

Integrated Report **2018 - 2019**



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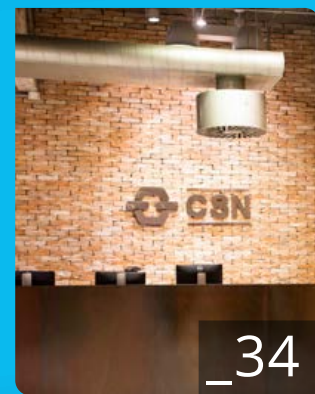
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Employee wearing protective equipment during welding

Introduction

In 2018-2019 we achieved excellent results and, to continue to *Fazendo bem, Fazendo mais e Fazendo para sempre*, we set up ambitions that will be part of CSN's daily activities and will be considered in our strategic decision-making for the coming cycles, in line with international principles such as the SDG and the Global Compact.



Message from the CEO

GRI 102-14

In an adverse 2018-2019 scenario, it was incumbent upon CSN to go above and beyond, and the outcome was positive. We invested in increasing our eco-efficiency, implemented new technologies and became aware of the moves and innovative solutions brought by the enhancement of the industry 4.0, while we maintained initiatives to ensure our employees' health and safety, in addition to providing an inclusive workplace that fosters well-being. In truth, 2018 was a challenging year for Brazil given the slow economic recovery and high unemployment rates, coupled with the truck drivers' strike, impacted all sectors of the economy. Year 2019 began with high expectations, with perspectives of economic growth, however, optimism has failed due to political crisis and delay in approving the country's structuring reforms. At the same time, the foreign scenario was also unfavorable given the global protectionism and the trade war between the United States and China.

Even so, we ended 2018 with steelmaking inventory close to zero, the best figure in years. We sold 5.1 million tons of steel, 66% to the domestic market

and 34% was exported or sold through our foreign subsidiaries. In 2019, mining achieved the record figure of over 38.5 million tons of iron ore in billed sales, surpassing the previous 36.9 million tons record in 2016. Mining performance boosted the adjusted EBITDA in 2019, totaling R\$7.2 million, up by 24% year on year. Net revenue was up by 11%, totaling R\$25.4 billion.

These figures are the result of our integrated business, CSN's great competitive advantage, serving the entire steel production chain, from the extraction of high-quality iron ore to steel products manufacturing and sales. The business synergy is enhanced through our shareholding interest in power generation companies, railways and port terminals, which add up to our energy self-production, logistics efficiency and the supply/import of raw materials and distribution/export of end products, respectively. Our business model ensures us an outstanding position in the Brazilian steelmaking and mining sectors, sustaining our strong historical performance and importance to the country's development, since CSN's foundation.



Benjamin Steinbruch
Chief Executive Officer



Mining performance boosted the adjusted EBITDA in 2019, totaling R\$7.2 million, up by 24% year on year. Net revenue was up by 11%, totaling R\$25.4 billion.

Iron ore stack, in the back, an employee

Our strong performance attest to our sustainable growth and genuine concern for ESG (Environmental, Social and Governance) matters in our business. Proudly, in 2018 and 2019, we were part of the British FTSE4Good Index Series, which assesses 300 social, environmental and governance performance indicators, and, therefore, comprises companies praised for their commitment to ESG matters. It is a practical evidence of our efforts to comply with the strictest environmental, social and governance standards.

We heavily invested in our operation modernization and safety, providing more

operational and environmental efficiency to our business. In steelmaking, we can emphasize the R\$250 million investment in the refurbishment of UPV's (Presidente Vargas Steelworks) blast furnace #3 in 2019, increasing our steel production capacity by 500 thousand tons per year. In mining, we are in the forefront in the commitment to eliminating tailing dams from our operations, a move that began in 2017 with the implementation of the dry tailing filtering and stacking technology. Between 2017 and 2019, we have invested nearly R\$330 million to increase dam's reliability, in decharacterization processes and dry filtering and stacking plants. For 2020, our target is to filter 100% of all iron ore produced, which will allow us to be fully independent from the use of dams. In addition to providing safety to the process, the new filtering technology at CSN Mineração decreased our new water withdrawal needs by 25% and reduced our total water consumption by another 32%, showing a significant improvement in water efficiency. This technology

should bring even more benefits by the end of 2020, when our reclaimed water rate should increase by 15%. Since 1999, we have invested in power generation projects, to ensure most of our annual consumption. In 2019, 75.5% of energy consumed came from 100% renewable self-produced sources.

At CSN, we perceive technology and innovation as important allies to reduce the social and environmental impacts of our production process and offer opportunities to decrease production costs, raw material and energy consumption, and to boost our environmental performance. Thus, launching CSN Inova, our Company's innovation branch, puts us in the innovation ecosystem and enables us to explore solutions and trends, enter into partnerships with startups and institutions, leading to the development of disruptive solutions and implementation of more efficient processes or new business models.



Respect for people, environment and safety, as part of our strategy, is evidenced in the indicators we achieved. Safety is our maximum priority; over the last 3 years, accidents frequency rates, with and without lost time, and severity rates decreased by 5% and 8% respectively, showing the assertiveness of the measures taken. In 2019, our DART rate came to 1.5 accident/million labor-hour worked, down by 23.5% versus 2017. Although we devoted all our efforts, one fatality occurred in 2018 but in 2019 no fatalities were recorded. Zero fatalities will be pursued as the minimum condition on the account of accident rate reduction, which is being achieved in a planned and sustainable fashion, given our operational excellence and safe workplace.

Also focusing on building a more welcoming and plural company, we believe in the diversity of ideas. Therefore, we created a working group, which develops projects and initiatives focused on five working groups: LGBTQIA+, race and ethnicity, gender equality, persons with disabilities and employment opportunities over age 50, which was an important step in promoting diversity and inclusion at our Company. At UPV (Presidente Vargas Steelworks), we strongly encourage technical trainings and foster the inclusion of women, who now represent 10.4% of our staff, from 7.5% in 2017.



The promising perspectives for 2020 were fully impacted by the global coronavirus pandemic. Faced with this scenario, in March 2020 we created a Crisis Committee to speed up the decision-making process in the entire CSN Group and took all measures to preserve our employees' and suppliers' health and safety. We remain strongly committed to boosting our productivity, our operational and environmental efficiency and to ensuring safety in all departments, by investing and encouraging new technologies and processes in order to keep leading our industry.

To continue *Fazendo bem, Fazendo mais e Fazendo para sempre*, the foundation of our Essence, we are committed to including ESG principles, in order to engage every CSN's corporate governance member, seeking to guide and ground our strategic decisions on said principles. Accordingly, for the upcoming 2-year period, we are committed to building an even stronger governance in terms of ESG topics, by structuring an executive office focused on this matter, drawing attention to sustainability as one of the fundamentals of our future. We also began to prepare a new integrated Sustainability and HSE (Health, Safety and Environment) policy, to be submitted for final approval in 2020 and we are pursuing to adhere to UN's Global Compact and increase our attendance in forums that are aimed at boosting the companies' role in social transformation. In this sense, we will be even more ready to pursue sustainable growth and contribute even further to the country's development.

Enjoy your reading!



About this report

GRI 102-50, 102-53, 102-54

This report presents CSN's 2018/2019 activities. Our Integrated Report's second edition describes everything that happened in all our segments – steelmaking, mining, logistics, cement and energy – from January 1, 2018 to December 31, 2019. Due to the significance of the coronavirus pandemic, we added the section “CSN's Initiatives to face Covid-19” (see more on pages 176 e 177), with remarkable information pertaining to 2020 on the main measures adopted to face the epidemic up to the disclosure of this report.

Through this report, we reaffirm our commitment to transparently report CSN's environmental, social, financial and corporate governance management and performance, in accordance with standards of excellence for the preparation and disclosure of integrated reports, ensuring the description of our initiatives and disclosure of a historical series of performance indicators. The report was prepared in accordance with the Integrated Report <IR> framework, as established by the International Integrated Reporting Council (IIRC), focused on the connections between CSN's performance, business sustainability and value creation in the short, medium and long term, addressing the integration of the following capitals:

(I) financial, (II) intellectual, (III) human, (IV) manufactured, (V) natural, (VI) social and relationship.

OUR SEGMENTS



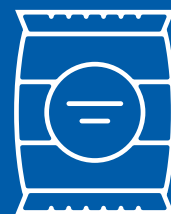
STEELMAKING



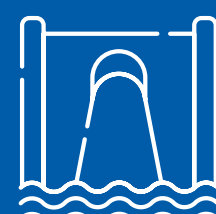
MINING



LOGISTICS



CEMENT



ENERGY





Cement Plant | Arcos (MG)

Considering the demands of shareholders and other stakeholders in the capital markets, we report on specific indicators of our industry indicated in the SASB (Sustainability Accounting Standards Board) materiality matrix, which focuses on the financial market. Seeking a better alignment to the UN's (United Nations) 2030 Agenda, we report on SDG (Sustainable Development Goals) indicators based on the "Guidance on Core Indicators for Entity Reporting on Contribution towards Implementation of the Sustainable Development Goals" issued by UNCTAD (United Nations Conference on Trade and Development).

Additionally, we use the GRI (Global Reporting Initiative) standards methodology (Core Option) to

define material issues, reflected in the materiality matrix, and to guide the preparation of the content. According to the GRI, a topic may be considered material if it is important to stakeholders, whether internal or external, even if the relative significance of the impacts caused by the company is lower than for other topics. However, identifying significant impacts for the economy, environment and society in a holistic way enables the timely discovery of less visible issues that, in the long-term, may need action or have critical consequences, including financial ones.

Seeking to improve the content and approach of future issues, we encourage readers to send us their comments on the content and format of this report.



To submit comments and receive more information, please contact: sustentabilidade@csn.com.br

How were material topics defined?

GRI 102-40, 102-42, 102-43

CSN's senior management actively participated in the preparation of this report, and was involved in the entire process, from the kick-off to define material issues up to its conclusion, which was evaluated and approved by CSN's senior management and the CEO.

Materiality was defined before the pandemic was declared by the WHO (World Health Organization); therefore, this topic and its impacts will be discussed in depth in the 2020 report.

Initially, we carried out a market analysis of reports made by CSN's peer organizations, both domestic and foreign. We included companies that are listed in international sustainability indexes and are assigned ratings which evaluate resilience and ability to create value based on risk management and ESG.



Environmental



Social



Governance

Customers, investors, international entities, class entities, financial institutions, business partners, shareholders and civil society representatives have been heard.



Employees at a work meeting

After identifying the most recurring topics reported by the industry, topics were prioritized, and officers and representatives of decision-making departments from several sectors of the Company have been consulted. At the same time, a consultation with external stakeholders also took place, including specialists in environment, economy and sectors where CSN operates, asking them what is really important to be included in the report. Customers, investors, international entities, class entities, financial institutions, business partners, shareholders and civil society representatives have been heard.

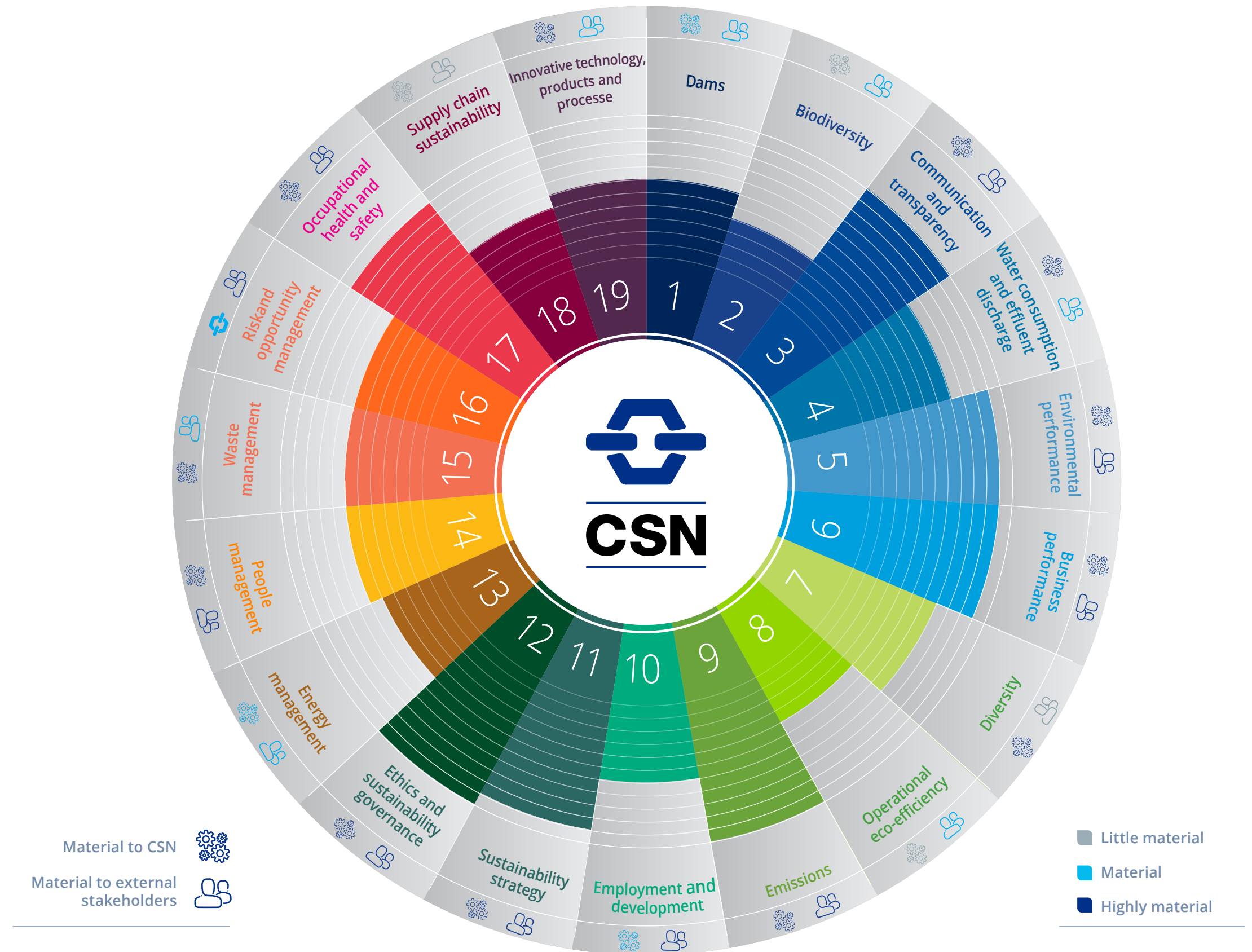
Next steps included the crossing of topics from both consultations, the consolidation of materiality and internal validation by the Company's senior management.



Materiality matrix

GRI 102-44

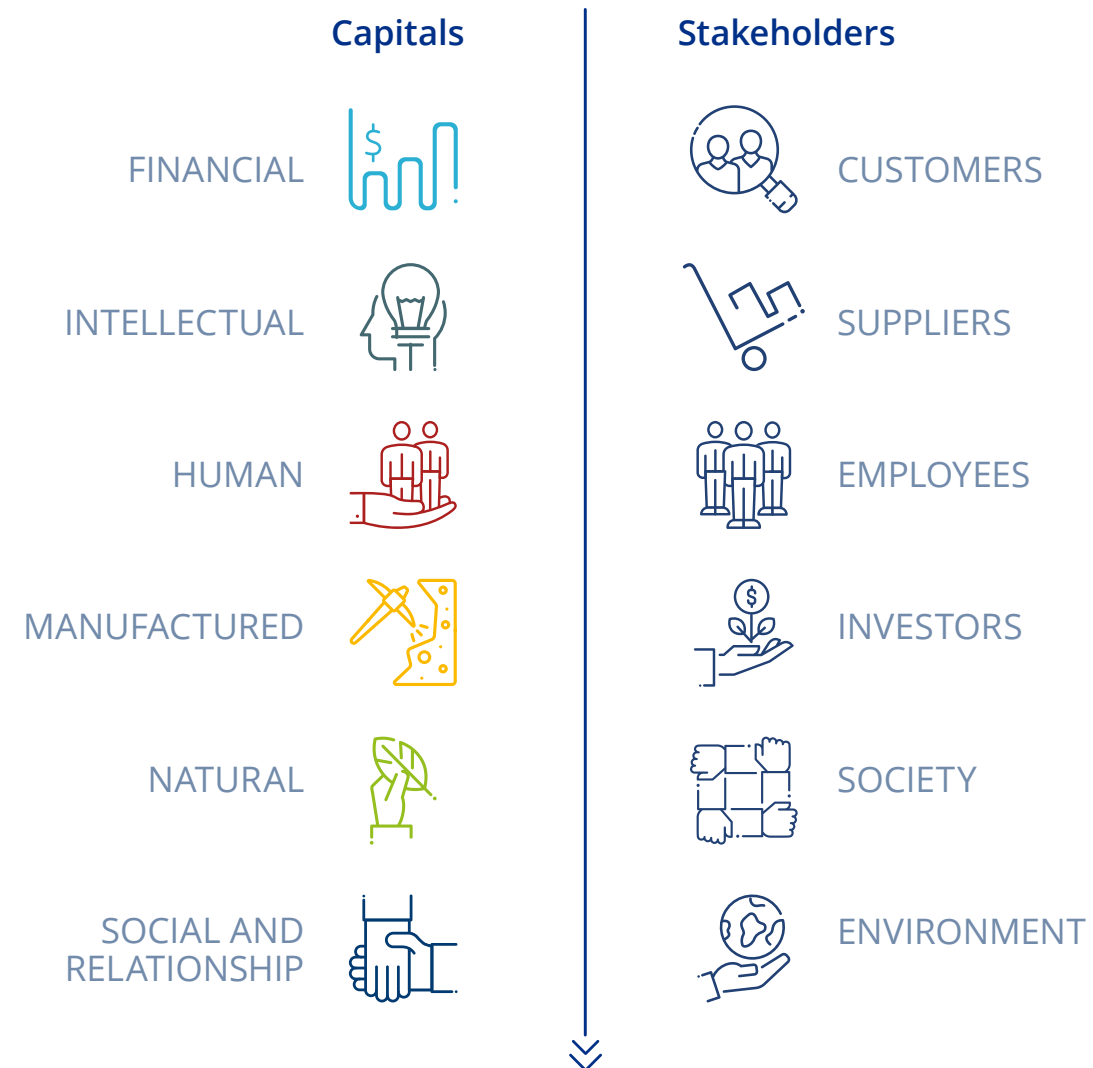
In the image below, we present 19 topics that came up in consultation with internal and external stakeholders. We sorted out these topics within the lines of each circle and displayed the importance level given by stakeholders in colored layers – the less material topics are closer to the center of the circle and the most material topics are ones with more colored layers. Therefore, whenever the topic shading is full, it is deemed a material topic. Outside the image, icons indicate the topic relevance level for external stakeholders and CSN's management, as indicated in the picture caption below.



Material topics resulting from crossing internal and external stakeholder interests

GRI 102-46, 102-47, 103-1

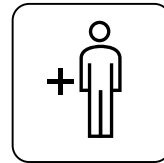
After defining the materiality matrix, we established a correlation between material topics, GRI standards, Integrated Report <IR> capitals and the SASB and SDG indicators. Additionally, we correlated the material topics to the Global Compact Principles and the SDG (Sustainable Development Goals), considering CSN's initiatives (see more on page 12).



Employee checks metal sheets quality

PRINCIPLES OF THE UN GLOBAL COMPACT

1. RESPECT
and support internationally recognized human rights in your of influence.



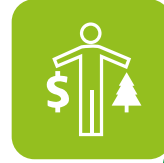
3. SUPPORT
freedom of association and the recognize to open collective bargaining.



5. ABOLITION
all forms of child labor in your productive chain.



7. ASSUME
a responsible, preventive and proactive posture towards environmental challenges.



9. PROMOTE
the development and dissemination of environmentally responsible technologies.



2. ENSURE
that your company does not participate in any way in the violation of human rights.



4. ELIMINATION
all forms of forced and compulsory labor.



6. STIMULATE
all practices that eliminate any form of discrimination at the workplace.



8. DEVELOP
initiatives and pratics to promote and divulge socioenvironmental responsibility.



10. FIGHT
corruption in all its forms, including extortion and bribery.



Learn more on the GRI website.



Learn more on the United Nations Brazil website.



	EMISSIONS	ETHICS AND CORPORATE GOVERNANCE	OCCUPATIONAL HEALTH AND SAFETY	ENVIRONMENTAL PERFORMANCE	COMMUNICATION AND TRANSPARENCY	SUSTAINABILITY STRATEGY	BUSINESS PERFORMANCE
CAPITAL							
DESCRIPTION	Includes management approach and quantitative indicators related to greenhouse gas emissions.	Includes issues related to corporate governance, compliance, ethics training and management.	Includes the working environment CSN offers its employees and the fostering of health and well-being.	Includes management approach and quantitative indicators related to the consumption of natural resources, energy, waste management, environmental assessment of suppliers and mitigation of environmental impacts.	Considers transparency in the disclosure and communication of information.	Considers CSN's positioning towards sustainability, strategic priorities and guidance.	Presents CSN's financial performance.
STAKEHOLDERS							
GRI	Emissions (305)	Anti-corruption (205)	Occupational health and safety (403)	Energy (302) Water (303) Biodiversity (304) Effluents and waste (306) Environmental compliance (307) Supplier environmental assessment (308)	Management approaches	Management approaches	Economic performance (201) Market presence (202) Indirect economic impacts (203)
SASB	EM-IS-110 EM-IS-120		EM-IS-320	EM-IS-130 EM-IS-140 EM-IS-150			EM-IS-000
GLOBAL COMPACT							
SDG							
UNCTAD	B.3.1, B.3.2, B.4.1			B.1.1, B.1.2, B.1.3, B.2.1, B.2.2, B.2.3, B.5.1, B.5.2			A.1.1, A.1.2, A.1.3, A.2.1, A.3.1, A.3.2



Sustainable Development Goals

GRI 102-12

To foster sustainable development, the UN (United Nations) led the 2030 Agenda initiative, whose main outcome is 169 targets and 17 SDGs (Sustainable Development Goals). This global agenda intends to provide guidance for countries, companies, entities and the entire society on how to act in an integrated manner, to unite efforts to manage risks, reduce environmental impacts and provide balance between the economic, social and environmental dimensions.

Considering the materiality process carried out by the company, we listed five material topics that are related to our goals and ambitions for 2020 and subsequent years; they are: (I) communication and transparency; (II) environmental performance; (III) ethics and governance; (IV) health and safety; (V) strategy and sustainability. We understand that all issues included in our materiality are relevant and we emphasize that the Company will continue to act in all fronts to improve our processes, initiatives and performance. As of now, we strengthen our position in five pillars that will be the guides of our initiatives in the coming years. These ambitions will be part of CSN's daily activities and will be considered in the strategic decision-making. These ambitions are also connected to 10 goals and 19 targets of the 2030 Agenda and to the Global Compact Principles, reinforcing our contribution and, mainly, our commitment to sustainable development.

Our goals and ambitions

Communication and transparency



We work hard to make our communication even clearer, more transparent and assertive, following the best market practices. In order to include this aspect in our materiality matrix, we are committed to annually publish the Integrated Report in accordance with GRI standards, such as: balance, comparability, accuracy, timeliness, clarity and reliability. In addition, our 2020 goal is to launch a website dedicated to ESG matters, which will provide information on our management and performance in such matters, disclosing data in a faster and more organic way and constantly updated throughout the year.

Environmental performance



We are committed to improve our environmental indicators by investing continuously in new technology and process optimization. Thus, our ambitions are to:

- ❑ Reduce GHG (greenhouse gas) emissions in CSN's operations through the reduction in CO₂ equivalent emissions (scope 1 and 2) by 10% until 2030, on the basis of 2018 emissions;
- ❑ Reduce carbon intensity per ton of metric steel (tCO₂/ton) by 10% until 2030 versus 2018 figures;
- ❑ Reduce particulate emission per ton of metric steel by 40% until 2030 versus 2019 figures;
- ❑ Reduce freshwater catchment per ton of iron ore produced by CSN Mineração by 10% until 2030;
- ❑ Reach 100% of energy from renewable sources at CSN Mineração by 2021.

Ethics and governance



We are committed to improve our compliance level to the best corporate governance standards. In this context, we strive to increase the percentage of compliance to CVM instruction ICVM 586/2017, that sets forth the "Follow or Explain" model, in which the companies must follow or explain possible non-compliance with certain recommended governance practices, and such explanations are disclosed to the public. Our ambition for the coming years is to increase our compliance level to the best practices set forth in the instruction.



Health and safety



Safety is a priority for all employees and service providers at CSN. We adopt strict procedures and between 2017 and 2019, we have improved accident severity rate of our own employees and third parties by 8%. Considering that we continuously work in the pursuit of operational excellence to guarantee safety, we have set up bolder and stricter indicators for the upcoming year, on the basis of indicators achieved in the current year. **With that in mind, our 2020 goal is to reduce the frequency rate seen in 2019 by 10%**; thus, we will maintain this methodology aiming to steadily improve our results.

Sustainability strategy



As part of our 2020 and future sustainability strategy, we will keep working as we started in this 2-year period to become signatories of the Global Compact, committing to be a more sustainable company, observant of the human rights, labor, environmental and anti-corruption principles. Companies that are part of the Global Compact also commit to contribute to the global sustainability agenda, whose pillars are the 17 SDGs. Seeking a more diverse work environment and working on behalf of gender equality, **we established the goal to double the percentage of women working at CSN Mineração, which is currently at 13%, by 2030. At Presidente Vargas Steelworks, our 2020 goal is for women to represent 13% of the workforce. For the CSN Group the goal is to double the percentage of female employees, from 14% in 2019 to 28% by 2030.**

Additionally, in order to have a governance that is even more efficient in terms of sustainability, environment, occupational health and safety, we commit to create a Corporate Sustainability, Environment and Occupational Health and Safety Office that reports directly to the CEO and is focused on improving the sustainable performance of our processes in all our businesses. With a mission to bring together policies and practices of departments that are particularly important and have synergies, the new Executive Office will have the goal to create a new Sustainability and HSE (Health, Safety and Environment) Integrated Policy.

We also seek technological innovation through research and development of new technologies, to monitor and anticipate trends in global sustainability topics. **In the forefront of technological innovation bringing improvements to environmental performance, in 2018 CSN Mineração was a pioneer in the use of technologies for dry filtering and stacking of tailings, reducing the use of new water by 25% compared to the regular process.** For 2020, our target is to dry filter and stack 100% of all ore produced, which will allow us to be independent of the use of dams.

Another innovative solution already incorporated to our production process is the magnetic concentration plant, which enables a greater reuse of tailing that would be discharged, increasing our efficiency according to the circular economy scope.



CSN works on the following SDG according to the established ambitions



GLOBAL COMPACT

SDG

GOALS



Click on the SDG icons to see the goals for each subject.

Put the cursor on the Global Compact icons to read the principles.



Learn more about our initiatives and how they relate to the SDG and the Global Compact



Main 2-Year Accomplishments

A multinational company operating in the steelmaking, mining, cement, logistics and energy sectors, we are publicly-held and serve the entire steel production chain, from iron ore extraction to the production and sale of a diverse line of high-added value steel products, including flat, coated, galvanized steel and metal sheets. An integrated production system associated with management quality, allow us to offer one of the lowest costs in global steelmaking. Find below the main 2018-2019 highlights:



Record adjusted EBITDA of R\$ 7.2 billion in 2019

24% higher than 2018, driven by the strong mining sector performance. Sector posted record of 38.5 million metric tons sold in 2019.

R\$ 25.4 billion in net revenue in 2019



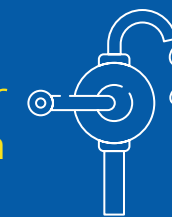
Figure is up 11% versus 2018, due to higher iron ore sales volume.



R\$ 41 million invested in the magnetic concentration plant during 2018 and 2019

The tailing magnetic plant project was developed mainly by CSN Mineração with an investment of nearly R\$41 million. In all, **R\$163 million will be invested in the project**, boosting our operational efficiency with a greater use of tailings and transforming into a product a large portion of the tailings that would be discharged.

32% reduction in water consumption per ton of iron ore produced



Significant increase in efficiency of water consumption per iron ore produced, especially due to **tailing filtering plant implementation, which allowed for a 25% reduction in new water capture.**

R\$ 244 million invested in tailings filtering and stacking operations at CSN Mineração



We invested in technologies and solutions that allow for independence in the use of dams and that provide more operational safety and better environmental performance. Accordingly, the implementation of the iron ore tailings filtering plant in Congonhas (MG), absorbed 80% of our production in 2019.



554.229 people impacted by CSN Foundation in 2018 and 2019 with an investment of R\$ **56.2** million in the period.

CSN Foundation seeks to transform the communities in which CSN operates through social, educational and cultural development. Over the past two years, the Foundation launched the “Polo Gastronômico Volta Redonda” (Culinary Hub) and the “Espaço Comunidade CSN” (Community Center) to bring together the population of the cities of Volta Redonda (RJ) and Congonhas (MG), respectively.



Visit our website and learn more about the CSN Foundation.



Creation of CIG (Integrated Management System) which provides more efficiency.

By centralizing the recurring activities, CIG enabled tasks standardization and provided efficiency gains for the supporting and corporate areas. The creation of CIG spells out CSN's concerns towards innovating and seeking new ways to address the main processes of support to its business.



Launch of suppliers' due diligence process

Over the 2-year period, 1,600 suppliers have gone through due diligence regarding ESG aspects.



Continued standing in FTSE4Good Index

We are committed to complying with standards and requirements proposed by rating agencies, which assess social and environmental and corporate governance aspects. Our FTSE4Good standing maintained in 2018 and 2019 is proof of such commitment, since the index evaluates at least 300 ESG indicators.



CSN Inova Launch

CSN Inova intends to strategically and actively position us in the innovation ecosystem through new ideas and tools, aiming at the group's operational sustainability.



Creation of a diversity working group

Thematic working groups focused on: LGBTQIA+; race and ethnicity, gender equality; people with disabilities; employment opportunities over age 50. In 2019 alone, 13 events were held, reaching out to an in-person audience of 1,000 people and more than 110 voluntary staff, plus 30 different emails circulated on the subject. At Presidente Vargas Steelworks, initiatives were focused on the inclusion of female employees in the workforce.

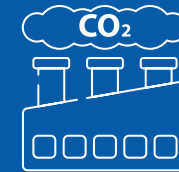


Innovation and ESG-oriented mindset

Inclusion of ESG aspects in the corporate culture, and positioning aimed to develop and implement disruptive solutions through training for all employees, including digital transformation and design thinking for leaders.



Click on the chart on the left and learn more about CSN



Emissions

Considering one of our blast furnaces maintenance work, and that 75% of our energy consumption came from renewable sources, in addition to investments in energy efficiency improvement, our total CO₂ emissions was reduced by 29% in 2019 compared to the previous year.



Resilience in fighting COVID-19

The First Response Management Committee (Crisis Committee) has been created to minimize the pandemic effects and ensure the safety of all employees. Cleaning was enhanced and screening measures were adopted such as body temperature measurement and RT-PCR testing of symptomatic employees, in addition to the mandatory use of masks, social distancing and the employees from risk groups put in leave.

Test your knowledge about CSN. Take our quiz.





Awards and recognitions

Throughout our history, we received important awards and recognitions that highlight CSN's outstanding performance in the areas we operate and in the addressing of matters such as corporate governance, employee management, sustainability and innovation. Find below the main awards received over the 2-year period.

Business performance



Líderes do Brasil 8th and 9th Award

(LIDE – Grupo Líderes Empresariais)

- **2018: CSN Mineração**
Benjamin Steinbruch received the spotlight on the Entrepreneurship category;
- **2019: CSN**
Benjamin Steinbruch received the spotlight on the Steelmaking category.

Recognitions



2nd year in a row - ABRASCA

(Brazilian Association of Publicly Traded Companies)

Award as best Annual Report to CBS Previdência, in the "Non-corporate organizations".



Citizen Company awarded to CBS Previdência

by the Rio de Janeiro Accounting Board.

Mentioned



Mentioned in Exame Melhores & Maiores Magazine

(1000 Largest Brazilian Companies)



Mentioned in Época Negócios 360° 2019 Magazine

(500 Best Companies)



Mentioned in Isto é Dinheiro Magazine

(1000 Largest Brazilian Companies)



Mentioned in Valor Newspaper

Large Groups and Valor 1000



Mentioned in Forbes Magazine

The world's best brands in terms of employment



Cement Plant | Arcos (MG)

CSN

We are one of the world's most efficient integrated steelmaking complexes and market leaders in Brazil. The 2018-2019 period is a milestone in our history, due to the launch of CSN Inova and the expansion of an innovation-oriented mindset, geared towards business sustainability.

Our Essence

GRI 102-16

The Essence of Companhia Siderúrgica Nacional shows our continuous pursuit of consistent and sustainable growth. We do business motivated by the country's development, aware of our corporate responsibility to contribute to a better world, with more efficiency and reducing impact, thus creating opportunities for: ***Fazer bem, Fazer mais e Fazer para sempre.***

Igarapava Hydroelectric Power Plant (MG)

FAZER BEM

We are a reference in what we do, always striving for operational excellence. We work with passion, care as owners and achieve consistent results with safety, quality and customer satisfaction.

FAZER MAIS

We do more with less, we are innovative and committed. We constantly seek to optimize results and processes for continued and responsible growth.

FAZER PARA SEMPRE

Our learning is constant so that we can always act and aim towards building a sustainable future and business perpetuity. This is our success.



MISSION

To act in *integrated and innovative* fashion, generating perpetual and sustainable development.



VISION

To be the most respected and *globally renowned*, national group, so as to strengthen what it means to be Brazilian.



VALUES

Our path is one of *respect for life*, ethics and the planet;
Our focus is *on operational excellence*;
Our solutions are *innovative and integrated*;
Our strength comes from *people who make a difference*;
Our *pride is TO BE CSN*.



Profile

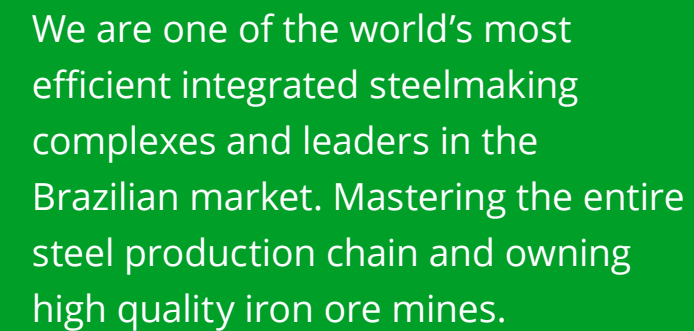
GRI 102-1, 102-5, 102-6, 102-7

Founded in 1941 as a state-owned steel company, we are Brazil's first integrated steelmaker, contributing to the country's infrastructure and development over the years. In 1993, the private sector acquired 91% interest that was owned by the Brazilian government. Since then, business and investments have been diversified and maximized. At this time, we are a publicly traded company, with shares listed on the São Paulo Stock Exchange (currentB3 - CSNA3) and the New York Stock Exchange (NYSE - SID).

We are one of the world's most efficient integrated steelmaking complexes and leaders in the Brazilian market. Mastering the entire steel production chain and owning high quality iron ore mines, we operate in the steelmaking, mining, logistics, cement and energy

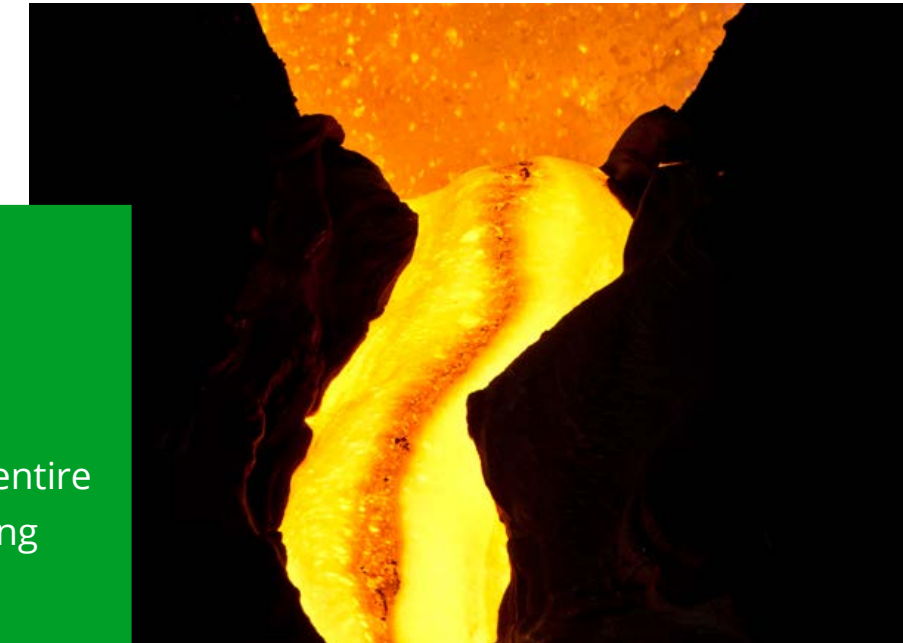
sectors. Throughout our history, we have brought gains using an integrated system, offering benefits to all those involved in the value creation chain. CSN's steel is present in several industry segments, including automotive, civil construction, packaging, appliances and capital goods. The domestic market is our target in the steel making segment, additionally, we are one of Brazil's largest iron ore exporters and one of the most competitive mining companies in overseas market, strategically positioned and seizing opportunities to export specially to Asia, the United States and Europe.

We have always invested in research, development and innovation to improve our products and processes, mostly through the Research and Development Center in our mining and steelmaking



We are one of the world's most efficient integrated steelmaking complexes and leaders in the Brazilian market. Mastering the entire steel production chain and owning high quality iron ore mines.

units ([learn more on page 55](#)), not to mention catering to market demands and expectations, a key driver for the Research and Development Department. The 2018/2019 period is a milestone in our history, with the creation of CSN Inova and the expansion of an innovation-oriented mindset, making processes more efficient and maintaining business sustainability.



Pig iron under production in the blast furnace



Sustainability Vision

GRI 102-12

We are committed to UN's (United Nations) SDG (Sustainable Development Goals) and we drive our actions and investments towards strengthening this agenda, acting in a purposeful way conducive to the positive social and environmental development of the places where we operate.

Through a circular economy model whose principle is to reduce, reuse, remanufacture and recycle materials and products, we have optimized the use of natural resources, supported by the significant share of renewable power in our energy matrix. Steel offers not only the necessary qualities, but also significant

advantages for this model, because steel-based products can be reused, remanufactured and recycled over and over again without losing its properties. This ability to return permanently to raw material condition in the production chain, without losing quality, makes the steel the most recycled material in the world, according to the World Steel Association. Likewise, CSN's main cement production input is blast furnace slag (a steelmaking co-product, corresponding to 70% of cement composition) and clinker from the Arcos (MG) plant, reinforcing the synergy between activities and contributing to the circular economy's efficiency.



Cans produced by Prada Embalagens



On top of that concept, we have maintained social, environmental and sustainability management instruments aiming at risk management, process optimization, natural resources use efficiency and control of the potential impacts, as well as the creation, consolidation, exchange and share of good business practices related to the subject.

