanks, Eduardo. Thanks, Daniel, for your question. So, on the Northern system, C1 is on the mid-teens, so you can do the math, you see there is certainly a contribution as we bring more volume from the north to our overall mix, right. We've seen some improvement in Q2, and we'll continue to see in the second half of the year. Regarding your FX question, I think the best way to look into that is to assess the sensitivity that I've talked about in my prep remarks, so every 10 cents of BRL appreciation is about 30 cents of increase in our C1. I think that's the best way to look into the overall exposure that we have and 50 cents at the all-in.

So, I'll pass the third question to Eduardo.

Eduardo Bartolomeo: Thanks, Gustavo. I think Daniel – thanks for the question – when we discussed the unlocking value for base metals, we always said it´s a conjunction of factors, right? It wasn't only the participation; the participation would come, as I mentioned, at the right value, with the right partner, one that would see the opportunity down the road and the ability of ourselves to execute it.

Well, obviously, as Gustavo mentioned, there were several interests and Manara and Ma'aden together with PIF, and then Engine No 1 as well, they came up exactly on these two fundamental elements that we believe will lock value. First of all, they validate the thesis, they are long-term investors, they are not here for the spring, they're coming here for the long-term, they bring sector experience and Ma'aden has partnerships with other several miners, so they will help us as well. And then PIF, as I mentioned already, is a long-term value investor, and Engine No 1 brings ESG credentials that is key as we are in the business of energy transition.

So, I believe the validation, the strength in the governance that will happen with them, their help in the sector, and there's a collateral that of course is a benefit from us is that we have interests in the Middle East as well with the mega hubs, as you know.

So, there were several elements that added to bring the right partner, people that share the same view, share the same values, they have the ESG credentials, so I think they will be very helpful on strengthening the governance because, as we've been saying repeatedly, it's all about execution and growth, and with Mark Cutifani leading the Board, attracting talents like him, like Jerome, having a fit-for-purpose organization, having partners; this will add up to a convergency of interests and – how can I say that? – objectives that will unlock tremendous values because we're going to execute faster and grow faster.

Thanks for your question, Daniel. And we are very excited, by the way. I think we are beginning a new phase in Vale that will unlock tremendous value for all shareholders and fundamentally for the base metals business.

Operator: Our next question comes with Leonardo Correa, Banco BTG Pactual.

Leonardo Correa: Good morning, everyone. Thank you. So, my first question is on base metals. Gustavo, you mentioned during the presentation, the initial presentation, that US$3.4 billion was the total injection in the transaction, but you mentioned that US$1 billion would stay at VBM and US$2.4 billion would be returning to Vale, right? I guess there were some doubts on how much would stay at the energy transition unit, so I think you clarified that. I just wanted to confirm.

And this US$2.4 billion that's flowing back into Vale, I mean, where would we see that being allocated? I can imagine the key question would be if that would be returned to shareholders in a form of a special dividend or continued aggressive buybacks. So, the question is what will Vale do with the US$2.4 billion that's returning to the company or that's staying at Vale and not being allocated to VBM?

The second question, still on cash returns at Vale and still for you, Gustavo, I mean, from your approach, I'm just analyzing what Vale has been doing, you announced you're basically paying the minimum dividend based on the formula and you're allocating all the extra towards a very aggressive buyback, which has been on pretty much Vale's cards over the past quarters, you're allocating around US$1.4-1.5 billion per quarter of buybacks. Even with the changes in interest on equity, I think which in Brazil will probably be extinguished, do you think that's the same tone going forward? We should expect minimum dividends being paid and all the balance on the buyback. Is that still the way to go? So, those are the two questions. Thank you very much.

Gustavo Pimenta: Thanks, Leo, for your question. So, on the first one, yeah, we wanted to provide more clarity in terms of where the money will stay, so based on what VBM is able to generate on an ongoing basis plus their own balance sheet, we came to the conclusion that 1 billion was sufficient to fund the business for the next three to four years based on the plan that they have, so the rest is indeed moving back to the parent. It'll come into our overall pool of cash, and we'll then allocate based on our capital allocation framework that we all know very well.

So, that links to the second conversation. I'm very happy with the way we've been allocating capital over the last couple of years. I think we are creating significant value for our shareholders, either through a very healthy dividend payment or the share buyback at a very attractive level. This is certainly a conversation that we have constantly with our Board, and you know, we'll bring more clarity in terms of how we keep going on this one, but you should continue to expect us to be very disciplined and very focused on creating long-term value for our shareholders.

