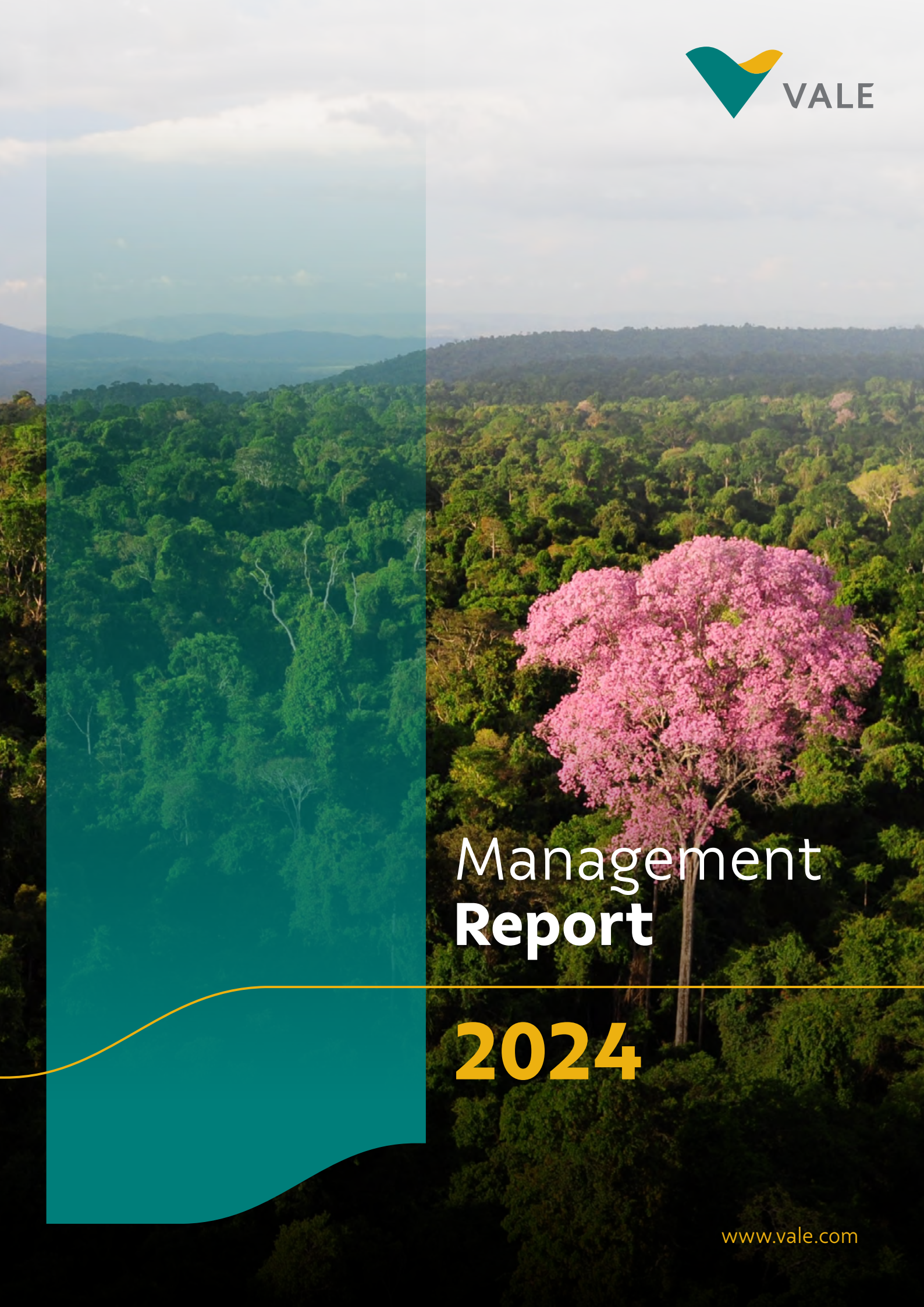

VALE

Management Report

2024

www.vale.com

Contents

INFORMATION ABOUT **OUR 2024** RESULTS WEBCAST

Vale S.A. ("Vale" or the "Company") is hosting its financial results webcast on February 20, 2025, at 11:00 AM Brasília time (9:00 AM New York time; 2:00 PM London time). You can access the webcast and presentation materials through Vale's investor relations website (www.vale.com/investidores). The teleconference will be conducted in English and simultaneously translated into Portuguese. It will be streamed live on the Company's website. A recorded copy of the webcast will be available shortly after the teleconference ends.

For more information about Vale, visit: vale.com

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Executive Summary

BUSINESS PERFORMANCE

R$ 206.0 billion
in net operating revenue

R$ 80.1 billion
in adjusted EBITDA

R$ 50.2 billion
in net cash generated by operating activities

R$ 31.6 billion
in net income attributable to shareholders

US$ 5.0 billion
in cash, cash equivalents and short-term investments

US$ 16.5 billion
in expanded net debt

PRODUCTION AND SALES

328 Mt
of iron ore production, the highest output since 2018

307 Mt
of iron-ore sales, a YoY increase of 1.9%

37 Mt
of pellet production, a YoY increase of 1.2%

38 Mt
of pellet sales, a YoY increase of 6.9%

348 kt
of copper production, a YoY increase of 6.6%, surpassing the 2024 guidance

327 kt
of copper sales, a YoY increase of 6.3%

160 kt
of nickel production, a YoY decrease of 3.0%, in line with the 2024 guidance

155 kt
of nickel sales, a YoY decrease of 7.6%

CAPITAL ALLOCATION

R$ 32.7 billion
in investments, including R$ 24.8 billion in sustaining CAPEX

R$ 4.76 per share
(US$ 0.84 per share) in dividends and interest on capital approved for our shareholders for FY 2024.

R$ 2.1 billion
of share buybacks in the year[1]

[1] *30.9 million shares purchased.*

ESG

100%
of electricity consumption in Brazil from renewable sources

57%
of the Upstream Dam Decharacterization Program completed

26.5%
of our workforce are women, reaching our target one year ahead of schedule

37.7%
of leadership positions (coordinators and above) are held by self-declared Black professionalsin Brazil, nearing our goal of 40% by 2026[1]

68%
reduction in the Total Recordable Injury Frequency Rate (TRIFR) compared to the baseline year (2019)

218,000+ hectares[2]
protected and/or restored since 2020, a significant step toward achieving our voluntary forestry commitment

Voluntary and early adoption of **ISSB** standards

[1] Compared to the 2021 baseline. Tecnored is not considered in the calculation as its DEI strategy is not managed by Vale.
[2] 200,093 hectares protected and over 18,443 hectares restored.

REPARATIONS

1. Brumadinho Reparation

R$ 49.45 billion
expenditure on Brumadinho reparation (MG)

75%
of obligations fulfilled under the Integral Reparation Agreement

17,000+
people compensated

2. Mariana Reparation

R$ 45 billion
disbursed for reparation and compensation efforts in Mariana (MG)[3]

448,000+
people compensated

+90%
of housing solutions delivered

[3] Total expenditure on damage reparations and compensation, funded by Samarco Mineração S.A. and its partners, BHP Brasil Ltda. and Vale S.A.

Signing of the
Definitive Settlement
with public authorities in Brazil for the full reparation of the Samarco's Fundão dam collapse

Iron Ore Solutions

- In 2024, our operations demonstrated improved stability and asset reliability. As a result, our iron ore production reached 328 Mt, exceeding the initial guidance for the year. At S11D operations, we achieved record production at 83 Mt through the implementation of new maintenance strategies. Meanwhile, Brucutu recorded its highest production since 2018 with the restart of the fourth processing line.

- We started commissioning the Vargem Grande and Capanema projects in September and November 2024, respectively, which will add 30 Mtpy of production capacity. Commissioning these projects is an important step in ensuring greater operational flexibility and achieving Vale's iron ore production guidance of 325–335 Mt in 2025 and 340–360 Mt in 2026.

- In March, we were selected by the U.S. Department of Energy to receive financing under the Bipartisan Infrastructure Law and the Inflation Reduction Act, as part of the Industrial Demonstrations Program. This investment of up to US$ 282.9 million is for the development of an innovative iron ore briquette manufacturing facility in the United States, the first in the world to apply the patented cold agglomeration process for the direct reduction route.

- We have completed the acquisition of the 45% stake held by Cemig Geração e Transmissão S.A. in Aliança Geração de Energia S.A. for R$ 2.7 billion, bringing our ownership to 100% of Aliança Energia's shares. The company's energy generation portfolio includes seven hydroelectric plants and three wind farms in Brazil, with a total installed capacity of 1,438 MW and an average generation capacity of 755 MW. We are assessing the potential divestment of a 70%–stake in Aliança Energia, including the energy assets Sol do Cerrado and Consórcio Candonga, present in the Company's portfolio, to Global Infrastructure Partners (GIP). We inform that there is no binding agreement signed about the sale and that any decision in this regard will be made in compliance with the Company's policies and governance rules.

- In September, we formed a joint venture with Apollo for the Vale Oman Distribution Center (VODC). VODC operates a marine terminal in Sohar, Oman, featuring an integrated iron ore blending and distribution center with a nominal capacity of 40 Mtpy. Under the agreed terms, Apollo paid a total of US$ 600 million and will hold a 50% stake in the joint venture.

- In October, we also established a partnership with Jinnan Group to develop an iron ore concentration plant in Sohar, Oman, with operations startup expected for 2027. With an initial production capacity of 12 Mtpy of high-grade iron ore concentrates, primarily suited for direct reduction agglomerates, the plant will supply Vale's pelletizing plants and future briquette plants in the region.

- Contributing to the development of a superior portfolio, in December we forged a partnership with Anglo American by acquiring a 15% equity stake in Anglo American Minério de Ferro Brasil S.A., the owner of the Minas–Rio complex. This is an integrated iron ore operation with a production capacity of 26.5 Mtpy of high-quality pellet feed, a key product for reducing emissions in the steel industry. The partnership also offers an opportunity to expand production using the Serra da Serpentina resources.

- We established with the Brazilian National Land Transportation Agency (ANTT) and the Brazilian Federal Government, through the Ministry of Transportation, the general basis for the renegotiation of the Concession Contracts for the Carajás Railway (EFC) and the Vitória-Minas Railway (EFVM). Under the renegotiation's general basis, we committed to a maximum global contribution of approximately R$ 11 billion, for the EFC and EFVM's asset base review, the optimization of contractual obligations and investments replanning. The transaction terms result in an increase of R$ 1.7 billion in provisions related to the railway concessions. Also in December, we made an advance payment of R$ 4 billion (US$ 656 million) associated with the railway concessions.

- In February 2025, we launched the Novo Carajás Program, which aims to leverage and optimize Vale's iron ore production, as well as to accelerate copper production growth, according to guidance disclosed to the market. Additionally, the program includes a series of investments in technology, health and safety, equipment and operations maintenance, sustainability, leveraging Vale's expertise in the region.

Energy Transition Metals

- In April, after receiving approval from regulatory authorities, we completed the sale of a 10% stake in Vale Base Metals (VBM), our holding company for Vale's Energy Transition Metals business, which is structured to thrive with a dedicated governance and leadership.

- In June, Vale Canada Limited (VCL) together with Sumitomo Metal Mining Co., Ltd. (SMM) completed the divestment transaction related to the obligatory divestment of PT Vale Indonesia Tbk (PTVI), in accordance with the agreement signed with PT Mineral Industri Indonesia (MIND ID) in February. With the completion of the transaction, VCL, SMM and MIND ID now hold approximately 33.9%, 11.5% and 34.0% of PTVI, respectively.

- In December, we completed the construction and commissioning of the Voisey's Bay Mine Expansion Project (VBME). This expansion includes the development of two underground mines, Reid Brook and Eastern Deeps, which will supply ore for processing at the Long Harbour refinery, one of the lowest-emission nickel processing plants in the world. The project has a production capacity of approximately 45 ktpy of nickel, including 20 ktpy of copper and 2.6 ktpy of cobalt as byproducts, with full production capacity expected in the second half of 2026.

- We also completed the first phase of Vale Base Metals' (VBM) asset review and are now advancing in the implementation of the identified initiatives to improve the operational and financial performance of the business. This year, we increased productivity at the Salobo 1 & 2 plants by 16% and improved the processing rate at the Clarabelle mill in Sudbury by 9%, boosting local ore production, among other advancements. Additionally, as part of the review, Thompson's business plan was revised, and an impairment loss of US$ 1.4 billion was recognized. And, following the broader review, an impairment of US$ 540 million related to the Voisey's Bay Mine Extension project was recognized.

Sustainable mining initiatives

- We have created the integrated mining circularity program (Waste to Value), which promotes and monitors initiatives to reuse and reduce the mining waste and tailings stream. In 2024, we produced over 10 Mt of iron ore from tailings and waste, with the potential to exceed 30 Mt by 2030.

- The ore volume produced by the circularity program includes initiatives that promote social and environmental benefits, such as the decharacterization of a waste pile in Serrinha mine and the high-quality pellet feed produced from the tailings of the Gelado dam (Pará), among other initiatives.

- Advancing in sustainable sand production from tailings, Agera, the company created to develop and commercialize co-products, sold more than 1.5 Mt of products in 2024.

- We launched the first dust suppressant plant using recycled PET, in Cariacica, Espirito Santos state. Developed through a partnership between Vale and the Federal University of Espírito Santo (UFES), this suppressant helps reduce waste disposal, while generating income for collectors of recycable materials, minimizing dust emissions from operations at the Tubarão Complex.

Detailed information on the Company's results is available throughout this report, in the Financial Statements and in Vale's 4Q24 and 2024 Performance Report.

Letter from the **Chairman of the Board**

Daniel André Stieler
Chairman

Dear Shareholders,

Vale's Board of Directors continues to act diligently and under the highest ethical standards to ensure the Company's longevity, transforming natural resources into prosperity and sustainable development. The decisions taken by the Board in 2024 expanded Vale's competencies to achieve a solid performance in different market scenarios, striving for people's safety and generating positive and sustainable impacts for all our stakeholders.