Accordingly, we work to minimize environmental impacts that are fundamental to our businesses through the management and strict control of our water consumption and reclaim, relentless pursuit of GHG (Greenhouse Gas) emissions control and reduction; waste reuse, recycling and co-processing, mindful use of energy and non-

renewable resources, always taking into consideration such aspects to maintain and improve our production process, develop and enhance our products and monitor our suppliers in regards to economic, social and environmental aspects.

We reaffirm our ongoing commitment to social and environmental matters and global sustainable development by taking our own initiatives, monitoring and joining in sector initiatives, looking for opportunities to achieve global goals that are in line with our business, in the form of technological solutions and adoption of new technologies to mitigate sustainable development impacts.

THEREFORE, WE TAKE ACTIONS SUCH AS:

- Greenhouse gas emissions inventory in accordance with the guidelines of the GHG Protocol in order to subsidize carbon management, mitigate risks and adapt to climate change, having received the Gold Seal over the last 5 years, qualifying the Protocol's report.
- Report to the CDP (Carbon Disclosure Project) on climate change, supply chain and water management. CDP is the main organization disclosing information on risks entailed in corporate environmental externalities which influence long-term investments.
- Member of TSE4Good Index. The FTSE4Good Index series are designed to assess the performance of companies demonstrating consistent environmental, social and governance (ESG) practices.
- Member of the Paraíba do Sul Basin Committee (see more on page 142).
- Implementation of the water footprint at Presidente Vargas Steelworks (UPV), the only steelmaker in Brazil to compile a water inventory, i.e., mapping entire cycle of water used in the production process, in addition to identifying the impacts on the watershed, as per ISO 14.046:2014 standard.
- Maintenance of protection areas covering over 68,000 hectares and more than 100,000 seedlings donated to the Local Government of Volta Redonda (RJ). – see more on page 154.
- Significant improvement of operational safety indicators in three years (see more on page 121).



CSN Inova is created focused on innovation

In late 2018, following a diagnosis of the innovation ecosystem in Brazil and at CSN, CSN Inova was created, a corporate area intended to strategically and actively position us in the innovation ecosystem. CSN Inova's launch came as a complement to all innovation initiatives already developed, such as the Research and Development Center, responsible for product innovation.

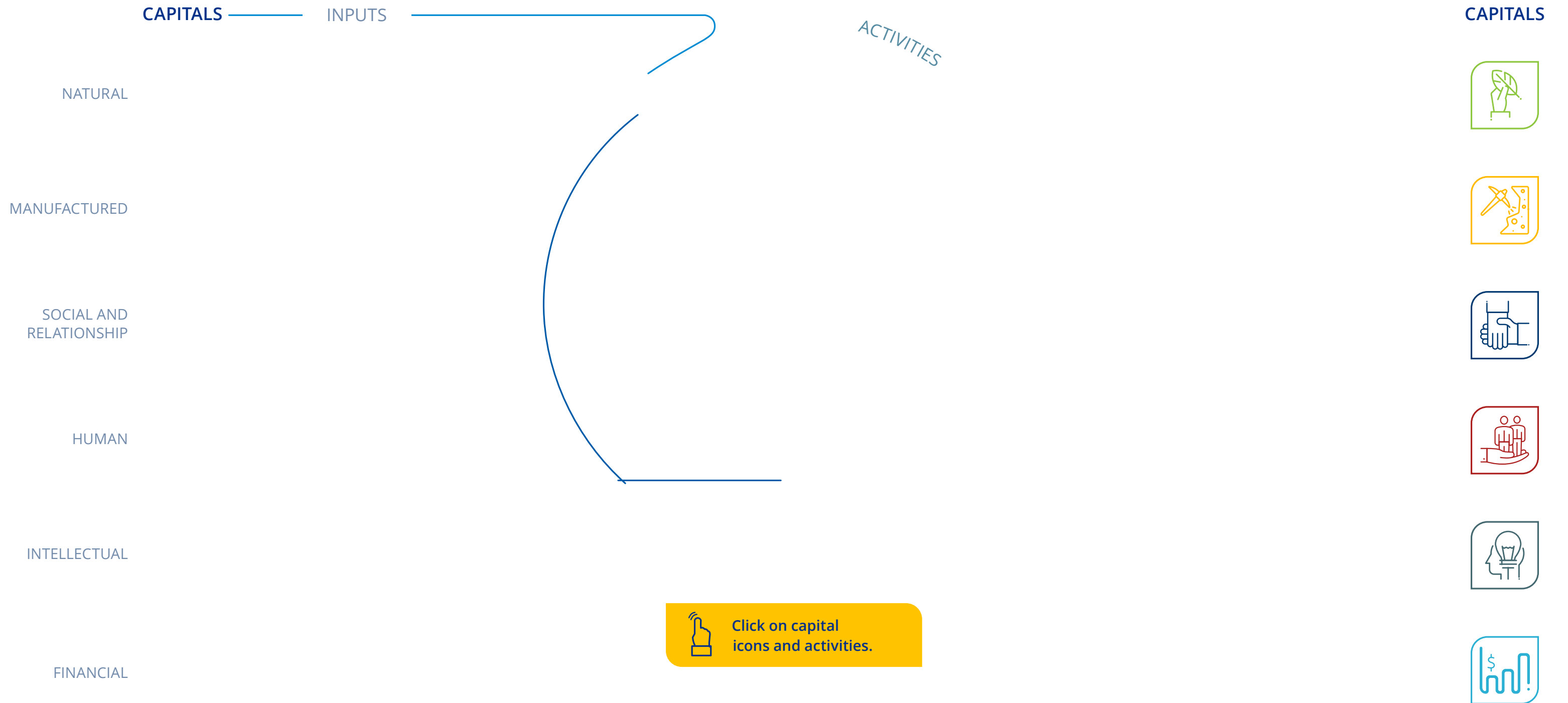
CSN Inova's mission is to conduct a continuous diagnosis of the main ventures of several areas within CSN and lead the open innovation process to come up with definitive and effective solutions to these ventures. The open innovation process consists of connecting employees to innovative solutions through partnerships with startups, universities and other players, as well as testing and implementing solutions on a scalable basis within CSN.



3D printer



Business Model





Tailings thickener

Investment thesis

We work to boost our units' competitive advantages in the five segments we operate and to review or business and project portfolio, seeking to maximize shareholder returns. As an integrated steel company, doing business in all segments of the steel production chain ([learn more on page 71](#)), we have competitive advantages and reduced dependence on raw materials from third parties. Moreover, our business model protects us from market risks, while our exposure to the local economy's performance is reduced because we export iron ore and part of the steelmaking production, as seen in the 2018-2019 scenario.

In 2017, 2018 and 2019, we invested R\$ 330 million in tailings treatment technology in the Congonhas (MG) mining operations – focused on the decharacterization of tailings dams – and we have pioneered dry filtering and stacking process of large volumes of iron ore tailings, with 80% of tailings dry filtered and stacked in 2019. Our technology is safer, allowing to reuse water present in tailings and decreasing new water withdrawal by 25%. Our 2020 goal is to filter 100% of tailings without using dams in the production process. Dry filtered tailing stacks are geotechnical structures built layer by layer, with rigid compaction controls and dry stacking implementation, an

unprecedented practice in mining. In 2020, projects will be fully independent from the use of dams and focus on business safety and sustainability, promoting a better interaction with the surrounding community and operational balance for all.

Historically, our operation is aligned with state-of-the-art steelmaking and mining processes, taking as an example the construction of the Casa de Pedra dam, which made the most of the best engineering practices, the dam's massif was raised according to the downstream method because it was built outside the dam and foundations were grounded on natural terrain. We constantly seek

to incorporate innovation concepts and disruptive solutions in order to evolve our processes, operations and to automate our monitoring instruments.

Under the circular economy concept, CSN Mineração has invested in the construction work of the High Intensity Magnetic Concentration Plant since 2016, amounting to R\$163 million. The initiative will enable to reduce environmental impacts, thanks to the decreased tailing generation, recovering products that would be discharged. Furthermore, it will contribute to boost Casa de Pedra's production, through the generation of high-grade iron ore. With a production capacity of 1.1



million tons of pellet feed per year, the new beneficiation plant has four high intensity magnetic separators, and it processes the iron ore tailings deposited at B4 and Casa de Pedra dams, as well as the tailings from the Core Plant.

Also in 2018-2019, we created CSN Inova, our innovation branch that focuses on the development of new technologies to expand income sources or to optimize startups costs and investment. Through CSN Inova Ventures, the Company prospects and invests in innovative industry 4.0 solutions, working to place the Group in the forefront of technological development applied to CSN's operating sectors.

We restate our commitment to mitigate environmental and social impacts proactively, in addition to provide operations safety, in an effort to guarantee our employees' well-being

We aim to incorporate innovation concepts and disruptive solutions in order of achieving the sustainable development and creating value to shareholders and other stakeholders.

and health. Our corporate governance structure favors rapid decision-making, which creates resilience and, consequently, operational and financial gains. It should be noted that our Board of Directors has racial diversity, with Afro-descendant and Asian directors.

Engaged with our Essence of *Fazer bem, Fazer mais e Fazer para sempre*, we keep a transparent and interactive dialog going with the surrounding communities, shareholders, employees and other stakeholders.



Cargo operation



CSN's Executive Board closes the trading in the New York Stock Exchange, 2019

APIMEC and Investor Day at NYSE: strengthening the relationship with analysts and investors

GRI 103-2 (communication and transparency)

We express our concern for communications transparency and good investor relations practices by building a close relationship with analysts and investors. Therefore, in December 2019 we developed a rapport with those stakeholders by organizing our Investor Day at NYSE (The New York Stock Exchange). Over the event, financial market players were able to directly meet members of CSN's senior management. At the end of the Day, Benjamin Steinbruch, our Chief Executive Officer, accompanied by the Executive Board, rang the closing bell of the NYSE trading session.

Also in December 2019, we received the seal for participating in the APIMEC's (Brazilian Association of Investment Professionals and Capital Markets Analysts) analyst meeting, event which the CEO Benjamin Steinbruch also attended. Coupled with conference calls held quarterly for earnings release and material facts publication, these initiatives are opportunities for analysts, shareholders and potential investors to meet our executives, become familiar with the investment thesis, monitor our performance and clarify any possible doubts.



E-mail: invrel@csn.com.br
Telephone: (11) 3049-7100



CSN's headquarters at Faria Lima Avenue | São Paulo (SP)

Corporate Governance

We are part of the British FTSE4Good Index Series, comprising companies acknowledged for their commitment to ESG. Internally, our Compliance Program sets mechanisms for a transparent and ethical performance, in line with CSN's Code of Ethics.

Shareholding structure



Our capital stock is
R\$ 4.5 billion

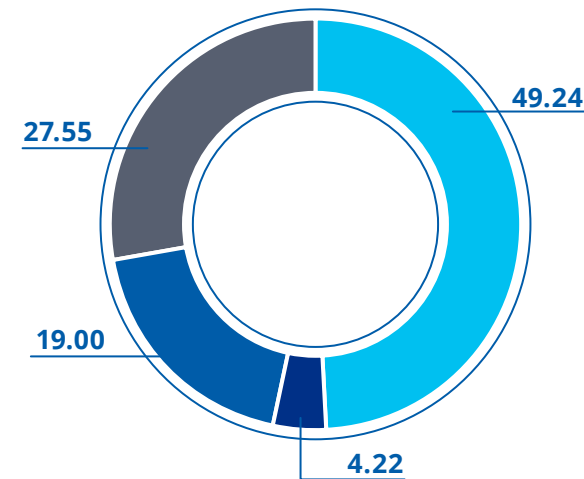
divided into **1,387,524,047**
common book-entry shares, with no par
value and each share is entitled to one vote
on the General Meeting's resolutions.



The Company's Bylaws sets forth that capital stock
can be increased to as many as **2,400,000,000 shares**
by decision of the Board of Directors.



Capital stock structure as of December 31, 2019
(in percentage)



- Vicunha Aços S.A.*
- RIO IACO Participações S.A.*
- NYSE
- Other shareholders

* Controlling group

Our shares are traded on the São Paulo Stock Exchange (B3) and on the New York Stock Exchange (NYSE). Additionally, we are part of the British FTSE4Good Index Series, comprising companies acknowledged for their commitment to ESG (Environmental, Social and Governance) practices.



CSN Mineração employee, near the product yard



Corporate governance structure

GRI 102-18

Board of Directors

The Board of Directors comprises up to eleven members. They meet on a regular basis on the dates established in the annual corporate calendar, and in fiscal year ended on December 31, 2019, the Board convened 5 times. The Directors also meet extraordinarily whenever necessary. Board members serve a 2-year term of office, with the possibility of re-election. The Board of Directors is currently composed of five members and is diversified in terms of race, with African-descendent and Asian Directors. One seat is reserved for a representative of the Company's employees, as provided for in the Bylaws. On December 31, 2019, the Board of Directors was as follows:

Members of the Board of Directors as of December 31, 2019

Date of election: 04/26/2019

Date of investiture: 04/26/2019

Term of office: 2021 AGM (Annual General Meeting)

BENJAMIN STEINBRUCH	YOSHIKI NAKANO	ANTONIO BERNARDO VIEIRA MAIA	MIGUEL ETHEL SOBRINHO	FABIAM FRANKLIN
Chairman of the Board of Directors	Director	Director	Director	Director
External director No	External director Yes	External director Yes	External director Yes	External director No
Independent directors No	Independent directors Yes	Independent directors Yes	Independent directors Yes	Independent directors No
Consecutive tenure 26	Consecutive tenure 15	Consecutive tenure 6	Consecutive tenure 0	Consecutive tenure 3
Age 67	Age 76	Age 61	Age 74	Age 53



Employees in the meeting and coffee break lounge | CSN Office, at Faria Lima Avenue, São Paulo (SP)

Audit Committee

CSN's Audit Committee comprises three independent members, as set determined by the SEC (Securities and Exchange Commission) for companies listed on NYSE, as well as members of the Board of Directors, to serve a 2-year term of office, re-election being permitted. The committee's main duties include reviewing the Company's and its subsidiaries' financial statements and other public information related to its operational performance and financial standing; advising the Board of Directors on the nomination, compensation and hire of external auditors, as well as monitoring the performance of internal and external audits. Regarding the hiring of external auditors, the committee adopts procedures to ensure that there are no conflicts of interest, loss of auditor's independence and objectivity.

Members of the Audit Committee as of December 31, 2019

Date of election: 05/03/2019

Date of investiture: 05/03/2019

Term of office: 2021 AGM (Annual General Meeting)

**YOSHIAKI
NAKANO**

Chairman of the
Audit Committee



**ANTONIO BERNARDO
VIEIRA MAIA**

Member



**MIGUEL ETHEL
SOBRINHO**

Member





Fiscal Council

The Company's Fiscal Council, acting on a non-permanent basis, was instated by the Annual General Meeting held on April 30, 2020 and is effective until the 2021 Annual General Meeting. The Fiscal Council approved its own Internal Rules on November 8, 2018, which are available on the CVM's and CSN's Investor Relations website.

Members of the Fiscal Council as of April 30, 2020

Date of election: 04/30/2020

Date of investiture: 04/30/2020

Term of office: 2021 AGM (Annual General Meeting)

VALMIR PEDRO ROSSI	ANDRÉ COJI	TUFI DAHER FILHO	MARIA APARECIDA METANIAS HALLACK	BEATRIZ SANTOS MARTINI	ANGELICA MARIA DE QUEIROZ
Sitting member	Sitting member	Chairman of the Fiscal Council	Deputy member	Deputy member	Deputy member
External member Yes	External member Yes	External member Yes	External member Yes	External member Yes	External member Yes
Independent member Yes	Independent member Yes	Independent member Yes	Independent member Yes	Independent member Yes	Independent member Yes
Consecutive tenure 0	Consecutive tenure 3	Consecutive tenure 3	Consecutive tenure 0	Consecutive tenure 2	Consecutive tenure 2
Age 59	Age 56	Age 60	Age 59	Age 66	Age 63



Executive Board

The Executive Board has the power to manage and run CSN's businesses in accordance with the policies and strategies defined by the Board of Directors. The Executive Board meets whenever called by the CEO or by two Executive Officers, and each Executive Officer is responsible for conducting operations related to his department. The Executive Officers serve a 2-year term of office, and reelection is permitted.

Executive Officers as of December 31, 2019

Date of election: 09/25/2019

Date of investiture: 09/25/2019






Term of office: 09/25/2021

BENJAMIN STEINBRUCH Chief Executive Officer	MARCELO CUNHA RIBEIRO Chief Financial Officer and Investor Relations Officer	DAVID MOISE SALAMA Executive Officer	LUIS FERNANDO BARBOSA MARTINEZ Executive Officer	PEDRO GUTEMBERG QUARIGUASI NETTO Executive Officer
<p>Independent member No</p> <p>Consecutive tenure 10</p> <p>Age 67</p>	<p>Independent member No</p> <p>Consecutive tenure 2</p> <p>Age 42</p>	<p>Independent member No</p> <p>Consecutive tenure 5</p> <p>Age 53</p>	<p>Independent member No</p> <p>Consecutive tenure 5</p> <p>Age 56</p>	<p>Independent member No</p> <p>Consecutive tenure 3</p> <p>Age 54</p>



Compensation of governance bodies

The Company's compensation practices are aligned to its short-, medium- and long-term interests through the Strategy Management Cycle, during which the goals are attained from strategic and budgeting planning, performance monitoring and results assessment, thus determining the performance-based compensation. Compensation is based on market studies carried out every two or three years by consulting companies specialized in compensation and is approved by the Board of Directors' Chairman.

	Focus on strategic goals, which mean initiatives that have significant impact on CSN's continuous performance improvement.
	Results measurement and assessment anticipated in our budget. Changes in compensation must reflect that these goals have been achieved or not.
	Defined based on CSN's goals attainment.
	Explained clearly with formulas and sources previously tailored, being easy to understand and measure.
	Comparable with the best practices and unified assessment.

Board of Directors

Fixed monthly compensation.

All directors are entitled only to a fixed compensation, i.e., fixed monthly compensation decided at a Board of Directors' Meeting, in order to guarantee they receive proper compensation for the tasks performed. All members earn the same amount, except for those who are Audit Committee members, who receive a different compensation for holding two positions.

Fiscal Council

Monthly compensation of 10% over CSN's Executive Officers average fixed compensation (it does not include benefits, representation fees and profit sharing).

Statutory Executive Board

Fixed monthly compensation + variable compensation.

All members of the Statutory Executive Board are entitled to a compensation comprising a fixed amount (monthly fees) and a variable one, linked to goals, as a reward for specific assignments, projects or project-related goals, in order to guarantee they receive proper compensation for the tasks performed.

Non-Statutory Executive Board

Fixed monthly compensation + variable compensation.

All members of the Non-Statutory Executive Board are entitled to fixed and variable compensation. Fixed compensation refers to monthly nominal wage, vacation pay and 13th salary, as set forth by the labor law. Variable compensation is linked to CSN's results and to the Executive Officer's department, as well as to their individual performance or attraction and retention strategy.



Senior management's engagement in decisions related to environmental protection

The Environmental Policy, effective as of 2000, guides our operations. Entitled SEMPRE, an acronym which makes up the word that means “always” in Portuguese, the Policy seeks to ensure sustainable operations and a healthy and safe work environment coupled with the offer of quality products. Guided by the Policy, Sustainability and Environment Management teams at each unit report to their respective General Managers, who are monitored by CSN's Business Officers and Executive Officers.

We also rely on SGA (Environmental Management System), which is a system managed by the Internal Committee on Environmental Management, composed of specialists from several areas from different units, and have a proactive approach towards preventing possible environmental damages ([learn more in page 130](#)).

We mainly invest in modern and reliable technologies for environmental risk monitoring and control, in order to foster a responsible and efficient environmental management. CSN's senior management weighs, assesses and decides on environmental management investments. Accordingly, the executive officers must determine the guidelines, procedures and rules that are in line with ISO 14.001 standard (environmental management system), as well as allocate funds for certification or recertification processes at our units.

Employee performing topography works in a railway stretch under construction



Risk Management

GRI 102-11

Our risk assessment is based on the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework and on the Audit, Risk and Compliance Executive Office's Risk Manual, along with an internal Compliance and Integrity Program that sets the guidelines to identify, assess, report and mitigate risks fundamental to our operations – whether strategic, operational, financial or regulatory.

We assess and categorize the identified risks according to their likelihood and severity of their impacts, allowing those with greater relevance to be addressed with priority. The Audit, Risk and Compliance Executive Office runs the General Risk Assessment with employees in charge of the business units to consolidate the perception of the main risks. Furthermore, the Executive Office must audit business

processes in accordance with the Annual Audit Plan, and results are periodically reported to the Audit Committee, an advisory body to the Board of Directors.

We do not have a risk management policy formally approved by the Board of Directors; however, the entire organizational structure is directly or indirectly related to risk management. The departments and business units are responsible for the direct management of risks and the implementation of action plans, aiming to mitigate and reduce risks to more acceptable levels and, therefore, avoid significant impacts.

In addition to having our shares traded in São Paulo (B3), our shares are traded on the New York Stock Exchange (NYSE) and, therefore, every year we perform the assessment of risks entailed by our activities and the effectiveness of our internal controls, both internally and

We assess and categorize the identified risks according to their likelihood and severity of their impacts, allowing those with greater relevance to be addressed with priority.

externally through our independent auditors, in compliance with the Sarbanes-Oxley Act (Section 404). The assessment results are reported to the Audit Committee by both the Audit, Risk and Compliance Executive Office and external auditors. CSN's Code of Ethics values and principles are followed when overseeing and assuring the risks environment.



Employee at CSN's operations desk



Internal Controls and Compliance

Based on a CSA (Control Self-Assessment) strategy, business areas run a self-assessment of their respective controls. When deficiencies are identified, they prepare an action plan together with the Audit, Risk and Compliance Executive Office in order to guarantee the deficiencies are adequately addressed. In addition to the self-assessment, the Risk Department evaluates internal controls through independent tests to ensure the correct performance of existing controls.

The internal controls structure is assessed by external auditors, who test controls effectiveness to report on their independent opinion. All deficiencies identified by the business areas, by the Audit, Risks and Compliance Executive Office and the external audit are consolidated and classified according to their severity and are reported to the Audit Committee.



For more information on CSN's risk management, see items 5.1 – Risk Management Policy, 5.2 – Market Risk Management Policy and 5.3 – Description of Internal Controls, in the Reference Form.

Employees in the meeting and coffee break lounge | CSN Office, at Faria Lima Avenue, São Paulo (SP)



Ethics and Transparency

GRI 103-2, 103-3, 205-1, 205-2, 205-3, 412-2

We have mechanisms to monitor compliance with our Code of Ethics and integrity procedures to ensure corporate dignity, transparency and business ethics. Therefore, the Compliance Program calls for several actions, including:



Recurring employee and third-party training (e-learning and in-person), on top of recurring newsletters;



Due diligence process for third parties, that encompasses suppliers and service providers, including possible intermediate agents and associates;



Mechanisms to identify possible conflict of interest situations;



Actions to investigate concerns voiced in the whistleblower channels or management's internal requests.

The Compliance Program was approved by the senior management and the Compliance department reports directly to the Audit Committee, which holds two seats in the Board of Directors ([learn more on page 36](#)).

When onboarded, CSN's new hires receive training on the Code of Ethics and the Compliance Policy, which are applicable to all, including the Executive Officers, Directors and Fiscal Council Members. At the onboarding session, all new employees must be informed of and accept CSN's Code of Ethics and Anti-Corruption Policy. Every month we circulate newsletters on good compliance practices, and maintain an annual training cycle on the topic, besides organizing the "Compliance Day", a day dedicated to aligning, engage and clear doubts on the topic. The Code of Ethics was revised in 2016 to include principles laid down in the Anti-Corruption Law (12,846/13). It is worth noting that our agreements with third parties set forth clauses to ensure full compliance with anti-corruption laws enforced in the countries where we do business ([learn more on page 166](#)).

Communication channels, e.g. telephone, email, regular mail and website are available for employees, service providers, customers and community to pass on information and concerns, breaches and transgressions, with ensured confidentiality and no retaliation. Concerns raised through such channels are handled by a consulting company (responsible for concerns raised via 0800 channel), who interact with the claimant and forwards the concern to the Audit, Risk and Compliance Executive Office, responsible for investigating them. The investigation results are reported to the Audit Committee, who is an oversight body for corporate governance activities, guaranteeing independence in the process.



2017 Data



7,000 people
received e-learning training



351 concern
raised on anonymous channel



126 confirmations
after investigation

Note: *Due diligence process was established in 2018.

**Training cycles start at every year end, usually in November, and take place during the following year. The 2019-2020 in-person training cycle was impacted by social distancing measures.

2018 Data

18,000 people
received e-learning training

310 suppliers underwent
due diligence*

517 concerns
raised on anonymous channel

206 confirmations
after investigation

2019 Data

10,950 people
received e-learning training**

1,193 suppliers underwent
due diligence**

763 concerns
raised on anonymous channel

276 confirmations
after investigation

WHISTLEBLOWER CHANNEL

Telephone: 0800-884-2006

External e-mail: canal_denuncia@csn.com.br

Whistleblower channel's internal email Mail:

To the Risk and Compliance Executive Office
Rua Engenheiro Francisco Pitta Brito, 138 – Jardim Promissão
São Paulo/SP – CEP 04753-900

Additional doubts and information: compliance@csn.com.br



The employees' trust in the whistleblower channel stimulates its use, strengthening our commitment to compliance practices.

Call center service

We understand that the increase in reports received through the **Whistleblower Channel** since its creation stems from the employees' trust earned as a result of independence, impartiality and assertiveness in conducting and examining the investigations. Additionally, we organize recurring campaigns to clarify doubts and raise awareness about the Whistleblower Channel over training and newsletters. This trust stimulates the use of the Channel,

strengthening our commitment to compliance practices. Breaches to the Code of Ethics and to other CSN rules, whether by direct or indirect employees, managers, representatives, suppliers or service providers shall incur in disciplinary measures. Possible sanctions include verbal warning, written warning, suspension, fair and unfair dismissal, and termination notice for legal entities. Disciplinary measures shall be applied after the fault is identified, but a longer

period of time is allowed if the fault requires the examination of facts and responsibilities. Sanctions should be fair, reasonable and proportional to the fault.

After the investigation is completed, the Compliance department prepares a report consolidating the evidence upon which the outcome is based, as well as the applicable disciplinary measures (previously approved by HR and Legal departments). In special cases, sanctions

are discussed on the Ethics Committee, comprised by HR, Legal and Audit, Risk and Compliance Executive Boards. The Compliance department is responsible for following up on the proposed sanctions and measures. It is important to note that the most relevant cases are also reported to the Audit Committee. In the 2-year period, no cases of corruption were reported involving public operatives, or third parties. Neither there are corruption lawsuits filed against CSN.



Employees checking pre-packed steel coils

Capitals Performance

Intellectual capital.....	48
Manufactured capital.....	59
Financial capital.....	90
Human capital	105
Natural capital	126
Social and relationship capital	165



Intellectual capital



CSN Inova

Created in 2018, CSN Inova devises and leads innovation processes in an organized and consolidated fashion, transforming initiatives developed by the Company's departments into a wide and horizontal process, enabling a group of people with different skills and from different departments to execute projects. In addition, CSN Inova identified opportunities to use ingenious technology and solutions in corporate and operational processes, encouraging the creation of new income sources. CSN Inova's innovation projects portfolio encompasses CSN's most diverse and strategic ventures, bringing to notice the use of data in corporate management, innovation in the sales department and operational and environmental sustainability. The approach to take on these ventures includes not only startups hiring and partnership with universities and other operatives, but also the co-creation and co-development of innovative solutions.

A corporate venture capital vehicle is being structured to focus on industry 4.0 for investments in startups that do business with renewable energy, circular economy, disruptive technologies and materials and health techs.



3D Simulator



Operational pillars

A Essência da CSN – **Fazer bem, Fazer mais e Fazer para sempre** guides CSN Inova's operational pillars:



FAZER BEM

Process optimization and operational efficiency

Finding opportunities and introducing new tools that offer measurable improvements



FAZER MAIS

New business and venture capital

Creating new income opportunities through co-development or interest in startups



FAZER PARA SEMPRE

Culture and sustainability

Empower and engage innovative minds that seek competitive sustainability





Open innovation

CSN Inova - Management and Open Innovation designs its operations in cycles, where priorities, strategies, methodologies and goals are established to define the activities' guidelines.

The first innovation cycle began in 2018 and represented CSN's immersion in the innovation ecosystem. Projects inspired by open innovation have focused on process digitalization and optimization through the use of big data technologies and Artificial Intelligence backed by startups. These projects are executed based on a methodology being constantly developed seeking rapid implementation and enabling the impacts measurement in the short term. At first, the projects that had priority were aimed at the corporate areas, in order to validate the methodology, followed by boosting initiatives across all areas.



New business development and corporate venture capital

We are structuring an investment vehicle designed for innovation and tech companies. CSN Inova Ventures will be the first Brazilian initiative of that kind geared towards industry 4.0 and to seek solutions that are in line with the group's operations, in addition to solutions in kindred areas to reach out to new markets. Nearly R\$ 30 million will be invested in startups in the scale-up phase with an average ticket of R\$ 2 to 5 million.

Through the investment vehicle, CSN Inova aims to help startups leverage their products, test their technologies, get funds necessary to scale and, as an advantage, to tap into CSN Group's strong technical team that can help refine solutions.

In the wake of CSN Inova's innovation strategy, the initiative aims to help us transform and contribute to our business perpetuation, finding solutions and technologies that have synergy with our operations, reaching out to new markets and creating new business and income sources, also acting as a trend radar for both business continuity and disruption.



Culture and sustainability

CSN Inova's culture and sustainability branch works towards consolidating and identifying innovative and disruptive practices. Thus, connections and partnerships have been established with CSN Foundation, universities, research institutes and companies in the sector. Several departments at CSN have been heard and have worked together, making sure that projects embrace and are in line with CSN Group's DNA, fostering co-creative work and the Essence of *Fazer bem, Fazer mais e Fazer para sempre*.



Innovation Project in the Legal Department optimizes management and brings high economic gains

CSN Inova ([learn more on page 29](#)) and the legal efficiency team worked together to upgrade CSN's lawsuits database, in the interest of increasing quantity and improving quality of available information, by integrating that database with external and continuously updated sources.

Through an active scouting, CSN Inova looked for legal techs in the Brazilian ecosystem that could offer solutions convergent with in-house demands. At the same time, a squad of managers from labor, tax and IT areas and two officers (Legal and HR) was formed to oversee the project. The winning startup joined in a 3-month pilot project, meanwhile a Business Intelligence software was implemented, allowing more effective actions, thus reducing financial impacts, and granting speed in the identification and classification of cases. .

This initiative facilitated the department's database structuring, which served well the strategic decision-making process and a more efficient and scalable work with the lawsuits.

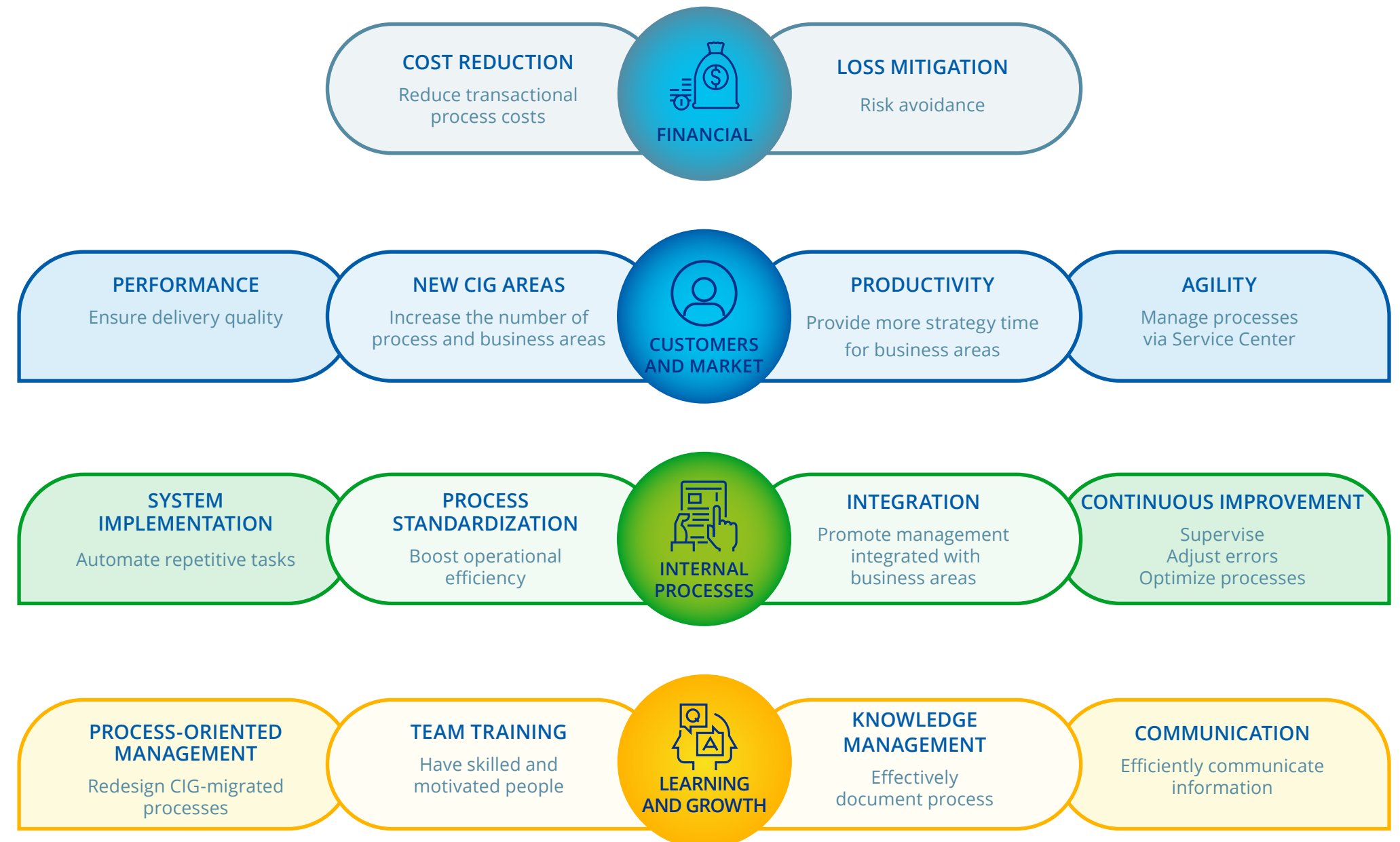


Integrated Management Center

By the end of 2018, we structured the Shared Services Center, also known as CIG - Integrated Management System. Transactional activities, i.e. recurring and standardizable activities, which are not related to the business decision-making process but support internal and corporate departments, have been centralized at CIG. Upon CIG's implementation in March 2019, a Balanced Scorecard (BSC) was defined so that initiatives geared towards optimization and continuous improvement would bring the best and greater gains possible in line with our strategy.

According to Fortune Magazine, 90% of the world's 100 largest tech and innovation companies currently have a shared service center. During CIG's implementation project, transactional activities were mapped, bearing in mind the Financial, Sales, Facilities and Human Resources departments, which concentrate most of such activities. After analyzing all data gathered, activities and teams that would migrate to CIG were outlined.

CIG Advantages



Department-oriented Management vs. Process-oriented Management

The shared service center culture enables the transition from a department-oriented management to a process-oriented management, making it more organized, standardized and less prone to ruptures.

Main differences between both management models

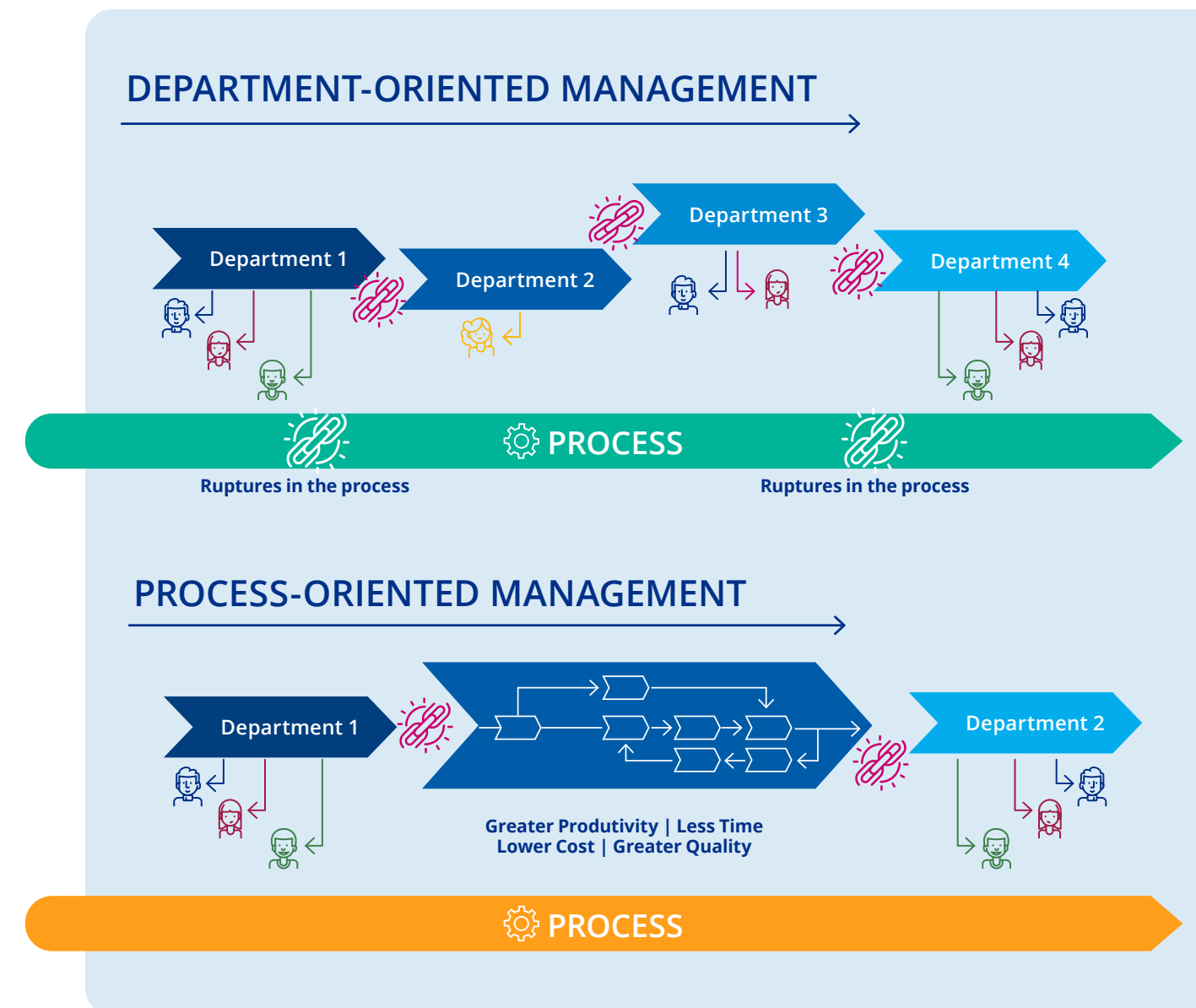
DEPARTMENT-ORIENTED MANAGEMENT

- ❑ Process view is restricted to the department
- ❑ Solutions for part of the problems
- ❑ Ruptures in the processes
- ❑ Greater level of rework
- ❑ Immediate results

PROCESS-ORIENTED MANAGEMENT

- ❑ Focus on methods and procedures
- ❑ Process is viewed from the beginning to end
- ❑ Better controls
- ❑ Pursuit of continuous improvement
- ❑ Enduring results

The CIG creation spells out our concerns towards innovating even more and seeking new ways to address our main business support processes, consolidating them in an Excellence Center. We are investing in technology and reviewing internal processes, in addition to mapping solutions in kindred areas to reach out to new markets. Also in 2019, CIG began to show synergy gains between the areas that were centralized, with process standardization and optimization. The 2020 goal is to begin implementing actions detected in the project phase, seeking even more gains with continuous optimizations and improvements.





