

Vale's performance in 3Q23

Rio de Janeiro, October 26th, 2023. *"We continue to make significant progress on our strategic and business priorities. In Iron Solutions, we remain on track to meet guidance, with increased production year-to-date, enhanced average quality and a reduced production-to-sales gap in the quarter. In Energy Transition Metals, we are progressing with an asset review to achieve operational excellence. The transition of the Voisey's Bay mine to underground and the maintenance activities will support sustainable asset performance. In Copper, the successful ramp-up of Salobo III contributes to a higher total output and lower unit costs. We are advancing toward our long-term objectives, by starting loading tests at our 1st briquetting plant and signing two new agreements for the development of Mega Hubs. We have also completed the decharacterization of Dique 2, and B3/B4 dam's emergency level was reduced to 1, in line with our new framework for dam management established in 2019. We will continue delivering on our strategy to turn Vale into a reference in creating and sharing value to all of our stakeholders."* commented Eduardo Bartolomeo, Chief Executive Officer.

Selected financial indicators

US\$ million	3Q23	3Q22	2Q23
Net operating revenues	10,623	9,929	9,673
Total costs and expenses (ex-Brumadinho and de-characterization of dams) ¹	(6,921)	(6,730)	(6,412)
Expenses related to Brumadinho and de-characterization of dams	(305)	(336)	(271)
Adjusted EBIT from continuing operations	3,397	2,891	3,095
Adjusted EBIT margin (%)	32%	29%	32%
Adjusted EBITDA from continuing operations	4,177	3,666	3,874
Adjusted EBITDA margin (%)	39%	37%	40%
Proforma adjusted EBITDA from continuing operations²	4,482	4,002	4,145
Net income from continuing operations attributable to Vale's shareholders	2,836	4,455	892
Net debt ³	10,009	6,980	8,908
Capital expenditures	1,464	1,230	1,208

¹ Includes adjustment of US\$ 47 million in 3Q23 and US\$ 52 million in 2Q23, 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\$ 4.5 billion in Q3, up 12% y/y and 8% q/q. EBITDA from the Iron Solutions business was up 18% y/y and 13% q/q, mainly due to higher iron ore realized prices and sales volumes.
- Iron ore C1 cash cost ex-3rd party purchases decreased 7% q/q, reaching US\$ 21.9/t, on track to meet the US\$21.5 – 22.5/t guidance for the year.
- Free Cash Flow from Operations of US\$ 1.1 billion in Q3, representing an EBITDA to cash-conversion of 25%.

Disciplined capital allocation

- Capital expenditures of US\$ 1.5 billion in Q3, including growth and sustaining investments, US\$ 0.3 billion higher y/y, resulting primarily from the continuous progress of key projects such as Serra Sul 120 Mtpy, Capanema, Voisey's Bay Mine Expansion, and Salobo III.
- Gross debt and leases of US\$ 14.0 billion as of September 30th, 2023, flat q/q.

- Expanded Net Debt of US\$ 15.5 billion as of September 30th, 2023, US\$ 0.8 billion higher q/q, mostly reflecting interest on capital paid to shareholders in the quarter.

Value creation and distribution

- Interest on capital of US\$ 1.7 billion paid in September, as part of the Shareholder Remuneration Policy.
- Allocation of US\$ 0.5 billion as part of the 3rd buyback program in the quarter. As of the date of this report, the 3rd buyback program was 72% complete, with US\$ 5.5 billion used to repurchase 360 million shares¹.
- Today, the Board of Directors has approved the distribution of US\$ 2.0 billion in dividends and interest on capital, scheduled to be paid December 1st.
- In addition, the Board of Directors has approved a 4th buyback program to repurchase up to 150 million shares over the next 18 months. The new program will essentially cover the remaining shares from the 3rd buyback program.

Focusing and strengthening the core

- Delivering iron solutions:
 - A letter of intent with Essar was signed, in September, to supply iron ore agglomerates for the Green Steel Arabia project in Saudi Arabia. Vale will supply 4 Mtpy of iron ore agglomerates for the direct reduction route, which will be produced at the Saudi Arabian Mega Hub, in the case of briquettes, and in Oman or Brazil, for pellets.
 - An agreement with H2 Green Steel was signed in September, to jointly study the feasibility of developing green industrial hubs in Brazil and North America. These hubs will focus on producing low-carbon products, including green hydrogen and hot briquetted iron (HBI), using iron ore briquettes produced by Vale as input material and renewable electricity as the energy source for its hydrogen production.
 - An MoU with the Port of Açú was announced in September to jointly study the development of a Mega Hub at the port located in São João da Barra in the state of Rio de Janeiro to produce HBI (hot briquetted iron) using the direct reduction route. The Mega Hub will initially receive pellets from Vale and could, in the future, include an iron ore briquette plant at the site to supply the direct reduction route at the industrial complex.
- Advancing the project pipeline:
 - Approval of the development of the Pomalaa² mine in October, marking a significant step towards growth in the Energy Transition Metals business. The investment in the mine is US\$ 925 million. The mine will provide feed to the HPAL plant project, a three-party collaboration between PTVI, Huayou and Ford Motor Company. The Pomalaa project will have an overall production capacity of up to 120 ktpy of nickel in the form of mixed hydroxide precipitate and is expected to start-up in 2025.
 - Load tests have started as part of commissioning the first of two iron ore briquette plants in Tubarão. After ramping-up, the combined capacity of the two plants will reach 6 Mtpy. The briquettes will assist in reducing greenhouse gas emissions from the steel industry.

Promoting sustainable mining

- In October, the B3/B4 dam had its emergency level reduced to 1. The advancement in the decharacterization process of B3/B4 dam, with the removal of about 85% of the reservoir content, has improved the stability conditions of the dam and facilitated the reduction of the emergency level, as required by current legislation.

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

² PTVI owns 100% of the mine and has a call option to acquire up to 30% of the HPAL project upon mechanical completion.

- Completion of the decharacterization of Dique 2, located at the Cauê mine, the 13th structure of our Upstream Dam Decharacterization Program to be eliminated. The decharacterization of the remaining 17 upstream structures is on track within the timeframe agreed with authorities, while they continue to be permanently monitored by Vale's Geotechnical Monitoring Centers.
- A long-term agreement between Vale Base Metals and BluestOne, signed in October, will look to reuse waste in Brazil and promote circular mining. The agreement entails the purchase of 50 ktpy of waste from the Onça Puma operations in Pará for the next ten years to produce low-carbon emission fertilizers.
- A protocol of intent with Petrobras was signed in September, to jointly assess decarbonization opportunities, including the development of sustainable fuels – such as hydrogen, green methanol, biobunkers, green ammonia and renewable diesel - and CO₂ capture and storage technologies.
- Vale has set a new target to reduce freshwater use per ton of production by 7% on average until 2030. This target would represent a total reduction of 27% (baseline 2018), alongside the 20% reduction already reached³, and considers water stress scenarios in areas where we have sites, the implementation of stricter water management processes and the execution of a structured engagement plan.

³ Our previous target was to reduce freshwater withdrawal for our production processes by 10% by 2030. As of 2021, we have already achieved a 20% reduction since the baseline year, surpassing our target.