The signing of the Definitive Agreement for Mariana's reparation and the signing of the the general basis for the renegotiation of Vale's railway concession contracts in Brazil were important milestones achieved in 2024, which show the management's commitment to excellent performance. In addition to these deliveries, I highlight other priorities for the Board of Directors in the year.

Executive leadership renewal
In line with Vale's strategic planning and purpose, and with great potential to create value for all our stakeholders, the Board of Directors performed the CEO succession process, which resulted in the unanimous approval of Gustavo Pimenta as Vale's CEO. The succession process confirmed the high level of integrity, transparency and robustness of Vale's governance. In addition, the Board approved the company's new organizational structure, bringing efficiency and effectiveness to the business, with the Board reaffirming the importance of clarity in the definition of roles and responsibilities.

Oversight of material matters
The Board of Directors closely monitored the Company's performance in its priority topics:

- The delivery of all guidance set for 2024;
- In the Iron Ore Solutions business, the progress of production baseline maintenance and volume growth projects, with the early start of the Vargem Grande and Capanema projects commissioning, which will increase production capacity by 30 Mtpy once the ramp-up is completed;
- In the Energy Transition Metals business, through Vale Base Metals' control, the definition of the new executive leader, the VBME project commissioning completion, and the progress of the assets' strategic review, including alternatives such as the sale of the mining and exploration assets in Thompson, Manitoba, Canada;
- Progress in reparations, with the Definitive Agreement signing for the Mariana reparation and reaching approximately 75%-completion of commitments in the Brumadinho reparation;
- Evolution in tailings and dam safety management, including full compliance with the best industry standards, the the management of structures at critical safety levels, and the progress of the Upstream Dam Decharacterization Program.

Strategy guidelines
Vale's Board of Directors actively engaged in the guidelines and discussions that led to the strategic plan presented at Vale Day 2024. To this end, it monitors closely internal factors, as well as market scenarios, including supply and demand dynamics in global chains and changes in regulatory environments worldwide. The Board of Directors believes that maintaining a high-quality, flexible product portfolio, focusing on costumers, is essential for Vale's sustainable performance.

"The Board of Directors' performance in 2024 showed the Board's seniority, transparency and commitment to the best corporate governance practices incorporated in Vale's Bylaws, policies and normatives."

Risk management oversight
The Board regularly monitors Vale's Global Integrated Risk Map and remains attentive to emerging risks. As an example in this regard, the Board recognizes the fast advancement of artificial intelligence and, with it, the opportunities for evolution and aspects for reflection, including, in the latter case, a regulatory environment not yet adapted on a global scale and potential impacts on people management, among other possible developments. We will remain vigilant to ensure that Vale's long-term strategy includes assessments of material uncertainties for our business operations, in line with the Company's values and with open dialogue with our stakeholders.

Climate change
We closely monitor Vale's performance in its trajectory to long-term emission reduction targets, contributing to the multidisciplinary management of the topic and encouraging increased transparency on Vale's information. For the 2024 fiscal year, Vale will voluntarily disclose in 2025 its first report based on the requirements by the International Sustainability Standards Board (ISSB)for preparing and reporting on sustainability-related financial information, with a protocol dedicated to climate change. These requirements are consistent with the key disclosures of the Task Force on Climate-Related Financial Disclosures (TCFD).

Environmental and social performance
The Board also encourages excellent performance on the environmental and social fronts, acknowledging Vale's essential role in creating positive impacts for society and nature. In this sense, we track the Company's actions to achieve our environmental and social commitments. For example, by 2024 and cumulatively, we have reached more than 200,000 hectares protected, including partnerships and projects, with focus on the Amazon. On the social front, more than 50,000 people were engaged in a concept test to advance the goal of supporting the lifting of 500,000 people from extreme poverty.

Discipline in capital allocation and shareholder return
The Board approved shareholder remunaration totaling US$ 0.84 per share, referring to the 2024 balance sheet, which includes interest on equity and dividends. We also approved a new share buyback program to keep this capital allocation option available. Since 2021, Vale has repurchased about 20% of its outstanding shares. These measures demonstrate the Board's commitment to disciplined capital allocation and the return of value to Vale's shareholders.

The year ahead
The Board of Directors' performance in 2024 showed the Board's seniority, transparency and commitment to the best corporate governance practices incorporated in Vale's Bylaws, policies and normatives. On solid foundations, we are moving towards building even more consistent results with our strategic plan.

The Board is unanimous in its commitment to the Vale 2030 vision, a trusted partner with a superior portfolio and performance-driven. We believe that Vale will continue to advance significantly in its operational discipline and cost management, expanding its portfolio of high-quality products with flexibility, and improving its relationships with stakeholders, on its way to becoming a reference in value creation and sharing.

Daniel André Stieler
Chairman of the Board of Directors

Message from **our CEO**

Gustavo Pimenta
CEO

Dear Vale Shareholders,

In October 2024, I started my mandate as Vale's CEO convinced that we reunite the conditions to launch a new phase of success for Vale, with substantial potential to create and share value. Guided by our purpose, we aim to position Vale a trusted partner and a performance-driven organization with a superior portfolio. Together, we will ensure that Vale will achieve the best performance in our industry.

In my first 100 days in office, we achieved emblematic results for the Company, which, together with the other results of the year, allow us to advance towards the Vale we aspire to be, evolving in our safety and improving the Company's relationship management with all our stakeholders. I highlight the 10 main management advances in 2024:

1. Safety is our core value

A safer Vale means a better Company for everyone. The safety of our employees, partners, operations and the communities with which we interact is present in our decisions and in the way we operate. In 2024, we achieved reductions of over 60% in high-potential injuries (N2), in the Total Recordable Injury Frequency Rate (TRIFR), and employee exposure to significant health risk factors compared to the 2019 baseline. Despite these improvements, unfortunately we still don't live in a reality free of fatalities. We will continue to prioritize people's lives and strengthen our culture, committed to improving our safety practices every day.

2. We are closer to eliminating all level 3 emergency dams by 2025

In 2024, after additional technical assessments and safety improvements, we reduced the emergency level of the Sul Superior dam from 3 to 2, a milestone in our dam management. We also completed the works to eliminate the B3/B4 dam, thus completing 57% of the Upstream Dam Decharacterizaton Program by the end of 2024, as well as reducing the number of structures at emergency levels by 60% compared to the historical peak in 2020. I am confident that we will reach the end of 2025 without any dams at emergency level 3.

3. We signed the Definitive Agreement for Full Reparation of Mariana

We reached a Definitive Agreement on demands related to the Fundão dam rupture in Mariana, Minas Gerais, Brazil, on November 5, 2015. The Definitive Agreement, with a total value of R$ 170 billion, allowed a mutually beneficial resolution for all parties on fair and practical terms while creating legal certainty and definitiveness. The engagement of Brazilian authorities and public entities ensured the agreement's legitimacy, supported by social, environmental, and technical criteria. This critical agreement also reinforces our commitment to Brazilian society and a better future for people, communities, and the environment.

"I started my mandate as Vale's CEO convinced that we reunite the conditions to launch a new phase of success for Vale, with substantial potential for value creation and sharing"

4. We delivered on all commodity guidances

In a consistent way, we ended 2024 achieving all our production guidances disclosed to the market for iron ore, pellets, nickel, and copper, with volumes of 328 Mt, 37 Mt, 160 kt and 348 kt, respectively. This demonstrates our operational stability and our good management performance, while remaining focused on achieving our long-term goals.

5. We increased efficiency and continue reducing our costs

We continued to reduce the unit costs of our products through increased production and greater operational efficiency, highlighting our Productivity Program. In 4Q24, we achieved the lowest C1 iron ore cost[1] for a quarter since 2021, while the All-in Copper cost[2] was the lowest for a quarter since 2020. We will continue on our path of increasing efficiency and competitiveness through cost reduction.

6. We started the Vargem Grande and Capanema projects' commissioning

Ahead of schedule, we started commissioning the Vargem Grande and Capanema projects, two of our three main projects for our iron ore production growth with quality. We will continue to be disciplined in our investments while seeking safe ways to optimize the execution of our project portfolio. We will maintain a high-quality portfolio with flexibility to meet our customers' needs.

7. We signed the general basis for the railway concession contracts modernization

Under the Carajás Railway (EFC) and Vitória-Minas Railway (EFVM) Concession Contracts, we established the general terms for their final renegotiation. With an increase in our provisions by R$ 1.7 billion, the total fixed contribution paved the way for the finalization of Vale's obligations and investments in its two railway concessions until the end of the contracts, scheduled for 2057.

8. We advanced in Vale Base Metals' asset review

We appointed Shaun Usmar as the new CEO for our subsidiary Vale Base Metals (VBM), an executive who brings great experience to our management. Earlier this year, to optimize the asset base and the competitiveness of the integrated nickel portfolio, VBM started assessing alternatives, including the potential sale of its assets in Thompson, Manitoba, Canada. The conclusion of this initiative is expected in the 2H25.

[1] *Excluding third-party purchases.*
[2] *Excluding investments.*

9. We advanced our institutional relations

We are improving processes toward institutional dialogue and engagement, while building trust and a positive agenda based on Vale's several fronts for social development and the nature.

10. We continue to improve our ESG ratings

With discipline, we continue to evolve in our practices, seeking solutions for our controversies, and increasing transparency on our sustainability. As a result, we have seen consistent improvements in Vale's risk perception by major ESG rating agencies since 2019.

Vale's success in 2025 will be defined by performance in our three strategic pillars. To advance with a **superior portfolio**, we will seek to reposition our commercial strategy, optimize price realization, advance our Mega Hubs strategy, and accelerate our copper production growth.

With a **performance-driven** approach, we will continue to deliver our production and cost guidance in all commodities, assessing opportunities for greater efficiency in Capex. Finally, we will be a **trusted partner**, eliminating level 3 emergency dams, advancing our initiatives in safety, decharacterization, and decarbonization, ensuring an efficient licensing framework, and improving our reputation with communities and society.

Gustavo Pimenta
CEO

About **our company**

Our journey began in 1942 in Brazil. Over the past eight decades, we have 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 and briquettes, platinum group metals (PGMs), gold, silver and cobalt. We are engaged in greenfield mineral exploration in six countries.

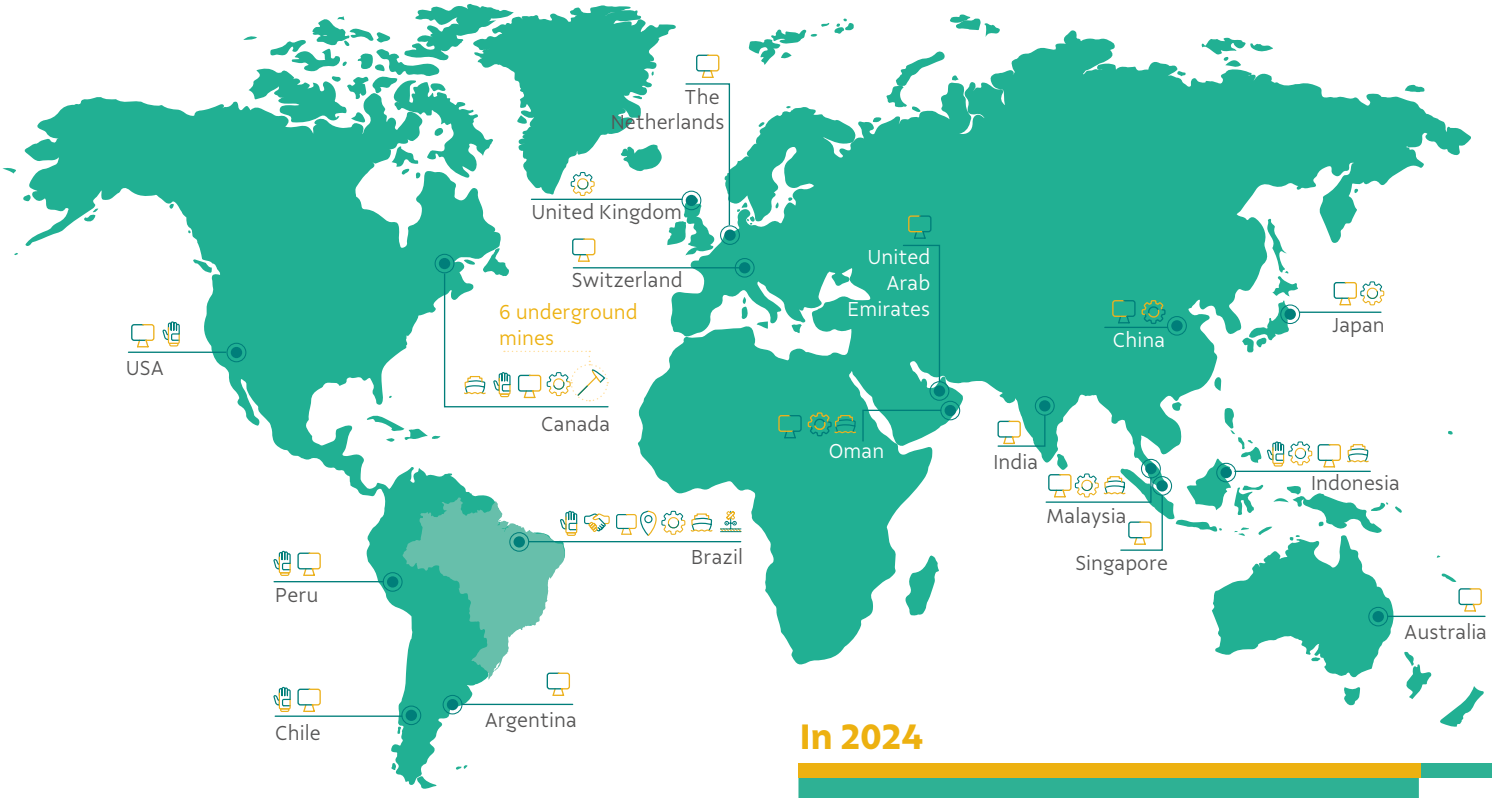
We operate large logistics systems in Brazil and other regions in the world, including railroads, maritime terminals and ports, which are integrated with our mining operations. In addition, we have distribution centers to support the delivery of iron ore products worldwide. Directly and through associates and joint ventures, we also have investments in the energy business.