Research and Development Center

CSN's Research and Development Center, in Volta Redonda (RJ), is a benchmark in the Brazilian steelmaking sector and resorts to a modern structure, dynamic management and a team of highly-skilled researchers that has won its way to the forefront in knowledge and development of steel solutions for the most diverse customers, uses and trends.

Focused on steelmaking products and process development, our specialists also watch over the product ratification and specification, strengthen the quality management system, carry out several investigations that offer clear diagnosis for decision-making, prepare tests, essays, analysis and physical, chemical and numerical simulations. Our labs also perform other analysis certified by the respective environmental agency – INEA (the Institute for the Environment of the State of Rio de Janeiro).

In 2018 and 2019, CSN's Research Center developed over a dozen new products through PD&I projects, among which we emphasize the high strength hot rolled

galvanized steel for photovoltaic panels, advanced steel for several automotive and highway uses, corrosion-resistant weathering steel, extra-thin cold rolled steel lines for eyelets, metal sheets for aerosol and expanded cans, in addition to new solutions in colors and coating for pre-painted steel coils. Part of those materials are being used in sustainable products, such as solar power generation.

In this 2-year period, we invested almost R\$20 million in the Research and Development Center's lab structure, which raised the technological level of our processes and products. Our acquisitions include a vacuum fusion furnace and a Gleeble 3500 thermal and mechanical simulator, never seen in Latin America, and capable of running physical simulations of most steelmaking processes, such as fusion, casting, hot rolling and plates annealing. We also invested in the development of a computer representation and virtual reality lab, which allows to simulate complex applications, guide the developments and to expand the offer of solutions for our customers.

In this 2-year period, we invested almost R\$20 million in the Research and Development Center's lab structure, which raised the technological level of our processes and products.



Employee in the Product Research and Development Center's chemical lab Volta Redonda (RJ)



Quality Assurance

The Research and Development Center has a Quality Assurance department that operates based on the Quality Management System guidelines, whose concepts are customer satisfaction, cost and waste reduction, continuous improvement and the safety of all our staff.

The Quality Management System is certified by the ISO 9.001 and IATF 18.949, as well as it shows CSN's commitment to product quality and caters to the customer's special requirements. Therefore, the Presidente Vargas Steelworks has gone through the recertification process of ISO 9001:2015 and IATF 16949:2016. Compliance to those rules ensures that UPV is qualified to manufacture and supply steelmaking products.

In the 2018/2019 period, the Quality Assurance department coordinated the certification processes that took place in the period, which resulted in:



ISO 9001:2015 and IATF 16949:2016 recertification – to maintain and increase flat and long steel products supply in domestic and international markets, particularly in the automotive market. Furthermore, the following units have been certified as per ISO 9.001:2015: CSN Porto Real, CSN Paraná, Padra Distribuição, Prada Embalagens, Tecon and CSN Arcos.



Obtention of the CE Marking for certification of products at the Euronorm EN 10.025 levels – certification process of hot-rolled pickled products, CE Marking is mandatory for the sale of products for civil construction in the European market.



Gradual development program for compliance with IFS PAC Secure (International Featured Standards) requirements – letter of compliance to supply food packaging products in the domestic and foreign markets.

Intangible Assets

GRI 203-2

We are Brazil's first integrated flat steel manufacturer, a milestone in the Brazilian manufacturing process. In the 1940s, the beginning of the steel era was a turning point for the country and, mainly, for the micro region of Vale do Paraíba, where the steelmaker is located. Historically relevant for the development of the region and the country, we have steadily grown and strengthened the CSN brand, showing and upholding the Essence of ***Fazer bem, Fazer mais e Fazer para sempre.***

CSN Mineração, the second largest iron ore exporter in Brazil, owns one of the world's largest mineral deposits and an integrated supply and logistics chain that makes up one of the most competitive costs in the industry. Its main asset is the Casa de Pedra Mine, located in the city of Congonhas (MG), the oldest operational mine in Brazil (1913). From a production capacity of slightly more than **5 million tons per year in the 1970s, we have enlarged the installed capacity to 33 million tons**; and all these aspects incur in significant benefits such as employment, income and sustainable development for the region, creating jobs for over 9 thousand direct and indirect workers.

All of this would not be possible if it weren't for the commitment of the people that make up our team. Located in Volta Redonda, UPV grew together with the local demographics. By taking our operations to the city, we contributed to income generation, urbanization and technical training of the region's population. According to IBGE's census demographic data in 1940, Volta Redonda had a population of 2,782 people, while the 1950 census recorded 35,694 people and the current population is 273,000 people. Given the extent and significance of our business, the establishment of our operational units generated positive socioeconomic impacts in all areas where we are present.

Data shows the significance of CSN's presence in the regions where we do business, and the importance of our operation throughout the years, contributing to local

CSN's performance over the years has contributed to local development and to the feasibility of implementing the first national industries.



Student of CSN Foundation's *Garoto Cidadão* Project, in Congonhas (MG)

development and making possible the implementation of the first Brazilian industries, the core of the current industrial site in Brazil. The "Socioeconomic research and studies – regional economic profile" report from the Industry Federation of the State of Rio de Janeiro (Firjan) shows that the industry accounts for 30% of the GDP (Gross Domestic Product) in the southern region of Rio de Janeiro, slightly behind services (38.4%). On the other hand, the transformation industry aggregates 75.4% of the workforce in the region, laying emphasis on the steelmaking, naval and automotive industries. Outside the capital of the State of Rio de Janeiro, the southern region of the State is the region with the greatest share in the transformation industry.

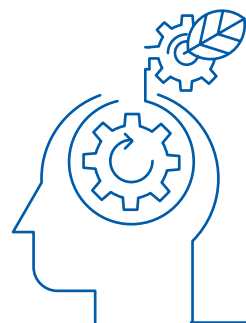


In line with the strategic planning set up after the privatization, we acquired and created new operational units in the mining, cement, logistics and energy sectors, a move that ensured our operational model integration and, on this account, brought positive socioeconomic impacts to the regions where we do business and to the Brazilian economy. Currently, for instance, the Brazilian transportation matrix is centered on highways. In view of our operations, the railway and port sectors promote freight cost reductions, making Brazilian products more competitive in both domestic and international market..

Through income and jobs creation, our operations stimulate the production of other sectors, such as food consumption, clothes and several services, which feeds back into the

employment generation process ([Learn more about the direct and indirect job creation on pages 86 and 106](#)).

The heavy industry is essential for the growth of the Brazilian economy and is impacted by the performance of other industries. Aware of that and in a relentless pursuit of process improvements, new solutions and mitigation of environmental impacts, CSN created CSN Inova ([learn more on page 29](#)) to grasp and absorb the concepts brought by the 4th Industrial Revolution and anticipates the creation of a Sustainability, Environment and Occupational Health and Safety Office, to bring together policies and practices of departments that are particularly important and have synergies, focused on improving the sustainable performance of our processes in all our business.



Main impacts for society

- Direct and indirect job creation;
- Income generation;
- Increase in tax collection;
- Social investments in the communities where we operate;
- Partnerships with civil society, through NGOs, service sector entities and public authorities;
- Investments in innovation, development of new technologies and new products;
- Development of new product and service suppliers;
- Economic development in the regions we operate;
- Empowering other economic sectors;
- Competitiveness in other sectors;
- Relationship with other industry sectors, whether supplying or demanding inputs;
- Close relationship with customers and suppliers;
- Expansion of the markets where we operate;
- Demographic growth, given incentives to migration driven by job expectations.



Granulated Iron Ore

Manufactured capital



Map of operations

GRI 102-2, 102-4, 102-7, 102-45



- Steelmaking
- Mining
- Logistics (railway and port operations)
- Cement
- Energy
- Offices

Click on the icons above to see our operations.

See details about our operations on our website.



Lusosider Employees | Portugal

Subsidiaries held abroad

Despite their social and environmental indicators are not being included in this report, we also have two subsidiaries abroad:

Lusosider (Portugal)

A steel re-rolling company located in Paio Pires, Portugal, which uses hot-rolled steel coils as raw material. They are cold rolled strips pickled to a smaller thickness, subsequently annealed to obtain the desired mechanical properties, and finally coated with zinc through hot-dip galvanization.

Lusosider also produces two other products: cold rolled steel and hot rolled pickled and oiled steel. Besides these two products, Lusosider also sells tinsplate made in Brazil by CSN, its majority shareholder (indirect).

SWT (Germany)

Stahlwerk Thüringen (SWT) produces long steel products in Unterwellenborn, Germany. Specializing in the production of profiles, it has an installed production capacity of 1.1 million tons of steel per year and its main consumer market is Europe.



Manufactured capital: CSN Group department and company

In Brazil, we also have:

Criciúma (SC)

A coal mining area until the beginning of 1990, it is currently nonoperational, and going through an old mine reclamation process.

CFB - Companhia Florestal do Brasil

A CSN group company that owns non-operational protected areas and is dedicated to reforestation. CFB (Companhia Florestal do Brasil) has been acquiring rural properties in the surroundings of the city of Floriano (PI), consistent with its development strategy, focused on implementing the Integrated Agroforestry Project in the State. The project anticipates planting seedlings in areas acquired by the company, totaling nearly 81,000 hectares in the microregion that covers the cities of Floriano, Jerumenha, Itaueira, Pavussu, Canavieira and Nazaré do Piauí. The goal is to grow a forest that can provide for the sector factories, fostering sustainable development through the crops, while integrating production activities, protecting the environment and creating income, jobs and tax collection to boost the economy of both the state of Piauí and the microregion serviced by the project.

Operations

1 MINING

CSN Mineração: Extraction of iron ore from Casa de Pedra and Engenho Pires mines, in Congonhas.

Minérios Nacional: Extraction of iron ore at the Fernandinho mine, in Itabirito, Rio Acima and Nova Lima.

CSN Arcos - Mineração: Extraction of limestone and dolomite from the Arcos mine.

ERSA: Extraction of tin from ERSA mine in Rondônia.

Iron ore is transported via MRS railway to the Itaguaí Port (TECAR).

Note: To learn about our units' locations, check out our operation map (see more on page 60).

2 STEELMAKING

UPV: iron ore from Casa de Pedra and Engenho Pires is sent to UPV (Presidente Vargas Steelworks) for steel production. The plant also receives imported raw material from Tecar.

CSN Porto Real: produces galvanized steel, including Galvanew® and blanks, mainly serving the automotive industry.

CSN Paraná: CSN's branch producing galvanized steel, Galvalume® and pre-painted steel for the automotive, civil construction and home appliance industries.

Embalagens: Prada Embalagens' steel packaging units are important consumers of CSN's metal sheets.

Distribuição: Prada Distribuição processes and distributes flat steel.

3 CEMENT

Cimentos - UPV: Cement unit located in Volta Redonda, inside the Presidente Vargas Steelworks, uses blast furnace 3's slag. UPV (RJ) also uses blast furnace slag (a steel co-product) and clinker from the Arcos plant (MG).

Cimentos - CSN Arcos: Limestone and dolomite are used in cement production. It receives part of UPV's (RJ) blast furnace slag in Arcos.

4 LOGISTICS

MRS: Iron ore from CSN Mineração is transported via MRS Railway to be exported by Tecar, which also receives steel production inputs. It connects the Casa de Pedra mine, in Congonhas (MG) to UPV, in Volta Redonda (RJ) and the terminals of Itaguaí Port (RJ).

Tecon: Container and general cargo terminal, located in the Itaguaí Port.

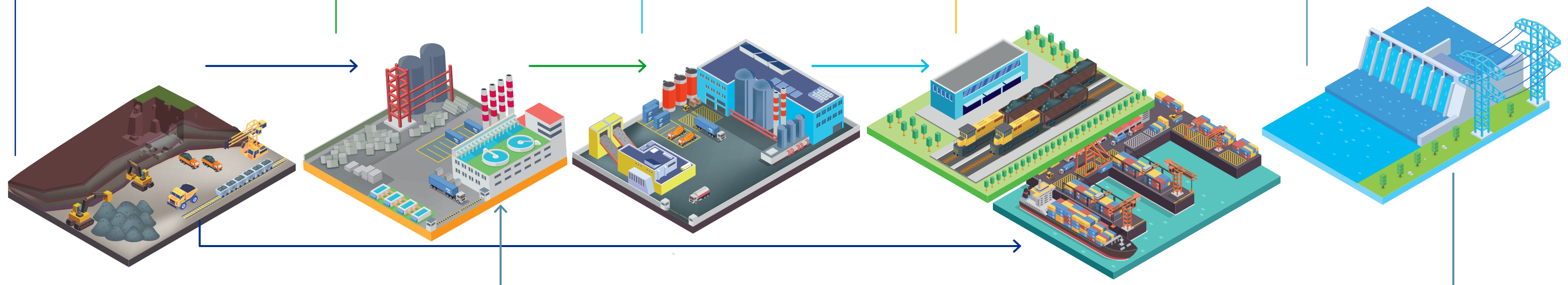
Tecar: iron ore arriving via MRS is exported to several countries. Raw material is imported and received at Tecar and transported via MRS to steel production.

FTL: CSN holds interest in FTL, former RFFSA's Northeast network.

TLSA: Transnordestina Project, including 1,753 km of railway network in the Northeast region.

5 ENERGY

Our energy is self-produced by **blast furnace 3's top turbine and the co-generation thermal power plant, in Volta Redonda**, which, together, supply energy to UPV. Furthermore, CSN's shareholding in the **Itá and Igarapava Hydroelectrical Power Plants** seek to ensure most of its annual consumption, supplying UPV, CSN Arcos and CSN Porto Real.





MINING



R\$ 38.5 million
tons of iron ore was sold in 2019



R\$ 244 million
invested in the tailings filtering
and dry stacking technology



Mining | Extraction and beneficiation

The main mining processes are:

1 DRILLING

2 BLASTING

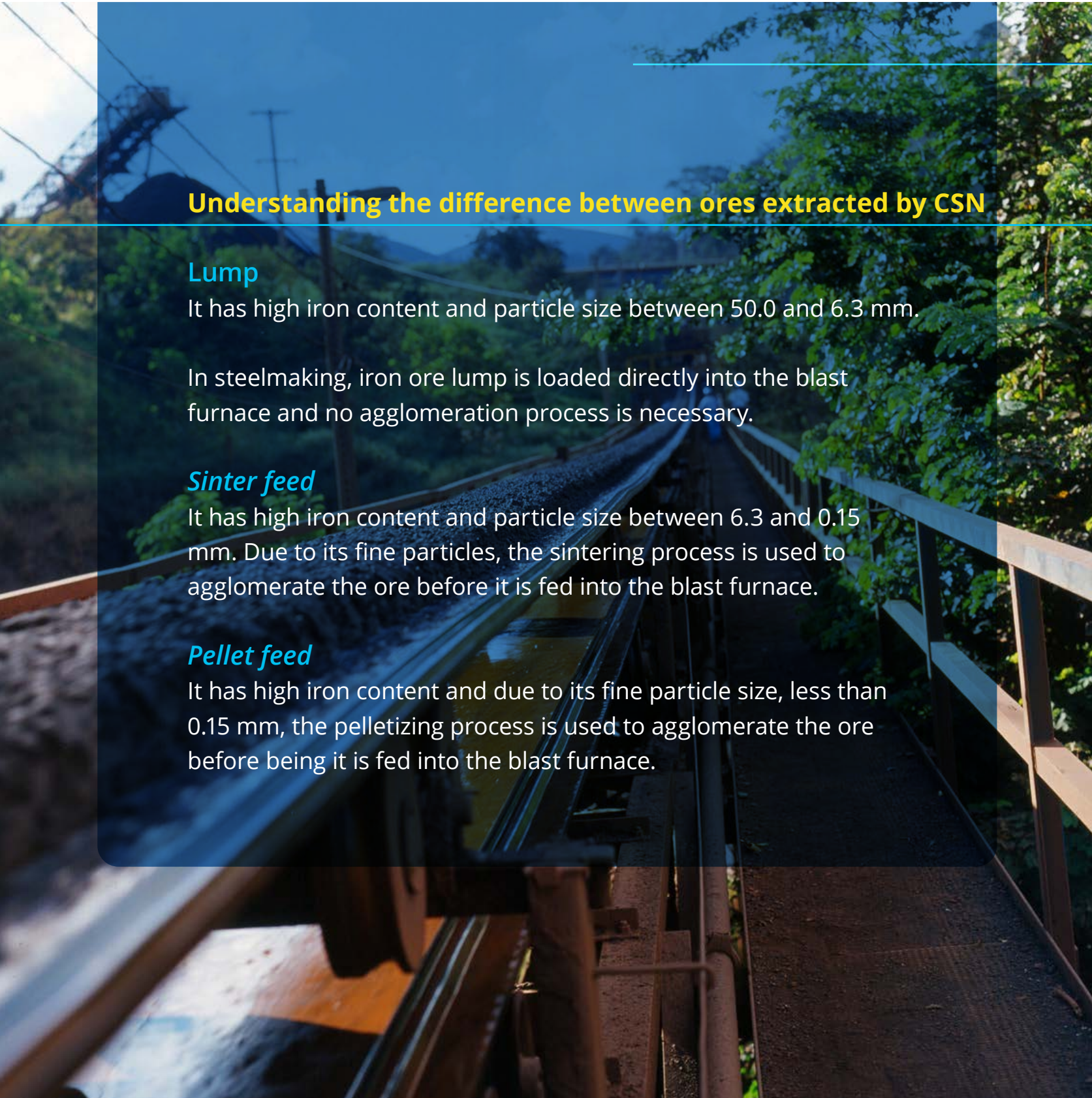
3 LOADING

4 BENEFICIATION

5 TRANSPORTATION



 Visit our website and learn more about our mining process.



Understanding the difference between ores extracted by CSN

Lump

It has high iron content and particle size between 50.0 and 6.3 mm.

In steelmaking, iron ore lump is loaded directly into the blast furnace and no agglomeration process is necessary.

Sinter feed

It has high iron content and particle size between 6.3 and 0.15 mm. Due to its fine particles, the sintering process is used to agglomerate the ore before it is fed into the blast furnace.

Pellet feed

It has high iron content and due to its fine particle size, less than 0.15 mm, the pelletizing process is used to agglomerate the ore before being it is fed into the blast furnace.

CSN MINERAÇÃO

Installed capacity per year
33 milion
tons of iron ore

CSN Mineração owns the mines and assets of Casa de Pedra (where Pires Beneficiation Plant is located) and Engenho, respectively in Congonhas and Rio Acima (state of Minas Gerais). Since 2015, CSN Mineração's capital stock is divided between CSN (87.52%) and the Asian Consortium (12.48%), formed by Japão Brasil Minério de Ferro Participações Ltd., POSCO Ltd., and China Steel Corp. Part of CSN Mineração's iron ore is sold to the Asian Consortium and to CSN. Most of CSN Mineração's iron ore sales revenue comes from exports, mainly to Asia, in particular China. We have implemented the tailings dry filtering and stacking technology at the Casa de Pedra plant, which, already in 2019 absorbed 80% of CSN Mineração's production, and our goal is to have 100% of iron ore produced filtered, becoming independent from the use of dams.

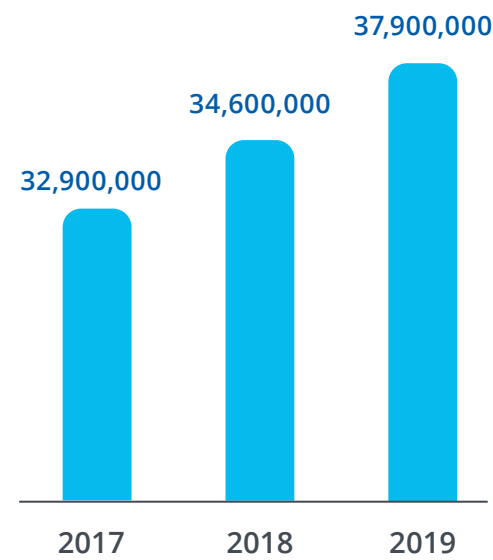
MINÉRIOS NACIONAL

Installed capacity per year
700 thousand
tons of iron ore

It owns Fernandinho mine in the cities of Itabirito, Rio Acima and Nova Lima (MG); and mineral rights of Cayman in the cities of Rio Acima and Itabirito (MG) and mineral rights of Pedras Pretas, in Congonhas (MG). Minérios Nacional also has over 600 limestone and clay mining assets under research, throughout Brazil, especially in the Northeast, South and Minas Gerais state region, called "Triângulo Mineiro", geared towards the cement industry's development.

Iron ore sold

(in million tons)



Product Yard at TECAR | Itaguai (RJ)

Tecar*



Installed capacity per year

EXPORTS

45 million
tons of iron ore

IMPORTS

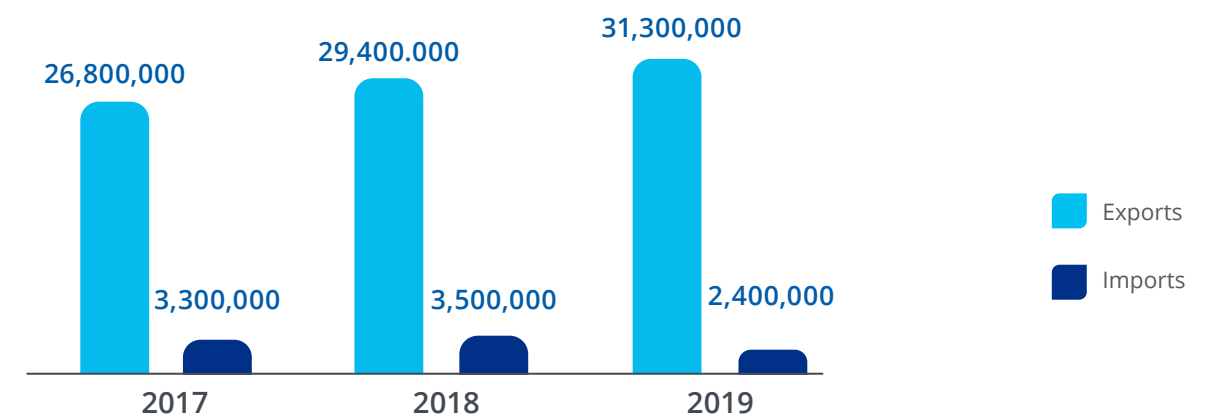
4 million
tons of coal, petroleum
coke, among others

CSN Mineração holds the rights to operate Tecar, pursuant to the Operating Lease Agreement for the dry bulk terminal located at Itaguai Port (Rio de Janeiro), through which we export iron ore. The port has a strategic location for the Brazilian economy because it is the last mooring located prior to the Serra do Mar mountain, a natural barrier to cargo and raw material distribution.

*Although Tecar is also part of CSN's logistics segment, its data is presented integrated to the mining data because of the combination of the mining business with the Asian Consortium, resulting in CSN Mineração's current structure, which includes Casa de Pedra, Engenho and Pires mines and assets, Tecar's operation rights and 18.63% of MRS Logística S.A. shares.

Volume handled at Tecar

(in million tons)



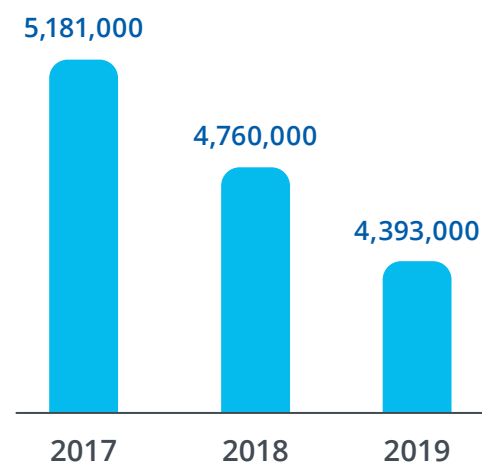
CSN Arcos

Installed capacity per year
12 million
tons of limestone and dolomite

Bocaina mining consists of the limestone mine located in Arcos (MG) and has limestone and dolomite reserves to adequately supply CSN's steel and cement production for approximately 38 years, at their current levels.

CSN Arcos' Production

(in tons)



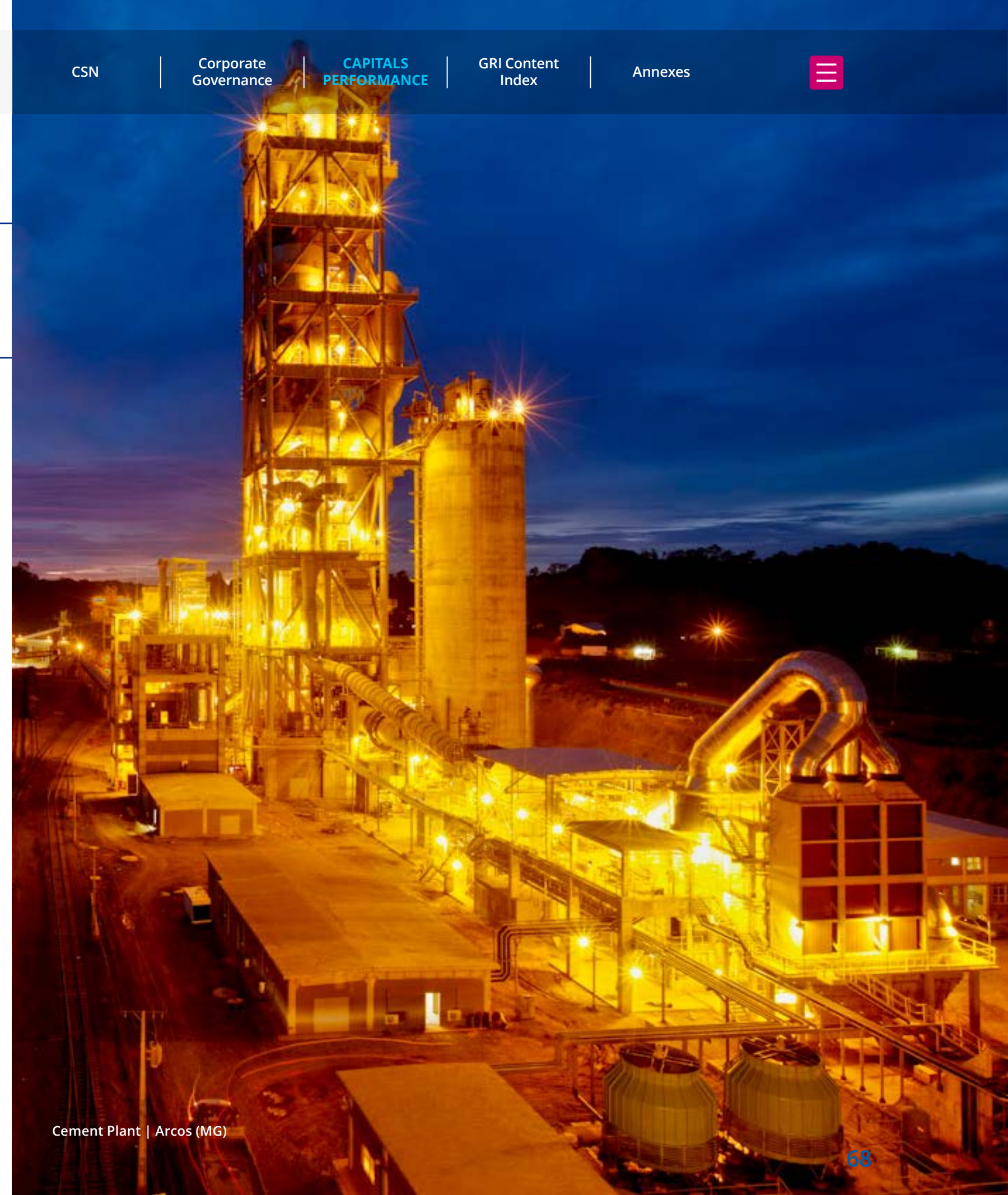
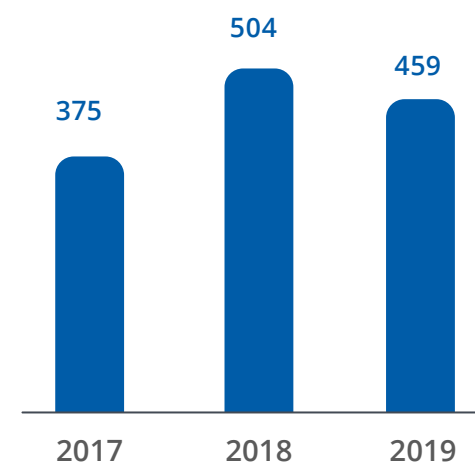
ERSA

Installed capacity per year
3,600
tons of tin

ERSA consists of Mineração Santa Bárbara, in Itapuá do Oeste (RO), from where we extract cassiterite, and the foundry located in Ariquemes (RO), where tin is produced. Tin is one of the most important raw materials for tinplate production at UPV.

Ersa's tin production capacity

(in tons)



Cement Plant | Arcos (MG)



The world's first mining hub has CSN as one of its founders

The Mining Hub is an open innovation enterprise that seeks solutions for the sector's usual challenges and mingles mining companies, suppliers, startups, researchers with investors to create opportunities and build connections between different mining players. The program's main themes are:



The initiative's goal is to foster opportunities to build sustainable mining, through more efficient operations that could add value to the entire chain, diversifying the local economy and building more transparent relationships with the communities.

In 2019, we were the Mining Hub's co-founders of the and, since then, hundreds of the sector's most usual challenges have been mapped and several of them have been deployed into the ecosystem, besides the various Proof of Concept (POC) tests that have been run, split into the programs 6 priority themes. CSN Mineração has been closely monitoring the initiative and projects which could have a significant impact in the mining sector as well as society, and it closed its first year of operations with nearly 50 companies and received almost 700 solution proposals for sector challenges.



Casa de Pedra (MG)



STEELMAKING



5.1 million
tons of steel sold

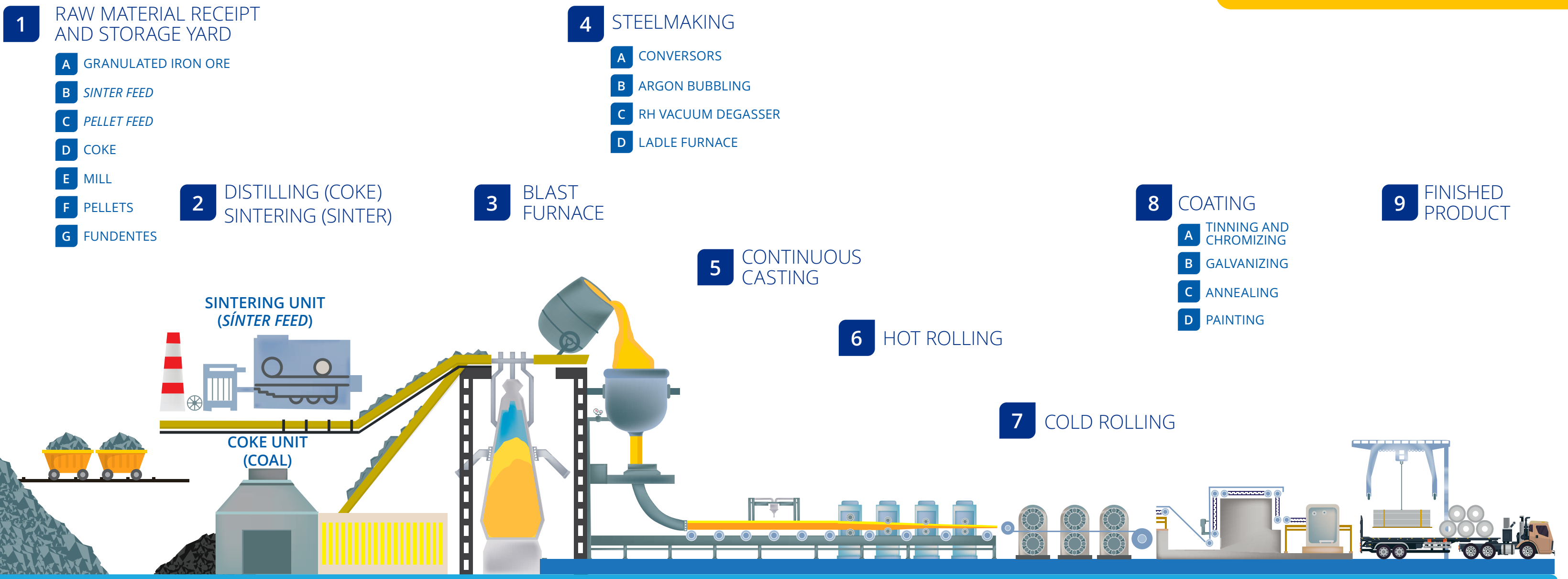


R\$ 250 million
invested in 2019 in the refurbishment
of UPV's blast furnace 3

Steelmaking | Steelmaking process

CSN serves the entire steel production chain, from iron ore extraction to the production and sale of diversified steel product line, including flat, coated, galvanizes, pre-painted steel, metal sheets and long steel (rebar and wire rod).

Visit our website and learn more about our steelmaking process.



UPV

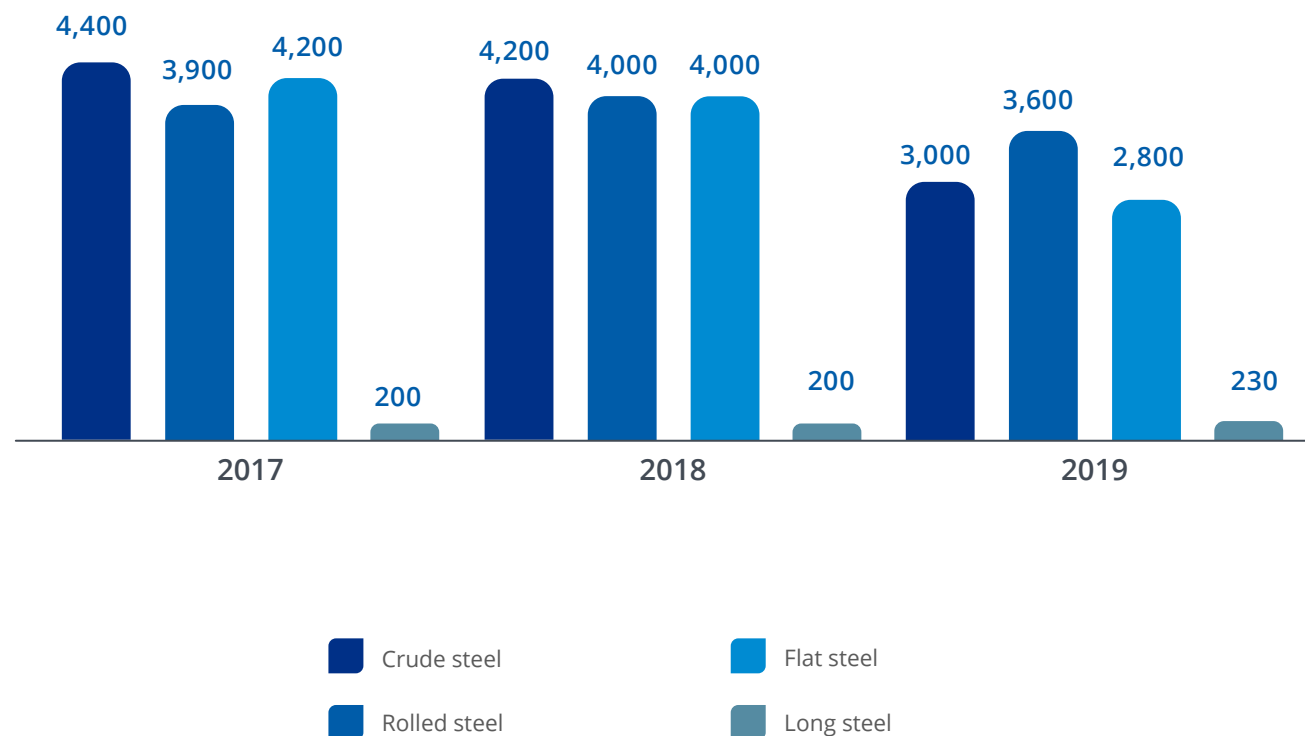
Installed capacity per year
5.6 million
tons of crude steel

Installed capacity per year
5,2 million
tons flat of steel

Installed capacity per year
400 thousand
tons of long steel

UPV's Production

(in thousand tons)



CSN's main steel mill and one of Latin America's largest steelworks, has three of the Company's five galvanizing lines (the other lines are located in Porto Real, RJ and Araucária, PR). The plant has two blast furnaces, one steelworks with three Oxygen converters, three plate casting units and hot and cold rolling, coating and flat steel finishing facilities. At the Volta Redonda unit we also produce tin plates, which are used for packaging. By the end of 2013, the long steel unit was inaugurated at the UPV. The site has an electric arc furnace, continuous casting processes for billet and a hot roller for round long steel products.



Steel plate in the hot rolling line at Presidente Vargas Steelworks in Volta Redonda



Employee at CSN's steelmaking process

CSN Porto Real

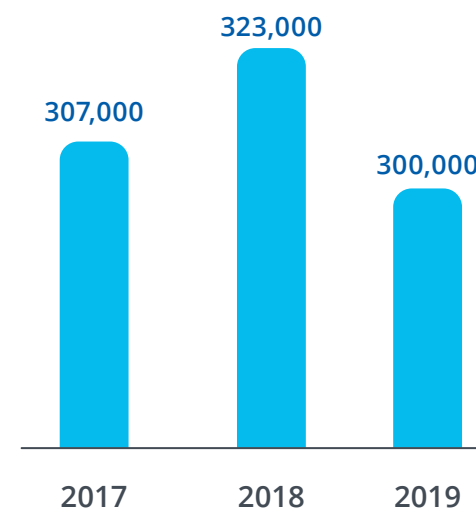
Installed capacity per year
500 thousand
tons of steel, especially for
the automotive sector

Installed capacity per year
350 thousand
tons of galvanized steel
(Including Galvanew®)

Installed capacity per year
100 thousand
tons of blanks, plates and rolls

CSN Porto Real's production

(in tons)



Company's branch located in Porto Real sits between the cities of Rio de Janeiro and São Paulo, mainly serving the automotive sector, with a broad range of international-standard products and services. It has a hot dipping galvanizing line, a center for blanks cut and production, Galvanew® and a modern a laser welding unit for the production of welded blanks. In 2019, one of the laser welding lines underwent a retrofitting process, maximizing its useful life by 10 years, qualifying the plant to develop special steel. Thus, we are able to produce thinner and more resistant steel to be used by the automotive industry, creating significant environmental gains because lighter vehicles use less fuel.