Adjusted EBITDA

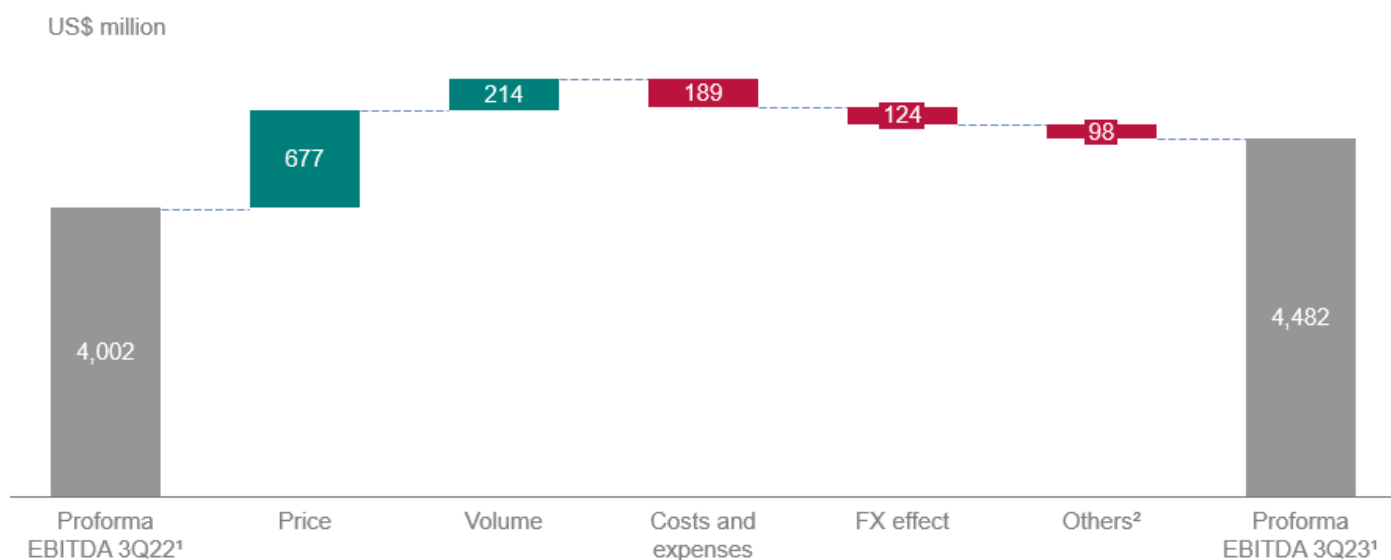
Adjusted EBITDA

US\$ million	3Q23	3Q22	2Q23
Net operating revenues	10,623	9,929	9,673
COGS	(6,309)	(6,301)	(5,940)
SG&A	(150)	(119)	(139)
Research and development	(188)	(170)	(165)
Pre-operating and stoppage expenses	(115)	(89)	(103)
Expenses related to Brumadinho and de-characterization of dams	(305)	(336)	(271)
Other operational expenses ¹	(159)	(51)	(65)
Dividends and interests on associates and JVs	-	28	105
Adjusted EBIT from continuing operations	3,397	2,891	3,095
Depreciation, amortization & depletion	780	775	779
Adjusted EBITDA from continuing operations	4,177	3,666	3,874
Proforma Adjusted EBITDA from continuing operations²	4,482	4,002	4,145

¹ Includes adjustment of US\$ 47 million in 3Q23 and US\$ 52 million in 2Q23, to reflect the performance of the streaming transactions at market price.

² Excluding expenses related to Brumadinho.

Proforma EBITDA - 3Q23 vs. 3Q22



¹ Excluding Brumadinho expenses. ² Includes negative US\$ 28 million related to dividends and negative US\$ 50 million related to byproducts revenues.

Sales & price realization

Volume sold - Minerals and metals

'000 metric tons	3Q23	3Q22	2Q23
Iron ore fines	69,714	65,381	63,329
ROM	2,232	3,668	2,236
Pellets	8,613	8,521	8,809
Nickel	39	44	40
Copper ¹	74	71	74
Gold as by-product ('000 oz) ¹	104	79	88
Silver as by-product ('000 oz) ¹	364	346	518
PGMs ('000 oz)	41	65	89
Cobalt (metric ton)	399	569	660

¹ Including sales originated from both nickel and copper operations.

Average realized prices

US\$/ton	3Q23	3Q22	2Q23
Iron ore - 62% Fe reference price	114.0	103.3	111.0
Iron ore fines Vale CFR/FOB realized price	105.1	92.6	98.5
Pellets CFR/FOB (wmt)	161.2	194.3	160.4
Nickel	21,237	21,672	23,070
Copper ²	7,680	6,479	6,986
Gold (US\$/oz) ¹²	1,872	1,748	2,082
Silver (US\$/oz) ²	22.80	17.19	23.96
Cobalt (US\$/t) ¹	35,222	49,228	34,694

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	3Q23	3Q22	2Q23
Iron Solutions	4,646	4,317	4,282
Energy Transition Metals	1,599	1,882	1,617
Others	64	102	41
Total COGS of continuing operations¹	6,309	6,301	5,940
Depreciation	747	752	737
COGS of continuing operations, ex-depreciation	5,562	5,549	5,203

¹ COGS currency exposure in 3Q23 was as follows: 47.10% BRL, 46.39% USD, 6.29% CAD and 0.22% Other currencies.

Expenses

Operating expenses

US\$ million	3Q23	3Q22	2Q23
SG&A	150	119	139
Administrative	124	103	118
Personnel	52	42	52
Services	32	28	30
Depreciation	12	9	14
Others	28	24	22
Selling	26	16	21
R&D	188	170	165
Pre-operating and stoppage expenses	115	89	103
Expenses related to Brumadinho and de-characterization of dams	305	336	271
Other operating expenses	206	51	117
Total operating expenses	964	765	795
Depreciation	34	23	42
Operating expenses, ex-depreciation	930	742	753

Brumadinho

Impact of Brumadinho and De-characterization in 3Q23

<i>US\$ million</i>	Provisions balance 30Jun23	EBITDA impact	Payments	FX and other adjustments ²	Provisions balance 30sep23
De-characterization	3,661	-	(146)	(99)	3,416
Agreements & donations ¹	3,276	184	(292)	29	3,197
Total Provisions	6,937	184	(438)	(70)	6,613
Incurred Expenses	-	121	(121)	-	-
Total	6,937	305	(559)	(70)	6,613

¹ Includes Integral Reparation Agreement, individual, labor and emergency indemnifications, tailing removal and containment works.

² Includes foreign exchange, present value and other adjustments.

Impact of Brumadinho and De-characterization from 2019 to 3Q23

<i>US\$ million</i>	EBITDA impact	Payments	PV & FX adjust ²	Provisions balance 30sep23
De-characterization	5,038	(1,457)	(165)	3,416
Agreements & donations ¹	8,982	(5,915)	130	3,197
Total Provisions	14,020	(7,372)	(35)	6,613
Incurred expenses	2,873	(2,873)	-	-
Others	180	(178)	(2)	-
Total	17,073	(10,423)	(37)	6,613

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:}

<i>US\$ billion</i>	Since 2019 until 3Q23 disbursed	4Q23	2024	2025	2026	2027	Yearly average 2028- 2035 ³
De-characterization	1.4	0.1	0.6	0.5	0.6	0.5	0.3
Integral Reparation Agreement and other reparation provisions	5.9	0.6	1.2	1.0	0.6	0.2	0.1 ⁴
Incurred expenses	2.9	0.2	0.4	0.3	0.2	0.1	-
Total	10.2	0.9	2.2	1.8	1.4	0.8	-

¹ Estimate cash outflow for 2023-2035 period, given BRL-USD exchange rates of 5.0076.

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\$ 277 million per year.

⁴ Disbursements related to the Integral Reparation Agreement ending in 2029.

Net income

Reconciliation of proforma EBITDA to net income

US\$ million	3Q23	3Q22	2Q23
EBITDA Proforma	4,482	4,002	4,145
Brumadinho and de-characterization of dams	(305)	(336)	(271)
Adjusted EBITDA from continuing operations	4,177	3,666	3,874
Impairment reversal (impairment and disposals) of non-current assets, net ¹	(122)	(40)	(118)
Dividends received	-	(28)	(105)
Equity results and net income (loss) attributable to noncontrolling interests	73	89	(31)
Financial results	(385)	2,347	(157)
Income taxes	(127)	(804)	(1,792)
Depreciation, depletion & amortization	(780)	(775)	(779)
Net income from continuing operations attributable to Vale's shareholders	2,836	4,455	892

¹ Includes adjustment of US\$ 47 million in 3Q23 and US\$ 52 million in 2Q23, to reflect the performance of the streaming transactions at market price.

Financial results

US\$ million	3Q23	3Q22	2Q23
Financial expenses, of which:	(362)	(221)	(397)
Gross interest	(192)	(140)	(185)
Capitalization of interest	5	9	5
Others	(137)	(48)	(179)
Financial expenses (REFIS)	(38)	(42)	(38)
Financial income	100	141	106
Shareholder Debentures	30	470	321
Financial Guarantee	-	-	-
Derivatives ¹	(51)	190	563
Currency and interest rate swaps	(92)	232	558
Others (commodities, etc)	41	(42)	5
Foreign exchange and monetary variation	(102)	1,767	(750)
Financial result, net	(385)	2,347	(157)

¹ The cash effect of the derivatives was a gain of US\$ 70 million in 3Q23.

