VALE

Management Report 2023

Contents

HOW TO JOIN OUR 2023 RESULTS WEBCAST

Vale S.A. ("Vale" or the "Company") will host a webcast on our 2023 results on February 23rd, 2024, at 11:00 am, Brasília time (9:00 am New York time; 2:00 pm London time). Access to the webcast and presentation materials will be available at www.vale.com/investors. The conference call will be in English, with simultaneous translation into Portuguese and will be broadcast live on the Company's website. A recorded copy of the webcast will be available shortly after the conference call.

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

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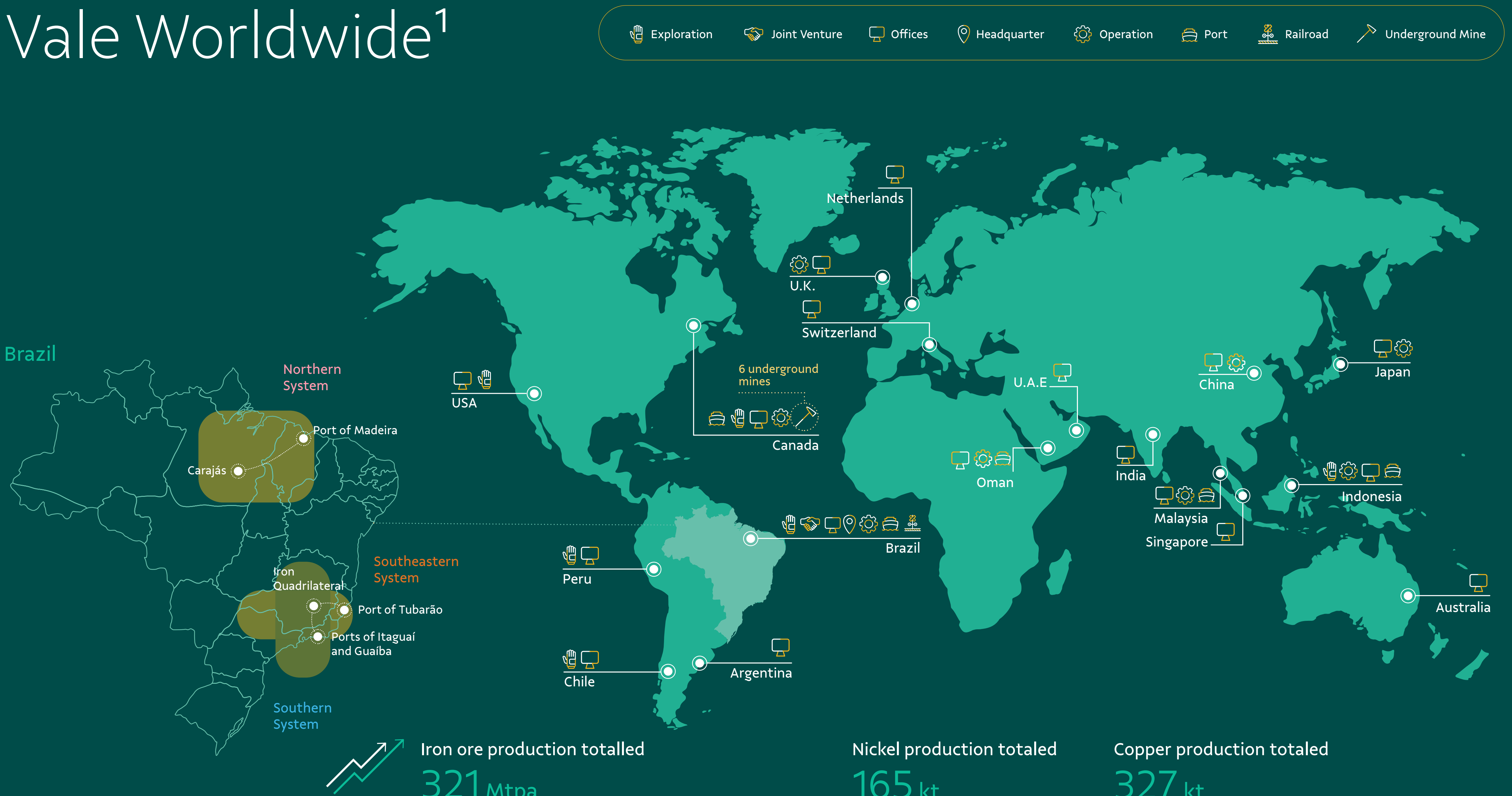
About Vale

Our journey began in 1942 in Brazil. In the following eight decades, we expanded our business globally to become one of the world's leading producers of iron ore, copper and nickel. We also produce iron ore pellets, platinum group metals (PGMs), gold, silver, and cobalt. We are engaged in greenfield mineral exploration in six countries.

Our mining operations are integrated with complete logistics systems including railways, maritime terminals and ports. We have distribution centers to deliver iron ore worldwide. We also have investments in energy, either directly or through affiliated companies and joint ventures.

We are one of the world's leading iron ore, copper and nickel producers.

Vale Worldwide[1]



Iron ore production totalled
321 Mtpa
Production guidance of 310–320 Mt in 2024

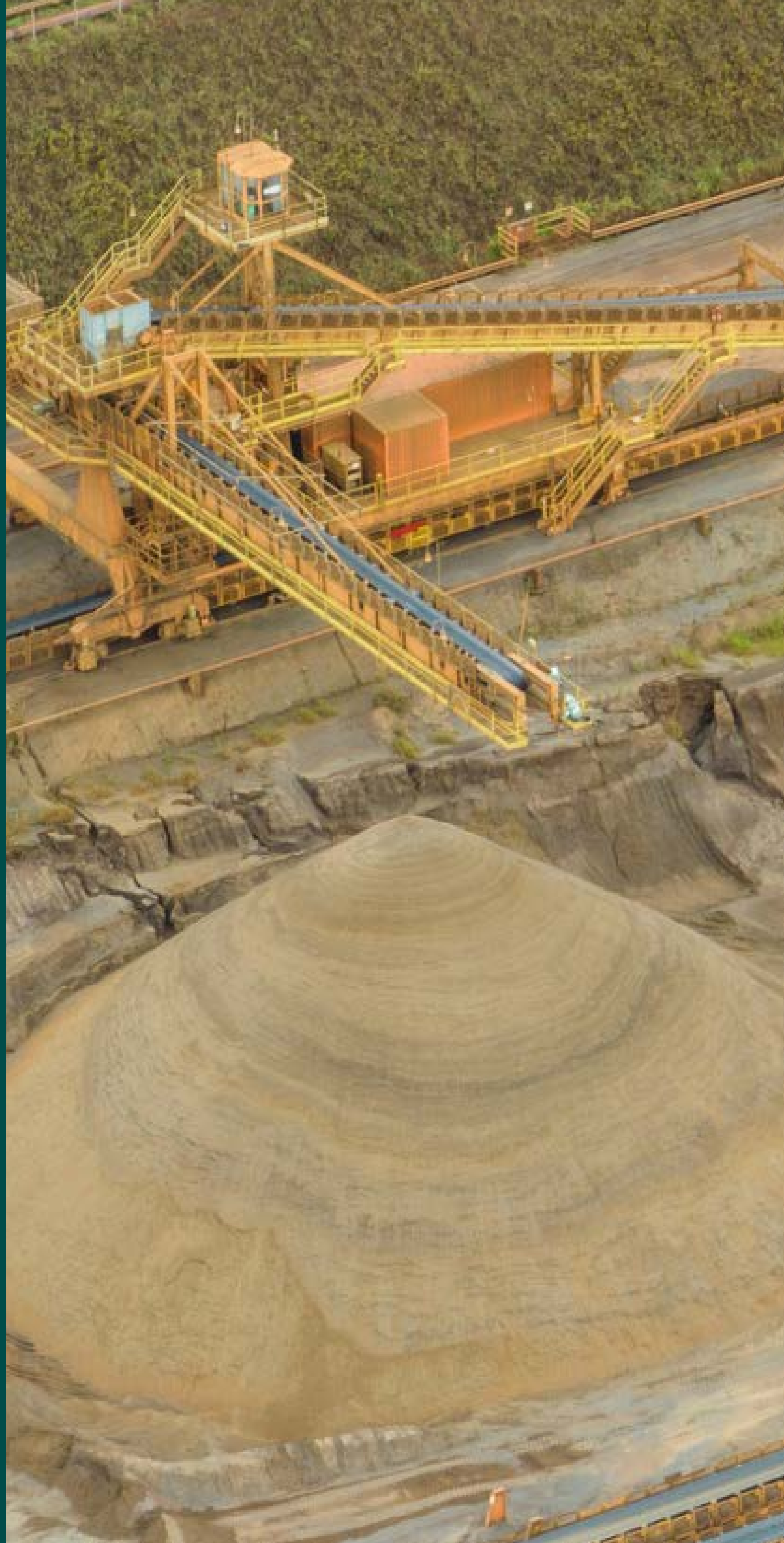
Nickel production totaled
165 kt
Production guidance of 160–175 kt in 2024

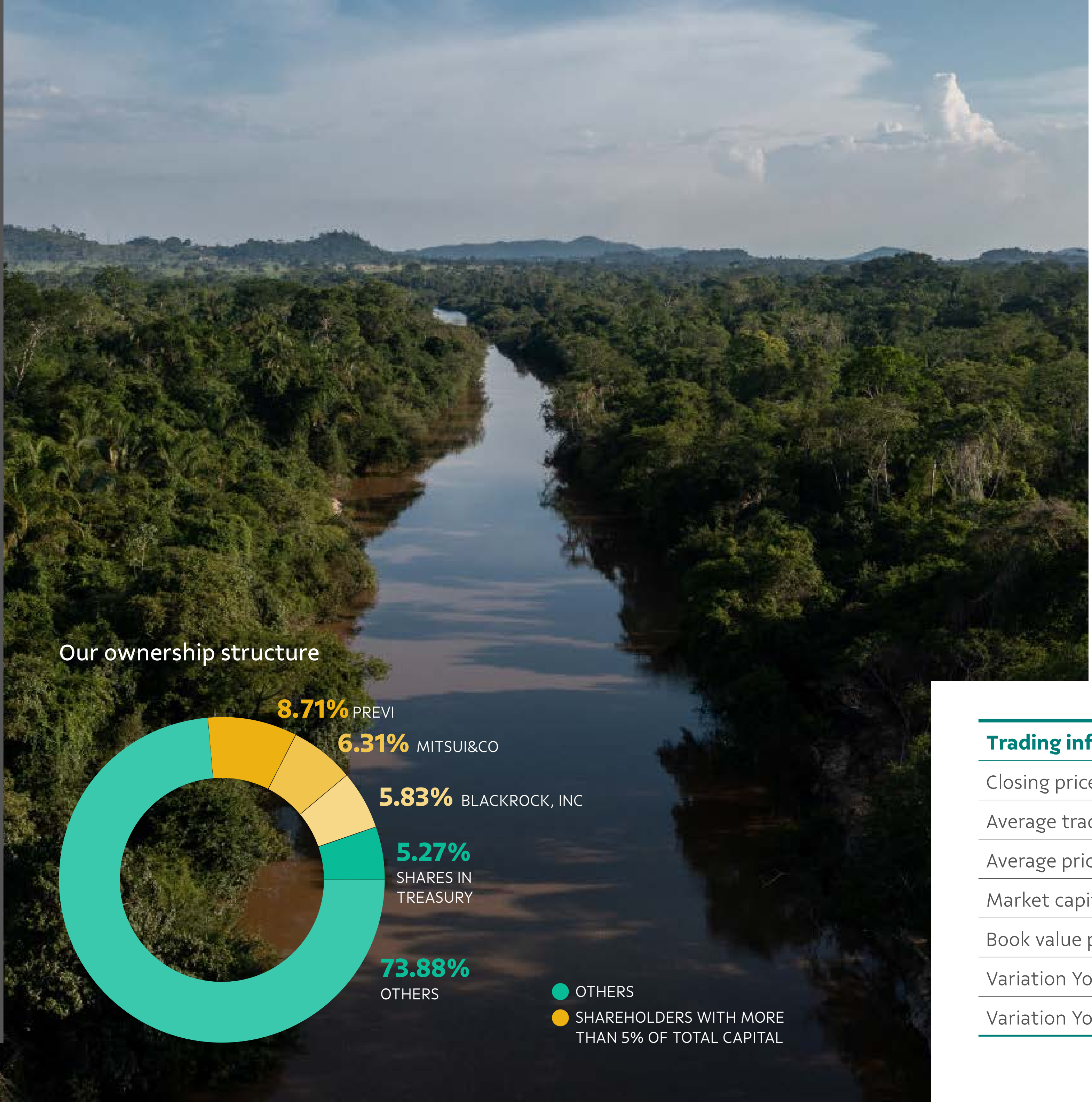
Copper production totaled
327 kt
Production guidance of 320–355 kt in 2024

[1] *Includes the assets of Vale Base Metals.*

Vale of the Future: executing our strategy

Promote sustainable mining	Foster low carbon solutions	Stay disciplined
Benchmark in safety and dam management	Iron Ore Solutions	Reliable operations and consistent delivery
Regional social and economic development	Energy Transition Metals	Attractive cash returns to shareholders
Shared value and trust	Customer centricity	Strong balance sheet
People-driven	Technology innovation	Cost, CAPEX, and capital allocation efficiency
Nature positive	Circular mining	





Trading markets

We have been a publicly traded company since 1970. Our common shares are traded in the Novo Mercado segment of the São Paulo Stock Exchange – B3 (ticker symbol VALE3) and on Latibex[1] (ticker symbol XVALO). Our shares are constituents of B3's main indexes, including: IBOV, IBRA, IBXL, IBXX, IGCT, IGCX, IGNM, IMAT, ITAG and MLCX. Bradesco serves as bookkeeping agent for our common shares.

Our common ADSs, each representing one common share, are traded on the New York Stock Exchange – NYSE (ticker symbol VALE, level 2 ADS). Citibank N.A. serves as the depositary for the common ADSs. On December 31, 2023, there were 1,168,619,977 ADSs outstanding, representing 25.75% of our total share capital.

Our market capitalization[2] was around R$ 331.9 billion at year end 2023.

[1] The LATIBEX is a non-regulated electronic market of the Madrid stock exchange which enables trading of Latin American equity securities.

[2] Number of outstanding shares multiplied by share price.

Trading information	2023	2022
Closing price (R$/share)	77.20	88.88
Average trading volume – VALE3 (R$ million)	1,855	2,530
Average price – VALE3 (R$/share)	70.31	77.07
Market capitalization – VALE3 (R$ billion)	331.9	368.3
Book value per share (R$/share)	43.55	40.91
Variation YoY VALE3	-13.14%	24.87%
Variation YoY Ibovespa	22.3%	4.69%

Our purpose, values, and strategic pillars

We are together on this journey. Each day, we write a new chapter in our history alongside our partners, employees, customers, suppliers, shareholders and society. Guided by our strategy and sound values, we strive to evolve daily while putting people at the center of our decisions. Throughout our journey, we put safety first, learn from mistakes, and act always with transparency.

Our Purpose

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

Values

- **Life** matters most
- Act with **integrity**
- Value **the people who build our company**
- Make it **happen**
- Respect **our planet and community**

Key behaviors

- Obsession with **safety and risk management**
- **Open and transparent** dialogue
- **Empowerment** with accountability
- Sense **of ownership**
- **Active listening** and **engagement** with communities

Levers

- **Safety**
- **VPS**[1]
- **People**
- **Innovation**
- **Sustainability**

Ambitions

A mining major recognized by society as a:

- Benchmark in **safety**
- Best-in-class **reliable** operator
- **Talent** driven organization
- Leader in **sustainable** mining
- Reference in **creating and sharing value**

[1] *Vale Production System.*

2023 at a glance

BUSINESS PERFORMANCE

R$ 208.1 billion
in net operating revenue

R$ 39.9 billion
in net income attributable to shareholders

R$ 89.4 billion
in adjusted EBITDA

R$ 17.7 billion
in cash, cash equivalents and short-term investments

R$ 65.9 billion
in free cash flow from operations

R$ 67.4 billion
in gross debt and leases

CAPITAL ALLOCATION

R$ 30 billion
in dividends and interest on capital approved to shareholders in respect of 2023

R$ 13.6 billion
in share buybacks in the year[1]

R$ 29.4 billion
in capital expenditures, including R$ 21.2 billion in sustaining capex

US$ 0.5 billion
in redeemed notes with maturity date in 2026, 2036 and 2039, in June 2023

[1] 184,697,102 shares purchased, equivalent to 4% of Vale's total capital.

PRODUCTION AND SALES

321 Mt
of iron ore fines production, a 4.3%-increase y/y, exceeding the 2023 guidance

301 Mt
of iron ore sales[1], in line y/y

37 Mt
of pellet production, a 13.5% increase y/y, in line with the 2023 guidance

36 Mt
of pellets sales, an 8.1% increase y/y

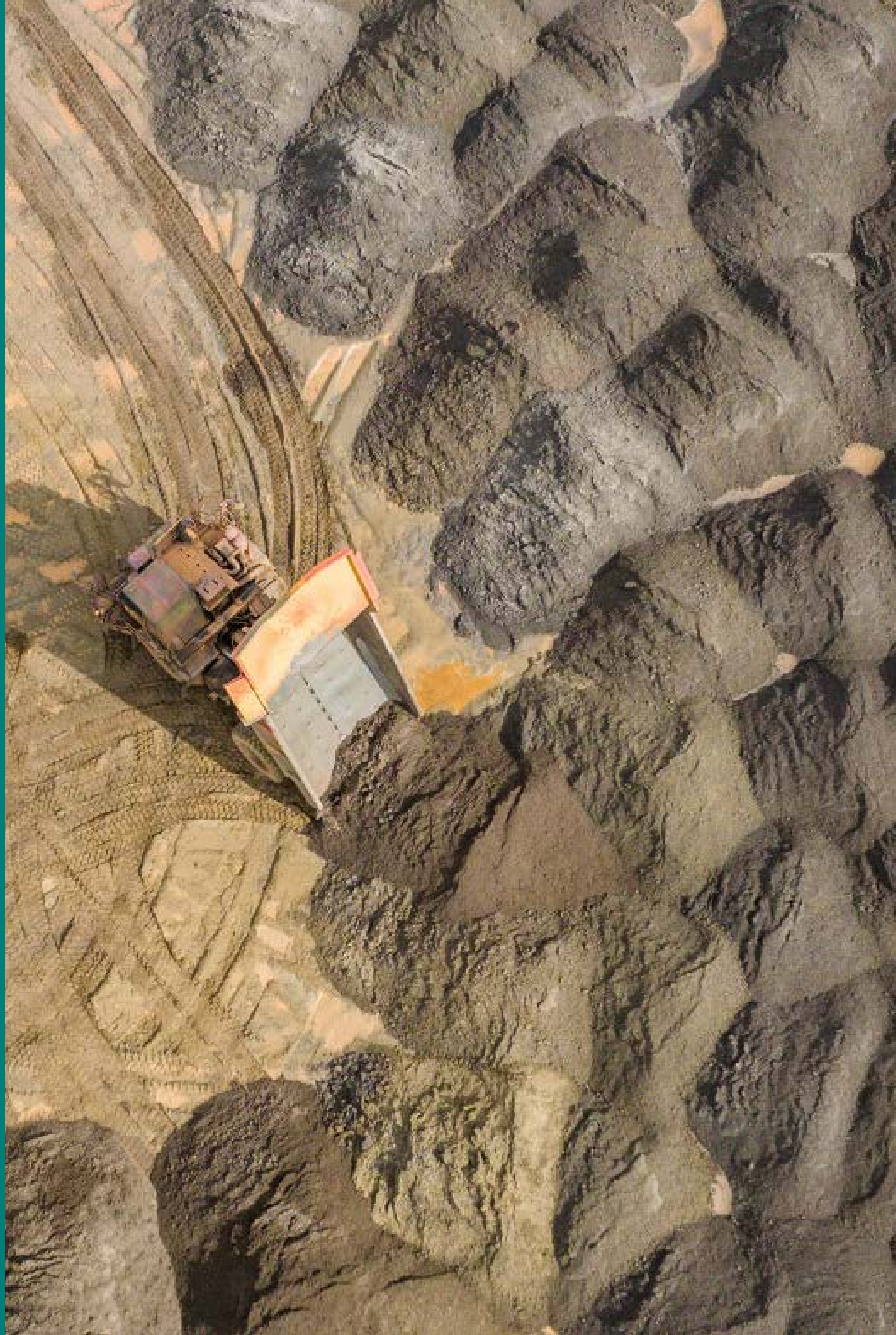
327 kt
of copper production, a 29% increase y/y, exceeding the 2023 guidance

308 kt
of copper sales, a 26.2% increase y/y

165 kt
of nickel production, a 7.9% decrease y/y, in line with the 2023 guidance

168 kt
of nickel sales, a 7.1% decrease y/y

[1] *Includes iron ore fines, ROM and pellets.*



ESG

66,807
direct employees

167,759
third-party employees

24.4%
female workforce – a total progress of 85% towards our 2025 target[1]

34.9%
of self-declared black leadership – a total progress of 21% towards our 2026 target[2]

67%
reduction in our injury rate compared to 2022, moving towards zero N2 accidents by 2025

~100%
of electricity consumption from renewable sources in Brazil, reaching our 2025 target 2 years ahead of time[3]

+ 177,000
hectares protected and/or recovered since 2020[4], a major step in meeting our voluntary commitment for +500,000 hectares beyond our fence line by 2030

REPARATION

R$ 46.5 billion
in Brumadinho reparation program expenditure

- **68%** of obligations fully delivered within the Full Reparation Settlement
- **+15,400** affected people indemnified

R$ 34.8 billion[5]
spent in Renova Foundation's 42 reparation programs

- **+460,000** affected people indemnified
- **+85%** of housing solutions delivered

[1] Compared to the 2019 baseline.
[2] Compared to the 2021 baseline.
[3] Validation by an external, independent verifier underway, expected by 1Q24
[4] 165,000 hectares protected and over 12,600 hectares restored.
[5] Total expenditure on damage compensation and remediation, funded by Samarco Mineração S.A. and its partners, BHP Brasil Ltda. and Vale S.A.

A Letter from our Chairman

Dear Shareholders,

Vale continues to advance steadily on its journey to become a leader in sustainable mining for a decarbonizing world. In 2023, we achieved solid results based on operational discipline and efficient management, while building the path towards a strong performance in 2024. We are also progressing on our growth strategy, with a solid pipeline of highly-accretive projects, both in the Iron Ore Solutions and Energy Transition Metals divisions.

We are turning Vale into the best-in-class, more reliable operator in our industry, while creating and sharing significant value with our shareholders and society.

Vale's Board of Directors, elected by our shareholders in April 2023, reflects the improvements we are spreading throughout the Company, with increased diversity of professional experiences and skills, culture, and gender, as well as a high level of independence in its decision-making process. All of that guided by Vale's cultural transformation journey.

The Board is unanimous in its commitment to building the Vale of the Future, a safer, efficient and nature-positive company, ready to thrive in a dynamic global market. We remain steadfast in our mission to improve lives and transform the future, contributing positively to economies and communities, prioritizing environmental stewardship, with the highest ethical standards.

Board of Directors' performance

The Board of Directors' composition had a 46% renewal[1] in 2023, implying the execution of a robust onboarding and team-building program to provide internal knowledge and tools for sharp and efficient decision-making process and oversight, as well as more dynamic discussions. Performing on its duties, the Board met 21 times, while its Advisory Committees held 63 meetings.

In addition, for the first time in Vale's history, the Company had the election of a Lead Independent Director, Mr. Ollie Oliveira, a seasoned executive with high-value contributions to the Board of Directors and to our shareholders.

[1] Six new members elected by the 2023 Annual General Meetings of Shareholders. The employee's representatives, although elected by the first time as an effective Board member, had previous tenures as alternate member.

The Board members in Action Program aims to support Vale's leaders in key areas to their success, potentializing the Board's experiences and knowledge and the company's main value levers. It has the following focuses:

(i) set up initiatives for integrated action between the Board and the executive management, acting as a sounding board, opening doors and defining action courses.

(ii) meetings and visits to operations, assets, communities and other stakeholders related to each of the matters prioritized by the Board and the Executive Committee.

(iii) report on field observations with guidelines and recommendations, through structured discussions between the Board and the Executive Committee.

The Board's more itinerant action resulted, in 2023, in meetings and operational visits held in Carajás (PA), Belém (PA) and Vitória (ES), including engagement with leaders and teams, in addition to participation in relevant events on the national and international conference in which the Board members had the opportunity to interact with the company's stakeholders, such as Expo & Brazilian Mining

Congress (Exposibram), International Conference Amazonia and New Economies, Círio de Nazaré, Global Compact meeting, Sustainable Development Goals 2023 meeting, Conference of the United Nations on Climate Change, non-deal roadshow by the Lead Independent Director with investors in New York, London and Brazil, participation in Vale Day, among others.

Board of Directors' oversight

Throughout 2023, the Board kept a vigilant oversight on crucial matters pertaining to Vale's short and long-term performance, including:

- Active contribution to the strategic planning towards the Vale of the Future, sustained by the pillars of Promoting Sustainable Mining, Fostering Low-Carbon Solutions and Staying Disciplined.
- Strategic actions to position our Iron Ore Solutions Business as a leader, supporting initiatives towards operational stability and building platforms to grow our high-quality portfolio, exemplified by the start-up of the first of two-iron ore briquetting plants in Tubarão, Vitória (Espírito Santo State).
- Regular monitoring of Vale's Integrated Global Risk Map.
- Evolution of tailings and dams' management, including full conformance with the Global Industry Standard on Tailings Management (GISTM) standards and deadlines, managing structures in critical safety conditions, and progress of the Upstream Dam De-Characterization Program
- Unlocking potential value from our Energy Transition Metals business, by successfully creating a holding entity to consolidate assets and management team, welcoming long-term partners with valuable credentials to jointly foster the Vale Base Metals' business growth.-
- Strategy execution systematically monitored towards the Vale of the Future, setting priorities and ensuring the cascading of key indicators throughout the Company;
- The completion of Vale's Non-Core Assets Divestment Program, following the divestment of Companhia Siderúrgica do Pecém (CSP), and Mineração Rio do Norte (MRN).
- The acquisition of a 15%-stake at Anglo American Minério de Ferro Brasil S.A., owner of Minas-Rio, a world-class integrated iron ore asset with an estimated production capacity of 26.5Mtpy of high-grade pellet feed, with potential to reach 50 Mtpy in the long-term.. The acquisition allows access to high-quality pellet feed via an off-take agreement, in line with Vale's premium portfolio strategy.
- Effective reparation of Brumadinho, including the execution of the Full Reparation Settlement within agreed-upon conditions and timeframes.
- Effective reparation of Mariana, by overseeing and collaborating with Renova and its governing bodies, emphasizing the acceleration of housing rights restoration and individual compensation processes. The Board actively monitors and contributes to negotiations with authorities for an expedited and definitive reparation settlement.

Value creation and return

Vale's commitment to returning value to shareholders remains unwavering. In 2023, the Board approved dividends and interest on equity totaling R$ 6.99 per share, resulting in a noteworthy dividend yield of 7.9%. Furthermore, the Board approved the launching of the fourth share buyback program to repurchase up to 150 million shares over the next 18 months, underscoring our dedication to enhancing shareholder value. Since 2021, Vale has repurchased over 19% of its outstanding shares through four buyback programs, amounting to US$ 14.3 billion and 833.3 million shares.

Climate change

The Board will continue to support Vale's commitments to carbon emissions reduction targets aligned with the Paris Agreement, aiming for carbon neutrality by 2050. In 2023, Vale entered into strategic partnerships to assess and develop low-carbon fuels and low-carbon products and solutions for the steelmaking industry.

Regional Social and Economic Development

Adjusting Vale's strategic roadmap, we acknowledge the relevance of improving transparency and reinforcing our actions towards regional social and economic development, as an essential factor to promote sustainable mining. In that sense, our partnerships with governments and civil society organizations have gained greater support from Vale's leadership as vehicles to foster citizenship and economic growth in locations where we operate. Through such partnerships, in Brazil, since Brumadinho and notably during the pandemic, Vale has directly invested in public infrastructure and community projects, benefiting society with healthcare, education and cultural legacy.

ESG commitments

Pursuing ESG leadership, Vale dedicates efforts and attention to enhance its practices, ensure an ethical environment, deliver sustainable results and provide greater transparency on the way we operate. Adherent to that, Vale became an early adopter of the Taskforce on Nature-related Financial Disclosure (TNFD), promoting transparent communication with shareholders, communities, and society.

The year ahead

In 2024, given the expiration of the current's CEO mandate, the Board must decide whether eventual changes are required in Vale's executive leadership. That decision will be made within the appropriate timeframe and based on responsible discussions, prioritizing the skills and experiences needed to face Vale's challenges and opportunities in the next three years.

To ensure the strategy for the Vale of the future, the Board of Directors will continue to actively participate in the assessment of opportunities and risks arising from the plan execution, aiming to maximize value creation for all the Company's stakeholders.

The Board's focus is on ensuring that the necessary conditions are in place to build the Vale of the Future: a major company recognized by society for being a benchmark in safety, the best-in-class, reliable operator, a people-driven organization, a leader in sustainable mining and a reference in creating and sharing value.

On behalf of Vale's Board of Directors, I express our gratitude for your support and ensure our dedication towards forging the best Vale, with the highest ethical and operating standards.

Daniel André Stieler
Chairman of the Board of Directors

A message from our CEO

Dear Vale Shareholders,

2023 was a remarkable year for Vale, when our results clearly transpired the evolution of our safety-driven culture transformation and our VPS management model towards operational excellence. In general, our 2023 production surpassed expectations, with sound progress compared to 2022 – in iron ore fines, we exceeded our guidance for the year, with the highest monthly output since 2018, while in copper we had a 29%-increase, supported by a successful ramp-up of Salobo III.

This is the result of profound changes in Vale's way of operating over the past four years, enabled by the guidance of our Board of Directors, by our employee's commitment to operational excellence and by the effective management of our Executive Committee. Our shareholders, suppliers, communities, and other stakeholders also played a relevant role in supporting the construction of a safer and more sustainable Vale, the Vale of the Future.

Since 2019, we have thoroughly revised Vale's operations and processes, and we are now starting to reap the benefits of that work. Moving even further, we know Vale is uniquely positioned to seize once-in-a-lifetime opportunities, brought by a decarbonizing world, and we will capture them, creating and sharing value with all our stakeholders.

By fostering low-carbon solutions and staying capital disciplined, we will take Vale to a leading position in sustainable mining. We already have the levers to boost growth in this scenario.

Safety Journey

At Vale, life comes first. In 2023, we had zero fatalities in our Iron Ore Solutions business and reached a total recordable injury frequency rate (TRIFR) of 1.06, the lowest level since we started tracking this metric in 2008.

In dam safety, we reached full conformance with the Global Industry Standard on Tailings Management (GISTM) for all our prioritized structures and within the deadlines set by the industry. We already delivered 43% of our Upstream Dam Decharacterization Program and we are on track to have no dams at emergency level 3 by 2025. As evidence of our performance, the B3/B4 dam, which was at emergency level 3 in 2019, had over 90% of its tailings removed, being reclassified to a level 1 protocol, and having its elimination anticipated from 2027 to 2024.

Iron Ore Operational Stability

We are securing our 310-320 Mtpy production baseline, with actions aiming on asset reliability and on a dedicated approach to operating licenses. In 2023, for instance, our mean time between failure indicator1, a key maintenance metric, improved considerably, almost doubling the performance in the case of the S11D truckless system, a critical asset.

In addition, we started operations at the Torto Dam, a key milestone to ensure higher pellet feed availability to our Brucutu site. Improved asset reliability and a clearer process to support licensing should continue to lead to greater production predictability and higher adherence to the mining plan. We are working to increase the current ~90%- adherence to 95% until 2026.

[1] *The average time between two failures for a given asset.*

Iron Ore Growth and Quality

Vale's major competitive advantage relies on its potential to grow a high-quality solutions portfolio, expected to reach 340-360 Mt production by 2026, including 50-55 Mt of agglomerated products (100 Mt in 2030+) with low capital intensity. Therefore, we are targeting (i) the development of three key projects to leverage production and (ii) the development of Mega Hubs, concentration facilities and briquetting plants.

Our three key projects are ongoing: the Vargem Grande Complex expansion, which will add 15 Mt of production capacity with startup by 4Q24; the Capanema project, adding 15 Mt by 2H25; and the S11D expansion, adding 20 Mt by 2H26.

We are maturing our agreements with authorities in the United Arab Emirates, Saudi Arabia, and Oman and a partner in Brazil for joint assessments on the construction of Mega Hubs, with works for a first facility starting in 2027. We are jointly assessing the feasibility of developing green industrial hubs in Brazil and North America with H2 Green Steel, a Swedish partner.

We are also ramping-up the 1st briquette plant in our Tubarão Complex, with the 2nd plant expected to ramp-up in 1H24. Finally, our partnership with Anglo American in a world-class operation will bring synergies and make available high-quality feed for agglomerated products.

With growing volumes and a Cost Efficiency Program in place, our C1 cash cost is expected to offset inflationary effects in 2024 and remain at a competitive level and as one of the lowest in the industry.

Energy Transition Metals Transformation

In 2023, we successfully established Vale Base Metals (VBM), a new company with separate governance overseeing Vale's Energy Transition Metals business. Delivering on our commitments, we signed individual binding agreements with Manara Minerals and Engine No.1 to invest in VBM, through the acquisition of a 13%-stake in the business for US$ 3.4 billion, with an implied US$ 26 billion Enterprise Value. This strategic partnership will accelerate VBM's growth while ensuring greater operational efficiency in the short-term, starting by an asset review program to assess improvement opportunities.

ESG leadership

Leading in sustainable mining requires delivering on our reparation processes. In Brumadinho, 68% of the Full Reparation Settlement were already fulfilled, as per the agreed conditions. In 2023, that meant a cash outflow of R$ 6.6 billion. In fact, we expect to end 2026 with over 90% of obligations completed.

Regarding the Mariana reparation, the Renova Foundation compensated over 460,000 people and delivered over 85% of the expected housing solutions, with a total disbursement of R$ 34.8 billion since 2015. We continue to negotiate a definitive reparation settlement with Brazilian authorities.

We are striving to be a nature-positive company, uniquely positioned to leverage decarbonization efforts and foster resilient communities. Our advancements in ESG have resulted in consistent upgrades from prominent ESG rating providers. For instance, our Sustainalytics rating improved to 34.0 in 2024 from 54.5 in 2019.

Staying disciplined

Maintaining our discipline in capital allocation, we completed our Non-Core Asset Divestment Program, selling over 10 businesses in different countries since 2019. In 2023, we completed the sale of our 50%-stake of Companhia Siderúrgica do Pecém (CSP) and our 40%-stake in Mineração Rio do Norte S.A. (MRN).

Consistent with our commitment to return value to our shareholders, US$ 5.5 billion in dividends and interest on capital were paid in 2023 fiscal year while US$ 14.3 billion were allocated to share buyback programs since 2019.

We stand today as a significantly safer company with two distinct and irreplicable businesses – Iron Ore Solutions and Energy Transition Metals. As we conclude 2023, I reinforce our commitment to turn Vale into a reference in creating and sharing value with all our stakeholders.

Eduardo Bartolomeo
CEO

Executing our strategy

Promote sustainable mining

Benchmark in safety and dam management

- The lowest Total Recordable Injury Frequency Rate (TRIFR) since 2008 (1.06).
- 2,300 fewer employees exposed to occupational risks exceeding the Occupational Exposure Limit in 2023.
- 68% reduction in process safety events through preventive actions and critical controls integrity.
- Full conformance with the Global Industry Standard on Tailings Management (GISTM) for all our prioritized tailings storage facilities (TSFs) within the industry's deadlines (48 out of 50 TSFs). By August 2025, as per the industry's timeframe, the two remaining TSFs will be in conformance with the standard.
- 43%[1] completion of Vale's Upstream Dam De-Characterization Program since 2019, totaling 13 structures eliminated (in 2023, elimination of Dam 2 located in Itabira, Minas Gerais).
- 43% reduction of dams at emergency level since 2020[2] due to successful improvements in their safety conditions. In 2023, 3 structures had emergency levels removed.
- The B3/B4 upstream dam (in Nova Lima, Minas Gerais) had its emergency level reduced from 2 to 1 (level 3 in 2019), and its elimination was anticipated to 2024 (from 2027).

[1] *In terms of the number of facilities to be decommissioned.*
[2] *Peak year with 35 dams at emergency level.*

Regional social and economic development

- Aligned with the goal of support the lifting of 500,000 people out of extreme poverty by 2030, Vale began concept tests for 30,000 individuals in 2023, in different living areas.
- Partnership with the Pará State to foster inclusion, citizenship, and local development through the Pará Structuring Program, which allows mining companies to convert up to 50% of the Mining Resources Inspection Fees into structural investments. Some of the key initiatives:
  - Beginning of construction of an obstetric and pediatric hospital in the municipality of Marabá, expected to have 135 beds and an Intensive Care Unit by 2026. The hospital will provide public healthcare to pregnant women and children from 17 municipalities in the region. After works completion by Vale, the hospital's management will be under the responsibility of the State government.
  - Construction of Peace Plants ("Usina da Paz") has begun in Pará. This public policy initiative offers a multifunctional space for communities, providing sports, leisure, cultural activities, legal advice, education, professional training, and entrepreneurship support. Since 2019, Vale has built and delivered six Peace Plants to the Pará State, with over 90% of the construction workforce being local.
  - Beginning of construction of the Belém City Park, location intended to host the COP 30 in 2025. The project is considered the biggest urban intervention in Belém of the last 100 years. In addition, construction of the Future Port II, a revitalization of a port area to foster Belém's historical and cultural heritage, besides offering bioeconomy, leisure, culture, education and tourism spaces for the population.

