

Strategic ESG Performance and Disclosure Evolution of Gerdau S.A.: A Decade of Transformation (2014–2023)

The global steel industry has historically occupied a dual position in the macroeconomic landscape, serving as the foundational backbone for infrastructure and industrialization while simultaneously acting as one of the most challenging sectors to decarbonize. Within this context, Gerdau S.A., identified by its primary B3 ticker GGBR4.SA, represents a critical case study in how a legacy industrial conglomerate can pivot toward environmental leadership and governance professionalization. The company, legally incorporated as Gerdau S.A., is headquartered in São Paulo, Brazil, with its main administrative offices located at Avenida Doutora Ruth Cardoso, 8.501, Pinheiros.¹ As the largest Brazilian multinational steel producer and the leading manufacturer of long steel in the Americas, Gerdau's operations span seven countries, including substantial manufacturing hubs in the United States, Canada, Mexico, Argentina, Peru, and Uruguay.²

The industry classification for Gerdau is centered on ferrous metallurgy and steel production, specifically within the Steel Rolling and Drawing sub-sector.¹ Identification of the company is verified through multiple high-credibility sources, including the company's official Investor Relations portal, the New York Stock Exchange (NYSE) where it is listed under the ticker GGB, and major financial databases such as Bloomberg and Reuters.¹ The ticker GGBR4.SA refers specifically to the preferred shares traded on the B3 exchange in São Paulo, which is the primary listing for the entity.³

Comprehensive ESG Reporting Timeline and Framework Adoption (2014–2023)

The trajectory of Gerdau's ESG disclosures over the past decade reveals a shift from descriptive, philanthropy-heavy annual reports to data-driven, integrated disclosures aligned with global financial and sustainability standards. This evolution was not merely a matter of compliance but a strategic response to shifting investor expectations and a profound internal governance transformation.

The Foundation Phase: 2014–2016

During the early years of this analysis, Gerdau's reporting focused predominantly on operational efficiency and financial survival amid a significant economic downturn in Brazil. In 2014 and 2015, the company's annual reports began to incorporate basic environmental and social metrics, such as injury frequency rates and social investment totals.⁶ For instance, in

2014, the company reported an injury frequency rate of 1.09⁶, with social investments totaling R\$ 63.1 million.⁶ By 2015, the injury rate improved slightly to 0.98⁷, though social spending was reduced to R\$ 40 million as the company prioritized cost reduction and deleveraging in a challenging global steel market characterized by overcapacity.⁶

A critical regulatory and disclosure milestone occurred in 2015 when the company was linked to "Operation Zelotes," a federal investigation in Brazil into tax-related bribery.⁸ This event led to enhanced scrutiny from the Brazilian Securities and Exchange Commission (CVM) and the U.S. Securities and Exchange Commission (SEC), forcing the company to reassess its internal compliance and disclosure protocols.⁸ In 2016, the company began transitioning its sustainability reporting toward the Global Reporting Initiative (GRI) G4 guidelines, marking the first step toward standardized non-financial disclosure.¹⁰

The Transition and Professionalization Phase: 2017–2018

The years 2017 and 2018 served as a pivotal turning point for Gerdau's governance and ESG strategy. In 2018, the company concluded an era of five generations of family management by appointing Gustavo Werneck as the first CEO from outside the founding Gerdau family.⁴ This move was coupled with the launch of a new corporate purpose: "Empowering people who build the future".⁴ This cultural transformation was reflected in disclosures that moved beyond operational metrics to discuss "digital transformation" and "cultural transition" as pillars of long-term sustainability.¹¹

The Maturity and Integration Phase: 2019–2021

Gerdau's ESG disclosure reached maturity starting in 2019 with the publication of its first Integrated Report, which followed the framework of the International Integrated Reporting Council (IIRC).¹¹ This year also saw the completion of the company's first formal Materiality Matrix, identifying the topics most relevant to both the business and its stakeholders.¹¹

In 2020, Gerdau established a dedicated Strategy and Sustainability Committee to advise the Board of Directors, effectively embedding ESG factors into capital allocation and investment decisions.¹² This period also marked the first publication of audited greenhouse gas (GHG) inventory data, a significant increase in transparency.¹³ By 2021, the company adopted the Sustainability Accounting Standards Board (SASB) standards for the Iron & Steel Producers and Metals & Mining sectors, and it began linking senior executive compensation to ESG targets, specifically carbon emission reductions.¹³