Main factors that affected net income for 3Q23 vs. 3Q22

	US\$ million	
3Q22 Net income from continuing operations attributable to Vale's stockholders	4,455	
Δ EBITDA proforma	480	Mainly due to higher iron ore realized prices and higher iron ore and pellets sales volumes.
Δ Brumadinho and de-characterization of dams	31	
Δ Impairment & disposal of non-current assets	(82)	
Δ Dividends received	28	
Δ Equity results and net income (loss) attributable to noncontrolling interests	(16)	
Δ Financial results	(2,732)	Mostly driven by (i) cumulative translation adjustment in 2022; and (ii) mark-to-market prices of shareholders debentures.
Δ Income taxes	677	Mainly due to a decrease in taxable income.
Δ Depreciation, depletion & amortization	(5)	
3Q23 Net income from continuing operations attributable to Vale's shareholders	2,836	

D: difference between 3Q23 and 3Q22 figures

CAPEX

Growth and sustaining projects execution

US\$ million	3Q23	%	3Q22	%	2Q23	%
Growth projects	468	32.0	375	30.5	376	31.2
Iron Solutions	354	24.2	200	16.3	255	21.1
Energy Transition Metals	96	6.6	81	6.6	95	7.9
Nickel	67	4.6	19	1.5	63	5.2
Copper	29	2.0	62	5.0	32	2.6
Energy and others	18	1.2	94	7.6	26	2.2
Sustaining projects	996	68.0	855	69.5	832	68.8
Iron Solutions	609	41.6	497	40.4	472	39.1
Energy Transition Metals	357	24.4	341	27.7	326	26.9
Nickel	298	20.4	288	23.4	282	23.3
Copper	59	4.0	53	4.3	44	3.6
Energy and others	30	2.0	17	1.4	34	2.8
Total	1,464	100.0	1,230	100.0	1,208	100.0

Growth projects

Investments in growth projects under construction totaled US\$ 468 million in Q3, a 25% increase y/y, driven by higher investments in Iron Solutions projects, especially Serra Sul 120 Mtpy and Capanema projects, partially offset by the conclusion of Sol do Cerrado solar project.

Growth projects progress indicator⁴

Projects	Capex 3Q23	Financial progress ¹	Physical progress	Comments
Iron Solutions				
Northern System 240 Mtpy Capacity: 10 Mtpy Start-up: 1H23 Capex: US\$ 772 MM	39	79%	92% ²	For the railway, the pile excavation and the temporary bridge construction over the Jacundá River have been completed, with conclusion of works expected in 2024. For the port, the no-load tests on the reclaimer, the silo building, and the conveyor have been completed.
Serra Sul 120 Mtpy³ Capacity: 20 Mtpy Start-up: 2H25 Capex: US\$ 1,502 MM	144	52%	56%	For the mine, precast panel fabrication for the semi-mobile crusher's reinforced earth wall has been completed. In addition, the mobilization for the electromechanical assembly of the new conveyor belt has begun. For the plant, the secondary crushing piles have been installed, and concrete structure works are in progress on the crushing and classification area.
Capanema's Maximization Capacity: 18 Mtpy Start-up: 1H25 Capex: US\$ 913 MM	72	36%	57%	The assembly of the primary and secondary circuit connecting gallery, the Capanema's stacker forearm, and the tertiary screening substation was completed. The environmental approval for the conveyor belt foundations has been granted.
Briquettes Tubarão Capacity: 6 Mtpy Start-up: 4Q23 (Plant 1) 1H24 (Plant 2) Capex: US\$ 256 MM	36	82%	95%	The first phase of the load tests, along with the environmental control tests, was successfully completed in August. Commissioning of Plant 1 is expected in Q4.
Energy Transition Materials				
Onça Puma 2nd Furnace Capacity: 12-15 ktpy Start-up: 2H25 ⁴ Capex: US\$ 555 MM	26	12%	24%	Construction is progressing, with main activities ongoing, including the detailed engineering, furnace disassembly and procurement.

¹ CAPEX disbursement until end of 3Q23 vs. CAPEX expected.

² Considering physical progress of mine, plant and logistics.

³ The project consists of increasing the S11D mine-plant capacity by 20 Mtpy.

⁴ Start-up deadline has been postponed from 1H25 to 2H25.

⁴ 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\$ 996 million in Q3, a 16% increase y/y, as expected, driven by higher investments in the enhancement of operations and dam management in the Iron Solutions business.

Sustaining projects progress indicator⁵

Projects	Capex 3Q23	Financial progress ¹	Physical progress	Comments
Iron Solutions				
Compact Crushing S11D <i>Capacity: 50 Mtpy</i> <i>Start-up: 2H26</i> <i>Capex: US\$ 755 MM</i>	27	10%	18%	The piling works have been completed, and the concrete structures works for the primary crushing have begun.
N3 – Serra Norte <i>Capacity: 6 Mtpy</i> <i>Start-up: 2H25</i> <i>Capex: US\$ 84 MM</i>	1	16%	18%	The postponement of the obtainment of the Installation License and Vegetation Suppression Authorization until August 2024 is impacting the beginning of the construction works.
VGR 1 plant revamp <i>Capacity: 17 Mtpy</i> <i>Start-up: 2H24</i> <i>Capex: US\$ 67MM</i>	7	17%	51%	The foundation piling for the drainage sump and the construction works of the substation have been completed. The suppliers have been mobilized to start the electromechanical assembly.
Energy Transition Materials				
Voisey's Bay Mine Extension <i>Capacity: 45 ktpy (Ni) and 20 ktpy (Cu)</i> <i>Start-up: 1H21²</i> <i>Capex: US\$ 2,690 MM</i>	123	89%	88%	The paste system commissioning has concluded, with performance testing ongoing. Reid Brook's bulk material handling system is near mechanical completion, with the commissioning of sub-systems currently taking place. Assembly of the bulk material handling at Eastern Deeps continues.

¹ CAPEX disbursement until end of 3Q23 vs. CAPEX expected.

² In 2021, 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 continuing its scheduled production ramp-up.

Sustaining capex by type - 3Q23

US\$ million	Iron Solutions	Energy Transition Materials	Energy and others	Total
Enhancement of operations	297	158	4	459
Replacement projects	12	139	-	151
Filtration and dry stacking projects	45	-	-	45
Dam management	30	4	-	34
Other investments in dams and waste dumps	64	22	-	86
Health and Safety	48	25	2	75
Social investments and environmental protection	66	2	-	68
Administrative & Others	47	7	24	78
Total	609	357	30	996

⁵ Pre-operating expenses included in the total estimated capex column, in line with Vale's Board of Directors approvals.

Free cash flow

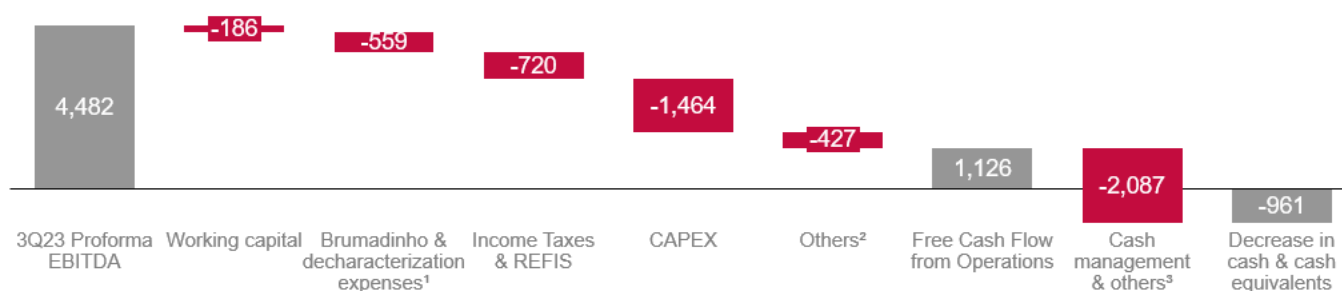
Free Cash Flow from Operations reached US\$ 1.126 billion in 3Q23, US\$ 1.038 billion lower y/y, largely explained by the negative effect of working capital (US\$ 963 million lower y/y) as a result of the increase in sales volumes and changes in accounts payable.

In the quarter, there was a negative working capital movement of US\$ 186 million affecting cash generation, largely explained by higher accrual sales, resulting from higher iron ore provisional prices at the end of the quarter and higher iron ore accrual sales volumes (16.4 Mt in 3Q23 versus 14.7 Mt in 2Q23).

Vale's cash generation and position was primarily used to distribute US\$ 1.678 billion to shareholders in interest on capital and the repurchase US\$ 546 million in shares.

Free Cash Flow 3Q23

US\$ million



¹ Includes US\$ 438 million of disbursement of Brumadinho and de-characterization provisioned expenses and US\$ 121 million of Brumadinho incurred expenses

² Includes interest on loans, derivatives, leasing, payments to Renova and others.

³ Includes US\$ 546 million of share buyback and US\$ 1,678 million of dividends and US\$ 13 million debt repayment, partially offset by new loan of US\$ 150 million.

Debt

Debt indicators

US\$ million	3Q23	3Q22	2Q23
Gross debt¹	12,556	10,666	12,417
Lease (IFRS 16)	1,480	1,538	1,520
Gross debt and leases	14,036	12,204	13,937
Cash, cash equivalents and short-term investments	4,027	5,224	5,029
Net debt	10,009	6,980	8,908
Currency swaps ²	(722)	119	(895)
Brumadinho provisions	3,197	3,231	3,276
Samarco & Renova Foundation provisions ³	3,010	2,954	3,401
Expanded net debt	15,494	13,284	14,690
Average debt maturity (years)	8.2	9.2	8.4
Cost of debt after hedge (% pa)	5.6	5.5	5.7
Total debt and leases / adjusted LTM EBITDA (x)	0.9	0.6	0.9
Net debt / adjusted LTM EBITDA (x)	0.6	0.3	0.6
Adjusted LTM EBITDA / LTM gross interest (x)	23.0	33.7	24.1

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\$ 209 million in 3Q23, US\$ 217 million in 2Q23 and US\$ 191 million in 3Q22.