CSN Paraná

Installed capacity per year
730 thousand
tons of steel

Installed capacity per year
330 thousand
tons of galvanized steel
(Galvalume®)

Installed capacity per year
130 thousand
tons of Pre-painted

Installed capacity per year
150 thousand
tons of plates and rolls

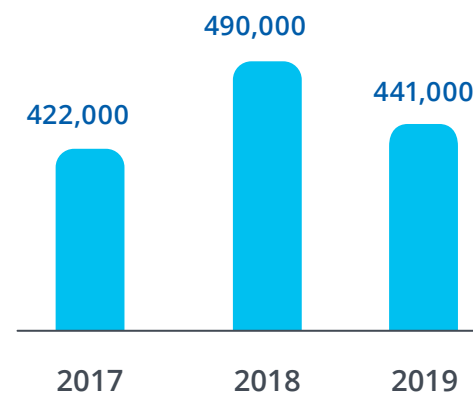
Installed capacity per year
120 thousand
tons of hot rolled steel

Located in Araucária (PR), in the metropolitan region of Curitiba, it is the pickling cold rolling, galvanizing, pre-painting unit and as well as a service center for blanks cut and production. The site's main products are used in civil construction and appliances. It also produces pure tin-coated galvanized steel, used mainly in open-air buildings due to its high corrosion resistance.

Packed coils inventory | CSN Paraná

CSN Paraná's production

(in tons)





Prada

Installed capacity per year

730 thousand
tons in Prada Distribuição

Installed capacity per year

100 thousand
tons in Prada Embalagens

Prada Embalagens

Owner of Latin America's largest industrial site focused on producing steel for packaging and lithography, Prada Embalagens serves the chemical and food sectors. It manufactures and sells metal packages and provides lithography, varnishing and assembly services, as well as metal packaging. It is the leading supplier in the food sector and the only Brazilian company qualified to supply the food market that services newborns and children up to age 3, opening up growth opportunities and perspectives.

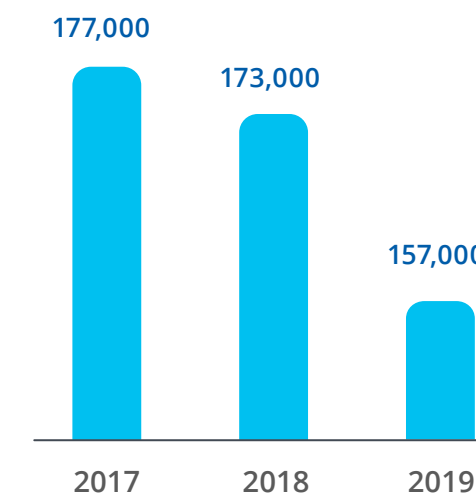
In order to create even more synergy and to qualify its business, the project to restructure the subsidiaries operations continued in 2019, with a service center in Resende (RJ) to bring important efficiency gains due to its vicinity to UPV. Prada Embalagens has six units: São Paulo (headquarters) and subsidiaries in Lins (SP), Luziânia (GO), Uberlândia (MG), Resende (RJ) and Pelotas (RS).

Prada Distribuição

It processes and distributes a diverse product line, including coils, rolls, sheets, strips, blanks, metal sheets, profiles, tubes and tiles for several industries, such as automotive and civil construction. It also specializes in steel processing services, supplying companies throughout Brazil. Its production capacity moves around three service centers, in Mogi das Cruzes (SP), Camaçari (BA) and Jaboatão dos Guararapes (PE).

Prada Distribuição's sales

(in tons)





LOGISTICS



R\$ 1.3 billion
in railway logistics net revenue

R\$ 240 million
in port logistics net revenue

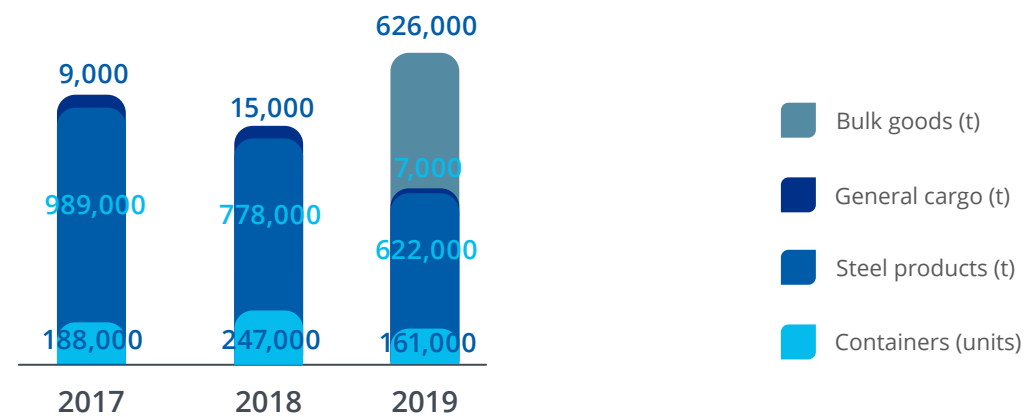


TECON

Capacity
440 thousand
containers

Tecon, a container terminal located in Itaguaí Port (RJ) managed by Sepetiba Tecon S.A., one of our subsidiaries, is the largest container terminal in Rio de Janeiro and one of the largest in Brazil.

Volume handled at Tecon



Innovation: Naves System for containerized cargo management

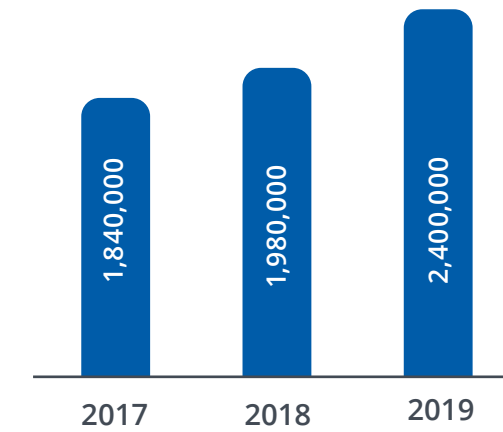
We invest in technology to improve logistics processes because we understand that innovative tools bring gains in efficiency, management, operation traceability, and consequently it becomes a competitive advantage and reduces costs. In 2019, we implemented the Naves System for containerized cargo management, which allows the constant and fully automated monitoring of cargo, both by CSN and our customers, as well as by surveillance and control government agencies. A similar system, expected to be delivered in 2020, is under implementation to increase the control of loose cargo.

MRS

CSN holds a 34.9% direct and indirect interest (37.27% before non-controlling shareholders interest) in MRS's capital stock, company which operates the former Southwestern Network of the Federal Railway (RFFSA), between Rio de Janeiro, São Paulo and Belo Horizonte, reaching across 1,674 km, connecting the Casa de Pedra mine, in Congonhas (MG) to UPV, in Volta Redonda (RJ) and Itaguaí Port terminals (RJ). MRS's railway transportation services are key for raw material supply and to transportation of end products. All the iron ore exported by CSN Mineração and all coal, coke and iron ore consumed by UPV are transported by MRS as well as part of the Company's steel and cement production.

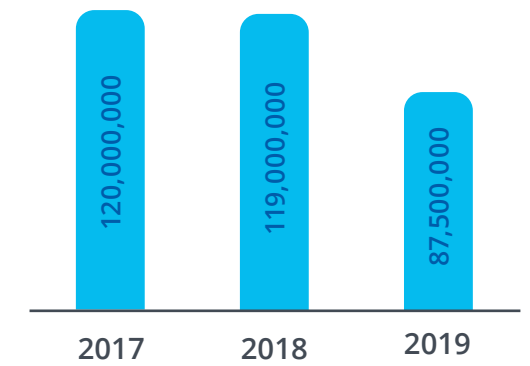
Containers transported by MRS

(in units)



Transport of heavy haul (ore, coal and coke) by MRS

(in million tons)



MRS Locomotive, used for iron ore transportation



Railway stretch under construction in the states of Piauí, Ceará and Pernambuco

Transnordestina Logística S.A. (TLSA)

Ferrovía Transnordestina Logística S.A. (FTL)

Projected capacity
30 million
tons per year

Installed capacity per year
2,5 million
tons

Projected length: 1,753 km

Total extension: 4,534 km

With the support of the Brazilian government, TLSA is building the Transnordestina Railway that spans 1,753 km, connecting the rail terminal in Eliseu Martins (PI) to the Suape (PE) and Pecém (CE) ports, across 81 cities in the states of Piauí, Pernambuco and Ceará. The railway's projected capacity is 30 million tons per year and should play an important part in the development of the Northeast region, creating a logistics option for oil and its by-products, agriculture and mining sectors, among others. In December 2019, CSN's ownership interest in TLSA was 47.26%.

The FTL railway network crosses seven Brazilian States: Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco and Alagoas, and is operational in three of them (Maranhão, Piauí and Ceará), totaling 1,271 km. Current transportation capacity is 2.5 million tons per year, mostly focused on fuel, cement and cellulose transportation. In December 2019, CSN had 92.38% ownership interest in FTL.



CEMENT



2.7 million
tons per year at Arcos (MG)
and Volta Redonda (RJ)



15.2%
EBITDA margin in 4Q19, with an
upturn in operational margins



Cement | Production process

CSN entered the cement market boosted by the synergy between this operation and existing business, with a production model based on the circular economy model. Located next to UPV, in Volta Redonda (RJ), we set up a new business unit, which produces cement using UPV's blast furnace slag. We also extract limestone and dolomite at the Arcos (MG) unit to supply the UPV's and the cement plant's demands. Furthermore, we also produce clinker in Arcos. This led the Company to be self-sustained in terms of cement production.



Visit our website and learn more about the cement production.

1 EXTRACTION

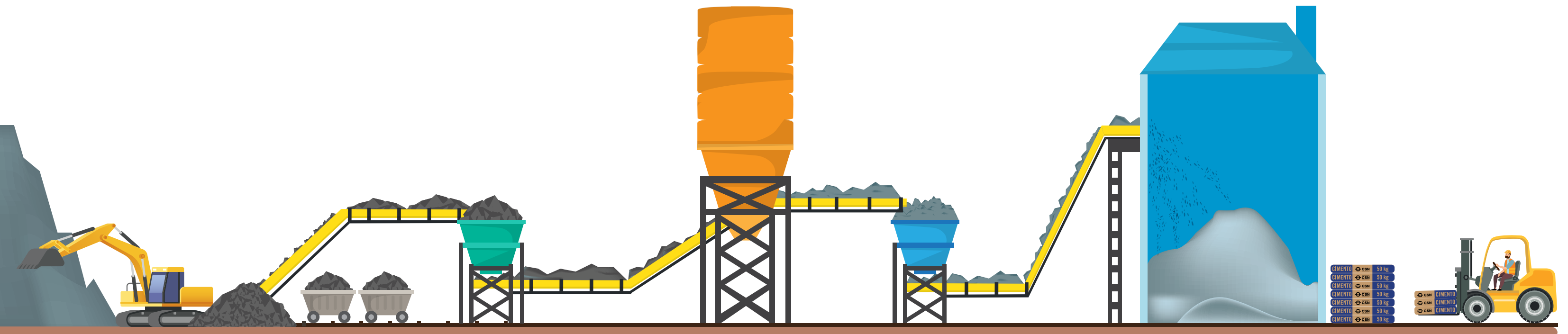
2 CRUSHING

3 CLINKERING

4 GRINDING

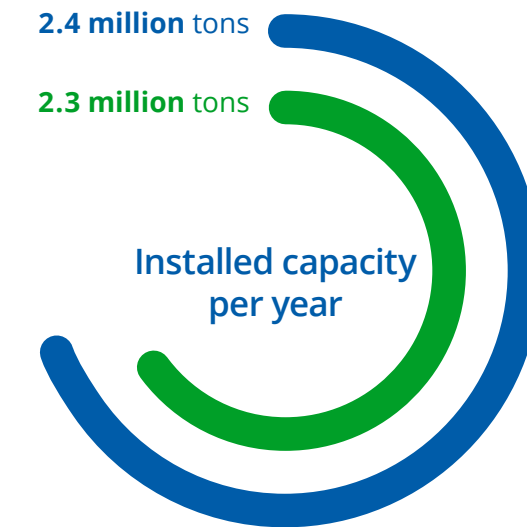
5 STOCKING

6 PACKING





Employee with bag of CSN cement at one of our Distribution Centers | Barra Mansa (RJ)



CSN Cimentos - Arcos
CSN Cimentos - Volta Redonda

The Cement industry complements well the steelmaking industry and provides supply to the civil construction one, which is key for the country's economy development. The Cement we produce is sold mainly in the states of Rio de Janeiro, Minas Gerais and São Paulo. We currently have 16 distribution centers, which are very important to spreading our sales reach, ensuring competitiveness. Plants are located in Arcos (MG) and Volta Redonda (RJ), and distribution centers are located in: Contagem (MG), Juiz de Fora (MG), Uberlândia (MG), Arará (RJ), Barra Mansa (RJ), Itaboraí (RJ), Queimados (RJ), Americana (SP), Capuava (SP), Guarulhos (SP), Mogi das Cruzes (SP), Osasco (SP), Ribeirão Preto (SP), São José dos Campos (SP), Varginha (MG) and Campo Grande (MS).



Itá Hydroelectric Power Plant (SC)



ENERGY

Installed capacity per year



Itá Hydroelectric Power Plant

167 MW Avg

Igarapava Hydroelectric Power Plant

21 MW Avg



Cogeneration Thermal
Power Plant¹

235.2 MW



Blast furnace
3's top turbine

21 MW

Note: 1. Co-generation Thermal Power Plant at UPV is fueled by steelmaking gases to generate electricity.

Since 1999, we have invested in power generation projects in order to maintain our energy self-production.

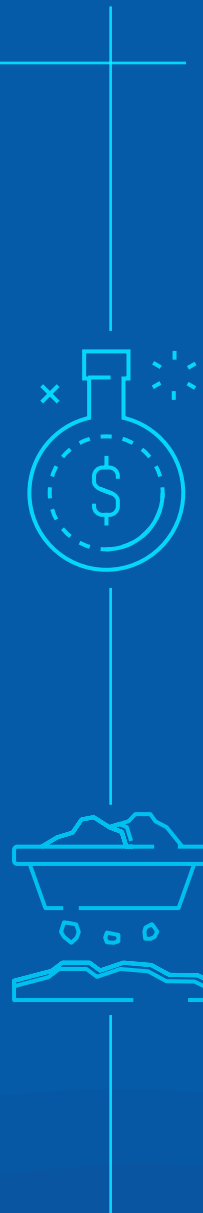
Moreover, we have constantly prepared feasibility prospects and analysis of new generation assets with the purpose of keeping our production costs competitive.



2018/2019 Investments

We perceive investments in equipment and infrastructure as capable of not only improving the business efficiency but of also creating direct and indirect jobs, boosting socioeconomic aspects of the places where we do business. Furthermore, the sector in which we operate is fundamental for the supply of raw materials and fostering other industries, which favors both local and countrywide economy growth.

In the 2-year period, we invested R\$ 3.5 billion to accelerate several sustaining projects in steelmaking, given the scheduled stoppage of blast furnace 3. In mining, investments were focused on the mining equipment refurbishment and the tailing filtering plants to process 100% of production without the use of dams. Below we list some of the highlights.



R\$ 3.5 billion
invested in the 2-year period

R\$ 41 million
invested in the magnetic
concentration project







Investments

GRI 203-1

In 2019, investments in expansion and maintenance CAPEX totaled R\$ 2.2 billion, 61% of which allocated to accelerate projects in steelmaking, including blast furnace 3's scheduled refurbishment.

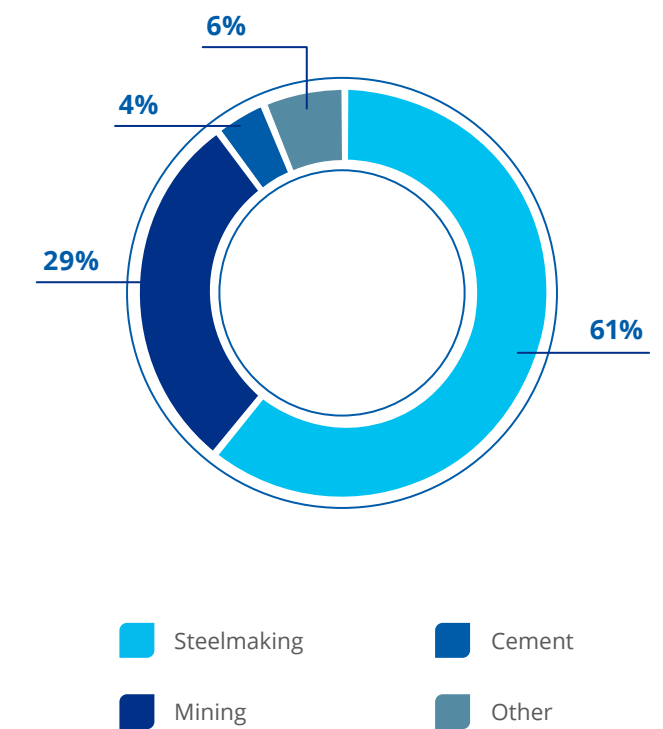
In the mining sector, we invested R\$ 647 million in 2019, to revamp mine equipment and tailing filtering and stacking plants, ensuring the processing of 80% of the production without the use of dams.

Investments (R\$ million)

	 Steelmaking	 Mining	 Other	 Total investment
2018	637	505	175	1,318
2019	1,353	647	215	2,216
Total	1,990	1,152	390	3,534

2019 Investments

(in percentage)





Breakdown of main investments



Steelmaking Investments

Blast furnace 3

Blast furnace 3 refurbishment, and improvements to other UPV areas, such as sinter plants, steel mills, thermoelectric power plants and carbochemical processes. **In the period, investments amounted to nearly R\$ 320 million and over 200 suppliers have been hired and more than 4,000 direct and indirect jobs have been created during the peak of the works.** The refurbishments were intended to ensure reliability, operational and environmental efficiency, improving air emissions.

Batteries

We invested R\$ 65 million in maintenance to boost reliability and productivity of coke batteries. More than 50 suppliers were hired to perform the activities, creating nearly 500 direct and indirect jobs.



Mining Investments

Filtering and stacking

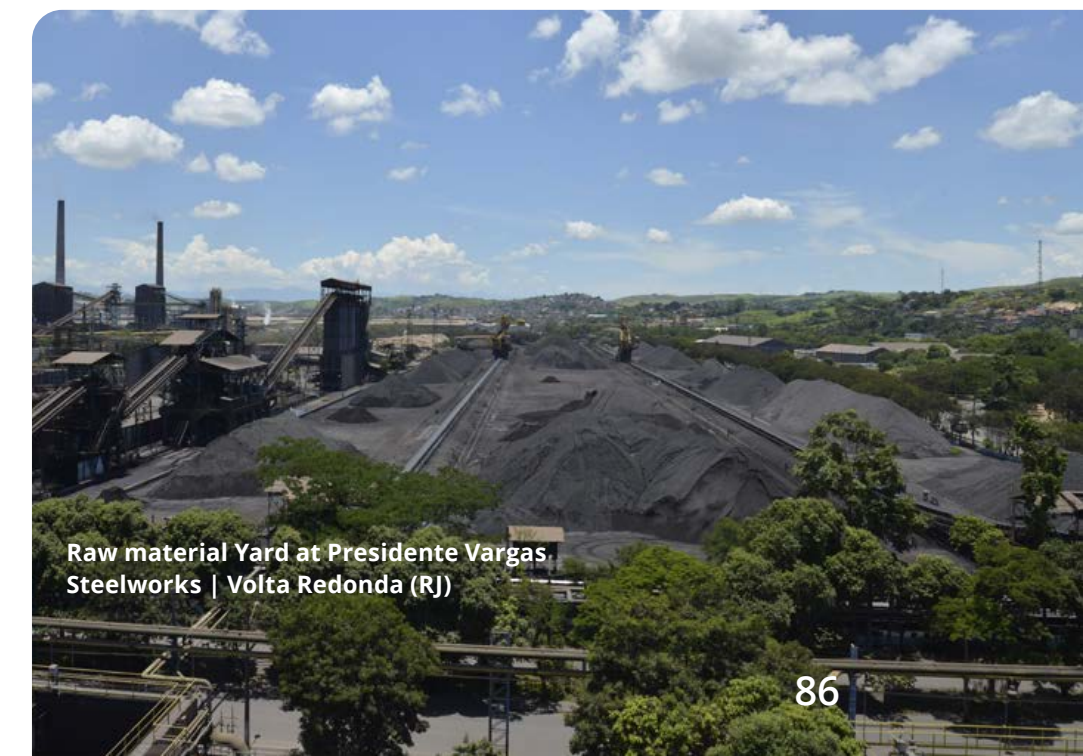
Implementation of the iron ore tailing filtering in Congonhas (MG), with 80% filtered tailings in 2019. **R\$ 244 million were allocated to the project and we hired 36 suppliers to execute construction and assembly works,** creating hundreds of direct and indirect jobs during the peak of the works.

Magnetic concentration plant

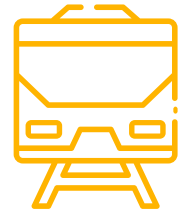
We invested around R\$ 41 million in 2018 and 2019 in tailings magnetic concentration projects, which enable the iron ore reuse, thus mitigating environmental impacts created by the tailing disposal. Since 2016, CSN Mineração has been investing in these projects totaling nearly R\$ 163 million. In the coming years, CSN Mineração intends to develop more tailings concentration projects.

Dams

In 2019, we began to decharacterize the *Auxiliar do Vigia* tailings dam. **We invested close to R\$ 17 million and created almost 100 direct and indirect jobs during construction works,** which are scheduled to be completed in 2020. Stabilization and decommissioning works in the Fernandinho, dam have been executed through an investment of R\$ 49 million and resulting in almost 100 direct and indirect job. The works on Fernandinho dam are also scheduled to be completed in 2020.



Raw material Yard at Presidente Vargas Steelworks | Volta Redonda (RJ)



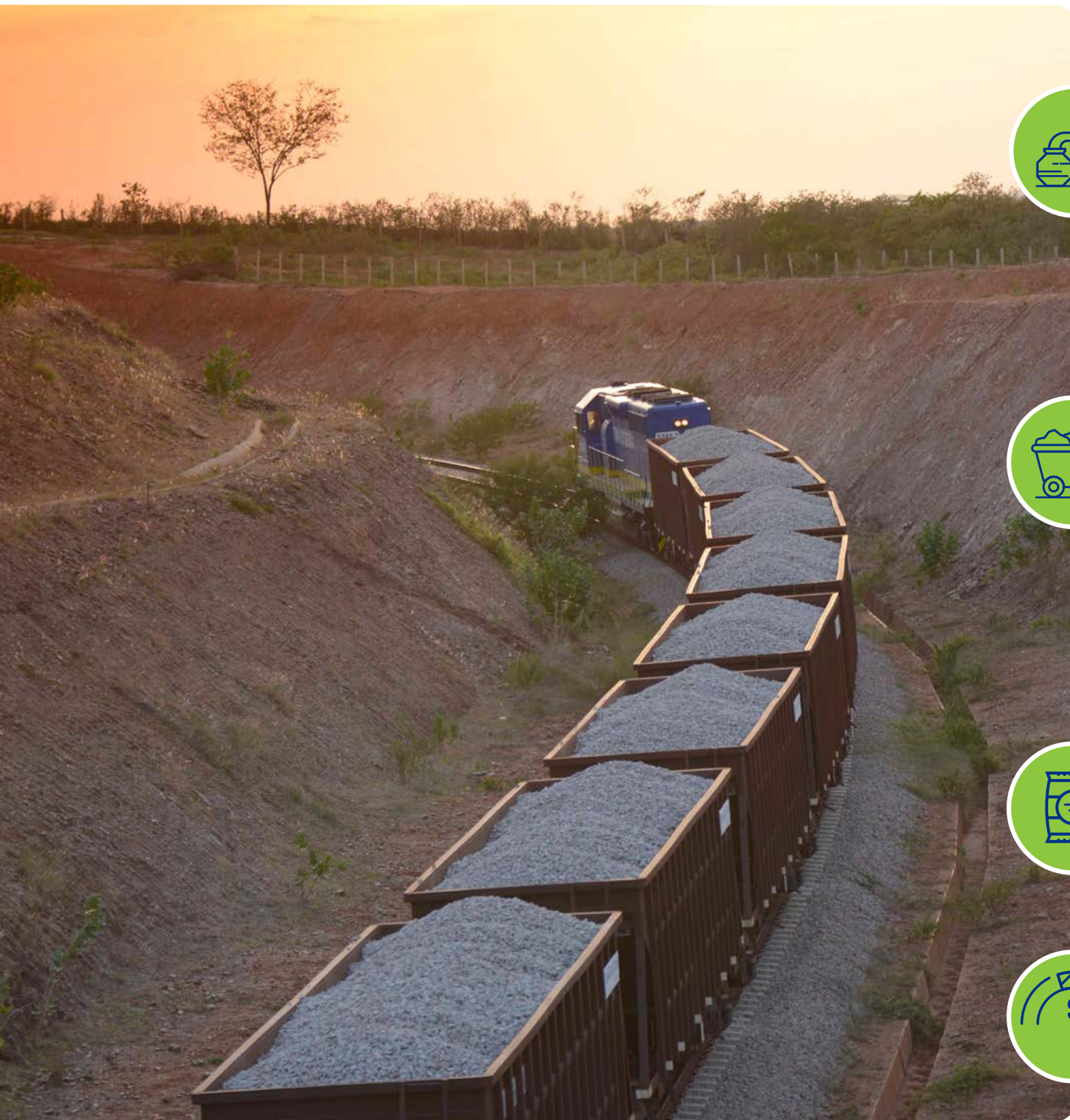
Logistics Investments

Investments in Tecon enabled the terminal's service level and productivity increase, including maritime access and berth depth, with the new draft certification reaching down to 15.4 meters deep, using the tides, and becoming the deepest in the South American west coast.

In 2019, Tecon continued to invest in its operational facilities upgrade and improved compliance with regulating authorities' requirements, including the implementation of a new IT system, which should be delivered in 2020. **We intend to invest in the Tecon expansion to boost its capacity by 40%, making it one of Brazil's largest ports, with a yearly nominal capacity of about 670 thousand containers.** The expansion project is being discussed with the proper government agencies and the sector's regulator, ANTAQ (Brazilian Water Transportation Agency).



TECON | Itaguaí Port (RJ)



Iron ore transport

Main investments of the 2-year period



STEELMAKING

- Bast furnace 3 refurbishment;
- Sintering plants revamp to increase sinter production;
- Coke batteries revamp at UPV;
- Technological modernization projects at UPV;
- Maintenance projects for the other units.



MINING

- Tailing filtering plant;
- Electromagnetic concentration plant;
- Project to increase pellet feed capacity using tailing from dams;
- Recurring investments in dams and improvement of iron ore quality;
- Maintenance projects;
- Recurring investment at the units.



CEMENT

- Maintenance projects at Arcos (MG) and Volta Redonda (RJ) units.



OTHER INVESTMENTS

- Recurring investments in other operations, specially FTL (Ferrovia Transnordestina Logística) and Tecon;
- Corporate segment investments, mainly IT.



Innovation Investments

Investment in innovation project brings customers and CSN close together through design thinking

Advised by a consulting company specialized in design thinking, all employees in charge of CSN's sales cycle participated on the project, aiming to understand the needs of internal and external customers. New methodologies were introduced to the different departments involved, through a design thinking training and the mapping of the user's journey ("end to end"). The project's steps were:

- Mapping and field research/ interviews performed through Brazil;
- Analysis, summary and ideation;
- Prototyping and testing of ideas and solutions.

Department leaders from registration, credit, pricing, logistics, quality, billing, customer service, post-sales and pre-sales have participated in the project.





Employees in the meeting and coffee break lounge | CSN Office, at Faria Lima Avenue, São Paulo (SP)

Financial capital

Economic analysis of the 2-year period

In the foreign scenario, the trade war between the United States and China favored a more volatile global economic scenario than usual; however, Chinese economic performance remained strong, **increasing 6.1% in 2019 after a 6.6% hike in the previous year**. The international market is fundamental for the mining industry's sound performance, specially the economic behavior in China, Europe, India, Japan and Southeast Asia. Iron ore prices ended 2019 up by 34.5% according to the Platts 62% international commodities price index, calculated by S&PGlobal Platts.

Year 2019 began with high expectations for the Brazilian economy, with perspectives of economic growth as well as employment and consumption level improvement perspectives. Throughout the year, however, optimism failed due to events such as the political crisis and the delay in approving the Pension Reform that reduced businesses' and consumers' trust. According to the Brazil Commodity Index (IC-Br), calculated by the Central Bank, metallic commodity prices ended the year up by 1.62%.

Automobile production increased by 2.3% in 2019, less than in the previous year when it was up by 6.7%, according to Anfavea (Brazilian Auto Makers Association), and car sales achieved its best performance since 2014, up 8.6% in the period. Building materials sales increased by 1.2% and 2% respectively in 2018 and 2019, after falling from 2015 to 2017, according to Abrammat (Brazilian Building Materials Industry Association).



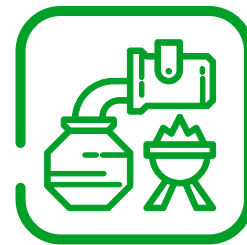
Operations desk



Analysis of the results

We seek to maximize shareholder returns by focusing our business on five key sectors:

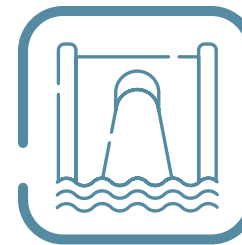
STEELMAKING



LOGISTICS



ENERGY

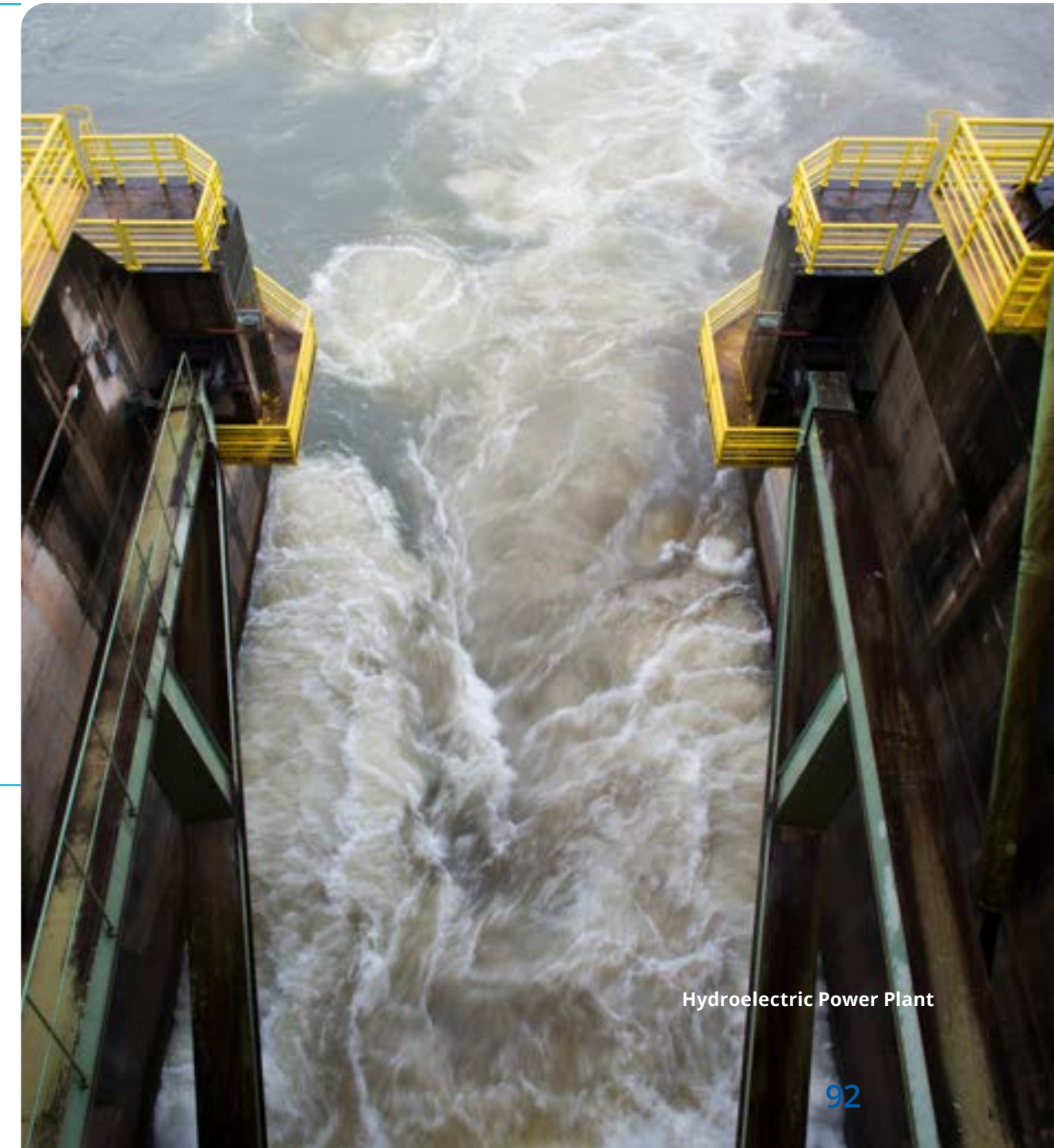


MINING



CEMENT

See below CSN's performance by business segment:



Hydroelectric Power Plant



Mining

In 2019, the resilient Chinese steel demand and the perspective of iron ore balance deficit had a positive effect on prices. **Within this context, iron ore ended 2019 quoted at US\$93.40/dmt (dollar per dry metric tonne unit), increasing by 34.5% vs. 2018.**

In 2019, CSN produced 32.1 million tons of iron ore, an all-time record. Accordingly, mining net revenue came **to R\$ 10.0 billion, vs. R\$5.9 billion in 2018. EBITDA was R\$ 5.9 billion** for a 59% margin, the highest annual figure in the sector's historical series, due to price increase (29%) and sales volume growth, totaling 38.5 million tons, 11% up on 2018.



Iron ore stack



Steelmaking

According to the WSA (World Steel Association), global crude steel **production totaled 1.87 billion tons in 2019**, 3.4% up on 2018, and Asia alone produced 1.34 billion tons, for a growth of 5.7%, while the European Union and North America posted drop of 4.9% and 0.8%, respectively.

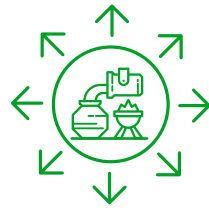
In the domestic market, according to IABr (Aço Brazil Institute) data, apparent consumption in Brazil came to 20.6 million tons, down by 2.7% on 2018. Brazilian crude steel production totaled 32.2 million tons; a 9% decrease compared to 2018. In 2019, we sold 3.1 million tons of steel in the domestic market, 5% less than in 2018.

In 2019, total sales came to 4.5 million tons, 11% down on 2018, mainly due to foreign market sales decrease after we sold our USA plant and also as a result of global economic downturn. Therefore, net **revenue totaled R\$ 13.9 billion in 2019**.

Expected efficiency gains due to blast furnace 3's scheduled stoppage will be felt in 2020, with the unit's profitability resuming its historic trend. Also due to blast furnace 3 refurbishment EBITDA totaled R\$851 million in 2019, 68% down on 2018 and EBITDA Margin decreased to 6.1% in 2019, from 16.9% in 2018.



Steel coil



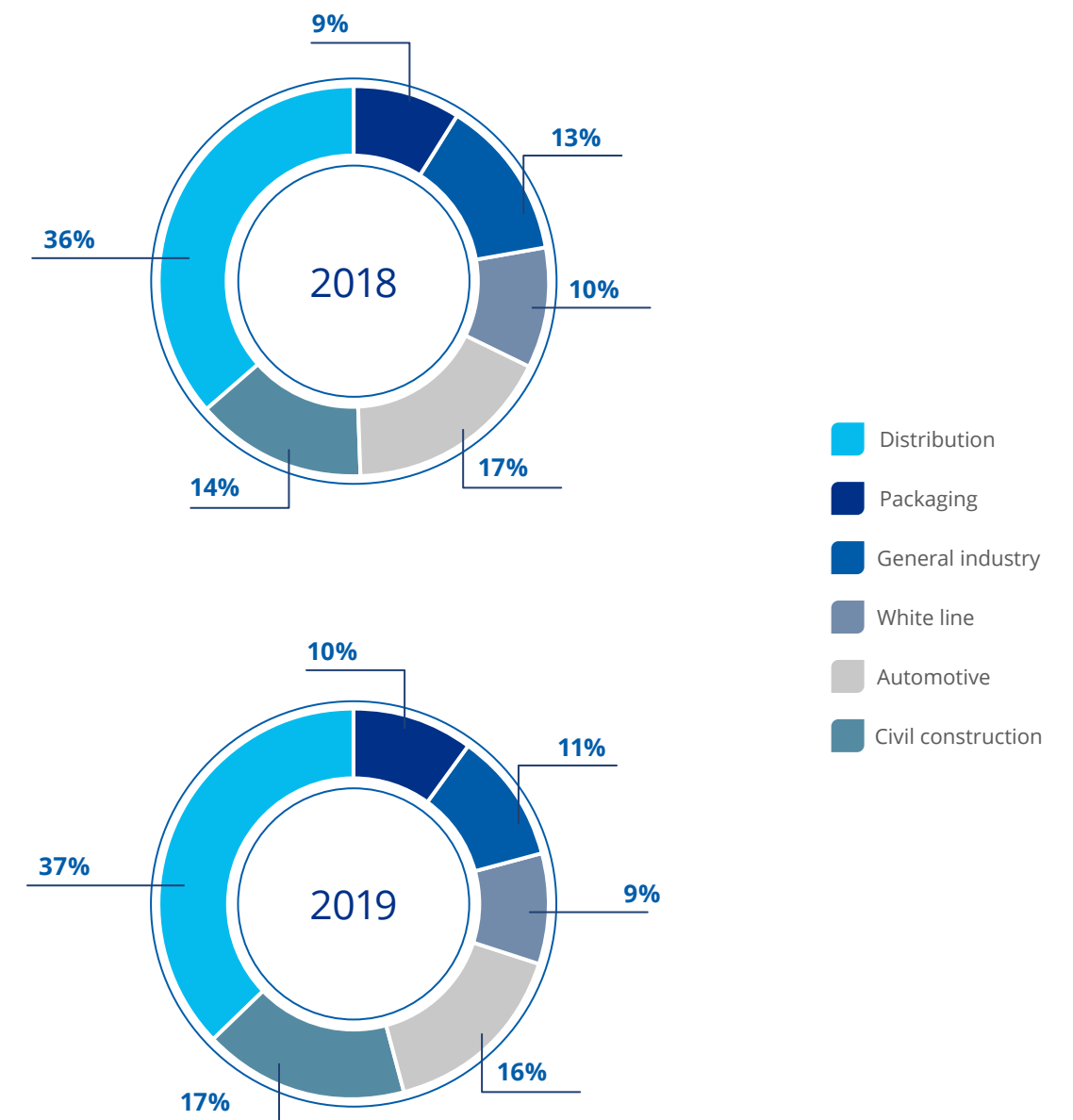
Market presence

We are adequately positioned in the domestic market to meet the demand of the main steel-intensive industries, such as civil construction, automotive, appliances, white goods and packaging. In the segment, exports accounted for 72% and 66% of net revenue in 2019 and 2018, respectively. To remain competitive and stand out, we value customer base diversification, high product quality, sales force automation, operation reliability and punctuality in the delivery.

