



# Management Report **2023**





# Contents

04	About Vale	23	Our workforce	42	Debt indicators
08	Our purpose, values, and strategic pillars	26	Our safety journey	43	Accounting information
09	2023 at a glance	29	Our sustainability	46	Dividends and interest on capital
12	A letter from our Chairman	33	Reparation	47	2024 business outlook
15	A message from our CEO	36	Operating, economic and financial performance	48	Our policy for working with external auditors
17	Executing our strategy	39	Net income	49	Additional information



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEOEXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

# 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](http://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](http://vale.com)

## Investor Relations

[vale.ri@vale.com](mailto:vale.ri@vale.com)

Thiago Lofiego: [thiago.lofiego@vale.com](mailto:thiago.lofiego@vale.com)

Luciana Oliveti: [luciana.oliveti@vale.com](mailto:luciana.oliveti@vale.com)

Mariana Rocha: [mariana.rocha@vale.com](mailto:mariana.rocha@vale.com)

Pedro Terra: [pedro.terra@vale.com](mailto:pedro.terra@vale.com)





ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMAN

A MESSAGE FROM  
OUR CEO

EXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

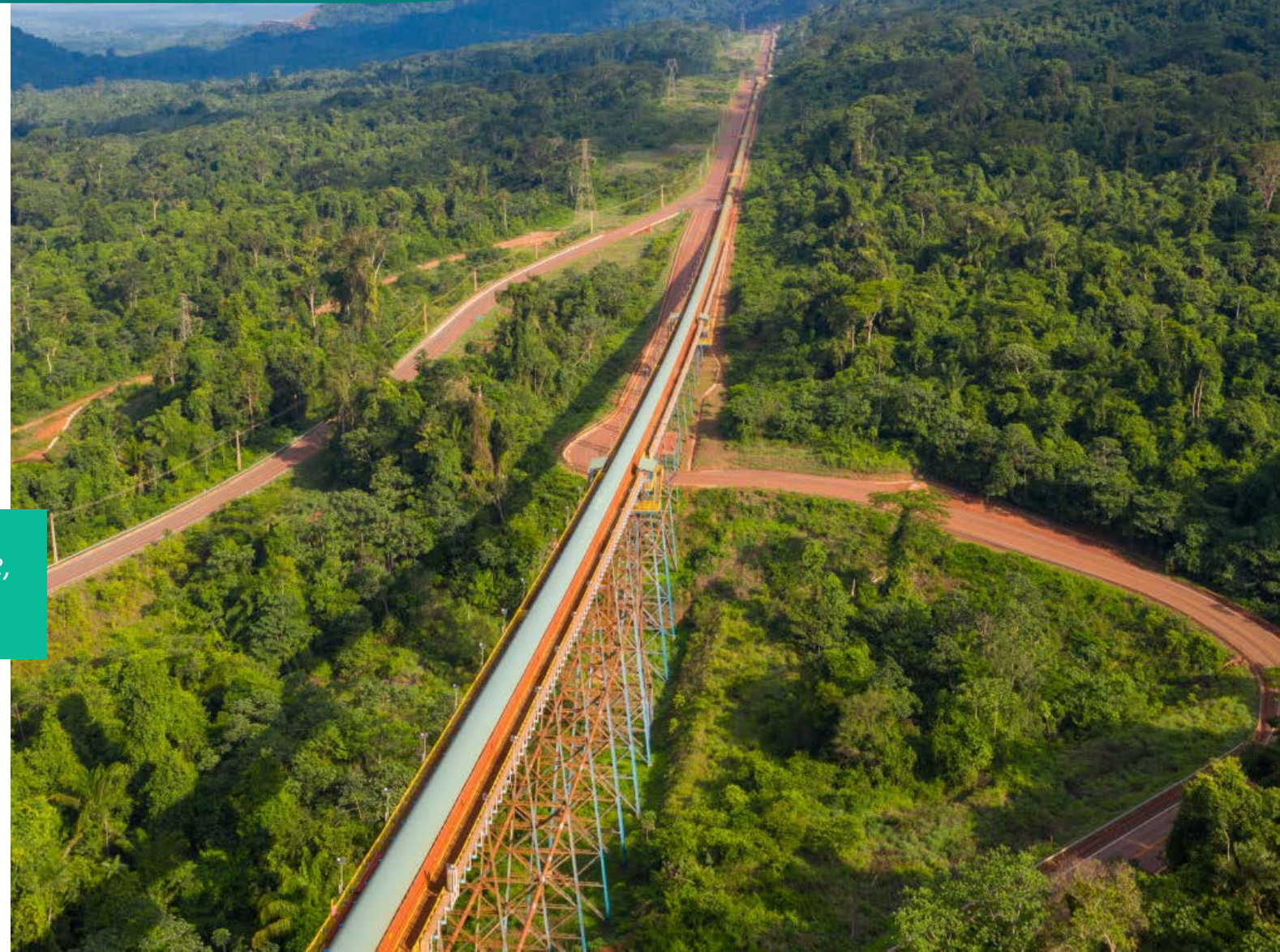
ADDITIONAL INFORMATION

# 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.*





ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMAN

A MESSAGE FROM  
OUR CEO

EXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

# Vale Worldwide<sup>1</sup>

- Exploration
- Joint Venture
- Offices
- Headquarter
- Operation
- Port
- Railroad
- Underground Mine



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

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

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

<sup>1</sup> Includes the assets of Vale Base Metals.