Gross debt and leases were US\$ 14.0 billion as of September 30th, 2023, in line with the previous quarter.

Expanded net debt, increased to US\$ 15.5 billion as of September 30th, 2023, mostly due to the US\$ 1.7 billion in interest on capital paid in the quarter. Vale's expanded net debt target is US\$ 10-20 billion.

The average debt maturity reduced slightly to 8.2 years (compared to 8.4 at the end of 2Q23). The average cost of debt after currency and interest rate swaps per annum reduced slightly to 5.6% per annum from 5.7% in July 2023.

Performance of the business segments

Proforma Adjusted EBITDA from continuing operations, by business area

US\$ million	3Q23	3Q22	2Q23
Iron Solutions	4,455	3,773	3,941
Iron ore fines	3,696	2,806	3,087
Pellets	712	933	818
Other Ferrous Minerals	47	34	36
Energy Transition Metals¹	379	364	476
Nickel	100	209	235
Copper	269	155	236
Other	10	-	5
Others²	(352)	(135)	(272)
Total	4,482	4,002	4,145

¹ Includes an adjustment of US\$ 47 million in 3Q23 and US\$ 52 million 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.

² Including a negative yly effect of provisions related to communities' programs, reversal of tax credit provisions, and contingency loss.

Segment information 3Q23

US\$ million	Net operating revenues	Expenses				Dividends and interest received from associates and JVs	Adjusted EBITDA
		Cost ¹	SG&A and others ¹	R&D ¹	Pre operating & stoppage ¹		
Iron Solutions	8,862	(4,164)	(79)	(75)	(89)	-	4,455
Iron ore fines	7,331	(3,408)	(79)	(70)	(78)	-	3,696
Pellets	1,388	(669)	-	(1)	(6)	-	712
Others ferrous	143	(87)	-	(4)	(5)	-	47
Energy Transition Metals	1,718	(1,338)	75	(75)	(1)	-	379
Nickel ²	1,023	(925)	31	(28)	(1)	-	100
Copper ³	660	(341)	(3)	(47)	-	-	269
Others ⁴	35	(72)	47	-	-	-	10
Brumadinho and de-characterization of dams	-	-	(305)	-	-	-	(305)
Others	42	(60)	(296)	(38)	-	-	(352)
Total	10,623	(5,562)	(606)	(188)	(90)	-	4,177

¹ Excluding depreciation, depletion and amortization.

² Including copper and by-products from our nickel operations.

³ Including by-products from our copper operations.

⁴ Includes an adjustment of US\$ 47 million increasing the adjusted EBITDA in 3Q23, 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	3Q23	3Q22	2Q23
Net Revenues	8,862	7,827	7,776
Costs ¹	(4,164)	(3,891)	(3,801)
SG&A and Other expenses ¹	(79)	(47)	19
Pre-operating and stoppage expenses ¹	(89)	(72)	(80)
R&D expenses	(75)	(49)	(61)
Dividends and interests on associates and JVs	-	5	88
Adjusted EBITDA	4,455	3,773	3,941
Depreciation and amortization	(508)	(442)	(502)
Adjusted EBIT	3,947	3,331	3,439
Adjusted EBIT margin (%)	44.5	42.6	44.2

¹ Net of depreciation and amortization

Iron Solutions EBITDA Variation 3Q23 vs. 3Q22

US\$ million	3Q22	Drivers			Total variation	3Q23
		Volume	Prices	Others		
Iron ore fines	2,806	163	876	(149)	890	3,696
Pellets	933	11	(278)	46	(221)	712
Others	34	-	27	(14)	13	47
Iron Solutions	3,773	174	625	(117)	682	4,455

The 18% increase in EBITDA y/y is mainly explained by higher iron ore fines realized prices (US\$ 876 million), mainly due to a 10% higher average iron ore benchmark price and a 4.4 Mt increase of iron ore fines and pellet sales volume (US\$ 174 million). This was partially offset by higher third-party purchase costs, negative effect from the exchange rate, and the consumption of inventories from the previous quarter at higher costs (included in "Others" – US\$ 117 million negative in the table above).

Revenues

Iron Solutions' volumes, prices, premiums and revenues

	3Q23	3Q22	2Q23
Volume sold ('000 metric tons)			
Iron ore fines	69,714	65,381	63,329
ROM	2,232	3,668	2,236
Pellets	8,613	8,521	8,809
Share of premium products ¹ (%)	81%	78%	79%
Average prices (US\$/t)			
Iron ore - 62% Fe reference price	114.0	103.3	111.0
Iron ore - Metal Bulletin 62% low alumina index	116.1	105.1	112.9
Iron ore - Metal Bulletin 65% index	125.5	115.8	124.2
Provisional price at the end of the quarter	117.0	95.2	110.1
Iron ore fines Vale CFR reference (dmt)	116.3	103.3	110.6
Iron ore fines Vale CFR/FOB realized price	105.1	92.6	98.5
Pellets CFR/FOB (wmt)	161.2	194.3	160.4
Iron ore fines and pellets quality premium (US\$/t)			
Iron ore fines quality premium	0.8	0.6	0.6
Pellets weighted average contribution	3.0	6.0	3.9
Total	3.8	6.6	4.5

contd.

(contd.)

	3Q23	3Q22	2Q23
Net operating revenue by product (US\$ million)			
Iron ore fines	7,331	6,053	6,235
ROM	33	29	34
Pellets	1,388	1,656	1,413
Others	110	89	94
Total	8,862	7,827	7,776

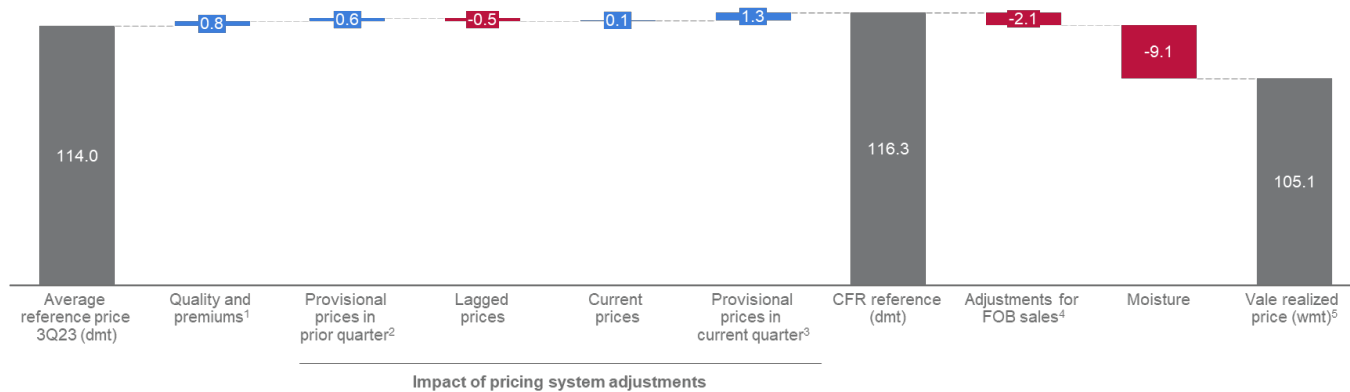
¹ Pellets, Carajás (IOCJ), Brazilian Blend Fines (BRBF) and pellet feed.

The share of premium products in total sales reached 81% in Q3. The all-in premium was US\$ 3.8/t (vs. US\$ 6.6/t in 3Q22), mainly due to lower pellet premiums. On a sequential basis, the all-in premium was slightly lower, driven by lower market premiums as steel mills have been favoring lower-grade fines due to the decline in steel margins, and a lower contribution from the pellets business. This was partially offset by a superior product portfolio sales mix, with a larger share of Northern System volumes.

Iron ore fines, excluding Pellets and ROM

Revenues & price realization

Price realization iron ore fines – US\$/t, 3Q23



¹ Includes quality (US\$ 0.8/t) and premiums/discounts and commercial conditions (US\$ 0.0/t).

² Adjustment as a result of provisional prices booked in 2Q23 at US\$ 110.1/t.

³ Difference between the weighted average of the prices provisionally set at the end of 3Q23 at US\$ 117.0/t based on forward curves and US\$ 114.0/t from the 3Q23 average reference price.