In the 2-year period, coated products accounted for most of total sales volume, consistent with our strategy to boost our product mix's added value. In 2019, coated product sales, such as galvanized steel and metal sheets represented 49% of total flat steel sales, considering all markets we serve.

CSN Group's net revenue came to R\$ 25.4 billion in 2019, 11% up on 2018, mainly due to higher iron ore sales volume. Mining performance boosted adjusted EBITDA in 2019, totaling R\$ 7.2 million, up by 24% year on year and EBITDA margin came to 59.1%.

Sales by market segment - Steelmaking





Logistics

In 2019, net revenue from railway logistics totaled R\$ 1.3 billion, with R\$ 569 million EBITDA and EBITDA margin of 43.1%. On the other hand, port logistics totaled R\$ 240 million, with EBITDA of R\$ 63 million and a 26% EBITDA margin.



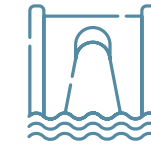
FTL | Ferrovia Transnordestina Logística



Cement

In 2019, domestic cement sales amounted to 54.5 million tons, according to SNIC (Brazilian Cement Industry Union) data. This amount is 3.5% higher than in 2018. In 2019, blast furnace 3's maintenance stoppage negatively impacted sector's costs, however, when operations resumed in 4Q19 we regained operational margin due to higher slag volume coupled with higher prices, contributing to a R\$ 22 million EBITDA and 15.2% EBITDA margin in the quarter.

Production is directed mainly to the states of Minas Gerais, Rio de Janeiro and São Paulo and our competitiveness results from the diversification strategy, with sales tailored to the specific needs of each customer.



Energy

According to EPE (Brazilian Energy Research Office), Brazil's domestic energy consumption increased by 1.4% in 2019, over the same period of the previous year. However, energy consumption in the industrial sector was down by 1.6%. In 2019, net revenue from energy amounted to R\$ 325 million, 21% down on 2018, due to lower energy availability and a decrease in spot prices (PLD in Portuguese). EBITDA was R\$ 47 million and EBITDA margin was 14.5%.

Consolidated results

GRI 102-7

The Company's primary revenue sources are steel products manufacturing and sales and iron ore exports. Accordingly, Brazilian and global business activity levels strongly influence our results.



More details on our business' risk factors and mitigation approaches can be found on the Reference Form, available on websites:

[Brazilian Securities and Exchange Commission](#)

[CSN's Investor Relations](#)

Results by segment and consolidated

2019 Results (R\$ million)

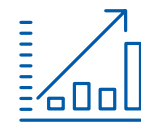
	Steelmaking	Mining	Logistics (Port)	Logistics (Railway)	Energy	Cement	Corporate Expenses/ Elimination	Consolidated
Net Revenue	13,949	10,028	240	1,321	325	571	(998)	25,436
Domestic market	10,028	927	240	1,321	325	571	(2,462)	10,951
Foreign market	3,921	9,101	-	-	-	-	1,464	14,486
COGS	(12,963)	(4,396)	(173)	(1,030)	(267)	(608)	2,174	(17,263)
Gross profit	986	5,631	67	291	59	(37)	1,176	8,173
SG&A	(835)	(186)	(35)	(110)	(29)	(91)	(1,568)	(2,854)
Depreciation	700	476	31	388	17	140	(330)	1,422
Proportional EBTIDA for subsidiaries under common control	-	-	-	-	-	-	510	510
Adjusted EBITDA	851	5,922	63	569	47	11	(212)	7,251

2018 Results (R\$ million)

	Steelmaking	Mining	Logistics (Port)	Logistics (Railway)	Energy	Cement	Corporate Expenses/ Elimination	Consolidated
Net revenue	15,634	5,985	266	1,506	411	588	(1,421)	22,969
Domestic market	10,328	972	266	1,506	411	588	(2,719)	11,353
Foreign market	5,306	5,012	-	-	-	-	1,297	11,615
COGS	(12,613)	(3,586)	(190)	(1,049)	(287)	(544)	2,163	(16,106)
Gross profit	3,021	2,399	76	457	124	44	742	6,863
SG&A	(985)	(145)	(35)	(106)	(28)	(96)	(1,362)	(2,758)
Depreciation	609	367	20	259	17	115	(213)	1,175
Proportional EBTIDA for subsidiaries under common control	-	-	-	-	-	-	568	568
Adjusted EBITDA	2,645	2,621	61	610	113	63	(265)	5,849

2017 Results (R\$ million)

	Steelmaking	Mining	Logistics (Port)	Logistics (Railway)	Energy	Cement	Corporate Expenses/ Elimination	Consolidated
Net revenue	12,959	4,621	238	1,417	408	487	(1,605)	18,525
Domestic market	7,819	829	238	1,417	408	487	(2,491)	8,706
Foreign market	5,140	3,792	-	-	-	-	886	9,818
COGS	(10,538)	(3,006)	(157)	(1,025)	(285)	(513)	1,927	(13,596)
Gross profit	2,421	1,615	81	392	123	(26)	322	4,928
SG&A	(964)	(159)	(28)	(95)	(27)	(81)	(877)	(2,231)
Depreciation	659	491	16	295	17	122	(190)	1,409
Proportional EBTIDA for subsidiaries under common control	-	-	-	-	-	-	538	538
Adjusted EBITDA	2,116	1,947	69	592	113	15	(207)	4,645



Net revenue totaled **R\$ 25.4 billion in 2019, 11% up on 2018**, mainly due to higher iron ore sales volume;



Consolidated cost of goods sold totaled **R\$ 17.2 billion, a 7% increase vs. 2018**, driven by higher raw material prices and iron ore sales volume, as well as blast furnace 3 stoppage;



Gross profit came to **R\$ 8.1 billion, up by 19% year on year**;



Selling expenses increased by 3.5% year on year while general and administrative expenses were up by 3.4% in the same period, **accounting for 2.0% of net revenue, lowest level since 2009**;



In 2019, other operating revenue (expenses) was negative by **R\$1.9 billion, largely due to cash flow hedge results** and idleness of stopped equipment.



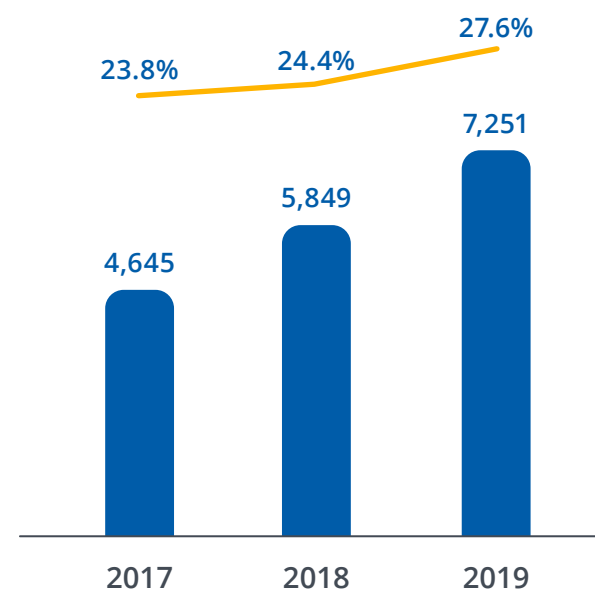
CSN Porto Real production line



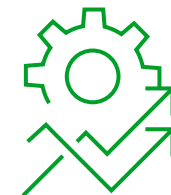
Adjusted EBITDA

In 2019, we posted record adjusted EBITDA, amounting to **R\$ 7.2 billion vs. R\$ 5.8 billion in 2018**, up by 24%, due to the mining sector's strong performance. To achieve this goal, efforts in the 2-year period were focused on:

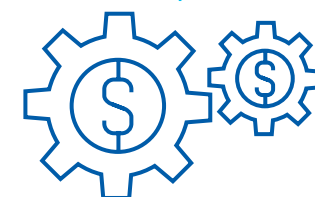
Adjusted EBITDA (R\$ million) and adjusted margin (%)



- Blast furnace 3's scheduled maintenance at UPV;
- Mining equipment renewal;
- Tailing filtering plants processing 80% of CSN Mineração's production, with the perspective of achieving 100% by 2020, without the need to use dams.



- Exports competitiveness;
- Focus on cost reduction;
- Production near its full capacity;
- Strict inventory control;
- Business synergy.

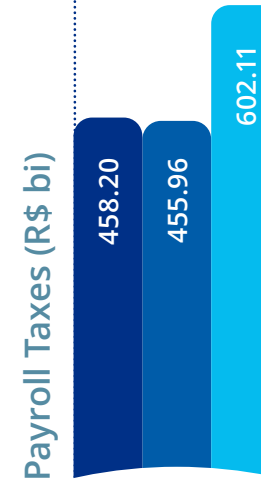


- Financial discipline and liquidity preservation;
- Focus on cash generation;
- Implementing financial deleveraging initiatives.

TAXES PAID BETWEEN
2017 AND 2019
R\$ 9.77 bi

R\$ 1.52 bi

R\$ 2.62 bi
Income Taxes (R\$ bi)

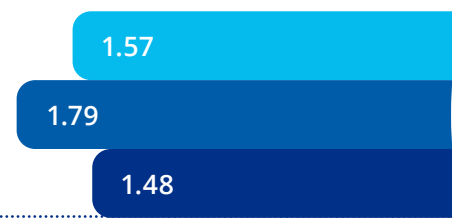


R\$ 739.6 mi
Mining Royalties (R\$ mi)



R\$ 4.83 bi

Goods and Services Taxes (R\$ bi)



Tax management

GRI 207-1, 207-2

Given the significance of our Brazilian businesses, we began to report in detail taxes paid by our main companies from 2017 to 2019.



R\$ 58.62 mi

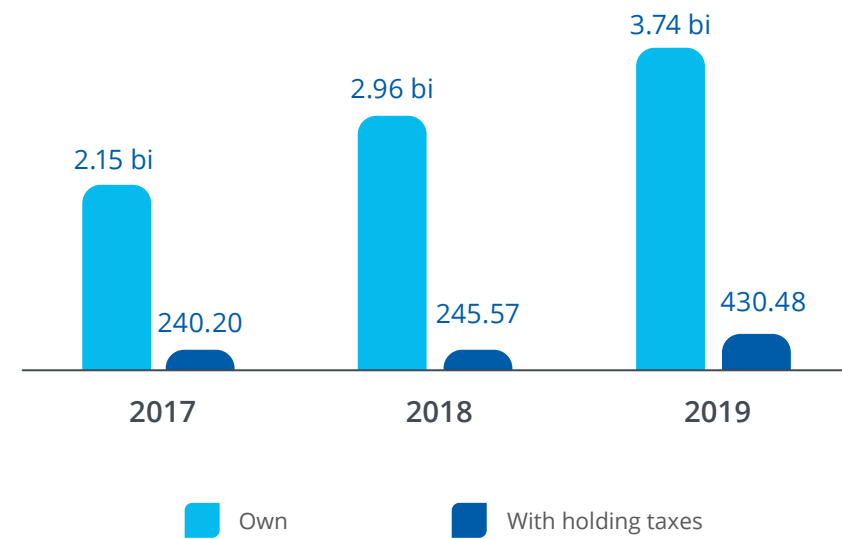
Other Taxes (R\$ mi)



*In 2017, CSN Group's companies joined the Special Tax Regularization Program (PERT), thus, there was greater tax discharge in the year.

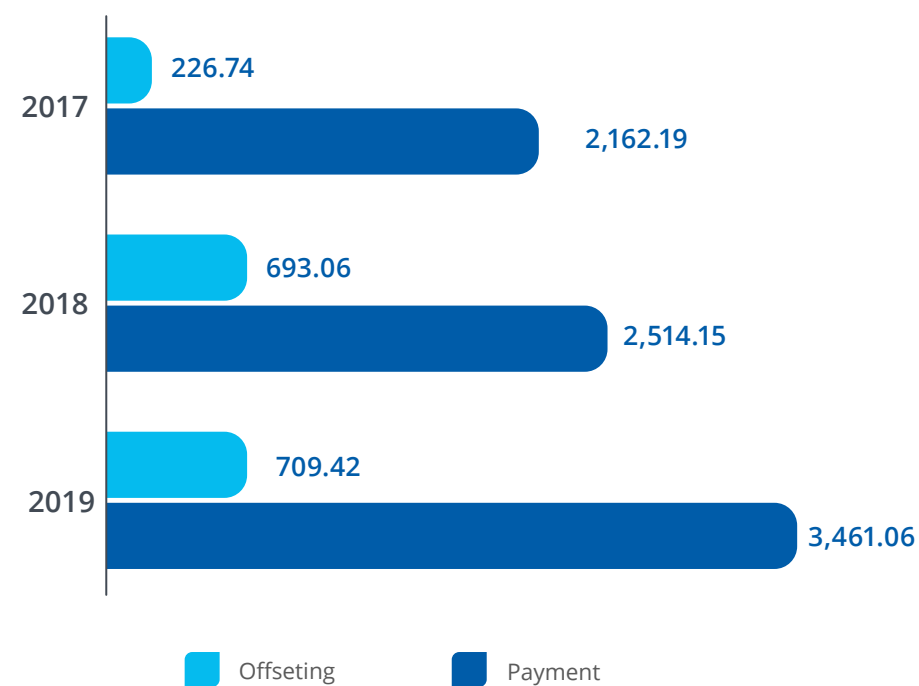
Taxes by category

(in R\$ million)



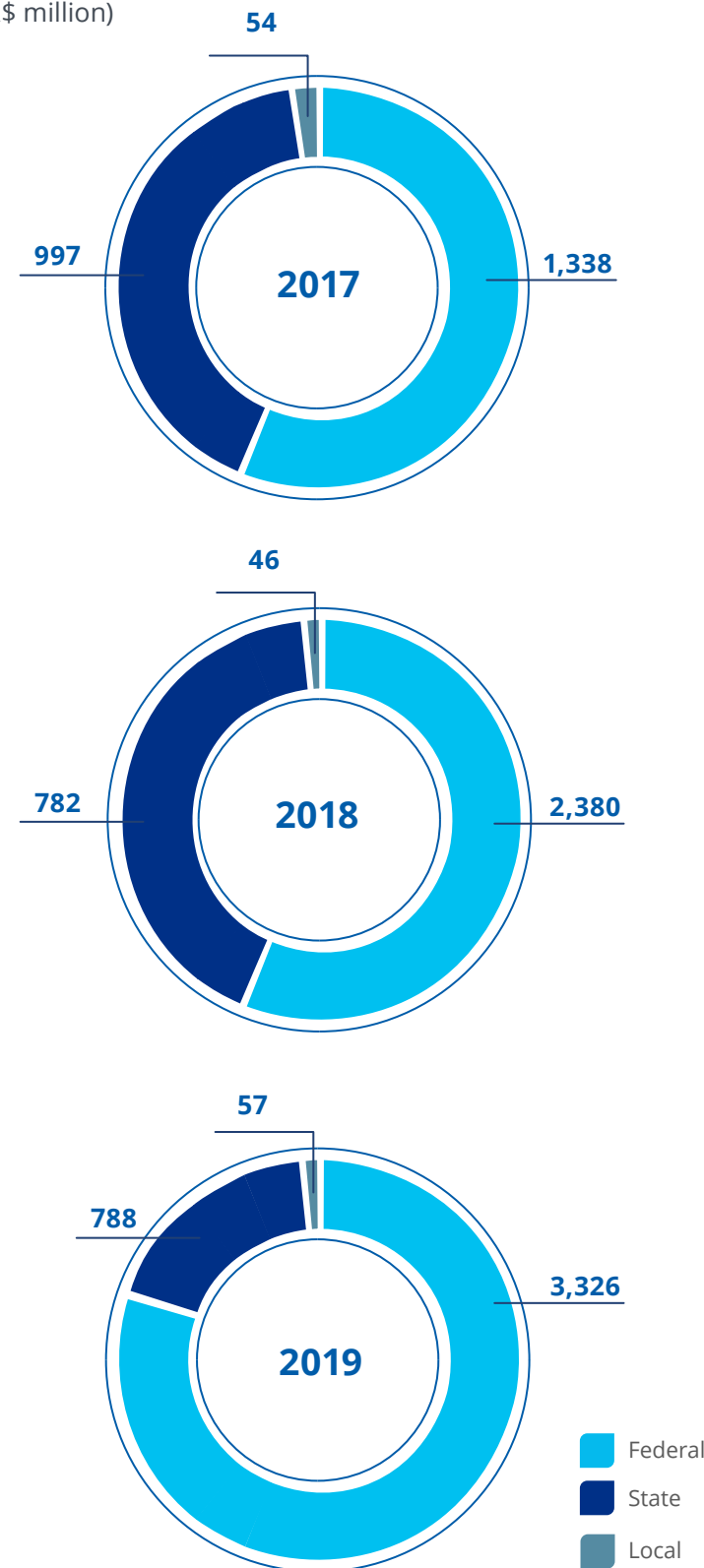
Taxes by payment type

(in R\$ million)



Allocation of taxes

(in R\$ million)



We work to ensure compliance with tax rules and requirements set forth by law and to guarantee that our tax procedures are in accordance with compliance rules mandated by the tax authorities of the places in which we do business.

Our tax management constantly monitors legislation amendments that can potentially impact our businesses and rely on recurring internal and external audit programs that assess legal and compliance matters.

Reciprocal to its recurring compliance and tax control tasks, in 2019, the tax management department offered several courses and workshops to train the facilities and sales teams.

Abroad, our management complies with local transfer price rules required by the countries where we operate, as well as fills the Country-by-Country Report, delivered by the Brazilian team, where the controlling company of the international group is located.

Also regarding our businesses abroad, we are subject to Controlled Foreign Corporation rules (CFC rules) and to Thin Capitalization rules set forth in the Brazilian legislation, whose impacts can be understood in the Financial Statements, available on the Investor Relations website.



Projects sponsored by CSN through tax incentives

GRI 201-4

Grounded on our sustainability vision, from 2017 to 2019 we have invested over R\$ 30 million in 72 projects (63 national programs and 9 regional ones) related to culture (Rouanet Act - Law 8.313/1991), sports (Federal Sport Incentive Act - Law 12.213/2010), the elderly (The Elderly Act - Law 12.213/010) childhood and youth (Law 8.069/1990) and health programs, such as PRONON (National Cancer Care Program) and PRONAS (National Health Support Program for People with Disabilities).

On the other hand, income tax deductions were recorded in compliance with legal rules and limits.

Federal level

(R\$ milhões)	Amount (R\$ million)			Number of projects receiving tax incentives		
	2019	2018	2017	2019	2018	2017
Rouanet Act	16.07	11.04	5.56	24	18	19
Sports Activities	3.40	2.75	1.10	10	5	6
Elderly Act	3.89	2.83	1.13	4	5	3
Children and Adolescent Fund	3.96	2.80	1.13	13	9	6
PRONON	1.04	2.75	1.13	4	3	1
PRONAS	1.04	1.61	-	8	6	-

We sponsor cultural and sports projects in the states where we do business, strengthening our relationship with the local community and fostering the development of significant projects for society. In the 2-year period, we invested R\$ 2.9 million to 22 state-level projects. [Learn more about the CSN Foundation on page 171.](#)

State level

(R\$ milhões)	Amount (R\$ million)			Number of projects receiving tax incentives		
	2019	2018	2017	2019	2018	2017
São Paulo – PROAC ICMS ¹	0.53	0.80	1.04	5	7	7
São Paulo – PIE ICMS ²	0.40	0.53	0.63	2	3	3
Minas Gerais – Culture ICMS ³	0.25	0.33	-	1	3	-
Minas Gerais – Sports ICMS ⁴	0.15	-	-	1	-	-

Note: 1. State Law – SP no. 12.268/2006
2. State Law – SP no. 13.918/2009
3. State Law – MG no. 22.944/2018
4. State Law – MG no. 20.824/2013
ICMS – State Goods and Services Tax.

We also invest in R&DI (Research, Development and Innovation) projects in our different sectors, such as mining and steelmaking. Every year these projects are evaluated and project-related expenses classified according to the technological innovation concept set forth by law are deducted from Income Tax and Social Contribution basis, pursuant to the rules and limits set forth by Law 11.196/2005, the so called *Lei do Bem* (the “Do Good Law”).



Indebtedness

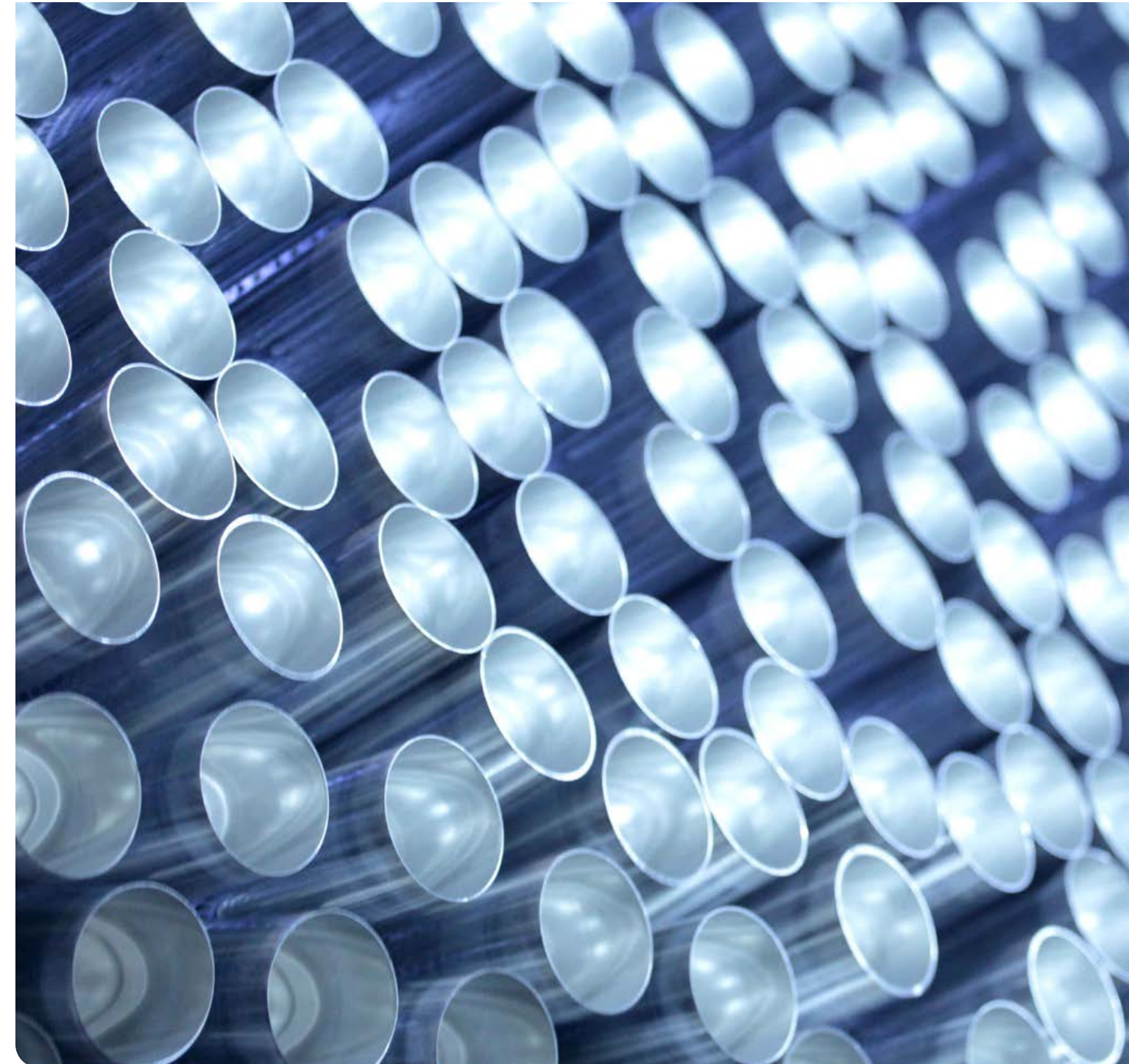
GRI 102-10

As of December 2019, CSN's total indebtedness was R\$ 27.9 billion, the smallest portion of which (R\$ 5.1 billion) are short-term debts and R\$ 22.8 billion are long-term debts. The Company's net consolidated debt totaled R\$ 27.1 billion vs. R\$ 26.6 billion in December 2018, representing a 1.8% increase, due to the depreciation of the Real depreciation against the US dollar, which affected its dollar-denominated debt and R\$ 1.9 billion as dividend payment.

Net debt/EBITDA ratio came to 3.74x in 2019, representing an improvement in the company's leverage compared to the previous year, when net debt/EBITDA ratio was 4.55x. In June 2018, we completed the sale of our entire shareholding interest in LLC to Steel Dynamics for US\$400 million. Located in Terre Haute (Indiana, USA), LLC has a cold rolling complex, a coil hot picking unit as well as a galvanizing plant

and an installed capacity of 800 thousand tons per year. LLC's sale is in line with our strategic planning and with our deleveraging commitment, and generated R\$ 1.6 billion cash in 2018.

As of December 31, 2019, the Company had a current liquidity ratio of 1.10, compared to 1.05 for December 31, 2018. The 4% drop in liquidity ratio is due to US\$746 million as a prepayment for a contract and amendment executed with Swiss company Glencore for the supply of nearly 33 million tons of iron ore by CSN Mineração. In December 2019, we chose to reclassify the R\$ 2.1 million investment in Usiminas' shares to current assets under financial investments, after the management's decision towards the maintenance of such shares, in line with our asset sale strategy. Considering this reclassification, the net debt/EBITDA ratio fell to 3.48x in 2019.



Packaging produced by Prada



Statement of Value Added

GRI 201-1

In thousands of Reais	Consolidated		
	12/31/2017	12/31/2018	12/31/2019
REVENUE	21,945,416	29,144,363	28,701,852
Goods, products and services sales	21,204,594	26,335,609	28,557,923
Other revenue/expenses	759,964	2,853,361	151,625
Allowance for /reversal of doubtful accounts	(19,142)	(44,607)	(7,696)
INPUTS ACQUIRED FROM THIRD PARTIES	(14,196,504)	(17,620,827)	(20,043,617)
Cost of goods, products and services sold	(11,540,509)	(14,829,430)	(15,273,523)
Supplies, energy, outsourced services and other	(2,621,653)	(2,655,691)	(4,631,026)
Impairment/recovery of assets	(34,342)	(135,706)	(139,068)
Gross added value	7,748,912	11,523,536	8,658,235
RETENTIONS			
Depreciation, amortization and depletion	(1,453,335)	(1,273,021)	(1,519,331)
Net value added produced	6,295,577	10,250,515	7,138,904
VALUE ADDED RECEIVED IN TRANSFER	538,744	1,600,820	700,453
Equity pick-up	109,111	135,706	125,715
Financial revenue	295,074	1,310,514	379,042
Other and exchange gains	134,599	154,600	195,696
Total value added to distribute	6,834,321	11,851,335	7,839,357
DISTRIBUTION OF VALUE ADDED	2,230,733		
Personnel and charges	1,576,352	2,297,125	2,659,536
Taxes, fees and contributions	2,916,007	1,383,850	211,914
Financial expenses, exchange losses and leases	-	2,969,777	2,723,396
Dividends	10,272	898,332	424,903
Income for the year/ retained earnings	100,957	4,175,804	1,364,164
Minority interest	6,834,321	126,447	455,444
Value added distributed	6,834,321	11,851,335	7,839,357

Perspectives

We remain strongly focused on productivity, efficiency and safety increase in all areas. We will continue investing in new materials and disruptive technologies, renewable energy, sustainability, circular economy and health techs, as well as in projects that will keep us in the forefront of our industry, allowing us to sustainably grow even further and foster the country's development.



Employee | Cement - UPV

Human capital



People and management

GRI 102-7, 102-8

In the 2-year period we strengthened our Essence of: **Fazer bem, Fazer mais e Fazer para sempre**, ensuring it is captured in every people management project, program and process. We invest in technical training and development of both CSN and our employees, to stimulate their growth.

To have a high-performance and skilled team, programs for talent attraction, development and retention in all levels are improved each year, always in line with our strategic drivers.

We ended 2019 with 24,869 own employees, most of them working in the steelmaking sector, followed by mining and logistics. Men account for 86.2% of the staff while women represent 13.8% – the number of female employees has increased over the years. The higher number of women in the workforce shows the efforts put in place to hire and technically train such workers, specially through the Diversity Program, at UPV ([learn more on page 113](#)). We must emphasize that our Recruitment and Selection Policy and the Code of Ethics seek to ensure a non-discriminative selection process, that clear states that we do not tolerate any practice that goes against our ethic values. They are coupled with a working group on diversity, created in 2018, working on five themes geared towards minority inclusion and non-discrimination.



Own employees



Third-party employees



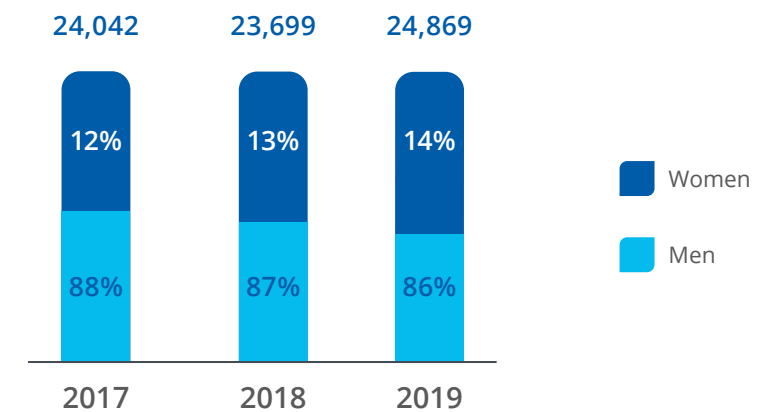
Total

	Own employees	Third-party employees	Total
2017	24,042	10,572	35,761
2018	23,669	11,567	36,424
2019	24,869	13,435	39,298







Note: Above data considers CSN's operations in Brazil only. Information on CBSI and CFB international sites were not included in such figures.

Employee breakdown

(by gender)



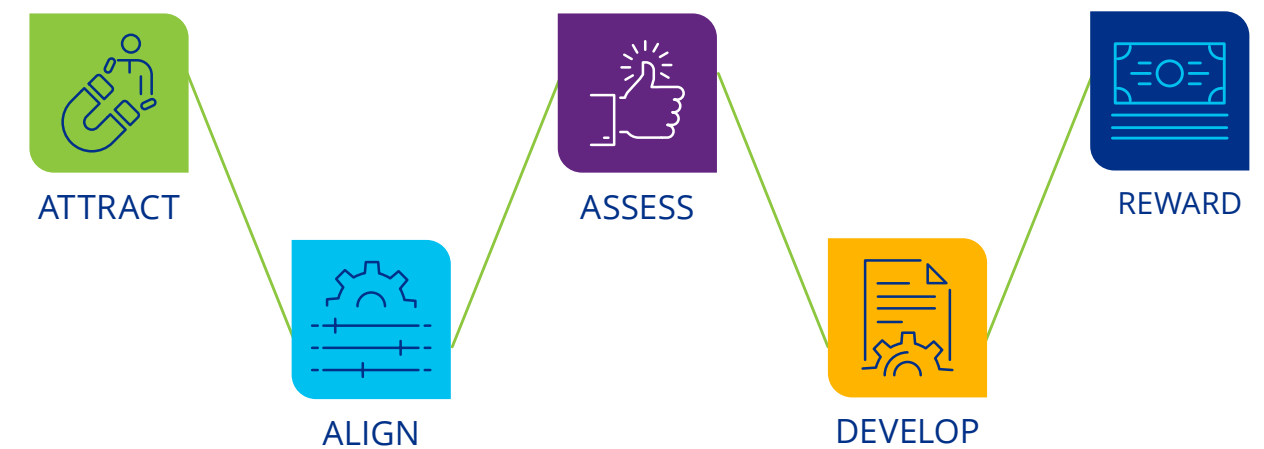
Employee breakdown by business area

	 Steelmaking	 Mining	 Logistics	 Corporate	 Cement	 Total
2017	13,835	6,029	2,704	591	883	24,042
2018	13,088	5,833	2,773	1,076	929	23,699
2019	13,489	6,422	2,735	1,257	966	24,869

Note: 99.9% of the staff had full-time contracts in 2017, 2018 and 2019 (learn more on page 190).

People Management Model

Our People Management model arises from the belief that human capital is our competitive advantage and the best assurance that we will stand out in the markets we serve. We transform knowledge into success, based on passion, dedication and skills that create opportunities, achievements and recognitions, driven by our efficient and integrated people management, underpinned by five pillars:



Employee at Presidente Vargas Steelworks
Volta Redonda (RJ)



ATTRACT

This pillar focuses on attracting people from different levels and profiles to meet our business needs, balancing skills and future potential, as well as ensuring CSN's business perpetuity. One of our most important advantages in attraction is the selection process led by an in-house team, that guarantees cost optimization as well as more assertive hires because the team in charge of the process knows our culture and each business needs.

To ensure business perpetuity, we value our employees, prioritizing growth opportunities and career promotion, by better allocating workers mapped to the Career and Succession Committees, and through recruitment process and internal promotions.

Additionally, since 2017 we are part of the *Aliança pelos Jovens* (Youth Alliance) program, created by the largest Brazilian companies serving different industries, to boost employment among young people. To attract good professionals that can grow within the Company, we invest in other attraction programs, namely:

Programa Capacitar (Technical Training Program)

To offer opportunities to the local community, we developed this program in the city of Arcos (MG), in partnership with Senai. The program opens doors for many workers.

Internship and Young Apprentice Program

We offer programs geared towards young people employment, focused on technical courses students and Young Apprentices. Targeted at contributing to young people joining the job market by developing skills and characteristics that will be important throughout their careers. The Program encourages their growth, revealing talents with potential to be hired by CSN in the medium and long terms, in line with our Essence and organizational needs, in addition to fostering the country's development through education and technical training. Over the past years, we strengthened the CSN brand at university fairs to raise awareness of the brand and engage higher education students. In the 2-year period, we had 1,075 apprentices.

In-House Trainee Program

The In-House Trainee Program targets the development and empowerment of CSN Group's interns to create a positive impact in the organization and increase talent retention. Trainees were chosen from the internship group who completed their training in December 2018. Eight of them were selected to go through a training period that included technical visits to our production sites, job rotation in the corporate departments and internal and external development modules. Interns are allocated to strategic departments to work on projects and learn new skills.

Programa Incluir

Reaffirming our commitment to social responsibility and ensuring the inclusion of professionals with special needs, we created *Programa Incluir*. Every six months, professional qualification courses are offered to persons with disabilities, with the possibility of being hired.



Integração social

Accessibility and inclusion of employees with disabilities

The inclusion of people with physical and mental disabilities is a value that we have encouraged through *Programa Incluir*, since 2010. Every year, on December 3rd, the International Day of Persons with Disabilities, we run special campaigns and send out internal newsletters to raise employees' awareness on the importance of the inclusion of persons with disabilities in different levels of social, political, economic and cultural life. In open job ads, we encourage the inclusion of persons with disabilities. Learn more about the initiatives we have:

Prada Distribuição

In partnership with Senai (National Service for Industrial Training), Prada Distribuição organized an apprentice development program for disabled people who are beginning their professional journey. From February to May 2018, six meetings were organized to discuss themes such as presentation techniques, job market tips and a talk show with an employee with disability who works in the site and talked about her time with CSN.

CSN Mineração

CSN Mineração entered into a partnership with the INSS (Brazilian Social Security Institute) in the Congonhas and Conselheiro Lafaiete regions (MG) to offer professional qualification training. From 2017 to 2019, more than 50 rehabilitated candidates have been interviewed and 16 rehabilitation training sessions were conducted at the Company and 82% of rehabilitated candidates have been hired. In 2018 and 2019, we carried out a selection process to hire Young Apprentices with disabilities, in which 15 young apprentices have attended technical and administrative training sessions, increasing social inclusion opportunities and qualifying them for the job market.

CSN Volta Redonda

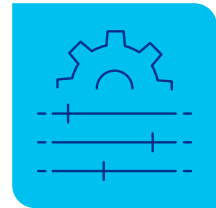
In a partnership with ETPC (Escola Técnica Pandiá Calógeras – [learn more on page 174](#)), we offered over 200 positions for professional qualification of persons with disabilities. Positions were split between two semesters of 2018 and the first class completed its training in August. The second class started in November 2018 and ended in May 2019. They participated in the recruitment process to work at CSN. In addition to those efforts, we participated in three events in southern Rio de Janeiro, focused on persons with disabilities and organized by Senai in the city of Resende, IFRJ (Rio de Janeiro Federal Institute), SEST (Transportation Social Service) and SENAT (National Transportation Learning Service).

CSN Araucária

We participated in the 11th edition of Reatiba organized by FIEP (State of Paraná Federation of Industries), with the theme “Diversity, inspiration and example”. At the event, we presented the successful case of CSN Araucária, where every department hired persons with disabilities. 80 people who attended Reatiba visited the site and got the chance to learn about the hiring and inclusion of persons with disabilities

CSN Arcos

We entered into partnerships with organizations in the city of Arcos and its surrounding region, including the INSS (Brazilian Social Security Institute), Apae (Association of Parents and Friends of Persons with Special Needs) and Asasf (Hearing and Speech Impairment Association of Alto do São Francisco), to submit resumes, join events, meetings and visits to the organizations and welcome their representatives at our site.



**ALIGN
AND
ENGAGE**

We monitor the recently hired executive officers through our **Culture Fostering Program**, which seeks to align the employee to CSN's culture and enables us to make possibly necessary adjustments to maintain their engagement and commitment. We also rely on an endomarketing initiative agenda to integrate and celebrate special dates such as days dedicated to women, mothers, fathers and children, as well as CSN's own anniversary.

To establish close contact with our employees, we rely on the communications department, in charge of integrating CSN's departments. We have various communications channels, including an in-house television channel, as well as printed and digital media that are available on the intranet and newsletters. Communications content addresses health, safety and

compliance matters, as well as the use of technological resources and topics related to operational changes and employees' everyday life.

Programa Viva Mais was launched in 2019 as another engagement tool to introduce initiatives to improve our employees' quality of life, with a view to adopting healthier habits and behaviors. At the corporate department in São Paulo, **we organized 5 lectures on health with the attendance of 700 employees, dozens of partnerships and more than 300 people served by the donation campaigns.** The program has four pillars: **physical, mental, social and organizational health.** Some of our actions include partnership with Gympass to encourage employees to work out on a regular basis in addition to having special days that include indoor biking, lectures on nutrition and skincare and Bioelectrical impedance analysis.