The Leadership and Certification Phase: 2022–2023

In the final years of the analyzed period, Gerdau focused on external validation of its ESG performance. In 2022, the company's Gerdau Summit unit became the first steel industry entity

to achieve B Corp certification, followed by Siderperu later that year.⁴ By 2023, the reporting cycle reached a high point with the achievement of an A- rating from the Carbon Disclosure Project (CDP) for Climate Change, placing the company in the "Leadership" category.¹⁷ The 2023 Annual Report, assured by Bureau Veritas, consolidated these achievements, reporting the lowest injury frequency rate in the company's history (**0.70**) and a carbon intensity (**0.86 tCO₂e/t**) that remained well below the global average.¹⁴

Table 1: ESG Disclosure and Framework Timeline (2014–2023)

Year	Milestone	Primary Framework / Standard	Significance	Source
2014	Annual Report with basic safety metrics	Local GAAP / Narrative	Early tracking of social impact.	⁶
2015	Disclosure of Operation Zelotes	Regulatory Filing (6-K)	Sparked governance overhaul.	⁸
2016	Transition to GRI G4	GRI G4	Standardization of sustainability data.	¹⁰
2018	Leadership Transition (First non-family CEO)	Corporate Governance Code	Shift to professional management.	⁴
2019	First Integrated Report & Materiality Matrix	IIRC / GRI Standards	Unified financial and ESG strategy.	¹¹
2020	Audited Carbon Data	GHG Protocol	Transparency in	¹³

	Publication		decarbonization.	
2021	SASB Adoption & Executive Pay Linkage	SASB / GRI	Incentivizing ESG performance.	¹³
2022	B Corp Certification for Gerdau Summit	B Lab Standards	Third-party social/env validation.	¹⁶
2023	CDP A-Leadership Rating	CDP Climate Change	Global recognition of climate strategy.	¹⁷

Environmental Pillar: Decarbonization and Circular Economy

The environmental strategy of Gerdau is characterized by a "circular economy" model that leverages its position as the largest scrap recycler in Latin America. Unlike traditional integrated steelmakers that rely on iron ore and metallurgical coal in blast furnaces, 71% of Gerdau's steel is produced in Electric Arc Furnaces (EAF) using recycled scrap.³ This manufacturing route is inherently less carbon-intensive.

Emissions Intensity and Bioreducer Technology

Gerdau's greenhouse gas emissions intensity is among the lowest in the global steel industry. In 2023, the company reported an average of $0.86 \text{ tCO}_2\text{e}$ per ton of steel produced (Scopes 1 and 2), which is nearly half of the global industry average of approximately 1.8 to $1.9 \text{ tCO}_2\text{e/t}$.¹⁷ The company has committed to reducing this figure to $0.82 \text{ tCO}_2\text{e/t}$ by 2031.¹⁷

A unique competitive advantage for Gerdau in Brazil is its use of charcoal as a bioreducer. The company manages 250,000 hectares of forest base, including eucalyptus plantations, which provide a renewable carbon source for its blast furnaces in Minas Gerais.⁴ This "green pig iron" route allows the company to sequester carbon through forestry while reducing the need for imported coal. In 2022 alone, the company used 21,360 tonnes of biomass, avoiding the

emission of over 64,000 tonnes of CO_2e .¹⁷

Table 2: Environmental Performance Indicators (2020–2023)

Indicator	Unit	2020	2021	2022	2023	Source
GHG Intensity (Scopes 1 & 2)	$tCO_2e/$	0.93	0.90	0.86	0.86	¹⁷
Total Scrap Recycled	Million Tonnes	11.0	11.0	11.0	11.0	⁴
Water Recirculation Rate	%	98.0%	98.0%	98.0%	98.0%	¹²
Waste Reuse Rate	%	78.0%	77.0%	79.0%	80.0%	¹²
Forest Base (Total Area)	Hectares	250,000	250,000	250,000	250,000	⁴

Resource Efficiency and Biodiversity

Gerdau's commitment to natural capital extends beyond carbon. The company reuses approximately 80% of the solid waste generated in its production processes, transforming slag into co-products for road paving, cement, and ceramics.¹² Water management is equally rigorous, with a 98% recirculation rate that minimizes withdrawals from local water bodies.¹² Furthermore, of its 250,000 hectares of forest, 90,000 hectares are strictly earmarked for biodiversity conservation, ensuring the maintenance of local ecosystems.¹⁸

Social Pillar: Health, Safety, and Diversity

The social dimension of Gerdau's ESG strategy has evolved from philanthropic community

grants to a focus on operational safety, workforce diversity, and systemic social impact.