Shared value and trust

- R$ 3.7 billion to social, environmental, and institutional initiatives in 2023, excluding reparation expenditures.
- Keeping our firm commitment to respect and promote human rights, 100% of Vale's operations in Brazil (including active, suspended, and those in de-characterization) concluded their first cycle of human rights due diligence (HRDD) by the end of 2023[1]. Vale Malasia also underwent HRDD, which covered its supply chain.
- 1,574 local communities covered with engagement actions by Vale, and 452 Local Community Relationship Plans implemented by the Company, 85% of them in Brazil, fostering our relationship with communities close to operations. Additionally, 88% of the 177 prioritized communities in Brazil were covered by Relationship Plans.
- 9,911 community complaints and requests recorded by our Grievance Mechanism, 99.5% of them answered, and 83.5% attended. Of this total, 50% were related to accesses, highways, and roads, dust, weeding/pruning, crossing/mobility, and noise.
- 68% completion of the Brumadinho Full Reparation Settlement, in accordance with the settlement conditions.
- R$ 34.8 billion spent in Renova Foundation's 42 reparation programs; +460,000 affected people indemnified; +85% of housing solutions delivered.

People-driven culture

- 24.4% female workforce by the end of 2023, with a total of 16,268 direct female employees, an 85%-increase compared to our 2019 baseline[1].
- 24.4% female senior management, an 88%-increased compared to our 2019 baseline.
- 34.9% of self-declared black leadership, an 88% increase compared to our 2021 baseline[3].
- 5.5% of employees are people with disabilities in Brazil in 2023, exceeding the legal quota.
- 76%- participation in our 1st employee engagement survey with an overall favorability of 82% on the perception in the daily routine of key behaviors, such as Open and Transparent Dialogue. We will continue our cultural transformation journey with focus and intentionality on actions able to leverage our key behaviors.
- 96% of our direct employees had undergone on-line training in Human Rights by the end of 2023, which is mandatory. We also have a specific Human Rights training video required in the onboarding process of our contractors, who are committed to respect our Human Rights Policy.

[1] Executed by independent third party based on the United Nations Guiding Principles on Business and Human Rights.
[2] When we set our targets to double the stake of female workforce and female leadership until 2025.
[3] Our target is to achieve 40% by 2026, from a 28.9% baseline in 2021.

Nature-positive

- +177,000 hectares protected/recovered since 2020, a key step in meeting our voluntary commitment of +500,000 hectares protected/recovered beyond our fence line by 2030.
- Updated water goal for 2030 – reduce 7% of freshwater intake by 2030 on average. This will lead to a cumulative reduction of 27% compared to the 2017 baseline.
- 766 Megawatts of maximum capacity reached by the Sol do Cerrado complex, in Minas Gerais, one of the largest solar parks in Latin America. This will supply 16% of the power required by our operations in Brazil and contribute to the company's target to reduce 33% of our scope 1 and 2 emissions by 2030.
- Early adoption of the TNFD[1], an initiative that aims to establish guidelines for companies to incorporate considerations related to biodiversity and natural capital risks into their financial reports.

Foster low-carbon solutions

Iron Ore Solutions

- Advancing towards stabilizing our 310-320 Mt production baseline and increasing our production to 340-360 Mt by 2026 through the implementation of our three main projects: Vargem Grande, Capanema, and S11D +20 Mt.
- Torto dam commissioning (Brucutu site), in July 2023. The dam and the site's tailings filtration plant together ensure increase in pellet feed availability and average iron ore quality, optimizing product mix and enabling quality premiums.
- Start-up of the 1st briquette plant in Tubarão, in November 2023, with a 2nd plant start-up expected to 1H24, with a joint capacity of 6Mtpy, The briquettes will contribute to reducing greenhouse gas emissions in the steel industry.

Energy Transition Metals

- Creation of Vale Base Metals ("VBM"), holding company for Vale's Energy Transition Metals business, set to thrive with dedicated governance and leadership.
- US$ 26 billion Enterprise Value implied for VBM after two binding, individual investment agreements in July, with Manara Minerals and Engine No. 1, jointly valued at US$ 3.4 billion, for a total equity stake of 13%[2].
- Heads of Agreement to meet the divestment obligation of PT Vale Indonesia Tbk (PTVI)[3]. Upon completion, Vale Canada Limited will hold 33.9% of PTVI issued shares (from actual 44.3%-stake), supporting PTVI's mining license renewal beyond 2025.
- Salobo III successful throughput test in November, with +32 Mtpy on average over a 90-day period for the Salobo complex, with full capacity of 36 Mtpy expected by 4Q24.
- Groundbreak of the Morowali project, an integrated nickel mining and processing plant (RKEF[4]) powered by natural gas, with expected nickel production capacity of 73 ktpy and start-up in 2025. A joint-venture between PTVI, which will own 100% of the mine, and two Chinese partners, holders of a 51%-stake in the RKEF.

[1] Taskforce on Nature-related Financial Disclosure (TNFD).
[2] Closing expected to 1Q24, subject to customary closing conditons.
[3] Signed between Vale Canada Limited, PT Mineral Industri Indonesia and Sumitomo Metal Mining Co., Ltd.
[4] RKEF stands for Rotary kiln electric furnace.

Customer centricity

- In Iron Ore Solutions, we signed MoUs[1], letters of intent and agreements to assess and develop concentration facilities and Mega Hubs and/or supply green industrial hubs. Parties in such initiatives include:
  - Authorities and partners in the United Arab Emirates, Saudi Arabia, and Oman. Our agreements aim to advance studies for the development of industrial complexes, Mega Hubs, to produce low-carbon emission products for the steel industry.
  - Essar, to supply 4 Mtpy of iron ore agglomerates to Green Steel Arabia, sourced from Mega Hubs in Saudi Arabia (briquettes), Oman and/or Brazil (pellets).
  - Port of Açu, to jointly study the development of a Mega Hub in Rio de Janeiro (São João da Barra), to produce HBI[2] through the direct reduction route.
  - H2 Green Steel, a Swedish industrial startup, to jointly assess the feasibility of developing green industrial hubs in Brazil and North America. These hubs will focus on the production of low-carbon products.
  - GravitHy, a French DRI producer, for a joint assessment of the construction of a co-located briquette plant at GravitHy's plant project in Fos-sur-Mer, France. Start-up expected by 2027 with a DRI[3] production capacity of 2 Mtpy.
- In Energy Transition Metals, PTVI and the Chinese company Zhejiang Huayou Cobalt Co. signed a definitive agreement with the global automaker Ford Motor Co. for the development of the Pomalaa project in Indonesia. This tripartite collaboration enables progress toward more sustainable nickel production in Indonesia and contributes to making electric vehicle batteries more affordable.

[1] MoUs stands for Memoranda of Understanding.
[2] HBI stands for Hot Briquetted Iron.
[3] DRI stands for direct reduction iron.

Technology innovation

- Cooperation agreement with Baoshan Iron & Steel Co., a subsidiary of China Baowu Steel Group, for the development and application of biocoal in the steel industry.
- First production of a commercially viable pellet without the use of anthracite coal, on an industrial scale. In a test conducted in Vargem Grande, Minas Gerais, Biocarbon replaced 100% of fossil fuel used in the pellet-burning regular process.

Circular mining

- Creation of the Agera company to develop and expand our sustainable sand business. Agera will market and distribute sand produced by processing tailings from Vale's iron ore operations in Minas Gerais, besides investing in R&D of new tailings solutions.
- Long-term agreement between VBM and BluestOne in October 2023, targeting waste reuse and circular mining in Brazil, which includes the purchase of 50 ktpy of slag from the Onça Puma operations in Pará for the next 10 years, for the production of low-carbon emission fertilizers.

Stay disciplined

Reliable operations and consistent delivery

- Operational excellence is paramount to unlock value and support growth. With discipline and efficient management, we have built more reliable operations and stable deliveries.
- In Iron Ore, we are securing the 310-320 Mtpy production baseline to ensure a platform for growing to a production level between 340-360 Mt by 2026. The 2023 production at 321 Mt is evidence of increased operational reliability. In December, we delivered the highest monthly output since 2018.
- Our management model, the VPS, with clear standards and processes for higher safety and reliability, had average maturity increased throughout Vale, from 2.57 to 2.70[1] (3.00 target). 100% of operational areas are at a maturity level ≥ 2.00, 36% of all areas are at a maturity level ≥ 3.00.
- Since 2019, we built 16 asset monitoring centers for mine-plant and logistics operations, with over 290,000 monitoring points to support failure risks early identification and treatment.
- In 2023, the corrective maintenance ratio dropped 28% compared to 2022. The mean time between failures (MTBF), a crucial maintenance metric (the higher, the better) was the highest in many years in Iron Ore Solutions. For the S11D truckless system, a critical asset, the MTBF increased 99% since 2020.
- Tailored solutions to improve efficiency in critical sites have led to increasing utilization rates. In Brucutu mine, autonomous trucks implementation led to an asset utilization rate 27% higher than the conventional fleet.

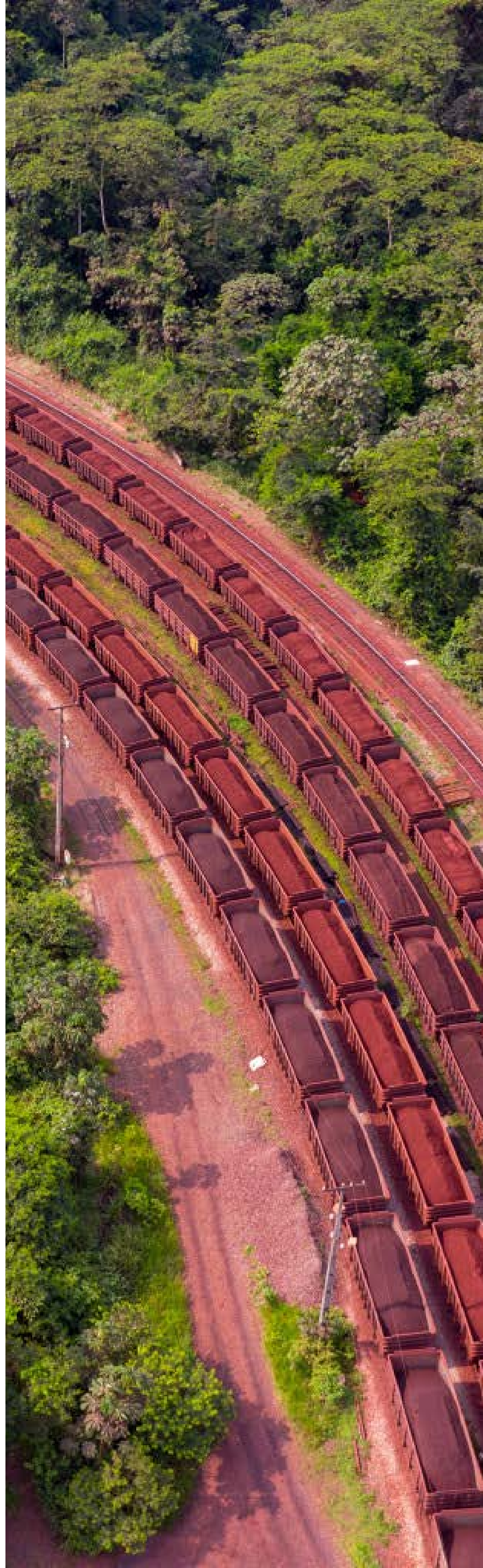
[1] Scores based on self-assessment.
[2] Using share price on December 31st, 2019, based on dividends paid from 2020 to 2023.
[3] Dividends and interest on capital.
[4] Considering earnings distributed per share (R$ 6.99), divided by the closing share price (R$ 88.88) on 12/30/2022 (excluding dividends paid in 2023). The starting share value considered was defined within the period related to the dividend (year 2023) for a better yield measurement in the referred period.Dividends for the second half of 2023 will be distributed in March 2024.

Attractive cash returns for investors

- Between 2020-2023, accumulated dividend yield of 43%[2] and US$ 28 billion in earnings distribution[3]. In 2023, dividends totaling R$ 6.99 per share, a dividend yield of 7.9%[4].
- ~19% of share base repurchased since 2021 (833.3 million shares), through 4 buyback programs totaling US$ 14.3 billion. Buyback programs concentrate future earnings and dividends for long-term shareholders. A 4th share buyback program is ongoing since October 2023 to repurchase up to 150 million shares until April 2025.

Strong balance sheet

- Free Cash Flow from Operations of US$ 2.5 billion in Q4, representing an EBITDA to cash-conversion of 37%.
- Proforma adjusted EBITDA from continued operations of US$ 19 billion in 2023, down 9% mainly due to lower average iron ore, copper, and nickel reference prices in the year.
- Expanded net debt of US$ 16.2 billion, US$ 2.0 billion higher y/y, driven by the incremental provisions related to the Renova Foundation and a potential global agreement framework. Vale´s expanded net debt target continues to be US$ 10-20 billion.
- Expenditure on key commitments (reparation processes and dam decharacterization) expected to decline from 2026 onwards.
- Conclusion of Vale's divestment program, with the sale of more than 10 non-core assets in different countries since 2019. Vale eliminated expenditures of up to US$ 2 billion per year while simplifying and de-risking its business. In 2023, Vale sold its 50%-stake of Companhia Siderúrgica do Pecém (CSP) and its 40%-stake of Mineração Rio do Norte S.A. (MRN), including all associated obligations and rights.



Cost and CAPEX efficiency

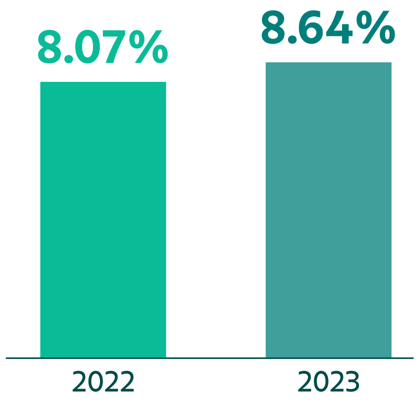
- Iron ore C1 cash cost[1] decreased 5% q/q in Q4, reaching US$ 20.8/t, for an average of US$ 22.3/t in 2023, in line with our 2023 guidance. All-in costs in iron ore reached US$ 54.8/t, below our guidance.
- Nickel all-in costs at US$ 16,854/t meant an increase of US$ 654/t compared to the guidance, mainly due to higher 3rd party ore consumption at Voisey's Bay, as a result of delays in the VBME project.
- Copper all-in costs at US$ 3,437/t remained in line with our guidance for the year, supported by higher fixed cost dilution, driven by increments in production.
- R$ 29.4 billion invested in 2023, including sustaining and growth expenditures, in line with guidance. Projects under development are in line with planned schedule.
- 2024 Capex expected at ~US$ 6.5 billion (~US$ 4-4.5 billion in sustaining capex).
- 2024-2026 approved projects are accretive[2] with potential to add ~US$ 4 billion in EBITDA[3].
- Cost Efficiency Program: 2023 fixed spending in Iron Ore Solutions at US$ 6.3 billion, in line with the previous year, offsetting inflationary effects by accelerating cost savings, optimizing purchase specifications, and increasing overhead efficiency.

[1] Ex-3rd party purchase.
[2] In Iron Ore Solutions, Serra Sul (+20Mtpy and new compact crushing), Capanema, Vargem Grande, Briquettes Tubarão and N3 projects, combined, have a weighted average internal return rate of 30+%. In Energy Transition Metals, Onça Puma 2nd furnace, VBME, Bahodopi and Pomalaa projects have a weighted average internal return rate of 15+%.
[3] Based on operations after full ramp-up and assuming market average long-term commodity prices.

Our workforce

We believe the success of our business is only sustainable when everyone thrives. Promoting a safe and healthy environment, enhancing diversity, equity, inclusion, and providing competitive compensation are integral to our organizational culture. We have regularly organized a wide range of engagement initiatives to strengthen our culture, from the technical and operational to the executive leadership level. In 2023, our workforce consisted of 66,807 direct employees and 167,759 contractors.

Turnover rate



By business unit

	Direct		Third-party employees	
Number of employees	**2023**	**2022**	**2023**	**2022**
Iron Ore Solutions	43,090	41,816	78,930	59,373
Energy Transition Metals	15,606	13,318	25,506	18,901
Corporate	8,111	9,382	63,323	72,557
Total	**66,807**	**64,516**	**167,759**	**150,831**

By geography

	Direct		Third-party employees	
Number of employees	**2023**	**2022**	**2023**	**2022**
Brazil	55,247	53,341	152,977	136,467
South America (ex-Brazil)	41	41	–	173
North America	6,813	6,565	1,946	4,633
Europe	277	270	179	194
Asia	4,416	4,287	12,656	9,358
Oceania	13	12	1	6
Africa	–	–	–	–
Total	**66,807**	**64,516**	**167,759**	**150,831**

Cultural transformation

The Cultural Transformation Journey

Since the dam collapse in Brumadinho, we have undergone a profound reflection and started a reconstruction process, transforming our culture towards the Vale of the Future. In that sense, we conducted the 1st Global Cultural Diagnosis, that deepened our understanding of the existing culture. Based on the results, we began a cultural activation process, fostering awareness and alignment at all levels of leadership within Vale. Alongside senior leadership, we defined our Purpose and created our Cultural Narrative as a guide for the desired culture. Since then, we have been implementing a series of development actions and campaigns in pursuit of the Vale that aspire to be, experiencing cultural transformation in practice.

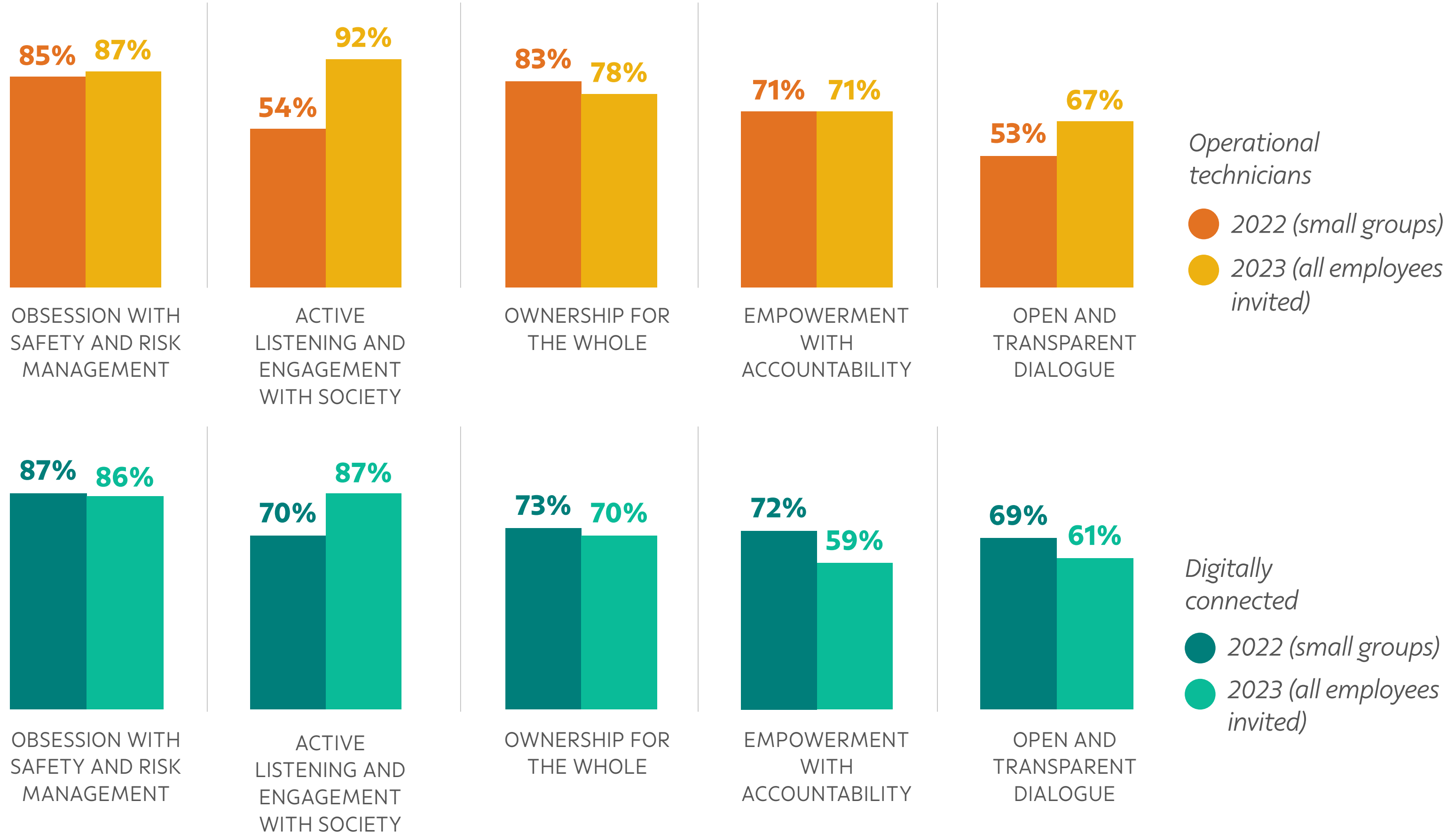
Employee Engagement

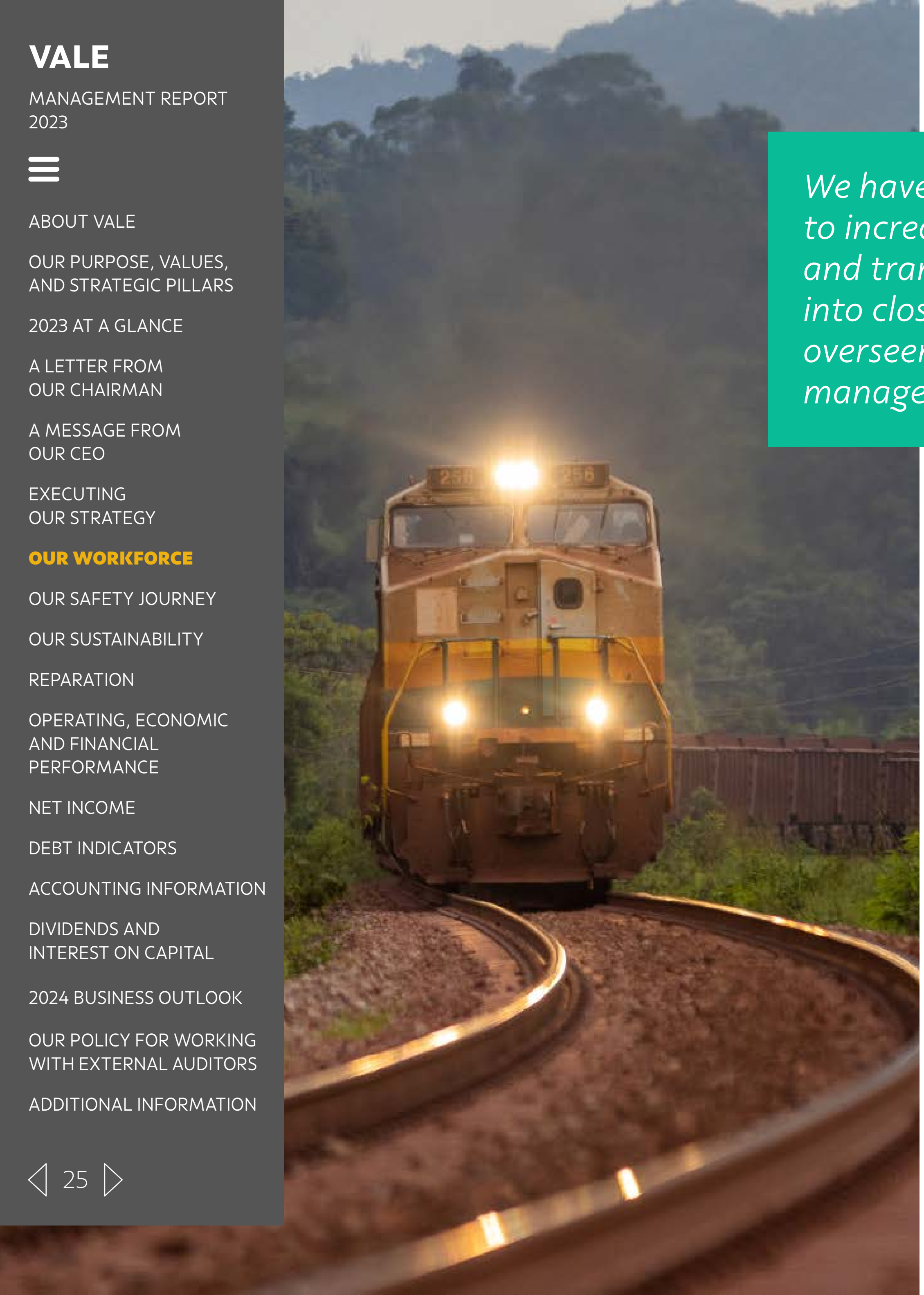
We believe that measuring and nurturing engagement is crucial to encourage behaviors aligned with our culture, provide a healthy and safe work environment, adhere to organizational practices that foster greater employee connection, and manage people in a humane way, encouraging continuous learning. We measure engagement through employees' perceptions on questions related to 5 pillars: culture, leadership, career, well-being, and belonging.

In 2023, for the first time since the beginning of the cultural transformation journey, Vale conducted a unique engagement survey with all its employees. We achieved a record participation rate of 76% with involvement from the operational areas and digitally connected employees and an overall favorability of 82%, with notable growth in the leadership and career pillars. The 2023 results contrast to the 2022 perception is largely influenced by the increased number of respondents in the past year, reflecting a more accurate picture of the workforce sentiment towards key behaviors in the workplace, encouraging us to continue the culture journey with focus and intentionality on actions that can leverage the practice of key behaviors such as Open and Transparent Dialogue and Empowerment with Commitment.

We have implemented several actions in response to engagement measurement results, including leadership development programs, revision of the VPS scale – Culture and Engagement element, communication campaigns targeting our operations, and sharing/learning real transformation stories voluntarily shared by Vale employees.

2023 engagement survey – perception of key behaviors in the workplace (%)





We have made public commitments to increase our workforce diversity and translated these commitments into closely monitored indicators overseen by our senior management.

Diversity, Equity, and Inclusion

Diversity, Equity, and Inclusion are a fundamental lever in our cultural transformation process. We are focusing our efforts on creating more diverse and inclusive work environments that reflect the full spectrum of diversity present in society. As a result, we have made public commitments to increase our workforce diversity and translated these commitments into closely monitored indicators overseen by our senior management.

The first commitment was to double the female share in our workforce and in senior management, from 13% in 2019 to 26% by 2025. In 2023, we achieved 24.4% female employees and 24.4% female senior management (executive manager level and above).

We are also actively working to increase ethnic-racial diversity at Vale, focusing on the asymmetry of opportunities for Black individuals in leadership positions (coordinators and above) in Brazil. Our commitment is to have at least 40% of self-declared Black leaders by 2026[1]. In 2023, 34.9% of the leaders were Black professionals, an increase of 2.8% from the previous year.

We are also actively committed to the inclusion of people with disabilities. In 2023, we exceeded the Brazilian legal quota of 5% of professionals with disabilities in our company, who now represent 5.5% of our employees in Brazil, in various roles. We focus on accessibility, mapping, and tackling the main barriers to productive inclusion and promoting an equitable work experience, with a focus on career development.

In the 2023 cycle, we invested in actions that accelerate the construction of a more diverse, equitable, and inclusive company, such as literacy initiatives, career development for marginalized groups, affirmative recruitment, and efforts against harassment, prejudice, and discrimination.

[1] *Considering a 2021 baseline of 29%.*

24.4%
of Vale's employees are women

24.4%
of Vale's senior managers are women

34.9%
of Vale's leaders are Black professionals

Our safety journey

At Vale, life comes first. We are obsessed with safety and risk management, we work every day to ensure a safe Vale for our employees and communities. Since 2019, we have completely revised our health & safety practices and we continue transforming our culture and improving the way we operate to become a benchmark in safety and dam management.

Occupational and health safety

We continue to pursue our 2025 health & safety goals[1]:

i. No recordable high-potential injuries resulting from absences, restrictions, and medical treatments (N2).

ii. 50% reduction in exposures to major health risk factors[2].

iii. Elimination of all risk scenarios classified as "very high" for Health, Safety, Environment and Communities.

As part of Vale's commitment to life, various monitoring activities are conducted for injury prevention. Our critical monitoring indicators are:

[1] Our long-term safety goals were set in 2019.
[2] We work to eliminate scenarios involving health risks in which employees are exposed to risk agents that are above the global Occupational Exposure Limit (OEL). We prioritize scenarios involving the main health risks existing in our process that may cause injuries and chronic diseases, which are: noise, trichloroethylene, cobalt, cooper, nickel, manganese, diesel particulares and crystalline silica.

N1 and N2 records (fatalities, lives changed and high-potential recordable injuries)

2019: 58 — -64% — 2023: 21

Occupational Exposure Limit[1] (in thousand)

2019: 23 — -53% — 2023: 10.7

2

TRIFR (Total Recordable Injury Frequency Rate)[3]

2019: 2.69 — -61% — 2023: 1.06

[1] Sum of the number of exposures above the OEL that occurred at Vale during the year.
[2] TRIFR = (Occupational injuries / Hours worked) * 1,000,000 for both direct and outsourced employees.

Dam management

Since 2019, we have completely revised and enhanced our tailings and dam management. We intend to become a zero-fatality company by improving safety and dam management, through standards and processes for health, safety, environment and operational risks, prioritizing risk-reduction technology, improving controls and fostering innovation.

We are committed to eliminating all our upstream dams. 13 of them have been de-characterized already.

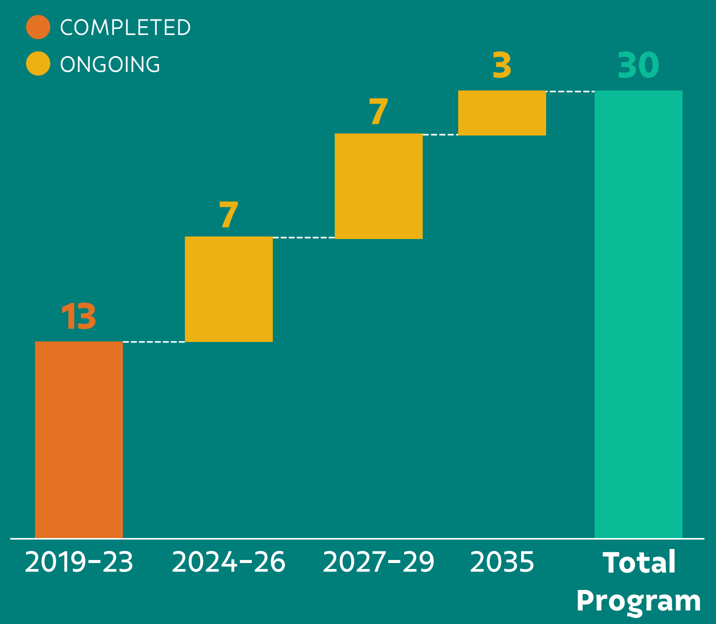
Upstream Dam Decharacterization Program
One of our key initiatives is the de-characterization of all our upstream structures in Brazil, including dams, dikes, and drained piles. Our Upstream Dam De-characterization Program originally comprises 30 geotechnical structures, with 13 of them already eliminated between 2019 and 2023, meaning a 43% program completion. In 2023, we decomissioned Dike 2, within the Pontal System in Itabira (Minas Gerais state).

The remaining 17 upstream structures have project timelines and stages publicly disclosed, with a forecast of 90% of structures eliminated by 2029 and the 3 most complex structures de-characterized by 2035. This program had a total expenditure of R$ 8.1 billion between 2019 and 2023 and the program's balance of provision in 2023 totaled R$ 16.7 billion.

The de-characterization process is important for long-term risk reduction, but the works required for the de-characterization process may impact the geotechnical stability of certain upstream tailings facilities, increasing the risk of collapse of these structures especially during the first phases of this process. To mitigate risks, we have evacuated the downstream zones of the critical dams and built appropriate physical barriers (back-up dams) to contain the tailings in case of failure. To mitigate the risk of life losses, we are performing works in critical dams (at emergency level 3) with remotely operated equipment and the design is being reviewed with proper redundancy levels.

Since 2019, the B3/B4 Dam, for example, was reclassified from the most critical safety condition to the lowest (emergency level 3 to 1), due to the dam de-characterization progress, with the removal of more than 90% of the tailings.

Upstream Dam Decharacterization Program
Progress per structure as of January 2024



No dam at emergency level 3 by 2025

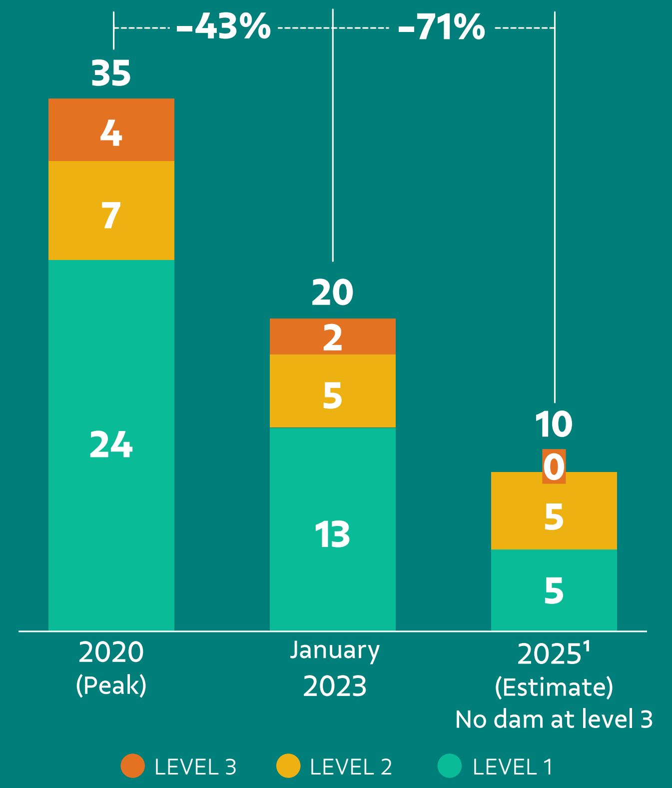
We have been closely monitoring our active and inactive dams. As of December 2023, the Engineer of Records[1] have kept positive DCEs for 79 structures, 81% of a total of 97 structures[2] currently covered by the Brazilian federal framework. The remaining 18 structures were issued a negative DCE, meaning that further assessments and/ or corrective measures are required to improve safety conditions in addition to the adoption of emergency actions as per the PAEBM.

Vale's target is having no dam at emergency level 3 by the end of 2025 – the company currently has 2 in its dam portfolio. Since 2020, safety conditions were duly achieved for 15 geotechnical structures in Brazil. Currently, we have 20 structures at a certain emergency level, compared to a peak of 35 structures in 2020.

We are working to upgrade safety conditions of the remaining 20 structures at emergency level, including, in some cases, improving the spillway discharge capacity, the geotechnical knowledge of the structure and its foundation, and de-characterizing critical dams.

[1] *Under applicable Brazilian federal regulations, we must submit to authorities a Stability Condition Statement (DCE) from an independent expert for each of our mining dams on a semi-annual basis. Going beyond this requirement, Vale implemented the role of the Engineer of Record (EoR), responsible for issuing DCEs as part of the Dam Safety Inspection within a continuous monitoring process.*
[2] *72 structures in the Iron Ore Solutions operations and 7 in the Energy Transition Metals business.*
[3] *The Torto Dam had construction works recently completed and the Dique de Pedra, a small temporary structure, which would be incorporated into the reservoir of another facility, came to be considered an independent TSF after the impossibility of raising the main structure. Both cases happened after the GISTM came into effect.*

Dams at emergency level
Classification as per the Brazilian regulation



[1] Updated in January, 2024.

Global Industry Standard for Tailings Management (GISTM)

The GISTM, jointly published in August 2020 by the International Council on Mining and Metals (ICMM), the United Nations Environment Program (UNEP) and the Principles for Responsible Investment (PRI), together with the Conformance Protocols (published by ICMM in May 2021) presents the best practices for the management of Tailings Storage Facilities (TSFs) and requires mining companies to make an even greater commitment to the technical operation and governance of their activities.

With the goal of reducing risks and achieving greater operational safety in the management of mine tailings storage systems, GISTM's main objective is zero harm to people and the environment, establishing a global benchmark to achieve the best standard of socio-environmental and technical management, and prioritizing the safety of TSFs throughout all phases of their lifecycle, including planning, design, operation, and post-closure.