Prada employees

Diversity Initiatives

By the end of 2018, CSN noticed the need to work on values and concepts, seeking to inform, help and embrace people who are interested in and relate to topics and initiatives aimed to fight discriminatory behaviors related to any type of prejudice, discrimination or intolerance, by creating the working group on diversity, which meets monthly and has 5 pillars:



LGBTQIA+

Seeks to raise awareness, respect and support for employees that relate to the LGBTQ+ cause.



Ethnicity and race

Seeks equality, respect and inclusion of different ethnicities in the work environment.



Gender equality

Seeks equality, respect, empowerment of women inside and outside the work environment.



Persons with disabilities

Seeks equality, respect and inclusion of persons with disabilities in the work environment.



Employment opportunities over age 50

Seeks to raise awareness, respect and support for employees who are more than 50 years old.

DIVERSITY


WE RESPECT, VALUE AND ENCOURAGE



Diversity Initiatives

Over 30 kinds of marketing emails were sent to employees in the corporate department with information, curiosities, tips, calls to join groups and invitations for lectures and discussion groups. In addition, in 2019;

 **13** EVENTS, were organized with the attendance of about **1,000** PEOPLE

110 VOLUNTARY STAFF  were involved in deepening the discussions and possible solutions to increase and respect diversity at CSN.



Employees at CSN Cimentos' Sales Call Center | Volta Redonda (RJ)



Employee using personal protective equipment working at Presidente Vargas Steelworks | Volta Redonda (RJ)

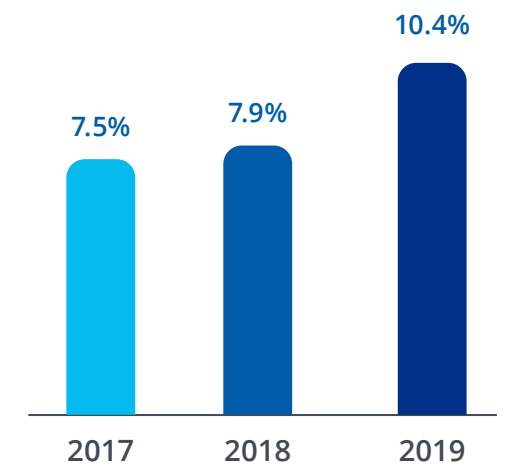
Inclusion of Women: UPV records 31% increase in the number of female employees in 2019.

Our focus is to increase diversity by encouraging inclusion, equality, respect and tolerance for differences. Since 2017, UPV (Presidente Vargas Steelworks) have relied upon the Diversity Program, whose premises are to respect, value and encourage, through 3 action pillars: increase women representation, increase the number of black employees and hire persons with disabilities. We encourage hiring persons with disabilities and offer technical training and mentorship to black employees, to prepare them to hold positions technical, support and medium and senior management areas. In 2018 and 2019, we worked hard on the technical training of women in order to raise awareness of employees and foster inclusion at CSN through guided opportunities. Therefore, we recorded a 31% increase in the number of female employees at UPV, compared to 2018, closing 2019 with 1,264 women.

Initiatives created at the UPV

- Diversity groups to be represented in all recruitment processes;
- Training and engagement of leadership on the topic;
- Endomarketing;
- Goal to increase the number of female employees at the UPV;
- Promotion of black employees to positions in technical, support and medium and senior management areas.
- Hiring of persons with disabilities.

Percentage of women at UPV



At CSN Mineração, our goal is to double the current **13% of female employees by 2030**. At Presidente Vargas Steelworks, our 2020 goal is for women to represent **13% of the workforce**. CSN group's overall the goal is to double the percentage of female employees to **28% by 2030**.



ASSESS

GRI 404-3

Every year, we assess our employee's skills based on CSN's Essence of: ***Fazer bem, Fazer mais e Fazer para sempre***, aiming to guide employee development processes, programs and initiatives, as well as decision-making regarding their careers. Performance assessment is carried out once a year for most employees and twice a year for interns. In 2019, 91.4% of employees went through the Skills Assessment Program.

After the assessment, each employee's performance is plotted in the Nine Box matrix, which allows assessing the performance within two parameters – real performance, based on results, and potential performance, considering the skills assessment – linked to the strategic succession planning for leaders. The Succession and Career committees use the results to assess potential Company managers. We also rely on training for

We have a variable compensation methodology, based on individual performance assessments as well as CSN's results.

leaders, at the School of Leaders, and future leaders can take part in the Career and Succession program.

We have a variable compensation methodology, based on individual performance assessments as well as CSN's results, and is paid as a Profit-Sharing Program or Bonus. For upcoming cycles, we will continue to invest in the improved assessment of our employee performance, encouraging meritocracy and being in line with our position on innovation, plus we will outline processes to implement tools that help employees' daily activities and increase safety and productivity.



CSN Employees at Presidente Vargas Steelworks



Long Steel | Volta Redonda (RJ)



DEVELOP

GRI 404-1, 404-2

Our development model drives our learning initiatives and efforts, geared towards achieving strategic targets and goals. Our programs strengthen our culture and align leaders' behavior to strategic drivers. In 2019, we recorded 520,398 training hours, 21 hours per employee on average. Mandatory training, targeted at operational areas,

recorded 361,032 training hours. We also offer corporate and executive training. All development initiatives are designed to transform through education.

In the 2-year period, we began to develop the Corporate University, whose mission is to spread the learning culture and ensure the continued education model that is affordable

and focused on organizational skills. It will begin classes in 2020 founded on 4 pillars: School of Leaders, Business School, School of Results Excellence, and School of Ethics and Sustainability.

One of CSN's development programs is the Career and Succession, which aims to identify, assess and develop

potential successors onto leadership positions, focused on CSN Group's existing business sustainability and growth. In addition to creating real and planned career opportunities, based on technical and management skills, aspirations and engagement, the program creates a growth culture and contributes to employee retention.

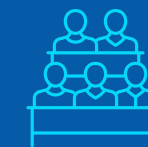


Innovation: digital transformation and design thinking training for leaders using theater techniques

The School of Leaders is intended to build current and potential leaders, ensuring that our leadership is in line with what is expected from employees in each company level. Since its launch in 2011, 21 modules were developed about different current themes to strengthen the Company's leadership. The program is based on the "leadership pipeline" concept, methodology that guides workers to go through the changes required to take on more complex tasks that demand greater responsibility. In the 2-year period, we addressed issues such as digital transformation, exponential and design thinking, as per market trends, encouraging our leaders to come up with new ideas and engage their teams to find innovative solutions.

Organizational matters such as effective communication, creativity, innovation and team building can find in the theater the tools to help overcome challenges. Theater techniques, methods and systems are invaluable for the creation of a virtuous leadership environment, understanding people's nature and what drives them. Thus, these techniques support leaders' development processes, creativity and innovation in companies.

We hired a professional actor with whom we developed an experimental training program, focused on team building and co-creation. Theater games and ensemble exercises have been used as team building tool and to encourage participation. In addition, improv techniques have helped learning to listen to others. During the process, the use of "here and now" technique has contributed to reduce stress and anxiety. The program consists of 16 hours of training and was offered to potential CSN leadership successors, who positively responded to the program, contributing to its continuity.



16 training hours

60 people

80% believed that training exceeded expectations and 20% rated the course as very good.



We have also maintained the following programs:

Knowledge Merry-Go-Round (*Ciranda do Conhecimento*)

Courses offered by the Company's executives and employees who have specific knowledge in certain academic areas, intended to promote CSN employees' ongoing learning and to spread knowledge thus increasing intellectual capital.



Partnerships with education institutions

It fosters the access to education by granting technical, undergraduate, graduate, MBA and language courses. The program consists of educational initiatives created to support employees over the duration of the course, in order to increase and improve their knowledge.



Education Day

We believe that only education can change lives, therefore, we celebrate the Education Day through initiatives in all sites to encourage employees' learning. The entire HR team was engaged in organizing lectures, trainings, communicate courses, educational games, book exchanges, among other activities that promote education. In 2019, 2,579 hours were invested in cultural initiatives and the core theme of the Education Day was "Education's transforming power" and each site had a special program to address it.

Total number of training hours

	Total training hours	Training hours per employee on average		
2017	345,653	5.45	6.5	5.29
2018	393,066	16	14.1	16.3
2019	520,494	21	22	21

Total training hours provided in 2019 by gender and employment category

			Total
Administrative	28,444	43,276	71,720
Coordination and supervision positions	2,159	21,707	23,866
Executive Officers	30	135	165
Management and senior management	735	7,148	7,883
Higher education	9,584	19,482	29,066
Operacional	28,932	308,990	337,922
Technical high school level	5,243	44,629	49,872
Total	75,127	445,367	520,494
Average	22	21	21



REWARD

GRI 102-41, 202-1, 202-2, 403-4, 405-2

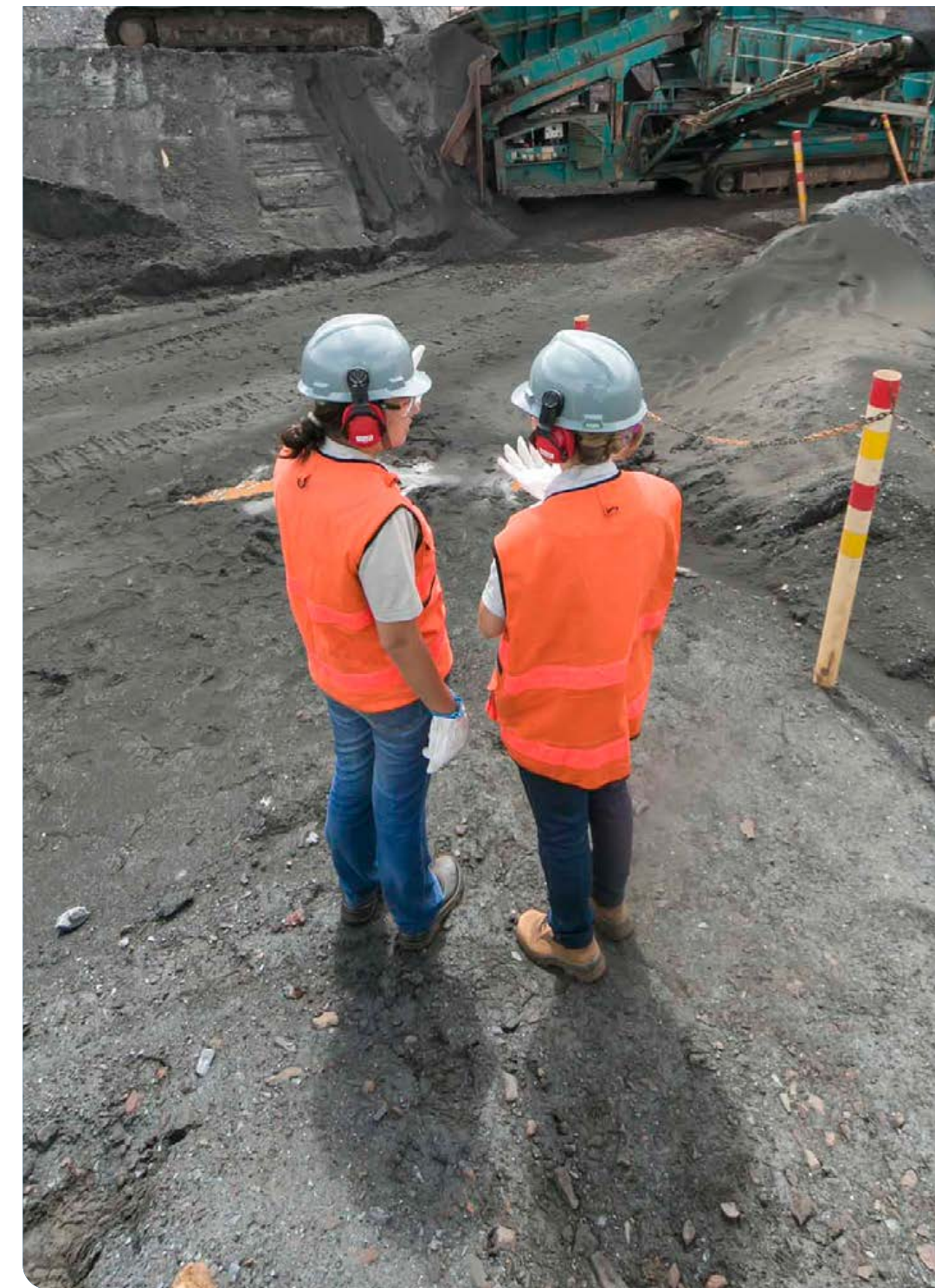
Our employees' compensation is determined by their performance, how they carry out their tasks and is consistent with the market pay rates. We always give priority to hiring local employees, i.e. workers that live in the same city or state where our units are located. In 2018 and 2019, respectively, 60% and 88% of employees hired for executive positions lived in the same region where they were hired to work.

We also developed a variable compensation methodology based on CSN's results and paid a profit-sharing program. At CSN, the lowest salary is the national minimum wage, and it is paid to minors working in an apprentice capacity. The average monthly wage paid by the Company is R\$3,031.74 to men, and R\$3,547.48 to women, 203.8% and 255.4% higher than that same year's minimum wage (R\$988). In 2018, the average monthly wage paid to women was R\$3,453.41 and R\$2,797.32 to men, higher than the minimum wage in that same year (R\$954). Accordingly, considering the average monthly wage paid in all our sectors and operational levels, the women's salaries were 23% and 17% higher than the men's salaries, respectively in 2018 and 2019.

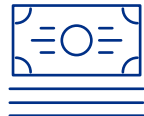
Besides having a consistent market-based compensation, employees are also given benefits in excess of those required by the applicable laws, as agreed upon with their respective unions; 100% of

our own employees are represented by labor unions and are benefited from collective salary raises or other bargaining agreements, which are subject to regular renegotiations. Accordingly, all outsourced employees are represented by labor unions. Part of the occupational health and safety issues are addressed in our collective bargaining agreements, including: health insurance, employment and wage guarantees to pregnant employees, informing the unions about accidents, CIPA (Internal Commission for Accident Prevention) rules, combined efforts to prevent and treat drug addiction, hazard pay, as well as other issues that follow the rules set forth in the Company's specific policies and practices ([see more on page 124](#)).

CSN employees have a 220-hour working journey (for administrative and sales positions) and a 180-hour one (for technicians). We have a strict control of our employees' working hours through a computer system. Our employees have to clock in their times, ensuring compliance with rules set forth by law, the collective bargaining agreements and employment contract. Thus, the human resources department has technological tools and best practices that allow access and analysis of information to improve and optimize the working hours management. In addition, the HR department provided each employee with a copy of their timesheet reports via communication channels.



Mobile plants



Retirement Preparation Program

GRI 201-3

The Retirement Preparation Program is intended to provide information on and prepare our staff for the retirement phase through lectures and activities about social relationships, financial issues, entrepreneurship, as well as physical and mental health. Furthermore, active employees share experiences with retirees and community groups so as to build new life and career plans. This initiative results from the partnership between CSN and CBS Previdência.

CBS Previdência

Private Pension Funds have been increasingly perceived as alternatives to ensure extra income during retirement. As a part of this segment, CBS Previdência, the CSN Group's Employee Private Pension Fund, is committed to an efficient and transparent management of the equity under its administration.

Founded in 1960, CBS Previdência is Brazil's fifth oldest private pension fund and currently offers four benefit plans with almost 35,000 participants, 22,000 of whom are active employees and 13,000 are pensioners. Besides enabling participants to build equity during their work life trajectory that will provide an additional

income to their Social Security benefits, CBS Previdência offers additional services to its participants, such as loans, life and health insurance.

CBS Previdência is managed by three statutory bodies: Decision-Making Board, Fiscal Council and Executive Board. Each body has its specific activities, defined by CBS Previdência's bylaws. The Decision-Making Board and the Fiscal Council are comprised by representatives of the sponsors, as well as of the participants and beneficiaries, ensuring full transparency in the private pension fund management.



PERFORMANCE

R\$ 5.54 billion
in equity in 2019

+5.04% versus 2018

98.55% membership
among CSN's new employees



RELATIONSHIP

266 thousand service requests

99.5% of claims solved
in the first call

Satisfaction rate
over **93%**



Health and safety



1.5%

In severity rate
involving absence from work
in 2018 e 2019

-23.5%

In severity rate
involving absence from work
in 2017 x 2019



-8%

In severity rate
in 2017 x 2019



Accident prevention
program based on ISO 31.000



Occupational Safety

GRI 403-1, 403-2, EM-IS-320

For us, safety comes first in all aspects. We have always maintained safety practices and trained our employees on safety during production processes and we work hard to improve indicators every year. Our DART rate (Days away, restricted or transferred, or CAF as in the Portuguese acronym) for our own and third-party employees remained in the previous figure, at about 1.5. As compared to 2018, this figure was a significant achievement, given that 2019 was a year of important new projects and work processes. New employees' introduction to the projects has occurred as planned, without jeopardizing the evolution seen in previous years, but still at a slower pace. New work processes have also been created in an orderly fashion given our focus on changes – an important element of our management system. Compared to 2017, the progress was more significant, with a DART rate of 1.5, which is 23.5% down and an 8% severity rate.

Those figures show the result of initiatives that were intensified in 2017 to avoid DART (CAF); thus, after robust investigation focused on risks, we have reduced absence time. In three years, the attendance rates, with and without time losses, and severity rate decreased 5% and 8% respectively, showing how assertive were the measures taken. We began the critical risk (fatalities) identification process for an incident prevention program, based on ISO 31.000/2018 standards (risk management).

Moreover, through our Corporate Health and Safety Policy, we prepared the Health and Safety Management Manual, based on good market practices, rules and national and international recommendations. The Manual contains guidance on the activities of our own and outsourced employees regarding proactive and safe behavior, compliance with legislation, mitigation and control of hazards and risks, as well as



Mining truck operator, at Casa de Pedra

prevention of occupational injuries and illnesses through 10 elements that define responsibilities and needs for specific prevention tools. CSN's Health and Safety Management System adopts 2 key principles:

- Ensuring the safety of our employees and our community is the most important aspect in developing our activities.
- Minimizing exposure and protecting the physical integrity and health of our own and third-party employees, anticipating occupational incidents and illnesses.



These principles are based on 10 elements:

-  COMMITMENT AND LEADERSHIP
-  COMMUNICATION
-  STANDARDS AND PROCEDURES
-  BEHAVIORAL DEVELOPMENT
-  RISK MANAGEMENT
-  CHANGE MANAGEMENT
-  LEGAL REQUIREMENTS
-  PLANNING
-  OUTSOURCING RELATIONSHIP MANAGEMENT
-  COMPETENCIES AND SKILLS MANAGEMENT

The Critical Risk Requirements (RRC in Portuguese) is targeted at controlling critical risks, raising awareness, as well as offering educational and behavioral development initiatives, through which leaders approach the other employees about health and safety in the activities and the production process. Critical risks include working with electricity, cargo handling, control of hazardous energy, working at heights and in confined spaces, and we adopted specific procedures to identify workers protection measures.

Although those efforts have been successful over the years, one fatality was recorded in 2018 operations. There were no fatalities in 2019. When serious injuries and fatalities are recorded, we apply all standards based on our rules and the legislation in force.

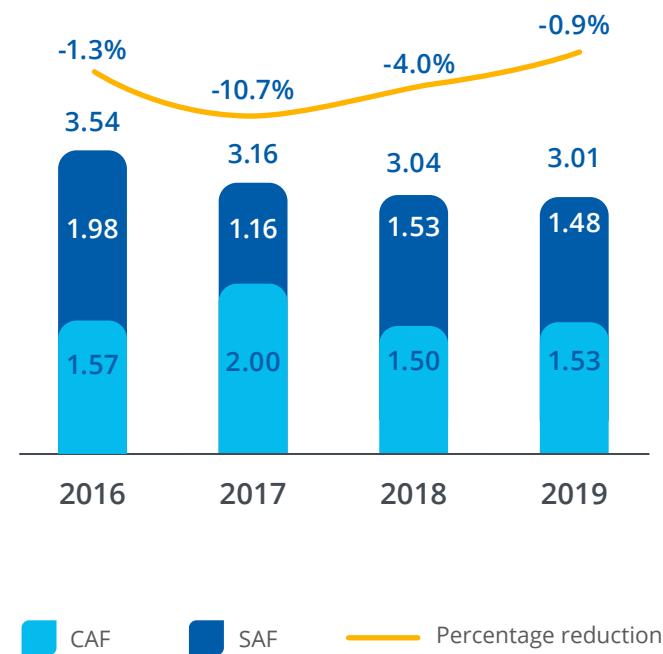
	 Incidents causing personal injury not involving absence from work (SAF)	 Incidents causing personal injury involving absence from work (DART; or CAF)	 Total absent days up to return	 Total fatalities
--	---	--	--	--

2017	82	140	4,585	1
2018	105	102	4,174	1
2019	113	117	5,371	0

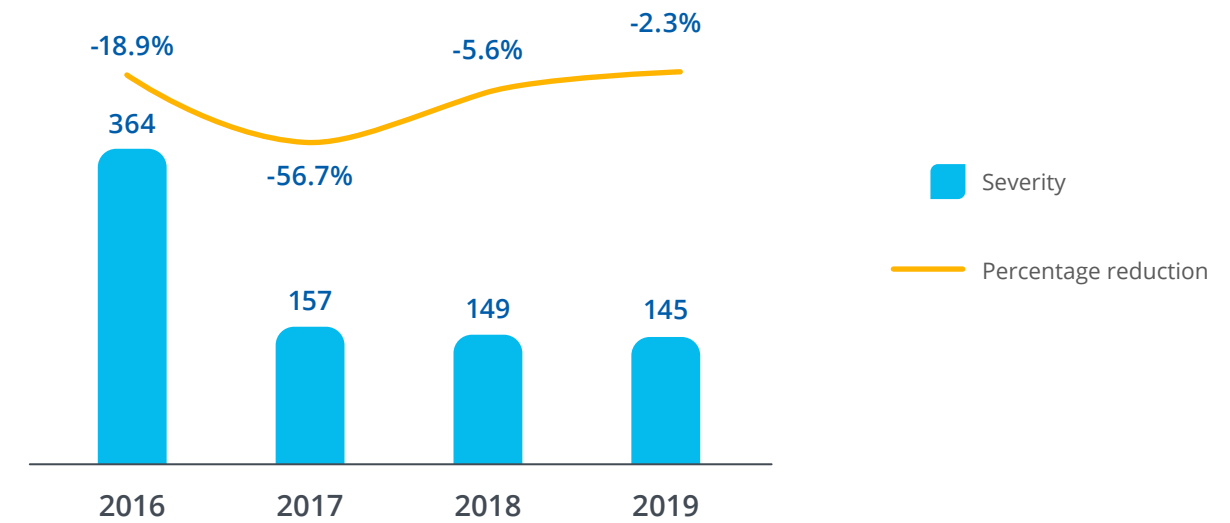


Incidents recorded per 1,000,000/
labor-hour worked, among our
own and third-party employees

Frequency Rate (CAF + SAF)



Severity Rate



For occupational health and safety matters, 100% of both our own and third-party employees are covered by formal health and safety committees. Committees addressing the issues at the operational, management and leadership levels are:

- Core Safety Committee – Business Unit;
- Corporate and Executive Occupational Health and Safety Committee;
- Contracts Committee;
- Leadership Committee;
- Working Groups for NRs (10, 12, 13, 20, 33 and 35).



Health

GRI 403-3

In the 2018/2019 period, all of our sites have health professionals, including occupational physicians, nurses and technicians, speech and language therapists, physiotherapists, social workers, along with outsourced medical centers to service other 41 sites, in accordance with NR-7.

We also have an emergency transportation service, with our own Class B vehicles, in addition to service agreements. All of our units have a medical care emergency plan and a map of local resources that provide care to employees who are involved in accidents.

Regarding health programs, in 2019 we performed over 30,000 occupational health exams in compliance with NR-7, in addition to social services that not only protected our employees' health but also helped to monitor our population demographics. The results allowed us to maintain existing programs for health prevention and promotion, such as the Alcohol and Substance Abuse Prevention Program (PPAE), ergonomics programs, social support, occupational physiotherapy, in addition to the preparation and implementation of the *Mais Vida Program*, geared towards quality of life and health promotion (see more on page 110), among others.

In the 2-year period, over 60,000 occupational health exams were performed, including pre-employment, routine, return-to-work, change in duty station and dismissal physicals, and nearly 100,000 complementary exams that provided information to several health monitoring programs for employees, such as:



CSN Porto Real (RJ) and Volta Redonda (RJ) Employees | In the back: Presidente Vargas Steelworks



- **Hearing Conservation Program** for employees subject to occupational noises;
- **Respiratory Protection Program** for employees exposed to dust and smoke;
- **Ergonomics Program**, to provide adequate labor conditions to the employee, reducing impacts to musculoskeletal system;
- **Programa Despertar**, which ensures the mining employees operating mobile equipment outside the mine roads will operate vehicles adequately and fully aware and
- **Alcohol and Substance Abuse Prevention Program (PPAE)**, which aims to identify employees who are addicted to chemical substances, whether it is alcohol or legal or illegal drugs, and offers proper support and treatment. In 2018 and 2019, the program supported 56 employees (0.24% of the workforce) and rehabilitated 68% of participants.

In the fight against infectious diseases, every year the CSN Group organizes the influenza vaccination campaign, 100% paid by CSN, and over 50% of the workforce agreeing to be vaccinated. Furthermore, the sites periodically offer vaccination campaigns for tetanus, diphtheria, measles and hepatitis B, in compliance to the official vaccination calendar, as well as vaccinations recommended by the State. We do not operate in areas with high incidence of contagious diseases, and we strengthened health and safety measures to prevent the spread of coronavirus among our employees ([learn more on page 176](#)).

Every year, in October and November, we encourage employees and their dependents to get preventive exams for cervical, breast and prostate cancer during our Pink October and Blue November campaigns. These initiatives make possible the early diagnosis of asymptomatic cases, ensuring better treatment outcomes for such diseases. In these events, the turnout rate for those exams reaches up to 200% more than the average monthly rate in other months of the year.

Every year, in October and November, we encourage employees and their dependents to get preventive exams for cervical, breast and prostate cancer during our Pink October and Blue November.

Based on the annual report from PCMSO (Occupational Health Control Program), in the (PPRA) Environmental Risk Prevention Program and the Official Health Calendar, we have come up with tailored campaigns such as: obesity, diabetes and high blood pressure control, skin cancer prevention, and fight against smoking and sedentary lifestyle. Together with our cafeteria service suppliers, we help in the preparation of healthy and balanced menus, offering meals with the adequate calories for the activities performed at our plants.



Employees at CSN Cimentos' Sales Call Center Volta Redonda (RJ)



CSN employees at a company's conservation unit

Natural capital



Management approaches

GRI 102-10

Respect for the environment is a vital condition to ensure our business perpetuity. Steelmaking and mining have a natural environmental impact potential. In order to prevent and mitigate such risks, and also to offset, minimize and remedy possible environmental impacts, CSN relies on a robust environmental management system - SGA in all its units ([learn more on pages 130](#)).

Our Environmental Management System is geared to lay responsibilities to regularly analyze and assess compliance with environmental legal requirements and other requirements applicable to our activities. Therefore, environmental audits are performed on a regular basis as well the evaluation of environmental management system's legal compliance, which are executed by both internal and external auditors.

Thus, we always work to minimize our negative operational impacts and invest in environmental preservation, conservation and education initiatives, attesting our commitment to the quality of life of current and future generations.

We engage in natural resource-intensive activities; therefore, the efficient management of such resources is directly connected to the best market practices, compliance with laws in force and continuous assessment of our processes to reduce our environmental impacts. All environmental controls are audited on a regular basis also to comply with the Sarbanes-Oxley Act, contributing to lessen our businesses' environmental impacts. Under SOX, we rely on a strict control of the allocation, spending and reporting environmental management funds.

Our Environmental Management System is geared to lay responsibilities to regularly analyze and assess compliance with environmental legal requirements and other requirements applicable to our activities.

Details on environmental management expenditures are released every year in the Financial Statements, available on CSN's Investor Relations website.



Conservation unit | Arcos (MG)

In 2019, environmental expenditures (including investments and costs) totaled R\$405 million, compared to R\$ 354 million in 2018. Besides direct investments in environmental control and initiatives, we heavily invested in new technologies that brought positive impacts to our environmental performance through the decrease water consumption and in waste generation, better energy efficiency, greenhouse gas emission reduction, such as:

1

at CSN Mineração, the tailing filtering and dry stacking plant achieved a **23% decrease in new water consumption and 80% in tailings disposal at the dam, a figure that shall reach 100% in 2020.**

2

the Magnetic Concentration Plant, which transform tailings into products. In steelmaking, **blast furnace 3's refurbishment provided a significant improvement to its energy efficiency.**

To ensure sustainable operations and a healthy and safe work environment yet offering quality products, our businesses are run in accordance with our Environmental Policy, entitled **SEMPRE (learn more on page 129).**

Our Policy and the Environmental Management System reaffirms our commitment to creating value to stakeholders and is aligned to regulatory guidelines as well as the best global practices, encouraging the application of the guidelines to all operations, setting up detailed responsibilities and procedures to be followed.

Guided by our Policy, operational units have dedicated Sustainability and Environmental Management teams, which provide support in processes with the purpose of offering tailored ingenious environmental solutions, in accordance with each unit's context. Therefore, the teams manage and control all environmental investments, which are mainly related to operational performance enhancement, maintenance management of environmental control equipment, efficiency assessment, environmental studies development and management, environmental monitoring, environmental indicators control, environmental licensing management and compliance with environmental permit conditions.

Lameirão Property, located at Parque Nacional das Sempre Vivas

SEMPRE: Environmental Policy

Sustainable Business Practices: To incorporate social and environmental sustainability in our business decisions.

Transparent Company: To keep communication channels permanently opened with all stakeholders regarding the company's social and environmental issues.

Continuous Improvement: To improve our activities performance continuously, acknowledging environmental aspects as an integral part of our processes.

Environment Protection: To develop and encourage programs aimed to prevent pollution as well as to identify and manage environmental aspects, impacts, risks and opportunities.

Environmental Compliance: To Comply with current environmental laws and regulations, seeking to achieve superior results whenever possible.

Education and Training: To instruct, train, enlighten and encourage CSN employees to pioneer, participate and commit to sustainable development and social responsibility concepts when performing their activities.



Employee at the Recyclables Yard
at Presidente Vargas Steelworks
Volta Redonda (RJ)



Environmental Management System

We rely on the SGA (Environmental Management System) certified as per ISO 14.001:2015 in most of our sites ([see more on page 60](#)) and even those sites that have not yet been certified count on SGA and are going through a corporate schedule to advance in the certification process, according to ISO guidelines.

SGA was developed by CIGA (Internal Environmental Management Committee) whose members work in the units' environmental and operation teams. The group meets monthly to maintain SGA's continuous improvement as well as to detect and prevent possible environmental impacts. We make recurring investments in training, including through PEA (Environmental Education Program), for internal and external audiences regarding the most relevant environmental issues for each location, encouraging the development of collective awareness and promoting environmental conservation in our influence area ([see more on page 172](#)).

We have an open dialog with public agencies and the communities to clear any doubts about how we operate ([see more on page 163](#)), share information on conducted studies, and pursue process improvements.



GREEN LINE

We keep an open communication channel with our staff and external audience, through the Green Line. All environmental concerns (complaints, suggestions, queries, compliments and requests) received are analyzed by the Environmental Department and formally addressed in up to 15 business days. For non-environmental concerns, Green Line informs the department where they should be sent to.

Telephone: 0800 282 44 40

E-mail: meio.ambiente@csn.com.br



Environmental Licensing

All our sites have operation licenses/permits or are going through the granting/renewal process for the respective licenses. Through our Environmental Policy, we are committed to complying with environmental law so that all units are in accordance with the specific rules of the locations where we do business.

All our units are integrated through a platform that updates the most recent environmental laws and manages the legal requirements, communicating each and every amendment to the environmental regulation applicable to our operations, with the subsequent management and critical assessment of our technical team.



Paraíba do Sul River | Volta Redonda (RJ)

Presidente Vargas Steelworks

We have signed into an investment commitment of more than R\$ 300 million up to 2024 through TAC (Consent Decree) 07/2018. Investments consist of over 30 improvement actions for the modernization of UPV's environmental controls as well as its air-quality monitoring network, contributing to the activities' ecoefficiency and the community's wellbeing. Up to December 2019, 5 audit cycles to follow up on the TAC Decree have been performed, which means that 14.3% of the action plan's obligations was achieved. In 2020, new audit cycles will be conducted to verify the initiatives progress.

In 2019, we also signed an Agreement with Volta Redonda's Environmental Department to plant 4,002 seedlings in urban areas, creating carbon credit for future offsetting due to occasional suppression needs in our operational sites ([see more on page 155](#)).

Also, in December 2019, we were granted the Operation and Recovery License for CSN Cimentos, located in the UPV and an environmental permit to transfer waste from Arcos and Casa de Pedra. In that sense, we have been authorized to recycle such materials, without sending them to landfills in compliance with Law 12.305/2010 (Brazilian Solid Waste Act).

Harsco Metals, hired by CSN to process steelmaking slag, is prepared and will be granted environmental license for the new beneficiation plant, which has an additional processing capacity of 25Kt/month and is expected to begin operations in 2020. The plant will enable us to decrease slag inventory at Presidente Vargas Steelworks and significantly increase metal scrap return to in-house consumption.

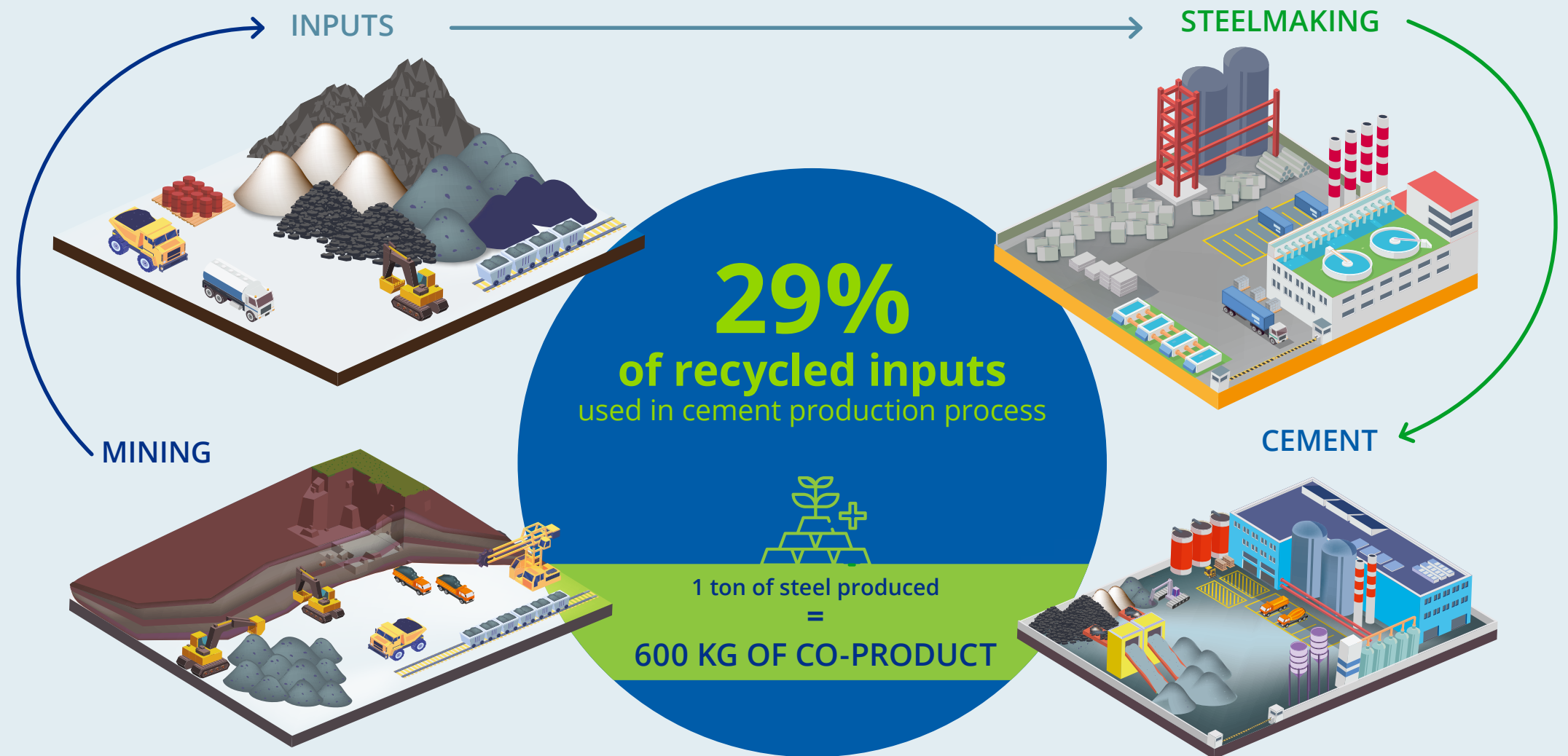
Mining

We were granted important environmental licenses for CSN Mineração's operational continuity, expansion and modernization, thus allowing the treatment of mining assets as well as tailing filtering and dry stacking. Furthermore, a new plant has been going through a licensing process, sustaining our dry tailing filtering and stacking strategy, as well as the recirculation of all closed-circuit process water.

Circular economy

GRI 301-1, 301-2

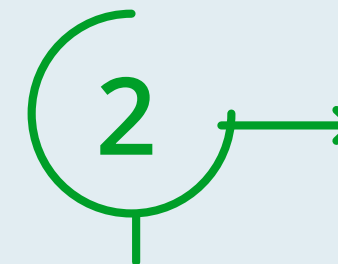
Our businesses are highly integrated, and we serve the entire steel production chain, from iron ore extraction to the production and sale of coils, metal sheets for packaging and steel profiles. Moreover, we manage and create value for co-products, fostering cash generation and the circular economy development allowing operational eco-efficiency, business integration and promoting sustainable development. Thus, our production model is based on the circular economy model because we use inputs from our own operations to produce consumption goods.



Click on the illustrations to learn more about the Mining, Steel and Cement processes.



1
METAL SCRAPS
are sent to UPV to be recycled in the steel mill production process.



2
BLAST FURNACE SLAG
and carbochemical process products are the main obtained and sold co-products.



3
100% OF BLAST
furnace slag is used in cement production.



At the Presidente Vargas Steelworks, we recycle, reuse, **transform or sell 97.4% of waste** (hazardous and non-hazardous) as co-products, avoiding sending it to landfills and contributing to a more sustainable management in line with the circular economy model. At CSN Mineração, hazardous waste reuse, recycling and co-processing rate is 100%.