We believe mining is essential to global development, and the only way to fulfill our role in society is by generating prosperity for all and caring for the planet.

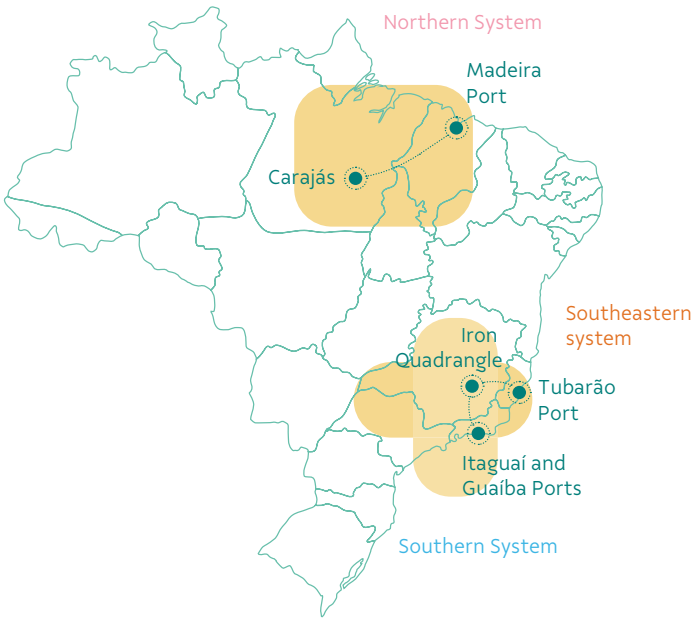
Where we are located[1]

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

Exploration | Joint Venture | Office | Headquarters | Operation | Port | Railway | Underground mine



Brazil



In 2024

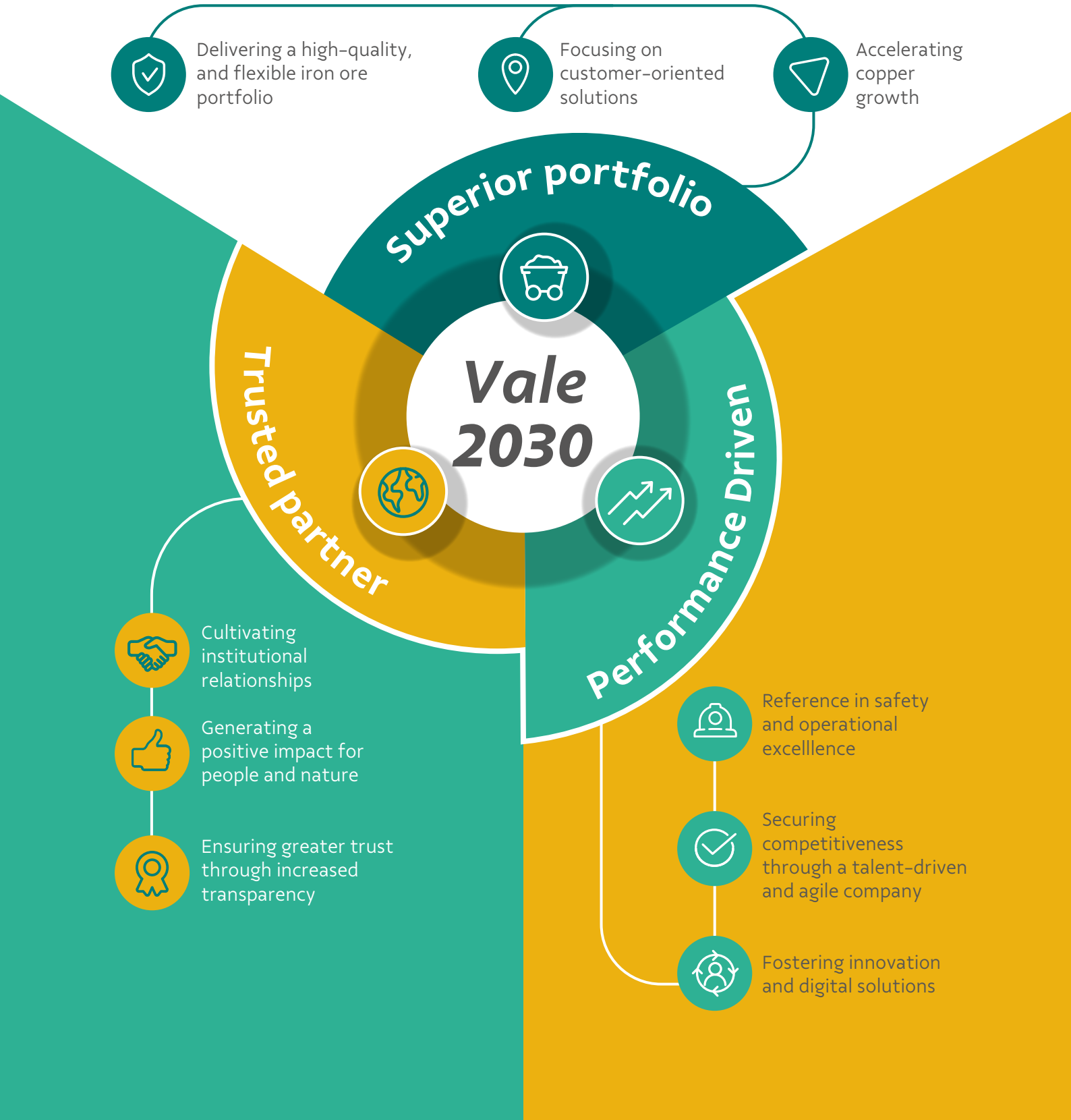
Total iron ore production of
328 Mt
325–335 Mt production guidance for 2025

Total nickel production of
160 kt
160–175 kt production guidance for 2025

Total copper production of
348 kt
340 – 370 kt production guidance for 2025

Vale 2030: our strategy

We are one of the global leaders in mining, and our vision for Vale 2030 is to be recognized as a trusted partner with the most competitive and resilient portfolio in our industry.



Superior portfolio

We have put together a high-quality, flexible, resilient and competitive ironore portfolio more than capable of holding its own in any market scenario. This strategy enhances our unique and irreplaceable assets while ensuring the rapid adaptation of our solutions to shifting market demands.

We are customer-oriented and uniquely positioned to be the natural partner of choice for product supply. By adopting a technical and personalized approach, we tailor our solutions to market trends with agility, ensuring a stable and continuous supply for our customers.

We will meet the growing demand driven by the expansion of renewable energy, electrification and green infrastructure by accelerating copper production growth, particularly in the Carajás region. This will allow us to leverage the advantages of our unique mineral assets and synergies with the existing infrastructure in the area.

Performance driven

Safety and operational excellence are core to our values and culture. We are committed to becoming a benchmark in safety and operational excellence within the industry. We consistently enhance our performance, increase the reliability of our operations and ensure our assets' integrity.

We foster a performance-driven culture with a strong focus on results. We ensure greater competitiveness by being an agile company with increasing diversity, a more inclusive workplace, and a strong focus on developing talent.

We drive innovation across our business and encourage the development of digital solutions throughout the company, incorporating technological advancements to operate more efficiently every day. We are advancing circular mining by investing in tailings reprocessing while extracting the most value out of our resources.

Trusted partner

We recognize the importance of strengthening our relationships with society, communities, authorities and all our stakeholders through transparency and respect. We foster open and transparent dialog, working directly with our stakeholders to build consensus around objectives and actions that enhance community empowerment and local socioeconomic development.

We are committed to generating positive impacts for people and nature while continuously striving to ease our operational footprint. To this end, we collaborate with local communities— particularly Indigenous peoples and traditional communities—and support conservation efforts, especially in the Amazon rain forest.

We continuously enhance our transparency to rebuild trust with our stakeholders. We provide clear and accurate information about our performance, our progress toward sustainability goals, and our efforts to manage and meet the expectations of local communities and regulatory bodies. By fostering a culture of transparency, we aim to strengthen our position as a responsible and reliable partner in the mining industry.

Cultural Transformation

Together, we are building the Vale we aspire to be. Each day, we write a new chapter in our history alongside our partners, employees, customers, shareholders and society. We are driven by our purpose and deliver our strategy guided by our values and key behaviors. We evolve every day, putting people at the heart of our decisions. Throughout our cultural journey, we prioritize safety, learn from our mistakes, and always proceed with transparency and collaboration.

We believe mining is essential to global development, and the only way we fulfill our role in society is by generating prosperity for all and caring for the planet. We therefore **exist to improve people's lives and transform the future. Together**.

To live our purpose every day and achieve our ambitions, we must embody the values and key behaviors of our culture, as outlined in our Cultural Narrative:

Learning together

Our Purpose

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

Values

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

Key behaviors

- **Obsession with safety and risk management.**
- **Open and transparent dialogue.**
- **Empowerment with commitment.**
- **Sense of ownership.**
- **Active listening and engagement with society.**

Levers

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

[1] *Vale Production System*

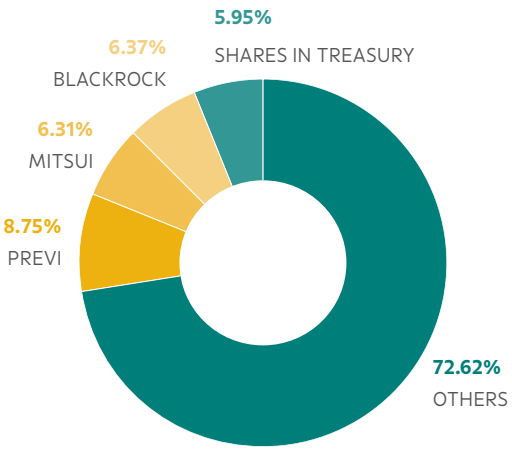
Ambitions

A great company recognized by society for being:

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

Shareholding **structure**

We have been a publicly traded corporation since 1970. Since 2020, we have had no defined controlling shareholder (either individually or through a shareholders' agreement). Our share capital consists of 4,539,007,569 common shares and 12 special class preferred shares (golden shares). Only three shareholders directly and individually hold stakes between 5.0% and 10.0% of our share capital.



Data as of December 31, 2024

- *Other*
- *Shareholders with an equity interest larger than 5%*

As a global corporation, we strive to keep our Corporate Governance aligned with the best international practices.

Trading in the **capital market**

Our common shares are traded under the ticker VALE3 on the *Novo Mercado*, the segment with the highest corporate governance standards on the São Paulo Stock Exchange (B3). They are also traded on Latibex[1] under the ticker XVALO. Our shares are included in key B3 indexes, such as IBOV, IBRA, IBXL, IBXX, IGCT, IGCX, IGNM, IMAT, ITAG and MLCX. Bradesco is the bookkeeping agent for our common shares.

Our common American Depositary Shares (ADSs), each representing one common share, are traded on the New York Stock Exchange (NYSE) under the ticker VALE (Level 2 ADSs). Citibank N.A. is the depositary for our common ADSs. As of December 31, 2024, there were 1,211,148,744 outstanding ADSs , representing 26.7% of our total share capital.

Vale closed 2024 with a market cap[2] of approximately R$ 232.9 billion.

[1] Latibex is an unregulated electronic market of the Madrid Stock Exchange where Latin American securities can be traded.
[2] The number of outstanding shares multiplied by the share price.

Trading information	2024	2023
Closing price (R$/share)	54.55	77.20
Average trading volume – VALE3 (R$ million)	1,449	1,855
Average price – VALE3 (R$/share)	62.08	70.31
Market capitalization – VALE3 (R$ billion)	232.9	331.9
Book value (R$/share)	47.65	43.55
Variation YoY VALE3	(29.3)%	(13.1)%
Variation YoY Ibovespa	(10.4)%	22.3%

Workforce

We believe the success of our business is only sustainable when everyone thrives. The promotion of a safe and healthy workplace, the expansion of diversity, equity and inclusion in our workforce, and a compensation strategy aligned with market practices, all reinforce our organizational culture among our 64,616 direct employees and 109,506 contractors.

By business unit

	Direct employees		Contractors	
Number of employees	**2024**	**2023**	**2024**	**2023[1]**
Iron Ore Solutions	43,607	43,090	68,898	Not informed
Energy Transition Metals	13,664	15,606	7,977	Not informed
Corporate	7,345	8,111	32,631	Not informed
Total	**64,616**	**66,807**	**109,506**	**106,533**

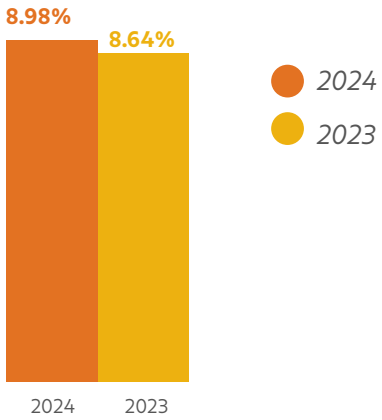
By geography

	Direct employees		Contractors	
Number of employees	**2024**	**2023**	**2024**	**2023[1]**
Brazil	55,669	55,247	100,601	106,533
South America (ex-Brazil)	41	41	–	–
North America	7,265	6,813	1,879	Not informed
Europe	271	277	Not informed	Not informed
Asia	1,359	4,416	7,026	Not informed
Oceania	11	13	–	Not informed
Total	**64,616**	**66,807**	**109,506**	**106,533**

[1] *The number of contractors reported at the end of 2023 was revised, as it was the total number of contractors mobilized (people able to provide services). As of April 2024, the Company adjusted the assumption to reflect the criteria for contractors with access to Vale's sites and other operations. Therefore, as of December 31, 2023, there were 106,533 contractors in Brazil – with no data available at that time for international areas.*

The most significant changes in the number of direct employees were due to the removal of PTVI's workforce in 2024, following the completion of our divestment in PTVI, which reduced our equity interest from 44.3% to 33.9%. The variation in the number of contractors is due to a change in the calculation methodology carried out in 2024.