Occupational Health and Safety (OHS)

In the steel industry, physical safety is the primary social risk. Gerdau has implemented a "zero accident" ambition, supported by the "Safety Calling" movement.¹⁴ The trend in injury frequency rates shows consistent improvement over the decade, culminating in a historic low of **0.70** in 2023.¹⁴ This performance is a key metric in the company's ESG scorecard and is reported with a high degree of transparency in annual integrated reports.¹⁴

Diversity, Equity, and Inclusion (DE&I)

Gerdau has set ambitious representation targets for its leadership in Brazil. By 2025, the company aims to have 30% of leadership positions held by women and 30% by black and brown individuals.¹⁴ As of 2023, the company reported that 26% of these roles were held by women and 27.6% by black/brown individuals, indicating that while progress has been made, further effort is required to meet the 2025 deadline.¹⁴

Table 3: Social Performance and Diversity Metrics

Metric	2014	2019	2021	2023	2025 Target	Source
Injury Frequency Rate	1.09	0.82	0.76	0.70	Zero	⁶
Women in Leadership (Brazil)	N/A	17%	21%	26%	30%	¹⁴
Black/Brown in Leadership	N/A	19%	23%	27.6%	30%	¹⁴
Social Investment (R\$)	63.1	55.0	70.0	59.6	N/A	⁶

Million)						
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Community Engagement: Reforma que Transforma

The "Reforma que Transforma" (Reform that Transforms) project, launched in 2021, represents the company's flagship social initiative. With a committed investment of R\$ 40 million over 10 years, the goal is to renovate 13,000 vulnerable homes in Brazil.¹⁴ By 2023, the project had already benefited over 2,200 families, demonstrating a move toward social projects that provide tangible, long-term improvements in living conditions for communities adjacent to Gerdau's operations.¹⁴

Governance Pillar: Accountability and Ethics

The governance of Gerdau S.A. underwent a radical restructuring following the 2015 Operation Zelotes controversy. The subsequent shift from family to professional management in 2018 served as the foundation for the company's current ESG leadership.

Ethical Compliance and Risk Management

The Operation Zelotes investigation, which involved allegations of bribery to influence tax court decisions, led to a multi-year process of governance strengthening.⁸ Although the SEC closed its inquiry in 2019 without enforcement action, the reputational damage served as a catalyst for the company to adopt "Level 1" Corporate Governance standards on the B3 and comply with the rigorous requirements of the Sarbanes-Oxley Act (SOX) for its NYSE listing.⁸

The company now employs a robust risk management framework that includes the Strategy and Sustainability Committee and an independent internal audit department.¹³ Ethical conduct is monitored through a Code of Conduct and a third-party managed whistleblower channel.¹¹

B Corp Certification: A Global Benchmark

A standout feature of Gerdau's governance is its certification as a B Corporation. This certification requires a company to meet high standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose.¹⁶ The certification of the Gerdau Summit and Siderperu units in 2022, and the North American operations in 2024, signals a commitment to a multi-stakeholder governance model that is rare for heavy industrial firms.⁴

Table 4: Key Credit and ESG Ratings (2023–2025)

Agency	Category	Rating /	Date	Significance	Source
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		Score		e	
CDP	Climate Change	A-	2023	Leadership Level	¹⁷
CDP	Water Security	B-	2023	Above Industry Avg	¹⁷
S&P Global	ESG Score	51 / 100	2025	Mid-range for Steel	²⁴
S&P Global	CSA Score	44 / 100	2025	Performance Metric	²⁴
Moody's	Credit Rating	Baa2	2024	Investment Grade	²⁵
S&P Global	Credit Rating	BBB	2024	Stable Outlook	²⁶
Fitch	Credit Rating	BBB	2023	Stable Outlook	²⁷

Material Controversies and Regulatory Milestones

While Gerdau has made significant strides in ESG disclosure, its history includes material controversies that provide context for its current risk management practices.

Operation Zelotes and Securities Litigation

As previously detailed, the 2015 Operation Zelotes investigation was a watershed moment. The allegations of a multibillion-dollar tax fraud scheme led to a significant drop in ADR prices and a securities class action lawsuit in the United States, which alleged that Gerdau had made false and misleading statements about its compliance policies.⁹ The settlement of these legal issues and the closure of the SEC inquiry in 2019 marked the end of this period of high governance risk.⁸

Environmental and Safety Fines

Historical data from Violation Tracker identifies a series of environmental and safety-related

penalties. Gerdau has faced approximately \$2.9 million in total environment-related fines across its global operations, primarily related to air pollution and waste management violations.²⁸ In North America, the company has had recurring interactions with OSHA, with 42 recorded safety-related offenses.²⁸ While the individual fines are often relatively small, the cumulative frequency of these events has been a driver for the company's intensified focus on its "Zero Accident" and environmental compliance programs in recent years.