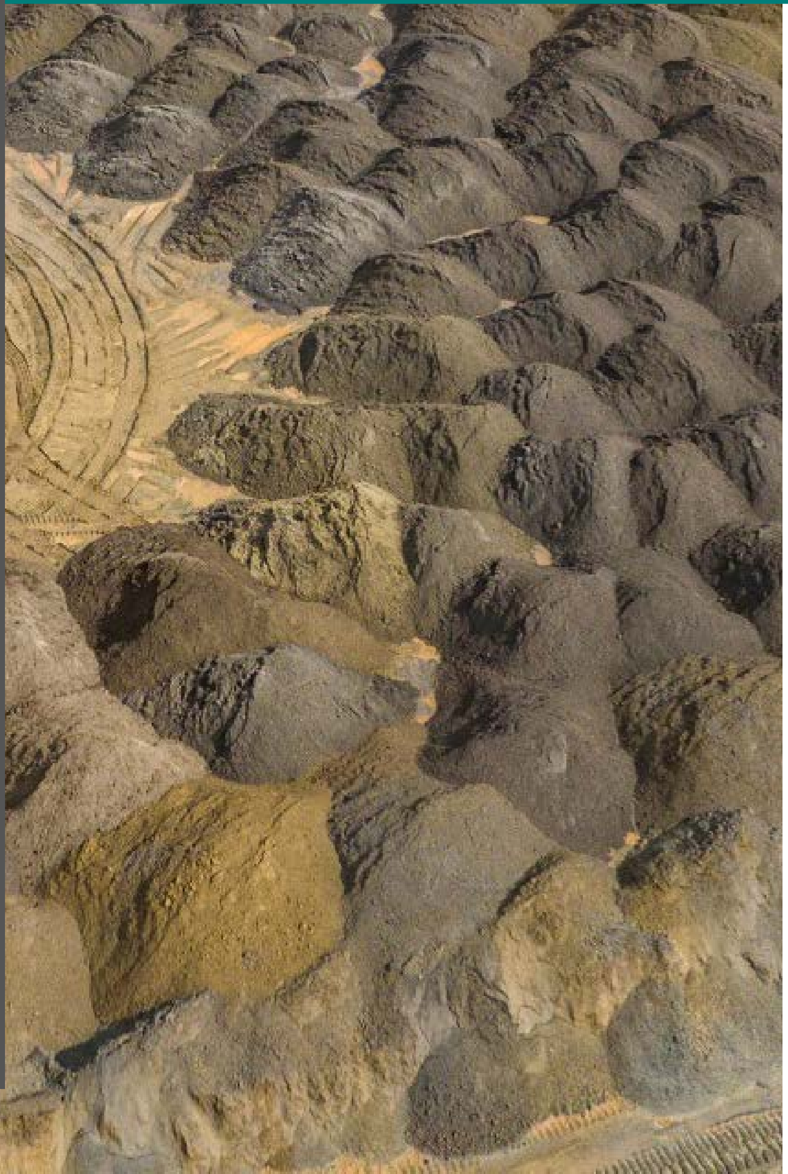
In January 2021, Vale publicly committed to implementing GISTM for all TSFs with a consequence rating of "Extreme" and "Very High" by August 5, 2023; all other structures not in a safe closure state would be in compliance with the Standard by August 5, 2025. Vale's portfolio is comprised of 50 TSFs, 42 of which with an "Extreme" or "Very High" consequence rating.

In August 2023, we delivered on our commitment by implementing the GISTM in 48 TSFs (the 42 targeted structures added by other 6 structures with lower assessments). The 2 remaining TSFs out of the 50 total, the Torto Dam and the Dique de Pedra, will follow GISTM requirements by August 2025[3]. For further information on Vale's conformance with the GISTM, please find the executive summary here.

Alternatives to tailings dams

An important precautionary measure is the reduction of reliance on tailings dams in our production processes. We have been developing alternatives to tailings dams, including four plants already operating to allow us to work on certain mines and plants without using tailings dams. In addition, in 2019 we acquired New Steel, bringing in innovative technologies for the dry beneficiation of iron ore, and approved an investment of US$ 125 million in the world's first industrial-scale dry magnetic fines concentration plant to produce 1.5 Mtpy in Vargem Grande Complex, with start-up expected by 2025.

Our sustainability



Our journey towards leadership in ESG (Environmental, Social and Governance) is focused on advancing the best available initiatives and technologies to minimize negative impacts and enhance positive outcomes for nature and people. Recognizing that our operations are dependent on nature and have a significant impact on it, we have established long-term commitments aligned with the UN's 2030 Sustainable Development Goals and have fostered engagement with our stakeholders to support the continued development and sustainability of our business.

As our operations are dependent on nature and have a significant impact on it, we have established long-term commitments aligned with the UN's 2030 Sustainable Development Goals.

Nature

Through a collaborative process involving internal and external stakeholders, we have set six goals, with biodiversity as a cross-cutting theme:

1. Make nature an essential aspect of our governance, management and decision-making.
2. Strengthen biodiversity management in our processes and value chain, assessing impacts, dependencies, risks, and opportunities.
3. Leave a positive legacy through restoration and conservation, strengthening partnerships with civil society organizations, traditional communities, and indigenous peoples.
4. Invest in innovation, co-production and sharing of technical and scientific knowledge, including and valuing traditional knowledge.
5. Disseminate knowledge, initiatives and results as a source of dialogue and engagement with different stakeholders.
6. Influence transformational external agendas that contribute to nature-positive outcomes (advocacy).

We recognize that our operations significantly impact land use, vegetation composition, and watercourses. Consequently, we have committed to voluntary targets and goals related to water and forests, to be achieved by 2030:

Our forest goal is to voluntarily restore and protect an additional 500,000 hectares of forests beyond our border by 2030: restore 100,000 hectares through production arrangements and social and and business with positive social and environmental impacts, while protecting 400,000 hectares through partnerships.

As result, by 2023, we have 165,000 hectares protected in collaboration with conservation units and a REDD+ project[1]. Additionally, we support businesses that implemented regenerative production models in an area exceeding 12,600 hectares, summing up to more than 177,000 hectares protected and restored since 2020.

In 2023, we updated our water goal for 2030, considering all the hydrographic basins in which we operate, and established specific targets for each of our pillars in Water Resources and Effluents Management: Governance, Monitoring and Control, Engagement, and Water Risks. In addition to the new specific water use reduction target of 10% already achieved in 2021, we will focus our efforts to achieve an additional 7% on average reduction in our specific usage of new water by 2030, with more aggressive targets for units located in regions classified as "high" or "critical" water stress levels. This goal update will lead to a 27% reduction in cumulative usage, considering the 2017 baseline.

[1] *REDD+ Project is is a mechanism that financially rewards companies and countries that maintain carbon stocks through sustainable forest management or reduce greenhouse gas emissions from deforestation and forest degradation.*

This additional target was approved by the Board of Directors in 2023, following an assessment of water stress in the watersheds hosting our operations. This assessment was performed using a methodology developed by the Food and Agriculture Organization (FAO).

We actively participate in Water Resources Technical Groups that discuss and define guidelines for responsible water resource and effluent management in mining. This involvement extends to committees within the International Council on Mining and Metals (ICMM), the Brazilian Mining Institute (IBRAM), and engagement in 7 watershed committees in Brazil.

Additionally, as announced in Davos in January 2024, we have become early adopters of the Taskforce on Nature-related Financial Disclosure (TNFD), an initiative aimed at establishing guidelines for companies to incorporate considerations related to biodiversity and natural capital risks in their financial reports.

Social

We want to be partners in the development of the communities and regions where we operate. Our corporate social responsibility framework guides our programs based on the principles of respect for human rights, stakeholder engagement and community development. We have decided that our approach to corporate social responsibility will be guided by three commitments:

Help lift 500,000 people out of extreme poverty by 2030.

Since announcing the goal, Vale organized an extensive process of research and investigation involving various professionals and institutions. This process, in 2022, resulted in the development and systematization of an adaptive methodology that will be continuously enhanced until 2030, always grounded in dialogue with stakeholders and practical experience. In 2023, Vale began to implement the designed concept tests establishing partnerships and structuring support processes for the goal. Approximately 30,000 people are currently benefiting from the ongoing initiative.

Support all indigenous communities neighboring our operations in developing and implementing plans to secure the rights outlined in the United Nations Declaration on the Rights of Indigenous Peoples by 2030.

In 2023, two new Indigenous Peoples neighboring Vale's operations in Brazil entered into agreements for the development of their Consultation Protocols or Territorial and Environmental Management Plans or Life Plans: the Ka'apor and Guajajara from the Caru Indigenous Land in Maranhão. The development of the Consultation Protocol with the Kayapó People in Pará is currently underway.

Additionally, a new Cooperation and Commitment Agreement was signed with the Krenak People in Minas Gerais to support initiatives focusing on ethnodevelopment and education, extending beyond agreements with another 10 Peoples currently in effect in Brazil.

Be listed in a top-3 position for social performance in major external assessments by 2030.

In 2023, we continued to make progress on key external ESG assessments, in line with our commitment to align our operations with the best environmental, social and governance practices demanded by the market and society. Beyond our commitments, in 2023, we expanded our social engagement by implementing various initiatives, including:

- We engaged with 1,574 local communities in the countries where we operate. During this period, a total of 452 Local Community Relationship Plans were implemented, with 385 in Brazil alone. Additionally, 88% of the 177 communities identified as priorities for engagement in Brazil were covered by Relationship Plans. Vale is committed to addressing 100% of priority communities with plans by 2026.

- With the consolidated results of the inaugural Community Perception Survey across Brazil conducted in 2022[1], we deepened our understanding of trust levels and expectations in neighboring communities. Among the survey findings, 81% of respondents agreed that Vale is a trustworthy company. The next steps involve developing social strategies related to the most impactful and relevant themes.

- 105 accidents involving community members were recorded, resulting in 11 fatalities - a 31% decrease compared to 2022—and 115 non-fatal injuries. There was an overall increase of 18% from 2022 to 2023, considering both fatal and non-fatal injuries involving community members. Possible reasons for this increase may include improved incident reporting and the company's heightened maturity in registering and investigating events. Vale is committed to reducing community member-involved accidents by 40% by 2027.

- Regarding grievance mechanism, 9,911 community complaints and requests were registered, with 99.5% answered, and 83.5% granted. Of this total, 50% were related to accesses, highways, and roads, dust, weeding/pruning, crossing/mobility, and noise.

- Concerning community perceptions of the risks associated with the safety of our dams, we maintain an ongoing dialogue and undertake various prevention actions. Among the actions taken, highlights include:

  - 19 municipalities involved in initiatives for Emergency Action Plans for Mining Dams (PAEBM); 15 external simulated exercises involving community participation; 27 informative seminars/public meetings held with communities; 116,000 individuals registered in emergency plans; and 20,000 buildings visited to invite the population to participate in seminars, public meetings, and other actions related to dam safety.

And in 2023, there were R$ 3.7 billion[2] in social, environmental and institutional expenditures[3], of which:

- R$2 billion dedicated to social and institutional initiatives[4], 52% of them related to voluntary investments and the management of institutional relationships and operational impacts (R$ 1,014 million); 28% to compliance (R$ 571 million) and 23% to investments from Incentivized Resources[5] (R$ 474 million); and

- R$ 1.7 billion[2] dedicated to environmental initiatives, taking into account Vale's internal expenditures.

[1] The survey interviewed a total of 5,105 individuals in five Brazilian states (ES, RJ, MG, MA, PA), encompassing 44 municipalities and 163 communities.
[2] Estimated value in Reais, for the part outside Brazil we used the monthly exchange rate, average BRL/USD 4.99 for 2023.
[3] Amount does not include expenditures related to Brumadinho.
[4] Amount includes expenses for humanitarian aid (Covid-19 and Emergency Rains).
[5] Amount includes expenditures for Incentive Laws and the Pará Structure Program.

Climate change

Climate change is a globally urgent challenge. In this context, we acknowledge the role of mining and are developing solutions to reduce our greenhouse gas emissions (GHG) for the transition to a low-carbon economy.

This encompasses initiatives aimed at increasing the adoption of alternative energy sources and decreasing reliance on fossil fuels in our operations (Scopes 1 and 2). Additionally, we seek to collaborate with our suppliers and customers to reduce emissions in Scope 3, which represent 98% of the total. Our climate goals include:

Reduce absolute scope 1 and 2 emissions by 33% by 2030 (from a 2017 baseline).

Achieve 100% renewable electricity consumption in Brazil by 2025 and globally by 2030.

Achieve net zero Scope 1 and 2 emissions by 2050.

Reduce net scope 3 emissions by 15% by 2035 (from a 2018 baseline).

Improve global energy efficiency performance by 5% by 2030.

Learn more about our decarbonization strategy here.

To achieve these goals, we rely on our strategic differentiators, such as:

A high-quality portfolio: 1) provide approximately 100 million tons of agglomerated products in the coming years, with lower fossil fuel consumption, particle emissions, and water usage in production; 2) address the growing demand for critical minerals essential for the global energy transition.

Renewable energy: in 2023, we announced the achievement of Brazil's 100% renewable electricity goal[1].

Low-carbon products: The carbon footprint of nickel produced by Vale at the Long Harbour refinery in Canada is 4.4 tons of CO_2 equivalent per ton of nickel. This is about one-third of the Nickel Institute's average for Class 1 nickel, which is 13 tons of CO_2 equivalent, recognized in the market for quality and low environmental impact.

Forest assets: We have nearly 1 million hectares of protected forest (80% in the Amazon) with opportunities to develop projects for carbon sequestration and storage, along with additional socio-environmental benefits. Additionally, we have the previously mentioned Vale Forest Goal.

[1] *Validation by an external, independent verifier underway, expected by 1Q24.*

ESG assessments

To align our management approach with best environmental, social and governance practices, we developed an ESG Action Plan in 2019 and further refined it in 2020, to identify any gaps needing to be addressed. During this period, of the 63 identified gaps, 57 have been addressed, representing a 90% completion of the plan. We have also continued to see improvements in our ESG ratings:

Agency	Current rating	2019
MSCI (AAA highest/ CCC lowest)	B	CCC
Sustainalytics (the lower the better)	34.0	54.5
ISS Governance (lower, better)	2	10
Moody´s (the lower the better)	CIS-2[1]	NA
DJSI[2] (the higher the better)	51[3]	45

[1] *Neutral-to-low rating, improved in comparison to 2021 (highly negative or CIS-4).*
[2] *Dow Jones Sustainability Index World. Also known as CSA (S&P Global Corporate Sustainability Assessment)*
[3] *The score based on standard requirements was 76. The final score considers a reduction of ~25 due to adjusted weights of controversies such as Brumadinho and Mariana.*

Reparation

Vale's B1 dam collapse, Brumadinho, 2019

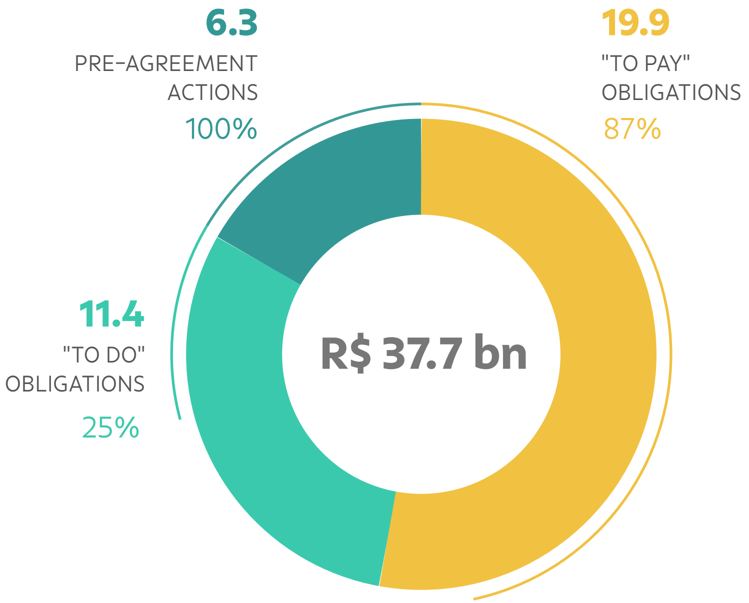
We will never forget Brumadinho. Since 2019, we remain committed to the full reparation of damages caused. Under the Brumadinho Full Reparation Settlement, we delivered 68% of the total obligations established, with a 25%-completion of performance obligations and 87%-completion of payment obligations. The initiatives implemented during the year were in line with the demands presented by the Minas Gerais's Government, the Federal Public Prosecutor's Office, the Minas Gerais Public Prosecutor's Office, and the Minas Gerais Public Defender's Office (the parties). These initiatives were approved by the Court.

During the reporting period, a new process for converting "performance obligations" into "payment obligations" was approved by the parties, the municipalities (beneficiaries), and the Court supporting an expedited agreement execution, with a R$ 1.6 billion judicial deposit.

One of our goals is to support economic diversification in the local communities in order to create new opportunities and reduce their reliance on mining. Tourism has been identified as an opportunity for Brumadinho, and our Economic Development Program is supporting a range of initiatives to boost this activity in the region, in partnership with Instituto Terra and Instituto Inhotim. In Córrego do Feijão, in addition to tourism, the local economy has been further enhanced by the newly built Ipê Amarelo Central Market, the Laudelina Marcondes Culture and Crafts Center, and two community kitchens.

By the end of 2023, 68% of the total obligations in the Brumadinho Full Reparation Settlement had been economically fulfilled, with 25% of the performance obligations completed and 87% of the payment obligations completed.

Integral Reparation Agreement
(R$ billion)



2019	2021	2023	2026	2031
B1 dam collapse	**Brumadinho Integral Reparation Agreement**	**68% complete**	**~90% complete**	**100% complete**

Social and economic reparation

15,400 people indemnified, totaling **R$ 3.4 billion**.

7,700+ civil and labor settlements.

500+ water supply facilities built, providing sanitation for a population potentially exceeding **4 million** people.

5,664 ongoing processes relating to the request for reanalysis of mental health damage.

434 local associations and small businesses supported, directly and indirectly, impacting more than **16,000** people.

76% of tailings removed, out of **12.4 million** m^3

129,000 seedlings planted, all native to forests in Minas Gerais.

2.0+ billion liters of water for human, animal, and agricultural consumption.

406,700 metric tons of animal feed supplied over a period of four years.

Water quality has progressively improved, with quality analysis similar to or better than dry-season baseline figures before the dam breach.

31% of disturbed land under environmental rehabilitation, out of **658** hectares.

Presence of threatened species: *Lontra longicaudis*; *Parides burcheffanus*; black-collared swallow (*Atticora melanoleuca*).

R$ 12 million in revenue reported by 85 supported businesses, out of the **143** that received financial support.

Aquatic and terrestrial biota in the Paraopeba River shows no evidence of impact.

10,753 animals have received care from Vale since 2019. The majority have been allocated to new homes, and **1,356** continue to receive care from Vale.

Samarco's Fundão dam collapse, Mariana, 2015

Since 2016, Fundação Renova has maintained its commitment to repairing the damages caused to people and communities by the 2015 Fundão dam collapse in Mariana (Minas Gerais state), operated by the Vale–BHP joint venture, Samarco. Working through Renova and its governance bodies, Vale is committed to repairing and compensating the impacts on society and the environment, while also improving a wide range of indicators in the affected areas.

As of December 2023, Renova has disbursed approximately R$ 35 billion across 42 remediation and compensation programs, including R$ 17 billion paid in to over 468,000 claimants. 575 housing solutions have been delivered out of a total of 675 planned.

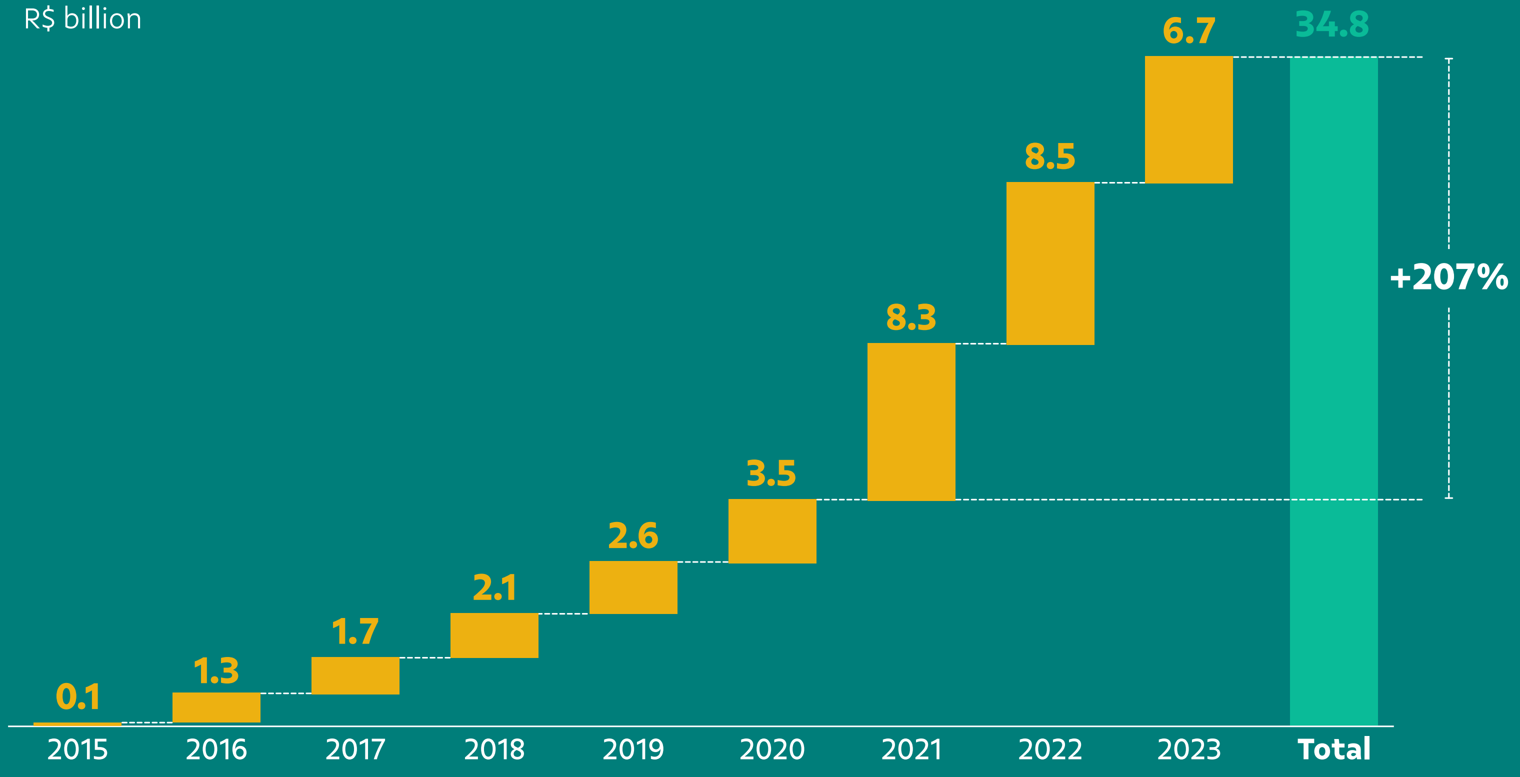
Significant progress has been made in forest restoration and compensation processes, resulting in the implementation of environmental restoration actions covering over 18,000 hectares of Permanent Preservation Areas (PPA) and over 1,500 springs, with the goal of reaching 40,000 hectares of PPA and 5,000 springs.

Renova has also made progress on its biodiversity program, having initiated mitigation measures to preserve aquatic biodiversity. Renova is conducting a total of 42 social, economic, and environmental reparation programs in affected territories, along a stretch of river approximately 670 km in length. These include monitoring of the Rio Doce basin along 80 strategically located stations. Monitoring results indicate that water quality has been restored to conditions comparable to those before the dam collapse. The river water is now suitable for human consumption after undergoing conventional treatment and can also be used for animal watering and irrigation.

We currently have R$ 20.4 billion in provisions for meeting Fundação Renova's obligations.

As of December 2023, Renova Foundation has disbursed approximately R$ 35 billion across 42 reparatory and compensatory programs regarding the Fundão dam collapse in Mariana.

Disbursements for Mariana reparation
R$ billion



Operating, economic and financial performance

In 2023 we increased efforts towards improving our financial performance. This delivered the anticipated results, and we ended the year in a strong position, illustrated by the following key figures:

Net operating revenue was

R$ 208.1 billion,

compared to **R$ 226.5 billion** in 2022. Costs and expenses totaled **R$ 135 billion**, **4.7%** lower year on year[1].

R$ 65.9 billion,

in free cash flow from operations in 2023, **13.7%** higher compared to 2022. **R$ 13.6 billion** in share buybacks and **R$ 30 billion** in dividends and interest on equity approved to shareholders.

R$ 29.4 billion

in Capex.

Adjusted EBITDA was

R$ 89.4 billion,

12.4% lower compared to the previous year mainly due to the lower average reference prices of iron ore, copper, and nickel in the year.

Vale closed the year with

R$ 17.7 billion,

in cash and cash equivalents and short-term investments and **R$ 67.4 billion** in gross debt and leases, yielding a net debt of **R$ 46.3 billion**.

R$ 3.7 billion

allocated to social, environmental, and institutional initiatives

[1] *Includes Brumadinho expenses and streaming transactions.*

Iron Ore Solutions

Iron ore production totaled 321.2 Mt in 2023, 4.3% higher compared to 2022, maily due to (i) continued initiatives to improve asset reliability at S11D; (ii) solid performance at Itabira and Vargem Grande complexes; and (iii) higher third-party purchases. Pellet production was 36.5 Mt, 13.5% higher than 2022 as result of the higher pellet feed production at Brucutu.

Adjusted EBITDA for the Iron Ore Solutions segment was R$ 90.1 billion, 10.3% lower year on year. Costs and expenses (not including depreciation effects) were a total of R$ 80.1 billion, stable compared to the previous year, which totaled R$ 80.5 billion.

Average prices for iron ore fines (including CFR/FOB sales) were US$ 108.1 per metric ton, in line with 2022. Average prices for pellets were US$ 161.9/t compared to US$ 188.6/t in the previous year.

Adjusted EBITDA
for the Iron Ore Solutions segment was

R$ 90.1 billion

Adjusted EBITDA for the
Energy Transition Metals segment was

R$ 9.8 billion

Energy Transition Metals

Nickel production totaled 164.9 kt in 2023, 8% lower compared to 2022, The lower production was anticipated considering the transition to underground mining at Voisey's Bay as well as the planned furnace rebuild at Onça Puma. Copper production was 326.6 kt, 50% higher compared to the previous year mainly a result of the Salobo III's successful ramp-up, as well as the better performance of Sossego's plan.

In this segment, adjusted EBITDA was R$ 9.8billion, 31.6% lower year on year. Costs and expenses were a total of R$ 28.1 billion, 8.3% lower compared to the previous year.

Average realized prices for nickel were US$ 21,830 per metric ton, 7.8% lower compared to 2022. Average realized prices for copper were US$ 7,960/t compared to US$ 8,052/t in the previous year.

__In 2023, iron ore production reached 321.2 Mt,__ exceeding our 315 Mt guidance. In December, iron ore production achieved its highest montly output since 2018.

Selected financial indicators

(R$ millions)	2023	2022
Net operating revenues	208,066	226,508
Total costs and expenses (ex-Brumadinho and de-characterization of dams)[1]	(129,622)	(135,675)
Expenses related to Brumadinho event and dams and de-characterization	(5,348)	(5,956)
Adjusted EBIT from continuing operations	74,106	85,671
Adjusted EBITDA margin (%)	35.6%	37.8%
Adjusted EBITDA from continuing operations	89,406	102,057
Net income from continuing operations attributable to Vale's shareholders	39,940	86,106

[1] Includes adjustment of R$ 1.073 million in 2023, to reflect the performance of the streaming transactions at market price.

Information by segment

(R$ millions)	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 Ore Solutions	**169,545**	**(76,894)**	**(79)**	**(1,405)**	**(1,691)**	**662**	**90,138**
Iron ore fines	138,006	(61,446)	59	(1,272)	(1,468)	100	73,979
Pellets	28,971	(13,779)	(50)	(21)	(99)	562	15,584
Others ferrous	2,568	(1,669)	(88)	(112)	(124)	–	575
Energy Transition Metals	**37,844**	**(27,615)**	**899**	**(1,320)**	**(34)**	**–**	**9,774**
Nickel[2]	23,735	(18,689)	(328)	(592)	(11)	–	4,115
Cooper[3]	12,838	(6,766)	154	(728)	(23)	–	5,475
Others[4]	1,271	(2,160)	1,073	–	–	–	184
Brumadinho event and dam de-characterization	**–**	**–**	**(5,348)**	**–**	**–**	**–**	**(5,348)**
Others[4]	**677**	**(974)**	**(4,326)**	**(873)**	**(10)**	**348**	**(5,158)**
Total	**208,066**	**(105,483)**	**(8,854)**	**(3,598)**	**(1,735)**	**1,010**	**89,406**

[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 R$ 1,073 million increasing the adjusted EBITDA in 2023, 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.

Net income

Net income attributable to shareholders was R$ 39.9 billion in 2023, 54% lower year on year, due to lower average realized prices and the impact of currency losses.

Financial result

Financial expenses were negative at R$ 9.7 billion. The increase compared to previous year is mainly due to the reduction of the mark-to-market of participative shareholder's debentures and the reclassification of the cumulative translation adjustments during 2022.

(R$ millions)	2023	2022
Financial income	**2,159**	**2,685**
Finance expenses	**(7,276)**	**(6,156)**
Loans and borrowings gross interest	(3,718)	(3,158)
Capitalized loans and borrowings costs	96	240
Others	(2,917)	(2,450)
Interest on REFIS	(737)	(788)
Other financial items, net	**(4,601)**	**14,849**
Derivatives	4,455	6,018
Currency and interest rate swaps	4,457	5,895
Other (commodities etc.)	(2)	123
Participative shareholders' debentures	(871)	3,285
Financial guarantees	–	2,488
Reclassification of cumulative translation adjustments to the income statement	–	8,275
Currency and monetary losses, net	(8,185)	(3,022)
Net finance revenue (expense)	**(9,718)**	**11,378**

R$ 39.9 **billion of net income** attributable to shareholders

Income taxes

We generated R$ 55,6 billion in income before income taxes. Income tax (at a rate of 34%), tax benefits and other effects recognized in income yielded a net total of R$ 15 billion in taxes on income.

(R$ millions)	2023	2022
Income before income tax	**55,554**	**101,704**
Income taxes at statutory rate (34%)	(18,888)	(34,579)
Adjustments that affect the taxes basis:		
Income tax benefit from interest on capital	3,934	2,828
Tax incentives	5,310	6,414
Equity results	423	431
Addition (reduction) of tax loss carryforward	1,991	4,718
Reclassification of cumulative translation adjustments to income statement	–	2,814
Reversal of deferred income tax on Renova Foundation	(5,468)	–
Liabilities related to associates and joint ventures	(1,975)	0
Others	(327)	2,189
Income taxes	**(15,000)**	**(15,185)**

Impairment reversal (impairment and disposals) of non-current assets

Asset impairments (excluding impairment on investments), disposals of non-current assets, and onerous contracts for continuing operations, all of which had no cash effect, totaled R$ 1.3 billion in 2023, due to the result from the disposals of non-current assets.

(R$ millions)	2023	2022
Impairment reversal (impairment and disposals) of non-current assets	**(1,317)**	**3,833**
Vale Nouvelle-Calédonie S.A.S. ("VNC")	–	–
Manganese	–	(56)
Midwest System	–	1,066
Onerous contracts – Midwest System	–	4,554
Result of disposals of non-current assets	(1,317)	(1,731)

Investments in affiliates, joint ventures, and subsidiaries

Vale has investments in affiliates, joint ventures, and subsidiaries in important business areas. Our investments in the main companies that comprise this portfolio are shown in Vale's statement of financial position and are listed in the table below. Investments are restated by the equity accounting method and may differ from the entities' individual financial statements as they are presented in accordance with Vale's accounting policies.

(R$ millions)	Investments		Equity results in the Income Statement	
	2023	2022	2023	2022
Associates and joint ventures				
Pelletizing plants	1,621	1,747	437	711
Aliança Geração de Energia	1,725	1,772	240	162
Aliança Norte Energia	514	553	(39)	(34)
California Steel Industries (CSI)	–	–	–	–
Companhia Siderúrgica do Pecém (CSP)	–	–	–	–
Mineração Rio do Norte (MRN)	–	–	–	–
MRS Logística (MRS)	3,096	2,656	583	421
VLI	1,672	2,234	(566)	(44)
Samarco S.A.	–	–	–	–
Others	433	419	27	51
Controlled				
Vale Holdings B.V.	(5,064)	2,523	(318)	(504)
Vale International	28,694	57,877	8,753	33,484
Vale Canada	49,810	21,726	(548)	4,618
Vale Base Metals Limited	4,693	–	(85)	–
Salobo Metais	19,914	13,880	3,112	2,231
Minerações Brasileiras Reunidas (MBR)	1,943	2,086	183	167
Vale Malaysia Minerals	6,479	6,755	213	291
Others	8,316	8,345	(900)	2,315
Total	**123,846**	**122,573**	**11,092**	**43,869**

Investments

Investments totaled R$ 29.4 billion in 2023 (US$ 5.9 billion), in line with our guidance, with R$ 8.2 billion invested in growth projects and R$ 21.2 billion in sustaining projects. Investments in the year were 4.5% higher than in 2022, primarily reflecting the higher investments in sustaining projects. In 2024, we expectto invest US$ 6.5 billion to sustain our production, support our low-carbon agenda initiatives, and seize accretive growth opportunities.

Investments (R$ millions)	2023	2022
Growth Projects	8,214	8,163
Sustaining Projects	21,232	20,021
Total	**29,446**	**28,184**

Total investment by business line (R$ million)	2023	2022
Iron Ore Solutions	18,707	16,074
Energy Transition Metals	9,771	9,626
Others	968	2,484
Total	**29,446**	**28,184**

Iron Ore Solutions

We have three key projects under development in line with planning:

- **Vargem Grande**: physical progress at 78% start-up expected in 4Q24 adding a 17Mt-capacity. Vargem Grande Complex expansion includes a new screening circuit and improved handling system adequacy at VGR1 plant.
- **Capanema**: physical progress at 68%, start-up expected in 1H25 adding a 18Mt-capacity. Sinter feed production using natural moisture processing, increasing Timbopeba site's operational flexibility.
- **S11D**: two phases for 20 Mt capacity addition with start-up in 2H25: (i) physical progress at 61%, mine-plant capacity increase and conveyor belt duplication; and (ii) physical progress at 26%, new crushing plate for jaspilite waste.

Energy Transition Metals

The upcoming years will be crucial for transitioning the business to a new phase. The asset review is underway, with initiatives for implementation between 2024-2026. Currently, these are key ongoing or approved projects to track:

- **Salobo**: Salobo I&II recovery plan completion by 1Q24, while Salobo III continues to ramp up successfully, with completion by 4Q24 (+30-40 ktpy of copper)
- **Onça Puma**: 1st furnace with revamp completion expected by 1Q24, with 2nd furnace start-up expected by 2H25 (+12-15 ktpy of nickel).
- **Voisey's Bay Transition**: VBME project with +90% physical completion. Eastern Deeps main production start-up in 2H24, VBME full ramp-up by 2H26 (45 ktpy of nickel).
- **Pomalaa mine**: the investment in the mine is US$ 925 million. The mine will provide feed to the HPAL[1] 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.

[1] *HPAL means High-Pressure Acid Leaching.*

Debt indicators

Gross debt and leases were US$13.9 billion on December 31, 2023, an increase of 8.7% y/y, reflecting higher gross debt due to the issuance of US$ 1.5 billion of notes in June 2023. Expanded net debt increased to US$ 16.2 billion during the period due to the incremental provisions related to Mariana reparation and a potential global settlement.

Debt information exclusively presented in US dollars due to the calculation of debt indicators. For conversion purposes, the exchange rate for BRL/USD at the end of 2023 was R$ 4.8413.

US$ 13.9

billion of gross debt and leases

US$ 3.7

billion in cash, cash equivalent and short-therm investments

Debt indicators (US$ millions)	2023	2022
Gross debt[1]	12,471	11,181
Leases (IFRS 16)	1,452	1,531
Gross debt and leases	**13,923**	**12,712**

Debt indicators (US$ millions)	2023	2022
Cash, cash equivalents and short-term investments[2]	(4,363)	(4,797)
Net debt	**9,560**	**7,915**
Currency swaps[3]	(664)	(211)
Brumadinho provisions	3,060	3,312
Samarco & Renova Foundation provisions[4]	4,208	3,124
Expanded net debt	**16,164**	**14,140**
Average debt maturity (years)	7.9	8.7
Cost of debt after hedge (% per year)	5.6	5.5
Total debt / LTM adjusted EBITDA (x)	0.8	0.6
Net debt / LTM adjusted EBITDA (x)	0.5	0.4
LTM adjusted EBITDA/ LTM gross interest (x)	24.1	32.3

[1] Does not include leases (IFRS 16).
[2] Includes US$ 703 million related to non-current assets held for sale in 4Q23 due to the upcoming PTVI divestment.
[3] Includes interest rate swaps.
[4] Does not include provision for de-characterization of Germano dam in the amount of US$ 219 million in 4Q23, US$ 209 million in 3Q23 and US$ 197 million in 4Q22.