Turnover rate



The higher turnover rate reflects the implementation of our Productivity Program and improvements in operational efficiency.

Our cultural transformation journey

Brumadinho had a transformational impact on our company, creating a sense of urgency that accelerated learnings and actions on our journey to becoming a safer, more sustainable, efficient and innovative company. In 2024, we conducted the **2nd Cultural Diagnosis, four years after the 1st assessment, along with a new cycle of the Engagement Survey** in order to assess our progress, identify areas for improvement and plan our next steps.

2nd cultural assessment

During the implementation of the 2nd Cultural Diagnosis between January and May 2024, we adopted a qualitative approach, engaging 261 direct employees in Brazil and abroad, conducting 26 focus groups, and interviewing 60 executives and board members. **The results show that our company's transformation is genuine, with significant progress in key areas:**

- **Improvement on safety:** we have evolved in establishing processes to ensure safety and operational discipline.
- **Enhancement in all key behaviors**: with a strong emphasis on Safety Obsession and Risk Management.
- **How we achieve results matters**: we are committed not only to delivering positive outcomes but also to how we achieve them, especially regarding safety and respect for others.
- **Pride and commitment to change**: we recognize, understand and actively engage with the culture we have built. We are moving in the right direction.

To continue our progress, we have identified our key opportunities:

- **Enhancing dialog** to drive results, innovation and learning, fostering a psychologically safe environment where all employees embrace an **ownership mindset**.
- Making our **processes more streamlined, efficient and less bureaucratic**, enabling greater employee empowerment.
- Shifting from individual achievements to **genuine collaboration and integration** to achieve our company's results, engaging more with the external world.

We are proud of our journey and we will continue to evolve with consistency and discipline towards a more sustainable, efficient and innovative Vale.

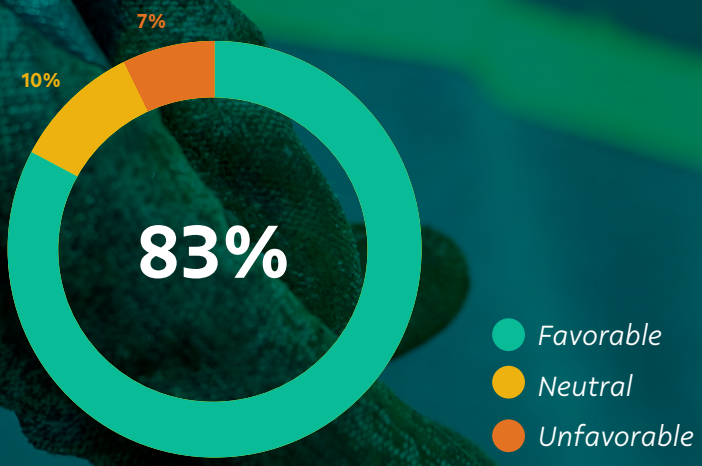
Employee engagement

The Engagement Survey help us determine the extent to which employees feel connected to the company and the level of energy they put into pursuing organizational goals. It also helps us understand our evolution on the cultural journey through a quantitative approach, assessing the pillars of culture, leadership, career, well-being and belonging. Between October and November 2024, we conducted a new cycle of our survey, reaching all direct employees and achieving a record participation of over 40,000 employees globally.

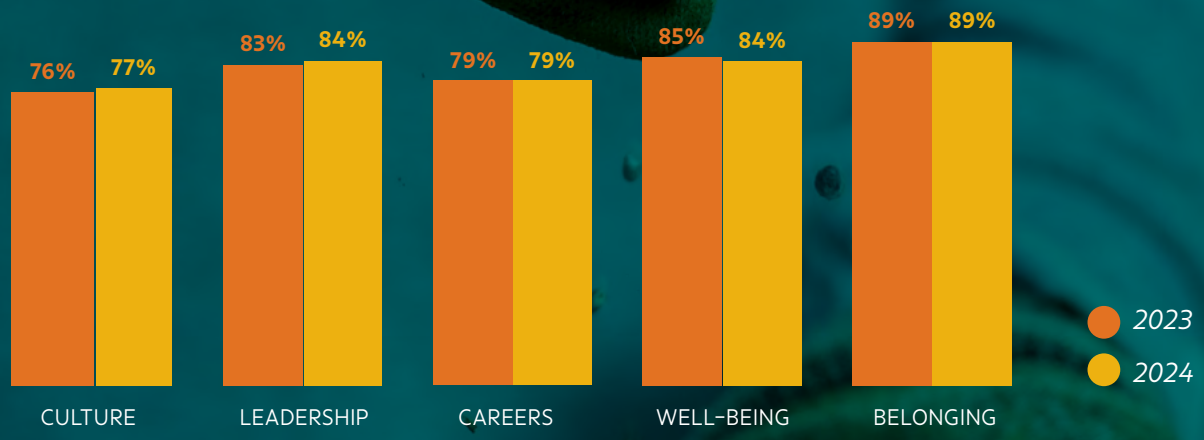
We achieved an 83% approval rate (+1 p.p. compared to 2023), reinforcing that we are moving in the right direction toward becoming a safer, more sustainable, efficient and innovative company.

2024 Engagement Survey Results
Vale Approval

General



Vale Approval by pillar



Culture | Key mindsets

Diversity, Equity and Inclusion

Diversity, equity, and inclusion (DE&I) are strategic drivers for making Vale a more sustainable, innovative and safe company. We are committed to building a diverse and inclusive organization for all, strengthening our reputation as a company admired by society, sought after by top talent, and a benchmark in safety. We strive to ensure a respectful and psychologically safe environment, promoting accessibility and eliminating barriers, while creating development opportunities for everyone.

To achieve this, we advanced our DE&I efforts in 2024 through professional development programs, bias-free recruitment, and initiatives to combat harassment and discrimination.

We reached our goal of doubling women's representation in our workforce one year ahead of schedule, achieving 26.5%. Significantly increased the proportion of women in senior leadership, reaching 22.7%, compared to 12.4% in 2019.

Advanced our commitment to being an anti-racist company, progressing toward our 40% black individuals in leadership positions goal[1] (coordinators and above) by 2026, reaching 37.7%—a 2.8 p.p. increase from the previous year. In 2022, we exceeded the legal requirement of 5% representation for people with disabilities, and in 2024 reached 5.5% of our workforce in Brazil, across various roles.

[1] *We did not count Tecnored, as we do not manage the company's DEI strategy.*

Safety and dam management

At Vale, life comes first. Since 2019, we have completely overhauled our safety and dam management practices, transforming our culture and evolving how we operate to ensure a safer Vale for our employees, communities and society. Safety is also the foundation of our operational excellence, as there is a positive correlation between maintaining a safe workplace and achieving high levels of productivity and operational reliability.

Occupational health and safety

Achieving a zero-fatality operational standard is our top priority, although we do recognize that this is one of our biggest challenges. We have as our long-term health & safety goals:

Reduce the number of N1+N2 compared to the previous closing result: in 2024, our injury frequency rate decreased by 60% compared to 2019. We set more realistic yet ambitious targets for 2030, based on lessons learned.

Achieve 50% reduction in exposure to key health-hazardous agents: target met in 2023, and in 2024, we further reduced exposure by over 60% compared to baseline.

Eliminate all "very high" risks to health, safety, the environment and communities: In 2024, we achieved a 57% reduction in risk situations classified as "very high."

We will continue strengthening our culture and processes to become a benchmark in safety and operational excellence

	2019	2024	Change (%)
N1+N2 Cases (Fatalities, life-altering incidents, and high-potential recordable injuries)[1]	62	25	(60)%
Occupational Exposure Limit[2] (in thousands)	23	9.2	(60)%
TRIFR (Total Recordable Injury Frequency Rate)[3]	3.46	1.09	(68%)

[1] *Does not includes Brumadinho.*
[2] *Sum of exposures above OEL at Vale during the year.*
[3] *TRIFR = (Occupational Injuries / Hours Worked) * 1,000,000 for direct employees and contractors.*

Our Total Recordable Injury Frequency Rate (TRIFR) ended the year with a 68% reduction compared to the 2019 baseline, likely making it the best performance of the year among industry peers. We also monitor near misses (N3), which increased 275% year-over-year — a positive indicator that our employees are ever more risk aware. This progress confirms that we are creating a safer work environment, allowing us to analyze the root causes of events with fatality potential and address them before they materialize.

In process safety, we monitor events that could lead to fatalities or significant financial losses. The occurrence of such events reduced by 45% compared to the previous year.

In 2025, we will increase our safety performance to ensure a consistent reduction in N1+N2 injuries and P[1] events, driven by the following actions:

1. Implementing the Critical Task Requirements (RACs) compliance plan;
2. Operational activity planning, ensuring compliance with established safety standards;
3. Promoting safe behaviors, encouraging employees to exercise their right to refuse work in hazardous situations;
4. Implementing the Critical Control Management System (CRM) to assess compliance with safety requirements before performing activities, and
5. Focusing on contractor development and qualification to ensure that the entire workforce operates at appropriate safety levels.

Our integrated health approach fosters a safe and healthy workplace, positively impacting productivity. To manage health risks, we have global guidelines covering integral health topics and employee-focused programs. The health pillars included in our processes are occupational hygiene, ergonomics, fatigue prevention, basic working conditions, physical health and mental health. One of the monitored indicators is medical bsenteeism, which helps us identify and address the main causes of medical leave, strengthening disability prevention at the primary, secondary and tertiary levels while aiming to improve working conditions.

[1] *P events are operational process safety events that generate an unplanned or uncontrolled release of energy or hazardous material, involving operating equipment or assets, which can impact the environment, people, the community and the company's assets. Comparatively, P1 events have greater consequences than P2 events.*

Dam management

Since 2019, we have been improving our tailings and dam management practices.

Upstream Dam Decharacterization Program

One of our key initiatives in dam safety and management is the decharacterization of all upstream structures in Brazil, including dams, dikes and drained stacks. The Vale's Upstream Dam Decharacterization Program initially covered 30 geotechnical structures, of which 17 were eliminated between 2019 and 2024, representing 57% program completion.

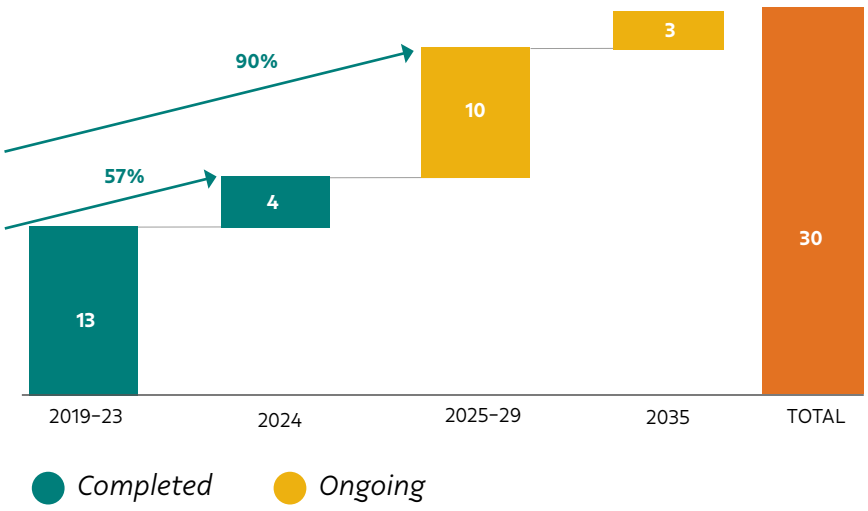
In 2024, we completed the decharacterization of the B3/B4 dam in Nova Lima (Minas Gerais state), which had been classified at the highest emergency level in 2019. This was a major milestone in our dam safety improvements.

We used an innovative operational strategy for its decharacterization, employing large-scale unmanned equipment. These pieces of equipment were controlled from an operations center located approximately 15 kilometers from the dam, allowing us to eliminate the presence of workers at the site until safe conditions had been fully restored. We also decharacterized the 1A and 1B Dikes of the Conceição System in Itabira and Área IX in Ouro Preto, both located in Minas Gerais state.

We have already eliminated 57% of our upstream dam portfolio and are continuously reducing the risk of those still undergoing decharacterization. We expect to reach the end of 2025 with no structures at emergency level 3.

The 13 remaining upstream structures have publicly disclosed schedules and project stages, with a target to eliminate 90% of them by 2029 and the three most complex structures by 2035. Between 2019 and 2024, the program had a total expenditure of R$ 10.9 billion, with remaining provisions totaling R$ 13.7 billion in 2024.

Upstream Dam Decharacterization Program



The decharacterization process is crucial for the long-term risk reduction of upstream dams. However, the necessary construction work for decharacterization can impact the geotechnical stability of certain upstream tailings dams, increasing the risk of structural failure, especially in the early phases of the process. We have evacuated zones downstream of the most critical dams to mitigate these risks, ensuring no people remain in these areas. We also built physical barriers, known as Downstream Containment Structures (ECJ), to contain tailings in the event of a rupture. To mitigate risks to life, construction works on these critical dams, classified at emergency level 3, are carried out using remotely operated equipment, with the project ensuring appropriate levels of redundancy.

Following the completion of the B3/B4 dam's decharacterization, the ECJ built as a safety measure during the process is now being removed to restore the area, repurposing all materials and mitigating impacts on communities and the environment.

Over the past two years, we have removed two dams from the highest-risk category (emergency level 3) due to advancements in studies on the actual condition and stability of the structures, as well progressing in the decharacterization process. We remain committed to the Upstream Dam Decharacterization Program and expect to reduce the emergency level of the remaining structure classified at level 3, the Forquilha III dam, in 2025.