Antitrust and Price Fixing

Gerdau Ameristeel US Inc., a subsidiary, was involved in private litigation related to steel price-fixing allegations, resulting in a \$6.1 million settlement in the Northern District of Illinois.²⁹ This controversy, though resolved, highlights the competitive risks inherent in the consolidated steel markets of North America.

Reference Table with Credibility Assessment

The following table categorizes the sources used in this analysis, providing an assessment of their reliability based on the provided criteria.

#	Reference (APA 7th edition format)	Source Type	Score	Justificatio n for Score	Relevance
1	Gerdau S.A. (2024). <i>Annual Integrated Report 2023</i> .	Primary	10	Audited, official company disclosure with external assurance from Bureau Veritas.	Core data on emissions, safety, and governance .
2	CDP. (2024). <i>Climate Change Score Report</i> :	Secondary	9	Independent, globally recognized sustainability benchmark.	Verification of leadership status.

	<i>Gerdau.</i>				
3	S&P Global Ratings. (2024). <i>Research Update: Gerdau S.A. Upgraded.</i>	Secondary	8	Independent financial and risk assessment from a major agency.	Link between ESG and credit metrics.
4	Violation Tracker. (2024). <i>Parent Company Summary: Gerdau.</i>	Secondary	7	Reputable NGO tracking corporate misconduct with primary source links.	Context for environmental/safety controversies.
5	Stanford Law School. (2019). <i>FCPA Clearinghouse: Gerdau Investigation.</i>	Secondary	8	Academic database tracking legal and regulatory enforcement.	Historical governance risk context.
6	B Lab. (2022). <i>Gerdau Summit B Impact Report.</i>	Primary	9	Official documentation from the certification body.	Verification of ESG standards.

Transparency and Strategic Limitations

This report is based on information available as of February 24, 2026. The analyst notes several

limitations in the data collection process:

1. **Paywall Constraints:** Detailed, granular rating reports from MSCI ESG Research and Morningstar Sustainalytics were restricted to public summaries and third-party mentions.³⁰
2. **Language and Geography:** While Brazilian (B3) and U.S. (NYSE) disclosures are comprehensive, granular environmental data for smaller operations in Uruguay or Colombia may not be as frequently updated in English-language portals.
3. **Real-Time Data:** The reporting cycle for the 2024 fiscal year is currently in progress; therefore, some 2024 and 2025 data points are based on preliminary press releases and have not yet been subjected to full annual assurance.

To independently verify the data and monitor ongoing developments, users are encouraged to utilize the following authoritative external databases:

- **Gerdau Investor Relations Portal:** ri.gerdau.com – The primary source for all SEC (20-F) and CVM filings, including the Annual Integrated Reports.
- **B3 Corporate Governance Portal:** b3.com.br – For details on Gerdau's adherence to Level 1 and Level 2 governance standards.
- **CDP Disclosure Search:** cdp.net – For the full qualitative and quantitative responses to the Climate and Water questionnaires.

Conclusion: Strategic Synthesis

The decade from 2014 to 2023 represents a successful "turnaround" story for Gerdau S.A. in the ESG domain. The company evolved from a period of governance fragility into an industry leader in decarbonization and transparency. By leveraging its structural advantage in scrap recycling and bioreducer technology, Gerdau has achieved a carbon intensity that positions it favorably in a future where "green steel" premiums and carbon taxes (such as the EU's CBAM) will define market competitiveness.

The institutionalization of ESG through Board-level committees and executive compensation linkage has ensured that sustainability is no longer a peripheral concern but a core driver of capital allocation. However, the recurring nature of safety and environmental fines suggests that the transition to "Zero Accidents" and perfect compliance remains an ongoing operational challenge. For institutional investors, Gerdau's Baa2/BBB investment-grade ratings and A- CDP status indicate a company that has successfully de-risked its governance and is proactively managing the climate transition.

The future outlook for Gerdau involves a significant R\$ 12 billion strategic CAPEX plan for 2021–2026, with a heavy emphasis on technological modernization and forest base

expansion.¹⁴ As the company moves toward its 2031 goal of $0.82 \text{ tCO}_2\text{e/t}$, its ability to maintain these high standards across its diverse American geographies will be the ultimate test

of its "Future Gerdau" vision.

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