Debt management

The debt management transactions below were carried out to optimize the company's liabilities, mitigating liability management-related risks.

Month	Transaction
March	• Loan facility of US$300 million (R$ 1.45 billion) with a commercial bank (due in 2028).
June	• Loan facility of US$1.5 billion (R$ 7.26 billion) in debt securities in the international market (bonds) (due in 2033). • Repurchase of bonds (tender offer) with maturities in 2026, 2036, and 2039. A total of US$500 million (R$ 2.42 billion) were repurchased.
September	• Loan facility of US$150 million (R$ 726 million) with a commercial bank (due in 2028).

Accounting information

Consolidated Income Statement (R$ millions)	2023	2022
Continuing operations		
Net operating revenue	208,066	226,508
Costs of goods sold and services rendered	(120,016)	(124,195)
Gross profit	**88,050**	**102,313**
Gross margin (%)	42.3%	45.2%
Selling and administrative expenses	(2,758)	(2,658)
Research and development expenditure	(3,598)	(3,411)
Pre-operating and operational stoppage	(2,249)	(2,466)
Other operating expenses, net	(7,422)	(8,901)
Impairment reversal (impairment and disposals) of non-current assets, net	(1,317)	3,833
Operating income	**70,706**	**88,710**
Financial income	2,159	2,685
Financial expense	(7,276)	(6,156)
Other financial items, net	(4,601)	14,849
Equity results and other results in associates and joint ventures	(5,434)	1,616

Consolidated Income Statement (R$ millions)	2023	2022
Income before income tax	55,554	101,704
Income taxes	(15,000)	(15,185)
Net income from continuing operations	40,554	86,519
Net income attributable to non-controlling interests	614	413
Net income from continuing operations attributable to Vale's shareholders	39,940	86,106
Discontinuing operations		
Net income (loss) from discontinued operations	–	9,818
Loss attributable to non-controlling interests	–	–
Net income (loss) from discontinued operations attributable to Vale's shareholders	-	9,818
Net income	40,554	96,337
Net income (loss) attributable to non-controlling interests	614	413
Net income attributable to Vale shareholders	**39,940**	**95,924**

Balance sheet – Consolidated (R$ millions)	2023	2022
Assets		
Current assets	71,488	81,009
Non-current assets held for sale	19,041	–
Non-current assets	65,783	75,104
Investments	9,061	9,381
Intangibles	56,309	53,421
Property, plant, and equipment	234,302	234,472
Total	**455,984**	**453,387**
Liabilities	**257,659**	**258,493**
Current liabilities	68,234	72,478
Liabilities associated with non-current assets held for sale	2,714	–
Non-current liabilities	186,711	186,015
Equity	**198,325**	**194,894**
Equity attributable to Vale's shareholders	190,965	187,112
Equity attributable to noncontrolling interests	7,360	7,782
Total	**455,984**	**453,387**

Cash Flow – Consolidated (R$ millions)	2023	2022
Cash flow from operations	**86,220**	**95,793**
Interest on loans and borrowings paid	(3,695)	(4,067)
Cash received (paid) on settlement of derivatives, net	2,798	(425)
Payments related to Brumadinho event	(6,597)	(5,604)
Payments related to de-characterization of dams	(2,275)	(1,806)
Interest on participative shareholders' debentures paid	(1,172)	(1,835)
Income taxes (including settlement program)	(9,374)	(24,068)
Net cash generated by operating activities from continuing operations	**65,905**	**57,988**
Net cash generated (used) by operating activities from discontinued operations	–	213
Net cash generated by operating activities	**65,905**	**58,201**
Cash flow from investing activities		
Capital expenditures	(29,446)	(28,184)
Payments related to Samarco dam failure	(2,728)	(1,777)
Additions to investments	(95)	(1)
Proceeds (payments) from disposal of investments, net	(697)	3,014
Dividends received from associates and joint ventures	1,010	1,154
Short-term investiment	613	1,309
Other investments activities, net	(82)	843
Net cash used in investing activities from continuing operations	**(31,425)**	**(23,642)**
Net cash used in investing activities from discontinued operations	–	(534)
Net cash used in investing activities	**(31,425)**	**(24,176)**

Cash Flow – Consolidated (R$ millions)	2023	2022
Cash flow from financing activities		
Loans and borrowings from third parties	9,585	6,764
Payments of loans and borrowings from third parties	(3,215)	(11,764)
Payments of leasing	(1,159)	(1,154)
Dividends and interest on capital paid to Vale's shareholders	(27,759)	(34,092)
Dividends and interest on capital paid to noncontrolling interests	(208)	(65)
Shares buyback program	(13,593)	(30,640)
Acquisition of stake in VOPC	(653)	–
Net cash used in financing activities from continuing operations	**(37,002)**	**(70,951)**
Net cash used in financing activities from discontinued operations	–	(54)
Net cash used in financing activities	**(37,002)**	**(71,005)**
Net decrease in cash and cash equivalents	**(2,522)**	**(36,980)**
Cash and cash equivalents at beginning of the year	24,711	65,409
Effect of exchange rate changes on cash and cash equivalents	(1,314)	(3,657)
Effect of transfer PTVI to non-current assets held for sale	(3,401)	–
Cash and cash equivalents from subsidiaries sold, net	–	(61)
Cash and cash equivalents at end of the year	**17,474**	**24,711**
Cash flow from operating activities		
Income before income taxes	55,554	101,704
Adjusted for:		

Cash Flow – Consolidated (R$ millions)	2023	2022
Equity results and other results in associates and joint ventures	5,434	(1,616)
Impairment (impairment reversal) and results on disposal of non-current assets, net	1,317	(3,833)
Provisions related to Brumadinho	2,255	2,078
Provision for de-characterization of dams	750	375
Depreciation, depletion, and amortization	15,300	16,386
Financial results, net	9,718	(11,378)
Changes in assets and liabilities:		
Accounts receivable	1,591	(1,812)
Inventories	(1,116)	211
Suppliers and contractors	3,098	2,283
Other assets and liabilities, net	(7,681)	(8,605)
Cash flow from operations	**86,220**	**95,793**
Non-cash transactions		
Additions to property, plant, and equipment - capitalized loans and borrowing costs	96	240

Dividends and interest on capital

Distribution of earnings

Earnings related to the 2023 fiscal year balance sheet reached a total of R$ 6.99 per share, including interest on equity and dividends and were approved by the Board of Directors as follows:

To access our Shareholder Compensation Policy and historical information on payments of dividends and interest on stockholder's equity, access Vale's Investor Relations page (section Shares, Dividends and Debt).

Amount (US$)	Amount (R$)	Earnings	Approval	Payment
1.744 billion	8.277 billion	Interest on equity	July 27, 2023	September 1, 2023
2.000 billion	10.033 billion	Extraordinary dividends and interest on equity	October 26, 2023	December 1, 2023
2.364 billion	11.722 billion	Ordinary dividends	February 22, 2024	March 19, 2024
6.108 billion	**30.032 billion**			

Share Buyback Program

Since 2021 and until the end of 2023, across our four share buyback programs, we have repurchased a total of 833.3 million shares for a total of US$ 14.3 billion, representing more than 19% of outstanding shares on the reporting date, reflecting our strong commitment to shareholder returns.

By December 2023, we had completed 72% of our third share buyback program which began in 2022, having repurchased 360.3 million shares (of the 500 million shares in the total planned program) for a total of US$ 5.46 billion. Of this total, around 181.7 million common shares and their respective ADRs were repurchased in 2023, corresponding to a total amount of US$ 2.67 billion (R$ 13.37 billion).

In October 2023, we started a new buyback program for up to 150 million shares, which will be implemented over a period of 18 months. As of December 31, 2023, we had repurchased 3 million common shares and their respective ADRs, corresponding to a total amount of US$ 44.1 million (R$ 218 million).

As of December 31st, 2023, the Company held 239,153,280 treasury shares through wholly owned subsidiaries and through the Controllership department.

2024 business outlook

Iron Ore Solutions

As the main projects are expected to start from 2025 onwards, we expect a production volume similar to 2023. Therefore, the 2024 iron ore production guidance is between 310 and 320 Mt.

By 2026, iron ore production is expected to range between 340 and 360 Mt, focusing on enhancing the quality of our portfolio and delivering strategic projects at three key assets: S11D, Capanema, and Vargem Grande. These initiatives will contribute to the expansion of our Iron Ore Solutions business.

On the pellet and briquette production, the guidance for 2024 is within the range of 38-42 Mt, reflecting the increased pellet feed availability at Brucutu, following the Torto dam commissioning, as well as the ongoing commissioning of our first briquette plant in Tubarão. Additionally, the start-up of the second briquette plant is also expected in 2024. By 2026, the goal is to achieve a production range of 50-55 Mt.

Energy Transition Metals

Nickel: Vale's nickel production guidance is 160 - 175kt, relatively in line with the 2023 production, as the transition to underground mining at Voisey's Bay continues with the ramp-up of mines.
Vale's strategy for its nickel business is to be a leading supplier of nickel for a sustainable energy transition. Class 1 nickel, our primary nickel product, places us in a unique position with environmentally friendly operations in the North Atlantic, supporting both the transition to a low-carbon economy and our ambition of promoting sustainable mining.

In 2026, we estimate our nickel production will be between 210-230 kt, reflecting replenishment projects in Canada and Indonesia (Pomalaa and Morowali) and the start-up of the second furnace at Onça Puma in Pará (Brazil). By 2030, nickel production should be above 300 kt with the addition of projects such as Thompson Ultramafics, Sorowako HPAL, partnership projects and offtakes.

For 2024, we expect to produce between 310 and 320 Mt of iron ore, as well as between 38 and 42 Mt of iron agglomerates.

Copper: our 2024 copper production guidance is between 320-355 kt, considering the ongoing ramp-up of Salobo III and ore grade improvements at Sossego. The company's strategy for this segment involves advancing a pipeline of projects for significant growth to achieve 375-410 kt by 2026.

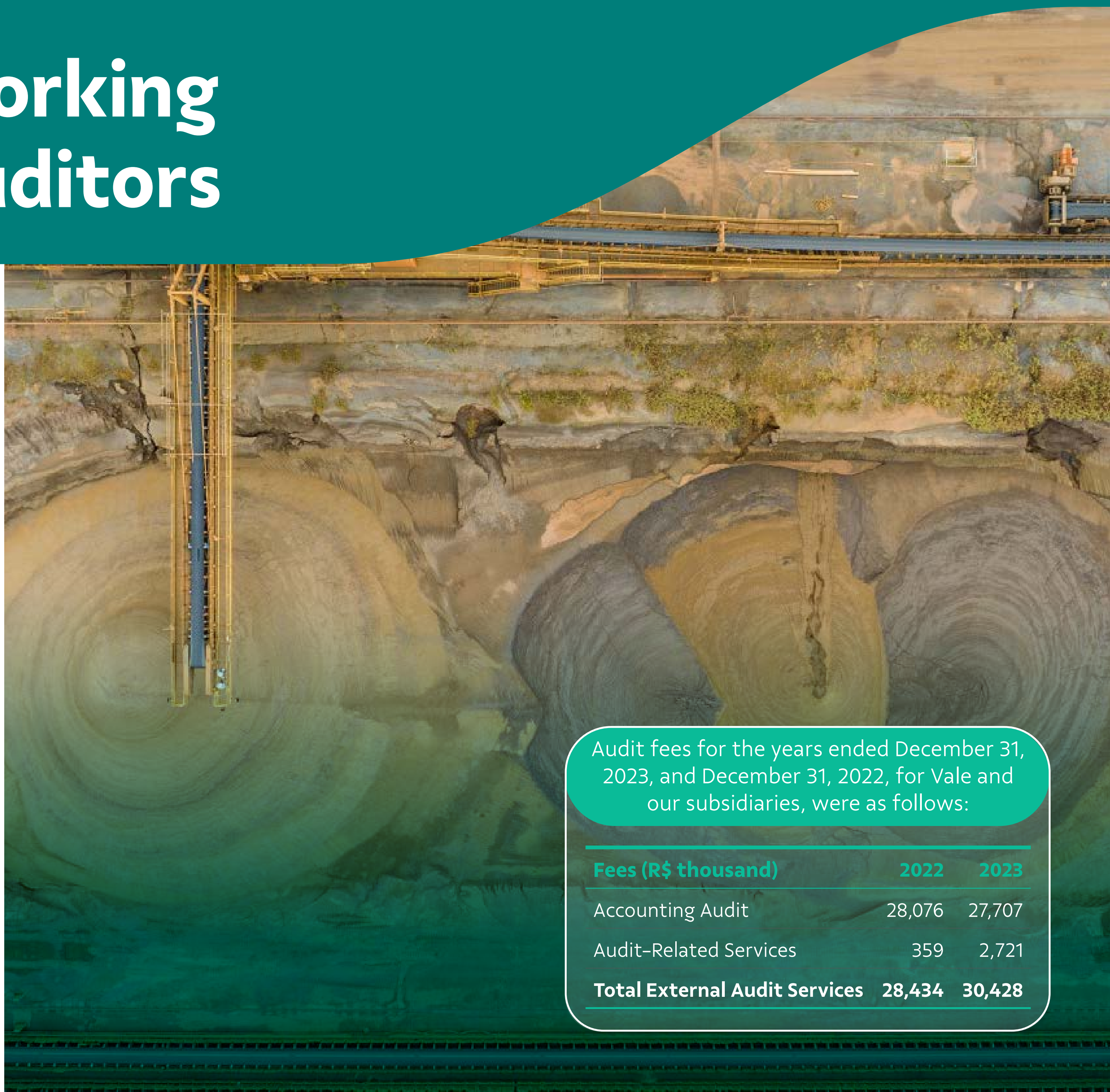
We have continued studies for the Hu'u project in Indonesia, a world-class asset, and are investing in exploration in mining regions in Andean America and Eastern Europe. From 2030 onwards, Vale's copper production is expected to be above 900 kty.

Our policy for working with external auditors

Vale's Board of Directors approved our "Policy on Engaging Independent Auditors" in 2020. This policy establishes rules on hiring external audit and audit-related services for Vale and our subsidiaries to avoid conflicts of interest or loss of independence or objectivity involving our independent auditors. The policy prohibits the procurement of consulting services that could threaten the independence of the independent auditors during the term of the audit agreement.

In line with best practices in corporate governance, all services provided by our independent auditors are supported by an independence letter issued at least annually to Company Management and approved by the Statutory Audit Committee.

We have an agreement for independent audits on our financial statements with the firm PricewaterhouseCoopers Auditores Independentes LTDA. ("PwC"). The agreement has a term of five years beginning with the audit of the financial statements for the fiscal year ended December 31, 2019, and is compliant with this policy. In 2022, the Board of Directors approved the renewal of the agreement with PwC, which now includes audits of the financial statements for fiscal years 2024 to 2028.



Audit fees for the years ended December 31, 2023, and December 31, 2022, for Vale and our subsidiaries, were as follows:

Fees (R$ thousand)	2022	2023
Accounting Audit	28,076	27,707
Audit-Related Services	359	2,721
Total External Audit Services	**28,434**	**30,428**

Additional information

Assistance to shareholders

If you have any inquiries about the information in this report, our share buyback program, distribution of earnings or further operating and financial information, please contact us at vale.ri@vale.com.

For questions related to your share position and to update your information/data or transfer assets, please contact our custodian, Banco Bradesco, at dac.escrituracao@bradesco.com.br.

Dividends and interest on equity payment date

As per our Shareholder Remuneration Policy, dividends and interest on equity are paid in two six-monthly installments, the first in September of the current year and the second in March of the subsequent year. The Board of Directors may also approve extraordinary dividends at any time throughout the year.

Other publications

This report provides an overview of our performance in the previous fiscal year. Annually, we also publish a Form 20-F report in March that meets the requirements of U.S. Securities and Exchange Commission regulations, followed by a Reference Form (FRE) and Integrated Report in April, complying with Comissão de Valores Mobiliários (CVM) regulations. These publications are all available at www.vale.com/investors

The operating and financial information contained in this management report, unless otherwise indicated, is presented based on consolidated figures in accordance with IFRS. Such information is based on quarterly financial statements reviewed by independent auditors. Vale´s main subsidiaries consolidated in the reports are: Companhia Portuária da Baía de Sepetiba, 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. and Vale Oman Distribution Center LLC.

This notice may include statements about Vale's current expectations regarding future events or results (estimates and forecasts). Many of these estimates and forecasts can be identified using forward-looking words such as "anticipate," "believe," "may," "expect," "should," "plan," "intend," "estimate," "will" and "potential," among others. All estimates and forecasts involve various risks and uncertainties. Vale cannot guarantee that such statements will prove to be correct. Such risks and uncertainties include, among others, factors related to: (a) countries where Vale operates, especially Brazil and Canada; (b) the global economy; (c) capital markets; (d) the business of ores and metals and its dependence on global industrial production, which is cyclical in nature; and (e) the high degree of global competition in the markets where Vale operates. Vale cautions that actual results may materially differ from the plans, purposes, expectations, estimates and intentions expressed in this presentation. Vale undertakes no obligation to publicly update or revise any estimate and/or forecast, whether it is a result of new information or future events, or for any other reason. For additional information on factors that could cause results to differ from those estimated by Vale, please refer to reports filed by Vale in the U.S. Securities and Exchange Commission (SEC), the Brazilian Securities and Exchange Commission (CVM) and, in particularly, the factors discussed in the sections "Estimates and Forecasts" and "Risk Factors" in Vale's Annual Report - Form 20-F.

Information contained in this release includes financial metrics that are not prepared in accordance with IFRS. These non-IFRS metrics differ from the more directly comparable metrics determined by IFRS, but we do not present a reconciliation to the more directly comparable IFRS metrics, because non-IFRS metrics are forward-looking, and a reconciliation cannot be prepared without involving disproportionate efforts.

Vale's Performance in 4Q23

February 23rd, 2024

Disclaimer

This presentation may include statements that present Vale's expectations about future events or results, including without limitation our performance expectation on slide 5, project plans on slide 6 and 11, and cost guidance on slides 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;

(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

Progressing on our drivers

Safety Journey	TRIFR[1] down to 1.06, the lowest since the beginning of the historical series. B3/B4 dam >90% tailings removed, conclusion anticipated to 2024, from 2027.
Iron Ore Operational Stability	Iron ore production reached 321 Mt, above our 2023 guidance. Highest monthly iron ore output in December, since 2018.
Iron Ore Growth and Quality	Successful start-up of our first iron ore briquette plant. Partnership with Anglo American in Minas-Rio. C1 cash-cost down to US$ 20.8/t, -5% q/q.
Energy Transition Metals Transformation	Copper production increased 50% in Q4, the highest level since 2018. Nickel production in line with guidance, at 165 kt. Nickel price realization 7% above LME prices in Q4.
ESG Leadership (e.g. Reparation)	Brumadinho Integral Reparation agreement: 68% completed. Mariana: R$ 35 billion disbursed and 85% of housing solutions delivered. 85% increase in female workforce.
Stay disciplined	US$ 2.4 billion dividend announced, with payment in March.

Note 1: TRIFR stands for Total Recordable Injury Frequency Rate

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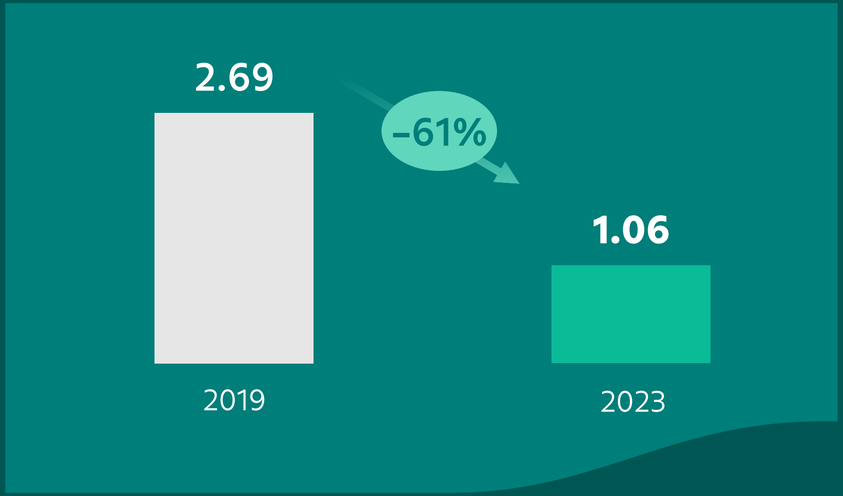
Becoming a safer Vale

Lowest

TRIFR

Total recordable injury frequency rate

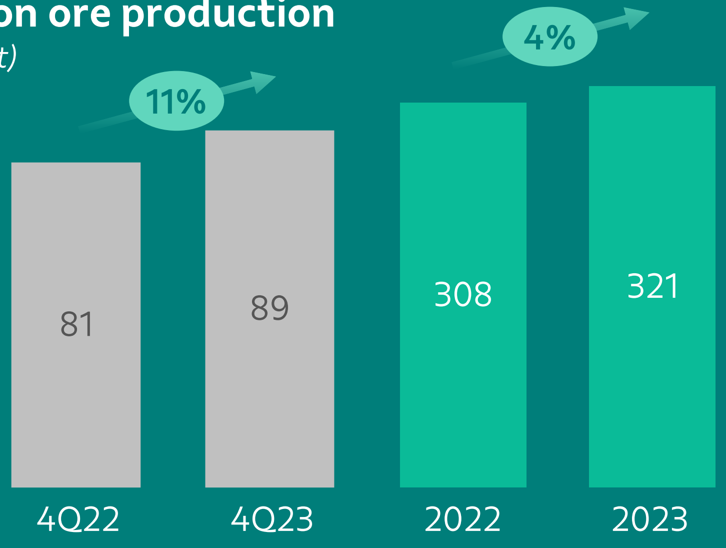


B3/B4 >90% of tailings removed

Improving performance in Iron Ore Solutions

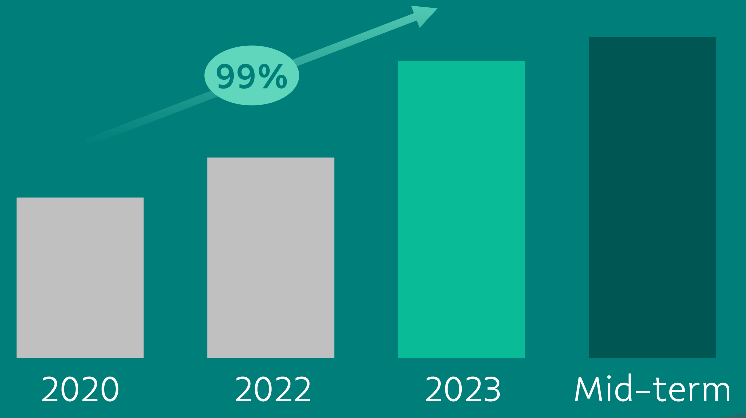
Iron ore production

(Mt)



Mean Time Between Failure (MTBF)

S11D truckless (The higher, the better)



In December 2023, highest monthly output since 2018

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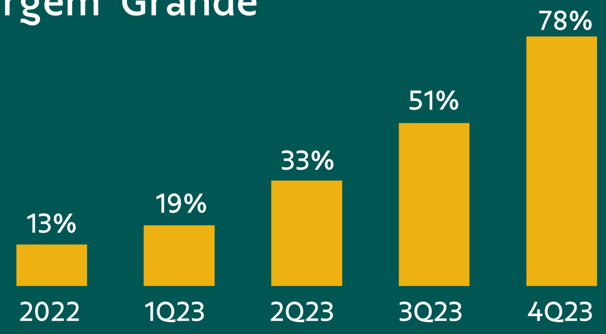
Progressing with our iron ore production capacity expansion

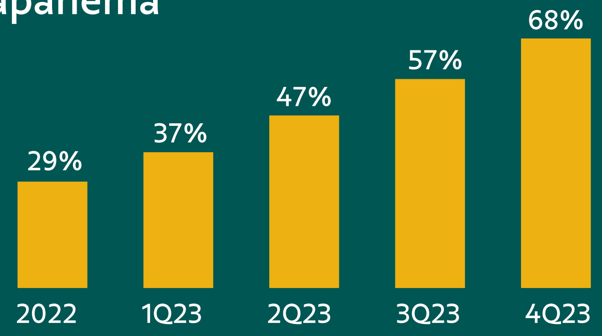
+50 Mt

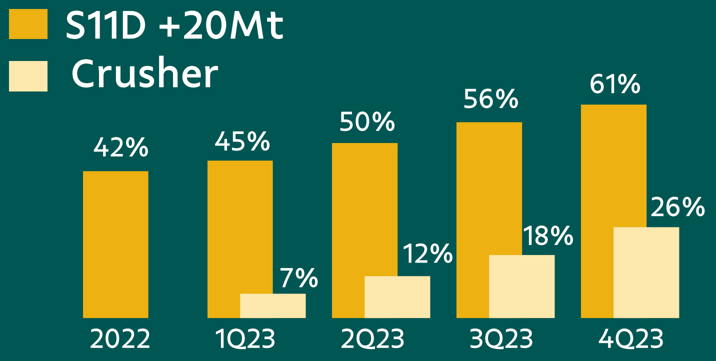
2026

Vargem Grande



Capanema





Physical progress

Ramping-up innovative high-quality product supply

Iron ore briquette

1st briquetting plant delivered

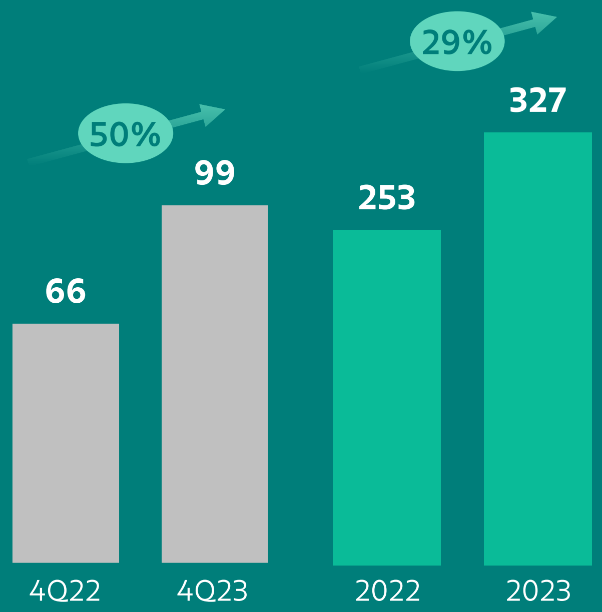
Lower capital intensity[1]

80% less CO_2 emissions[1]

[1] Iron ore briquette plant compared to the pelletizing process.

Production growth in ETM: strong progress in Copper; Nickel on transition phase

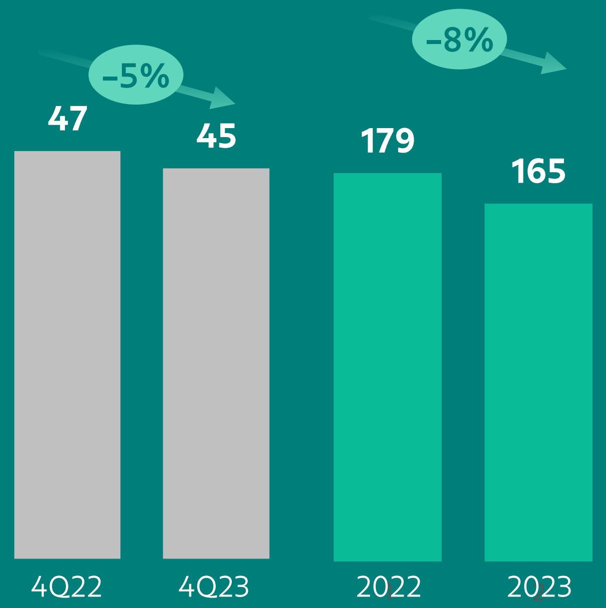
Copper production
(kt)



Salobo Complex at 32 Mtpy
Salobo Complex throughput achieved a 32 Mtpy run-rate during a 90-day period (Aug-Nov).

Sossego improved performance
Highest contained copper production since 2021, achieved in Nov-23.
Best milling rate since 2020 in Dec-23.

Nickel production
(kt)



Nickel price realization above LME
Realized nickel price in Q4 was 7% higher than the LME reference price.

Consistent deliveries in ESG

People-driven culture

- 24% of female workforce, an 85%-increase since 2019
- 88% of priority communities in Brazil with relationship plans

Advancing on **nature-positive**

- TNFD early adopters
- +177,000 ha of forests protected / recovered since 2019

Committed to **Reparation**

- Brumadinho Integral Reparation program: 68% completed
- Mariana: 85% housing solutions delivered, R$ 35 bn disbursed

2. Financial Performance

Minas-Rio: access to 3.8 Mt of high-quality pellet feed in the near-term… And 15 Mt in 2030+

Transaction summary

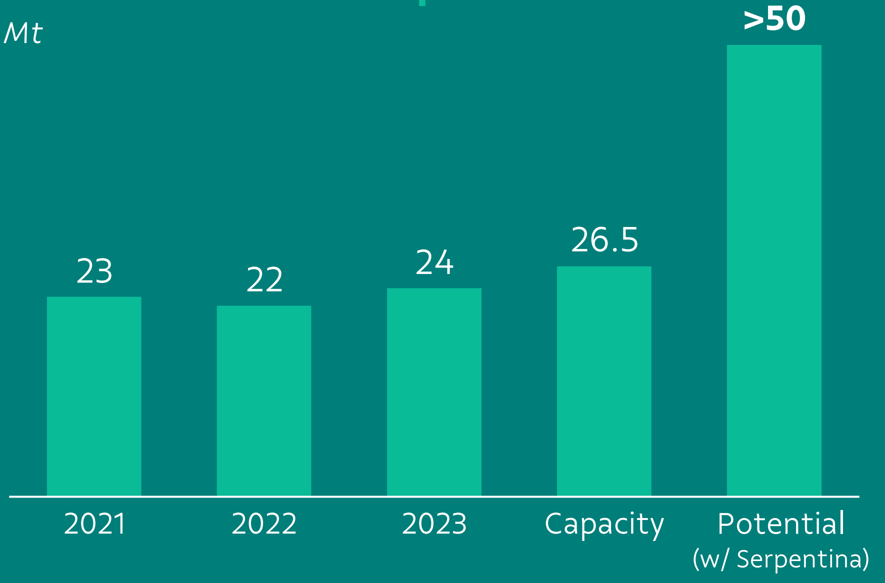
- Vale: 15% ownership interest in Minas-Rio
- Minas-Rio EBITDA 2023: US$ 1.4 billion
- Vale pays: US$ 157.5 million[1] + Serpentina resources
- Option to acquire an additional 15% interest
- Closing expected for the 4Q24

Vale’s strategic rationale

- 3.8 Mtpy high-grade pellet feed (>65%Fe), through offtake agreement
- ~15 Mtpy potential offtake in the long term
- Logistics synergies with the development of Serpentina

Minas-Rio iron ore production

Mt



[1] Subject to net debt and working capital variation adjustments at the closing date.

EBITDA $1.7bn higher y/y, supported by higher iron ore prices and lower expenses

EBITDA Proforma 4Q23 vs. 4Q22

US$ million

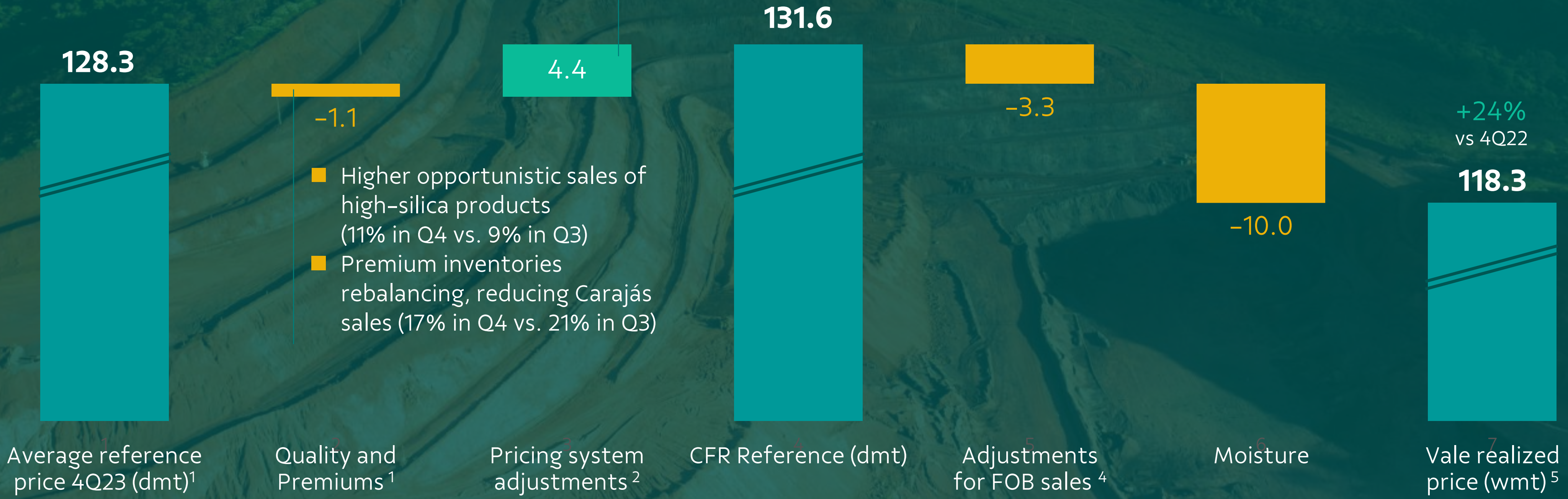
[1] Excluding Brumadinho expenses. [2] Includes US$ 44 million related to dividends and US$ 61 million related to by-product revenues.

Realized prices: pro-active strategy to optimize product mix

Iron ore fines price realization – 4Q23

US$/t

- Positive effect from provisional prices (US$ 4.1/t), with prices marked at US$ 139/t



- Higher opportunistic sales of high-silica products (11% in Q4 vs. 9% in Q3)
- Premium inventories rebalancing, reducing Carajás sales (17% in Q4 vs. 21% in Q3)

[1] Includes quality (US$ 0.6/t) and premium discounts and commercial conditions (US$ 1.6/t) . [2] Adjustments as a result of provisional prices booked in 3Q23 at US$ 117.0/t. . [3] Difference between the weighted average of the prices provisionally set at the end of 4Q23 at US$ 139.1/t based on forward curves and US$ 128,3/t from the 4Q23 average reference price. [4] Includes freight pricing mechanisms of CFR sales freight recognition. [5] Vale´s price is net of taxes.