Our goal is to have zero dams at emergency level 3

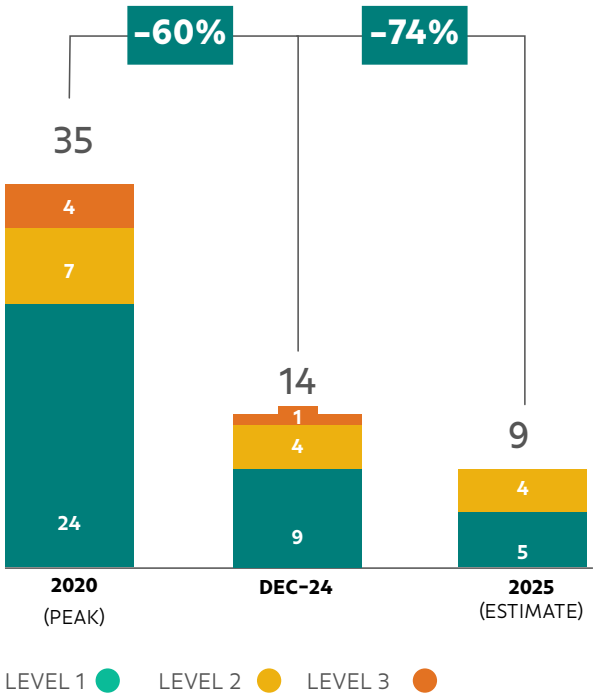
We closely monitor our active and inactive dams. As of December 2024, 80 structures received a positive Stability Status Declaration (DCE), representing 84% of the structures currently covered by Brazilian legislation. Another 14 structures received a negative DCE, meaning additional assessments and/or corrective measures are required to improve safety conditions, along with the implementation of emergency actions as outlined in the Dam Emergency Response Plans (PAEBM).

Our goal is to have zero dams at emergency level 3 by the end of 2025—the company currently has 1 such structure in its portfolio. This target will be achieved as a result of our strong dam safety efforts. Since 2020, we have reduced the number of structures at any emergency level in Brazil by 60%. We currently have 14 structures at some level of emergency, compared to a peak of 35 structures in 2020.

An important milestone in our commitment in 2024 was the reduction of the maximum emergency level of the Sul Superior dam from level 3 to level 2. The reduction was made possible by new geotechnical surveys, the expansion of monitoring instruments, and the advancement of studies that provided a better understanding of the structure's actual stability condition.

Dams by emergency level

Rating under Brazilian legislation



We are working to improve the safety conditions of the remaining 14 structures, including, in some cases, enhancing geotechnical knowledge of the structure and its foundation, implementing construction work to improve safety, and proceeding with the decharacterization of dams.

Global Industry Standard on Tailings Management (GISTM)

Published in August 2020, the GISTM establishes a global benchmark for achieving the highest social, environmental and technical standards in the management of Tailings Storage Facilities (TSFs). It prioritizes the safety of structures throughout their entire life cycle, including planning, design, operation and post-closure. This initiative requires mining companies to strengthen their technical, operational and governance commitments to ensure zero harm to people and the environment. The GISTM is a result from a joint initiative by the International Council on Mining and Metals (ICMM), the United Nations Environment Program (UNEP) and the Principles for Responsible Investment (PRI).

We implemented GISTM for 48 of the 50 TSFs in our portfolio in August 2023 – regardless of their consequence rating – although we have made a public commitment to implement it for all EARs with "extreme" and "very high" consequence ratings – and continue to have a continuous monitoring process to ensure compliance with the standard. The two remaining TSFs, the Torto Dam and the Dique de Pedra, will meet GISTM requirements by August 2025. For further information on Vale's compliance with GISTM, see the executive summary **here**.

Alternatives to tailings dams

A key preventive measure currently underway is reducing reliance on tailings dams in our production processes. Vale already operates filtration and dry stacking systems for approximately 80% of the tailings generated at four major operational units: Brucutu, Conceição, Cauê and Vargem Grande. In addition, new dry beneficiation technologies continue to be part of the company's strategic initiatives in research and development.

Sustainability

Our journey towards ESG (environmental, social and governance) leadership is focused on advancing the best available initiatives and technologies to minimize negative impacts and enhance positive outcomes for nature and people. After all, our operations are dependent on nature and have a significant impact on it. We have accordingly 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.

In 2024, we announced the voluntary adoption of the International Sustainability Standards Board (ISSB) framework for preparing and disclosing a sustainability-related financial report, making us one of only two Brazilian companies to adopt this standard in its first year. With this, Vale expects to publish its first ISSB-compliant report in 2025. These initiatives reflect our commitment to sustainability and climate change mitigation, aligning with global best practices.

Building on this commitment, we have historically participated in the UN Climate Change Conference of the Parties (COPs). In order to make consistent and assertive progress, we believe that COP 30 will be a key moment to discuss progress on initiatives in the Amazon-related initiatives, a biome where we have been present for nearly 40 years and where we have implemented important conservation efforts. Our engagement in this critical agenda aims to leverage Brazil's vast potential to spearhead global decarbonization efforts, fostering a more sustainable and resilient economy.

See below a summary of our ESG initiatives.

Vale is one of the companies supporting the preparations for COP-30, the United Nations Climate Change Conference, which will be held in Belém, Pará, in 2025.

Nature

Through a collaborative process involving internal and external stakeholders, we have established a set of 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 coverage, and watercourses. We have consequently committed to voluntary targets and goals related to **water** and **forests** to be achieved by 2030 and see our achievements below:

Since 2020, we have protected and/or restored 218,536 hectares, marking significant progress toward our voluntary forestry commitment to restore and protect 500,000 hectares beyond our operational boundaries by 2030.

As of 2024, we have 200,093 hectares protected through partnerships with conservation units (115,000 ha) and REDD+ projects (85,000 ha)[1]. We also support forest businesses and funds that have implemented sustainable restoration models across 18,443 hectares, bringing the total to 218,536 hectares protected and restored since 2020.

Vale protects or helps protect around one million hectares of both its own and third-party areas, either through voluntary actions or legal compliance, including conservation units linked to our forestry goal (115,000 ha). Of this total, 80% is located in the Amazon. Within Vale's business strategy, Amazon conservation is fundamental, directly connecting our nature, climate and people strategies. For nearly 40 years, we have been active in the Carajás Mosaic in southeastern Pará, where we help protect 800,000 hectares in partnership with the Chico Mendes Institute for Biodiversity Conservation (ICMBio).

[1] REDD+ *(Reducing Emissions from Deforestation and Forest Degradation) is an incentive developed under the United Nations Framework Convention on Climate Change (UNFCCC) to financially reward developing countries for reducing greenhouse gas emissions from deforestation and forest degradation.*

Over the past 20 years, we have achieved a 49% reduction in the average annual use of new water for industrial purposes by implementing solutions that increased the use of sustainable sources and the reuse of treated wastewater.

We are aiming for a 27% cumulative reduction in specific freshwater use by 2030 (baseline year: 2017), with a focus on regions experiencing higher water stress. To support this goal, several water sustainability projects are currently in progress, including the Tubarão unit project (Espírito Santo state), which will expand water storage capacity to 180,000 m³ by 2026 and incorporate a rainwater storage reservoir for reuse.

We actively participate in Water Resources Technical Groups, where guidelines for responsible water and effluent management in mining are discussed and defined. Our engagement extends to committees, such as the International Council on Mining and Metals (ICMM) and the Brazilian Mining Institute (IBRAM), where we participate in 15 Committees and Subcommittees, and the Technical Chamber for Watershed Planning, Projects, and Control. We are also members of the Brazilian Business Council for Sustainable Development's (CEBDS) Technical Committee on Water, where we conduct studies, develop solutions, and share insights.

As announced in Davos in January 2024, we joined the group of companies committed to early adoption of the Taskforce on Nature-related Financial Disclosure (TNFD). This initiative aims to establish guidelines for companies to consider biodiversity and natural capital risks in their financial reports. In June 2024, we published our pilot report, featuring the first assessment of impacts, dependencies, risks and opportunities for our direct operations in Brazil. Based on the pilot's findings, we revised our biodiversity risk management process, which has now been incorporated into the company's risk map. The report is available **here.**

Social

We want to be partners in the communities and regions where we operate. Our social efforts are carried out through risk and impact management on communities neighboring our operations and by supporting territorial development, always considering stakeholder engagement and upholding respect for human rights as a non-negotiable principle. We have made three commitments under our current social framework: (i) to help lift 500,000 people out of extreme poverty; (ii) to support all indigenous communities neighboring our operations in developing plans to secure the rights outlined in UNDRIP; and (iii) to be ranked in the top 3 of ESG ratings. Our progress in each of these areas is described below:

20 proof-of-concept projects are being developed across six states, involving approximately 51,000 people and partners, as part of our goal to help lift 500,000 people out of extreme poverty.

In 2024, we made progress on our public commitment of supporting 500,000 people out of extreme poverty by 2030. There are around 51,000 people involved in projects, in six states. Of this total, 80% live in Pará and Maranhão. The 20 ongoing proof-of-concept projects involve partners such as UNICEF, the Fundação Amazônia Sustentável, Cidade Escola Aprendiz, and the Health Promotion Center, among others.

This initiative aligns with the UN's Sustainable Development Goal 1 (SDG): No Poverty. It also applies a Multidimensional Poverty Index (MPI), adapted for the program from the original MPI developed by the University of Oxford, UK, to assess and monitor results. Methodologically, Vale views poverty as a multidimensional phenomenon and adopts an approach based on Multidimensional Family Support (AFM) spanning five dimensions: education, income, health, nutrition and infrastructure. The partnership focuses on territories, overseeing and referring families towards the public policies and social programs available in each area, while assessing their effects on everyday life and addressing the vulnerabilities identified.

By 2030, our target is to 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 (UNDRIP). In 2024, we finalized and published the Kayapó People's Consultation Protocol in the state of Pará, Brazil. In addition to the Kayapó, 4 other Indigenous communities among the 11 that Vale engages with in the country—Ka'apor and Guajajara from the Rio Pindaré and Caru Indigenous Lands (Maranhão), and Tupiniquim from the Comboios Indigenous Land (Espírito Santo)—are actively working to implement the company's commitment to the rights outlined in the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). This is being pursued through the development of their Consultation Protocols, Territorial and Environmental Management Plans, or Life Plans.

In 2024, we finalized and published the Kayapó People's Consultation Protocol in the state of Pará, Brazil.

Beyond our commitments, in 2024, we expanded our social engagement through various initiatives, including:

1. Engagement with 1,215 local communities in the countries where we have operations. During this period, a total of 368 Local Community Engagement Plans were implemented, 351 of which were in Brazil. Additionally, 93.5% of the 169 communities considered priority for engagement in Brazil were covered by Engagement Plans. We are committed to covering 100% of priority communities with plans by 2026.

2. We conducted a new Community Opinion Survey across Brazil[1], covering both local and traditional communities that engage with Vale. This initiative aims to assess the level of trust communities have in Vale and the approval of our presence in our geographies. The survey also provides insights into community perceptions of their quality of life. Among the key findings: approximately 73% of respondents from local communities agreed that Vale is a trustworthy company. Among

[1] The survey interviewed a total of 6,683 people across five states (Espírito Santo, Rio de Janeiro, Minas Gerais, Maranhão and Pará), covering 68 municipalities and 221 communities (168 local communities and 53 traditional communities).

respondents from traditional communities, this agreement rose to 78%. Insights like these help us evaluate and develop social strategies on the most relevant issues, continuously working to strengthen relationships and build trust with communities.

3. We have worked to strengthen the process of managing community safety, to better understand the impact in the areas where Vale operates and to reduce incidents of social harm related to our operations. We have recorded 98 accidents involving community members, representing a 3% increase compared to 2023. The majority of events involved the company's suppliers. Unfortunately, these accidents resulted in 12 fatalities[1]. We emphasize that these were not occupational accidents, nor does this report seek to assign blame or responsibility for the incidents. We remain committed to reducing accidents involving community members by 40% by 2027. We recognize the severity of these incidents and are actively assessing root causes and identifying which mitigation actions have been effective so they can be reinforced and replicated. It is essential to join efforts with the public sector, and we are already mobilizing partners and suppliers to implement effective actions aiming to reduce these events.

4. We recorded 9,313 community demonstrations through our Listening and Response Mechanism, 99% of which were answered and 82.2% responded to. Of the total complaints, 54.5% were related to urban mobility, dust emissions, weeding and/or pruning, damage to homes and other property, and noise.

5. Regarding community perceptions of risks related to the safety of our dams, we maintain ongoing dialogue and implement various preventive actions. Our key initiatives include[2]: 28,562 people participated in activities related to the Mining Dam Emergency Action Plan (PAEBM); 24 municipalities were involved in initiatives for Emergency Action Plans for Mining Dams; 23 emergency drills were conducted with community participation; 32 educational seminars and public meetings were held with local communities; 239 school activities engaged a total of 16,000 participants, including students and teachers and 44,026 buildings were visited to invite residents to seminars, public meetings, and other dam safety initiatives.

6. In line with our commitment to respect and promotion of human rights, in 2024 we launched the second cycle of independent Human Rights Due Diligence (DDDH) assessments at Vale Oman's pelletizing and distribution plants and at five operational sites in Brazil's Northern System (Serra Norte, Sul, Leste, Manganês Azul, and the Carajás Railroad and EFC). We also have a practice of conducting due diligence process on high-risk suppliers. In Brazil, 72% of high-risk suppliers have measures in place to mitigate human rights risks, including questionnaires, training, document and field inspections, action plans and monitoring.

7. In 2024, we reached R$ 11.6 billion in social, environmental and institutional expenditures, including those related to Brumadinho, being:

- R$ 4,956 million for social and institutional initiatives, of which 42% are related to voluntary investment and institutional relations and operational impact management (R$ 2,089 million); 25% are related to obligation bligation fulfilment (R$ 1,230 million) and 32% are investments from Incentivised Resources[3] (R$1,637 million).

- R$ 6,618 million for environmental initiatives, considering Vale's internal expenditures.

[1] Events resulting from suicide and uncontrolled activities (those for which Vale does not have formal rights or responsibility to ensure the implementation and compliance of its health, safety, and environmental requirements) are not included in our records.
[2] These figures refer to ferrous operations in Brazil.
[3] This amount includes expenses with Incentive Laws and the Pará Structure Programme.