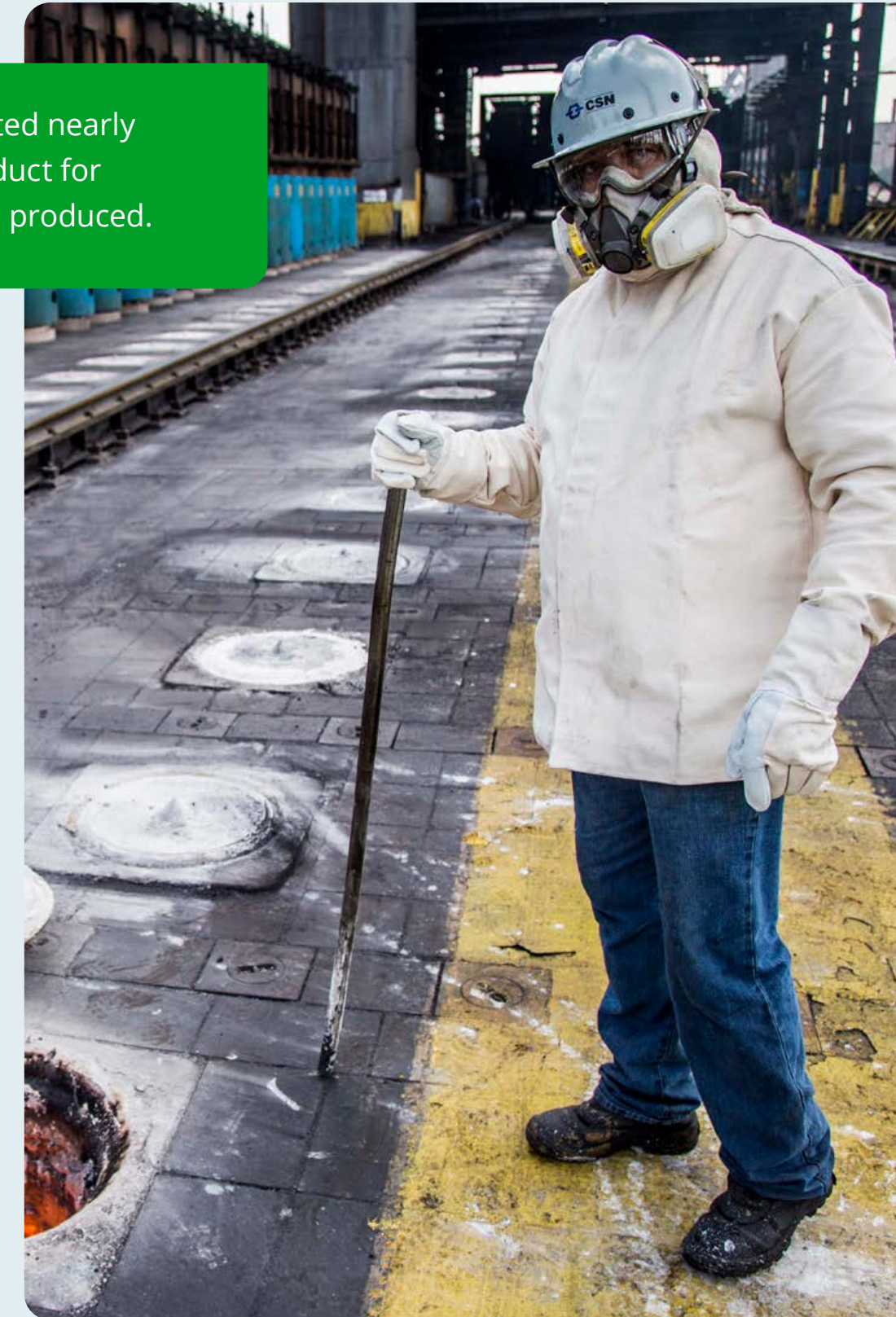
We understand that reusing industrial waste generated in our production processes is a key measure to reduce raw material and natural resources consumption. In cement production, for instance, **we use nearly 29% of recycled inputs in 2019**.

Main co-products obtained from steelmaking process include blast furnace slag and carbochemical process products. Metal scraps generated at CSN Group's units are sent to the UPV for recycling in steel production at the steel mill - for each ton of steel produced, approximately 600 kg of co-product is generated. The highlights include the reuse of metal in steelmaking process, steelmaking slag beneficiation and reuse of 100% of blast furnace slag in cement production. Blast furnace slag represents **70% of cement components and, in 2019, the use of such material avoided the emission of nearly 1.0 million tons of CO₂**.

We have generated nearly 600 kg of byproduct for each ton of steel produced.

In 2019, 951 thousand tons of co-products have been treated and sold, compared to 600 thousand tons in 2018, generating a R\$100 million income. In 2019, we began to develop a new sales portal for unserviceable materials, centralizing all available-for-sale materials information and electronic bidding processes through a dedicated tool. The new portal will provide customers with a better experience, more convenience and gains in sales monitoring, in addition to bringing more transparency to the process. The new tool was created by the Special Sales Department and the Planning & Marketing Department, in partnership with CSN Inova;

Also, under the circular economy concept, CSN Mineração invested in the construction of a magnetic concentration plant, which has boosted our operational efficiency, significantly decreasing the amount of tailings that would be stacked. Additionally, our tailing filtering plant has increased our water use efficiency, improving our water reclaim rate, which will reach 95% by 2023.



Coke oven battery top | Presidente Vargas Steelworks (RJ)



Waste management

GRI 306-1, 306-2, 306-3, SASB EM-IS-150, UNCTAD B.2.1, B.2.2, B.2.3

In this report we present steelmaking and mining waste generation because both sectors are responsible for more than 90% of the entire CSN Group's waste generation; thus, we generate around 36.7 million tons of waste in steelmaking (UPV) and mining (CSN Mineração and Minérios Nacional) during 2019: 99.9% of which are non-hazardous waste. In the period, we reused 99.4% of hazardous waste and 7.5% of non-hazardous waste.

Even though our production volume has decreased, we have intensified waste recycling due to the recycling flow increase through the sale of stocked waste, such as mill scale and blast furnace dust. Furthermore, the progress of hazardous waste recycling shows that the market is developing, given that this waste allocation is possible through special sales, generating new income sources. In 2019, we entered into a partnership with a company specialized in service provision for the steelmaking sector, in order to optimize in-house recycling by absorbing part of blast furnace dust, steel mill dust and mill scale to produce briquette.

All units rely on an automated waste inventory, logging the waste weight in the SAP system and conveying the information via SGR (Waste Management System). Information are consolidated monthly in the waste inventory, which is forwarded to the proper environmental authorities every year. Additionally, the Recycling Department, under the Supplies Office, is responsible for receiving, storing and separating discharged materials to then be properly disposed of, with the purpose of maximum recycling efficiency.

Possible destination of waste, obsolete equipment and material, to reduce the volume of waste sent to landfills.

- 1 internal use in the production process, such as steel scrap or copper from discharged electrical cables.
- 2 sale of materials that gain added value after proper separation and processing, such as cardboard, plastic and shredded paper. There are also other separated recyclable materials sold in bulks such as zinc dross, stainless steel scraps, electric material scraps, refracting material scraps, pallets and wood, among other.
- 3 materials are sent to a licensed supplier for proper disposal. This includes class I waste, such as: contaminated waste in barrels, petroleum sludge, coke gas and contaminated ceramic fibers. We enter into destination contracts for said materials, which are sent to co-processing at the cement industry or to authorized landfills. Learn more about this Supplies Office initiative together with the Special Sales Office and the Environment Departments on page 168.



UPV

99.4%
of hazardous waste
reuse in 2019

21.7%
reduction in non-hazardous
waste generation in 2019 vs. 2018

97.1%
of non-hazardous waste
reuse in 2019

2.5%
reduction in hazardous waste
generation in 2019 vs. 2018



CSN Mineração has a recycling warehouse

At CSN Mineração's recycling warehouse we separate waste to maximize a better waste destination, also to decrease the amount of waste sent to landfills. CSN Mineração's Waste Management is part of the environmental licensing regulation and assessed by the environmental authority on a regular basis, to verify its full compliance to the environmental legislation. The in-house waste management is done by CSN Mineração and outsourced companies. The waste final destination varies according to the waste properties and it can be sold, stocked at our facilities or sent for proper disposal. Every CSN Mineração's own and outsourced employees receive training according to procedures set up by the Waste Management.



CSN's Product Research and Development Center's chemical lab
Volta Redonda (RJ)

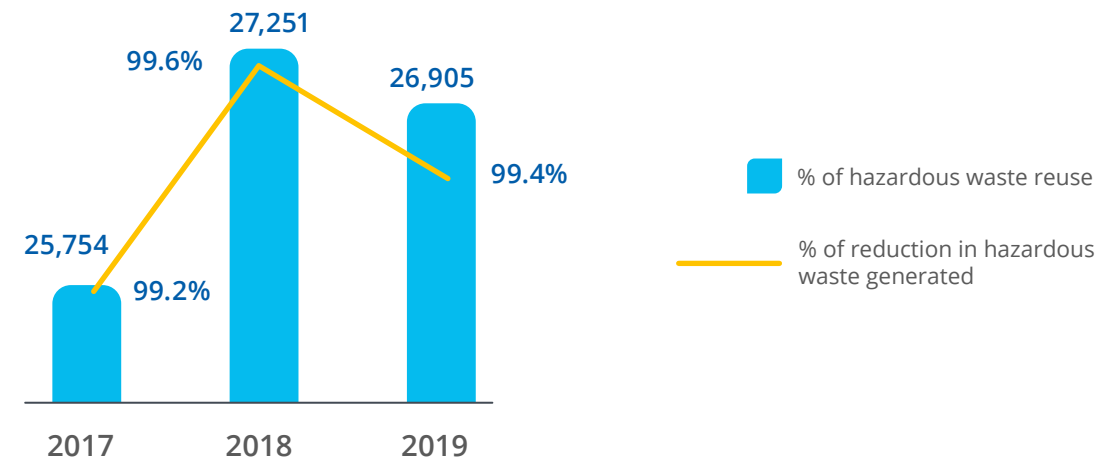
Waste by type and disposal method at steelmaking and mining (in tons)¹

	2017	2018	2019
Hazardous waste	25,754	27,251	26,905
Reuse	14,779	15,400	11,982
Recycling	6,972	8,067	10,780
Co-processing	2,676	2,648	3,063
Re-refining	1,119	1,021	928
Landfill	208	114	151
Non-hazardous waste	38,690,412	18,935,846	36,711,636
Reuse	2,900,314	2,772,947	2,145,791
Recycling	845,853	476,878	601,485
Landfill	129,481	136,894	180,555
Other (autoclave)	3,739	4,179	2,757
Total waste generated (hazardous and non-hazardous)	38,716,166	18,963,097	36,738,541

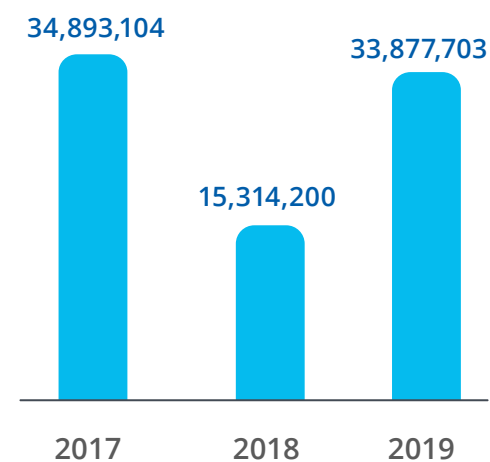
Note: 1. In this report, we present steelmaking (UPV) and mining (CSN Mineração and Minérios Nacional) waste generation because those sectors represent more than 90% of the entire CSN Group's waste generation. The increase in the amount of non-hazardous waste sent to landfills in 2019 versus 2018 is due to blast furnace 3's refurbishment in the end of 2019, contributing to enlarge construction debris generation, which is the waste that is sent to landfills. Accordingly, the hazardous waste change is due to CSN Mineração's operations; the higher the production and handling, the higher the maintenance and consequently, more hazardous waste generated.



Hazardous waste generated and reuse percentage



Mining waste (tailings and sterile) at CSN Mineração and Minérios Nacional - stored at the site



Note: The non-hazardous waste generation change in 2017, 2018 and 2019 is due to waste rock handling. At the mine, there are areas where ores are found to be more noble than others, and the depth where they are located may also vary. Therefore, rock waste handling may vary and is not directly related to production.

Innovation project seeks solutions for steelmaking slag disposal and use

The processing of steelmaking slag consists of magnetic separation of metals, which return to the steelmaking process. The challenge is to understand market solutions for the disposal and use of the non-metal portion, also known as steel aggregate. Currently, we focus on the following:

- Donation to local governments;
- Sale as aggregate for highway paving;
- Sale of Class C slag;
- Return of metal scrap to the electric furnace in steelmaking.

We continue to pursue new uses, which are still under evaluation, such as:

- Ballast test for railway;
- Studies of slag use in concrete materials preparation;
- Wet Milling Plant – plant that will process Class C slag, recovering scrap, generating final fine aggregate to be sold to agricultural companies as soil neutralizer.

Part of the material is temporarily stored in a yard outside Presidente Vargas Steelworks, named Slag Processing Yard. Steel aggregated basically consists of calcium silicate, magnesium and aluminum, which are already present in natural aggregates. Furthermore, CSN Inova together with the steel mill, engineering, R&D and cement departments are seeking new partnerships with Brazilian and foreign organizations focusing on existing options and new solutions to find the most proper disposal of steelmaking aggregate.



Energy management

GRI 302-1, 302-3, 302-4, EM-IS-130, B.5.1, B.5.2

We rely on a Corporate Department in charge of managing our interests in power companies, assessing consumption, finding opportunities and making energy consumption and purchase projections. Since 1999, we have invested in power generation projects in order to guarantee most of our annual consumption. The energy assets are Itá Hydroelectric Power Plant (SC), Igarapava Hydroelectric Power Plant (MG), Thermal Power Plant, which uses steelmaking gas as fuel, and TRT (Top-pressure Recovery Turbine), which operate together at UPV (Presidente Vargas Steelworks). TRT enables the use of kinetic energy present in blast furnace 3's generated gases, a process which makes self-produced energy possible, contributing to reduce our environmental impacts, once this kinetic energy operates through the gas pressure.

Self-produced energy share had a significant increase in total power consumption since 2018. While in 2017, the self-produced energy from Igarapava and Itá Hydroelectric Power Plants and TRT – which are 100% renewable sources – accounted for 59.5% of our power consumption: this rate increased to 81.1% and 75.5% in 2018 and 2019, respectively.

Regarding absolute consumption, a 22.7% drop was recorded in 2019 vs. the previous year, specially due to the scheduled maintenance stoppage of blast furnace 3 ([learn more on page 86](#)). However, considering crude steel production, our energy intensity went from 26.7 GJ in 2018 to 28.0 GJ in 2019.

On the other hand, the technique used in cement mills ([learn about the production process on page 81](#)), enables us to be 20% more efficient than the Brazilian average. According to data from "Getting the Numbers Right", gathered by the Global Cement and Concrete Association, our energy consumption reached 86 kWh/t of cement, compared to the Brazilian average consumption of 108 kWh/t

Considering the ratio between energy consumption and Statement of Added Value, our energy efficiency increased 38% on average in the 2-year period compared to 2017.



75.5%

of power consumption in 2019 came **100%** from self-produced renewable energy



20%

more efficient cement production than the Brazilian average:
86 kWh/t (CSN) x 108 kWh/t (Brazilian average)



38%,

on average, more efficient in the 2-year period than in 2017



Itá Hydroelectric Power Plant (SC)

CSN Power consumption (GJ)

	2017	2018	2019
Total non-renewable fuel consumption¹	120,923,721	121,056,617	91,782,358
Biodiesel, metallurgical coal, sub-bituminous coal, coal coke, mill, petroleum coke, diesel, LPG, natural gas, gasoline, fuel oil and flushing oil	120,923,721	121,056,617	91,782,358
Total renewable fuel consumption	5	1	13
Hydrous ethanol	5	1	13
Acquired electric power, heating, cooling and steam for consumption	4,014,245	1,429,257	1,856,154
Self-produced electric power, heating, cooling and steam	5,911,205	6,145,030	5,744,306
Igarapava Hydroelectric Power Plant	550,549	577,317	591,577
Itá Hydroelectric Power Plant	4,965,269	5,272,398	5,114,810
Top Turbine	395,388	295,314,54	37,919
Total power consumption²	130,849,175	128,630,905	99,382,831

Note: 1. "Total consumption of non-renewable fuel" have included thermal power.

2. Total power consumption was defined based on the sum of all renewable and non-renewable fuels, plus acquired and self-produced electric power, heating, cooling and steam.

Energy efficiency (GJ/normalization factor)

	2017	2018	2019
GJ/crude steel ton ¹	27.1	26.7	28.0
KWh/cement ton ²	76.3	80.6	86.6
Mj/clinker ton ³	3,579.0	3,502.0	3,585.0
GJ/R\$ thousand DVA - Scope 1+2 ⁴	19.1	10.9	12.7

Notes: 1. Calculated according to the World Steel Association methodology - Scope 1

2. Calculated according to the Global Cement and Concrete Association methodology - Scope 2

3. Calculated according to the Global Cement and Concrete Association methodology - Scope 1

4. Calculated according to Combustech system's thermal energy consumption methodology.

Water management

GRI 303-3, 303-4, 303-5, EM-IS-140, B.1.1, B.1.2

Water is fundamental for our mining, steelmaking and power generation operations, while the other sectors have less water-intensive processes. Water consumption is controlled through water balances at all units and water footprint – [learn more on page 143](#) – at UPV (Presidente Vargas Steelworks), both conducted in compliance with ISO 14.046. UPV is Brazil’s only steelmaker to put together its water footprint and represents CSN’s highest water consumption; **the unit became a benchmark for a 92.9% water recycling and reusing rate in 2019**; while this rate was 72.2% for CSN Mineração in the same period.

Moreover, based on the Water Risk Filter WWF and Aqueduct WRI risk assessment methodologies, as of 2020 we will begin to assess our business exposure to hydro risks, both in terms of process and basins close to our operations.

Our water withdrawal quality check system is more comprehensive than the law requires it to be. At UPV, we measure

the efficiency of our treatment plants, guaranteeing the quality of water used in production process as well as drinking water for internal consumption. We have a Research and Development Center at UPV ([learn more on page 55](#)) with labs dedicated to the analysis of collected and discharged water, dully authorized by Rio de Janeiro’s environmental authority. We count on several industrial and sewer effluent treatment methods, applied according to the characteristics of the effluents generated by our production processes. Effluents are continuously monitored to ensure the efficiency necessary for wastewater treatment plants and to comply with legal requirements.

Water withdrawal and discharge volume are verified by external audits to guarantee compliance with ANA’s (Brazilian Water Agency) standards and ISO 14.001 certification and recertification processes. Some of our customers also audit our water efficiency, considering reclaimed water volume.

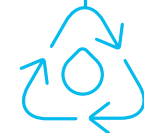
UPV is Brazil’s only steelmaker to put together its water footprint and represents CSN’s highest water consumption; the unit became a benchmark for a 92.9% water recycling and reusing rate in 2019, while this rate was 72.2% for CSN Mineração in the same period.

Furthermore, the state of Rio de Janeiro has an audit program to verify environmental control and monitoring. As set forth by ISO 14.001, flow meters are calibrated on a regular basis to ensure that the amounts reported to environmental agencies are within precision margin. All discharged water is treated through physical-chemical, chemical and biological processes as well as pH neutralization process.



Employee at the Thermal Power Plant at Presidente Vargas Steelworks

CSN operation in 2019 (Megaliter/year)



Water recycling and reuse

92,9% water reuse
and recycling at UPV in 2019

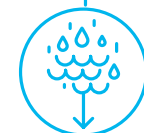
72,2% water reuse
and recycling at CSN Mineração in 2019



Efficiency increase

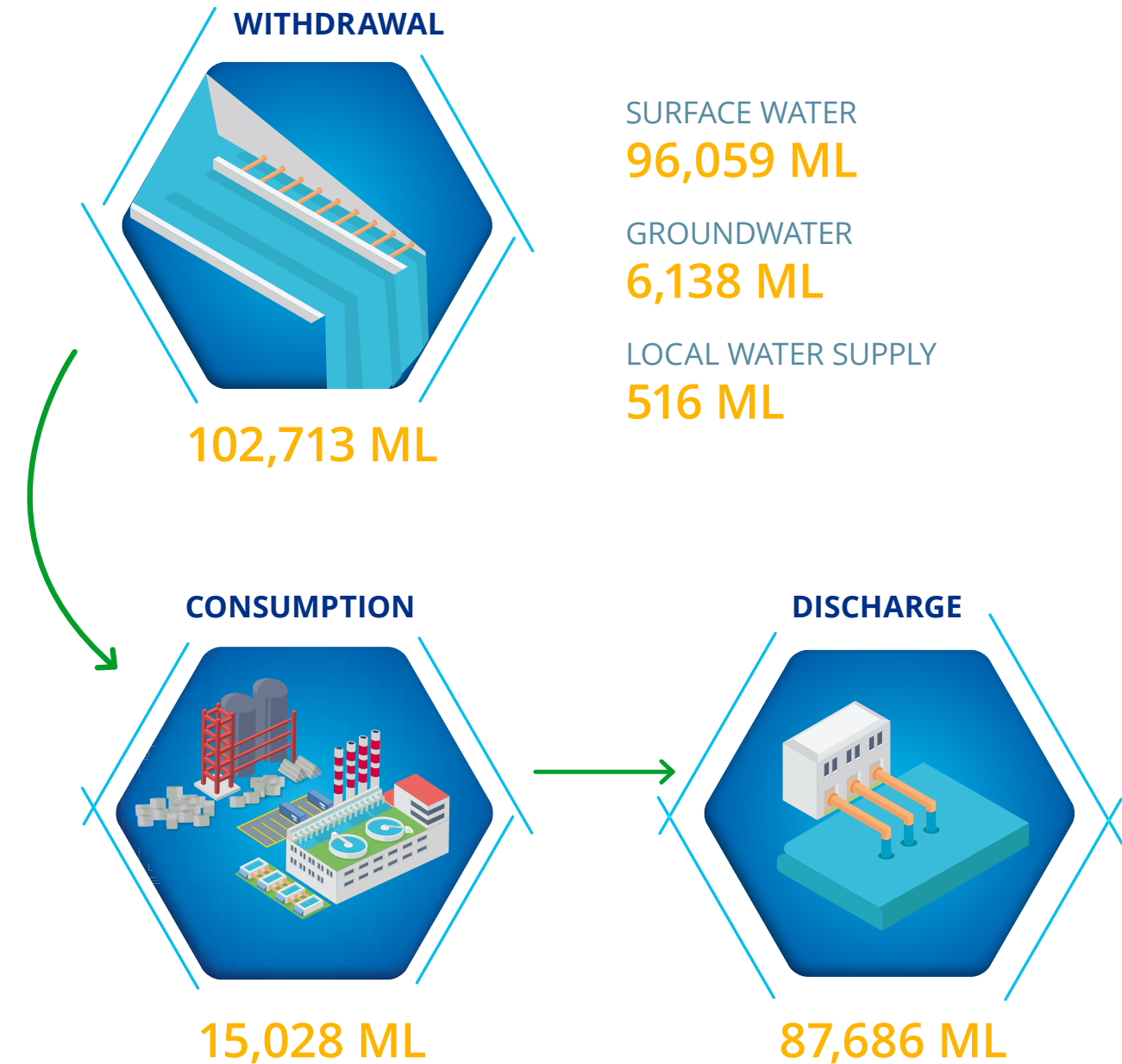
-14% in water withdrawal
per ton of cement produced by CSN Arcos
Cement in 2019 vs. 2018

-25% in freshwater withdrawal amount
per ton of iron ore produced by CSN Mineração
in 2019 vs. 2018



Drop in water consumption

-6,6% total water consumption
in the entire CSN Group, in 2019



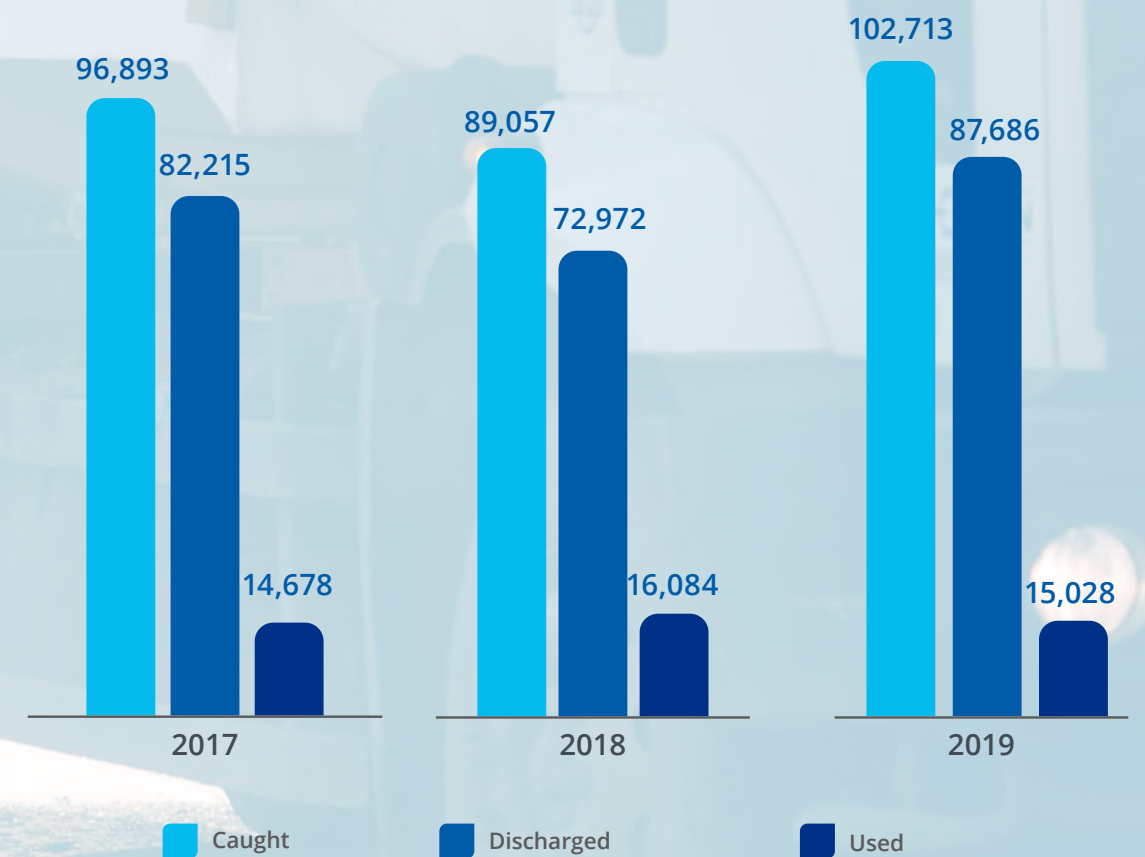
Water withdrawal by source (Megaliter/year)

	2017	2018	2019
Surface water	89,009	80,732	96,059
Groundwater	7,510	7,878	6,138
Local water supply	374	446	516
Total	96,893	89,057	102,713

Note: For all withdrawal sources, total dissolved solids concentration was less than 1,000 mg/l of water.

Water withdrawal, discharge and consumption

(in ML)



Note: 1. 1100% of water is discharged into surface water. Water goes through physical-chemical, chemical and biological treatments in addition to pH neutralization process before being discharged into the waterbody.
2. There have been no changes to water stored for consumption.



Paraíba do Sul River | Volta Redonda (RJ)

At UPV, we reduced water withdrawal by 70% over the past 20 years even after we built a long steel plant and a thermal power plant.

The water footprint project for UPV (Presidente Vargas Steelworks) – CSN’s plant with the highest water consumption, representing 92.9% of the group’s total water withdrawal – began in 2014 with the preparation of CSN’s first water inventory to assess the entire water use, consumption, reuse, reclaim and discharge cycle. In the same study, we applied indicators that relate processes to their water resource use. The study encompassed all UPV’s production processes, such as flat and long steel,

cement and coke co-products. In 2016, we reached the second phase of the integrated water management work, adopting the water cycle perspective and ISO 14.046:2014 guidelines, related to water footprint. Due to its pioneering feature, the development of UPV’s water footprint was presented at the Water Management Workshop in 2017 organized by the World Steel Association in India. We emphasize that CSN’s project considered all production processes, presenting an integrated approach to the entire steelmaking chain.

We have goals and targets related to water use and consumption reduction for our production processes. It is important to highlight the implementation of water reuse projects at UPV’s carbochemical plant, with the reclaim of 3,500 m³/h

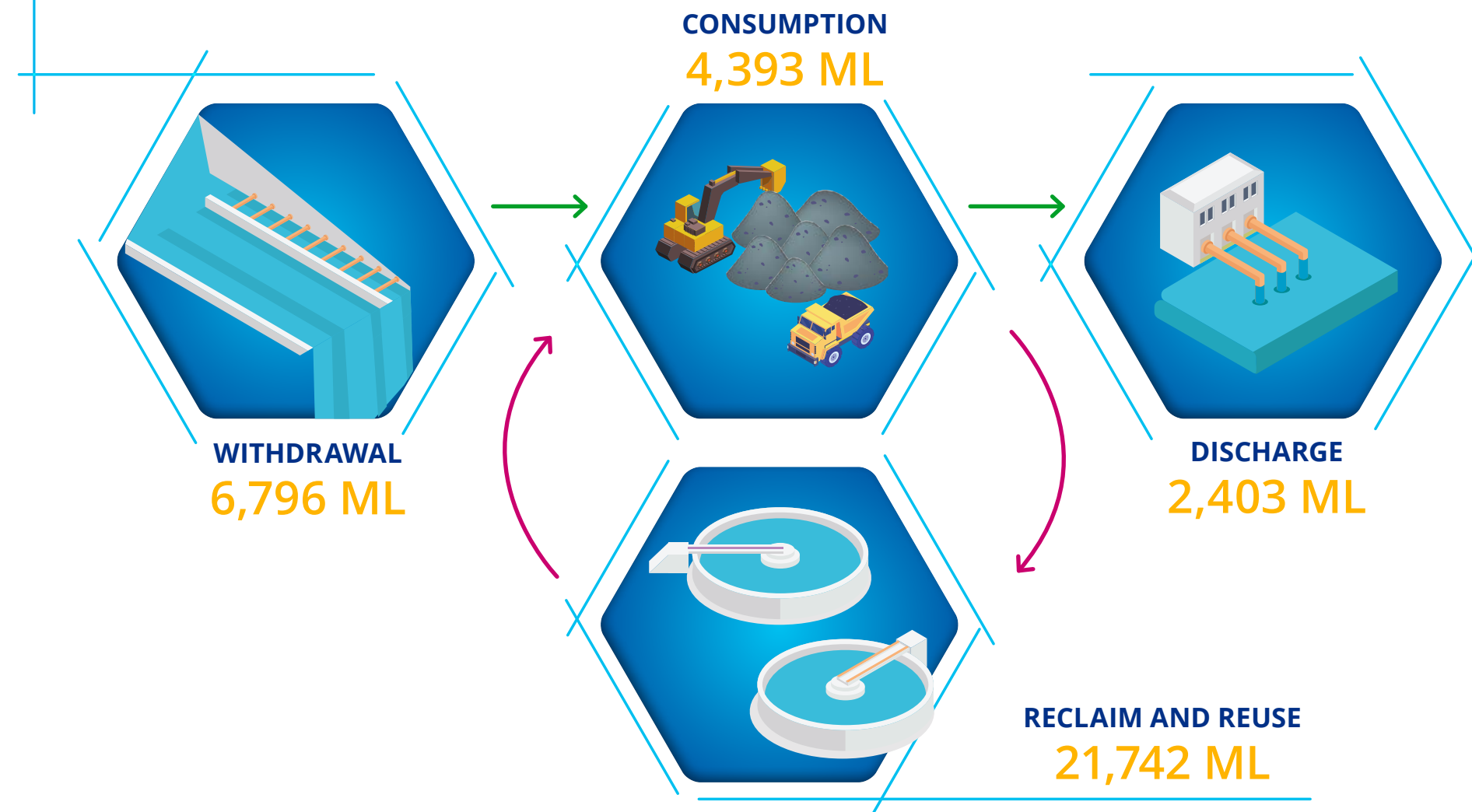
and reuse of 200 m³/h of water from ETE PMP (Effluent Treatment Plant at Raw Materials Yard). UPV completed other water contingency projects, with the construction of a new ETE for the raw materials yard, with a 190,000 m² reach and a project focused on sending the coke plant’s rainwater effluents to a physical-chemical treatment and installation of effluent cooling towers.

All information regarding effluent quality and quantity is sent to INEA (State Environmental Institute), Rio de Janeiro’s state environmental agency, to be monitored, guaranteeing the discharged effluents’ compliance. Due to several water reuse projects at UPV, we reduced water withdrawal by 70% over the past 20 years, even after we built a long steel plant and a thermal power plant.

CSN MINERAÇÃO



CSN MINERAÇÃO'S WATER BALANCE IN 2019



Average water reclaim ratio of **76.2%**, approximate volume of 0.65 m³

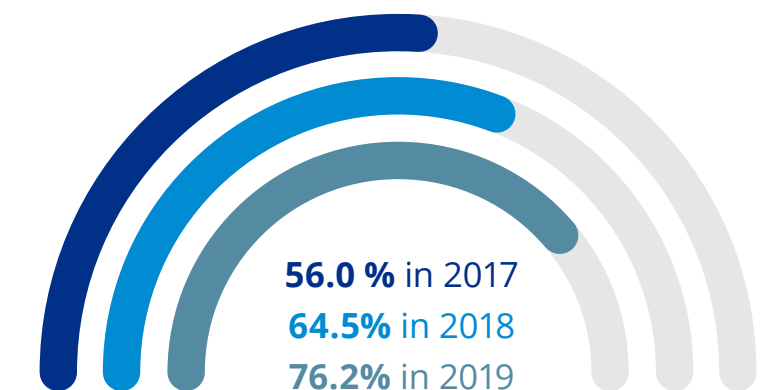
Improvement **23.4%** in water use efficiency in 2019 vs. 2018

46 effluent and drainage control systems

34 monitoring stations in the watercourses of site's influence areas

Monitoring information are forwarded to FEAM (State Environment Foundation), SUPRAM-CM (Regional Environmental Administration - Metropolitan Region) and SUPRI (Superintendence of Priority Projects in the State of Minas Gerais).

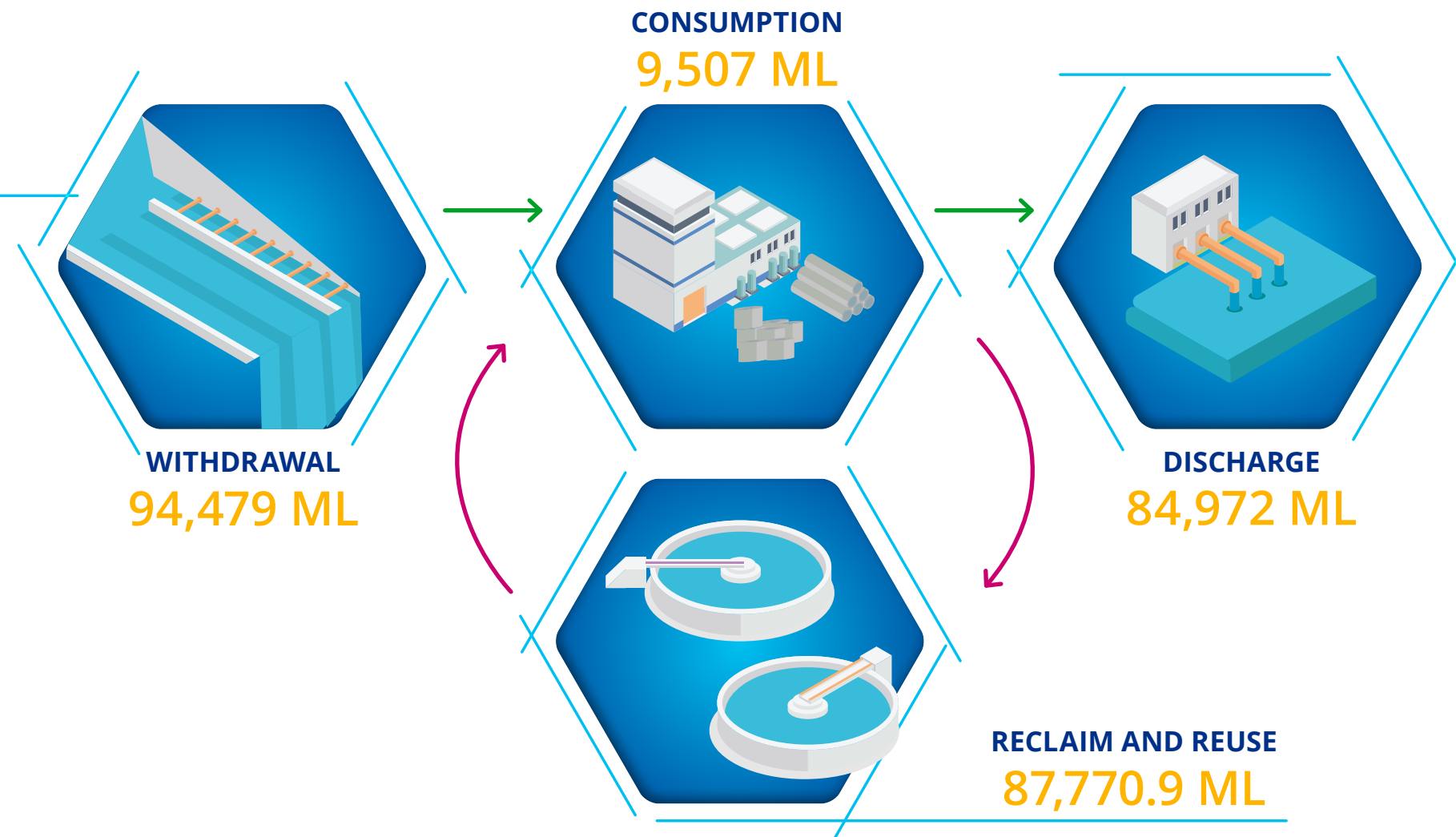
Water recycling and reuse at CSN Mineração



POWER PLANT PRESIDENTE VARGAS (UPV)



UPV'S WATER BALANCE IN 2019



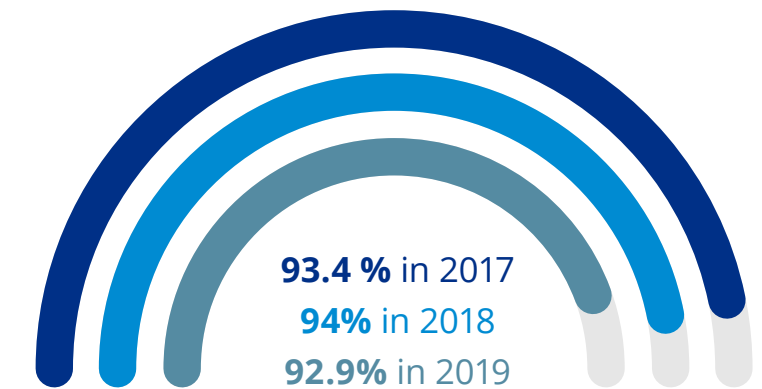
92% water withdrawal
of all CSN group in 2019 is from UPV

92.9% reuse of water
from the production processes in 2019

23 effluent treatment
plants and closed-circuit water, i.e.,
no effluent discharged into waterbodies

7 open treatment plants
which treat effluents and return them to the
waterbodies. These effluents are continuously
monitored, totaling 2,000 monthly essays

Water recycling and reuse at UPV

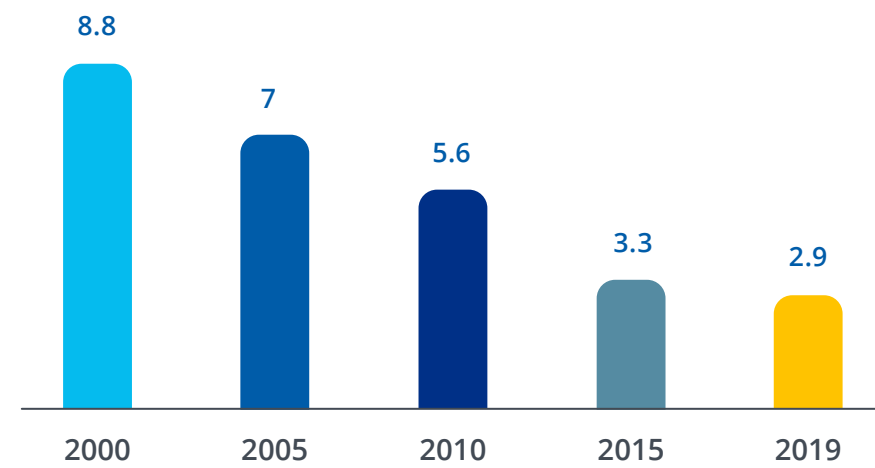


Note: The reduction in water recycling and reuse rate is due to Turbo Generator 3 resuming operations at UPV's Thermal Power Plant -1. Although the unit has maintained water reclaim flow in its operating process, there has been an increase in water withdrawal to serve turbo generator 3's demand, which is fueled by gases from steelmaking process at UPV and, therefore, is a positive element in power generation. Thermal Power Plant 1 is a cogeneration plant fueled by steelmaking gases to generate power and process vapors.