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMAN

A MESSAGE FROM  
OUR CEO

EXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

# Vale of the Future: executing our strategy



## Promote sustainable mining

Benchmark in safety and dam management

Regional social and economic development

Shared value and trust

People-driven

Nature positive



## Foster low carbon solutions

Iron Ore Solutions

Energy Transition Metals

Customer centricity

Technology innovation

Circular mining



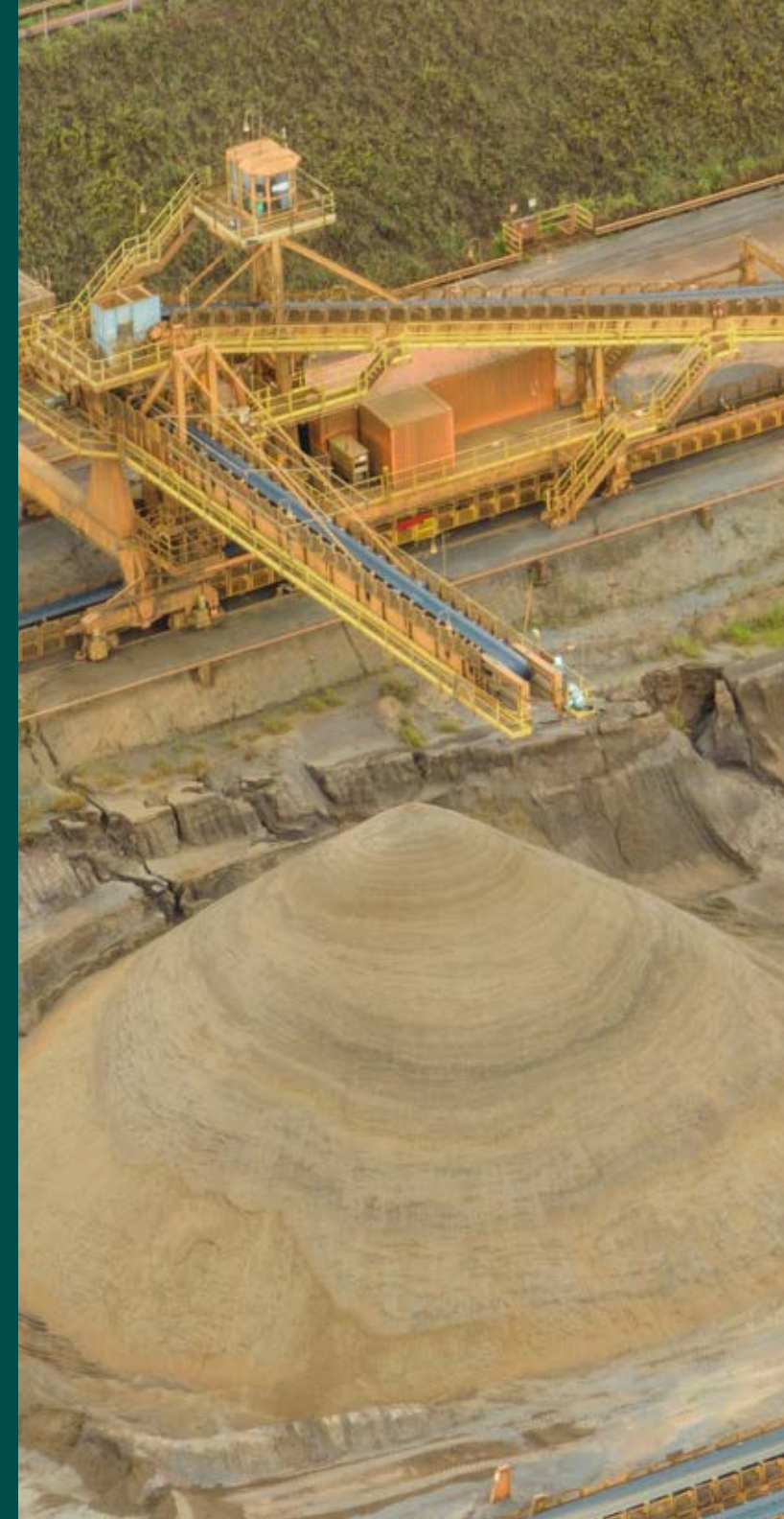
## Stay disciplined

Reliable operations and consistent delivery

Attractive cash returns to shareholders

Strong balance sheet

Cost, CAPEX, and capital allocation efficiency





**ABOUT VALE**

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMAN

A MESSAGE FROM  
OUR CEO

EXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

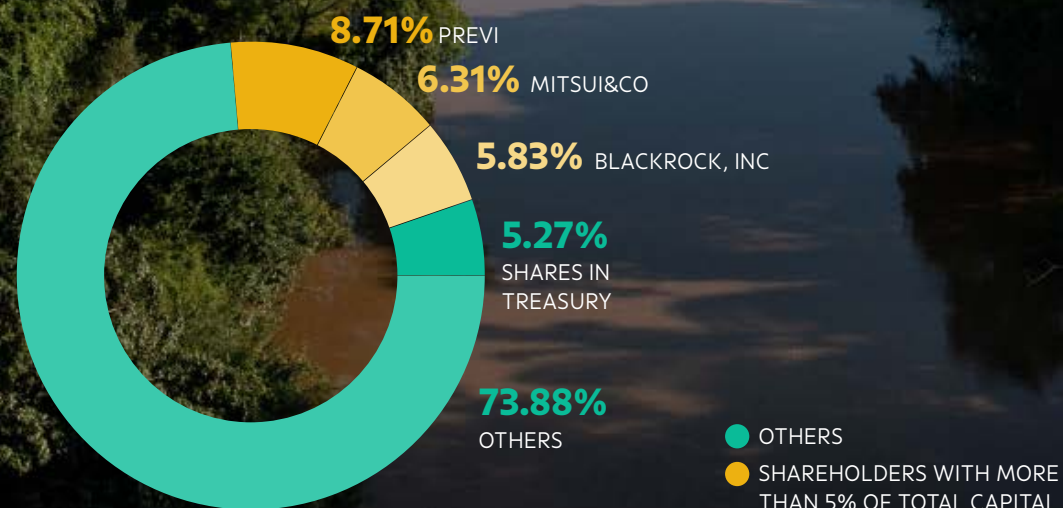
2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION



**Our ownership structure**



**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<sup>1</sup> (ticker symbol XVALO). Our shares are constituents of B3’s main indexes, including: IBOV, IBRA, IBXL, IBXX, IGCT, IGCX, IGM, 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 depository 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<sup>2</sup> was around R\$ 331.9 billion at year end 2023.

<sup>1</sup> The LATIBEX is a non-regulated electronic market of the Madrid stock exchange which enables trading of Latin American equity securities.

<sup>2</sup> 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.



<sup>1</sup> Vale Production System.





# 2023 at a glance

## BUSINESS PERFORMANCE



**R\$ 208.1 billion**

in net operating revenue

**R\$ 89.4 billion**

in adjusted EBITDA

**R\$ 65.9 billion**

in free cash flow from operations

**R\$ 39.9 billion**

in net income attributable to shareholders

**R\$ 17.7 billion**

in cash, cash equivalents  
and short-term investments

**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<sup>1</sup>

**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

<sup>1</sup> 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<sup>1</sup>, 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