Operator: Our next question comes with Vanessa Quiroga, Credit Suisse.

Vanessa Quiroga: Thank you and congrats on the transaction. I have a couple of questions. One of them is regarding the agreement with the partners. Is there any optionality for offtake for the partners as part of the agreement? And will they have any dividend, I mean, any rights to receive dividends from Vale in the future?

And the second question is related to… I would like you to review basically your corporate governance protection to be able to avoid any sudden change in leadership at the company, Vale. Thank you.

Gustavo Pimenta: Alright, so Gustavo here. On the first one, yes, so there is no special dividend, anything like that on the agreement. I think the agreement is very proportional to the final stake of each one of the partners. There is some commercial discussions that we've had, and agreement that we've had with our partners, and it's all based on market conditions, and that's pretty much it.

So, it's very attractive from the governance standpoint for us. If anything, it just opens up new markets for Vale, right, including the opportunity for us to deploy our products in the Middle East.

On the corporate governance, I think it's a very important question from Vanessa, it's that we've been since I think 2017, if I'm not mistaken, when we entered Novo Mercado, we've been improving the governance, so I think Vale's governance is fit for purpose for a world-class organization like ours. So, I believe that we are in good shape, we have independence, we have representation, we have independent directors. So, I think the corporate governance is right sized to avoid any problems that we would eventually have.

Operator: Our next question is from Carlos de Alba, Morgan Stanley.

Carlos de Alba: Good morning. Thank you very much and congratulations on finally executing the transaction. I wanted to maybe step back and think about how do you see the path forward now for VBM given what you accomplished, I guess, where presumably is the first step or the first two steps in what you want to do with this company in the future. Do you want now to concentrate on improving operations and then potentially do an IPO or see what opportunities are there to buy or merge with another entity and you further increase your already attractive buyback operations that you have?

If you could comment and provide any color that would be really useful. I have another question, but maybe I can ask it after the first one.

Eduardo Bartolomeo: OK, Carlos, thanks. Your question is extremely important because, as I mentioned before, it's a path, right, it's first of all it´s execute, that's why the partners are relevant on that sense because they're not – how can I say that? – short-term investors or short-term viewers on this matter. That fit for purpose organization that we mentioned that is designed already, is ring fenced, as I mentioned, is the first step. The acquisition of talents like Jerome and Mark will go under the first hurdle that is execute on existing assets. Of course, we still have gaps to fulfill, still projects that are ramping up, so we believe that's the first and most important challenge that we have to keep on doing, as we've been doing.

The difference I believe with this new design, or this new arrangement is speed. The second one is growth, with a more dedicated organization, we believe that the projects, the attention, the drivers will help us on accelerate that growth. When those two things merge – and will take a while, is not something you need, it ttakes two or three years. I don't know. We will see what kind of demands we will have, what kind of opportunities we will have.

I don't know if Gustavo wants to complement, but fundamentally it's a path to execution, a path to growth, and eventually opportunities that will arise later. Of course, there’s capital allocation opportunity as well.

Gustavo Pimenta: Yeah, I think you covered well, Eduardo. I think the key message for us here is also optionality. I think this transaction creates options that otherwise Vale wouldn't have, right, to fund the opportunities that will come along. So, we are very excited because I think we are through a series of actions over the last 18 months, I think we are setting this business for success, creating options that otherwise we would not have, and a more focused organization, which over time I think we all believe strongly that will create significant value for our shareholders.

Carlos de Alba: Thank you, Gustavo. And Gustavo, maybe the second question I have you could address is the following, so Vale has a dividend policy that is based on EBITDA generation minus sustaining CapEx, but assuming that iron ore prices were to come into some pressure, EBITDA would come down, sustaining CapEx you may have some space to bring it down, but presumably there's a minimum level that you want to do so that you maintain the integrity of your operations and assets. So, there is a little bit of little room to maneuver if EBITDA comes down, but not as much as your free cash flow generation impacted by the repayments of the Brumadinho and Mariana accident throughout the dam de-characterization.

So, meaning it is conceivable that your free cash flow yield could be lower than your dividend yield as suggested by your dividend policy, so how do you see this situation? What would the company do in such a scenario? Clearly the balance sheet is strong, and you could sustain a dividend yield higher than free cash flow yield, but potentially not for too long. So, I just wanted to explore how you see this and if there is a possibility potentially to change the dividend policy or maybe I'm just mistaken and the payments and the expenses on Brumadinho that are adjusted out on EBITDA in some calculations and not adjusted out for the dividend policy purposes.