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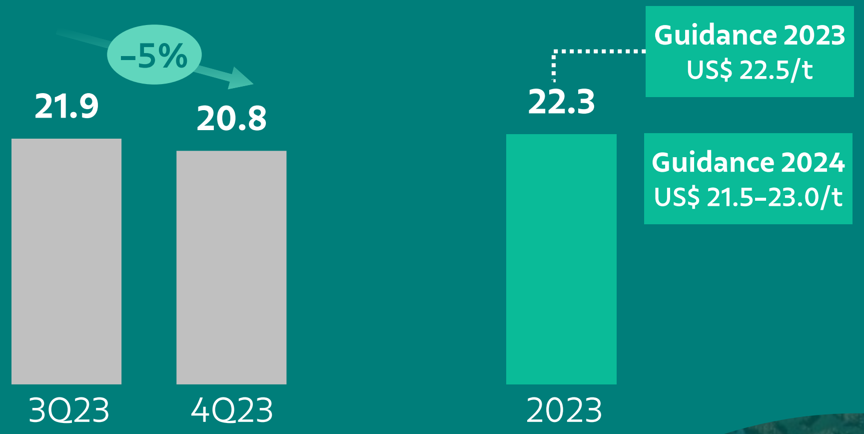
Iron Ore Solutions: delivering costs below guidance

C1 cash cost, ex-third-party purchase

(US$/t)

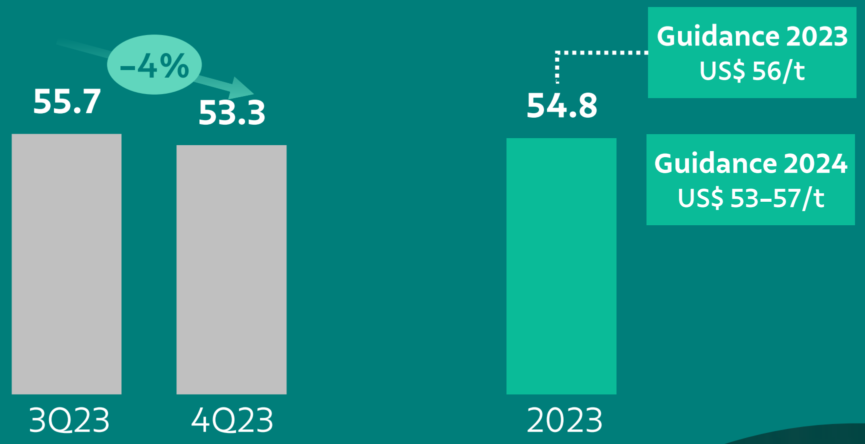


Main effects in 4Q23

- Efficiency program initiatives (US$ -0.3/t)
- FX effect (US$ -0.3/t)
- Inventories effect (US$ -0.3/t)

Breakeven/All-in[1] costs

(US$/dmt)



Main effects in 4Q23

- Lower C1 cash cost, ex-3rd-party purchases (US$ -1.1/t)
- Positive tax recovery effect (Expenses: US$ -2.5/t)
- Lower all-in premiums[2] (US$ 2.2/t)

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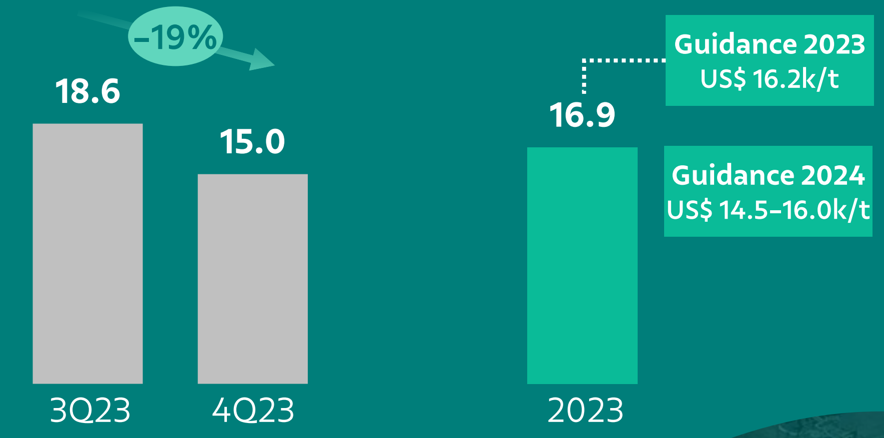
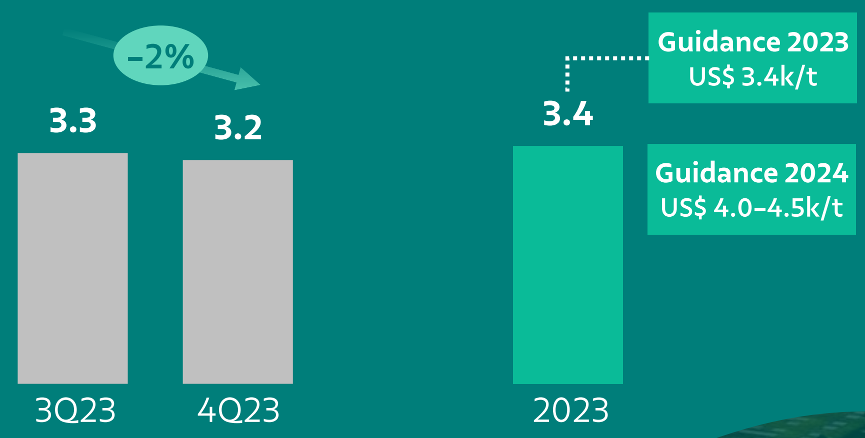
[1] Iron ore fines and pellet EBITDA break-even (US$/dmt). [2] Including "Iron ore fines quality adjustment" and "Iron ore fines pellet adjustment".

ETM: important nickel cost reduction in Q4

Nickel – Breakeven costs
('000 US$/t)



Copper – Breakeven costs[1]
('000 US$/t)



Main effects in 4Q23

- Conclusion of mine maintenance in Q3 and greater fixed cost dilution (COGS: US$ -3.7k/t)
- Higher by-product revenues (US$ -1.2k/t)

Main effects in 4Q23

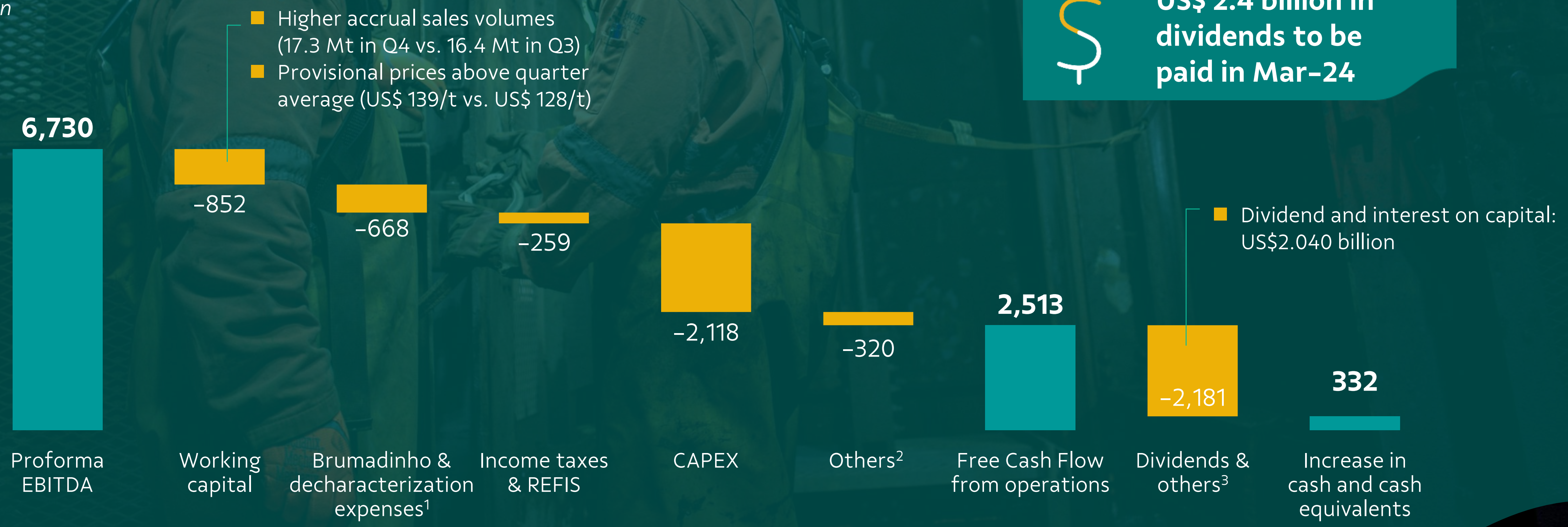
- Higher by-product revenues (US$ -0.3k/t)

[1] EBITDA breakeven ex-Hu'u.

Strong FCF generation drives healthy shareholder remuneration

Free cash flow – 4Q23

US$ million



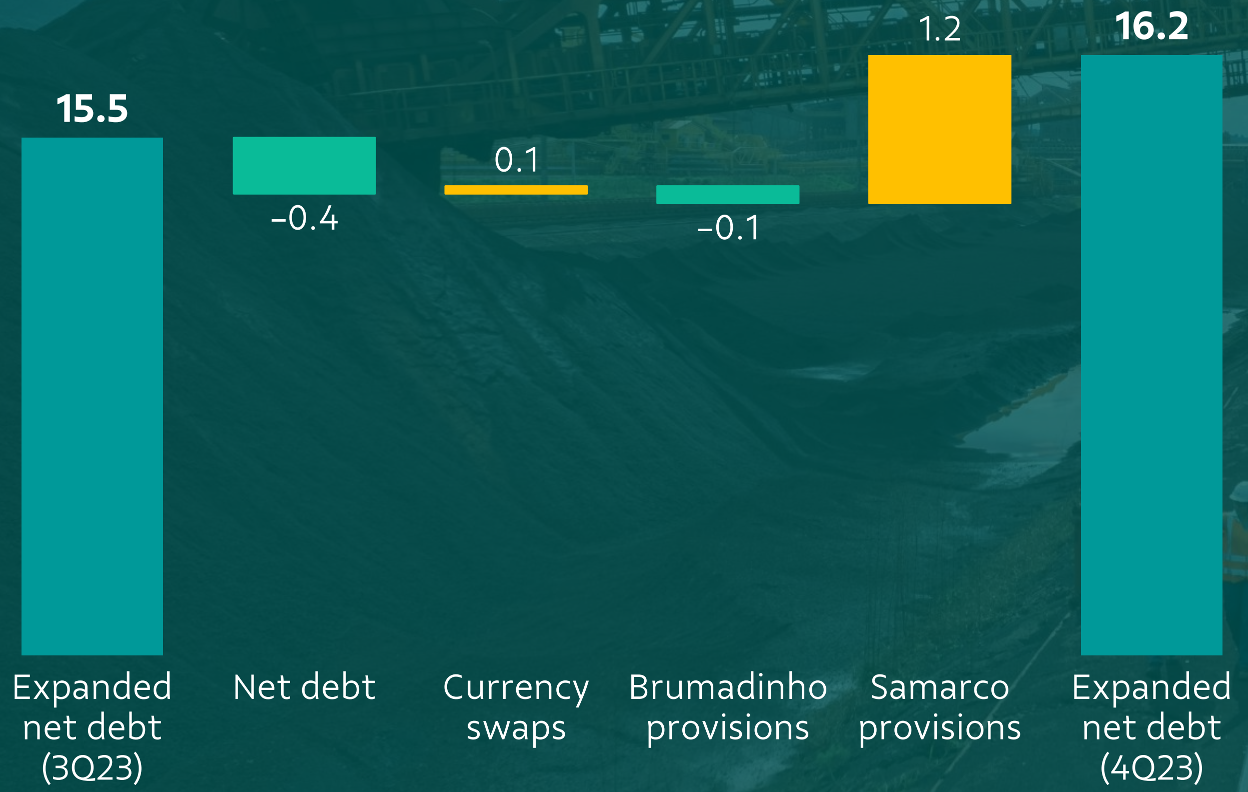
US$ 2.4 billion in dividends to be paid in Mar-24

[1] Includes US$ 562 million in disbursements for Brumadinho and decharacterization provisioned expenses and US$ 106 million of Brumadinho incurred expenses. [2] Includes interest on loans, leasing, dividends and interest on capital paid to non-controlling interest, shareholder debentures, payment related to Samarco's dam failure, others. [3] Includes US$ 44 million in share buybacks, and US$ 25 million in debt repayment.

Expanded net debt: disciplined capital allocation continues

Expanded net debt – (4Q23 vs. 3Q23)

US$ billion



Expanded net debt target: **US$ 10-20 billion**

Performing on **Brumadinho and Mariana commitments**

Solid dividend distribution and **consistent buybacks**

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3. Key takeaways

Key takeaways

- Delivering on our safety and ESG commitments
- Stronger operational and cost performance across all businesses
- Advancing our iron ore strategy towards quality growth
- Progressing on VBM's Asset Review
- Continued disciplined capital allocation


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Vale's performance in 4Q23 and 2023

Rio de Janeiro, February 22nd, 2024. *"2023 was a remarkable year for Vale. Our results translated the evolution of our safety-driven cultural transformation and our progress towards operational excellence. Regarding our Safety Journey, in 2023 we recorded the lowest injury frequency rate in our history. Our 2023 iron ore production at 321 Mt exceeded our guidance and provided evidence of increased asset and process reliability. In addition, we started up our 1st briquette plant and entered into a partnership with Anglo American in a world-class operation, important steps to support our strategy to grow with quality. In our path to transform the Energy Transition Metals business, copper production had an impressive 50% growth in the 4th quarter, while nickel production was in line with guidance. Regarding our commitments, 2023 saw a substantial progress in the reparations of Brumadinho and Mariana. Finally, we remain focused on a disciplined capital allocation, consistently returning value to our shareholders, as evidenced by our recent dividend announcement. We have walked the talk, and I am excited that Vale is progressing towards achieving even greater performance levels"*, commented Eduardo Bartolomeo, Chief Executive Officer.

Selected financial indicators

US$ million	4Q23	4Q22	3Q23	2023	2022
Net operating revenues	13,054	11,941	10,623	41,784	43,839
Total costs and expenses (ex-Brumadinho and de-characterization of dams)[1]	(7,278)	(7,895)	(6,921)	(26,014)	(26,253)
Expenses related to Brumadinho event and de-characterization of dams	(396)	(375)	(305)	(1,083)	(1,151)
Adjusted EBIT from continuing operations	**5,479**	**3,726**	**3,397**	**14,891**	**16,589**
Adjusted EBIT margin (%)	42%	31%	32%	36%	38%
Adjusted EBITDA from continuing operations	**6,334**	**4,626**	**4,177**	**17,961**	**19,760**
Adjusted EBITDA margin (%)	49%	39%	39%	43%	45%
Proforma adjusted EBITDA from continuing operations[2]	**6,730**	**5,001**	**4,482**	**19,044**	**20,911**
Net income from continuing operations attributable to Vale's shareholders	2,418	3,724	2,836	7,983	16,728
Net debt [3]	9,560	7,915	10,009	9,560	7,915
Expanded net debt	16,164	14,140	15,494	16,164	14,140
Capital expenditures	2,118	1,787	1,464	5,920	5,446

[1] Includes adjustment of US$ 82 million in 4Q23, US$ 47 million in 3Q23 and US$ 216 million in 2023, 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$ 6.7 billion in Q4, up 35% y/y and 50% q/q on the back of better operational performance and strong iron ore prices. Proforma adjusted EBITDA from continued operations of US$ 19.0 billion in 2023, down 9% mainly due to lower average iron ore, copper, and nickel reference prices in the year.
- Iron ore fines C1 cash cost ex-3rd party purchase decreased 5% q/q, reaching US$ 20.8/t in Q4. In 2023, it reached US$ 22.3/t, below the US$ 22.5/t guidance for the year.
- Free Cash Flow from Operations of US$ 2.5 billion in Q4, representing an EBITDA to cash-conversion of 37%.

Disciplined capital allocation

- Capital expenditures of US$ 2.1 billion in Q4, an increase of US$ 331 million y/y, resulting primarily from increased investments in Iron Ore Solutions projects, particularly Capanema and the Carajás Railway, and higher investments to enhance our Energy Transition Metals mining operations.
- Gross debt and leases of US$ 13.9 billion as of December 31st, 2023, US$ 113 million lower q/q.

- Expanded net debt of US$ 16.2 billion as of December 31st, 2023, US$ 670 million higher q/q, mainly driven by the US$ 1.2 billion provision increase related to the Renova Foundation and a potential global agreement framework. Vale´s expanded net debt target continues to be US$ 10-20 billion.

Value creation and distribution

- US$ 2.4 billion in dividends to be paid in March 2024, considering Vale's ordinary dividend policy applied to 2H23 results.

- US$ 2.0 billion in dividends and interest on capital paid in December 2023, referring to the anticipated allocation of the 2023 results.

- Allocation of US$ 44 million as part of the 4th buyback program in the quarter. As of the date of this report, the 4th buyback program was 15% complete[1], with 22.6 million shares repurchased.

Recent developments

- Agreement signed with Anglo American, in February, to acquire a 15% ownership interest and establish a partnership encompassing the Minas-Rio iron ore complex and Vale's Serra da Serpentina resources in Brazil. Following completion of the transaction, Vale will receive its pro-rata share of Minas-Rio production. Minas-Rio has an estimated high-grade pellet feed production capacity of 26.5 Mtpy.
- MoU signed with Hydnum Steel, in February, to jointly evaluate the feasibility of building an iron ore briquette plant in Hydnum Steel's flagship project for green steel in Puertollano, Spain. The plant will begin producing 1.5 Mtpy of rolled steel in 2026, and it is projected to have a 2.6 Mtpy capacity starting from 2030.

2023 in review

Focusing and strengthening the core

- **Gaining momentum on Iron Ore Solutions:**
  - Several agreements signed with clients and partners, focused on developing solutions for carbon emission reduction and delivering high-quality products. These include agreements to supply high-quality agglomerates, joint studies for implementing green hubs and Mega hubs, and establishing co-located briquetting plants.

- **Building a unique Energy Transition Metals vehicle:**
  - Vale Base Metals Limited ("VBM") creation, the holding entity of Vale's Energy Transition Metals business. VBM has a separate corporate structure, with a dedicated Board of Directors.
  - Two binding agreements signed in July, one with Manara Minerals and the other with Engine No. 1 under which the companies will separately invest in VBM. The total consideration to be paid to VBM is US$ 3.4 billion (subject to usual transaction adjustments on closing), for a 13% equity interest, implying a US$ 26 billion enterprise value.
  - Heads of Agreement signed, regarding the divestment obligation of PT Vale Indonesia Tbk ("PTVI"), a significant step towards a mutually beneficial outcome that meets Indonesian divestment obligations and clears the way for renewal of PTVI's mining license beyond 2025.

- **Advancing our project pipeline:**
  - The first iron ore briquette plant has started up in November at the Tubarão complex. The second plant is scheduled to start up in 1H24.
  - The Torto dam operations at the Brucutu site has started up in July, enabling higher pellet feed availability and an improved product mix.

[1] Related to the October 2023 4th buyback program for a total of 150 million shares.

- The first throughput test at the Salobo complex was successfully completed in November. The three plants combined throughput capacity now exceeds 32 Mtpa, progressing towards reaching 36-Mtpa in 4Q24. The achieved production levels allowed the receipt of additional US$ 370 million related to the streaming agreement.
- PTVI and the Chinese company Zhejiang Huayou Cobalt Co. signed a definitive agreement with the global automaker Ford Motor Co. for the development of the Pomalaa project in Indonesia.

Promoting sustainable mining

- The B3/B4 dam had over 90% of its tailings removed, being reclassified to a level 1 protocol, and its complete decharacterization was brought forward from 2027 to 2024.
- Conformance with the Global Industry Standard on Tailings Management (GISTM) successfully achieved for all prioritized tailings facilities, within the industry's timeframe.
- Sol do Cerrado solar energy complex reached its 766-Megawatt full capacity in July.
- Vale Base Metals and BluestOne signed a long-term agreement in October, aimed at waste reuse of 50 ktpy of slag from the Onça Puma site, promoting circular mining.
- The creation of Agera, a company focused on developing and expanding our sustainable sand business. Agera will market and distribute the sand produced by processing tailings from Vale's iron ore operations in Minas Gerais, Brazil.

Reparation

- The Brumadinho Integral Reparation Agreement continues to progress with 68% of the agreed-upon commitments completed and in accordance with the settlement deadlines.
- In the Mariana reparation, the Renova Foundation accelerated the restitution of housing rights by delivering 575 housing solutions out of a total 675 forecast.

Adjusted EBITDA

Adjusted EBITDA

US$ million	4Q23	4Q22	3Q23	2023	2022
Net operating revenues	13,054	11,941	10,623	41,784	43,839
COGS	(6,891)	(7,155)	(6,309)	(24,089)	(24,028)
SG&A	(146)	(148)	(150)	(553)	(515)
Research and development	(231)	(218)	(188)	(723)	(660)
Pre-operating and stoppage expenses	(108)	(125)	(115)	(450)	(479)
Expenses related to Brumadinho event & de-characterization of dams	(396)	(375)	(305)	(1,083)	(1,151)
Other operational expenses[1]	98	(249)	(159)	(199)	(571)
Dividends and interests on associates and JVs	99	55	-	204	154
Adjusted EBIT from continuing operations	**5,479**	**3,726**	**3,397**	**14,891**	**16,589**
Depreciation, amortization & depletion	855	900	780	3,070	3,171
Adjusted EBITDA from continuing operations	**6,334**	**4,626**	**4,177**	**17,961**	**19,760**
Proforma Adjusted EBITDA from continuing operations[2]	**6,730**	**5,001**	**4,482**	**19,044**	**20,911**

[1] Includes adjustment of US$ 82 million in 4Q23, US$ 47 million in 3Q23 and US$ 216 million in 2023, to reflect the performance of the streaming transactions at market price.
[2] Excluding expenses related to Brumadinho.

Proforma EBITDA – US$ million, 4Q23 vs. 4Q22

[1] Excluding Brumadinho expenses. [2] Includes US$ 44 million related to dividends and US$ 61 million related to by products revenues.

Sales & price realization

Volume sold - Minerals and metals

'000 metric tons	4Q23	4Q22	3Q23	2023	2022
Iron ore fines	77,885	81,202	69,714	256,789	260,663
ROM	2,158	1,963	2,232	8,290	8,216
Pellets	10,285	8,789	8,613	35,840	33,164
Nickel	48	58	39	168	181
Copper[1]	98	72	74	308	244
Gold as by-product ('000 oz)[1]	125	73	104	388	277
Silver as by-product ('000 oz)[1]	513	533	364	1,800	1,611
PGMs ('000 oz)	59	54	41	263	215
Cobalt (metric ton)	492	927	399	2,172	2,361

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

Average realized prices

US$/ton	4Q23	4Q22	3Q23	2023	2022
Iron ore - 62% Fe reference price	128.3	99.0	114.0	119.8	120.2
Iron ore fines Vale CFR/FOB realized price	118.3	95.6	105.1	108.1	108.1
Pellets CFR/FOB (wmt)	163.4	165.6	161.2	161.9	188.6
Nickel	18,420	24,454	21,237	21,830	23,669
Copper[2]	7,867	8,337	7,680	7,902	7,864
Gold (US$/oz)[12]	2,125	1,677	1,872	1,996	1,785
Silver (US$/oz)[2]	24.6	21.9	22.8	23.5	20.9
Cobalt (US$/t)[1]	35,438	44,980	35,222	34,426	58,865

[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	4Q23	4Q22	3Q23	2023	2022
Iron Ore Solutions	5,092	5,079	4,646	17,310	16,755
Energy Transition Metals	1,735	1,965	1,599	6,571	6,605
Others	64	111	64	208	668
Total COGS of continuing operations[1]	**6,891**	**7,155**	**6,309**	**24,089**	**24,028**
Depreciation	819	875	747	2,916	3,049
COGS of continuing operations, ex-depreciation	**6,072**	**6,280**	**5,562**	**21,173**	**20,979**

[1] COGS currency exposure in 4Q23 was as follows: 42.8% BRL, 51.1% USD, 5.9% CAD and 0.2% Other currencies.

Expenses

Operating expenses

US$ million	4Q23	4Q22	3Q23	2023	2022
SG&A	146	148	150	553	515
Administrative	121	121	124	463	430
Personnel	48	45	52	197	185
Services	41	44	32	131	125
Depreciation	10	9	12	47	41
Others	22	23	28	88	79
Selling	25	27	26	90	85
R&D	231	218	188	723	660
Pre-operating and stoppage expenses	108	125	115	450	479
Expenses related to Brumadinho event and de-characterization of dams	396	375	305	1,083	1,151
Other operating expenses	(16)	249	206	415	571
Total operating expenses	**865**	**1,115**	**964**	**3,224**	**3,376**
Depreciation	35	25	34	154	122
Operating expenses, ex-depreciation	**830**	**1,090**	**930**	**3,070**	**3,254**

Brumadinho

Impact of Brumadinho and De-characterization in 4Q23

US$ million	Provisions balance as of 3Q23[2]	EBITDA impact	Payments	FX and other adjustments[3]	Provisions balance as of 4Q23
De-characterization	3,337	153	(145)	106	3,451
Agreements & donations[1]	3,197	137	(417)	143	3,060
Total Provisions	**6,534**	**290**	**(562)**	**249**	**6,511**
Incurred Expenses	-	106	(106)	-	-
Total	**6,534**	**396**	**(668)**	**249**	**6,511**

[1] Includes Integral Reparation Agreement, individual, labor and emergency indemnifications, tailing removal and containment works.
[2] Adjusted to reflect the reclassification of Pera structure to ARO.
[3] Includes foreign exchange, present value and other adjustments.

Impact of Brumadinho and De-characterization from 2019 to 4Q23

US$ million	EBITDA impact	Payments	PV & FX adjust[2]	Provisions balance as of 4Q23
De-characterization	5,191	(1,596)	(144)	3,451
Agreements & donations[1]	9,119	(6,332)	273	3,060
Total Provisions	**14,310**	**(7,928)**	**129**	**6,511**
Incurred expenses	2,979	(2,979)	-	-
Others	180	(178)	(2)	-
Total	**17,469**	**(11,085)**	**127**	**6,511**

[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 4Q23 disbursed	2024	2025	2026	2027	Yearly average 2028-2035[3]
De-characterization	1.6	0.6	0.6	0.6	0.5	0.3
Integral Reparation Agreement & other reparation provisions	6.3	1.1	1.0	0.7	0.3	0.1[4]
Incurred expenses	3.0	0.5	0.4	0.4	0.3	0.4[5]
Total	10.9	2.2	2.0	1.7	1.1	-

[1] Estimate cash outflow for 2023-2035 period, given BRL-USD exchange rates of 4.8413.
[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$ 273 million per year.
[4] Disbursements related to the Integral Reparation Agreement ending in 2029.
[5] Disbursements related to incurred expenses ending in 2028.

Net income

Reconciliation of proforma EBITDA to net income

US$ million	4Q23	4Q22	3Q23	2023	2022
Proforma Adjusted EBITDA from continuing operations	**6,730**	**5,001**	**4,482**	**19,044**	**20,911**
Brumadinho event and de-characterization of dams	(396)	(375)	(305)	(1,083)	(1,151)
Adjusted EBITDA from continuing operations	**6,334**	**4,626**	**4,177**	**17,961**	**19,760**
Impairment reversal (impairment and disposals) of non-current assets, net [1]	(203)	(177)	(122)	(482)	773
Dividends received	(99)	(55)	-	(204)	(154)
Equity results and net income (loss) attributable to noncontrolling interests	(1,176)	53	73	(1,230)	223
Financial results	(874)	(658)	(385)	(1,946)	2,268
Income taxes	(709)	835	(127)	(3,046)	(2,971)
Depreciation, depletion & amortization	(855)	(900)	(780)	(3,070)	(3,171)
Net income from continuing operations attributable to Vale's shareholders	**2,418**	**3,724**	**2,836**	**7,983**	**16,728**

[1] Includes adjustment of US$ 82 million in 4Q23, US$ 47 million in 3Q23 and US$ 216 million in 2023, to reflect the performance of the streaming transactions at market price.

Financial results

US$ million	4Q23	4Q22	3Q23	2023	2022
Financial expenses, of which:	(380)	(291)	(362)	(1,459)	(1,179)
Gross interest	(190)	(149)	(192)	(744)	(612)
Capitalization of interest	5	7	5	19	47
Others	(163)	(110)	(137)	(586)	(462)
Financial expenses (REFIS)	(32)	(39)	(38)	(148)	(152)
Financial income	105	92	100	432	520
Shareholder Debentures	(483)	(99)	30	(179)	659
Financial Guarantee	-	2	-	-	481
Derivatives[1]	200	373	(51)	903	1,154
Currency and interest rate swaps	218	323	(92)	900	1,130
Others (commodities, etc)	(18)	50	41	3	24
Foreign exchange and monetary variation	(316)	(735)	(102)	(1,643)	633
Financial result, net	**(874)**	**(658)**	**(385)**	**(1,946)**	**2,268**

[1] The cash effect of the derivatives was a gain of US$ 297 million in 4Q23.

Main factors that affected net income in 4Q23 vs. 4Q22

	US$ million	
4Q22 Net income from continuing operations attributable to Vale's shareholders **Changes to:**	**3,724**	
EBITDA proforma	1,729	Mainly due to higher iron ore realized prices and higher copper sales volumes.
Brumadinho and de-characterization of dams	(21)	
Impairment reversal (impairment and disposals) of non-current assets, net[1]	(26)	
Dividends received	(44)	
Equity results and net income (loss) attributable to noncontrolling interests	(1,229)	Mainly due to provision increase related to Samarco's dam failure.
Financial results	(216)	4Q22 impacted by the reduction of the mark-to-market of shareholders' debentures.
Income taxes	(1,544)	Mainly due to an increase in taxable income and higher operational results.
Depreciation, depletion & amortization	45	
4Q23 Net income from continuing operations attributable to Vale's shareholders	**2,418**	

[1] Includes adjustment of US$ 82 million in 4Q23, to reflect the performance of the streaming transactions at market price.

CAPEX

Growth and sustaining projects execution

US$ million	4Q23	%	4Q22	%	3Q23	%	2023	%	2022	%
Growth projects	**481**	**22.7**	**426**	**23.8**	**468**	**32.0**	**1,651**	**27.9**	**1,587**	**29.1**
Iron Ore Solutions	374	17.7	285	15.9	354	24.2	1,219	20.6	866	15.9
Energy Transition Metals	95	4.5	100	5.6	96	6.6	358	6.0	338	6.2
Nickel	84	4.0	16	0.9	67	4.6	235	4.0	49	0.9
Copper	11	0.5	84	4.7	29	2.0	123	2.1	289	5.3
Energy and others	12	0.6	41	2.3	18	1.2	74	1.3	383	7.0
Sustaining projects	**1,637**	**77.3**	**1,361**	**76.2**	**996**	**68.0**	**4,269**	**72.1**	**3,859**	**70.9**
Iron Ore Solutions	946	44.7	764	42.8	609	41.6	2,539	42.9	2,236	41.1
Energy Transition Metals	664	31.4	567	31.7	357	24.4	1,610	27.2	1,521	27.9
Nickel	520	24.6	480	26.9	298	20.4	1,305	22.0	1,287	23.6
Copper	144	6.8	87	4.9	59	4.0	305	5.2	234	4.3
Energy and others	27	1.3	30	1.7	30	2.0	120	2.0	102	1.9
Total	**2,118**	**100.0**	**1,787**	**100.0**	**1,464**	**100.0**	**5,920**	**100.0**	**5,446**	**100.0**

Growth projects

Investments in growth projects under construction totaled US$ 481 million in Q4, a 13% increase y/y, driven by higher investments in Iron Ore Solutions, mainly in the Capanema project and the Rio Tocantins Bridge duplication, in the Carajás Railway. In Energy Transition Metals, the increase in disbursements for the Onça Puma 2nd Furnace and the Bahadopi nickel project were offset by lower disbursements at Salobo III as the ramp-up advances.

Growth projects progress indicator[2]

Projects	Capex 4Q23	Financial progress[1]	Physical progress	Comments
Iron Ore Solutions				
Northern System 240 Mtpy *Capacity: 10 Mtpy* *Start-up: 1H23* *Capex: US$ 772 MM*	37	83%	94%[2]	Load tests at the mine's loading silo are programmed to start in 1Q24. For the railroad, initial works on the bridge over the Jacundá river have been completed. At the port, the load tests for the entire project route were successfully completed.
Serra Sul 120 Mtpy[3] *Capacity: 20 Mtpy* *Start-up: 2H26* *Capex: US$ 1,548 MM[4]*	123	58%	61%	Construction of the reinforced earth wall at the mine was completed. The foundations for the conveyor belts in the West Corridor and the CT-05 Transfer House have also been completed. Pre-assembly work on the semi-mobile crusher and modules of the long-distance conveyor belt has begun. At the plant, concrete is being laid according to plan.
Capanema's Maximization *Capacity: 18 Mtpy* *Start-up: 2H25* *Capex: US$ 913 MM*	66	43%	68%	Assembly of equipment, crushing machinery, structures and conveyor belts is on schedule to be ready by 3Q24. The assembly of the long-distance conveyor belt galleries is on schedule.
Briquettes Tubarão *Capacity: 6 Mtpy* *Start-up: 4Q23 (Plant 1) | 1H24 (Plant 2)* *Capex: US$ 256 MM*	31	94%	96%	Plant 1 started-up in November. Plant 2 is in the commissioning phase.

contd.

[2] Pre-Operating expenses included in the total estimated capex information, according to the approvals from Vale´s Board of Directors

Growth projects progress indicator[3] *contd.*

Projects	Capex 4Q23	Financial progress[1]	Physical progress	Comments
Energy Transition Materials				
Onça Puma 2nd Furnace *Capacity: 12-15 ktpy* *Start-up: 2H25* *Capex: US$ 555 MM*	36	18%	26%	Assembly of the second furnace, detailed engineering, and equipment and services' procurement is underway.

[1] CAPEX disbursement until end of 4Q23 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] CAPEX adjusted to include Pre-operating Expenses

Sustaining projects

Investments in sustaining our operations totaled US$ 1.637 billion in Q4, a 20% increase y/y, with investments in mine equipment, mining fleet and in adjustments to meet Critical Activity Requirements.

Sustaining projects progress indicator[3]

Projects	Capex 4Q23	Financial progress[1]	Physical progress	Comments
Iron Ore Solutions				
Compact Crushing S11D *Capacity: 50 Mtpy* *Start-up: 2H26* *Capex: US$ 755 MM*	46	16%	26%	Construction of the primary crushing structures continues according to plan with the walls of the building being built. Work on the Western Corridor conveyor belts is in final stages and is expected to be completed in 1H24.
N3 – Serra Norte *Capacity: 6 Mtpy* *Start-up: 1H26* *Capex: US$ 84 MM*	1	18%	18%	The Installation License and Vegetation Suppression Authorization are expected to be obtained by the end of 2024. As a result, the start-up has been revised to 1H26.
VGR 1 plant revamp[3] *Capacity: 17 Mtpy* *Start-up: 2H24* *Capex: US$ 67 MM*	10	33%	78%	Civil works on the Sump were completed in Dec/23 and the slurry pumps were assembled. Electromechanical assembly of the slewing cranes has begun. The operational readiness plan is underway.
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*	120	92%	92%	The main surface assets are completed and already operating. The electromechanical assembly on the remaining surface assets are well advanced (above 60% physical progress). In the underground portion, the scope in Reid Brook is completed and the project is fully focused on Eastern Deeps. The mine development is concluded and construction is ongoing.

[1] CAPEX disbursement until end of 4Q23 vs. CAPEX expected.
[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 continuing its scheduled production ramp-up.
[3] VGR 1 is a program made up of three simultaneous projects, VGR I Waste Containment System, Water Adequacy and the VGR I Revamp, all aimed at boosting the recovery of production capacity. The progress data provided focuses on the program's main project, the VGR I Waste Containment System.

Sustaining capex by type - 4Q23

US$ million	Iron Ore Solutions	Energy Transition Materials	Energy and others	Total
Enhancement of operations	533	400	2	935
Replacement projects	12	159	-	171
Filtration and dry stacking projects	45	-	-	45
Dam management	48	11	-	59
Other investments in dams and waste dumps	74	23	-	97
Health and Safety	88	59	2	149
Social investments and environmental protection	79	4	-	83
Administrative & Others	67	8	23	98
Total	**946**	**664**	**27**	**1,637**

[3] Pre-Operating expenses included in the total estimated capex information, according to the approvals from Vale´s Board of Directors

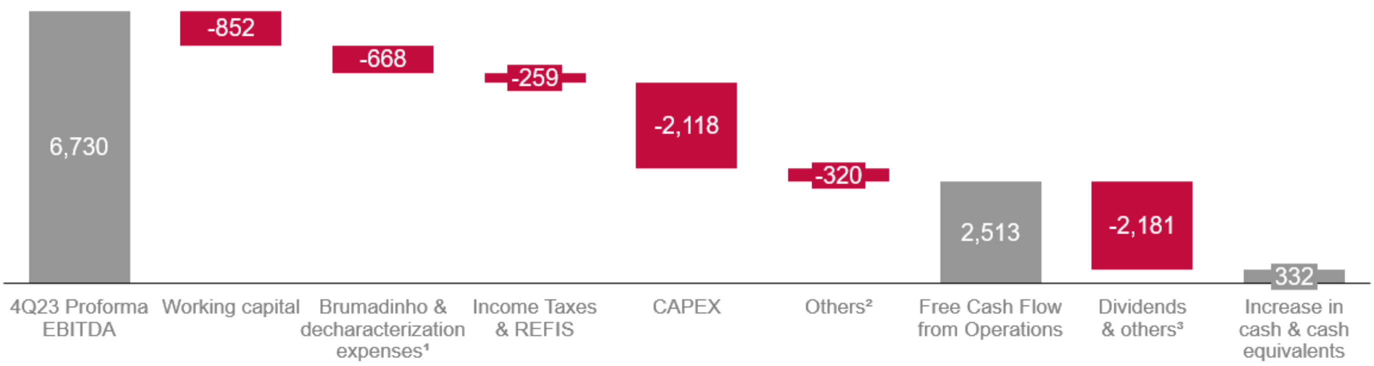
Free cash flow

Free Cash Flow from Operations reached US$ 2.513 billion in 4Q23, US$ 2.526 billion higher y/y, largely explained by US$ 1.729 billion increase in Proforma EBITDA and US$ 948 million lower negative working capital impact.

In the quarter, working capital variation is explained by the US$ 832 million increase in accounts receivable mainly due to the combined effect of (i) expected seasonally higher iron ore accrual sales volume (17.3 Mt in Q4 versus 16.4 Mt in Q3) led by stronger sales at the end of Q4; and (ii) iron ore provisional prices above quarter average (US$ 139.1/t vs. US$ 128.3/t, respectively).

Vale's cash generation and position was primarily used to distribute US$ 2.040 billion to shareholders in dividends and interest on capital.

Free Cash Flow – US$ million, 4Q23



[1] Includes US$ 562 million of disbursement of Brumadinho and de-characterization provisioned expenses and US$ 106 million of Brumadinho incurred expenses
[2] Includes interest on loans, derivatives, leasing, dividends and interest on capital paid to noncontrolling interest, shareholders debentures, payments related to Samarco dam failure and others.
[3] Includes US$ 2,040 million of dividends and interest on capital, US$ 44 million of share buyback and US$ 25 million debt repayment.