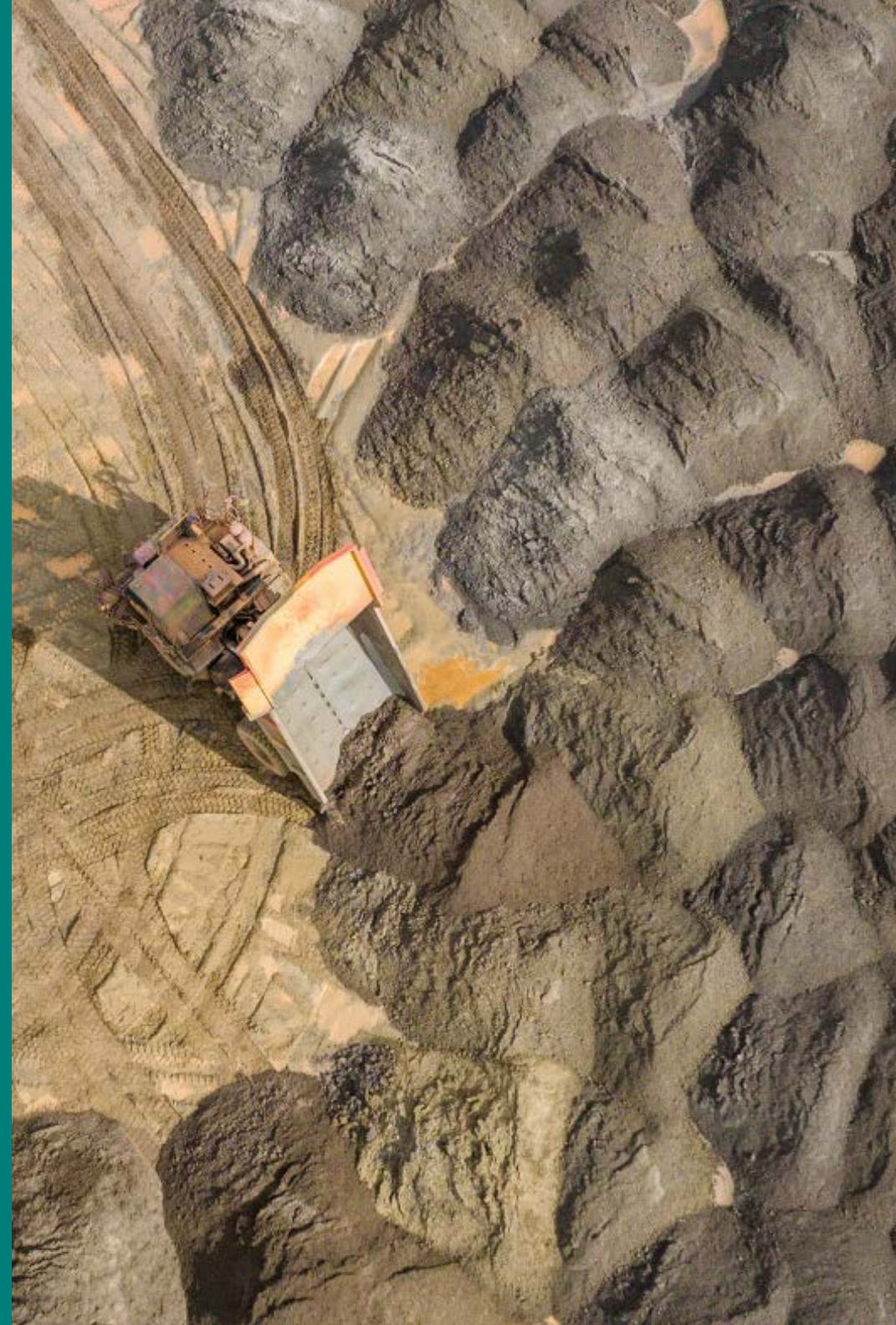
**165 kt**

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

<sup>1</sup> 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<sup>1</sup>

**34.9%**

of self-declared black leadership – a total progress of 21% towards our 2026 target<sup>2</sup>

**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<sup>3</sup>

**+ 177,000**

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

<sup>1</sup> Compared to the 2019 baseline.

<sup>2</sup> Compared to the 2021 baseline.

<sup>3</sup> Validation by an external, independent verifier underway, expected by 1Q24

<sup>4</sup> 165,000 hectares protected and over 12,600 hectares restored.

<sup>5</sup> Total expenditure on damage compensation and remediation, funded by Samarco Mineração S.A. and its partners, BHP Brasil Ltda. and Vale S.A.

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<sup>5</sup>**

spent in Renova Foundation's 42 reparation programs

- **+460,000** affected people indemnified

- **+85%** of housing solutions delivered



# 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<sup>1</sup> 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.

<sup>1</sup> 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 indicator<sup>1</sup>, 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.

<sup>1</sup> The average time between two failures for a given asset.



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMAN**A MESSAGE FROM  
OUR CEO**EXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

## 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

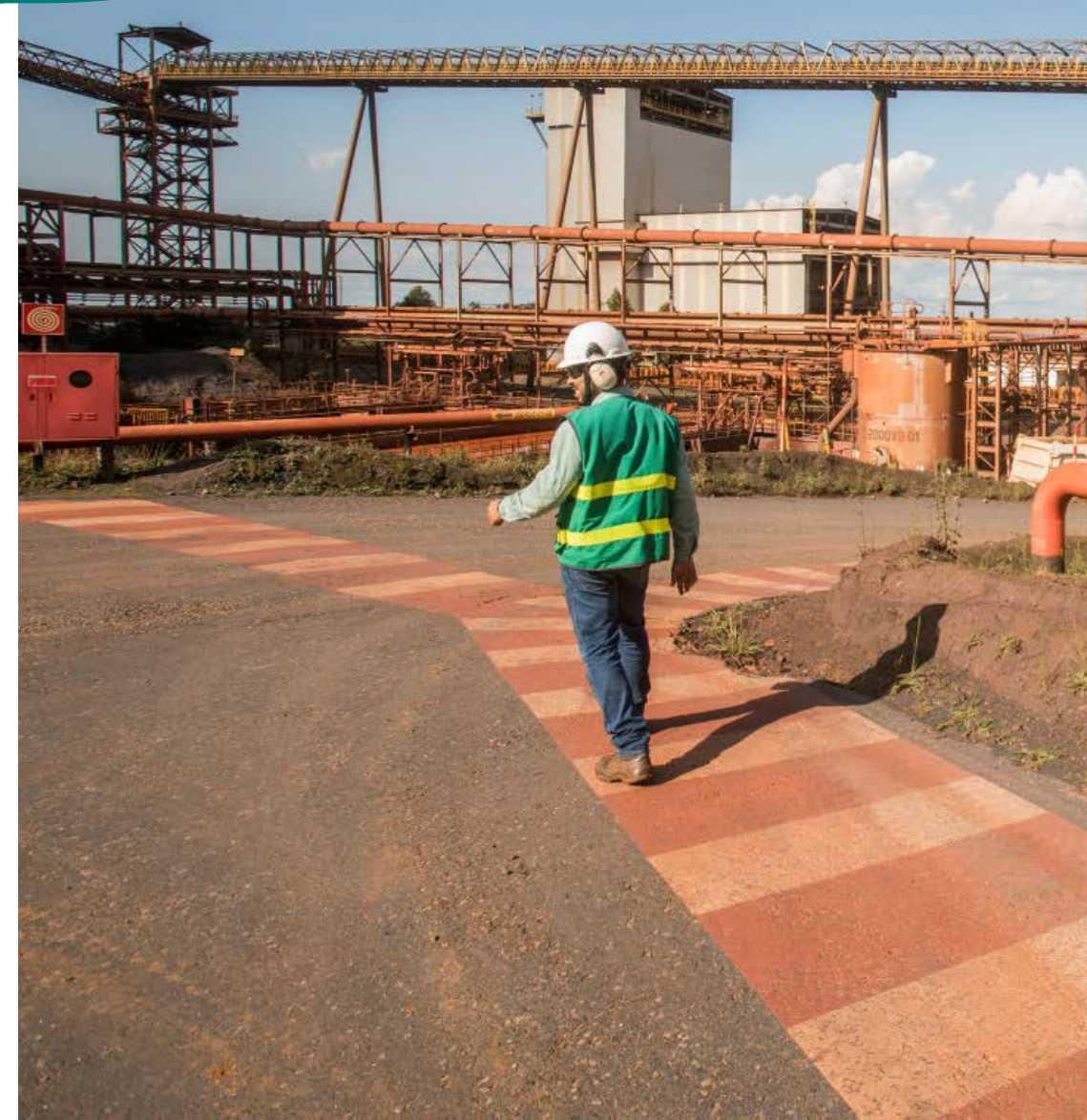
## Promote sustainable mining

### 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%<sup>1</sup> 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<sup>2</sup> 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).

<sup>1</sup> In terms of the number of facilities to be decommissioned.

<sup>2</sup> 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<sup>1</sup>. 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<sup>1</sup>.
- 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<sup>3</sup>.
- 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.

<sup>1</sup> Executed by independent third party based on the United Nations Guiding Principles on Business and Human Rights.

<sup>2</sup> When we set our targets to double the stake of female workforce and female leadership until 2025.

<sup>3</sup> Our target is to achieve 40% by 2026, from a 28.9% baseline in 2021.



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEO**EXECUTING  
OUR STRATEGY**

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

## 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<sup>1</sup>, an initiative that aims to establish guidelines for companies to incorporate considerations related to biodiversity and natural capital risks into their financial reports.

<sup>1</sup> Taskforce on Nature-related Financial Disclosure (TNFD).

<sup>2</sup> Closing expected to 1Q24, subject to customary closing conditions.

<sup>3</sup> Signed between Vale Canada Limited, PT Mineral Industri Indonesia and Sumitomo Metal Mining Co., Ltd.

<sup>4</sup> RKEF stands for Rotary kiln electric furnace.



## 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 1<sup>st</sup> briquette plant in Tubarão, in November 2023, with a 2<sup>nd</sup> 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%<sup>2</sup>.
- Heads of Agreement to meet the divestment obligation of PT Vale Indonesia Tbk (PTVI)<sup>3</sup>. 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<sup>4</sup>) 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.