Gustavo Pimenta: Yeah, that's a good question, Carlos. So, look, I think first thing is those expenses or disbursements are temporary, right? So, over a period of time, they will be heavier and then they will over time reduce, which will free up cash down the road. In the very immediate term under the scenario frame, I think we will have the ability to even use our balance sheet and we've been doing this as you've noticed, we have a very strong balance sheet amortizations, debt amortization is very smooth over the years, you've seen us doing a lot of liability management in the last 2-3 years pushing out amortization, which give us a lot of breathing room for us to accommodate and continue to deliver on our dividend policy.

So, this is very critical for us, and we'll continue to be very disciplined in terms of delivering on the policy that we have.

Operator: Our next question is from Tiago Lofiego, Bradesco BBI.

Tiago Lofiego: Hi, good morning, everyone. First question, congratulations on the on the base metals deal, and if I may go back to Carlos's question, which was, you know, in the lines of what next steps are, and I'll be more specific in my question here, which is would you consider a next step being a potential sale to a larger strategic shareholder now that you have, you know, the valuation, kind of like a stamp, Would you pursue larger steps in terms of bringing in larger partners to the Vale base metals or is an IPO a higher probability scenario or you're not thinking about any of those two scenarios and just thinking about the operating turnaround?

And then my second question, to Medeiros if I may, Medeiros, could you please talk a little bit about the main initiatives you're focusing on at the operating side, what the main upsides are? We understand the licensing bottleneck, the resuming production story, but from your perspective, are there any other major levers that you're working on to increase production efficiency and operating efficiency? Thank you.

Eduardo Bartolomeo: OK, Tiago, thanks for the congrats and thanks for the very specific question.

Yes, there is no… the path now is execution. The focus now, as we arranged every piece of the puzzle, we have a partner, we have a structure, we have the people, we have Mark, we have Jerome, we have Deshnee, we have the structure, execution. That's the primary focus. But as Gustavo has mentioned, the amount of investments that this business will require down the road, the optionality is in our hands, is an IPO, could be, is a merger, could be, but it's not in our minds now, our minds are totally focused on the execution, OK?

I hope I have been more clear now. This is something for down the road, two to three years to think about. Now that we did the deal, let's focus on accelerating the – how can I say that? – the filling the gaps or closing the gaps on the execution and accelerating growth, as I mentioned before. Then, 2-3 years down the road, I don't know, we might, and then as Gustavo mentioned, the optionalities will be all in our hands. We haven't thought about that yet.

OK, I hope I have been specific and answered you this time, and I'll pass to Medeiros to answer your second question.

Carlos Medeiros: Tiago, so the main points that I have been working in the operational side is basically asset reliability in all systems. So that's the point where we believe that there is the most room for improvement, and clearly, we saw some results in the last quarter. Besides the reliability, there are some specific points that vary from system to system and also the geography where I believe that is the biggest opportunity for upsides is S11D in terms of reliability. Yes, this is the main point.

Operator: Our next question is from Amos Fletcher, with Barclays.

Amos Flecther: Yeah, morning, gentlemen, and thanks for the opportunity. I just wanted to ask a question about the separation of VBM. Will it be rather effectively with the separate balance sheet, and will that influence Vale's net debt target and cash returns policy? So, for example, if VBM is free cash flow negative, for example, you know, are you going to carve that out from Vale's adjusted net debt when you think about shareholder returns? Thanks.

Gustavo Pimenta: Hey, Amos, Gustavo here. No, given the larger share of participation, it will be all consolidated still, but certainly they will be able to fund themselves with their own either generated cash, being able to raise capital and debt. Potentially that debt for now we are expecting to be recourse, but overtime, as the business matures, we may be able to change it, but at this point, given the size of the participation from Vale, it will continue to be consolidated and treated as such. So, no change in the policies at this point.

Operator: Our next question is from Rodolfo Angele, Banco JP Morgan.

Rodolfo Angele: Hi, good morning. My first question I just wanted to confirm the cash that stays at VBM of 1 billion? You mentioned this is what you see as what the company will need for the next three to four years. Did I get this right, Gustavo? Can you just confirm, please?

Gustavo Pimenta: Yes, Rodolfo, because the company… I mean, the way we are setting the company up there is no debt, right? So, very conservative balance sheet, we are adding US$1 billion of cash plus they do generate good cash flow. So, that combination will allow them to fund what they have planned for the next three to four years. We'll certainly assess, new opportunities to invest may come up, but at this point, based on the plan, that's what we have. So, the rest, the 2.4 will come up to the parent.