ESG assessments

Throughout 2024, we continued progressing in external ESG assessments, reinforcing our commitment to aligning our operations with the best environmental, social and governance (ESG) practices demanded by both the market and society. As a result of our ongoing efforts, we have continuously improved our ESG rating.

We closed 2024 with a Sustainalytics score of 33.7, marking a 21-point reduction since 2019, in line with our goal of ranking among the Top 3 in major ESG assessments.

Agency	2019	Current rating
MSCI (AAA maximum/ CCC minimum)	CCC	B
Sustainalytics (the lower, the better)	54.5	33.7
ISS Governance (the lower, the better)	10	1
DJSI (the higher the better)[1]	45	46

[1] *Dow Jones Sustainability World Index. Also known as CSA (S&P Global's Corporate Sustainability Assessment).*

Decarbonization

Climate change is an urgent issue in today's world. We recognize the role that mining can play and are developing solutions to ease our greenhouse gas (GHG) emissions and to help transition to a low-carbon economy. The company has made progress in climate risk management by integrating this process into a multidisciplinary risk management approach that covers both operational and non-operational parts of the business.

Our governance is aligned with the company's management model, encompassing the entire value chain and considering short-, medium-, and long-term horizons. We periodically reassess the process to ensure alignment with the strategic decisions of senior leadership. We conduct resilience analyses based on different climate scenarios, using a risk matrix that considers severity and probability.

For climate risks, we have developed specific methodologies to assess transition and physical impacts, aligned with TCFD guidelines and now with IFRS S2. The main identified risks include regulatory/legal, technological, market, reputational, and physical aspects.

Our decarbonization journey includes projects to expand the use of alternative energy sources and reduce reliance on fossil fuels in our operations (Scopes 1 and 2). We also collaborate with our suppliers and customers to achieve reductions in Scope 3 emissions, which account for 98% of the total. Our climate targets include:

Long-term targets

- Reduce absolute Scope 1 and 2 emissions by 33% by 2030 (from a 2017 baseline).
- Achieve net zero Scope 1 and 2 emissions by 2050.
- To reduce Scope 3 net emissions by 15% by 2035, compared to the baseline 2018.

Learn more about our decarbonization strategy **here.**

To support these goals, we have established public commitments, such as:

- Source 100% renewable electricity in Brazil by 2025, which we achieved in 2023, and globally by 2030; and
- Improve global energy efficiency performance by 5% by 2030.

We also rely on our strategic differentiators, such as:

A high-quality portfolio: 1) we will supply 60-70 million metric tons of agglomerates over the coming years, contributing to lower fossil fuel consumption, particulate emissions and water usage in production and steelmaking process; 2) Vale is uniquely positioned to meet the growing demand for critical minerals essential for the global energy transition.

Renewable energy: in 2023, we achieved 100% electricity from renewable sources in Brazil, two years ahead of the established deadline[1]. We continue striving to achieve a 100% renewable global energy supply by 2030.

Low-carbon footprint of our products: To meet market requirements, Vale follows the GHG Protocol and ISO 14067 to calculate the carbon footprint of its products, using the "cradle-to-gate" approach. In 2024, we made significant progress in mapping and verifying the carbon footprint of our iron ore products, reaching 90% coverage of sales volume. In our Energy Transition Metals business, 98.8% of our Copper, Nickel, and Cobalt products have already had their carbon footprints calculated and verified.

Energy efficiency: Vale has been investing in technological innovation to improve the energy efficiency of its operations, with a highlight on the *Mina Inteligente* project, which uses artificial intelligence to optimize diesel consumption in off-road trucks. By providing recommendations on operational parameters, the project focuses on determining the ideal truck speed for each section of the mine.

In 2024, we made significant progress in our decarbonization journey alongside our partners, including:

- We signed a Strategic Alliance Agreement with Petrobras for the supply of biobunker (a fuel used in ships) and co-processed diesel containing renewable content. Diesel R5, which has 60% lower carbon intensity, is currently being tested on the Vitória-Minas Railway and at the Fábrica Nova mine in the Mariana Complex (MG). We are also collaborating on more competitive models for the supply of natural gas, a key input for pellet and iron ore briquette production.

- We signed a Strategic Alliance Agreement with Green Energy Park (GEP), an European integrated hydrogen company, to develop decarbonization solutions for the global steel industry. Through this partnership, we will conduct feasibility studies for the installation of a green hydrogen production facility in Brazil, which will supply a future Mega Hub—an industrial complex dedicated to manufacturing low-carbon steel products.

- We began testing rotor sails on the Sohar Max, a Valemax vessel measuring 362 meters in length with a 400,000-ton cargo capacity. Developed by UK-based Anemoi Marine Technologies, these sails harness wind power to reduce fuel consumption and emissions. The Sohar Max trial marks the fifth wind energy project installed on ships servicing Vale, either supported or funded by the company, across vessels of different sizes. Two additional projects are planned by the end of 2025.

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

- We signed a Memorandum of Understanding (MoU) with Hydnum Steel to develop low-carbon solutions for steel production. The agreement includes the joint assessment of the feasibility of building an iron ore briquette plant as part of Hydnum Steel's green steel project in Puertollano, Spain. The plant will begin producing 1.5 million tons of rolled steel in 2026 and is projected to reach an annual capacity of 2.6 million tons by 2030.

- We signed a multi-year pellet supply contract with Roheisengesellschaft Saar mbH (ROGESA), a joint subsidiary of Dillinger and Saarstahl AG, marking a significant step in decarbonizing the steel industry. The agreement covers the supply of blast furnace pellets from 2025 to 2027, with a flexible transition to direct reduction pellets from 2028, following the commissioning of ROGESA's direct reduction plant in Dillingen.

- We signed a five-year contract with Wilson Sons for the dry-docking of seven vessels at the company's shipyard in Guarujá, at the Port of Santos. During the contract period, scheduled maintenance will be carried out on five tugboats and two ferryboats owned by the company, which operate in Rio de Janeiro. This initiative is expected to result in a 67% fuel savings for the company.

- We signed a Collaboration Agreement with Caterpillar to test large battery-electric haul trucks and conduct joint studies on ethanol-powered trucks.

- We finalized a Collaboration Agreement with Komatsu and Cummins to develop dual-fuel off-highway trucks powered by a blend of ethanol and diesel. This pioneering project aims to reduce direct CO_2 emissions by up to 70% compared to diesel-powered engines. These will be the first trucks of this size in the world—with a capacity between 230 and 290 tons—to run on ethanol as a fuel source.

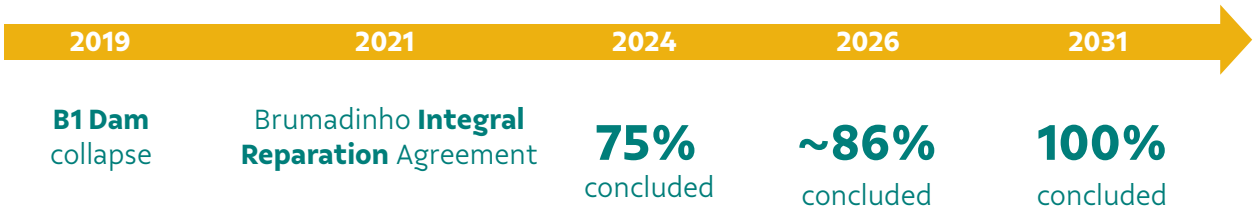
Reparations

Vale's B1 dam collapse, Brumadinho, 2019

We will never forget Brumadinho. Since 2019, we have remained committed to the full reparation of the caused damages. We have completed 75% of total obligations under the Judicial Settlement for Integral Reparation ("Global Settlement"), including performance (39% completed) and payment (91% completed) obligations. The initiatives completed in the year met the demands made by compliance enforcement agencies (Minas Gerais State Government, the Public Prosecutions Departments of Minas Gerais state and the Federal and Public Defenders' Office of the Minas Gerais State') and were approved by the Court.

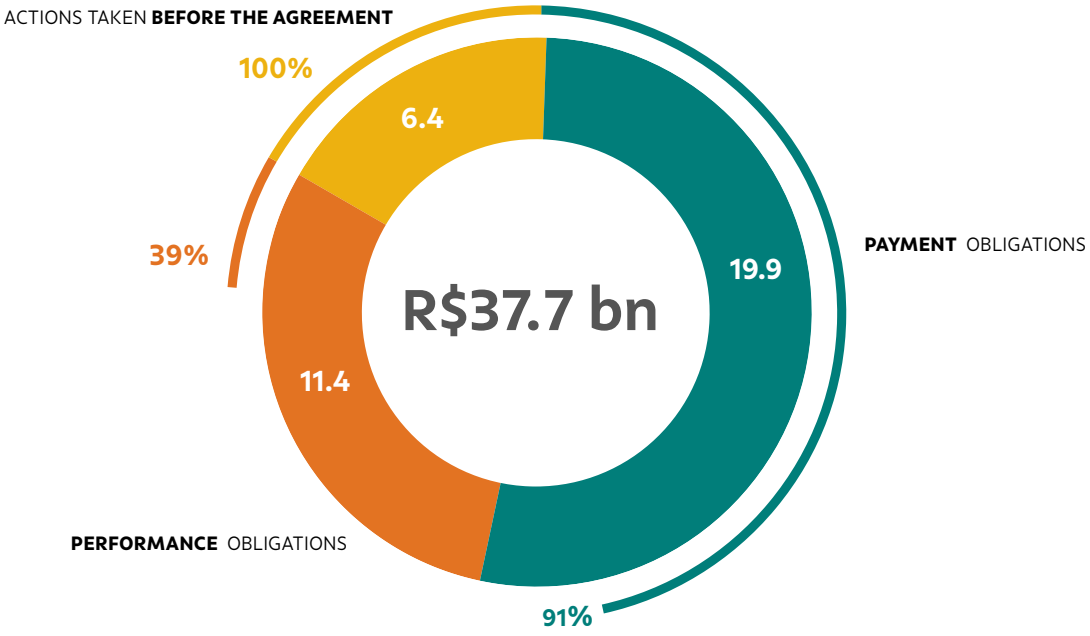
One of our goals is to support economic diversification in our communities in order to create new opportunities and reduce their reliance on mining. Tourism has been identified as a key economic driver for Brumadinho, yielding significant results. One highlight was the participation of 240 tourism businesses from the region in the 2024 Exhibition of the Brazilian Travel Agencies Association (ABAV), held in Rio de Janeiro.

Our Economic Development Program is supporting a range of initiatives to boost this activities in the region, in partnership with Instituto Terra and Instituto Inhotim. Beyond tourism, in Córrego do Feijão, community initiatives have been introduced to support the development of local small businesses.



Integral Reparation Agreement

R$ billion



SOCIO-ECONOMIC AND SOCIAL-ENVIRONMENTAL REPARATION

17,000+
people indemnified, totaling **R$ 3.8 billion**

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

8,800+
civil and labor settlements signed

R$ 17 million
in revenue reported by **137** supported businesses, out of the **143** that received financial support.

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

88%
of handled taillings of a total of **12.4 million m³**

525,100
metric tons of animal feed supplied over a period of five years.

48%
of disturbed land under environmental rehabilitation, out of a total of **658 hectares**

550+
water supply **facilities** built, benefiting a population potentially exceeding 5 million people with sanitation work in the Rio Paraopeba, Velhas and Doce basins.

228,000
seedlings planted, all native to forests in Minas Gerais

1,730
ongoing proceedings related to the reassessment of mental health damages.

10,913
animals have received care from Vale since 2019. The majority of those affected have been resettled in new homes, while **777** people remain housed by Vale.

Samarco's Fundão dam collapse, Mariana, 2015

On October 25, 2024, we signed the Definitive Reparation Agreement to address the damages caused by the collapse of the Fundão dam in Mariana, Minas Gerais, Brazil, which occurred on November 05, 2015. The agreement was signed alongside Samarco Mineração S.A. and BHP Billiton Brasil Ltda., in coordination with: the Brazilian Federal Government, the State Governments of Minas Gerais and Espírito Santo, the Federal and State Public Prosecutors' Offices and the Public Defenders' Offices and Other Brazilian public entities.

The Final Agreement enabled a mutually beneficial resolution for all parties under fair and effective terms, ensuring legal certainty. It was the outcome of a high-level mediation process conducted by the 6th Region Federal Court of Appeals, with engagement from Brazilian authorities and public entities. The agreement was backed by social, environmental, and technical criteria, reinforcing our commitment to Brazilian society and a better future for people, communities and the environment.

It establishes a total financial commitment of approximately R$ 170 billion[1], covering both past and future obligations, to support the people, communities, and environment affected by the dam collapse. The agreement outlines three main categories of obligations.

The Final Agreement permitted a mutually beneficial resolution for all parties

[1] *Future financial commitments are presented in real terms, without discounting, and will be adjusted for inflation based on Brazil's IPCA index*

Amounts (at 100% basis)	Main obligations
R$ 100 billion	Installment payments over 20 years to the Federal Government, the States of Minas Gerais and Espírito Santo, and the municipalities to fund compensatory programs and actions tied to public policies.[2]
R$ 32 billion	Samarco's performance obligations, including initiatives for individual indemnification initiatives, resettlement and environmental recovery.
R$ 38 billion	Amounts already invested on remediation and compensation measures.
R$ 170 billion in total	

[2] *Adjusted for inflation based on Brazil's Broad Consumer Price Index (IPCA).*

Obligations to perform

Samarco will need to execute some affirmative covenants, including: to implement a simplified and voluntary individual compensation system, environmental recovery measures for the Rio Doce and the completion of community resettlements, which reached approximately 90% of cases delivered by December 2024. As a result, some of the 42 programs managed by Fundação Renova will be gradually transferred to Samarco or public authorities, while others will be concluded. With the signing of the agreement, the Fundação Renova Settlement Council was established, officially ending its governance. In parallel, Samarco established the Reparation Committee to support initiatives related to Mariana's reparation efforts.

Obligations to pay

The funds will support various compensation initiatives, ensuring substantial resources for healthcare improvements, sanitation, fishing activities, community financing, and a dedicated approach to Indigenous and traditional communities and municipalities.