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEO**EXECUTING  
OUR STRATEGY**

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

## Customer centricity

- In Iron Ore Solutions, we signed MoUs<sup>1</sup>, 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 Açú, to jointly study the development of a Mega Hub in Rio de Janeiro (São João da Barra), to produce HBI<sup>2</sup> 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<sup>3</sup> 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.

<sup>1</sup> MoUs stands for Memoranda of Understanding.

<sup>2</sup> HBI stands for Hot Briquetted Iron.

<sup>3</sup> 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.



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEO**EXECUTING  
OUR STRATEGY**

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

## 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<sup>1</sup> (3.00 target). 100% of operational areas are at a maturity level  $\geq 2.00$ , 36% of all areas are at a maturity level  $\geq 3.00$ .
- 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.

<sup>1</sup> Scores based on self-assessment.

<sup>2</sup> Using share price on December 31st, 2019, based on dividends paid from 2020 to 2023.

<sup>3</sup> Dividends and interest on capital.

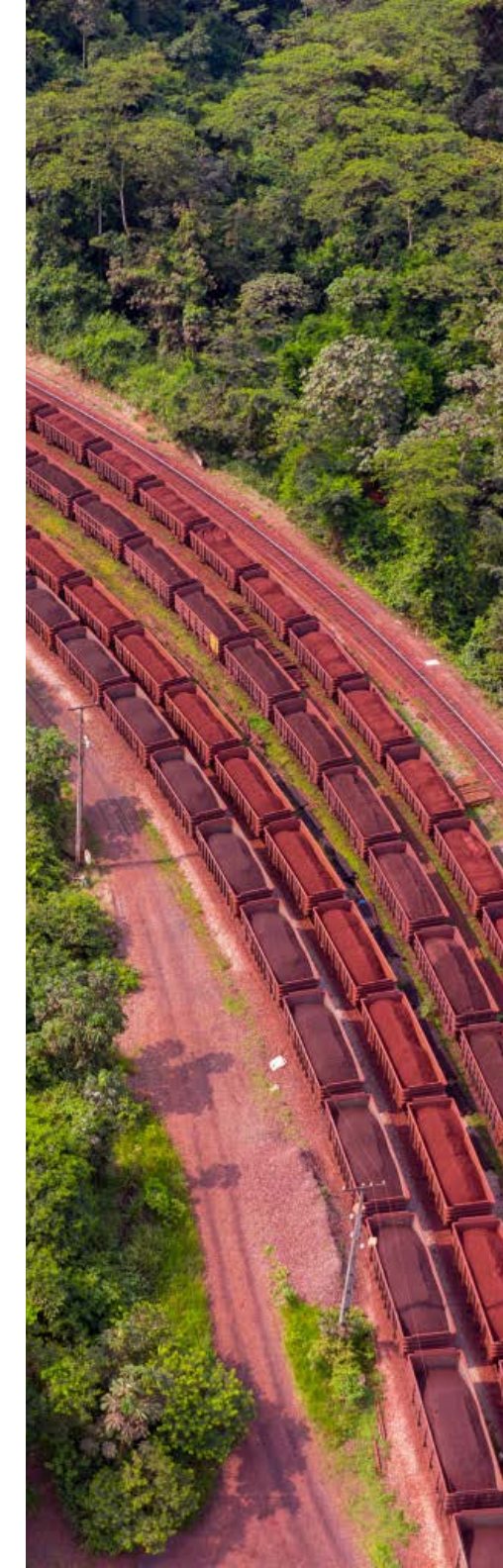
<sup>4</sup> Considering earnings distributed per share (R\$ 6.99), divided by the closing share price (R\$ 88.88) on 12/30/2022 (excluding dividends paid in 2023). The starting share value considered was defined within the period related to the dividend (year 2023) for a better yield measurement in 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%<sup>2</sup> and US\$ 28 billion in earnings distribution<sup>3</sup>. In 2023, dividends totaling R\$ 6.99 per share, a dividend yield of 7.9%<sup>4</sup>.
- ~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 4<sup>th</sup> 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.





ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEO**EXECUTING  
OUR STRATEGY**

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION



## Cost and CAPEX efficiency

- Iron ore C1 cash cost<sup>1</sup> 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 3<sup>rd</sup> 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<sup>2</sup> with potential to add ~US\$ 4 billion in EBITDA<sup>3</sup>.
- 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.

<sup>1</sup> Ex-3<sup>rd</sup> party purchase.

<sup>2</sup> 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+%.

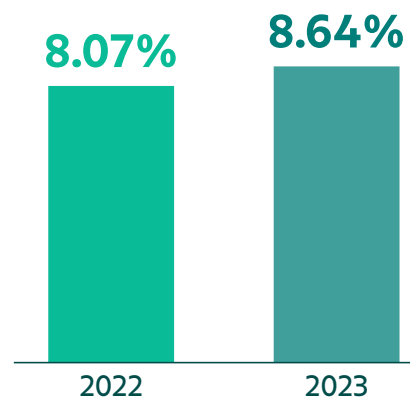
<sup>3</sup> Based on operations after full ramp-up and assuming market average long-term commodity prices.



# 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

Number of employees	Direct		Third-party 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
<b>Total</b>	<b>66,807</b>	<b>64,516</b>	<b>167,759</b>	<b>150,831</b>

## By geography

Number of employees	Direct		Third-party 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	-	-	-	-
<b>Total</b>	<b>66,807</b>	<b>64,516</b>	<b>167,759</b>	<b>150,831</b>