Operator: The next question is from Rafael Barcellos, Banco Santander.

Rafael Barcellos: Good morning. Thanks for taking my question. My first question is about the base metals. I mean, firstly, congratulations for the news. You mentioned that the Vale base metals division is expected to invest around US$ 25 to 30 billion in the next decade in strategic projects, right? So, could you please give us more color on how would you believe that the funding of this investment plan would be? I mean, overall, how are you thinking about the capital allocation strategy for this division, if there is any risk that you could change the dividend policy to have the dividend policy more related to the iron ore division? Just to understand how you are thinking about that.

And the second question, I mean, about the iron ore business, so Vale finally received the license to operate the Torto dam, which of course will improve its ability to produce more pellet feed, so my question is just to understand what can we expected in terms of ramp up? I mean, will we already see these effects in the 3Q or more to the 4Q? In order than that, I mean, I remember that the Brucutu complex used to produce like 30 million tons before the Brumadinho tragedy and it's now at a run rate of 20 million tons. So, just to understand whether or not the Brucutu complex could return to a run rate of 30 million tons in the short-term, OK? Thank you.

Gustavo Pimenta: Thanks, Rafael. Gustavo here. So, on base metals, there'll be a ramp up for us to get to the US$ 25 to 30 billion of investment in the next decade, right. So, I think the deal that we are doing now allows us, as I mentioned a couple of times here, to create options for us to fund those growth; could be internally generated cash, their own balance sheet, but could be others, right? Vale could continue to fund, it's proportional, but we could also access capital markets, the public or private as we just did.

So, I think we are opening up different alternatives and we will assess at its due time, right? Three to four years from now if we need to make a large investment, we will assess where the market is and do what is best for our shareholders. So, that's the first one.

On Torto, it's already in operations, so in terms of benefit, it is about US$50 million a month, not in terms of volume, but quality, so it's already there. In terms of bringing up to 29, the number that you've quoted, it will take some time, couple of years still because there is some work that we need to do in terms of waste disposal, which will require some licenses. So, the first stage was literally to, you know, improve the quality of the 20 million tons that we currently produce, so we'll start to see this already in the P&L. The ability to ramp up, it still requires some licenses, especially for waste disposal, which we are working on.

Operator: The next question is from Rodolfo Angele, Banco, JP Morgan.

Rodolfo Angele: Thanks for getting back to me. I had a second question for management. So, the question is really about, you know, VBM again. The ambition is really enormous, right? We're talking about tripling copper, doubling nickel. So, the question is really: do you have that mapped out? Is this going to be done at the current assets or is that at this point a target, a goal for the company and you're going to be evaluating greenfields, M&As? And kind of this ties back to my first question because I felt like 1 billion was a bit shy given the ambition, so just wanted to hear your thoughts on that, and thanks again for getting me back online.

Gustavo Pimenta: Thanks, Rodolfo. Apologies for cutting you off earlier. So, yeah, the 1 billion is mostly due to the ramp up profile, so it takes time for us to materialize some of those opportunities. But look, I think one of the unique competitiveness of our ETM business – and from our perspective that is what attracted these partners and many others that were interested in being part of this – is the fact that ETM or Vale Base Metals is sitting on a tremendous amount of resources, right, in three of the most relevant mineral jurisdictions in the world, so Brazil with Carajás, you have Canada, and then you have Indonesia, right?

So, we have a tremendous endowment. So, I think the key message that we want to convey here is there is two elements of value-unlocking; there is one which is continued stabilization of the operations that we have, which Mark is working with Deshnee and being very focused on that, and then there's a second stage which is how we anticipate the development of that endowment, how we bring more projects faster to the market. We see tremendous opportunity to unlock value, good level of returns, mid to high double-digit returns and that's what we are going to go after.

So, we don't need to do any M&A, large M&A, a large transaction to get to that future, I think we can do with the own resources that we currently have.

Operator: Our next question is from Tyler Broda, RBC.

Tyler Broda: Great, thanks very much. Gentlemen, congratulations on the transaction. My question is on the nickel assets in Canada. I guess in general, both Voisey's Bay and Sudbury have kind of underperformed this year. I know from the site visit last year that this is going to be a multi-year process, but I guess how do you sort of assess what's gone wrong this year? And then secondly, with that I guess is how does Mark Cutifani's presence start to affect that? Like, what's Mark doing in particular in his role? Thanks very much.