⁴ Includes freight pricing mechanisms of CFR sales freight recognition.

⁵ Vale's price is net of taxes.

The average realized iron ore fines price was US\$ 105.1/t, US\$ 12.5/t higher y/y, largely attributed to higher benchmark iron ore prices (US\$ 10.7/t higher y/y), and a positive impact from pricing adjustments (US\$ 2.1/t higher y/y).

Iron Ore fines pricing system breakdown (%)

	3Q23	3Q22	2Q23
Lagged	13	13	16
Current	44	61	48
Provisional	43	26	36
Total	100	100	100

Costs

Iron ore fines cash cost and freight

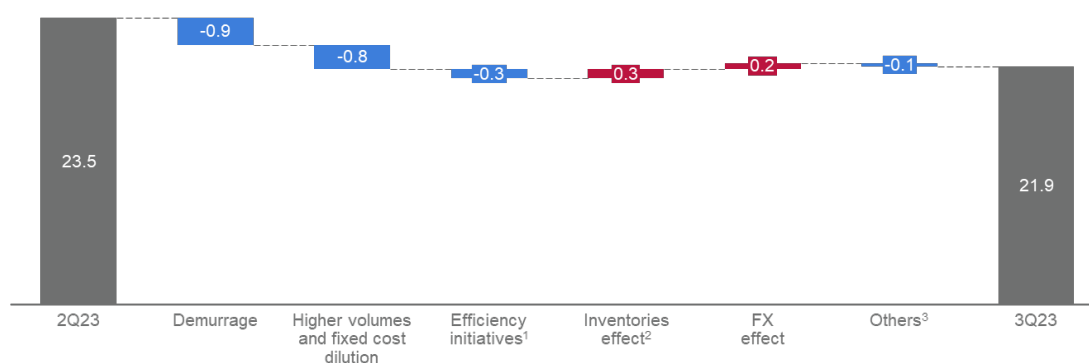
	3Q23	3Q22	2Q23
Costs (US\$ million)			
Vale's iron ore fines C1 cash cost (A)	1,784	1,489	1,676
Third-party purchase costs ¹ (B)	402	343	320
Vale's C1 cash cost ex-third-party volumes (C = A – B)	1,383	1,146	1,356
Sales Volumes (Mt)			
Volume sold (ex-ROM) (D)	69.7	65.4	63.3
Volume sold from third-party purchases (E)	6.6	6.2	5.6
Volume sold from own operations (F = D – E)	63.1	59.2	57.8
Iron ore fines cash cost (ex-ROM, ex-royalties), FOB (US\$ /t)			
Vale's C1 cash cost ex-third-party purchase cost (C/F)	21.9	19.4	23.5
Average third-party purchase C1 cash cost (B/E)	60.5	55.3	57.4
Vale's iron ore cash cost (A/D)	25.6	22.8	26.5
Freight			
Maritime freight costs (G)	1,129	1,230	920
% of CFR sales (H)	86%	84%	83%
Volume CFR (Mt) (I = D x H)	59.8	54.9	52.3
Vale's iron ore unit freight cost (US\$/t) (G/I)	18.9	22.4	17.6

¹ Includes logistics costs related to third-party purchases

Iron ore fines COGS - 3Q22 x 3Q23

US\$ million	3Q22	Drivers			Total variation	3Q23
		Volume	Exchange rate	Others		
C1 cash costs	1,489	105	68	122	295	1,784
Freight	1,230	109	-	(210)	(101)	1,129
Distribution costs	145	10	-	24	34	179
Royalties & others	231	15	-	70	85	316
Total costs before depreciation and amortization	3,095	239	68	6	313	3,408
Depreciation	289	21	17	30	68	357
Total	3,384	260	85	36	381	3,765

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



¹ Including costs related to material, personal, services, and maintenance.

² Consumption of inventories from the previous quarter at higher costs.

³ Including energy costs, and others.

Vale's C1 cash cost, ex-third-party purchases, decreased US\$ 1.6/t q/q, reaching US\$ 21.9/t, in line with the guidance for 2023 (US\$ 21.5-22.5/t). The main drivers for the cost reduction were (i) lower demurrage costs; (ii) higher volumes diluting fixed costs, especially from the Northern System with lower production costs, and (iii) the continued effort to improve efficiency across the business.

Vale's maritime freight cost was US\$ 1.3/t higher q/q, due to higher bunker fuel costs (US\$ 0.9/t higher q/q) and a larger exposure to spot freight rates (US\$ 0.6/t higher q/q), driven by Vale's usual shipping seasonality. On a year-on-year basis, the freight cost reduction was mainly driven by lower bunker fuel costs. CFR sales totaled 59.8 Mt in Q3, reflecting 86% of total iron ore fines sales. From a sensitivity analysis, a US\$ 10/bbl change in the brent oil price represents around a US\$ 0.9/t change in Vale's maritime freight cost.

Expenses

Expenses - Iron Ore fines

US\$ millions	3Q23	3Q22	2Q23
SG&A	21	14	17
R&D	70	46	57
Pre-operating and stoppage expenses	78	63	69
Other expenses ¹	58	30	(43)
Total expenses	227	153	100

¹ 2Q23 results were positively impacted by tax credits.

Iron ore pellets

Pellets – EBITDA

US\$ million	3Q23	3Q22	2Q23	Comments
Net revenues / Realized prices	1,388	1,656	1,413	Realized price was US\$ 161.2/t, US\$ 33.1/t lower y/y, mainly due to lower quarterly pellet premiums.
Dividends from leased pelletizing plants	0	4	88	Absence of seasonal dividends received.
Cash costs (Iron ore, leasing, freight, overhead, energy and other)	(669)	(714)	(674)	FOB sales were 62% of total sales.
Pre-operational & stoppage expenses	(6)	(5)	(4)	
Expenses (Selling, R&D and other)	(1)	(8)	(5)	
EBITDA	712	933	818	
EBITDA/t	83	109	93	

Iron ore fines and pellets cash break-even landed in China⁶

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

US\$/t	3Q23	3Q22	2Q23
Vale's C1 cash cost ex-third-party purchase cost	21.9	19.4	23.5
Third party purchases cost adjustments	3.7	3.4	3.0
Vale's iron ore cash cost (ex-ROM, ex-royalties), FOB (US\$ /t)	25.6	22.8	26.5
Iron ore fines freight cost (ex-bunker oil hedge)	18.9	22.4	17.6
Iron ore fines distribution cost	2.6	2.2	2.5
Iron ore fines expenses ¹ & royalties	7.7	5.8	6.2
Iron ore fines moisture adjustment	4.7	4.7	4.7
Iron ore fines quality adjustment	(0.8)	(0.6)	(0.6)
Iron ore fines EBITDA break-even (US\$/dmt)	58.7	57.3	56.9
Iron ore fines pellet adjustment	(3.0)	(6.0)	(3.9)
Iron ore fines and pellets EBITDA break-even (US\$/dmt)	55.7	51.3	53.0
Iron ore fines sustaining investments	7.8	6.9	7.2
Iron ore fines and pellets cash break-even landed in China (US\$/dmt)	63.5	58.2	60.2

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 – 3Q23

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	685	199	279	78	148	513	(219)	1,683	35	1,718
Costs	(684)	(271)	(171)	(58)	(83)	(258)	259	(1,266)	(72)	(1,338)
Selling and other expenses	(7)	11	(1)	(4)	(1)	(1)	31	28	47	75
Pre-operating and stoppage expenses	-	-	-	-	-	-	(1)	(1)	-	(1)
R&D	(16)	(6)	(3)	(1)	(5)	(3)	(41)	(75)	-	(75)
EBITDA	(22)	(67)	104	15	59	251	29	369	10	379

¹ Includes an adjustment of US\$ 47 million increasing the adjusted EBITDA in 3Q23, 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	3Q23	3Q22	2Q23
Net Revenues	1,023	1,255	1,222
Costs ¹	(925)	(1,028)	(886)
SG&A and other expenses ¹	31	2	(72)
Pre-operating and stoppage expenses ¹	(1)	-	-
R&D expenses	(28)	(31)	(29)
Adjusted EBITDA	100	198	235
Depreciation and amortization	(208)	(254)	(229)
Adjusted EBIT	(108)	(56)	6
Adjusted EBIT margin (%)	(10.5)	(4.4)	0.5

¹ Net of depreciation and amortization.