Debt

Debt indicators

US$ million	4Q23	4Q22	3Q23
Gross debt[1]	**12,471**	**11,181**	**12,556**
Lease (IFRS 16)	1,452	1,531	1,480
Gross debt and leases	**13,923**	**12,712**	**14,036**
Cash, cash equivalents and short-term investments[2]	(4,363)	(4,797)	(4,027)
Net debt	**9,560**	**7,915**	**10,009**
Currency swaps[3]	(664)	(211)	(722)
Brumadinho provisions	3,060	3,312	3,197
Samarco & Renova Foundation provisions[4]	4,208	3,124	3,010
Expanded net debt	**16,164**	**14,140**	**15,494**
Average debt maturity (years)	7.9	8.7	8.2
Cost of debt after hedge (% pa)	5.6	5.5	5.6
Total debt and leases / adjusted LTM EBITDA (x)	0.8	0.6	0.9
Net debt / adjusted LTM EBITDA (x)	0.5	0.4	0.6
Adjusted LTM EBITDA / LTM gross interest (x)	24.1	32.3	23.0

[1] Does not include leases (IFRS 16).
[2] Includes US$ 703 million related to non-current assets held for sale in 4Q23 due to the upcoming PTVI divestment.
[3] Includes interest rate swaps.
[4] Does not include provision for de-characterization of Germano dam in the amount of US$ 219 million in 4Q23, US$ 209 million in 3Q23 and US$ 197 million in 4Q22.

Gross debt and leases were US$ 13.9 billion as of December 31st, 2023, US$ 113 million lower q/q.

This quarter we recognized a provision increase of US$1.2 billion related to Samarco's dam failure and a potential settlement with Brazilian authorities. Although still subject to uncertainty, our assessment considers all information available from the status of the potential settlement agreement, the claims related to the Samarco dam failure and the extent to which Samarco may be able to fund any future outflows.

As such, expanded net debt increased in the quarter, totaling US$ 16.2 billion, nearly US$ 0.7 billion higher q/q. The higher cash position in December contributed to partially offset the impact of the provision increase. We maintain our US$ 10-20 billion expanded net debt target range.

The average debt maturity declined slightly to 7.9 years (compared to 8.2 years at the end of 3Q23). The average annual cost of debt after currency and interest rate swaps was 5.6%, flat q/q.

Performance of the business segments

Proforma Adjusted EBITDA from continuing operations, by business area

US$ million	4Q23	4Q22	3Q23	2023	2022
Iron Ore Solutions	**6,411**	**4,721**	**4,455**	**18,127**	**19,443**
Iron ore fines	5,467	3,955	3,696	14,888	15,670
Pellets	925	743	712	3,122	3,653
Other Ferrous Minerals	19	23	47	117	120
Energy Transition Metals[1]	**523**	**775**	**379**	**1,951**	**2,493**
Nickel	152	594	100	815	1,857
Copper	375	165	269	1,100	569
Other	(4)	16	10	37	67
Others[2]	**(204)**	**(495)**	**(352)**	**(1,034)**	**(1,025)**
Total	**6,730**	**5,001**	**4,482**	**19,044**	**20,911**

[1] Includes an adjustment of US$ 82 million in 4Q23 and US$ 47 million 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.
[2] Including a negative y/y effect of provisions related to communities' programs, reversal of tax credit provisions, and contingency loss.

Segment information 4Q23

US$ million	Net operating revenues	Cost[1]	Expenses: SG&A and others[1]	Expenses: R&D[1]	Expenses: Pre operating & stoppage[1]	Dividends and interest received from associates and JVs	Adjusted EBITDA
Iron Ore Solutions	**11,030**	**(4,568)**	**87**	**(104)**	**(80)**	**46**	**6,411**
Iron ore fines	9,212	(3,704)	95	(90)	(67)	21	5,467
Pellets	1,680	(768)	(4)	(3)	(5)	25	925
Others ferrous	138	(96)	(4)	(11)	(8)	-	19
Energy Transition Metals	**1,982**	**(1,443)**	**64**	**(78)**	**(2)**	**-**	**523**
Nickel[2]	1,177	(980)	(9)	(35)	(1)	-	152
Copper[3]	855	(427)	(9)	(43)	(1)	-	375
Others[4]	(50)	(36)	82	-	-	-	(4)
Brumadinho event and de-characterization of dams	**-**	**-**	**(396)**	**-**	**-**	**-**	**(396)**
Others	**42**	**(61)**	**(188)**	**(49)**	**(1)**	**53**	**(204)**
Total	**13,054**	**(6,072)**	**(433)**	**(231)**	**(83)**	**99**	**6,334**

[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$ 82 million increasing the adjusted EBITDA in 4Q23, 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 Ore Solutions

Selected financial indicators - Iron Ore Solutions

US$ million	4Q23	4Q22	3Q23	2023	2022
Net Revenues	11,030	9,330	8,862	34,079	34,916
Costs[1]	(4,568)	(4,561)	(4,164)	(15,451)	(14,946)
SG&A and Other expenses[1]	87	94	(79)	(14)	(51)
Pre-operating and stoppage expenses[1]	(80)	(102)	(89)	(338)	(381)
R&D expenses	(104)	(84)	(75)	(283)	(215)
Dividends and interests on associates and JVs	46	44	-	134	120
Adjusted EBITDA	**6,411**	**4,721**	**4,455**	**18,127**	**19,443**
Depreciation and amortization	(549)	(535)	(508)	(1,962)	(1,890)
Adjusted EBIT	**5,862**	**4,186**	**3,947**	**16,165**	**17,553**
Adjusted EBIT margin (%)	**53.1**	**44.9**	**44.5**	**47.4**	**50.3**

[1] Net of depreciation and amortization.

Iron Ore Solutions EBITDA Variation 4Q23 vs. 4Q22

US$ million	4Q22	Drivers			Total variation	4Q23
		Volume	Prices	Others		
Iron ore fines	3,955	(161)	1,763	(90)	1,512	5,467
Pellets	743	109	(2)	75	182	925
Others	23	2	16	(22)	(4)	19
Iron Ore Solutions	**4,721**	**(50)**	**1,777**	**(37)**	**1,690**	**6,411**

The 36% increase in EBITDA y/y is mainly explained by higher iron ore fines realized prices (US$ 1.777 billion), mainly due to 30% higher average iron ore reference price and the positive effect from forward price adjustments.

Revenues

Iron Ore Solutions' volumes, prices, premiums and revenues

	4Q23	4Q22	3Q23	2023	2022
Volume sold ('000 metric tons)					
Iron ore fines	**77,885**	**81,202**	**69,714**	**256,789**	**260,663**
IOCJ	13,074	22,605	14,758	52,673	68,027
BRBF	45,199	41,150	36,454	134,333	128,800
Pellet feed – China (PFC1)[1]	3,279	2,758	4,234	13,335	8,887
Lump	1,871	2,212	2,367	7,498	8,406
High-silica products	8,646	6,698	6,131	26,736	26,617
Other fines (60-62% Fe)	5,816	5,779	5,770	22,214	19,926
ROM	**2,158**	**1,963**	**2,232**	**8,290**	**8,216**
Pellets	**10,285**	**8,789**	**8,613**	**35,840**	**33,164**
Share of premium products[2] (%)	**80%**	**83%**	**81%**	**79%**	**80%**
Average prices (US$/t)					
Iron ore - 62% Fe price	128.3	99.0	114.0	119.8	120.2
Iron ore - 62% Fe low alumina index	128.4	99.8	116.1	121.6	123.0
Iron ore - 65% Fe index	138.8	111.4	125.5	132.2	139.2
Provisional price at the end of the quarter	139.1	116.3	117.0	139.1	116.3
Iron ore fines Vale CFR reference (dmt)	131.6	107.4	116.3	120.5	121.1
Iron ore fines Vale CFR/FOB realized price	118.3	95.6	105.1	108.1	108.1
Pellets CFR/FOB (wmt)	163.4	165.6	161.2	161.9	188.6

contd.

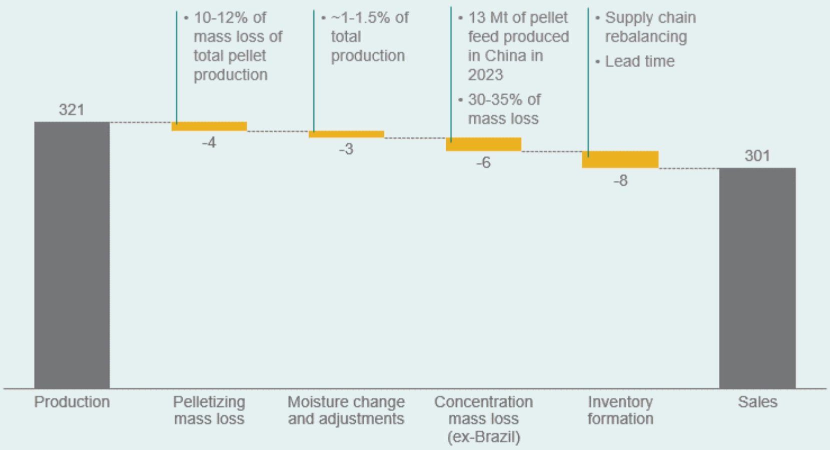
Iron Ore Solutions' volumes, prices, premiums and revenues *contd.*

	4Q23	4Q22	3Q23	2023	2022
Iron ore fines and pellets quality premium (US$/t)					
Iron ore fines quality premium	(1.1)	1.6	0.8	(0.2)	1.8
Pellets weighted average contribution	2.7	3.8	3.0	3.2	5.1
Total	1.6	5.4	3.8	3.0	6.9
Net operating revenue by product (US$ million)					
Iron ore fines	9,212	7,767	7,331	27,760	28,188
ROM	29	22	33	122	103
Pellets	1,680	1,456	1,388	5,803	6,256
Others	109	85	110	394	369
Total	**11,030**	**9,330**	**8,862**	**34,079**	**34,916**

[1] Products concentrated in Chinese facilities.
[2] Pellets, Carajás (IOCJ), Brazilian Blend Fines (BRBF) and pellet feed.

The share of premium products in total sales reached 80% in Q4. The all-in premium totaled US$ 1.6/t, US$ 2.2/t lower q/q and US$ 3.8/t lower y/y. Given market conditions in Q4, with lower discounts for high-silica products as well as lower premiums for high-grade products, Vale decided to increase high silica products' share in the sales mix, while rebalancing premium iron ore inventories, maximizing its product portfolio value.

Box: Vale's iron ore production-to-sales in 2023 (Mt)



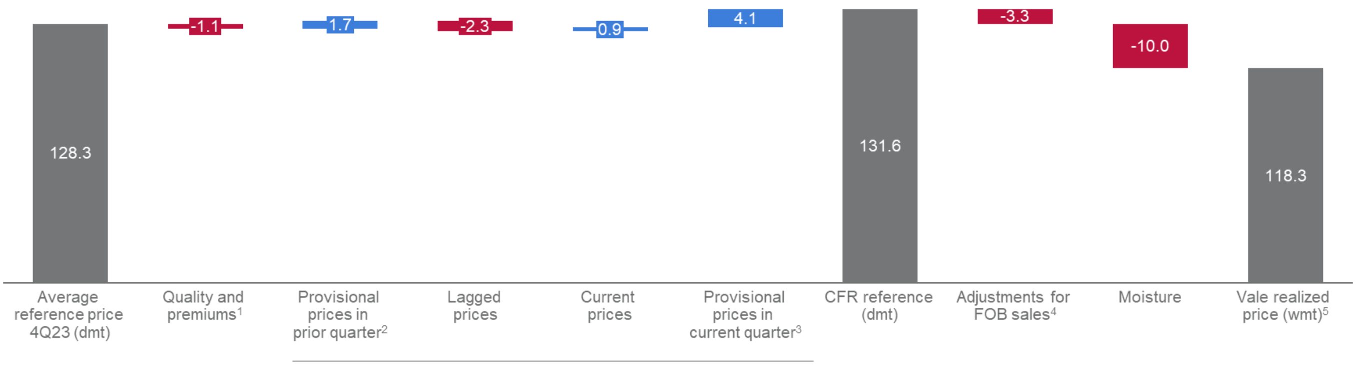
After two years of strong sales and inventory drawdown, and given market conditions, Vale optimized its product portfolio and rebalanced its premium iron ore inventories. This represented a re-stocking of 8 Mt throughout the chain.

The remaining difference is explained by three effects from Vale's supply chain: (i) the pelletizing process; (ii) the moisture effect; and (iii) the concentration in China.

Iron ore fines, excluding Pellets and ROM

Revenues & price realization

Price realization iron ore fines – US$/t, 4Q23



[1] Includes quality (US$ 0.6/t) and premiums/discounts and commercial conditions (US$ -1.6/t).
[2] Adjustment as a result of provisional prices booked in 3Q23 at US$ 117.0/t.
[3] Difference between the weighted average of the prices provisionally set at the end of 4Q23 at US$ 139.1/t based on forward curves and US$ 128.3/t from the 4Q23 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$ 118.3/t, US$ 13.2/t higher q/q, largely attributed to higher benchmark iron ore prices (US$ 14.3/t higher y/y), and a positive impact from forward price adjustments (US$ 4.0/t higher y/y).

Iron Ore fines pricing system breakdown (%)

	4Q23	4Q22	3Q23
Lagged	12	12	13
Current	50	57	44
Provisional	38	31	43
Total	**100**	**100**	**100**

Costs

Iron ore fines cash cost and freight

	4Q23	4Q22	3Q23	2023	2022
Costs (US$ million)					
Vale's iron ore fines C1 cash cost (A)	1,924	1,759	1,784	6,606	5,856
Third-party purchase costs¹ (B)	468	274	402	1,412	1,100
Vale's C1 cash cost ex-third-party volumes (C = A – B)	1,456	1,485	1,383	5,194	4,756
Sales Volumes (Mt)					
Volume sold (ex-ROM) (D)	77.9	81.2	69.7	256.8	260.7
Volume sold from third-party purchases (E)	7.8	5.1	6.6	23.6	18.5
Volume sold from own operations (F = D – E)	70.1	76.2	63.1	233.2	242.2

contd.

Iron ore fines cash cost and freight *contd.*

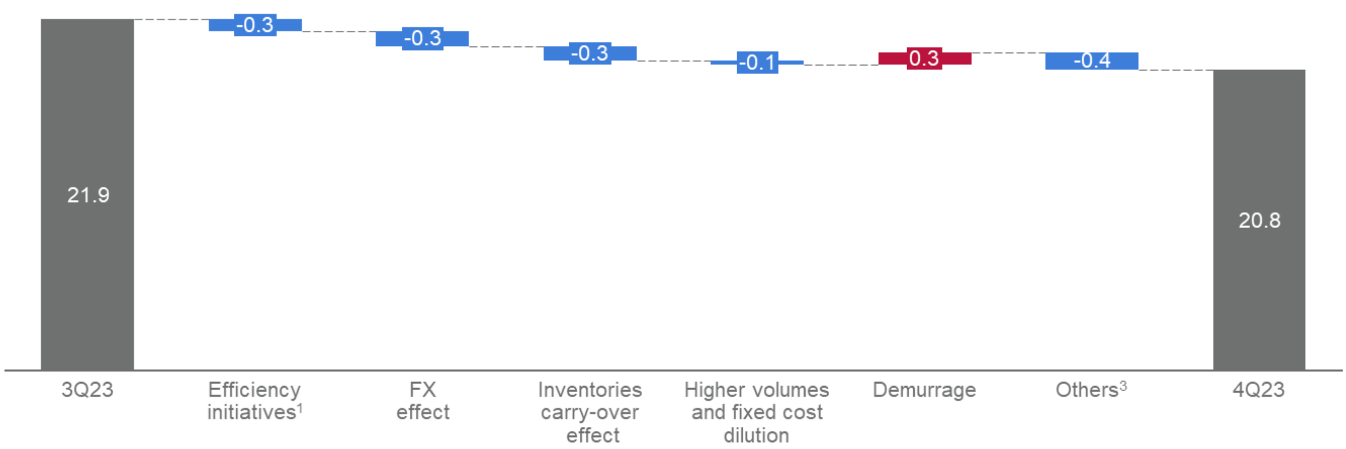
	4Q23	4Q22	3Q23	2023	2022
Iron ore fines cash cost (ex-ROM, ex-royalties), FOB (US$ /t)					
Vale's C1 cash cost ex-third-party purchase cost (C/F)	20.8	19.5	21.9	22.3	19.6
Average third-party purchase C1 cash cost (B/E)	59.9	54.2	60.5	59.9	59.5
Vale's iron ore cash cost (A/D)	24.7	21.7	25.6	25.7	22.5
Freight					
Maritime freight costs (G)	1,258	1,312	1,129	3,929	4,328
% of CFR sales (H)	86%	86%	86%	83%	82%
Volume CFR (Mt) (I = D x H)	66.9	69.8	59.8	213.9	214.5
Vale's iron ore unit freight cost (US$/t) (G/I)	18.8	18.8	18.9	18.4	20.2

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

Iron ore fines COGS - 4Q22 vs. 4Q23

US$ million	4Q22	Drivers			Total variation	4Q23
		Volume	Exchange rate	Others		
C1 cash costs	1,759	(75)	60	180	165	1,924
Freight	1,312	(55)	-	1	(54)	1,258
Distribution costs	153	(6)	-	6	-	153
Royalties & others	520	(21)	-	(130)	(151)	369
Total costs before depreciation and amortization	**3,744**	**(157)**	**60**	**57**	**(40)**	**3,704**
Depreciation	382	(16)	13	(2)	(5)	377
Total	**4,126**	**(173)**	**73**	**55**	**(45)**	**4,081**

C1 cash cost variation (excluding 3rd-party purchases) – US$/t, 4Q23 vs. 3Q23



[1] Including costs related to material, personal, services, and maintenance.
[2] Including, one-off fiscal credits, diesel costs, energy costs, and others.

Vale's C1 cash cost, ex-third-party purchases, totaled US$ 22.3/t in 2023, below the US$ 22.5/t guidance for the year. In Q4, the C1 cash cost decreased US$ 1.1/t q/q, reaching US$ 20.8/t. The main cost reduction drivers were (i) continued effort to improve efficiency across the business; (ii) positive effect of exchange rate; (iii) inventory carry-over effect; and (iv) slightly higher volumes diluting fixed costs.

Vale's maritime freight cost was slightly lower q/q, reaching US$ 18.8/t, driven by a lower exposure to spot freight. CFR sales totaled 66.9 Mt in Q4, reflecting 86% of total iron ore fines sales.

Expenses

Expenses - Iron Ore fines

US$ millions	4Q23	4Q22	3Q23	2023	2022
SG&A	17	21	21	70	64
R&D	90	83	70	256	208
Pre-operating and stoppage expenses	67	92	78	293	342
Other expenses[1]	(112)	(114)	58	(83)	(10)
Total expenses	**62**	**82**	**227**	**536**	**604**

[1] Including a positive tax recovery effect.

Iron ore pellets

Pellets – EBITDA

US$ million	4Q23	4Q22	3Q23	Comments
Net revenues / Realized prices	1,680	1,456	1,388	Driven by higher sales volumes (1.5 Mt higher y/y and 1.7 Mt higher q/q).
Dividends from leased pelletizing plants	25	30	-	
Cash costs (Iron ore, leasing, freight, overhead, energy and other)	(768)	(735)	(669)	Flat unitary cash costs.
Pre-operational & stoppage expenses	(5)	(5)	(6)	
Expenses (Selling, R&D and other)	(7)	(3)	(1)	
EBITDA	**925**	**743**	**712**	
EBITDA/t	**90**	**85**	**83**	

Iron ore fines and pellets cash break-even landed in China[4]

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

US$/t	4Q23	4Q22	3Q23	2023	2022
Vale's C1 cash cost ex-third-party purchase cost	20.8	19.5	21.9	22.3	19.6
Third party purchases cost adjustments	3.9	2.2	3.7	3.4	2.8
Vale's iron ore cash cost (ex-ROM, ex-royalties), FOB (US$ /t)	24.7	21.7	25.6	25.7	22.5
Iron ore fines freight cost (ex-bunker oil hedge)	18.8	18.8	18.9	18.4	20.2
Iron ore fines distribution cost	2.0	1.9	2.6	2.5	2.0
Iron ore fines expenses[1] & royalties	5.2	7.2	7.7	6.6	6.9
Iron ore fines moisture adjustment	4.2	4.3	4.7	4.6	4.6
Iron ore fines quality adjustment	1.1	(1.6)	(0.8)	0.2	(1.8)
Iron ore fines EBITDA break-even (US$/dmt)	**56.0**	**52.3**	**58.7**	**58.0**	**54.4**
Iron ore fines pellet adjustment	(2.7)	(3.8)	(3.0)	(3.2)	(5.1)
Iron ore fines and pellets EBITDA break-even (US$/dmt)	**53.3**	**48.5**	**55.7**	**54.8**	**49.3**
Iron ore fines sustaining investments	10.9	8.7	7.8	8.8	7.8
Iron ore fines and pellets cash break-even landed in China (US$/dmt)	**64.2**	**57.2**	**63.5**	**63.6**	**57.1**

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

[4] 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 – 4Q23

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	763	170	294	69	198	657	(119)	2,032	(50)	1,982
Costs	(698)	(196)	(188)	(87)	(113)	(314)	189	(1,407)	(36)	(1,443)
Selling and other expenses	8	3	(4)	(5)	(1)	(3)	(16)	(18)	82	64
Pre-operating and stoppage expenses	-	-	-	(1)	-	(1)	-	(2)	-	(2)
R&D	(19)	(9)	(2)	-	(5)	(13)	(30)	(78)	-	(78)
EBITDA	**54**	**(32)**	**100**	**(24)**	**79**	**326**	**24**	**527**	**(4)**	**523**

[1] Includes an adjustment of US$ 82 million increasing the adjusted EBITDA in 4Q23, 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	4Q23	4Q22	3Q23	2023	2022
Net Revenues	1,177	1,795	1,023	4,742	5,509
Costs[1]	(980)	(1,138)	(925)	(3,739)	(3,498)
SG&A and other expenses[1]	(9)	(20)	31	(67)	(38)
Pre-operating and stoppage expenses[1]	(1)	(1)	(1)	(2)	(1)
R&D expenses	(35)	(42)	(28)	(119)	(115)
Adjusted EBITDA	152	594	100	815	1,857
Depreciation and amortization	(236)	(272)	(208)	(876)	(883)
Adjusted EBIT	(84)	322	(108)	(61)	974
Adjusted EBIT margin (%)	(7.1)	17.9	(10.5)	(1.3)	17.7

[1] Net of depreciation and amortization.

EBITDA variation - US$ million (4Q23 vs. 4Q22), ex-marketing activities

		Drivers					
US$ million	4Q22	Volume	Prices	By-products	Others	Total variation	4Q23
Nickel excl. marketing	594	(24)	(291)	(82)	(45)	(442)	152

EBITDA by operations, ex-marketing activities

US$ million	4Q23	4Q22	3Q23	4Q23 vs. 4Q22 Comments
Sudbury[1]	54	192	(22)	Lower nickel prices.
Voisey's Bay & Long Harbour	(32)	65	(67)	Lower nickel prices and higher consumption of external feed.
PTVI	100	95	104	Lower fixed costs alongside lower fuel prices and increase in sales volume, which have offset the lower nickel price.
Onça Puma	(24)	101	15	Lower sales volumes and increased fixed cost due to scheduled maintenance on the furnace.
Others[2]	54	141	70	Lower nickel sales volumes directly sold by Matsusaka.
Total	**152**	**594**	**100**	

[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

	4Q23	4Q22	3Q23	2023	2022
Volume sold ('000 metric tons)					
Nickel	48	58	39	168	181
Copper	21	27	12	74	78
Gold as by-product ('000 oz)	11	11	9	42	40
Silver as by-product ('000 oz)	227	355	122	861	919
PGMs ('000 oz)	59	54	41	263	215
Cobalt (metric ton)	492	927	399	2,172	2,361
Average realized prices (US$/t)					
Nickel	18,420	24,454	21,237	21,830	23,669
Copper	7,602	7,610	7,423	7,720	7,459
Gold (US$/oz)	2,065	1,750	1,851	1,946	1,713
Silver (US$/oz)	25.2	23.6	22.5	23.1	21.1
Cobalt	35,438	44,980	35,222	34,426	58,865
Net revenue by product - ex marketing activities (US$ million)					
Nickel	888	1,422	833	3,664	4,279
Copper	162	205	89	570	578
Gold as by-product[1]	23	20	17	82	68
Silver as by-product	6	9	3	20	20
PGMs	71	87	54	285	390
Cobalt[1]	18	42	14	75	139
Others	9	10	13	46	35
Total	**1,177**	**1,795**	**1,023**	**4,742**	**5,509**

[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

	4Q23	4Q22	3Q23	2023	2022
Volumes (kt)					
Upper Class I nickel	25.7	28.9	21.7	93.9	93.4
- of which: EV Battery	0.6	1.8	0.2	3.6	5.7
Lower Class I nickel	7.2	7.0	4.6	20.3	24.2
Class II nickel	9.9	17.8	9.4	36.8	46.6
Intermediates	5.4	4.5	3.6	16.9	16.5
Nickel realized price (US$/t)					
LME average nickel price	17,247	25,292	20,344	21,474	25,605
Average nickel realized price	18,420	24,454	21,237	21,830	23,669
Contribution to the nickel realized price by category:					
Nickel average aggregate (premium/discount)	215	(250)	123	117	(40)
Other timing and pricing adjustments contributions[1]	958	(588)	770	239	(1,895)
Premium/discount by product (US$/t)					
Upper Class I nickel	1,430	1,520	1,755	1,630	1,530
Lower Class I nickel	980	670	1,368	1,200	690
Class II nickel	(1,690)	(2,370)	(2,542)	(2,340)	(1,690)
Intermediates	(3,100)	(4,750)	(4,361)	(4,260)	(5,270)

[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 positive impact of US$ 214/t , (ii) fixed-price sales, with a positive impact of US$ 187/t and (iii) the effect of the hedging on Vale's nickel price realization, with a positive impact of US$ 579/t in the quarter and (iv) other effects with a negative impact of US$ 22/t.

Note: The nickel realized price for 4Q23 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$ 34,928/t.

The average nickel realized price was US$ 18,420/t, down 13.3% q/q, mainly due to 15.2% lower LME reference prices q/q. The average realized nickel price in Q4 was 7% higher than the LME reference price, mainly due to the impact of positive hedging results and the higher share of Class I products in sales mix, sold at higher premiums.

Product type by operation

% of source sales	North Atlantic	PTVI & Matsusaka	Onça Puma	Total 4Q23	Total 4Q22
Upper Class I	75.6	-	-	53.4	49.7
Lower Class I	21.0	-	-	14.9	12.0
Class II	1.8	46.9	100.0	20.6	30.5
Intermediates	1.6	53.1	-	11.2	7.7

Costs

Nickel COGS, excluding marketing activities - 4Q23 vs. 4Q22

US$ million	4Q22	Drivers			Total variation	4Q23
		Volume	Exchange rate	Others		
Nickel operations	1,138	(195)	2	35	(158)	980
Depreciation	272	(46)	1	9	(35)	236
Total	**1,410**	**(241)**	**3**	**44**	**(194)**	**1,216**

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

US$/t	4Q23	4Q22	3Q23	4Q23 vs. 4Q22 Comments
Sudbury[1,2]	16,007	16,435	21,645	Higher fixed cost dilution in Clydach.
Voisey's Bay & Long Harbour[2]	21,392	17,797	30,316	Higher consumption of external feed.
PTVI	9,116	12,150	9,915	Higher dilution of fixed costs and lower fuel costs.
Onça Puma	17,430	10,412	11,543	Lower dilution of fixed costs and higher maintenance costs due to furnace rebuild.

[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 – nickel operations

EBITDA break-even

US$/t	4Q23	4Q22	3Q23	2023	2022
COGS ex. 3rd-party feed	19,329	18,660	23,039	21,268	18,346
COGS[1]	20,320	19,577	23,581	22,274	19,351
By-product revenues[1]	(6,003)	(6,390)	(4,807)	(6,421)	(6,798)
COGS after by-product revenues	14,317	13,187	18,774	15,853	12,553
Other expenses[2]	919	1,017	(81)	1,117	847
Total Costs	**15,236**	**14,204**	**18,693**	**16,970**	**13,400**
Nickel average aggregate (premium) discount	(215)	250	(123)	(117)	40
EBITDA breakeven[3]	**15,021**	**14,454**	**18,570**	**16,854**	**13,440**

[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$ 15,297/t in 4Q23.

Unit COGS, excluding 3rd-party feed purchases, have increased by US$ 669 y/y mainly due to costs associated with the Onça Puma furnace rebuild and lower own source volumes in Voisey's Bay.

All-in costs have increased by US$ 567 y/y, primarily due to: (i) higher unit COGS, as mentioned above, and (ii) lower by-products revenues especially resulting from lower copper volumes.

Copper operations – Salobo and Sossego

Selected financial indicators - Copper operations, ex-marketing activities

US$ million	4Q23	4Q22	3Q23	2023	2022
Net Revenues	855	498	660	2,577	1,779
Costs[1]	(427)	(279)	(341)	(1,357)	(1,049)
SG&A and other expenses[1]	(9)	(16)	(3)	31	(21)
Pre-operating and stoppage expenses[1]	(1)	(5)	-	(5)	(13)
R&D expenses	(43)	(33)	(47)	(146)	(127)
Adjusted EBITDA	375	165	269	1,100	569
Depreciation and amortization	(56)	(34)	(49)	(176)	(132)
Adjusted EBIT	319	131	220	924	437
Adjusted EBIT margin (%)	37.3	26.3	33.3	35.9	24.6

[1] Net of depreciation and amortization

EBITDA variation - US$ million (4Q23 vs. 4Q22)

		Drivers					
US$ million	4Q22	Volume	Prices	By-products	Others	Total variation	4Q23
Copper	165	55	(43)	143	55	210	375

EBITDA by operation

US$ million	4Q23	4Q22	3Q23	4Q23 vs. 4Q22 Comments
Salobo	326	142	251	Higher copper sales volumes and by-products revenues as Salobo III ramps up.
Sossego	79	51	59	Higher copper sales volumes and by-products revenues.
Others copper[1]	(30)	(28)	(41)	
Total	**375**	**165**	**269**	

[1] Includes R&D expenses of US$ 30 million related to the Hu'u project in 4Q23.

Revenues & price realization

Revenues & price realization

US$ million	4Q23	4Q22	3Q23	2023	2022
Volume sold ('000 metric tons)					
Copper	76	45	62	234	166
Gold as by-product ('000 oz)	114	62	95	346	237
Silver as by-product ('000 oz)	286	178	242	939	692
Average prices (US$/t)					
Average LME copper price	8,159	8,001	8,356	8,478	8,797
Average copper realized price	7,941	8,774	7,731	7,960	8,052
Gold (US$/oz)[1]	2,131	1,663	1,874	2,002	1,797
Silver (US$/oz)	24	18	23	24	21
Revenue (US$ million)					
Copper	605	392	478	1,862	1,339
Gold as by-product[1]	243	103	177	693	426
Silver as by-product	7	3	5	22	14
Total	**855**	**498**	**660**	**2,577**	**1,779**

[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	4Q23	4Q22	3Q23	2023	2022
Average LME copper price	8,159	8,001	8,356	8,478	8,797
Current period price adjustments[1]	546	514	(189)	56	(259)
Copper gross realized price	8,705	8,514	8,167	8,533	8,538
Prior period price adjustments[2]	(201)	736	125	(24)	(25)
Copper realized price before discounts	**8,504**	**9,250**	**8,292**	**8,510**	**8,513**
TC/RCs, penalties, premiums and discounts[3]	(563)	(476)	(560)	(550)	(461)
Average copper realized price	**7,941**	**8,774**	**7,731**	**7,960**	**8,052**

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 down 10% y/y in 2023, mainly due to the increase in TC/RCs and decrease in Purchase Price Adjustments (PPA). The negative effect of the PPA was the result of the lower forward curve[5].

In the quarter, average copper realized price was US$ 7,941/t, 2.7% higher q/q, mainly resulting from positive provisional price adjustments, as the average LME reference price was lower than the average forward curve at the end of the quarter.

Costs

COGS - 4Q23 vs. 4Q22

		Drivers				
US$ million	4Q22	Volume	Exchange rate	Others	Total variation	4Q23
Copper operations	279	202	11	(65)	148	427
Depreciation	34	26	1	(6)	21	55
Total	**313**	**228**	**12**	**(71)**	**169**	**482**

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

US$/t	4Q23	4Q22	3Q23	4Q23 vs. 4Q22 Comments
Salobo	1,783	3,644	2,130	Higher fixed costs dilution and higher by-products credits as Salobo III plant ramps up.
Sossego	3,822	4,409	3,751	Higher fixed costs dilution and higher by-products credits.

EBITDA break-even – copper operations

US$/t	4Q23	4Q22	3Q23	2023	2022
COGS	5,613	6,264	5,512	5,803	6,304
By-product revenues	(3,269)	(2,372)	(2,960)	(3,055)	(2,644)
COGS after by-product revenues	**2,344**	**3,892**	**2,552**	**2,747**	**3,660**
Other expenses[1]	693	1,201	812	514	970
Total costs	**3,037**	**5,093**	**3,364**	**3,261**	**4,630**
TC/RCs penalties, premiums and discounts	563	476	560	550	461
EBITDA breakeven[2]	**3,600**	**5,569**	**3,924**	**3,811**	**5,091**
EBITDA breakeven ex-Hu'u	**3,212**	**4,938**	**3,264**	**3,437**	**4,502**

[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$ 5,162/t.

The realized price to be compared to the EBITDA break-even should be the copper realized price before discounts (US$ 8,504/t), given that TC/RCs, penalties, and other discounts are already part of the EBITDA break-even build-up.

[5] On December 31st, 2023, Vale had provisionally priced copper sales from Sossego and Salobo totaling 68,476 tons valued at weighted average LME forward price of US$ 8,597/t, subject to final pricing over the following months.

WEBCAST INFORMATION

Vale will host a webcast on Friday, February 23rd, 2024, at 11:00 a.m. Brasilia time (09:00 a.m. New York time; 2:00 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.

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.