## 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

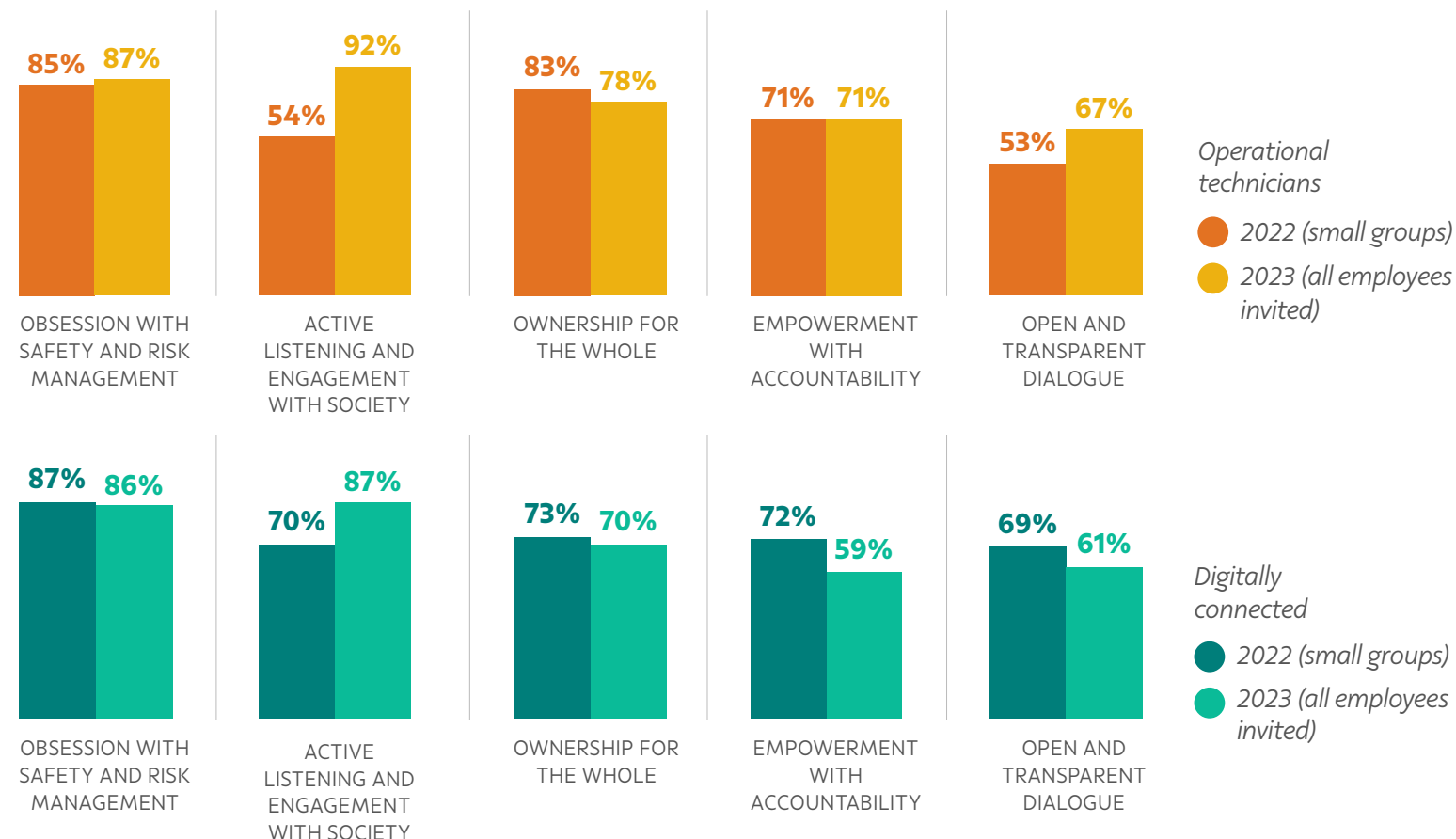
We believe that measuring and nurturing engagement is crucial to encourage behaviors aligned with our culture, provide a healthy and safe work environment, adhere to organizational practices that foster greater employee connection, and manage people in a humane way, encouraging continuous learning. We 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<sup>1</sup>. 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.

<sup>1</sup> 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

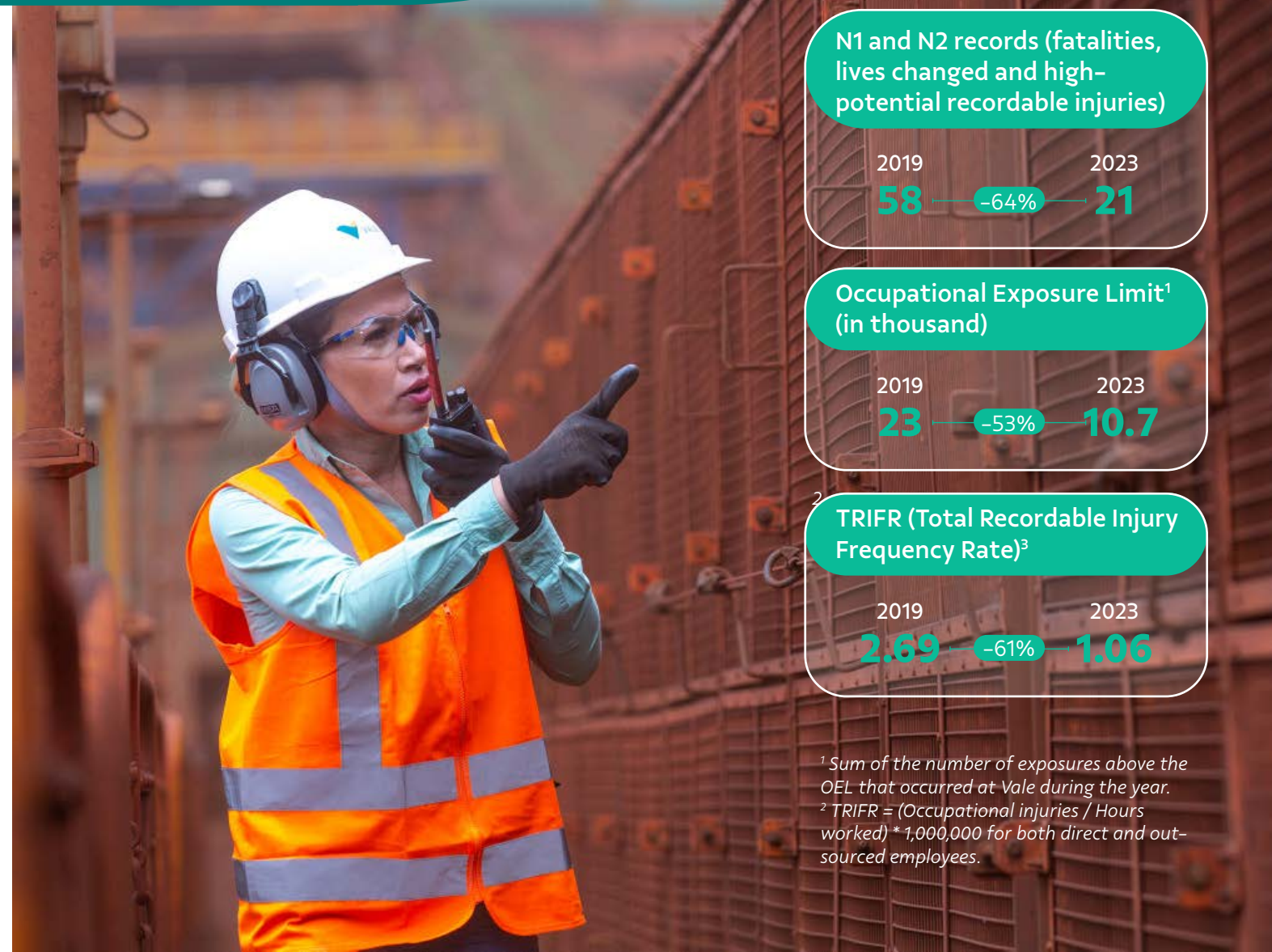
We continue to pursue our 2025 health & safety goals<sup>1</sup>:

- i No recordable high-potential injuries resulting from absences, restrictions, and medical treatments (N2).
- ii 50% reduction in exposures to major health risk factors<sup>2</sup>.
- iii Elimination of all risk scenarios classified as “very high” for Health, Safety, Environment and Communities.

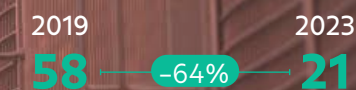
As part of Vale’s commitment to life, various monitoring activities are conducted for injury prevention. Our critical monitoring indicators are:

<sup>1</sup> Our long-term safety goals were set in 2019.

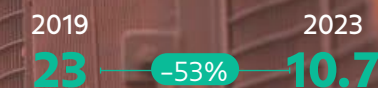
<sup>2</sup> We work to eliminate scenarios involving health risks in which employees are exposed to risk agents that are above the global Occupational Exposure Limit (OEL). We prioritize scenarios involving the main health risks existing in our process that may cause injuries and chronic diseases, which are: noise, trichloroethylene, cobalt, copper, nickel, manganese, diesel particulates and crystalline silica.



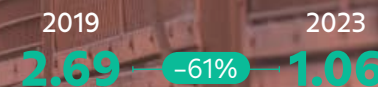
### N1 and N2 records (fatalities, lives changed and high-potential recordable injuries)



### Occupational Exposure Limit<sup>1</sup> (in thousand)



### TRIFR (Total Recordable Injury Frequency Rate)<sup>2</sup>



<sup>1</sup> Sum of the number of exposures above the OEL that occurred at Vale during the year.