Following the signing of the Agreement, we recorded an additional provision of R$ 5.3 billion in 3Q24, closing 2024 with a total provision of R$ 22.7 billion.

Vale's provision and expected cash outflow

Vale reaffirms its commitment to supporting Samarco in repairing the damages caused by the Fundão dam collapse. As previously agreed by its shareholders, Vale is obligated to fund up to 50% of any amounts that Samarco, as the primary debtor, is unable to cover. Vale's provision for these obligations was recorded at US$ 3.7 billion as of December 31, 2024, including estimated contributions from Samarco. The estimated cash disbursement schedule is presented below.

Expected cash disbursement (R$ billion)

	Total	4Q24	2025	2026	2027	2028	2029	2030	'31–43 average	
Obligations to pay	100	5.0	6.0	7.0	5.0	5.0	5.1	5.5	4.7	Payments over 20 years to fund compensatory programs linked to public policies.
Obligations to perform	32	2.0	17.8	4.6	1.5	0.9	0.3	0.3	0.4	To be carried out by Samarco, including compensation, resettlement and environmental recovery.
Already disbursed (under the structure of the previous agreement).	38	—	—	—	—	—	—	—	—	
Total (R$ billion)	170	7.0	23.8	11.6	6.5	5.9	5.4	5.8	5.1	
Vale's contribution (R$ billion)		3.1	11.5	5.8	3.2	2.2	1.8	1.4	—	Gradual reduction over the years, considering that Samarco will fully fund the reparation efforts after 2031, following the completion of its operational ramp-up
Vale's Contribution (US$ billion)[1]		0.5	1.9	0.9	0.5	0.4	0.3	0.2	—	

[1] *BRL-USD exchange final rate of December 31, 2024 of 6.19.*

Operating, economic and financial performance

In 2024 we dedicated increased efforts toward improving our financial and operational performance. We achieved the expected results, with greater reliability of our assets and production growth, ending the year in a strong position, with key highlights including:

Net operating revenue was

R$ 206.0 billion

versus **R$ 208.1 billion** in 2023.
Costs and expenses (ex-Brumadinho and dam decharacterization)[1] reached a total of R$ 146.0 billion, an increase of **12.6% compared to** 2023[1].

Our adjusted EBITDA was

R$ 80.1 billion

a 13.5% decrease, mainly due to lower average realized iron ore prices.

R$ 50.2 billion

in net cash generated by operating activities in 2024, down by **23.8%** compared to 2023.

Vale distributed

R$ 20.3 billion

in dividends and interest on capital paid to shareholders and

R$ 2.1 billion

of share buybacks in the year

Vale closed the financial year with

US$ 16.5 billion

in expanded net debt, including reparation commitments.

R$ 32.7 billion

invested toward growth and maintenance.

[1]Includes an adjustment of R$ 1,983 million in 2024 to reflect the performance of streaming transactions at market prices.

Iron Ore Solutions

Our iron ore production totaled 327.7 Mt in 2024, a 2.0% increase compared to 2023 and above the guidance set at the beginning of the year. This growth highlights the greater reliability and stability of our operations. Pellet production reached 36.9 Mt, a 1.2% increase over 2023, supported by higher pellet feed availability. Iron ore sales totaled 306.7 Mt, growing in line with production increases.

The adjusted EBITDA for the Iron Ore Solutions segment was R$ 81.6 billion, a 12.7% decrease compared to the previous year, primarily due to lower realized prices.

Average prices for iron ore fines (including CFR/FOB sales) were US$ 95.3/t, a decrease of 11.8%y/y. Average prices for pellets were US$ 154.6/t compared to US$ 161.9/t in the previous year.

Total costs and expenses (excluding depreciation effects) amounted to R$ 93.2 billion, an 16.4% YoY increase, mainly due to: higher freight costs, increased spending on materials and services and corporate expenses. These effects were partially offset by lower acquisition costs and an improved product mix, driven by a higher share of volumes from the Northern System.

We reduced the C1 cash cost of iron ore fines, excluding third-party purchases, by 2% compared to 2023, reaching US$ 21.8/t, in line with our estimates. This reduction was driven by our Cost Efficiency Program, higher production volumes, and the depreciation of the Brazilian Real against the US dollar.

Energy Transition Metals

Copper production closed the year at 348.2 kt, a 6.6% y/y increase, driven by improved operational performance, including the completion of the Salobo 3 ramp-up. Nickel production totaled 159.9 kt in 2024, a 3.0% decrease on 2023, primarily impacted by the deconsolidation of production from PTVI.

Average copper prices were US$ 8,811/t compared to US$ 7,960/t in the previous year. Average nickel prices were US$ 17,085/t, 21.8% lower than in 2023.

The 6.3% y/y growth in copper sales, totaling 327.2 kt, was partially offset by a 7.6% decline in nickel sales, which closed 2024 at 155.2 kt.

Throughout 2024, all-in cost projections for copper and nickel were revised downward, and both targets were met, ending the year at US$ 2,616/t for copper and USD 15,420/t for nickel.

Costs and expenses were a total of R$ 28.3 billion, unchanged from 2023. The lower cost of third-party nickel purchases was partially offset by higher maintenance costs at Salobo, due to the conveyor belt fire,.

Adjusted EBITDA was accordingly R$ 7.9 billion, a 18.9% decrease compared to 2023.

Selected financial indicators

(R$ million)	2024	2023
Net operating revenues	206,005	208,066
Total costs and expenses (excluding Brumadinho and dams decharacterization)[1]	(145,973)	(129,622)
Expenses related to Brumadinho and dams decharacterization	(1,530)	(5,348)
Adjusted EBIT (LAJIR)	63,596	77,294
Adjusted EBITDA margin (%)	38.9%	44.5%
Adjusted EBITDA (LAJIDA)	80,121	92,594
Net income attributable to Vale's shareholders	31,592	39,940

[1] Includes adjustments of R$ 1,983 million in 2024 and R$ 1,073 million in 2023 to reflect the performance of the of streaming transactions at market prices.

Segment reporting

(R$ million)	Net operating revenues	Costs[1]	Expenses			Associates and joint ventures EBITDA	Adjusted EBITDA
			SG&A and others[1]	R&D[1]	Pre-operating and stoppage[1]		
Iron Ore Solutions	**170,131**	**(88,288)**	**(1,293)**	**(2,132)**	**(1,484)**	**4,710**	**81,644**
Fines	134,335	(69,523)	(748)	(1,845)	(1,289)	1,938	62,868
Pellets	31,898	(15,755)	15	(47)	(63)	1,002	17,050
Other	3,898	(3,010)	(560)	(240)	(132)	1,770	1,726
Energy Transition Metals	**35,874**	**(27,341)**	**706**	**(1,486)**	**(152)**	**328**	**7,929**
Nickel[2]	19,883	(18,537)	(165)	(657)	(149)	241	616
Copper[3]	15,231	(7,976)	1,715	(646)	(3)	–	8,321
Other[4]	760	(828)	(844)	(183)	–	87	(1,008)
Brumadinho and decharacterization of dams	**–**	**–**	**(1,530)**	**–**	**–**	**–**	**(1,530)**
Others[5]	**–**	**–**	**(7,266)**	**(687)**	**(25)**	**56**	**(7,922)**
Total	**206,005**	**(115,629)**	**(9,383)**	**(4,305)**	**(1,661)**	**5,094**	**80,121**

[1] Excluding depreciation, depletion and amortization
[2] Including copper and by-products from our nickel operations.
[3] Including by-products from our copper operations.
[4] Includes an adjustment of R$ 1,983 million in 2024 and R$ 1,073 million in 2023 to reflect the performance of streaming transactions at market prices. This adjustment will continue until the funds received from streaming transactions are fully recognized in the segment's adjusted EBITDA. Based on current projections for commodity volumes and prices, this adjustment is expected to be fully realized by 2027.
[5] Including non-recurring items of (R$ 1,638).

Net income

Net income attributable to Vale's shareholders was R$ 31.6 billion in 2024, a 20.9% decrease compared to the previous year, mainly due to lower average realized iron ore prices and the impact of mark-to-market losses on derivatives.

Financial result

Net financial result was negative R$ 21.2 billion. The increase compared to the previous year is mainly due to foreign exchange losses and derivative operations, driven by the 27.9% depreciation of the Brazilian real against the U.S. dollar compared to 2023.

(R$ millions)	2024	2023
Financial income	**2,281**	**2,159**
Financial expenses	**(7,968)**	**7,276**
Loans and borrowings interest	(4,293)	(3,622)
Others	(3,187)	(2,917)
Interest on REFIS	(488)	(737)
Other financial items, net	**(15,548)**	**(4,601)**
Derivative financial instruments, net	(6,798)	4,455
Currency and interest rate swaps	(6,670)	4,457
Others (commodities etc.)	(128)	(2)
Participative shareholders' debentures	(1,048)	(871)
Foreign exchange and indexation gains (losses), net	(7,702)	(8,185)
Financial result, net	**(21,235)**	**(9,718)**

Income taxes

We generated R$ 34.2 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$ 3.8 billion in taxes on income.

(R$ millions)	2024	2023
Income before income taxes	**34,224**	**55,554**
Income taxes at statutory rate (34%)	(11,636)	(18,888)
Adjustments that affect the taxes basis:		
Tax benefit on interest on equity	4,168	3,934
Tax incentives	3,420	5,310
Equity income in affiliates	548	423
Addition of tax losses	3,459	1,991
Reclassification of cumulative translation adjustments to income statement	149	–
Reversal of deferred income tax related to Fundação Renova	–	(5,468)
Other	(1,507)	(1,852)
Income taxes	**(3,793)**	**(15,000)**

Reversal (reduction) to recoverable value and gains (losses) on the disposal of non-current assets, net

The reversal (reduction) to recoverable amount and the gain (loss) on disposal of non-current assets totalled R$ 510 million in 2024, primarily due to four transactions: (i) the deconsolidation of PTVI; (ii) the joint venture with Apollo regarding the Vale Oman Distribution Center (VODC), in which Vale now holds 50% of the business; (iii) the acquisition of a stake in Anglo American Minério de Ferro Brasil S.A., which included the transfer of Vale's Serra de Serpentina assets; and (iv) impairment losses related to the Thompson nickel assets and the Voisey's Day mine expansion project, reflecting the asset review of the Energy Transition Metals business.

(R$ millions)	2024	2023
Result on the disposal of non-current assets and others	**(2,200)**	**(1,317)**
Gain on divestment in PTVI	5,710	–
Gain on divestment in VODC	6,776	–
Gain on acquisition of a minority interest in Anglo – Minas-Rio.	3,815	–
Impairment of Thompson and Newfoundland and Labrador assets	(11.858)	–
Disposal of assets and others	(3,933)	(1,317)
Impairment and gains (losses) on write-offs of non-current assets, net	**510**	**(1,317)**

Investments in associates, joint ventures and subsidiaries

Vale has investments in associates, joint ventures and subsidiaries in important business areas. Our investments in the main portfolio companies shown in Vale's statement of financial position 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		Share of profit (loss) of equity-accounted investees	
	2024	2023	2024	2023
Associates and joint ventures				
Pelletizing plants	1,902	1,621	531	437
Aliança Geração de Energia	–	1,725	16	240
Aliança Norte Energia	459	514	(55)	(39)
MRS Logística S.A.	3,659	3,096	728	583
VLI S.A.	2,111	1,672	439	(566)
Samarco Mineração S.A	–	–	–	–
Vale Oman Distribution Center (VODC)	3,812	–	92	–
Anglo American Minério de Ferro do Brasil S.A.	4,104	–	18	–
PT Vale Indonesia Tbk (PTVI)	11,676	–	(178)	–
Other	435	433	21	27
Subsidiaries				
Vale Holdings B.V.	108,208	104,526	(597)	11,127
Aliança Geração de Energia S.A.	5,995	–	179	–
Minerações Brasileiras Reunidas S.A. (MBR)	1,401	1,943	140	183
Other	8,978	8,316	(308)	(900)
Total	**152,740**	**123,846**	**1,026**	**11,092**

Investments

Investments totaled R$ 32.7 billion in 2024 (US$ 6.0 billion), in line with our guidance, with R$ 7.9 billion (US$ 1.5 billion) invested in growth projects and R$ 24.8 billion (US$ 4.5 billion) in sustaining projects. Investments were 10.9% higher than in 2023, primarily due to increased sustaining project investments. In 2025, we plan to invest US$ 5.9 billion in growing and maintaining our operations.

Capital Expenditure (R$ million)	2024	2023
Growth projects	7,889	8,214
Sustaining projects	24,766	21,232
Total	**32,655**	**29,446**

Total investment by business (R$ million)	2024	2023
Iron Ore Solutions	21,302	18,707
Energy Transition Metals	10,703	9,771
Energy and others	650	968
Total	**32,655**	**29,446**

Iron Ore Solutions

With the early completion of Vargem Grande and Capanema, we successfully delivered two of our three major projects in 2024. The remaining project in progress is S11D, which will add 20 Mt of capacity at our lowest operating cost site, with operations expected to begin in the 2H26. At the end of 2024, the project had reached 69% physical progress and 49% financial progress.

In 2024, we accelerated the ramp-up of the Capanema and Vargem Grande projects to increase iron ore production capacity by 30 Mtpy. We also completed the expansion project at the Voisey's Bay mine for nickel and by-product production.

Energy Transition Metals

The coming years will be crucial for transitioning the business into a new phase. The asset review process is progressing, with initiatives set to be implemented through 2026. In 2024, we completed the expansion project at the Voisey's Bay mine, which has a production capacity of approximately 45 ktpy of nickel, 20 ktpy of copper, and 2.6 ktpy of cobalt as by-products, with full capacity expected by the 2H26. Our main ongoing project is the second furnace at Onça Puma, scheduled to begin operations in the 2H26, with an estimated capacity of +12-15 ktpy of nickel.