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

US$ million	4Q23	4Q22	3Q23	2023	2022
Net operating revenue	**13,054**	**11,941**	**10,623**	**41,784**	**43,839**
Cost of goods sold and services rendered	(6,891)	(7,155)	(6,309)	(24,089)	(24,028)
Gross profit	**6,163**	**4,786**	**4,314**	**17,695**	**19,811**
Gross margin (%)	47.2	40.1	40.6	42.3	45.2
Selling and administrative expenses	(146)	(148)	(150)	(553)	(515)
Research and development expenses	(231)	(218)	(188)	(723)	(660)
Pre-operating and operational stoppage	(108)	(125)	(115)	(450)	(479)
Other operational expenses, net	(380)	(624)	(511)	(1,498)	(1,722)
Impairment reversal (impairment and disposals) of non-current assets, net	(121)	(177)	(75)	(266)	773
Operating income	**5,177**	**3,494**	**3,275**	**14,205**	**17,208**
Financial income	105	92	100	432	520
Financial expenses	(380)	(291)	(362)	(1,459)	(1,179)
Other financial items, net	(599)	(459)	(123)	(919)	2,927
Equity results and other results in associates and joint ventures	(1,152)	72	94	(1,108)	305
Income before income taxes	**3,151**	**2,908**	**2,984**	**11,151**	**19,781**
Current tax	(475)	(72)	(278)	(1,375)	(2,020)
Deferred tax	(234)	907	151	(1,671)	(951)
Net income from continuing operations	**2,442**	**3,743**	**2,857**	**8,105**	**16,810**
Net income (loss) attributable to noncontrolling interests	24	19	21	122	82
Net income from continuing operations attributable to Vale's shareholders	**2,418**	**3,724**	**2,836**	**7,983**	**16,728**
Discontinued operations					
Net income (Loss) from discontinued operations	-	-	-	-	2,060
Net income from discontinued operations attributable to noncontrolling interests	-	-	-	-	-
Net income (Loss) from discontinued operations attributable to Vale's shareholders	-	**-**	**-**	-	**2,060**
Net income	**2,442**	**3,743**	**2,857**	**8,105**	**18,870**
Net income (Loss) attributable to Vale's to noncontrolling interests	24	19	21	122	82
Net income attributable to Vale's shareholders	**2,418**	**3,724**	**2,836**	**7,983**	**18,788**
Earnings per share (attributable to the Company's shareholders - US$):					
Basic and diluted earnings per share (attributable to the Company's shareholders - US$)	0.56	0.82	0.66	1.83	4.05

Equity income (loss) by business segment

US$ million	4Q23	%	4Q22	%	3Q23	%	2023	%	2022	%
Iron Ore Solutions	21	53	65	90	87	93	101	70	213	87
Energy Transition Metals	-	-	-	-	-	-	-	-	3	1
Others	19	47	7	10	7	7	43	30	30	12
Total	**40**	**100**	**72**	**100**	**94**	**100**	**144**	**100**	**246**	**100**

Balance sheet

US$ million	12/31/2023	9/30/2023	12/31/2022
Assets			
Current assets	**18,700**	**14,673**	**15,526**
Cash and cash equivalents	3,609	3,967	4,736
Short term investments	51	60	61
Accounts receivable	4,197	3,348	4,319
Other financial assets	271	426	342
Inventories	4,684	5,114	4,482
Recoverable taxes	900	1,355	1,272
Judicial deposits	611	-	-
Other	444	403	314
Non-current assets held for sale	3,933	-	-
Non-current assets	**13,587**	**14,060**	**14,394**
Judicial deposits	798	1,296	1,215
Other financial assets	593	586	280
Recoverable taxes	1,374	1,264	1,110
Deferred income taxes	9,565	9,682	10,770
Other	1,257	1,232	1,019
Fixed assets	**61,899**	**60,256**	**56,974**
Total assets	**94,186**	**88,989**	**86,894**
Liabilities			
Current liabilities	**14,655**	**13,644**	**13,891**
Suppliers and contractors	5,272	5,582	4,461
Loans and borrowings	824	779	307
Leases	197	197	182
Other financial liabilities	1,676	1,538	1,672
Taxes payable	1,314	630	470
Settlement program ("REFIS")	428	407	371
Provisions for litigation	114	119	106
Employee benefits	964	824	930
Liabilities related to associates and joint ventures	837	899	1,911
Liabilities related to Brumadinho	1,057	1,324	944
De-characterization of dams and asset retirement obligations	1,035	845	661
Dividends payable	-	-	1,383
Other	376	500	493
Liabilities associated with non-current assets held for sale	561	-	-
Non-current liabilities	**38,550**	**35,858**	**35,645**
Loans and borrowings	11,647	11,777	10,874
Leases	1,255	1,283	1,349
Participative shareholders' debentures	2,874	2,405	2,725
Other financial liabilities	3,373	2,583	2,843
Settlement program (REFIS)	1,723	1,744	1,869
Deferred income taxes	870	1,343	1,413
Provisions for litigation	885	1,341	1,186
Employee benefits	1,381	1,231	1,260
Liabilities related to associates and joint ventures	3,590	2,320	1,410
Liabilities related to Brumadinho	2,003	1,873	2,368
De-characterization of dams and asset retirement obligations	6,694	6,111	6,520
Streaming transactions	1,962	1,621	1,612
Others	293	226	216
Total liabilities	**53,205**	**49,502**	**49,536**
Shareholders' equity	**40,981**	**39,487**	**37,358**
Total liabilities and shareholders' equity	**94,186**	**88,989**	**86,894**

Cash flow

US$ million	4Q23	4Q22	3Q23	2023	2022
Cash flow from operations	**5,591**	**2,902**	**4,128**	**17,252**	**18,762**
Interest on loans and borrowings paid	(200)	(135)	(174)	(743)	(785)
Cash received (paid) on settlement of Derivatives, net	325	(65)	70	567	(83)
Payments related to Brumadinho event	(417)	(287)	(292)	(1,330)	(1,093)
Payments related to de-characterization of dams	(145)	(102)	(146)	(458)	(349)
Interest on participative shareholders debentures paid	(106)	(136)	-	(233)	(371)
Income taxes (including settlement program) paid	(259)	(265)	(720)	(1,890)	(4,637)
Net cash generated by operating activities from continuing operations	**4,789**	**1,912**	**2,866**	**13,165**	**11,444**
Net cash generated by operating activities from discontinued operations	-	-	-	-	41
Net cash generated by operating activities	**4,789**	**1,912**	**2,866**	**13,165**	**11,485**
Cash flow from investing activities					
Capital expenditures	(2,118)	(1,787)	(1,464)	(5,920)	(5,446)
Additions to investment	(11)	-	-	(19)	
Dividends received from joint ventures and associates	99	55	-	204	219
Short-term investment	47	39	68	127	260
Payments related to Samarco dam failure	(128)	(224)	(317)	(553)	(338)
Proceeds (payments) from disposal of investments, net	(72)	-	-	(139)	577
Other investment activities, net	(44)	53	14	(19)	145
Net cash used in investing activities from continuing operations	**(2,227)**	**(1,864)**	**(1,699)**	**(6,319)**	**(4,583)**
Net cash used in investing activities from discontinued operations	-	-	-	-	(103)
Net cash used in investing activities	**(2,227)**	**(1,864)**	**(1,699)**	**(6,319)**	**(4,686)**
Cash flow from financing activities					
Loans and financing:					
Loans and borrowings from third parties	-	500	150	1,950	1,275
Payments of loans and borrowings from third parties	(25)	(24)	(13)	(658)	(2,300)
Payments of leasing	(94)	(78)	(47)	(233)	(224)
Payments to shareholders:					
Dividends and interest on capital paid to Vale's shareholders	(2,040)	-	(1,678)	(5,513)	(6,603)
Dividends and interest on capital paid to noncontrolling interest	(33)	(2)	-	(41)	(12)
Share buyback program	(44)	(966)	(546)	(2,714)	(6,036)
Acquisition of stake in VOPC	-	-	-	(130)	-
Net cash used in financing activities from continuing operations	**(2,236)**	**(570)**	**(2,134)**	**(7,339)**	**(13,900)**
Net cash used in financing activities from discontinued operations	-	-	-	-	(11)
Net cash used in financing activities	**(2,236)**	**(570)**	**(2,134)**	**(7,339)**	**(13,911)**
Net increase (decrease) in cash and cash equivalents	**326**	**(522)**	**(967)**	**(493)**	**(7,112)**
Cash and cash equivalents in the beginning of the period	3,967	5,182	4,983	4,736	11,721
Effect of exchange rate changes on cash and cash equivalents	19	76	(49)	69	138
Effect of transfer PTVI to non-current assets held for sale	(703)	-	-	(703)	-
Cash and cash equivalents from subsidiaries sold, net	-	-	-	-	(11)
Cash and cash equivalents at the end of period	**3,609**	**4,736**	**3,967**	**3,609**	**4,736**
Non-cash transactions:					
Additions to property, plant and equipment - capitalized loans and borrowing costs	4	7	5	19	47
Cash flow from operating activities					
Income before income taxes	**3,151**	**2,908**	**2,984**	**11,151**	**19,781**
Adjusted for:					
Provisions related to Brumadinho event	137	133	184	461	400
Provision for de-characterization of dams	153	-	-	153	72
Equity results and other results in associates and joint ventures	1,152	(72)	(94)	1,108	(305)
Impairment (impairment reversal) and results on disposal of non-current assets, net	121	177	75	266	(773)
Depreciation, depletion and amortization	855	900	780	3,070	3,171
Financial results, net	874	658	385	1,946	(2,268)
Change in assets and liabilities					
Accounts receivable	(832)	(2,107)	(410)	197	(325)
Inventories	403	940	(97)	(214)	45
Suppliers and contractors	(308)	(435)	480	637	495
Other assets and liabilities, net	(115)	(200)	(159)	(1,523)	(1,531)
Cash flow from operations	**5,591**	**2,902**	**4,128**	**17,252**	**18,762**

Reconciliation of IFRS and “non-GAAP” information

(a) Adjusted EBIT

US$ million	4Q23	4Q22	3Q23
Net operating revenues	13,054	11,941	10,623
COGS	(6,891)	(7,155)	(6,309)
Sales and administrative expenses	(146)	(148)	(150)
Research and development expenses	(231)	(218)	(188)
Pre-operating and stoppage expenses	(108)	(125)	(115)
Brumadinho event and dam de-characterization of dams	(396)	(375)	(305)
Other operational expenses, net[1]	98	(249)	(159)
Dividends received and interests from associates and JVs	99	55	-
Adjusted EBIT from continuing operations	**5,479**	**3,726**	**3,397**

¹ Includes adjustment of US$ 82 million in 4Q23 and US$ 47 million in 3Q23, 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	4Q23	4Q22	3Q23
Adjusted EBITDA from continuing operations	**6,334**	**4,626**	**4,177**
Working capital:			
Accounts receivable	(832)	(2,107)	(410)
Inventories	403	940	(97)
Suppliers and contractors	(308)	(435)	480
Provisions related to Brumadinho event	137	133	184
Provisions related to de-characterization of dams	153	-	-
Others	(296)	(255)	(206)
Cash flow from continuing operations	**5,591**	**2,902**	**4,128**
Income taxes paid (including settlement program)	(259)	(265)	(720)
Interest on loans and borrowings paid	(200)	(135)	(174)
Payments related to Brumadinho event	(417)	(287)	(292)
Payments related to de-characterization of dams	(145)	(102)	(146)
Interest on participative shareholders' debentures paid	(106)	(136)	-
Cash received (paid) on settlement of Derivatives, net	325	(65)	70
Net cash generated by operating activities from continuing operations	**4,789**	**1,912**	**2,866**
Net cash generated by operating activities from discontinued operations	**-**	**-**	**-**
Net cash generated by operating activities	**4,789**	**1,912**	**2,866**

Reconciliation between adjusted EBITDA and net income (loss)

US$ million	4Q23	4Q22	3Q23
Adjusted EBITDA from continuing operations	**6,334**	**4,626**	**4,177**
Depreciation, depletion and amortization	(855)	(900)	(780)
Dividends received and interest from associates and joint ventures	(99)	(55)	-
Impairment reversal (impairment) and results on disposals of non-current assets,net[1]	(203)	(177)	(122)
Operating income	**5,177**	**3,494**	**3,275**
Financial results	(874)	(658)	(385)
Equity results and other results in associates and joint ventures	(1,152)	72	94
Income taxes	(709)	835	(127)
Net income from continuing operations	2,442	**3,743**	**2,857**
Net income (loss) attributable to noncontrolling interests	24	19	21
Net income attributable to Vale's shareholders	**2,418**	**3,724**	**2,836**

¹ Includes adjustment of US$ 82 million in 4Q23 and US$ 47 million in 3Q23 to reflect the performance of the streaming transactions at market price.

(c) Net debt

US$ million	4Q23	4Q22	3Q23
Gross debt	12,471	11,181	12,556
Leases	1,452	1,531	1,480
Cash and cash equivalents[1]	(4,363)	(4,797)	(4,027)
Net debt	9,560	**7,915**	**10,009**

[1] Including financial investments and includes US$ 703 million related to non-current assets held for sale in 4Q23.

(d) Gross debt / LTM Adjusted EBITDA

US$ million	4Q23	4Q22	3Q23
Gross debt and leases / LTM Adjusted EBITDA (x)	0.8	0.6	0.9
Gross debt and leases / LTM operational cash flow (x)	0.8	0.7	0.8

(e) LTM Adjusted EBITDA / LTM interest payments

US$ million	4Q23	4Q22	3Q23
Adjusted LTM EBITDA / LTM gross interest (x)	24.1	32.3	23.0
LTM adjusted EBITDA / LTM interest payments (x)	24.2	25.2	21.2

(f) US dollar exchange rates

R$/US$	4Q23	4Q22	3Q23
Average	4.9553	5.2554	4.8803
End of period	4.8413	5.2177	5.0076

Revenues and volumes

Net operating revenue by destination

US$ million	4Q23	%	4Q22	%	3Q23	%	2023	%	2022	%
North America	**473**	**3.6**	**613**	**5.1**	**398**	**3.7**	**2,078**	**5.0**	**2,239**	**5.1**
USA	358	2.7	433	3.6	323	3.0	1,623	3.9	1,643	3.7
Canada	115	0.9	180	1.5	75	0.7	455	1.1	596	1.4
South America	**1,014**	**7.8**	**913**	**7.6**	**1,018**	**9.6**	**4,197**	**10.0**	**4,740**	**10.8**
Brazil	927	7.1	829	6.9	915	8.6	3,755	9.0	4,137	9.4
Others	87	0.7	84	0.7	103	1.0	442	1.1	603	1.4
Asia	**9,497**	**72.8**	**8,484**	**71.0**	**7,603**	**71.6**	**28,104**	**67.3**	**28,857**	**65.8**
China	7,672	58.8	7,072	59.2	5,860	55.2	21,577	51.6	22,203	50.6
Japan	863	6.6	803	6.7	843	7.9	3,219	7.7	3,535	8.1
South Korea	390	3.0	310	2.6	289	2.7	1,365	3.3	1,311	2.9
Others	572	4.4	299	2.5	611	5.8	1,943	4.7	1,808	4.2
Europe	**1,282**	**9.8**	**1,109**	**9.3**	**956**	**9.0**	**5,028**	**12.0**	**5,357**	**12.2**
Germany	368	2.8	321	2.7	261	2.5	1,351	3.2	1,521	3.5
Italy	96	0.7	153	1.3	48	0.5	509	1.2	708	1.6
Others	818	6.3	635	5.3	647	6.1	3,168	7.6	3,128	7.1
Middle East	**343**	**2.6**	**317**	**2.7**	**271**	**2.6**	**1,014**	**2.4**	**1,241**	**2.8**
Rest of the World	**445**	**3.4**	**505**	**4.2**	**377**	**3.5**	**1,363**	**3.3**	**1,405**	**3.2**
Total	**13,054**	**100.0**	**11,941**	**100.0**	**10,623**	**100.0**	**41,784**	**100.0**	**43,839**	**100.0**

Volume sold by destination – Iron ore and pellets

'000 metric tons	4Q23	4Q22	3Q23	2023	2022
Americas	**9,667**	**9,659**	**9,829**	**40,431**	**39,200**
Brazil	8,912	8,904	9,339	36,512	35,550
Others	755	755	490	3,919	3,650
Asia	**73,341**	**74,370**	**64,801**	**232,818**	**232,587**
China	60,180	64,172	52,139	185,522	190,107
Japan	6,825	5,473	6,317	24,956	22,801
Others	6,336	4,725	6,345	22,340	19,679
Europe	**2,941**	**3,403**	**2,299**	**14,429**	**17,363**
Germany	654	698	494	2,538	3,220
France	685	587	189	2,696	3,313
Others	1,602	2,118	1,616	9,195	10,830
Middle East	**1,815**	**1,654**	**1,475**	**5,483**	**5,797**
Rest of the World	**2,564**	**2,868**	**2,155**	**7,758**	**7,095**
Total	**90,328**	**91,954**	**80,559**	**300,919**	**302,042**

Net operating revenue by business area

US$ million	4Q23	%	4Q22	%	3Q23	%	2023	%	2022	%
Iron Ore Solutions	**11,030**	**84%**	**9,330**	**78%**	**8,862**	**83%**	**34,079**	**82%**	**34,916**	**80%**
Iron ore fines	9,212	71%	7,767	65%	7,331	69%	27,760	66%	28,188	64%
ROM	29	0%	22	0%	33	0%	122	0%	103	0%
Pellets	1,680	13%	1,456	12%	1,388	13%	5,803	14%	6,256	14%
Others	109	1%	85	1%	110	1%	394	1%	369	1%
Energy Transition Metals	**1,982**	**15%**	**2,549**	**21%**	**1,718**	**16%**	**7,569**	**18%**	**8,398**	**19%**
Nickel	888	7%	1,422	12%	833	8%	3,664	9%	4,279	10%
Copper	767	6%	597	5%	567	5%	2,432	6%	1,917	4%
PGMs	71	1%	87	1%	54	1%	285	1%	390	1%
Gold as by-product[1]	185	1%	123	1%	147	1%	561	1%	494	1%
Silver as by-product	13	0%	12	0%	8	0%	42	0%	34	0%
Cobalt[1]	16	0%	42	0%	14	0%	73	0%	139	0%
Others[2]	42	0%	266	2%	95	1%	512	1%	1,145	3%
Others	**42**	**0%**	**62**	**1%**	**42**	**0%**	**136**	**0%**	**525**	**1%**
Total of continuing operations	**13,054**	**100%**	**11,941**	**100%**	**10,623**	**100%**	**41,784**	**100%**	**43,839**	**100%**

[1] Exclude the adjustment of US$ 82 million in 4Q23 and US$ 47 million in 3Q23, 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: 2025
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: 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: 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 kpty Co as by-product
Creighton Ph. 5	**Capacity: 15-20 ktpy**	**Stage: FEL3**
Ontario, Canada	Replacement project	Investment decision: 2025
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	
Nickel Sulphate Plant	**Capacity: ~25 ktpy**	**Stage: FEL3**
Quebec, Canada	Growth project	Investment decision: 2024-2025
Vale's ownership: N/A		
Iron ore		
Concentration Plant	**Capacity: 12-15 Mtpy pellet feed**	**Stage: FEL3**
Sohar, Oman	Asset-light partnership	Investment decision: 2024
Vale's ownership: N/A	Located next to Oman's pellet plant	
Green briquette plants	**Capacity: Under evaluation**	**Stage: FEL3 (two plants)**
Brazil and other regions	Growth project	Investment decision: 2024-2029
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/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/A (VALE3)
4Q23/2023 Earnings Results
Feb. 23rd, 2023
CONFERENCE CALL TRANSCRIPT

Operator: Good morning, ladies and gentlemen. Welcome to Vale's fourth quarter 2023 earnings call.

This conference is being recorded and the replay will be available at the Company's website: vale.com. The presentation is available for download in English and Portuguese.

This call is also available in Portuguese. To listen to the presentation in Portuguese, please press the Globe icon on the lower right side of your Zoom screen, and then choose to enter the "Portuguese room". Then select "mute original audio" so that you won´t hear the English version in the background.

We would like to inform that all participants are currently in a listen-only mode for the presentations. Further instructions will be provided before we begin the question-and-answer section of our call.

We would like to advise 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 – CEO,
- Mr. Gustavo Pimenta – Executive Vice President of Finance and Investor Relations;
- Mr. Marcello Spinelli – Executive Vice President, Iron Ore Solutions,
- Mr. Carlos Medeiros – Executive Vice President of Operations, and
- Mr. Mark Cutifani – Chairman of Vale Base Metals.

Now I will turn the conference over to Mr. Eduardo Bartolomeo. Sir, you may now begin.

Eduardo Bartolomeo: Thank you, and good morning, everyone. I hope you are all doing well.

2023 was a remarkable year for Vale. Our results translated the evolution of our safety-driven culture transformation and our progress towards operational excellence. We have walked the talk and delivered in line with our guidances.

I am excited that we are now taking Vale to an even higher level of performance through the five key levers we outlined on the last Vale Day.

Starting with our Safety Journey, which in 2023 showed encouraging improvements, with the lowest injury frequency rate since 2008 and relevant accomplishments in dam management.

Our second lever, the stabilization of our Iron Ore operations, comes to secure our baseline production of 310-320 Mtpy. In that sense, our 2023 production at 321 Mt exceeded expectations and provided evidence of increased asset and process reliability.

On our third lever, growing volumes in Iron Ore with quality, we gave an important step by starting up our 1st briquette plant. In addition, our partnership with Anglo American in a world-class operation will bring synergies and make available high-quality feed for agglomerated products. Gustavo will share more information on that later.

In our path to transform the Energy Transition Metals business, copper production had an impressive 50%-growth in the 4th quarter. Nickel production was in line with guidance, with results benefitted by price realization 7% above LME prices in the quarter.

In our quest towards ESG Leadership in mining, 2023 saw a substantial progress in the reparations of Brumadinho and Mariana.

Finally, by announcing a US$ 2.4 billion dividend distribution, we reinforce that our discipline in capital allocation and commitment to shareholder return remains unchanged.

Let's see more details of our 2023 performance now. Please, next slide.

As you know, safety is the most important work front for me at Vale. We are committed to ensuring that each employee is safe during work shifts.

We achieved solid safety performance in the year, with the lowest injury frequency rate in the company's history and one of the lowest in our industry.

The year was also remarkable for our dam management performance. We reached conformance with the Global Industry Standard for Tailings Management within the expected industry's timeframe.

Our upstream dam De-characterization program reached 43% completion rate. B3/B4, an upstream dam which was at emergency level 3 back in 2019, had over 90% of its tailings removed, bringing forward the dam elimination in three years, from 2027 to 2024.

We are already seeing a safer Vale, built with operational discipline and a maturing management model.

Next slide, please.

The fourth quarter was a very strong one, leading us to deliver an iron ore output that exceeded our guidance. Year on year, we increased our output in 11% and, in December we had the highest monthly output since 2018. We are ensuring our asset reliability: our mean time between failure for example, improved considerably, almost doubling the performance in the S11D truckless system's case.

In pellets, our strong output was supported by the startup of the Torto dam in 2023 and therefore the higher pellet feed production at Brucutu. In 2024, we are at a fast pace to deliver another strong performance.

Next slide, please.

Vale's major competitive advantage is its potential to grow its high-quality portfolio with low capital intensity. In that sense, we are targeting the development of three key projects, combined with the development of Mega Hubs, concentration facilities and briquetting plants.

Our three key projects are being executed: the Vargem Grande Complex expansion; the Capanema project; and the S11D +20 expansion. With those adding to our current production baseline, we expect to reach 340-360 Mt production by 2026.

Next slide, please.

In 2023, we continued to mature our agreements for joint assessments on the construction of Mega Hubs with authorities in the United Arab Emirates, Saudi Arabia, and Oman and with a partner in Brazil.

We are also assessing the feasibility of developing green industrial hubs in Brazil and North America with H2 Green Steel, a Swedish partner.

Finally, we are ramping-up the 1st briquette plant in our Tubarão Complex, with the 2nd plant expected to ramp-up in 1H24.

With growing volumes, higher average iron content and a Cost Efficiency Program in place, we are preparing Vale to be one of the most efficient mining companies in the world.

Next slide, please.

In the Energy Transition Metals business, we delivered a remarkable output in copper, an outstanding 50% increase quarter on quarter, driven by the successful ramp-up of Salobo III and improved performance at Salobo I and II plants.

In Nickel, our production was in line with guidance, which already factored in the transition of Voisey's Bay mine extension.

In 2023, we successfully established Vale Base Metals, a new company with separate governance overseeing Vale's Energy Transition Metals business. Delivering on our commitments, we brought in important partners to the business as a mean to accelerate VBM's growth while ensuring greater operational efficiency in the short-term.

The upcoming years will be crucial for transitioning the Energy Transition Metals business to a new phase. The asset review is underway and will provide more color on that process along 2024.

Next slide, please.

We are consistently delivering and positioning Vale as an ESG leader. We are increasingly focusing on people, with solid results so far and with encouraging improvements to come. We are a more diverse, equitable and inclusive company since we set our long-term goals back in 2019. For instance, our female workforce increased by 85% in this period.

On the social front, we continue to foster resilient communities.

We are striving to be a nature-positive company, uniquely positioned to leverage decarbonization efforts. Improving our transparency on our ESG performance, we also became early adopters of the Taskforce on Nature-related Financial Disclosures, the TNFD.

Most importantly, we are delivering on our reparation processes.

In Brumadinho, 68% of the Full Reparation Settlement was fulfilled, a R$ 6.6 billion cash-outflow in 2023. We expect to end 2026 with 90% of obligations completed.

In Mariana, the reparation has been accelerated by the Renova Foundation, with over 460 thousand people compensated and over 85% of housing solutions provided, a total disbursement of R$ 34.7 billion since 2015. On that front, we continue to negotiate a definitive reparation settlement with the Brazilian authorities.

Our approach towards ESG has started to be acknowledged by ESG rating providers and we are confident that our progress will be fully recognized in the near future.

We are on our way to lead a sustainable mining, an industry able to create and share value with all of its stakeholders.

Since 2019, we have made profound changes in Vale's way of operating and are now reaping the benefits of that work. The Executive team continues to be highly focused on our strategy and commitments:

- We are delivering on our safety and ESG commitments, always listening to our stakeholders;
- We are delivering more robust operational and cost performance across all businesses;
- We are advancing our iron ore strategy towards growth with quality. We are positioning Vale for leadership in global decarbonization while driving local and regional development;
- Finally, we remain fully committed to disciplined capital allocation.

To conclude, I would like to thank the management team, our employees, our partners for contributing to the 2023 results.

Now, for our financial results, I pass the floor to Gustavo. Thank you.

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

Before going into our financial performance, I would like to spend some time talking about the strategic rationale and the associated financial aspects of our recently announced partnership with Anglo American in Brazil.

As you probably saw in both companies' releases, we have agreed to buy 15% of Minas-Rio existing business in exchange for a cash payment of US$ 157 million, subject to net debt and working capital adjustments, and the contribution of our world class iron deposit of Serra da Serpentina, in Minas Gerais. This combination is highly accretive for both companies as it allows us to leverage and maximize each other's infrastructure while securing access to additional high-quality iron ore to support growing demand for low carbon steelmaking.

Minas-Rio today has a nameplate capacity to produce up to 26.5 million tons per year of high-quality pellet feed and the development of Serpentina will enable the total complex to reach over 50 Mtpa in the next decade. As per the agreed terms, Vale will also have an option to buy another 15% stake of Minas-Rio, at market terms, once the Serpentina deposit obtains its preliminary license. This should allow us to have access to up to 15 Mtpa of pellet-feed once Serpentina is fully developed. Vale will have proportional offtake rights and we plan on using these volumes to feed our pellet facilities and later our briquetting plants, including the ones under the Mega Hub initiative.

Finally, we have also agreed on certain earn-out rights on both sides over the next 4 years with pre-defined caps as detailed in our market communication.

We are extremely excited to initiate this partnership with Anglo American in Brazil and expect this will unlock significant value to all of our stakeholders. As we mentioned, the supply of high-quality iron ore is a key component of our strategy as we look to help our clients transition to a lower carbon footprint.

Now let me turn back to our financial performance starting on the next slide.

As you can see, our proforma EBITDA was US$ 6.7 billion in Q4, US$ 1.7 billion higher year-on-year. The increase is explained by a combination of higher realized iron ore prices, which increased 24% vs a year ago, as well as by lower operating expenses, as we start to harvest the benefits of our efficiency and productivity programs.

On prices, the iron ore fines realized price was US$ 128 per ton in Q4, US$ 23 per ton higher year-on-year, driven by higher reference prices and the positive effect of provisional prices.

Given market conditions in Q4, with lower discounts for high-silica iron ore, we decided to increase these products' share in the sales mix, while rebalancing premium iron ore inventories, especially Carajás. This proactive strategy not only maximizes our product portfolio value but also positions us to better monetize our production going forward. Looking into the first quarter, market conditions remain favorable for high-silica products, meaning we should continue to manage our product portfolio accordingly.

In order to provide greater clarity about our product portfolio mix, we have started to disclose the breakdown of each specific product in our quarterly report, which should facilitate the calculation and your understanding of our realized prices and premiums.

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Regarding costs, our iron ore EBITDA breakeven declined 4% in Q4, reaching US$ 53.3 per ton in the quarter and US$54.8 in 2023, below our most recent guidance. Our C1 cost performance in Q4 was solid, as we moved closer to the 20 dollar per ton level, supported by our efficiency program initiatives, a positive exchange rate impact and an inventory carry-over effect. In 2023, C1 costs averaged US$22.3 per ton, within our guidance range. As we presented at Vale Day, we expect costs in 2024 to be in line with 2023, with a C1 guidance of US$ 21.5-23 per ton.

Moving to our Energy Transition Metals business, our nickel all-in costs sharply declined in Q4, driven by the mine maintenance conclusion in Q3 and by ~7% higher production volumes in the quarter, which also supported by-product revenues.

In our copper operations, higher by-product volumes and prices led to a 300-dollar per ton increase in by-product revenues. This was partially offset by higher maintenance costs at Sossego, despite higher production volumes in both operations.

Still on Base Metals, I would like to share that we are making significant progress on our Asset Review under the leadership of Mark and have identified a series of opportunities to improve productivity and reduce unit operating costs. The plan has been primarily focused on asset integrity and mine development, along with the flowsheet optimization. These opportunities are being assessed and designed for implementation over the next 2 to 3 years, with some benefits already being captured in the short term. We plan on presenting the key action items of the asset review with the associated benefits by mid-year.

Now, moving on to cash generation, as you can see, Q4 Free Cash Flow from Operations was about US$ 2.5 billion, roughly US$ 1.4 billion higher than Q3, driven by higher EBITDA. Working capital increased in the quarter driven by higher accounts receivable, due to higher iron ore sales and prices. These invoices will be collected in Q1 this year and we expect the effect on working capital to reverse in the following quarters. In addition, CAPEX seasonally increased in Q4 as planned in our investment plan, with our full-year capex at US$5.9bn, slightly below our guidance.

Most of the free cash flow was used to anticipate a US$ 2 billion extraordinary dividend and interest on capital payment in December. Also, yesterday, our Board of Directors approved a distribution of US$ 2.4 billion of dividends to be paid in March 2024, reinforcing our continued focus on returning value to shareholders.

Now, let me turn to our expanded net debt evolution in the next slide.

We ended 2023 with an expanded net debt of US$ 16.2 billion compared to US$ 15.5 billion in Q3.

As you can see, this quarter we recognized an extra provision of US$1.2 billion related to Samarco´s obligations and a potential global agreement with Brazilian authorities. The new provision, although still subject to uncertainty, is our best estimate today of the amount required from Vale to fulfill those obligations, and it considers Samarco will continue to have the ability to pay for a portion of the required payments as per their approved business plan.

Since 2015, more than R$35bn have been disbursed in 42 agreed programs, with almost 500 thousand people compensated. We continue to be highly focused on a settlement that works for all parties involved, within a framework that provides legal certainty and leads to an effective execution of the agreed compensation.

Regarding our optimal leverage target, we are maintaining the US$ 10 to 20 billion dollars range, under the same expanded net debt concept. This range provides us with greater flexibility and optimizes capital costs.

In the next quarters, we expect our expanded net debt to benefit from our solid operational performance, enabling healthy value generation to our shareholders.

So, before we move on to the Q&A session, I would like to reinforce the key messages from today's call. We continue to make substantial progress in our safety and ESG commitments, as exampled by record-low injury rates in our operations and continued advancements on upstream dams' de-characterization. In iron ore, we are very encouraged with the recent operational performance from our assets and very confident of our ability to deliver on the targets for the year. On growth, we are seeing a very steady progress on our key projects to add 50mtpa of high-quality iron ore with limited capital intensity by 2026 and are encouraged with the findings and initial implementation of the asset review in Base Metals. 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'd like to open the call for questions. Thank you.

Question & Answer Session

Operator: We are going to start the question-and-answer section of the call. If you have a question, please click on the "Raise hand" button. If your question has already been answered, you can leave the queue by clicking on the "lower hand" Button. Please ask your question in English and limit your questions to two at a time.

Leonardo Correa, BTG Pactual:

Good morning. Starting out with the dividend question, in the quarter, you paid the minimum dividend as per the Company's policy. There were some doubts maybe a couple of months ago but considering everything that's happening and all the headlines from Samarco and the higher provision potential, it seemed to be the prudent approach from you guys.

The question is, considering that an additional provision has already been announced and that perhaps there could be a bit more visibility into these issues going forward, how do you think about extraordinary dividends in the second semester of the year? That would be my first question. Putting that together with the fact that, you still have some balance sheet room to increase your expanded net debt levels to US$20 billion.

The second question, sorry to continue on this topic of these issues, but we have all been hearing about the headlines and somewhat concerned about the headlines. Specifically, on Samarco and Renova, I just wanted to hear you, on how you are progressing at this point with negotiations.

Is there any idea on how, or timing, of these talks, can evolve forward That would be fantastic. Do you expect this to be something for the first semester? Or can this be perhaps something rolled out to the second semester?

Gustavo Duarte Pimenta:

Leo, thanks for your question. I hope you can hear me well. On dividends, I think we will continue to see how the year evolves. And I think we are optimistic in terms of the operational performance of the business. We still have the cash from the minority sale of base metals to be received. We are certainly looking into that vis-à-vis some of the outstanding items that we talked about, and within the US$10 to US$20 billion expanded net debt concept that we have been working with.

So, it's early to say. I would say we continue to be very focused on remunerating our shareholders at the best we can, and you should continue to expect us to follow that path.

On the Samarco renegotiation and the settlement, we are working hard to reach a resolution. There has been some progress lately with all the parties. We continue to expect that the settlement will be reached. And we are hopeful that a resolution can be again reached in the 1H of this year.

So, we are working hard. It's our interest, it's the interest of our partners, and we see the interest from all the stakeholders to be able to reach a resolution there. And that's what we are working towards.

Rodolfo de Angele, JPMorgan:

Good morning, everyone. I have 2 questions. The first one, I wanted to ask to Carlos Medeiros, if possible. My question is the following. I think investors have been expecting not a lot from Vale at the end of the day, given all the challenges that the Company faced on the operating side.

But it seems like what we saw in the 4Q this year, kind of starts to at least here, we are happy to see that the Company is kind of fighting a little bit the traditional seasonality that we see, especially in the fourth and hopefully, in the 1Q of the year. So, my question to you would be, can you talk a little bit about initiatives, what's being done? Is this number that we saw already in the 4Q already, kind of showing the results of efforts that we are taking by your team at Vale? So, that's question number one.

And my second question would be to Spinelli. I wanted to hear from you. We discussed a lot about what's going on in terms of sentiment in China, and we leave the ex-China piece of the equation, which is quite relevant, a little bit on the sidelines. So, if you could comment on what you are seeing, that would be very helpful.

Carlos Medeiros:

Rodolfo, thank you for your question. First, our performance on 4Q was solid. And this is due to all the efforts in reliability that we have been working on in all systems and also in our seasonality plan.

This comprises of several initiatives, but maybe I would highlight in our mines, a careful management or control of our water level in order to keep the bottom of our pits in good working conditions for as long as possible, and also making sure that we have free ore available at the top of the pit to use whenever needed.

Also, some important actions in terms of mine infrastructure to make sure that they are well maintained in the ports. We have a dry corrective material in our stocks there to blend with more humid ore, and also improve drainage conditions at the port. So, all this together led us to stronger results in 4Q, and also sustaining our performance during 1Q.

So, although this is El Nino year and in theory it should rain less in the North and more in the South and Southeastern systems, what we are seeing is the opposite. It's raining a lot more in the North, but still our plans are proven to be sound and ensuring a good start of the year everywhere.

So, I will pass to Spinelli.

Marcello Spinelli:

Thank you, Rodolfo, for your question. Talking about China and the ex-China demand and supply demand, last year, we could see the resilience of China. We mentioned that. So, we have the soft landing of property markets, harder landing for private, but partially offsetted by the social housing and the SOEs.

They turned around their industry pattern, so, we see a lot of growth in the industry for auto, for energy transition, small appliances, and the infrastructure played an important role. This is the pattern that we see for next year, for this year, for 2024, and we have an upside risk depending on macro definitions.

We have the 2 sessions coming in early March that will reinforce the commitment of the government to the policies, and we can have this effect of stimulus coming from the 2H.

All of this together last year, we saw a lot of the micro indicators, blast furnace inventories, that would really suggest that we could have a higher production than that was announced. But we believe that will be the same for 2024.

You touched on a point that is important, I want to emphasize 2 points here. One is, you mentioned ex-China. We have a rebound in ex-China. So, more than 5% growth is expected for ex-China in 2024. Part of that is coming from the developed countries, that is, from a lower base in last year, but they are starting to grow. We see this in Japan, we see this in Europe. And the stars are still India, MENA, and also the Southeast Asia.

What is important is, for Vale, we are really supporting this growth in ex-China. If you consider the mix that we have ex-China and China, we are moving 5 to 10 p.p. of sales to ex-China. That's very important to understand.

That will bring the second point I want to emphasize, that the market is tight and will be tighter in Asia. Supply-side, we do not have any further news. Actually, the main increase is coming from Brazil, from us. And what we see Australia is flat and even India now is also focused on their domestic market.

And what I want to emphasize is that we are now supplying this ex-China with new services. We have now BRBF in Europe, in one port, sold out. We are now opened another port for that, blending. We use Oman as also a distribution center to feed India.

So, this is an important change in the map of the world to supply that support the view that we have a very tight market for this year. Thank you.

Daniel Sasson, Itaú BBA:

Good morning. Thanks for taking my question. My first question is more on the strategic front. How do you see other potential deals like the one you just announced yesterday with Anglo American in regard to unlocking value and growth for Vale? Do you see room to maybe incorporate other assets that maybe are not next in line for you to develop in partnerships like the one you just signed yesterday? Because it does seem like an interesting way to maybe accelerate the monetization of assets that you might not monetize in the short term. That's my first question.

And my second question, Leo asked about one of the overhangs that we have been asked about by investors, which was Samarco, and you explained. Maybe if you could comment a bit on the 2 core decisions yesterday that suspended your licenses in Sossego and Onça Puma. How do you see that? What's the company's take on the potential of keeping those operations halted for some time? Do you have any expectations of resuming operations on those regions soon? That would be great. Thank you so much.

Eduardo de Salles Bartolomeo:

Daniel, thanks for the question. I think you nailed the point. Since we arrived, you have been seeing our movements. We reshaped Vale profoundly. We sold 10 business that were not related to our core. We ended up with 2 unique platforms that by themselves could be enough to us to sustain our growth.

But, of course, when you see an opportunity like this one in Anglo, that's what we call smart M&A. It's a win-win situation for both companies. It's a world-class asset sitting there. We have the logistics. They have already installed their mines. So, obviously, we anticipate a lot, and this is the kind of deal that we are going to search for sure.

But again, as I mentioned before, we still have a lot in our plate. As a competitive advantage, we are the lowest by tonne growth in iron ore in any comparison that you do. If you look at Capanema, you look at Vargem Grande, you look at S11D+20. But, of course, we can look at Anglo and others that are adjacent to our business.

But if we move to the base metals, we see this as exactly the same way. We see Hu'u in Indonesia, we look for partners always. We have value creation, how can I say that, 'animals'. We want to create value for our shareholders, to our society. We do care with whom we partner with, but we can do partnerships. We believe this is the way to go, if we want to meet the demand for energy transition, and that is a huge challenge for the whole industry to do, if iron ore is there, and if we can anticipate, accelerate and do it better, we will do it.