<sup>2</sup> TRIFR = (Occupational injuries / Hours worked) \* 1,000,000 for both direct and out-sourced 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.*

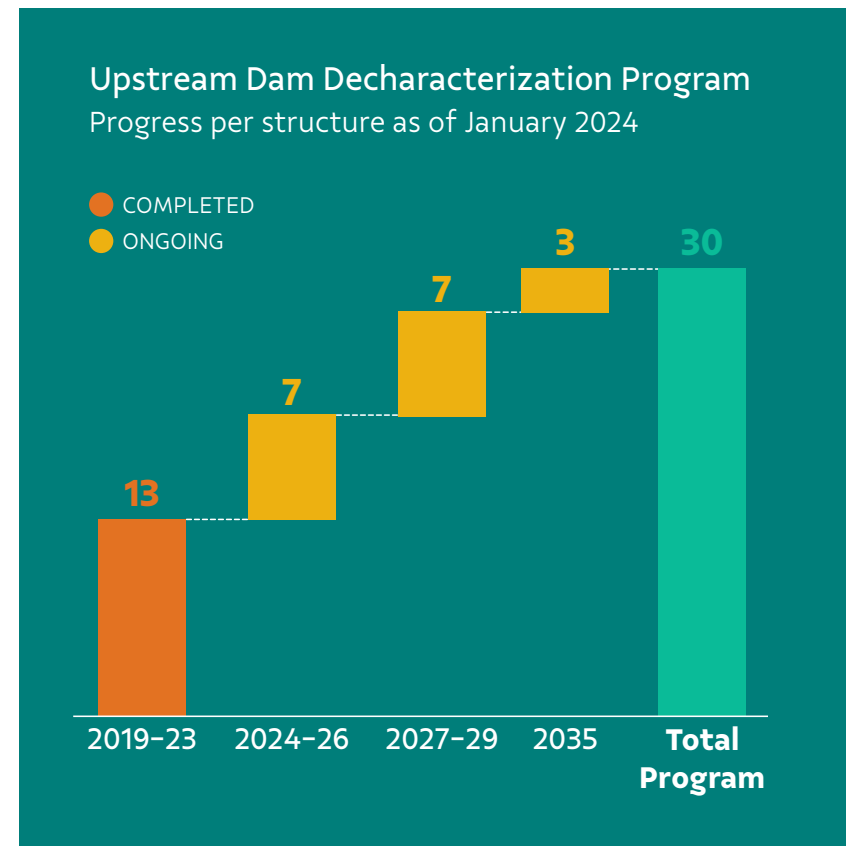
**Upstream Dam Decharacterization Program**

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 decommissioned 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.





### 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<sup>1</sup> have kept positive DCEs for 79 structures, 81% of a total of 97 structures<sup>2</sup> 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.

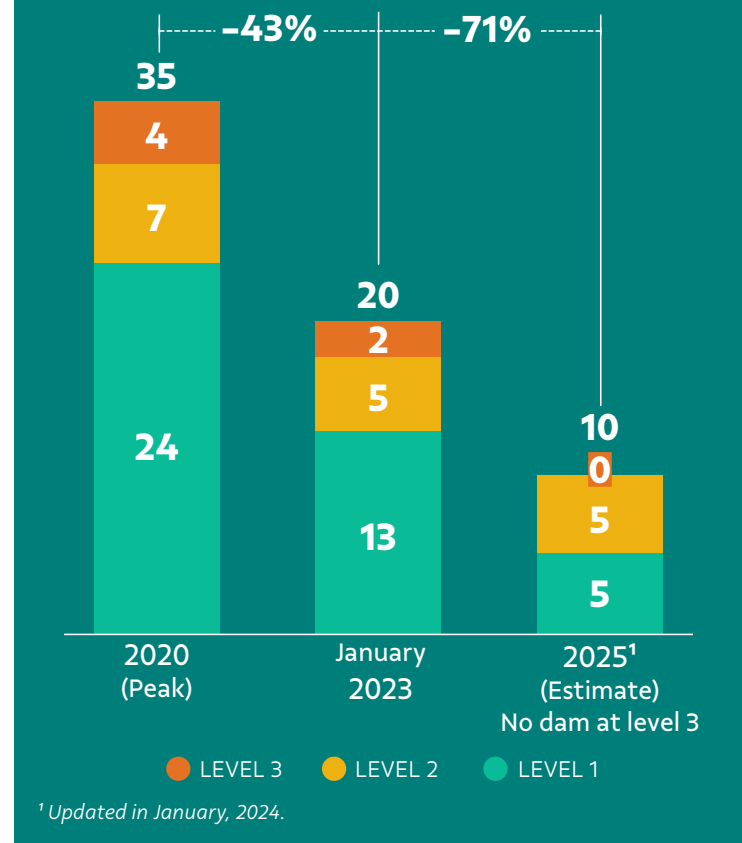
<sup>1</sup> Under applicable Brazilian federal regulations, we must submit to authorities a Stability Condition Statement (DCE) from an independent expert for each of our mining dams on a semi-annual basis. Going beyond this requirement, Vale implemented the role of the Engineer of Record (EoR), responsible for issuing DCEs as part of the Dam Safety Inspection within a continuous monitoring process.

<sup>2</sup> 72 structures in the Iron Ore Solutions operations and 7 in the Energy Transition Metals business.

<sup>3</sup> 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



### 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<sup>3</sup>. 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<sup>1</sup>. 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.

<sup>1</sup> REDD+ Project 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<sup>1</sup>, 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, weed-ing/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<sup>2</sup> in social, environmental and institutional expenditures<sup>3</sup>, of which:

- R\$2 billion dedicated to social and institutional initiatives<sup>4</sup>, 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<sup>5</sup> (R\$ 474 million); and
- R\$ 1.7 billion<sup>2</sup> dedicated to environmental initiatives, taking into account Vale's internal expenditures.

<sup>1</sup> The survey interviewed a total of 5,105 individuals in five Brazilian states (ES, RJ, MG, MA, PA), encompassing 44 municipalities and 163 communities.

<sup>2</sup> Estimated value in Reais, for the part outside Brazil we used the monthly exchange rate, average BRL/USD 4.99 for 2023.

<sup>3</sup> Amount does not include expenditures related to Brumadinho.

<sup>4</sup> Amount includes expenses for humanitarian aid (Covid-19 and Emergency Rains).

<sup>5</sup> 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<sup>1</sup>.



**Low-carbon products:** The carbon footprint of nickel produced by Vale at the Long Harbour refinery in Canada is 4.4 tons of CO<sub>2</sub> 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<sub>2</sub> 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.

<sup>1</sup> 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 <sup>1</sup>	NA
DJSI <sup>2</sup> (the higher the better)	51 <sup>3</sup>	45

<sup>1</sup> Neutral-to-low rating, improved in comparison to 2021 (highly negative or CIS-4).

<sup>2</sup> Dow Jones Sustainability Index World. Also known as CSA (S&P Global Corporate Sustainability Assessment)

<sup>3</sup> 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.