EBITDA variation - US\$ million (3Q23 x 3Q22), ex-marketing activities

US\$ million	Drivers					Total variation	3Q23
	3Q22	Volume	Prices	By-products	Others		
Nickel excl. marketing	198	36	(17)	(106)	(11)	(98)	100

EBITDA by operations, ex-marketing activities

US\$ million	3Q23	3Q22	2Q23	3Q23 vs. 3Q22 Comments
Sudbury ¹	(22)	51	158	Higher costs due to the maintenance in Sudbury operations, and lower by-product volumes.
Voisey's Bay & Long Harbour	(67)	17	(130)	Increased material consumption as a result of (i) extended maintenance in the refinery and (ii) ongoing transition to underground project (VBME).
PTVI	104	103	123	Lower costs, mainly fuel, partially offset by lower nickel realized prices.
Onça Puma	15	28	17	Lower nickel realized prices.
Others ²	70	(1)	67	One-off settlement payment related to royalty.
Total	100	198	235	

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

	3Q23	3Q22	2Q23
Volume sold ('000 metric tons)			
Nickel	39	44	40
Copper	12	18	21
Gold as by-product ('000 oz)	9	10	11
Silver as by-product ('000 oz)	122	152	276
PGMs ('000 oz)	41	65	89
Cobalt (metric ton)	399	569	660
Average realized prices (US\$/t)			
Nickel	21,237	21,672	23,070
Copper	7,423	5,925	6,888
Gold (US\$/oz)	1,851	1,578	1,931
Silver (US\$/oz)	22	15	22
Cobalt	35,222	49,228	34,694
Net revenue by product - ex marketing activities (US\$ million)			
Nickel	833	960	930
Copper	89	104	145
Gold as by-product ¹	17	16	21
Silver as by-product	3	2	6
PGMs	54	129	85
Cobalt ¹	14	28	23
Others	13	15	12
Total	1,023	1,255	1,222

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

	3Q23	3Q22	2Q23
Volumes (kt)			
Upper Class I nickel	21.7	25.1	22.7
- of which: EV Battery	0.2	1.6	0.6
Lower Class I nickel	4.6	5.2	4.5
Class II nickel	9.4	8.7	9.7
Intermediates	3.6	5.3	3.5
Nickel realized price (US\$/t)			
LME average nickel price	20,344	22,063	22,308
Average nickel realized price	21,237	21,672	23,070
Contribution to the nickel realized price by category:			
Nickel average aggregate (premium/discount)	123	190	170
Other timing and pricing adjustments contributions ¹	770	(581)	94
Premium/discount by product (US\$/t)			
Upper Class I nickel	1,755	1,770	1,820
Lower Class I nickel	1,368	750	1,250
Class II nickel	(2,542)	(1,920)	(2,340)
Intermediates	(4,361)	(4,310)	(4,930)

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\$ 59/t, (ii) fixed-price sales, with a positive impact of US\$ 164/t, (iii) the effect of the hedging on Vale's nickel price realization, with a positive impact of US\$ 586/t in the quarter and (iv) other effects with a positive impact of US\$ 79/t.

Note: The nickel realized price for 3Q23 was impacted by a settlement price in the quarter of circa US\$ 20,342/t. The average strike price for the complete hedge position was flat at US\$ 34,929/t.

The nickel realized price in 3Q23 decreased by 2% y/y mainly due to an 8% drop in the LME nickel average price, which was partially offset by positive results of hedging in nickel price realization.

In the quarter, the average realized nickel price was 4% higher than the LME mainly due to hedging results, fixed-priced sales and Class I products premium.

Product type by operation

% of source sales	North Atlantic	PTVI & Matsusaka	Onça Puma	Total 3Q23	Total 3Q22
Upper Class I	81.7	-	-	55.2	56.7
Lower Class I	17.3	-	-	11.7	11.6
Class II	0.9	53.7	100.0	24.0	19.6
Intermediates	0.0	46.3	-	9.1	12.0

Costs

Nickel COGS, excluding marketing activities - 3Q23 x 3Q22

US\$ million	3Q22	Drivers			Total variation	3Q23
		Volume	Exchange rate	Others		
Nickel operations	1,028	(117)	(19)	33	(103)	925
Depreciation	254	(30)	(5)	(6)	(41)	213
Total	1,282	(147)	(24)	27	(144)	1,138

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

US\$/t	3Q23	3Q22	2Q23	3Q23 vs. 3Q22 Comments
Sudbury ^{1,2}	21,645	19,078	16,594	Lower by product credit alongside to lower dilution of fixed costs.
Voisey's Bay & Long Harbour ²	30,316	16,704	34,713	Lower by product credit alongside to lower dilution of fixed costs and higher material consumption.
PTVI	9,915	11,637	10,297	Reduced fuel costs.
Onça Puma	11,543	9,882	11,623	Lower fixed cost dilution.

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	3Q23	3Q22	2Q23
COGS ex. 3rd-party feed	23,039	21,717	21,135
COGS ¹	23,581	23,214	21,969
By-product revenues ¹	(4,807)	(6,663)	(7,232)
COGS after by-product revenues	18,774	16,551	14,737
Other expenses ²	(81)	705	2,516
Total Costs	18,693	17,256	17,253
Nickel average aggregate (premium) discount	(123)	190	(170)
EBITDA breakeven³	18,570	17,066	17,083

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\$ 18,786/t.

Unit COGS, excluding 3rd-party feed purchases, have increased by US\$ 1,322 y/y mainly due to lower fixed cost dilution and higher maintenance costs.

All-in costs increased by US\$ 1,504 y/y, primarily due to higher unit COGS as well as lower by-products credits mainly driven by lower by-products volumes.

Copper operations – Salobo and Sossego

Selected financial indicators - Copper operations, ex-marketing activities

US\$ million	3Q23	3Q22	2Q23
Net Revenues	660	479	538
Costs ¹	(341)	(275)	(319)
SG&A and other expenses ¹	(3)	(8)	49
Pre-operating and stoppage expenses ¹	-	(3)	(1)
R&D expenses	(47)	(38)	(31)
Adjusted EBITDA	269	155	236
Depreciation and amortization	(49)	(30)	(34)
Adjusted EBIT	220	125	202
Adjusted EBIT margin (%)	33.3	26.1	37.5

¹ Net of depreciation and amortization

EBITDA variation - US\$ million (3Q23 x 3Q22)

US\$ million	3Q22	Drivers				Total variation	3Q23
		Volume	Prices	By-products	Others		
Copper	155	4	69	56	(15)	114	269

EBITDA by operation

US\$ million	3Q23	3Q22	2Q23	3Q23 vs. 3Q22 Comments
Salobo	251	128	218	Higher copper prices and sales volumes of copper and gold.
Sossego	59	56	17	Higher copper realized prices.
Others copper ¹	(41)	(29)	1	
Total	269	155	236	

¹ Includes R&D expenses of US\$ 30 million related to the Hu'u project in 3Q23.

Revenues & price realization

Revenues & price realization

US\$ million	3Q23	3Q22	2Q23
Volume sold ('000 metric tons)			
Copper	62	53	53
Gold as by-product ('000 oz)	95	69	77
Silver as by-product ('000 oz)	242	194	242
Average prices (US\$/t)			
Average LME copper price	8,356	7,745	8,464
Average copper realized price	7,731	6,663	7,025
Gold (US\$/oz) ¹	1,874	1,773	2,103
Silver (US\$/oz)	23	19	26
Revenue (US\$ million)			
Copper	478	353	371
Gold as by-product ¹	177	123	161
Silver as by-product	5	4	6
Total	660	479	538

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	3Q23	3Q22	2Q23
Average LME copper price	8,356	7,745	8,464
Current period price adjustments ¹	(189)	(390)	(257)
Copper gross realized price	8,167	7,355	8,207
Prior period price adjustments ²	125	(246)	(638)
Copper realized price before discounts	8,292	7,110	7,569
TC/RCs, penalties, premiums and discounts ³	(560)	(452)	(544)
Average copper realized price	7,731	6,663	7,025

Note: Vale's copper products are sold on a provisional pricing basis during the quarter, 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.

Average copper realized price was up 16% y/y mainly due to the 8% increase in LME reference prices and the lower impact of provisional price adjustments.

In the quarter, the average realized prices before discounts were 1% lower than LME mainly reflecting the impact of a lower copper forward price on provisionally priced copper sales⁷.

Costs

COGS - 3Q23 x 3Q22

US\$ million	3Q22	Drivers			Total variation	3Q23
		Volume	Exchange rate	Others		
Copper operations	275	52	13	1	66	341
Depreciation	30	18	3	(2)	19	49
Total	305	70	16	(1)	85	390

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

US\$/t	3Q23	3Q22	2Q23	3Q23 vs. 3Q22 Comments
Salobo	2,130	2,343	2,246	Higher production volumes leading to higher dilution of fixed costs and higher by-product revenue as Salobo III plant ramps up.
Sossego	3,751	3,491	4,705	Lower fixed costs dilution and lower by-product credits resulting from lower feed grades at the mill.