Debt indicators

Gross debt and leases totaled US$ 15.5 billion as of December 31, 2024, a 11.4% year-over-year increase, mainly as a result of the net effect of US$ 1.5 billion of funds raised and debt repayment. Expanded net debt for the period was US$16.5 billion, within the target range of US$10-20 billion, due to the Brazilian Real depreciation and provisions related to the Mariana settlement agreement.

Debt indicators (US$ million)	2024	2023
Gross debt[1]	**14,792**	**12,471**
Leases (IFRS 16)	713	1,452
Gross debt and leases	**15,505**	**13,923**
Cash, cash equivalents and short-term	(5,006)	(3,660)
Cash and cash equivalents - PTVI (Non-current assets held for sale)	-	(703)
Net debt	**10,499**	**9,560**
Currency swaps[2]	334	(664)
Brumadinho provisions	1,970	3,060
Samarco provisions	3,663	4,208
Expanded net debt	**16,466**	**16,164**
Average debt maturity (years)	8.7	7.9
Cost of debt after hedge (% per year)	5.7	5.6
Total debt and leases / LTM adjusted EBITDA (x)	1.0	0.8
Net debt / LTM adjusted EBITDA (x)	0.7	0.5
Adjusted LTM EBITDA/ LTM gross interest (x)	**17.9**	**24.1**

[1] *Excludes leases (IFRS 16).*
[2] *Includes interest rate swaps.*

Debt management

The debt management transactions below were carried out to optimize the Company's liabilities, mitigating risks related to liability management:

Month	Transaction
January – February	Loan of R$1.238 billion (US$ 250 million) with a commercial bank (maturing in 2025).
February	Loan of R$997 million (US$ 200 million) with commercial banks (maturing in 2025).
March	Loan of R$300 million (US$ 60 million) with a commercial bank (maturing in 2024). Loan of R$1.791 billion (US$ 360 million) with a commercial bank (maturing in 2035).
April	Loan of R$451 million (US$ 90 million) with a commercial bank (maturing in 2024).
June	Issuance of bonds totaling R$5.389 billion (US$1 billion) with a 6.40% annual coupon, paid semiannually, and maturing in 2054.
July	Loan of R$2.632 billion (US$ 475 million) with a commercial bank (maturing in 2027).
September	Loan of R$2.698 billion (US$ 487 million) with commercial banks (maturing in 2029).
October	Loan of R$1.672 billion (US$ 300 million) with a commercial bank (maturing in 2027). Issuance of debentures totaling R$6 billion (US$1 billion) with an IPCA coupon of 6.38% to 6.43% per year, paid semiannually, and maturing in 2034, 2036 and 2039.
November	Loan of R$1.704 billion (US$ 300 million) with a commercial bank (maturing in 2029).
December	Loan of R$1.524 billion (US$ 250 million) with a commercial bank (maturing in 2028). Loan of R$305 million (US$ 50 million) with a commercial bank (maturing in 2026).

Financial information

Consolidated Income Statement – (R$ million)	2024	2023
Net operating revenue	206,005	208,066
Costs of goods sold and services rendered	(131,318)	(120,016)
Gross profit	**74,687**	**88,050**
Gross margin (%)	36.3%	42.3%
Selling and administrative expenses	(3,397)	(2,758)
Research and development expenditure	(4,307)	(3,598)
Pre-operating and operational stoppage expenses	(2,189)	(2,249)
Other operating expenses, net	(8,275)	(7,422)
Impairment reversal (impairment and disposals) of non-current assets, net	510	(1,317)
Operating income	**57,029**	**70,706**
Financial income	2,281	2,159
Financial expense	(7,968)	(7,276)
Other financial items, net	(15,548)	(4,601)
Equity results and other results in associates and joint ventures	(1,570)	(5,434)
Income before income tax	**34,224**	**55,554**
Income taxes	**(3,793)**	**(15,000)**
Net income	**30,431**	**40,554**
Net income (loss) attributable to non-controlling interests	(1,161)	614
Net income attributable to Vale's shareholders	**31,592**	**39,940**

Balance sheet – Consolidated (R$ million)	2024	2023
Assets		
Current assets	83,476	71,488
Non-current assets held for sale	–	19,041
Non-current assets	71,992	65,783
Investments	28,158	9,061
Intangibles	65,105	56,309
Property, plant and equipment	247,594	234,302
Total	**496,325**	**455,984**

Balance sheet – Consolidated (R$ million)	2024	2023
Liabilities	282,605	257,659
Current liabilities	81,055	68,234
Liabilities associated with non-current assets held for sale	–	2,714
Non-current liabilities	201,550	186,711
Equity	**213,720**	**198,325**
Equity attributable to Vale's shareholders	206,772	190,965
Equity attributable to noncontrolling interests	6,948	7,360
Total liabilities and equity	**496,325**	**455,984**

Cash Flow – Consolidated (R$ million)	2024	2023
Cash flow from operations	74,022	86,220
Interest on loans and borrowings paid	(4,710)	(3,695)
Cash received (paid) on settlement of derivatives, net	(34)	2,798
Interest on participative shareholders' debentures paid	(1,293)	(1,172)
Payments related to Brumadinho event	(4,934)	(6,597)
Payments related to decharacterization of dams	(2,876)	(2,275)
Income taxes (including settlement programs) paid	(9,976)	(9,374)
Net cash generated by operating activities	**50,199**	**65,905**
Cash flow from investing activities		
Acquisition of property, plant and equipment and intangible assets	(35,098)	(29,446)
Advanced payment related to renegotiation of railway concession contracts	(4,000)	–
Cash received (paid) from disposal and acquisition of investments, net	13,966	(697)
Dividends received from associates and joint ventures	446	1,010
Payments related to the Samarco dam Failure	(4,651)	(2,728)
Short-term investments	(533)	613
Other investing activities, net	(911)	(177)
Net cash used in investing activities	**(30,781)**	**(31,425)**
Cash flow from financing activities		
Loans and borrowings from third-parties	26,701	9,585
Payments of loans and borrowings to third-parties	(14,344)	(3,215)
Payments of leasing	(1,108)	(1,159)
Dividends and interest on capital paid to Vale shareholders	(20,662)	(27,759)

Cash Flow – Consolidated (R$ million)	2024	2023
Dividends and interest on capital paid to noncontrolling interests	(1)	(208)
Shares buyback program	(2,054)	(13,593)
Acquisition of additional stake in VOPC	–	(653)
Net cash used in financing activities	**(11,468)**	**(37,002)**
Net decrease in cash and cash equivalents	**7,950**	**(2,522)**
Cash and cash equivalents in the beginning of the year	17,474	24,711
Effect of exchange rate changes on cash and cash equivalents	4,829	(1,314)
Effect of transfer PTVI to non-current assets held for sale	–	(3,401)
Cash and cash equivalents from subsidiaries acquired and sold, net	418	–
Cash and cash equivalents at end of the year	**30,671**	**17,474**

Cash flow from operating activities		
Income before income taxes	**34,224**	**55,554**
Adjusted for:		
Equity results and other results in associates and joint ventures	1,570	5,434
Impairment and gains (losses) on disposal of non-current assets, net	(510)	1,317
Provisions related to Brumadinho	692	2,255
Provision for decharacterization of dams	(1,141)	750
Depreciation, depletion and amortization	16,525	15,300
Financial results, net (loss)	21,235	9,718
Changes in assets and liabilities:		
Accounts receivable	8,185	1,591
Inventories	(2,462)	(1,116)
Suppliers and contractors	(2,015)	3,098
Other assets and liabilities, net	(2,281)	(7,681)
Cash flow from operations	**74,022**	**86,220**

Non-cash transactions		
Additions to property, plant and equipment - capitalized loans and borrowing costs	**197**	**96**

Dividends and interest **on capital**

Distribution of earnings

The distributions related to the 2024 fiscal year balance sheet total R$ 4.76 (US$ 0.84) per share, including interest on capital and dividends, and were approved by the Board of Directors as follows:

Amount (US$ million)	Amount (R$ million)	Remuneration	Approval	Payment
1,608	8,940	Interest on capital	07/25/2024	09/04/2024
388	2,222	Interest on capital	11/28/2024	03/14/2025
1,596	9,143	Dividends	02/19/2025	03/14/2025
3,592	**20,305**	–	–	–

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

Share Buyback Program

Between 2021 and the end of 2024, through four share buyback programs, we have repurchased a total of 864.2 million shares for US$ 14.7 billion, representing more than 20% of outstanding shares on the reporting date. This reflects our strong commitment to shareholder returns.

By December 2024, we had completed 22.6% of our fourth share buyback program, which began in October 2023, repurchasing 33.9 million shares (of the 150 million shares) in the total planned program for a total value of US$ 453.1 million. Of this total, around 30.9 million common shares and their respective ADRs were repurchased in the year, corresponding to a total amount of US$409.1 million (R$ 2.05 billion).

In February 2025, we announced a new buyback program, for up to 120 million shares, which will be implemented over a period of 18 months, considering the proximity of the end of the current share buyback program on April 25, 2025.

As of December 31, 2024, the Company held 270,287,567 treasury shares through wholly owned subsidiaries and through the Controllership department.

2025 business outlook

Iron Ore Solutions

Iron ore production guidance for 2025 is 325–335 Mt. The commissioning of the Vargem Grande and Capanema projects in 2024 has allowed for greater operational and product portfolio flexibility. In 2026, iron ore production is expected to reach 340–360 Mt, driven by project ramp-ups and the start-up of the Serra Sul +20 project.

For pellet and briquette production, we expect to reach 38–42 Mt in 2025, reflecting increased pellet feed availability and progress in commissioning our briquette plants in Tubarão. By 2026, we anticipate production between 45–50 Mt, with a further increase to 60–70 Mt by 2030.

We continue advancing on our journey to enhance competitiveness. In 2025, we expect our all-in cost to reach a range of US$53–57/t, decreasing to US$50–54/t in 2026. This reduction is driven by lower C1 cash costs, supported by our efficiency gains, higher production and a portfolio of higher-quality products.

Energy Transition Metals

Nickel: production guidance is 160–175 kt, remaining roughly in line with 2024 production as the transition to underground mining at Voisey's Bay continues, with mine ramp-ups.

In 2026, we estimate our nickel production will be between 175–210 ktpy, reflecting the ramp-up of underground mines in Voisey's Bay and the start-up of the second furnace at Onça Puma in Pará (Brazil). By 2030, nickel production should be between 210–250 kt.

Copper: We believe in our potential to accelerate copper production, which totaled 348 kt in 2024 and could reach up to 420–500 kt by 2030 with the Bacaba and Alemão projects.

By 2035, we expect to reach approximately 700 kt, primarily through the accelerated development of assets in the North and South hubs in the Carajás region.

Focused on achieving the best performance for our Company, we have optimized our Capex management, updating our annual guidance for 2025 from US$ 6.5 billion to US$ 5.9 billion.

Policy for engaging **independent auditors**

Vale's Board of Directors approved our Policy for provision of audit services by the independent auditors in 2020. This policy sets the rules to be followed in the process of hiring external audit services for Vale and audits related to our subsidiaries. The policy aims to avoid conflicts of interest or loss of independence or objectivity involving our independent auditors. It 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.

In 2024, we renewed the contract with PricewaterhouseCoppers Auditores Independentes LTDA. (PwC) for the independent audit of our financial statements, effective for five years from the audit of the financial statements for the year ended December 31, 2024, and in accordance with this policy.

The fees paid in the years ended December 31, 2024 and December 31, 2023 for Vale and its subsidiaries were as follows:

Fees (R$ thousand)	2024	2023
Accounting Audit	30,914	27,707
Audit-Related Services	3,354	2,721
Total External Audit Services	**34,268**	**30,428**

Additional information

Shareholder services

If you have any inquiries about the information in this report, our share buyback program, or payments of dividends and interest on capital, and for further operating and financial information, please contact us at vale.ri@vale.com.

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

Dividends and interest on capital

As per our Shareholder Remuneration Policy, the remuneration is 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 occasionally. The payment dates are disclosed in the announcement of the approval of shareholder remuneration distribution.

Other publications

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

Unless stated otherwise, the operational and financial information in this management report is presented based on consolidated figures in accordance with IFRS. Such information relies on quarterly financial statements reviewed by independent auditors. Vale's main consolidated subsidiaries are: Companhia Portuária da Baía de Sepetiba, Vale Manganês S.A., Mineraçōes Brasileiras Reunidas S.A., Vale Base Metals Ltd., Tecnored Desenvolvimento Tecnológico S.A., Aliança Geração de Energia S.A., Vale Holdings B.V., Vale Canada Limited, Vale International S.A., Vale Malaysia Minerals Sdn. Bhd., and Vale Oman Pelletizing Company LLC.

This statement may include declarations regarding Vale's current expectations about future events or results (estimates and projections). Many of these estimates and projections can be identified by the use of forward-looking terms such as "anticipate," "believe," "may," "expect," "should," "plan," "intend," "estimate," "will," and "potential," among others. All estimates and projections involve various risks and uncertainties. Vale cannot guarantee that these statements will prove to be accurate. These risks and uncertainties include, among others, factors related to: (a) the countries where Vale operates, particularly Brazil and Canada; (b) the global economy; (c) capital markets; (d) the mining and metals industry and its dependence on global industrial production, which is cyclical by nature; and (e) the high level of global competition in the markets where Vale operates. Vale advises that actual results may differ materially from the plans, objectives, expectations, estimates, and intentions expressed in this presentation. Vale assumes no obligation to publicly update or revise any estimate or projection, whether due to new information, future events, or any other reason. For additional information on factors that may lead to results different from those estimated by Vale, please refer to the reports filed by Vale with the U.S. Securities and Exchange Commission (SEC) and the Brazilian Securities Commission (CVM), particularly the sections "Estimates and Projections" and "Risk Factors" in Vale's Annual Report – Form 20-F.

The information contained in this statement includes financial metrics that are not prepared in accordance with IFRS. These non-IFRS metrics differ from the most directly comparable IFRS metrics, but we do not provide a reconciliation to the most directly comparable IFRS measures because these non-IFRS metrics are forward-looking, and preparing such a reconciliation would require disproportionate effort.

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