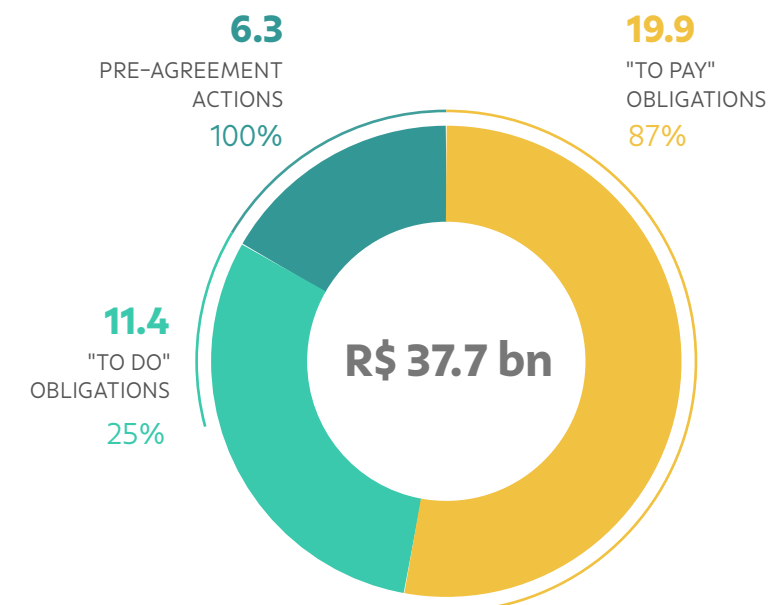
During the reporting period, a new process for converting "performance obligations" into "payment obligations" was

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)





ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMAN

A MESSAGE FROM  
OUR CEO

EXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

**REPARATION**

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION



# Social and economic reparation

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

**7,700+** civil and labor settlements.

**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<sup>3</sup>**

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

**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.

Instituto  
YARA TUPYNAMBA



**REPARATION**

**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.

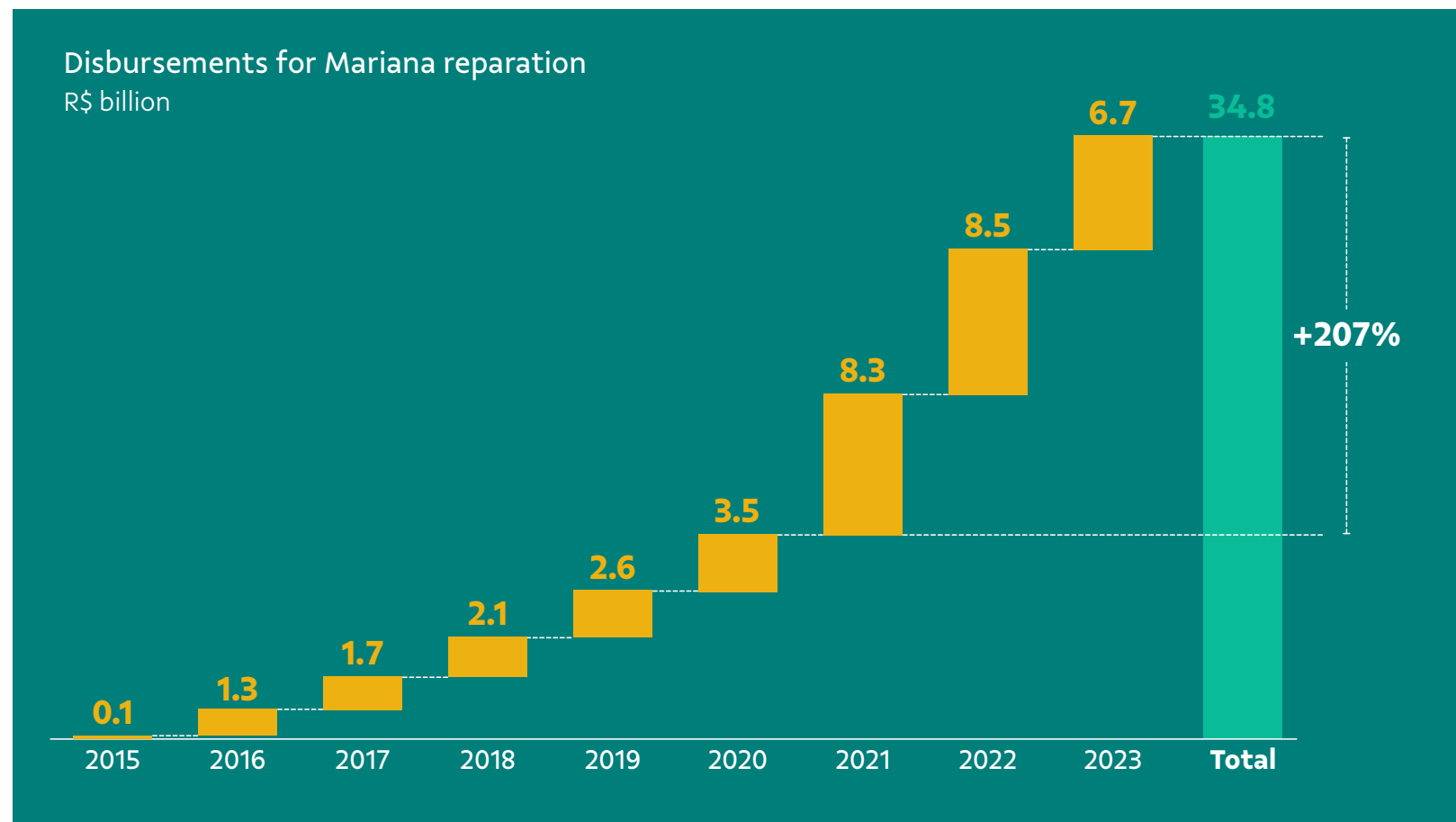
Significant progress has been made in forest restoration and compensation processes, resulting in the implementation of environmental restoration actions covering over 18,000 hectares of Permanent Preservation Areas (PPA) and over 1,500 springs, with the goal of reaching 40,000 hectares of PPA and 5,000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





# 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<sup>1</sup>.



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.



**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.



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\$ 29.4 billion**

in Capex.



**R\$ 3.7 billion**

allocated to social, environmental, and institutional initiatives

<sup>1</sup> Includes Brumadinho expenses and streaming transactions.



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEOEXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

**OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE**

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

## Iron Ore Solutions

Iron ore production totaled 321.2 Mt in 2023, 4.3% higher compared to 2022, mainly 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\$ 9.8 billion, 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.

### 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) <sup>1</sup>	(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

<sup>1</sup> Includes adjustment of R\$ 1.073 million in 2023, to reflect the performance of the streaming transactions at market price.

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



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEOEXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

**OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE**

NET INCOME

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

## Information by segment

(R\$ millions)	Net operating revenues	Cost <sup>1</sup>	Expenses			Dividends and interest received from associates and JVs	Adjusted EBITDA
			SG&A and others <sup>1</sup>	R&D <sup>1</sup>	Pre operating & stoppage <sup>1</sup>		
<b>Iron Ore Solutions</b>	<b>169,545</b>	<b>(76,894)</b>	<b>(79)</b>	<b>(1,405)</b>	<b>(1,691)</b>	<b>662</b>	<b>90,138</b>
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
<b>Energy Transition Metals</b>	<b>37,844</b>	<b>(27,615)</b>	<b>899</b>	<b>(1,320)</b>	<b>(34)</b>	<b>-</b>	<b>9,774</b>
Nickel <sup>2</sup>	23,735	(18,689)	(328)	(592)	(11)	-	4,115
Cooper <sup>3</sup>	12,838	(6,766)	154	(728)	(23)	-	5,475
Others <sup>4</sup>	1,271	(2,160)	1,073	-	-	-	184
<b>Brumadinho event and dam de-characterization</b>	<b>-</b>	<b>-</b>	<b>(5,348)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(5,348)</b>
<b>Others<sup>4</sup></b>	<b>677</b>	<b>(974)</b>	<b>(4,326)</b>	<b>(873)</b>	<b>(10)</b>	<b>348</b>	<b>(5,158)</b>
<b>Total</b>	<b>208,066</b>	<b>(105,483)</b>	<b>(8,854)</b>	<b>(3,598)</b>	<b>(1,735)</b>	<b>1,010</b>	<b>89,406</b>