EBITDA break-even – copper operations

US\$/t	3Q23	3Q22	2Q23
COGS	5,512	5,170	6,046
By-product revenues	(2,960)	(2,390)	(3,177)
COGS after by-product revenues	2,552	2,780	2,869
Other expenses ¹	812	952	(325)
Total costs	3,364	3,732	2,544
TC/RCs penalties, premiums and discounts	560	452	544
EBITDA breakeven²	3,924	4,184	3,088
EBITDA breakeven ex-Hu'u	3,264	3,638	3,112

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\$ 5,012/t.

The realized price to be compared to the EBITDA break-even should be the copper realized price before discounts (US\$ 8,292/t), given that TC/RCs, penalties, and other discounts are already part of the EBITDA break-even build-up.

⁷ On September 30th, 2023, Vale had provisionally priced copper sales from Sossego and Salobo totaling 65,709 tons valued at weighted average LME forward price of US\$ 8,280/t, subject to final pricing over the following months.

WEBCAST INFORMATION

Vale will host a webcast on Friday, October 27th, 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:

Brazil: +55 (11) 4090-1621 / 3181-8565

U.K: +44 20 3795 9972

U.S (toll-free): +1 844 204 8942

U.S: +1 412 717 9627

The Access Code for this call is VALE.

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

Investor Relations

Vale.RI@vale.com

Thiago Lofiego: thiago.lofiego@vale.com

Luciana Oliveti: luciana.oliveti@vale.com

Mariana Rocha: mariana.rocha@vale.com

Pedro Terra: pedro.terra@vale.com

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, Tecnoed 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.

This press release may include statements about Vale's current expectations about future events or results (forward-looking statements). Many of those forward-looking statements can be identified by the use of forward-looking words such as „anticipate,” „believe,” „could,” „expect,” „should,” „plan,” „intend,” „estimate” “will” and „potential,” among others. All forward-looking statements involve various risks and uncertainties. Vale cannot guarantee that these statements will prove correct. These risks and uncertainties include, among others, factors related to: (a) the countries where Vale operates, especially Brazil and Canada; (b) the global economy; (c) the capital markets; (d) the mining and metals prices and their dependence on global industrial production, which is cyclical by nature; and (e) global competition in the markets in which Vale operates. Vale cautions you that actual results may differ materially from the plans, objectives, expectations, estimates and intentions expressed in this presentation. Vale undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information or future events or for any other reason. To obtain further information on factors that may lead to results different from those forecast by Vale, please consult the reports that 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.

The information contained in this press release includes financial measures that are not prepared in accordance with IFRS. These non-IFRS measures differ from the most directly comparable measures determined under IFRS, but we have not presented a reconciliation to the most directly comparable IFRS measures, because the non-IFRS measures are forward-looking and a reconciliation cannot be prepared without unreasonable effort.

Annexes

Simplified financial statements

Income Statement

<i>US\$ million</i>	3Q23	3Q22	2Q23
Net operating revenue	10,623	9,929	9,673
Cost of goods sold and services rendered	(6,309)	(6,301)	(5,940)
Gross profit	4,314	3,628	3,733
Gross margin (%)	40.6	36.5	38.6
Selling and administrative expenses	(150)	(119)	(139)
Research and development expenses	(188)	(170)	(165)
Pre-operating and operational stoppage	(115)	(89)	(103)
Other operational expenses, net	(511)	(387)	(388)
Impairment reversal (impairment and disposals) of non-current assets, net	(75)	(40)	(66)
Operating income	3,275	2,823	2,872
Financial income	100	141	106
Financial expenses	(362)	(221)	(397)
Other financial items, net	(123)	2,427	134
Equity results and other results in associates and joint ventures	94	78	5
Income before income taxes	2,984	5,248	2,720
Current tax	(278)	(514)	(404)
Deferred tax	151	(290)	(1,388)
Net income from continuing operations	2,857	4,444	928
Net income (loss) attributable to noncontrolling interests	21	(11)	36
Net income from continuing operations attributable to Vale's shareholders	2,836	4,455	892
Discontinued operations			
Net income (Loss) from discontinued operations	-	-	-
Net income from discontinued operations attributable to noncontrolling interests	-	-	-
Net income (Loss) from discontinued operations attributable to Vale's shareholders	-	-	-
Net income	2,857	4,444	928
Net income (Loss) attributable to Vale's to noncontrolling interests	21	(11)	36
Net income attributable to Vale's shareholders	2,836	4,455	892
Earnings per share (attributable to the Company's shareholders - US\$):			
Basic and diluted earnings per share (attributable to the Company's shareholders - US\$)	0.66	0.98	0.20

Equity income (loss) by business segment

<i>US\$ million</i>	3Q23	%	3Q22	%	2Q23	%
Iron Solutions	87	93	80	92	89	91
Energy Transition Metals	-	-	-	-	-	-
Others	7	7	7	8	9	9
Total	94	100	87	100	98	100

Balance sheet

US\$ million	9/30/2023	6/30/2023	9/30/2022
Assets			
Current assets	14,673	15,547	13,922
Cash and cash equivalents	3,967	4,983	5,182
Short term investments	60	46	42
Accounts receivable	3,348	2,967	2,150
Other financial assets	426	522	152
Inventories	5,114	5,193	5,268
Recoverable taxes	1,355	1,502	858
Other	403	334	270
Non-current assets held for sale	-	-	-
Non-current assets	14,060	14,402	13,354
Judicial deposits	1,296	1,326	1,289
Other financial assets	586	698	236
Recoverable taxes	1,264	1,229	1,114
Deferred income taxes	9,682	9,904	9,825
Other	1,232	1,245	890
Fixed assets	60,256	61,568	53,335
Total assets	88,989	91,517	80,611
Liabilities			
Current liabilities	13,644	13,556	12,994
Suppliers and contractors	5,582	5,240	4,735
Loans, borrowings and leases	976	912	447
Other financial liabilities	1,538	1,599	1,466
Taxes payable	630	882	303
Settlement program ("REFIS")	407	416	351
Provisions	943	849	929
Liabilities related to associates and joint ventures	899	1,044	2,027
Liabilities related to Brumadinho	1,324	1,201	1,318
De-characterization of dams and asset retirement obligations	845	899	700
Dividends payable	-	-	-
Other	500	514	718
Liabilities associated with non-current assets held for sale	-	-	-
Non-current liabilities	35,858	37,670	32,945
Loans, borrowings and leases	13,060	13,025	11,757
Participative shareholders' debentures	2,405	2,528	2,659
Other financial liabilities	2,583	2,771	1,948
Settlement program (REFIS)	1,744	1,886	1,861
Deferred income taxes	1,343	1,411	1,608
Provisions	2,572	2,700	2,349
Liabilities related to associates and joint ventures	2,320	2,575	1,117
Liabilities related to Brumadinho	1,873	2,075	1,913
De-characterization of dams and asset retirement obligations	6,111	6,786	5,926
Streaming transactions	1,621	1,693	1,629
Others	226	220	178
Total liabilities	49,502	51,226	45,939
Shareholders' equity	39,487	40,291	34,672
Total liabilities and shareholders' equity	88,989	91,517	80,611

Cash flow

US\$ million	3Q23	3Q22	2Q23
Cash flow from operations	4,128	4,591	3,259
Interest on loans and borrowings paid	(174)	(194)	(200)
Cash received (paid) on settlement of Derivatives, net	70	100	134
Payments related to Brumadinho	(292)	(423)	(497)
Payments related to de-characterization of dams	(146)	(95)	(95)
Interest on participative shareholders debentures paid	-	-	(127)
Income taxes (including settlement program) paid	(720)	(582)	(574)
Net cash generated by operating activities from continuing operations	2,866	3,397	1,900
Net cash generated by operating activities from discontinued operations	-	-	-
Net cash generated by operating activities	2,866	3,397	1,900
Cash flow from investing activities			
Capital expenditures	(1,464)	(1,230)	(1,208)
Dividends received from joint ventures and associates	-	28	105
Proceeds (payments) from the sale of investments, net	-	140	-
Other investment activities, net	(235)	48	36
Net cash used in investing activities from continuing operations	(1,699)	(1,014)	(1,067)
Net cash used in investing activities from discontinued operations	-	-	-
Net cash used in investing activities	(1,699)	(1,014)	(1,067)
Cash flow from financing activities			
Loans and financing:			
Loans and borrowings from third parties	150	150	1,500
Payments of loans and borrowings from third parties	(13)	(448)	(581)
Payments of leasing	(47)	(48)	(45)
Payments to shareholders:			
Dividends and interest on capital paid to Vale's shareholders	(1,678)	(3,123)	-
Dividends and interest on capital paid to noncontrolling interest	-	(3)	(5)
Share buyback program	(546)	(686)	(1,361)
Stake acquisition on subsidiaries	-	-	(130)
Net cash used in financing activities from continuing operations	(2,134)	(4,158)	(622)
Net cash used in financing activities from discontinued operations	-	-	-
Net cash used in financing activities	(2,134)	(4,158)	(622)
Net increase (decrease) in cash and cash equivalents	(967)	(1,775)	211
Cash and cash equivalents in the beginning of the period	4,983	7,185	4,705
Effect of exchange rate changes on cash and cash equivalents	(49)	(228)	67
Cash and cash equivalents at the end of period	3,967	5,182	4,983
Non-cash transactions:			
Additions to property, plant and equipment - capitalized loans and borrowing costs	5	9	5
Cash flow from operating activities			
Income before income taxes	2,984	5,248	2,720
Adjusted for:			
Provisions related to Brumadinho	184	141	140
Provision for de-characterization of dams	-	35	-
Equity results and other results in associates and joint ventures	(94)	(78)	(5)
Impairment (impairment reversal) and results on disposal of non-current assets, net	75	40	66
Depreciation, depletion and amortization	780	775	779
Financial results, net	385	(2,347)	157
Change in assets and liabilities			
Accounts receivable	(410)	3	(247)
Inventories	(97)	(287)	(157)
Suppliers and contractors	480	1,169	570
Other assets and liabilities, net	(159)	(108)	(764)
Cash flow from operations	4,128	4,591	3,259