Eduardo Bartolomeo: OK, Tyler, I'll let Deshnee go over the first point about Voisey's Bay – and I don't agree that it's not going as planned, I think it is like planned, that's why exactly we've had this gap between the seat for Long Harbour, but anyhow –,but Mark Cutifani is a person that had worked with us, I worked with him when he was still in Inco at that time, and when we acquired Vale. I think Mark brings a total alignment in the way we see how to fix a problem, but he has done it in the track record, so he already is with us, we are doing an asset review with top specialists to see exactly how we can accelerate things that are already undergoing and other elements that are… he's on a chair at the Board, of course, I will be there together with Pimenta, so this kind of focus will, as I've been saying, help us to accelerate.

So, Mark is the right asset, the right guy at the right time, in the right place, with the right partners. Exactly like our other partners that I mentioned before. And I ask Deshnee to go over Voisey's Bay because we are very excited how we can actually go down underground and extract value that Voisey's Bay has.

Deshnee Naidoo: Thank you for that, Eduardo, and thank you, Tyler. So, as you mentioned the Investor Day that we had, so in Sudbury the challenge has been on development, I'm very happy to say that the development that the team is achieving this year is more than double what we've achieved last year, and the tons are coming to plan. But as we've guided at Vale Day, the challenge we have in Sudbury, some of the one-off maintenance activities that we have, including things like the Creighton cage one-off, so that's why you're seeing the slight decrease, but exactly as Eduardo is saying, the times are actually coming to plan and we're very satisfied with the performance.

But as we also guided in Vale Day regarding Voisey's Bay, Voisey's Bay and in fact the entire VNL entity will be in transition for another 18 months or so. And the reason for that is we are busy ramping down the open pit, which is near completion right now and ramping up to the underground lines. But sticking very disciplinely to our PMP schedule, we then took Long Harbor down for a two-month PMP this past quarter. So, both transitions in terms of the tons, as well as the PMP came together to give us what looks like a horrible quarter, but I can assure you it is to plan.

And just echoing what Eduardo said about Mark, Mark and I have already started working together, we are putting together something that looks like a pathway to value plan, and in addition to what Mark brings from an expertise point of view in terms of helping the management team and myself, we do have the likes of Tony O'Neill and some of the other industry experts helping us with an asset review that we will then use to look at how we can unlock the full potential outside of the current initiatives to fix and get back to the run rates that we need. Thank you.

Operator: Our next question is from Alex Hacking, with Citi.

Alex Hacking: Good morning. Thanks for the call. So, two questions. Firstly, could you maybe give us an update on the outlook for mining taxes in Brazil? And then secondly, could you maybe discuss the role that Engine No. 1 will play in base metals? You know, the fund does have some history of being quite active in its investments. Thank you.

Gustavo Pimenta: Thanks, Alex. So, on mining tax, I think we are following closely all the discussions in Brazil lately. It's always important to remind that our sector is highly taxed already compared to others when you take the full taxation in consideration. So, we are feeling good about where we are heading towards. Of course, like everybody monitoring closely potential impacts, but so far so good, and we'll continue to monitor that closely.

In terms of Engine 1, we've met them, talked to Chris James and team over the last several months about this opportunity and we are highly aligned in terms of the value we see long term, and I'm sure he and his team are very excited to join Vale Base Metals and we are thrilled to have them joining. I think he will be a very important strategic voice to help us drive value in the long-term.

So, we are excited, very aligned long-term, and looking forward to working with them.

Operator: This concludes today's question and answer session. Mr. Eduardo Bartolomeo, at this time you may proceed with your closing statement.

Eduardo Bartolomeo: OK, thank you. I'm just going to echo Gustavo's point in the end, I think we are very confident that in the middle of the year we are with a stronger operational performance in all of our assets. ETM, as we were able to discuss today, has a tremendous opportunity ahead. The puzzle is done, now it's a matter of execution and growth.

I’m very happy to be able to conform with GISTM, Vale is going to be a reference in dam management, we started earlier and, of course, we have the obligation with society to be a reference on that, and the GISTM is very welcome standard to protect ourselves and society.

And lastly, as was discussed during the call as well, there is no doubt about our capital discipline. Everything that we do here is on the way to create value for our shareholders and, of course, for all stakeholders, society, our employees, and the ones that we thank, by the way, that had a hard time to create this transaction that everybody perceived how much value there is in the assets that Vale owns and will extract.

As I always say, we are in a marathon and we are in a kilometer 25 now, and we're going to get there, and the ones that come together with us, surely, you're going to benefit from that. And thanks a lot for your attention and see you in the next call.

Operator: Vale’s conference call for today is now concluded. Thank you very much for your participation. You may now disconnect.