And now, I will pass the question to Mark as he's leading the base metals business. He is closer to the discussions around Sossego and Onça Puma.

Mark Cutifani:

Thanks for the question, Eduardo. I have been working in and around and with Brazil for 18 years. So, I always make sure I look at these things as they stand. At this stage, based on the feedback from the environmental and sustainability office for Pará, we do not have anything that indicates any environmental or social breach. I think that's the most important thing and message that I wanted to make sure people understood.

The firsthand feedback is, there could be an administrative question on how we have reported processes over the last 12 to 18 months. And so, we are making sure that we understand the issue and if there's anything in the paperwork that we need to correct. But at this stage, again, nothing material has been flagged.

So, we will work with the authorities to make sure we satisfy their requirements. I think that's very important, and we will always be respectful of the requirements that are put on us. So, we will make sure if anything is wrong, it will be corrected. From our point of view, we are making sure the operations are in good shape.

We have got a furnace shutdown at Onça Puma, and so, we are not immediately impacted. And we also have some maintenance scheduled for Sossego coming up. So, again, we will make sure we work around those issues, and we will work to resolve these issues quickly and appropriately with the authorities.

Amos Fletcher, Barclays:

Good morning. I have a couple of questions. First one was just around Samarco, where I see you have raised your provision with these results, but not to the same level as BHP, they just increased their provision to US$6.5 billion earlier this week. Can I just ask why the difference between those two?

And then my second question was just on the nickel assets. Obviously, a number of nickel mines being shut down globally at the moment. And when we look at the results of Vale, you can see Onça Puma, Voisey's Bay, Long Harbour were all EBITDA negative in 4Q. Nickel prices on average so far this year below 4Q levels. Would you consider idling any of the nickel assets? Thank you very much.

Gustavo Duarte Pimenta:

Thanks, Amos. I will do the Samarco and then Mark will do the nickel one. So, look on the provision, what we have added, the US$1.2 billion is based on our best estimate today. It certainly, as you may appreciate, incorporates any subject to assumptions and judgment that could differ depending on how we look at that.

One of them, for example, is how much Samarco can contribute to the case as the primary responsible for those payments. Samarco is doing very well. Last year, they produced around 9 million tonnes.

Second concentrator is coming online early next year, and we will take the production to between 14 to 16 million tonnes. And by 2028, Samarco will be producing 28 million tonnes of high-quality product.

So, we believe Samarco has a very solid path to be able to contribute to the case. That could be one of the differences. And we have used it for the assumption that we have in our numbers, we have used the approved business plan to base our provision.

So, I think what is important to say here is that we continue to perform on the TTAC. That's the most important thing.

We continue to be highly committed; Eduardo quoted some numbers 470,000 people being compensated already US$35 billion of investments, 85% of the housing is being finalized. So, that put us in a good path to continue to deliver on the agreed programs. So, with that, I will ask Mark to help us on the nickel answer.

Mark Cutifani:

Thanks, Gustavo, and thanks for the question. Firstly, the way we look at the business, we see 3 parts of the business. Firstly, we have copper, and you can see the copper assets in Brazil in good shape, lots of improvements possible. And from our perspective, if anything, the risk is probably the upside on price, that's the good news for us.

We have got nickel and copper assets in Sudbury and Voisey's Bay. And so, it's not simply a nickel story. So, we have to remember that how we improve our recoveries on copper, PGMs, cobalt, and other products is really important. We are also working very hard on where we send materials in the flow sheet. So, looking to improve our realized prices.

And as you recall, Eduardo and Gustavo flagged the 7% premium on LME prices, that's important to continue to improve that. For example, maybe pushing some material from Onça Puma up through Long Harbour and looking at other innovative options to improve our realized prices as part of our strategy.

And then third, we have got the nickel assets, Manitoba, Onça Puma, more specifically, and I have talked a little bit about Onça Puma already. We have obviously got work to do at Manitoba. And if we look at the asset review, we see in the next 2 to 3 years, a 20% to 30% productivity improvement potential across the assets.

If I translate like that into an operating cost reduction, that's about 15%. So, the question for us is, how quickly can we get those assets down that cost curve? How do we make sure we do not do anything that would hinder our travel toward those costs, but at the same time, let's pull our belts in tight to see if we can make sure that we do not lose any cash on the way through.

So, that's the process that we are going through. And we will answer each of those questions at the midyear when we give you the asset review update because they all connect and are really important. But the most important point is the asset review is taking us in the right direction. We have just got to get there as quick as we can.

Rafael Barcellos, Bradesco BBI:

Good morning, and thanks for taking my questions. I have 2 quick follow-ups here. I mean, firstly, could you please elaborate further on quality premiums for 2024? It would be interesting to hear about that more.

And my second question is about costs. Could you please comment a bit more about C1 cost trends for 2024, and particularly on what you are seeing now in the beginning of the year? Other than that, in 2023, you delivered costs slightly below the guidance. So, just to understand if you see any upside risks in C1 costs for 2024? Thanks.

Marcello Spinelli:

Thank you for your question, Rafael. Regarding premiums, let me remind you of the main contributors for higher premiums. So, the cost of energy, that's the cost of coal that is in a low level comparing to the past. The necessity to improve the efficiency of the production, that they are in full operation. But on the other hand, the margins and the cost mode moved that they are now facing.

So, we do not see any major change in the 1H regarding the premiums as we have this low margin in the industry in China. We can have an upside risk for the 2H, as I mentioned, due to all the macro actions, the main effects from the stimulus in infrastructure. Infrastructure is leading an important growth for this year, so we can have an upside risk for that, but we see this level of premiums flat in this moment.

Premiums for pellets, on the other hand, we are really bullish for that. Direct reduction is really under pressure, production in Middle East and the U.S. is doing really well. So, it's supporting a high level of premiums.

And for blast furnaces, we also see a rebound as ex-China in Asia, like Japan or in Europe, are now demanding more the blast furnace pellets. And as we have a possibility of narrow discount for high-silica ores, we take advantage of that, and we can use our supply chain, our flexibility in our portfolio to maximize the margin if you keep this scenario of low margins in the steelmaking in China.

Gustavo Duarte Pimenta:

Just to complement on the cost question, yes, we finished on a very strong note. Our 4Q, as I mentioned in my prepared remarks, C1 was at US$20.8 per tonne, getting closer to that mark of US$20 that we have been going after in the medium term.

For this year, I think it's looking to be another solid year in terms of cost performance, a lot of the efficiency initiatives that we have launched a year ago or so are bearing fruits now, and we have seen some improvements in 4Q and we should continue to see some improvements this year.

And one thing that is also very helpful is the operational performance. Medeiros highlighted, we finished quite strong 4Q. We started the year very strong as well. So, that higher production level is also very helpful in terms of diluting our unit cost, and that's what you are expecting.

Keeping in mind that 1Q is usually a quarter where we have higher costs given the lower production level, but we are trending in the right direction, and super confident with the numbers that we had highlighted before.

Myles Allsop, UBS:

Thanks. So, maybe first, Eduardo, certainly, the data supports that you have been doing a great job from a safety perspective, from a production perspective simplicity. But then there is this debate around whether your contract will be renewed in May. I guess, it's the Board's decision ultimately. But from your own perspective, do you think there's another 5 years in you to kind of take Vale to the next level? Are you keen to stay if the Board will keep you?

Eduardo de Salles Bartolomeo:

Thanks, Myles. Of course, as you already mentioned, it's not up to me to comment that, or even the C Level. It's a Board decision, and we are really confident that the Board is taking it very professionally and on the right way.

Specifically, about the business, I think this is the most important question that you asked me, because we are really focused in respect of decisions being made to take Vale and run Vale safely focused and towards the strategy goals that we set. And that's what we are doing now, and we are really focused on that. Thanks for the question.

Carlos de Alba, Morgan Stanley:

Good morning, everyone. Thank you. A couple of questions. One, Eduardo, I just wanted to get your views as to what is going to happen with the Vale Base Metals CEO position. I know Mark is the Chairman of the Board and he's very engaged. Is he going to have an expanded role and also remain as CEO, or is the Board of Base metals still looking for a CEO? Some clarification there would be great, given the relevance of executing in that business.

And my second question is about the JV with Anglo American. Very interesting for sure. Is there any timing for the Serpentina development and expected CAPEX potentially that you can, at this point, highlight to us?

Eduardo de Salles Bartolomeo:

Thanks, Carlos. Yes, you are right. We are looking for the CEO, for sure. We have a final list, by the way, and very soon we are going to be able to announce it. And I think Mark can help me, by the way. We are a team here. I think Mark came to us and we are very grateful and thankful that he accepted to join us to bring his 40-plus years of experience.

I think he wants to mentor people. He wants to translate, and I think, how could I say that in English, take to somebody to other people his knowledge. So, I think we are very well designed on who is who in the organization. For sure, we are looking for a strong and rounded CEO, but I have zero doubt that Mark will be of great help on entering and teaching this guy.

Mark, do you want to add something?

Mark Cutifani:

I think managing the transition is something that we are planning very carefully. We have got me and a couple of other very experienced people that can help mentor and support people through the transition.

So, we think the transition will be managed very carefully. But we shouldn't be far off making an announcement, very important to get the right person in the role and managing the transition well, and we are planning for that. And we will all probably do a little bit more in that process.

Eduardo de Salles Bartolomeo:

And I will ask Gustavo to give you some more color on the JV and expectations on the investments in Minas-Rio.

Gustavo Duarte Pimenta:

So, Carlos, good morning. So, there is work to be done on the pre-fees and the feasibility works leading to the preliminary license that we expect to happen within the next, call it, 5 years, up to 5 years. So, we are really seeing this development to be early 30s to mid-30s in terms of reaching commercial operations. That's what we are going to work towards and support Anglo on that.

In terms of total project costs, I think it's early to say. The team needs to work on the specifics. Certainly, it should be a very accretive development for both companies right, because as Eduardo highlighted, it's highly synergetic for both companies. We have a lot of infrastructure that we can share. That's one of the beauties of this deal, and we should see that as we take it to the next level.

So, we will keep you posted as the project evolves.

Marcio Farid, Goldman Sachs:

Good morning. Thanks for the time. Quick follow-ups from me. The first one, obviously, as we look into the overall third-party sales for Vale, I think it was just over 25 million tonnes this year. There is obviously a strong competition on the trading business as well with mostly Trafigura and CSN within Brazil. So, just trying to understand how should we think about sustainability and obviously, profitability of this business going forward, or should we expect further growth? Are you getting close to the peak here?

And obviously, in case you see an iron ore price adjustment, where do you think most of these suppliers, the third-party suppliers would continue to run? In other words, what is the breakeven for most of those around 50 million tonnes of volumes coming out of Brazil being sold with no own logistics. That would be great to understand, please.

And secondly, I know Gustavo just talked about Minas-Rio JV. So, just a quick follow-up here. You talked about potential partnership, but is there anything else that you are progressing towards getting closer to a finalization? I know Mark has mentioned before a potential partnership with Glencore in Canada as well.

And then on Minas-Rio specifically, obviously, a legacy business and a project that was supposed to be close to 90 million tonnes capacity at the conception. So, just trying to understand here, can we see Minas-Rio stepping up and doubling or tripling capacity in the mid to long term here? And what would be the main bottlenecks? And if this partnership unlocks some of these bottlenecks as well, please. Those are my questions.

Marcello Spinelli:

Marcio, thank you for your questions. Let me go through the third-party's purchase. So, the level of purchase of 25 million tonnes is slightly higher this year. This is based mainly today in a transaction of purchase, and a small part today is based on what you call mini-mines, or now a rename of partnerships.

You asked Gustavo about other deals. We have small deals with small miners in Brazil that we can bring our assets like mineral rights that we can develop together. That's the kind of relationship we have been evolving and developing inside Brazil. We are open this market that we can reach another 5 million, even more.

It is based on quality. Remember our strategy, it's not about bringing volume to the market but bringing quality to the market. It is about optimization of logistics that implies in reduction of cost and the impact that you have in the community. So, we want to move from roads to railroads, and also evolve together as an ecosystem.

So, obviously, it depends on the market conditions, the level of price we can generate value. Today, on average, we have US$20/US$25 per tonne, the level of price we have today. I'm talking about margins. And as we can improve this partnership rather than keep this old way to have transactions of purchase, we can improve the value for Vale and the value for the partners.

So, we see a sustainable business in a certain level of price if you have demand for that.

Mark Cutifani:

Marcio, if I can add maybe just a few bullets on your question. We are looking for, as Eduardo said, smart M&A or smart partnerships. I think one of the unique characteristics of Vale, both in iron ore and base metals and one of our key competitive advantages is that we have a very extended flexible infrastructure.

So, we see a lot of value opportunity to work with others, and the one that Spinelli is highlighting is an example of us leveraging our existing unutilized infrastructure to capture incremental margins. And there will be others, sometimes through partnerships, sometimes through M&A. We are keeping our minds very open to it. The same applies for Base Metals.

On your question on Anglo and the 90 million and so, this is a very mature operation today. Serpentina is contiguous to Minas-Rio operations and highly accretive, highly synergetic, as I mentioned before, to their operations. So, we feel good about the ability to expand and take the business, and help Anglo take the business to the next level.

Timna Tanners, Wolfe Research:

Thanks very much. Two quick ones from me, I think. One is just backing up to the discussion of the Pará state situation. Obviously, you have addressed the Sossego and Onça Puma, but any indication that it could extend to Salobo? That's my first question.

And my second question is just if you could discuss any implications for yourselves or for other competitors or customers of some of the blockages in freight globally and how you are dealing with that or how it's impacting your business. That would be great. Thanks very much.

Mark Cutifani:

Thanks for the question on Salobo. It's a federal jurisdiction. So, we think it's a different topic of conversation.

Marcello Spinelli:

Timna, talking about the freight market, we do not see actually any major impact coming from the tensions in the Middle East. The capesize business, we do not see usual trades in that region or that specific place.

We had an increase of volumes in December, and now that we have the stability and we have our own fleet, we see no major impact coming from the fundamentals of the freight market. So, stability is the name of the game for this year.

Operator:

The question-and-answer session is over. We would like to hand the floor back to Mr. Eduardo Bartolomeo for the Company's final remarks.

Eduardo de Salles Bartolomeo:

Just to conclude, last October, I said I was really optimistic. I said I have never been so optimistic. I think now everybody understands why. Everything starts to fall in place. And I am actually even more optimistic now, because we have been through the rainy season. We never passed through the rainy season so well.

I think all the elements of our strategy are coming together, the reorganization, the energy transition business is doing well with asset review going on. Our safety, which is the most important element for me and for Vale is doing really really well, the dams are under control.

So, again, I think Vale is in a very very unique moment. Thanks again for your attention, and let's see in the next call. Have a safe day.

Operator:

Vale's conference is now closed. We thank you for your participation.

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Vale's production and sales in 4Q23 and 2023

Rio de Janeiro, January 29th, 2024

- **Vale's Q4 performance was marked by solid production and sales in all businesses. In December, iron ore achieved its highest monthly output since 2018. Copper production increased by 50% y/y, the highest level since 2018. In nickel, price realization was 7% above LME prices.**
- Iron ore production totaled 89.4 Mt in Q4, increasing by 11% y/y. In 2023, production reached 321.2 Mt, above our 315 Mt guidance, and 4.3% higher y/y as a result of: (i) continued initiatives to improve asset reliability at S11D; (ii) solid performance at Itabira and Vargem Grande complexes; and (iii) higher third-party purchases.
- Pellets production totaled 9.9 Mt in Q4, 19% higher y/y. In 2023, production reached 36.5 Mt, 14% higher y/y, supported by higher pellet feed production at Brucutu. Briquettes production started in Q4, an important step in Vale's strategy to support steelmaking decarbonization by expanding the iron ore agglomerates supply.
- Copper production totaled 99.1 kt in Q4, increasing by 50% y/y. In 2023, production increased by 29% y/y, totaling 326.6 kt, slightly above our revised 325 kt guidance. The improved performance was mainly a result of Salobo 3's successful ramp-up, with production at the Salobo complex increasing by 87% y/y in Q4, as well as the better performance of Sossego's plant.
- Nickel production decreased by 5% in Q4 vs a year ago, while it also decreased 8% in 2023, totaling 164.9 kt, in-line with guidance. The lower production was anticipated considering the transition to underground mining at Voisey's Bay as well as the planned furnace rebuild at Onça Puma.

Production summary

000' metric tons	4Q23	3Q23	4Q22	2023	2022	% change 4Q23/3Q23	% change 4Q23/4Q22	% change 2023/2022	2024 guidance	2023 guidance
Iron ore[1]	89,397	86,238	80,852	321,154	307,793	3.7%	10.6%	4.3%	310-320 Mt	~315 Mt
Pellets	9,851	9,175	8,261	36,455	32,111	7.4%	19.2%	13.5%	38-42 Mt[2]	~37 Mt[2]
Copper	99.1	81.6	66.3	326.6	253.1	21.4%	49.5%	29.0%	320-355 kt	~325 kt
Nickel	44.9	42.1	47.4	164.9	179.1	6.7%	-5.3%	-7.9%	160-175 kt	~165 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

000' metric tons	4Q23	3Q23	4Q22	2023	2022	% change 4Q23/3Q23	% change 4Q23/4Q22	% change 2023/2022
Iron ore fines[1]	77,885	69,714	81,202	256,789	260,663	11.7%	-4.1%	-1.5%
Iron ore pellets	10,285	8,613	8,789	35,840	33,164	19.4%	17.0%	8.1%
Iron ore ROM	2,158	2,232	1,963	8,290	8,216	-3.3%	9.9%	0.9%
Copper	97.5	73.8	71.6	307.8	243.9	32.1%	36.2%	26.2%
Nickel	47.9	39.2	58.2	167.9	180.8	22.2%	-17.7%	-7.1%

[1] Including third-party purchases.

Price realization summary

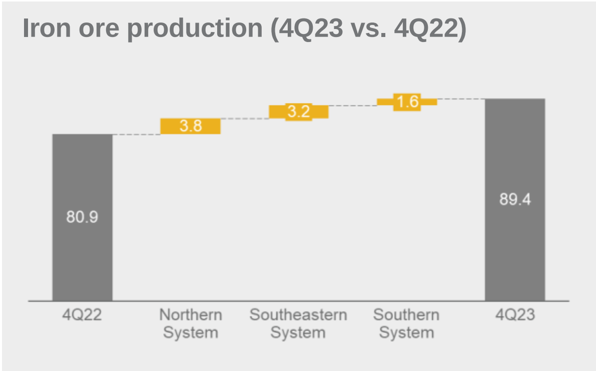
US$/t	4Q23	3Q23	4Q22	2023	2022	% change 4Q23/3Q23	% change 4Q23/4Q22	% change 2023/2022
Iron ore fines (CFR/FOB, wmt)	118.3	105.1	95.6	108.1	108.1	12.6%	23.7%	-
Iron ore pellets (CFR/FOB, wmt)	163.4	161.2	165.6	161.9	188.6	1.4%	-1.3%	-14.2%
Copper[1]	7,941	7,731	8,774	7,960	8,052	2.7%	-9.5%	-1.1%
Nickel	18,420	21,237	24,454	21,830	23,669	-13.3%	-24.7%	-7.8%

[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$ 7,867/t in 4Q23 and US$ 7,903/t in 2023.

Business highlights in 4Q23

Iron Ore and Pellets operations

- **Northern System production increased by 3.8 Mt y/y and 0.7 Mt q/q**, reflecting positive results from continued initiatives to improve asset reliability and operational stability at Serra Norte and S11D.

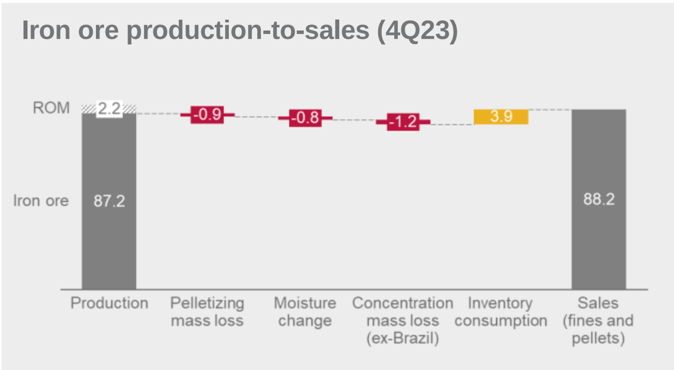


- **The Southeastern System output was 3.2 Mt higher y/y and 1.2 Mt higher q/q**, driven by (i) Conceição concentration plants' improved performance in Itabira; (ii) higher mining equipment availability at Alegria; and (iii) higher third-party purchases.

- **Southern System production increased by 1.6 Mt y/y and 1.2 Mt q/q**, mainly driven by (i) improved performance at the Vargem Grande Complex; and (ii) higher third-party purchases, partially offset by lower production at Viga, which resumed operations in late November, as well as lower run-of-mine output.

- **Pellet production increased by 1.6 Mt y/y and 0.7 Mt q/q**, driven by an increase in pellet feed supply from Brucutu, resulting in higher pellet output from the Tubarão plants, partially offset by planned maintenance at the São Luis and Oman plants in October. In Q4, Vale started producing iron ore briquettes at the Tubarão Complex, and volumes will start to be recorded in 1H24.

- **Iron ore fines and pellet sales reached 88.2 Mt in the quarter, 9.8 Mt higher q/q and flat y/y**, driven by higher production and inventory sales, taking advantage of favorable market conditions.

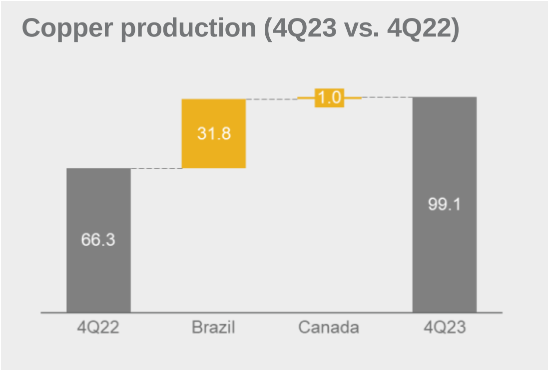


- **The average realized iron ore fines price was US$ 118.3/t**, US$ 13.2/t higher q/q, largely attributed to higher benchmark iron ore prices and a positive impact from forward price adjustments. **The average realized iron ore pellet price was US$ 163.4/t**, relatively flat q/q, as the positive effect from higher benchmark iron ore prices was offset by lower quarterly pellet premiums.

- **The all-in premium totaled US$ 1.6/t**[1], US$ 2.2/t lower q/q and US$ 3.8/t lower y/y. Given market conditions in Q4, with lower discounts for high-silica products as well as lower premiums for high-grade products, Vale decided to increase high-silica products' share in the sales mix, while rebalancing premium iron ore inventories (IOCJ and BRBF), maximizing its product portfolio value.

[1] Iron ore premium of US$ -1.1/t and the weighted average contribution of the pellet business of US$ 2.6/t.

Copper operations



- **Salobo copper production increased by 25.6 kt y/y and 5.6 kt q/q** with the Salobo 3 ramp-up and the continuous increase in plant availability and productivity at the Salobo 1&2 plants. Salobo Complex throughput achieved a pace of 32.3 Mtpy during a 90-day period (August-November).

- **Sossego copper production increased by 6.1 kt y/y and 4.3 kt q/q** as the mining plan moved into higher-grade zones. In December, Sossego achieved record results: (i) the best monthly rate at the SAG mill since 2021, and (ii) the best milling rate since 2020, as well as the highest copper contained production since 2021, achieved in November.

- **Copper production in Canada increased by 1.0 kt y/y and 7.5 kt q/q**, mainly driven by higher copper precipitate production in Thompson and increased copper production in Voisey's Bay, as underground mining operations ramp up.

- **Copper sales[2] totaled 97.5 kt in the quarter, 25.9 kt higher y/y and 23.7 kt q/q,** driven by higher production.

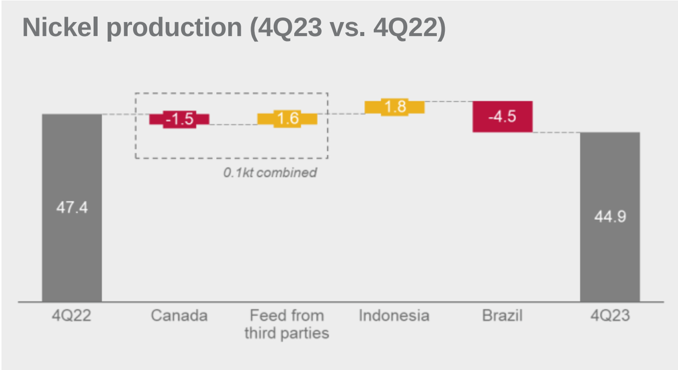
- **Average copper realized price was US$ 7,941/t, 2.7% higher q/q,** mainly a result of positive provisional price adjustments, as the average LME reference price was lower than the average forward curve at the end of the quarter.

[2] Sales volumes are lower than production volumes due to payable copper vs. contained copper: part of the copper contained in the concentrates is lost in the smelting and refining process, hence payable quantities of copper are approximately 3.5% lower than contained volumes.

Nickel operations

- **Finished nickel production from Sudbury-sourced ore decreased by 1.1 kt y/y,** mainly due to the longer planned maintenance at Creighton mine for partial repair of the shaft, which impacted timing and flow of ore feed material to mill. **Production increased by 1.9 kt q/q**, following annual mine maintenance performed in Q3.

- **Finished nickel production from Thompson-sourced ore increased by 0.8 kt y/y and 1.9 kt q/q**, mainly as a result of intermediate product recovery from precipitates as part of the circular mining initiative.



- **Finished nickel production from Voisey's Bay-sourced ore decreased by 1.1 kt y/y and 0.4 kt q/q** driven by the ongoing planned transition from the Ovoid open pit mine depletion to the underground VBME project ramp-up. Contained nickel in ore mined increased by 2.2 kt y/y as the underground mines continue to ramp up.

- **Finished nickel production from third parties increased by 1.6 kt y/y and 1.8 kt q/q.** The consumption of third-party feed is in line with the strategy to maximize the utilization and performance of our downstream operations.

- **Finished nickel production from Indonesia-sourced material increased by 1.8 kt y/y and 2.7 kt q/q**, mainly reflecting the higher availability of nickel in matte from Indonesia. Nickel in matte production was 19.1 kt in the quarter, the highest since 4Q21, as it continues to benefit from the improved mine and furnace performance.

- **Nickel production at Onça Puma decreased by 4.5 kt y/y and 5.2 kt q/q** as operations are halted for the furnace rebuild to be completed in 1Q24.

- **Nickel sales totaled 47.9 kt in the quarter, 3.0 kt higher than quarterly production**, as expected, mainly due to inventory sales built in Q3 to cover the Onça Puma furnace rebuild.

- **Average nickel realized price was US$ 18,420/t, down 13.3% q/q,** mainly due to 15.2% lower LME reference prices q/q. The average realized nickel price in Q4 was 7% higher than the LME reference price, mainly due to the impact of positive hedging results and the higher share of Class I products in sales mix, sold at higher premiums.

ANNEX 1 – Production and sales summary

Iron ore

000' metric tons	4Q23	3Q23[3]	4Q22	2023	2022	% change 4Q23/3Q23	% change 4Q23/4Q22	% change 2023/2022
Northern System	**48,852**	**48,188**	**45,097**	**172,968**	**171,555**	**1.4%**	**8.3%**	**0.8%**
Serra Norte and Serra Leste	28,702	28,833	26,486	97,986	102,298	-0.5%	8.4%	-4.2%
S11D	20,150	19,355	18,611	74,982	69,257	4.1%	8.3%	8.3%
Southeastern System	**21,595**	**20,350**	**18,405**	**82,344**	**72,644**	**6.1%**	**17.3%**	**13.4%**
Itabira (Cauê, Conceição and others)	7,979	7,619	7,007	31,399	27,283	4.7%	13.9%	15.1%
Minas Centrais (Brucutu and others)	6,658	5,939	5,395	24,546	20,759	12.1%	23.4%	18.2%
Mariana (Alegria, Timbopeba and others)	6,959	6,791	6,003	26,398	24,602	2.5%	15.9%	7.3%
Southern System	**18,949**	**17,701**	**17,350**	**65,841**	**63,594**	**7.1%**	**9.2%**	**3.5%**
Paraopeba (Mutuca, Fábrica and others)	8,758	8,214	8,403	28,870	30,106	6.6%	4.2%	-4.1%
Vargem Grande (VGR, Pico and others)	10,191	9,488	8,947	37,061	33,488	7.4%	13.9%	10.7%
IRON ORE PRODUCTION[1]	**89,397**	**86,238**	**80,852**	**321,154**	**307,793**	**3.7%**	**10.6%**	**4.3%**
OWN PRODUCTION	**81,585**	**79,073**	**75,872**	**297,170**	**289,330**	**3.2%**	**7.5%**	**2.7%**
THIRD-PARTY PURCHASES	**7,812**	**7,165**	**4,980**	**23,984**	**18,463**	**9.0%**	**56.9%**	**29.9%**
IRON ORE SALES	**90,328**	**80,559**	**91,954**	**300,919**	**302,042**	**12.1%**	**-1.8%**	**-0.4%**
FINES SALES[2]	**77,885**	**69,714**	**81,202**	**256,789**	**260,663**	**11.7%**	**-4.1%**	**-1.5%**
PELLET SALES	**10,285**	**8,613**	**8,789**	**35,840**	**33,164**	**19.4%**	**17.0%**	**8.1%**
ROM SALES	**2,158**	**2,232**	**1,963**	**8,290**	**8,216**	**-3.3%**	**9.9%**	**0.9%**
SALES FROM 3RD PARTY PURCHASE	**7,807**	**6,646**	**5,051**	**23,580**	**18,497**	**17.5%**	**54.6%**	**27.5%**

[1] Including third party purchases, run-of-mine and feed for pelletizing plants. Excluding Midwestern System volumes. Vale's product portfolio Fe content reached 62.1%, alumina 1.3% and silica 7.2% in 4Q23.
[2] Including third-party purchases.
[3] Third-party purchase distribution between Southeastern and Southern Systems complexes were reinstated.

Pellets

000' metric tons	4Q23	3Q23	4Q22	2023	2022	% change 4Q23/3Q23	% change 4Q23/4Q22	% change 2023/2022
Northern System	**735**	**1,037**	**739**	**3,221**	**3,212**	**-29.1%**	**-0.5%**	**0.3%**
São Luis	735	1,037	739	3,221	3,212	-29.1%	-0.5%	0.3%
Southeastern System	**5,618**	**4,403**	**3,616**	**19,323**	**14,677**	**27.6%**	**55.4%**	**31.7%**
Itabrasco (Tubarão 3)	739	801	960	3,495	2,725	-7.7%	-23.0%	28.3%
Hispanobras (Tubarão 4)	892	720	-	1,669	-	23.9%	n.m.	n.m.
Nibrasco (Tubarão 5 and 6)	1,585	837	1,131	4,760	3,465	89.4%	40.1%	37.4%
Kobrasco (Tubarão 7)	899	557	178	3,204	3,034	61.4%	405.1%	5.6%
Tubarão 8	1,503	1,488	1,347	6,195	5,451	1.0%	-11.6%	13.6%
Southern System	**1,175**	**1,107**	**1,222**	**4,629**	**4,305**	**6.1%**	**-3.8%**	**7.5%**
Fábrica	-	-	-	-	-	-	-	-
Vargem Grande	1,175	1,107	1,222	4,629	4,305	6.1%	-3.8%	7.5%
Oman	**2,323**	**2,628**	**2,684**	**9,283**	**9,919**	**-11.6%**	**-13.5%**	**-6.4%**
PELLET PRODUCTION	**9,851**	**9,175**	**8,261**	**36,455**	**32,111**	**7.4%**	**19.2%**	**13.5%**
PELLET SALES	**10,285**	**8,613**	**8,789**	**35,840**	**33,164**	**19.4%**	**17.0%**	**8.1%**

Copper – Finished production by source

000' metric tons	4Q23	3Q23	4Q22	2023	2022	% change 4Q23/3Q23	% change 4Q23/4Q22	% change 2023/2022
Brazil	**76.7**	**66.7**	**44.9**	**247.2**	**171.0**	**15.0%**	**70.8%**	**44.6%**
Salobo	55.2	49.6	29.6	180.4	127.8	11.3%	86.5%	41.2%
Sossego	21.4	17.1	15.3	66.8	43.2	25.1%	39.9%	54.6%
Canada	**22.4**	**14.9**	**21.4**	**79.4**	**82.1**	**50.3%**	**4.7%**	**-3.3%**
Sudbury	15.4	9.4	16.1	57.9	59.2	63.8%	-4.3%	-2.2%
Thompson	2.9	1.6	1.2	4.7	5.3	81.3%	141.7%	-11.3%
Voisey's Bay	2.7	2.7	1.9	9.6	10.8	0.0%	42.1%	-11.1%
Feed from third parties[1]	1.4	1.2	2.2	7.2	6.8	16.7%	-36.4%	5.9%
COPPER PRODUCTION	**99.1**	**81.6**	**66.3**	**326.6**	**253.1**	**21.4%**	**49.5%**	**29.0%**
COPPER SALES	**97.5**	**73.8**	**71.6**	**307.8**	**243.9**	**32.1%**	**36.2%**	**26.2%**
Copper Sales Brazil	76.3	61.8	44.7	234.0	166.3	23.5%	70.7%	40.7%
Copper Sales Canada	21.2	12.0	26.9	73.8	77.5	76.7%	-21.2%	-4.8%

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

Nickel – Finished production by source

000' metric tons	4Q23	3Q23	4Q22	2023	2022	% change 4Q23/3Q23	4Q23/4Q22	2023/2022
Canada	16.7	13.3	18.2	59.5	73.3	25.6%	-8.2%	-18.8%
Sudbury	10.0	8.1	11.1	38.2	39.0	23.5%	-9.9%	-2.1%
Thompson	3.2	1.3	2.4	7.9	9.9	146.2%	33.3%	-20.2%
Voisey's Bay	3.5	3.9	4.6	13.5	24.4	-10.3%	-23.9%	-44.7%
Indonesia	**19.8**	**17.1**	**18.0**	**64.1**	**63.9**	**15.8%**	**10.0%**	**0.3%**
Brazil	**0.6**	**5.8**	**5.1**	**17.0**	**23.6**	**-89.7%**	**-88.2%**	**-28.0%**
Feed from third-parties[1]	**7.7**	**5.9**	**6.1**	**24.2**	**18.3**	**30.5%**	**26.2%**	**32.2%**
NICKEL PRODUCTION	**44.9**	**42.1**	**47.4**	**164.9**	**179.1**	**6.7%**	**-5.3%**	**-7.9%**
NICKEL SALES	**47.9**	**39.2**	**58.2**	**167.9**	**180.8**	**22.2%**	**-17.7%**	**-7.1%**

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

Energy Transition Metals by-products – Finished production

	4Q23	3Q23	4Q22	2023	2022	% change 4Q23/3Q23	4Q23/4Q22	2023/2022
COBALT (000' metric tons)	549	452	529	1,959	2,434	21.5%	3.8%	-19.5%
PLATINUM (000' oz troy)	31	24	25	125	102	29.2%	24.0%	22.5%
PALLADIUM (000' oz troy)	39	24	33	149	127	62.5%	18.2%	17.3%
GOLD (000' oz troy)[1]	123	117	74	410	289	5.1%	66.2%	41.9%
TOTAL BY-PRODUCTS (000' metric tons Cu eq.)[2 3]	**45**	**38**	**34**	**156**	**134**	**18.4%**	**32.4%**	**16.4%**

[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 (including 1H22) and NYMEX from 3Q22 onwards; for Platinum and Palladium: NYMEX spot; for other PGMs: Johnson Matthey.

ANNEX 2 – Energy Transition Metals: Maintenance scheduled in 2024

Operation	Q1	Q2	Q3	Q4
Copper operations				
Salobo				
Salobo I&II	< 1 week	<1 week	1.5 week	<1 week
Salobo III	1.5 week	1.5 week	1.5 week	1 week
Sossego				
Sossego	4.5 weeks	1 week	2 weeks	1 week
Nickel operations				
Sudbury				
Coleman			4.5 weeks	
Creighton			9 weeks	
Copper Cliff North			4 weeks	
Copper Cliff South			1.5 week	
Garson			4 weeks	
Totten			2 weeks	
Clarabelle mill			4.5 weeks	
Sudbury Smelter		4 weeks		
Sudbury Refinery		6 weeks		
Port Colborne (Co & PGMs)		5 weeks		
Thompson				
Thompson mine			4.5 weeks	
Thompson mill			4.5 weeks	
Voisey's Bay & Long Harbour				
Voisey's Bay		2 weeks		
Long Harbour Refinery		4.5 weeks		
Standalone Refineries				
Clydach		4.5 weeks		
Matsusaka	4.5 weeks			
Indonesia				
PTVI (furnaces/kilns only)	3 weeks	1 week	4 weeks	3 weeks
Brazil				
Onça Puma	9.5 weeks[1]	<1 week	<1 week	<1 week

[1] Refers to the furnace rebuild. The ramp up after maintenance is not included in the number of weeks.
Note: The maintenance schedule may be deliberately adjusted if it proves beneficial for operations and the overall business.
The number of weeks is rounded to 0.0 or 0.5 and may involve more than one maintenance activity within the quarter.

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