<sup>1</sup> Excluding depreciation, depletion, and amortization<sup>2</sup> Including copper and by-products from our nickel operations.<sup>3</sup> Including by-products from our copper operations.<sup>4</sup> 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
<b>Financial income</b>	<b>2,159</b>	<b>2,685</b>
<b>Finance expenses</b>	<b>(7,276)</b>	<b>(6,156)</b>
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)

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

(R\$ millions)	2023	2022
<b>Other financial items, net</b>	<b>(4,601)</b>	<b>14,849</b>
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)
<b>Net finance revenue (expense)</b>	<b>(9,718)</b>	<b>11,378</b>

## 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
<b>Income before income tax</b>	<b>55,554</b>	<b>101,704</b>
Income taxes at statutory rate (34%)	(18,888)	(34,579)
<b>Adjustments that affect the taxes basis:</b>		
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
<b>Income taxes</b>	<b>(15,000)</b>	<b>(15,185)</b>



## 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
<b>Impairment reversal (impairment and disposals) of non-current assets</b>	<b>(1,317)</b>	<b>3,833</b>
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
<b>Associates and joint ventures</b>				
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
<b>Controlled</b>				
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
<b>Total</b>	<b>123,846</b>	<b>122,573</b>	<b>11,092</b>	<b>43,869</b>





ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEOEXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE**NET INCOME**

DEBT INDICATORS

ACCOUNTING INFORMATION

DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

## 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 expect to 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
<b>Total</b>	<b>29,446</b>	<b>28,184</b>

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
<b>Total</b>	<b>29,446</b>	<b>28,184</b>

### 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<sup>1</sup> 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.

<sup>1</sup>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-term investments

Debt indicators (US\$ millions)	2023	2022
Gross debt <sup>1</sup>	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 <sup>2</sup>	(4,363)	(4,797)
<b>Net debt</b>	<b>9,560</b>	<b>7,915</b>
Currency swaps <sup>3</sup>	(664)	(211)
Brumadinho provisions	3,060	3,312
Samarco & Renova Foundation provisions <sup>4</sup>	4,208	3,124
<b>Expanded net debt</b>	<b>16,164</b>	<b>14,140</b>
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

<sup>1</sup> Does not include leases (IFRS 16).

<sup>2</sup> Includes US\$ 703 million related to non-current assets held for sale in 4Q23 due to the upcoming PTVI divestment.

<sup>3</sup> Includes interest rate swaps.

<sup>4</sup> 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
<b>Continuing operations</b>		
Net operating revenue	208,066	226,508
Costs of goods sold and services rendered	(120,016)	(124,195)
<b>Gross profit</b>	<b>88,050</b>	<b>102,313</b>
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
<b>Operating income</b>	<b>70,706</b>	<b>88,710</b>
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)
<b>Net income from continuing operations</b>	<b>40,554</b>	<b>86,519</b>
Net income attributable to non-controlling interests	614	413
<b>Net income from continuing operations attributable to Vale's shareholders</b>	<b>39,940</b>	<b>86,106</b>
<b>Discontinuing operations</b>		
Net income (loss) from discontinued operations	-	9,818
Loss attributable to non-controlling interests	-	-
<b>Net income (loss) from discontinued operations attributable to Vale's shareholders</b>	<b>-</b>	<b>9,818</b>
<b>Net income</b>	<b>40,554</b>	<b>96,337</b>
Net income (loss) attributable to non-controlling interests	614	413
<b>Net income attributable to Vale shareholders</b>	<b>39,940</b>	<b>95,924</b>



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEOEXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY

REPARATION

OPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

**ACCOUNTING INFORMATION**DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

<b>Balance sheet – Consolidated (R\$ millions)</b>	<b>2023</b>	<b>2022</b>
<b>Assets</b>		
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
<b>Total</b>	<b>455,984</b>	<b>453,387</b>
<b>Liabilities</b>	<b>257,659</b>	<b>258,493</b>
Current liabilities	68,234	72,478
Liabilities associated with non-current assets held for sale	2,714	-
Non-current liabilities	186,711	186,015
<b>Equity</b>	<b>198,325</b>	<b>194,894</b>
Equity attributable to Vale's shareholders	190,965	187,112
Equity attributable to noncontrolling interests	7,360	7,782
<b>Total</b>	<b>455,984</b>	<b>453,387</b>

<b>Cash Flow – Consolidated (R\$ millions)</b>	<b>2023</b>	<b>2022</b>
<b>Cash flow from operations</b>	<b>86,220</b>	<b>95,793</b>
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)
<b>Net cash generated by operating activities from continuing operations</b>	<b>65,905</b>	<b>57,988</b>
Net cash generated (used) by operating activities from discontinued operations	-	213
<b>Net cash generated by operating activities</b>	<b>65,905</b>	<b>58,201</b>
<b>Cash flow from investing activities</b>		
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 investment	613	1,309
Other investments activities, net	(82)	843
<b>Net cash used in investing activities from continuing operations</b>	<b>(31,425)</b>	<b>(23,642)</b>
Net cash used in investing activities from discontinued operations	-	(534)
<b>Net cash used in investing activities</b>	<b>(31,425)</b>	<b>(24,176)</b>



ABOUT VALE

OUR PURPOSE, VALUES,  
AND STRATEGIC PILLARS

2023 AT A GLANCE

A LETTER FROM  
OUR CHAIRMANA MESSAGE FROM  
OUR CEOEXECUTING  
OUR STRATEGY

OUR WORKFORCE

OUR SAFETY JOURNEY

OUR SUSTAINABILITY  
REPARATIONOPERATING, ECONOMIC  
AND FINANCIAL  
PERFORMANCE

NET INCOME

DEBT INDICATORS

**ACCOUNTING INFORMATION**DIVIDENDS AND  
INTEREST ON CAPITAL

2024 BUSINESS OUTLOOK

OUR POLICY FOR WORKING  
WITH EXTERNAL AUDITORS

ADDITIONAL INFORMATION

<b>Cash Flow – Consolidated (R\$ millions)</b>	<b>2023</b>	<b>2022</b>
<b>Cash flow from financing activities</b>		
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)	-
<b>Net cash used in financing activities from continuing operations</b>	<b>(37,002)</b>	<b>(70,951)</b>
Net cash used in financing activities from discontinued operations	-	(54)
<b>Net cash used in financing activities</b>	<b>(37,002)</b>	<b>(71,005)</b>
<b>Net decrease in cash and cash equivalents</b>	<b>(2,522)</b>	<b>(36,980)</b>
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)
<b>Cash and cash equivalents at end of the year</b>	<b>17,474</b>	<b>24,711</b>
<b>Cash flow from operating activities</b>		
Income before income taxes	55,554	101,704
<b>Adjusted for:</b>		

<b>Cash Flow – Consolidated (R\$ millions)</b>	<b>2023</b>	<b>2022</b>
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)
<b>Changes in assets and liabilities:</b>		
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)
<b>Cash flow from operations</b>	<b>86,220</b>	<b>95,793</b>
<b>Non-cash transactions</b>		
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	<b>30.032 billion</b>			

## 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 31<sup>st</sup>, 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 PricewaterhouseCoppers 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:

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





# 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](mailto: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](mailto: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](http://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., Tecnoed Desenvolvimento Tecnológico S.A., PT Vale Indonesia Tbk, Vale Holdings B.V, Vale Canada Limited, Vale International S.A., Vale Malaysia Minerals Sdn. Bhd., Vale Oman Pelletizing Company LLC. 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 particular, 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.*