Reconciliation of IFRS and “non-GAAP” information

(a) Adjusted EBIT

US\$ million	3Q23	3Q22	2Q23
Net operating revenues	10,623	9,929	9,673
COGS	(6,309)	(6,301)	(5,940)
Sales and administrative expenses	(150)	(119)	(139)
Research and development expenses	(188)	(170)	(165)
Pre-operating and stoppage expenses	(115)	(89)	(103)
Brumadinho and dam de-characterization of dams	(305)	(336)	(271)
Other operational expenses, net ¹	(159)	(51)	(65)
Dividends received and interests from associates and JVs	-	28	105
Adjusted EBIT from continuing operations	3,397	2,891	3,095

¹ Includes adjustment of US\$ 47 million in 3Q23 and US\$ 52 million in 2Q23, 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	3Q23	3Q22	2Q23
Adjusted EBITDA from continuing operations	4,177	3,666	3,874
Working capital:			
Accounts receivable	(410)	3	(247)
Inventories	(97)	(287)	(157)
Suppliers and contractors	480	1,169	570
Provisions related to Brumadinho	184	141	140
Provisions related to de-characterization of dams	-	35	-
Others	(206)	(136)	(921)
Cash flow from continuing operations	4,128	4,591	3,259
Income taxes paid (including settlement program)	(720)	(582)	(574)
Interest on loans and borrowings paid	(174)	(194)	(200)
Payments related to Brumadinho	(292)	(423)	(497)
Payments related to de-characterization of dams	(146)	(95)	(95)
Interest on participative shareholders' debentures paid	-	-	(127)
Cash received (paid) on settlement of Derivatives, net	70	100	134
Net cash generated by operating activities from continuing operations	2,866	3,397	1,900
Net cash generated by operating activities from discontinued operations	-	-	-
Net cash generated by operating activities	2,866	3,397	1,900

Reconciliation between adjusted EBITDA and net income (loss)

US\$ million	3Q23	3Q22	2Q23
Adjusted EBITDA from continuing operations	4,177	3,666	3,874
Depreciation, depletion and amortization	(780)	(775)	(779)
Dividends received and interest from associates and joint ventures	-	(28)	(105)
Impairment reversal (impairment) and results on disposals of non-current assets, net ¹	(122)	(40)	(118)
Operating income	3,275	2,823	2,872
Financial results	(385)	2,347	(157)
Equity results and other results in associates and joint ventures	94	78	5
Income taxes	(127)	(804)	(1,792)
Net income from continuing operations	2,857	4,444	928
Net income (loss) attributable to noncontrolling interests	21	(11)	36
Net income attributable to Vale's shareholders	2,836	4,455	892

¹ Includes adjustment of US\$ 47 million 3Q23 and US\$ 52 million 2Q23, to reflect the performance of the streaming transactions at market price.

(c) Net debt

US\$ million	3Q23	3Q22	2Q23
Gross debt	12,556	10,666	12,417
Leases	1,480	1,538	1,520
Cash and cash equivalents ¹	(4,027)	5,224	(5,029)
Net debt	10,009	6,980	8,908

¹ Including financial investments

(d) Gross debt / LTM Adjusted EBITDA

<i>US\$ million</i>	3Q23	3Q22	2Q23
Gross debt and leases / LTM Adjusted EBITDA (x)	0.9	0.6	0.9
Gross debt and leases / LTM operational cash flow (x)	0.8	0.9	0.8

(e) LTM Adjusted EBITDA / LTM interest payments

<i>US\$ million</i>	3Q23	3Q22	2Q23
Adjusted LTM EBITDA / LTM gross interest (x)	23.0	33.7	24.1
LTM adjusted EBITDA / LTM interest payments (x)	21.2	19.4	20.1

(f) US dollar exchange rates

<i>R\$/US\$</i>	3Q23	3Q22	2Q23
Average	4.8803	5.2462	4.9485
End of period	5.0076	5.4066	4.8192

Revenues and volumes

Net operating revenue by destination

US\$ million	3Q23	%	3Q22	%	2Q23	%
North America	398	3.7	562	5.7	554	5.7
USA	323	3.0	423	4.3	431	4.5
Canada	75	0.7	139	1.4	123	1.3
South America	1,018	9.6	1,086	10.9	1,098	11.4
Brazil	915	8.6	958	9.6	994	10.3
Others	103	1.0	128	1.3	104	1.1
Asia	7,603	71.6	6,282	63.3	6,278	64.9
China	5,860	55.2	4,640	46.7	4,638	47.9
Japan	843	7.9	857	8.6	824	8.5
South Korea	289	2.7	387	3.9	374	3.9
Others	611	5.8	398	4.0	442	4.6
Europe	956	9.0	1,360	13.7	1,227	12.7
Germany	261	2.5	377	3.8	294	3.0
Italy	48	0.5	166	1.7	182	1.9
Others	647	6.1	817	8.2	751	7.8
Middle East	271	2.6	334	3.4	162	1.7
Rest of the World	377	3.5	305	3.1	354	3.7
Total	10,623	100.0	9,929	100.0	9,673	100.0

Volume sold by destination – Iron ore and pellets

'000 metric tons	3Q23	3Q22	2Q23
Americas	9,829	11,495	10,784
Brazil	9,339	10,334	9,512
Others	490	1,161	1,272
Asia	64,801	59,353	56,618
China	52,139	48,707	44,908
Japan	6,317	5,226	6,269
Others	6,345	5,420	5,441
Europe	2,299	3,676	4,022
Germany	494	789	426
France	189	669	742
Others	1,616	2,218	2,854
Middle East	1,475	1,554	953
Rest of the World	2,155	1,491	1,997
Total	80,559	77,569	74,374

Net operating revenue by business area

US\$ million	3Q23	%	3Q22	%	2Q23	%
Iron Solutions	8,862	83%	7,827	79%	7,776	80%
Iron ore fines	7,331	69%	6,053	61%	6,235	64%
ROM	33	0%	29	0%	34	0%
Pellets	1,388	13%	1,656	17%	1,413	15%
Others	110	1%	89	1%	94	1%
Energy Transition Metals	1,718	16%	2,042	21%	1,871	19%
Nickel	833	8%	960	10%	930	10%
Copper	567	5%	457	5%	516	5%
PGMs	54	1%	129	1%	85	1%
Gold as by-product ¹	147	1%	139	1%	131	1%
Silver as by-product	8	0%	5	0%	12	0%
Cobalt ¹	14	0%	28	0%	22	0%
Others ²	95	1%	324	3%	175	2%
Others	42	0%	60	1%	26	0%
Total of continuing operations	10,623	100%	9,929	100%	9,673	100%

¹ Exclude the adjustment of US\$ 47 million in 3Q23 and US\$ 52 million in 2Q23, 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: 2024
Vale's ownership: 100%	Underground mine	115 kozpy Au as byproduct
South Hub extension	Capacity: 60-80 ktpy	Stage: FEL3¹
Carajás, Brazil	Replacement project	Investment decision: 2024
Vale's ownership: 100%	Open pit mine	Development of mines to feed Sossego mill
Victor	Capacity: 20 ktpy	Stage: FEL3
Ontario, Canada	Replacement project	Investment decision: 2024-2025
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: 2024
Vale's ownership: N/A ²	Mine + HPAL plant	8 ktpy Co as by-product
Creighton Ph. 5	Capacity: 15-20 ktpy	Stage: FEL3
Ontario, Canada	Replacement project	Investment decision: 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: 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		
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	
Serra Norte N1/N2³	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.