Evolution of water reuse ratio at UPV since 2000

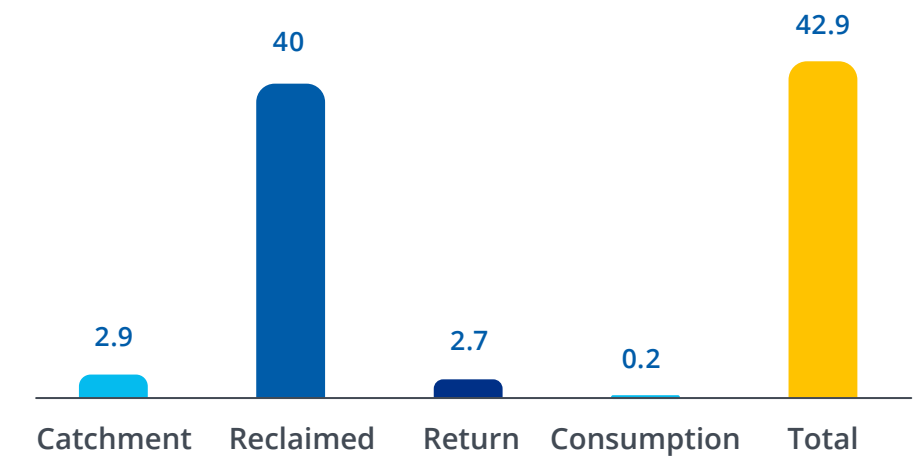
Water withdrawal at UPV

(m³/s)



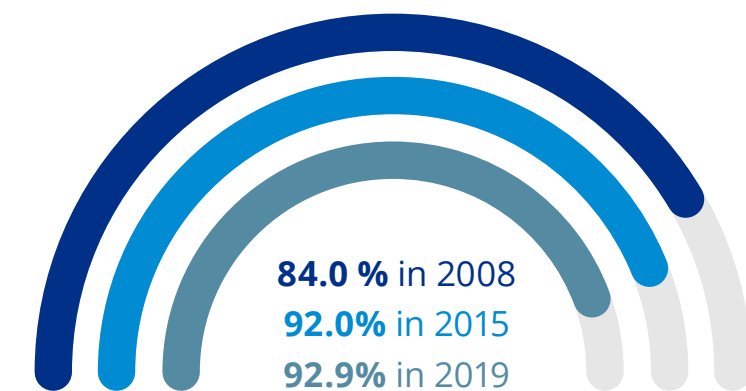
UPV's 2019 water balance

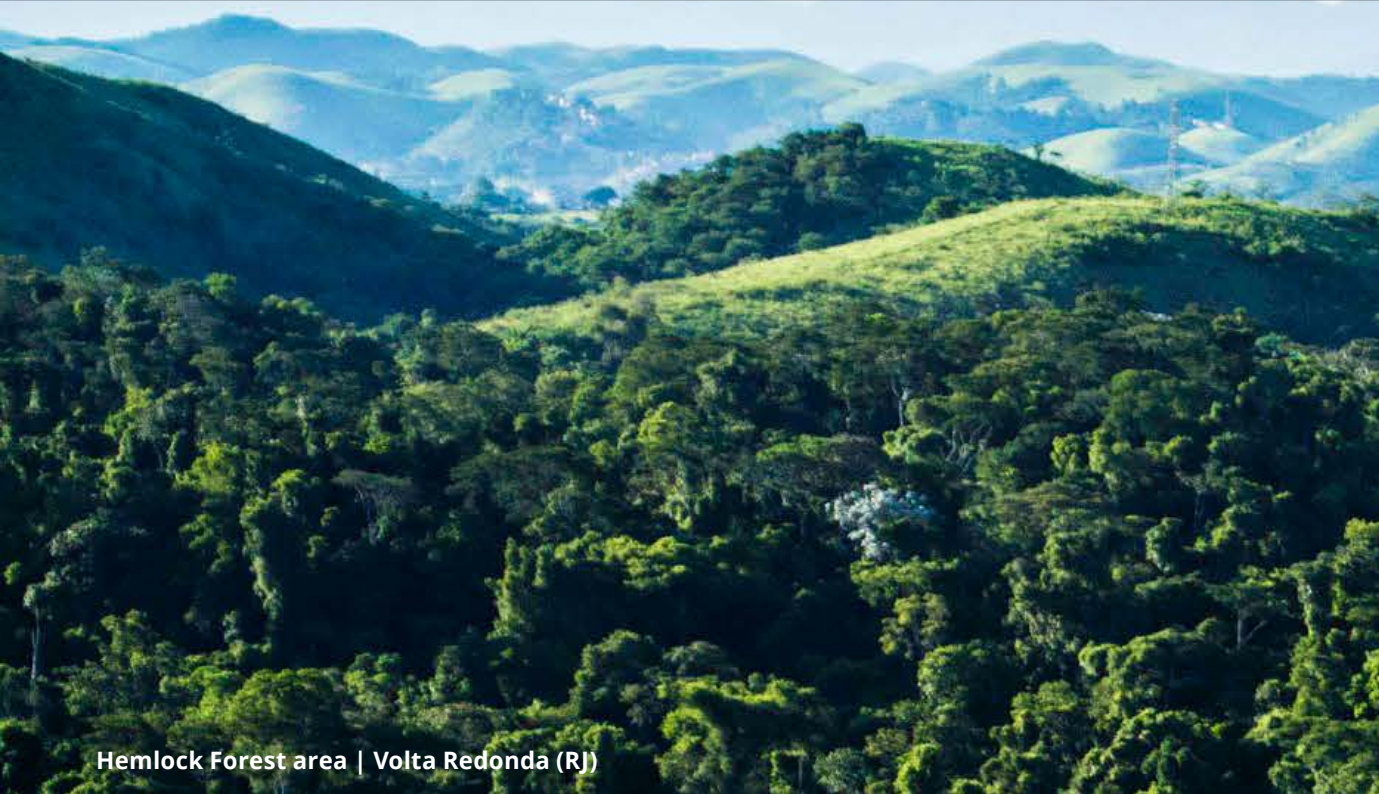
(m³/s)



Employees at the Thermal Power
Plant at Presidente Vargas Steelworks

Water reuse rate at UPV since 2008





Hemlock Forest area | Volta Redonda (RJ)

Biodiversity

GRI 304-1, 304-2, 304-3, EM-IS-110, B.3.1, B.3.2

We have protection areas covering over 68 thousand hectares, such as legal reserves, PPA (Permanent Preservation Areas) and RPPN (Private Natural Heritage Reserves, in Portuguese), throughout several Brazilian states. Some of our operating units are located close to regions with protected areas, such as legal reserves, permanent preservation areas and private natural heritage reserves. In compliance with local legislation in force, we strictly monitor possible impacts from our operations in such areas through fauna and flora protection and monitoring programs.

Understanding the characteristics of CSN's conservation units

UCs (Conservation Units in Portuguese) were regulated by SNUC - National Conservation Unit System (Law 9.985/2000), which sets forth criteria and rules for setting up, implementing and managing such areas. UCs consist of areas with important natural characteristics intended for conservation, legally established by the Government

SNUC's conservation units are divided into two groups, with specific characteristics: (I) Full Protection Units and (II) Sustainable Use Units. The Full Protection Units allow only the indirect use of their natural resources while the Sustainable Use Units seek to reconcile nature conservation and the sustainable use of part of their natural resources. All Conservation Units maintained by CSN are Sustainable Use Units; find below the differences between our UCs:

□ PPA (Permanent Preservation Area)

In general, these are wide areas with a certain level of human occupancy, aimed to discipline occupancy process and ensure the sustainable use of natural resources. s.

□ ARIE (Area of Important Wildlife Interest)

In general, there are smaller areas with little or no human occupancy, with remarkable natural characteristics or which are the habitat of the region's rare biota, and are intended to maintain natural ecosystems, reconciling natural resource use and conservation goals.

□ RPPN (Private Natural Heritage Reserve)

A private conservation unit intended to preserve biological diversity. In the area, only scientific research and tourism, leisure or educational visits are allowed.

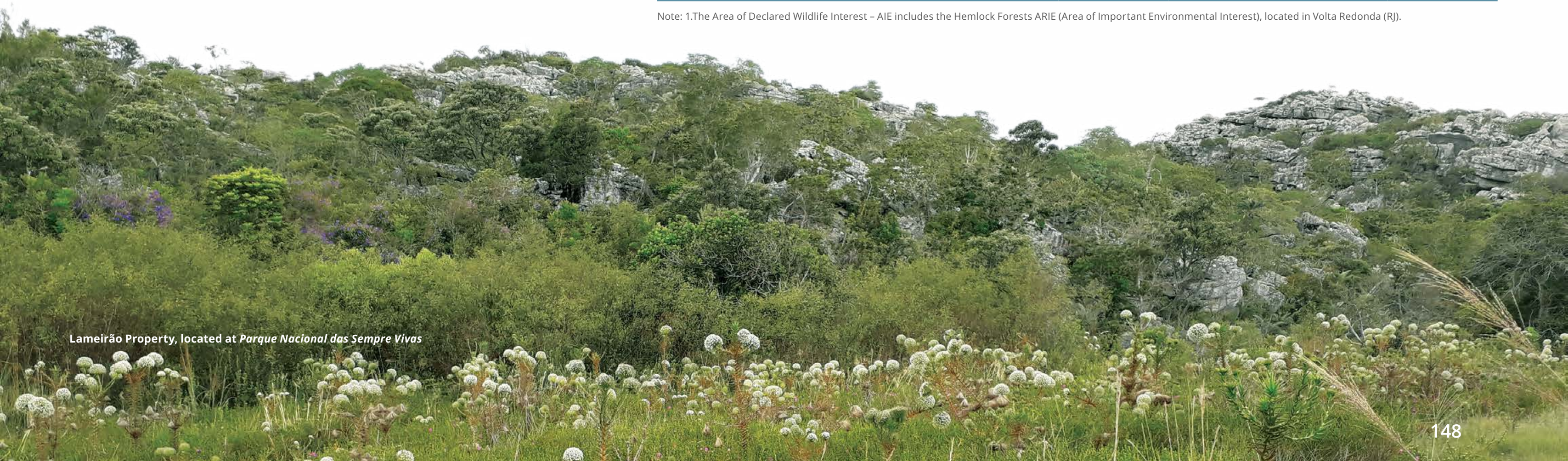
Monitoring

Throughout the years, we have improved biodiversity monitoring in areas close to our operating units. Following the best international practices and recommendations on the management and monitoring of areas with high biodiversity value, we began to compile information related to CSN Mineração's areas, whose units are located in regions rich in biodiversity where the prevailing biome is the Atlantic Forest as well as in transition areas to the Cerrado. Through this pilot project, we will enhance our monitoring processes and expand it to all CSN Group's units and plants located within or close to areas with high level of biodiversity.

Preservation areas maintained by CSN broken down by category and

	Northeast	South	Southeast	Total
Permanent Preservation Area - PPA	55.2%	4.6%	40.1%	4.2%
Legal Reserve Area - ARL	88.3%	0.6%	11.1%	26.4%
Private Natural Heritage Reserve - RPPN	0.0%	0.0%	100.0%	0.8%
Area of Declared Wildlife Interest - AIE ¹	0.0%	0.0%	100.0%	0.7%
Conservation Easement Area - ASA	60.2%	0.0%	39.8%	0.7%
Native Forest Area (Natural Vegetation) - AFN	94.9%	0.7%	4.5%	67.2%
Total	89.8%	0.8%	9.4%	100.0%

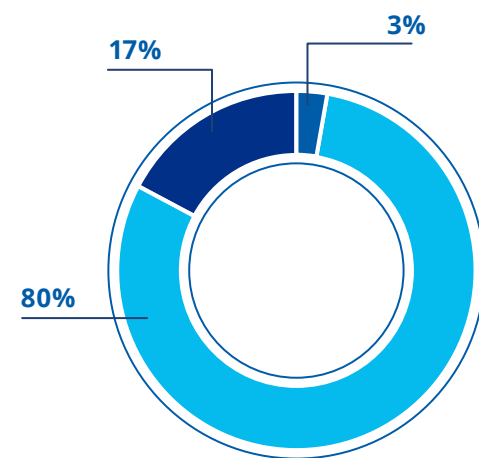
Note: 1.The Area of Declared Wildlife Interest - AIE includes the Hemlock Forests ARIE (Area of Important Environmental Interest), located in Volta Redonda (RJ).



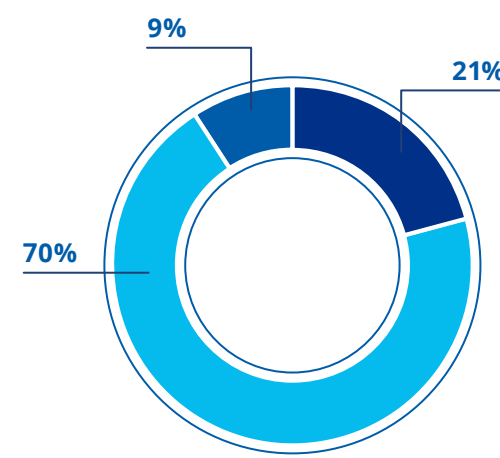
Lameirão Property, located at *Parque Nacional das Sempre Vivas*

Breakdown of conservation areas maintained by CSN Mineração

Areas located within 5 km of CSN Mineração's units



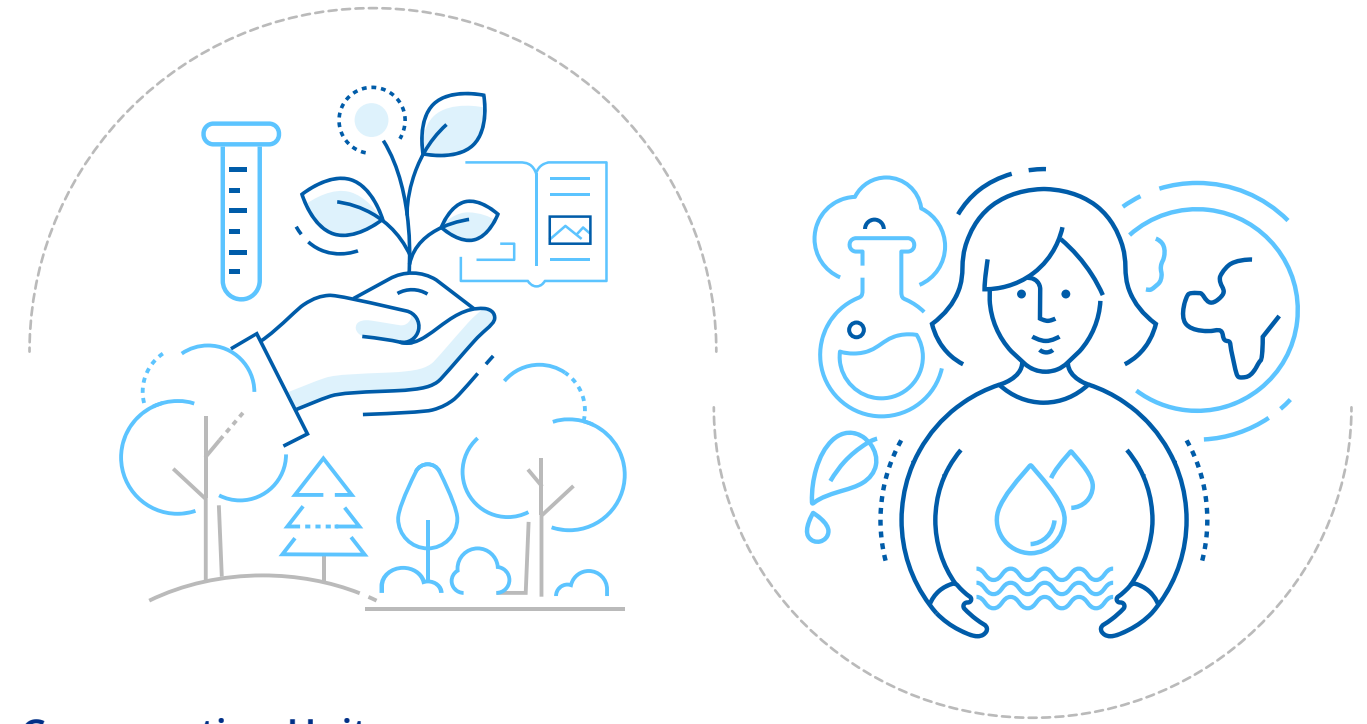
All areas



■ Rehabilitation area ■ Intervention area ■ Conservation area

170 Mineração's properties
located in áreas close to conservation units

35 Mineração's properties
located within 5 km of conservation units



Conservation Units

- APA Cavernas do Peruaçu
- APA da Orla Marítima da Baía de Sepetiba
- APA do Saco de Coroa Grande
- APA Itaguaí Itingussú Espigão Taquara
- APA Sul-RMBH
- Monumento Natural Estadual de Itatiaia
- Monumento Natural Estadual Serra da Moeda
- Monumento Natural Estadual Serra do Gambá
- Parque Estadual Serra do Ouro Branco
- Parque Nacional Cavernas do Peruaçu
- Parque Nacional das Sempre Vivas
- Parque Nacional Municipal da Cachoeira de Santo Antônio
- Reserva Particular do Patrimônio Natural Poço Fundo



Visit to CSN's Cave, a natural underground cave located in a Private Natural Heritage Reserve – RPPN in Arcos/MG

We continuously monitor the flora and fauna of native and/or endangered species, practice which CSN Mineração has developed for over 15 years, and indicates the presence of several species, including endangered ones, showing balance of nature between our activities and local biodiversity.

Aware of the importance of the conservation and preservation areas we maintain, we support and work in partnership with institutions such as ICMBio (Chico Mendes Institute for Biodiversity Conservation) in the environmental management of such areas. The partnership is intended, for instance, for the management of the Hemlock Forest ARIE (Area of Important Wildlife Interest), located in the city of Volta Redonda (RJ), with 131.28 hectares covered by the Brazilian Atlantic Forest Biome, a very important local and national area, to preserve natural resources that remain untouched in the region.

In Minas Gerais, we have 4,431.16 hectares of protected areas in CSN Mineração's region, equivalent to three times the area occupied by our operations, divided into 1,847.00 hectares of legal reserve and RPPN (Private Natural Heritage Reserve) and 2,584.00 hectares of recovered and/or restored Atlantic Forest (see more on page 148).

For instance, CSN Arcos has a total area of slight over 609 hectares. Out of this area, 272 hectares are protected areas - IUCN (International Union for Conservation of Nature)'s category V -, comprising legal reserve, PPA and RPPN. The areas surrounding CSN's operations are connected to 3 conservation units: RPPNs maintained by CSN, EECO (Corumbá's Wildlife Station) and Lafarge RPPN, which enable the creation of a wildlife corridor in a transition zone from the Atlantic Forest to the Cerrado.

Moreover, CSN Group assesses all biodiversity-related matters during the entire Life Cycle of its ventures, considering:

- EIA (Environmental Impact Study) before the project's construction begins, whose dimensions include social, fauna, flora, water resources, soil and air, and counts on the participation of the community through field research and public consultations;
- Development of programs for environmental control, monitoring, offsetting and mitigation through the entire useful life of the venture;
- Mine decommissioning and closure plan, including the remediation of depleted areas. Accordingly, in 2016, CSN Mineração entered into an agreement with Minas Gerais Public Prosecutor's Office establishing that the tract of land of the legal reserve within Casa de Pedra complex should be turned into an RPPN, ensuring that the area will always be preserved.



Environmental remediation project under CSN management is a Brazilian benchmark

We are partners at a Brascan's project that stood out for remediating areas depleted by mining activities. The program was acknowledged by Ibama (Brazilian Institute of the Environment and Natural Renewable Resources) as one of the four best depleted areas recovery project, in accordance with the Federal Environmental Licensing guidelines. As part of the recognition, the project was presented at the PRAD (Depleted Areas Recovery Program) forum, held in April 2019 to share the experience of recovering over 600 hectares in the Amazon in the Jamari National Forest. The event took place in Brasília with the attendance of representatives from several environmental and mining agencies, as well as universities, consulting companies, entrepreneurs and environmental analysts.

Main indicators show the project's success, such as the presence of animals like tapirs, cougars and jaguars as well as the soil organic matter level, which in 2018 presented values (18.5 g/dm³) close to those of primary and secondary forests (25 g/dm³), and the region's average richness reaching benchmark values for secondary forests in 2018. Trees were taller than secondary forest's trees (around 15 meters), 19.2 meters tall on average (the average height of primary forest's trees is around 25 meters) Accordingly, dense vegetation went from 30% in 2009 to 73% in 2017 and exposed soil ceased to exist.

Management and remediation of depleted areas

We are committed to fostering environmental protection programs, including the promotion of a proactive behavior of the entire staff, always in line with environmental laws as well as national and international rules. We maintain the same stance towards the management of environmental liabilities from old operations and the remediation of old coal mines in Santa Catarina, shutdown in 1990, as well as the remediation of old industrial landfills in Volta Redonda (RJ). These are environmental liabilities prior to the privatization and the sites operated before the enactment of the main environmental laws and rules, mainly Law 6.938/1981 (National Environment Policy).

Therefore, we recorded a provision, included in the Financial Statements

under “Other Operating Expenses”, for environmental recovery and lawsuit costs when loss is deemed probable and the amount can be reasonably estimated. The main environmental contingency provisions are related to environmental liability management from old operations.

Committed to mapping and managing contaminated areas remediation costs, we rely on a dedicated department, working to address both legal matters and the full compliance with Sarbanes-Oxley Act (SOX)’s guidelines. The Environmental Projects and Liabilities Department has been pursuing and implementing sustainable solutions together with the best available technology for management and remediation of contaminated areas.

We are committed to fostering environmental protection programs, including the promotion of a proactive behavior of the entire staff, always in line with environmental laws as well as national and international rules.

A dedicated team enabled us to map all contaminated areas from the time we were a state-owned company, ensuring the accurate provisioning and allocation of funds necessary for managing such liabilities. Mapping also allowed us to reassess intended interventions in those



CSN plants seedlings in Volta Redonda (RJ)



areas, through the pursuit of innovative and more sustainable technologies, providing savings of R\$168 million over the past seven years. The technological solutions presented are the result of our proactive participation in several forums and agendas, allowing the exchange of experiences and technical development, to keep us up to date with the latest practices available, including:

□ **NICOLE Latin America – Latin America Network for Soil and Water Management**

We are vice-presidents of the industry's sector committee and leaders of the vapor intrusion group - which describes and provides solutions related to the process of migrating volatile chemical compounds in subsurface source into existing buildings, a complex and important topic in the management of contaminated areas.

□ **RemTech – International event on Remediation, Coasts, Floods, Climate, Seismic, Regeneration, Industry**

International event on Remediation, Coasts, Floods, Climate, Seismic, Regeneration, Industry Europe's largest congress on remediation in which we are members of the scientific committee.

□ **EKOS Seminar**

We participated as members of the scientific committee and presented cases on the projects we develop.

Social and environmental remediation of old coal mines is sponsored by CSN Inova

We own approximately 1,130 hectares of old coal mines in the state of Santa Catarina, shutdown in 1990, therefore, prior to the privatization. Around 50% of this area, i.e. 550 hectares, have already been purpose of environmental remediation works, always under the best technology available.

Within this context, CSN Inova works together with the engineering and environmental teams identifying and developing solutions to the area's various complexity degrees, emphasizing: (I) using sub-products from old mining activities, mainly tailings and rock waste, researching the use of different waste; (II) mine acid drainage and soil remediation treatment techniques and (III) environmental remediation of the areas, boosting the development of strategic activities in the region, such as agriculture and farming, factories and housing. Thus, we continue to study the necessary treatment and apply the best solutions possible to recover the areas' social and environmental properties.



Environmental Offsetting

As an environmental offsetting measure, INEA, Rio de Janeiro's environmental agency, approved the project developed in partnership with the local government of Volta Redonda (RJ) to implement several environmental initiatives in the city by the end of 2020, totaling an investment of over R\$ 3 million. In 2019, over 80% of the activities have been completed, including:

Strengthening the *Refúgio da Vida Silvestre Vale dos Puris* Conservation Unit

R\$ 1.5 million invested in land title regularization, preparation of a control plant (ongoing) and placing signs in the surroundings, which have been designed following DNIT (Brazilian Transportation Infrastructure Department) standards and were donated to the city in the last quarter of 2019.

Investments in the *Fazenda Santa Cecília do Ingá* Municipal Park

We donated over 100 thousand seedlings, implemented the bike track in compliance with international standards, which we were responsible for the development and signaling. The remodeling of the park's visitor center is expected.

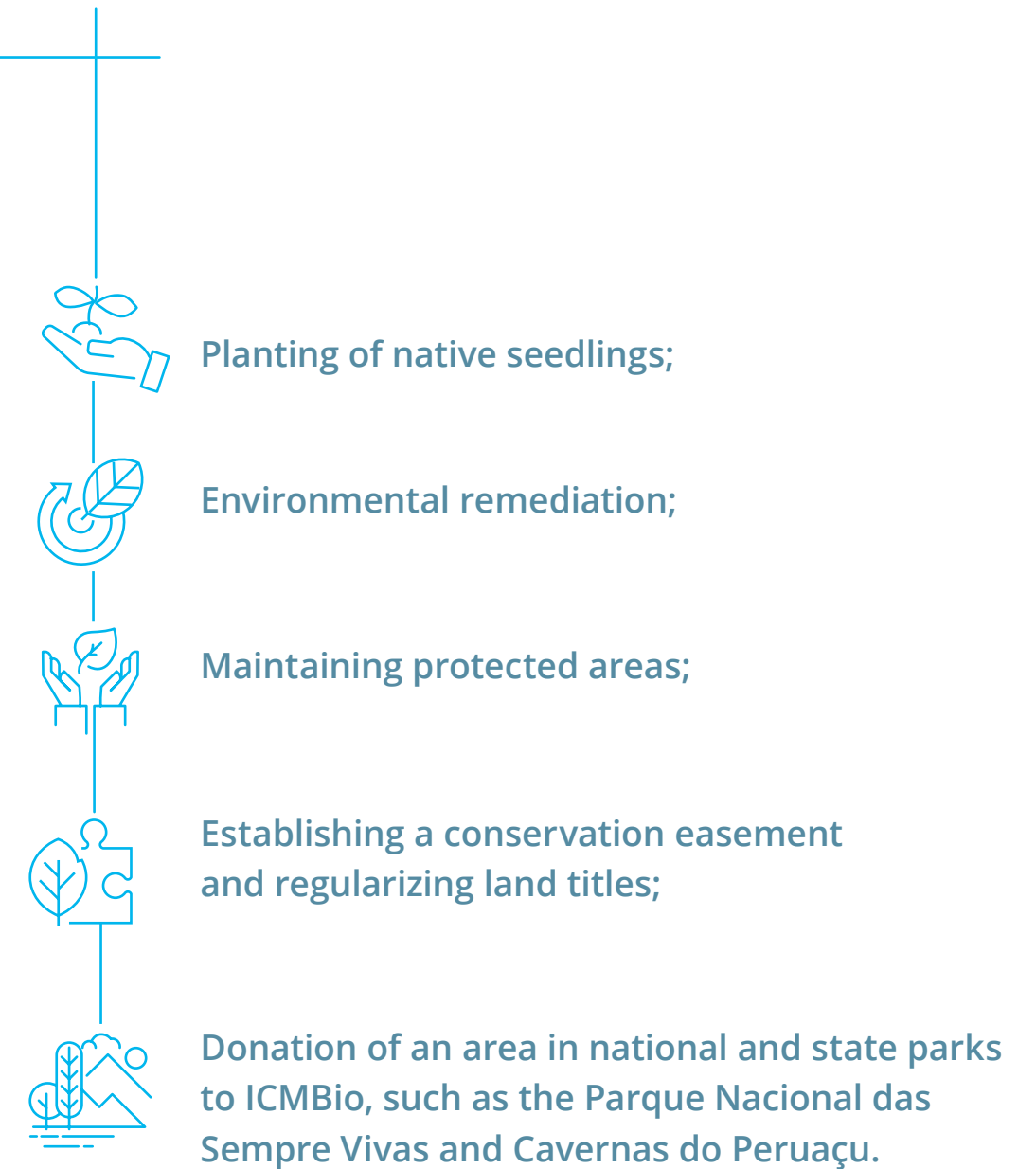


CSN Arcos' Private Natural Heritage Reserve – RPPN stands out for the natural underground caves.

Planting and maintenance of 8,000 native seedlings from the Atlantic Forest by the end of 2020

The planting of seedlings in Volta Redonda's urban areas, creating carbon credits for future Presidente Vargas Steelworks' offsetting. Every tree suppression is cautiously evaluated with the respective justifications and is executed only as a last resort. CSN's carbon credit bank foresees offsets equal to 6x1 (for each suppression, 6 seedlings should be planted and maintained), in compliance with Law 12.305/2010 (National Solid Waste Act).

On the other hand, CSN Mineração has been developing environmental offsetting actions in the São Francisco river basin, promoting biodiversity conservation and groundwater recharge. Up to now, we entered into several commitments with environmental agencies that encompass an environmental offsetting area, including the processes under analysis, and agreements anticipate:



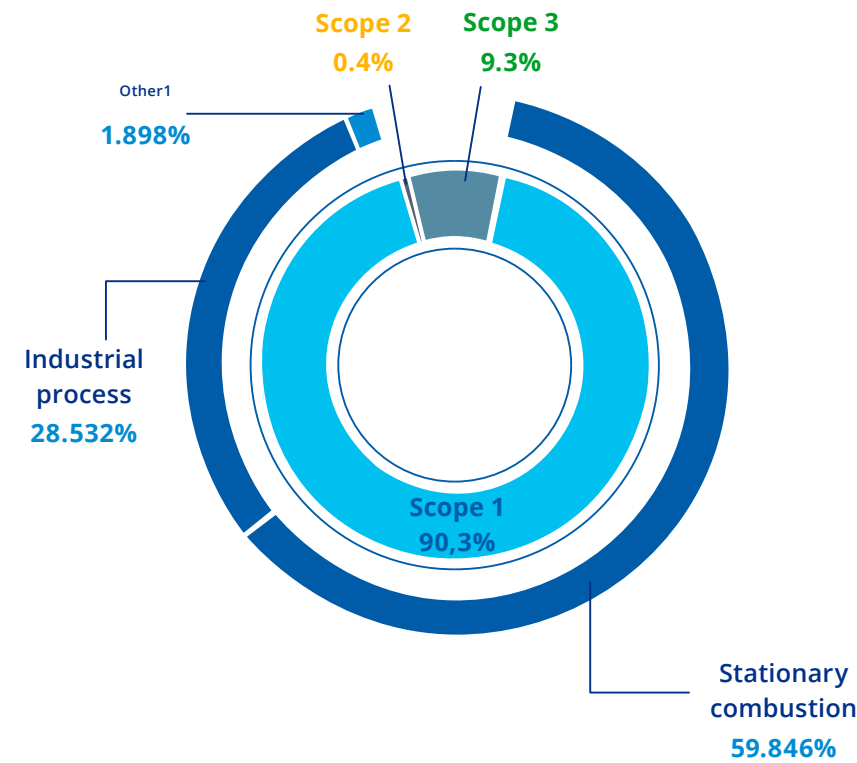
Seedlings donated by CSN to the Local Government of Volta Redonda (RJ)

Emissions and climate change

GRI 305-1, 305-2, EM-IS-110, B.3.1, B.3.2

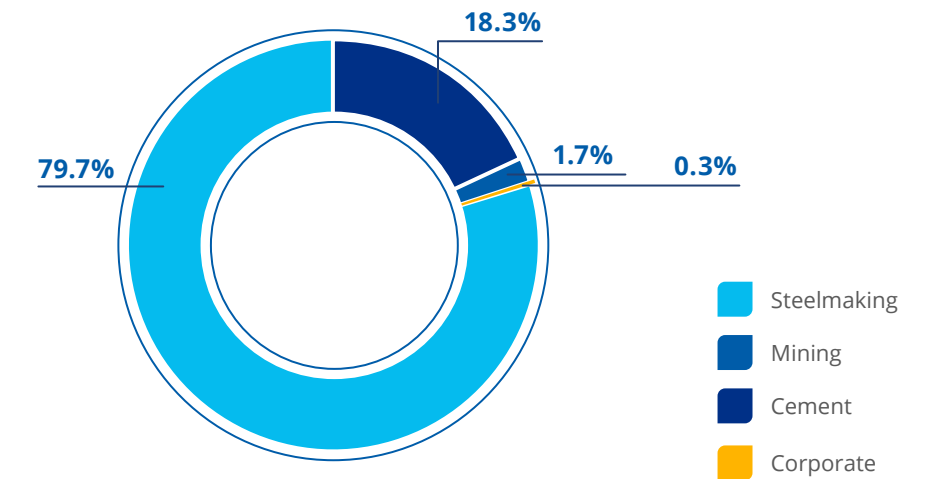
Since 2010, we take stock of our greenhouse gas emissions in accordance with the GHG Protocol guidelines, in order to subsidize carbon management, risk mitigation and adaptation to climate change. The inventory is currently submitted to the Brazil GHG Protocol Program, having received the Gold Seal for the past 5 years (2014-2018). 2019 inventory has been submitted to the **Brazil GHC Protocol Program** platform. Furthermore, we report to the CDP (Carbon Disclosure Project), completing the Climate Change and Water questionnaires, and, as of 2020, we will publicly disclose that information. We also set the goal to reduce carbon intensity per ton of crude steel (tCO₂/ton) by 10% until 2030, versus 2018 figures.

Percentage per scope and category (2019)

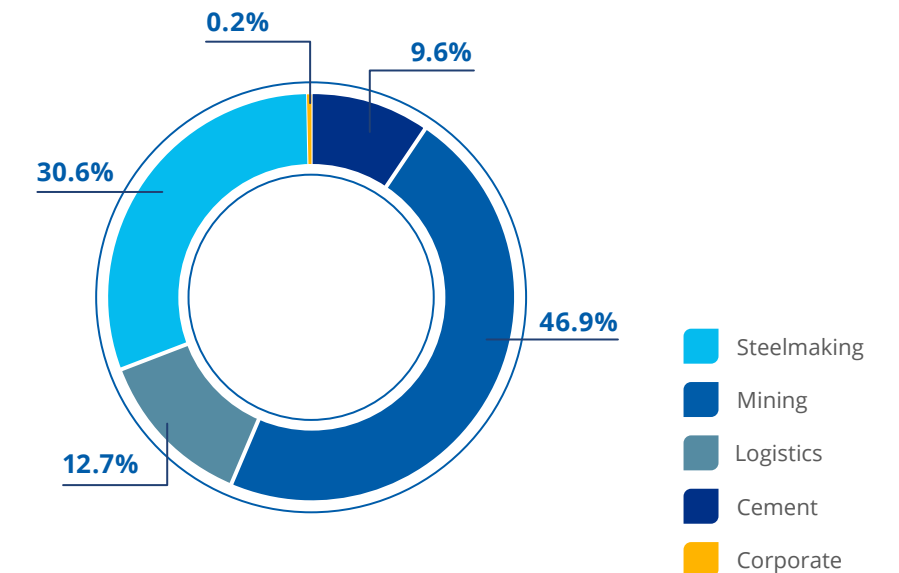


Note: 1. Considers fugitive emissions (0.029%), solid waste and liquid effluents (0.037%) and mobile combustion (1.867%).

Scope 1 emissions per sigment in 2019



Scope 2 emissions per sigment in 2019





Itá Hydroelectric Power Plant (SC)

GHG Emissions

CSN has one of the smallest scope 2* emissions in the industry

As large energy industry consumers, since 1999 we invest in power generation projects. We currently rely on a thermal power plant, with installed capacity of 235.2 MW at Presidente Vargas Steelworks, fueled by steelmaking gases, and we hold a 29.5% shareholding interest in Itá Hydroelectric Power Plant (SC), representing 167 MW Avg. and 17.9% in Igarapava (MG), representing 23 MW Avg. In 2014, blast furnace 3's top turbine began commercial operation, adding another 21 MW Avg. to our generation capacity. Bearing in mind the supply of our future expansions, we frequently prospect and analyze the feasibility of new generation assets aiming self-sufficiency and competitiveness.

Given our energy matrix, we have one of the smallest scope 2 emissions in the steelmaking industry (according to an assessment based on World Steel Association's data) because 75% of CSN's power consumption comes from self-produced renewable sources.

Additionally, we have 11 million in carbon inventory related to 68,734-hectare protected areas. We also removed 35,384 tons of biogenic CO₂ due to the planting of native seedlings in influence areas in 2019.

*Scope 2 emissions are related to indirect emission sources, because they use electricity (or thermal power) produced by another company.

Air quality

GRI 305-7, EM-IS-120

This report discloses UPV's and CSN Arcos – Cement's emission information given these are the plants with most representative emissions. Furthermore, part of our other units does not have fixed emission sources.

Information on air quality surrounding CSN Mineração's operations are presented in the annexes.



Significant specific air emissions volume recorded by UPV – Steelmaking and Cement - and CSN Arcos – Cement (t/year)¹

Significant air emission volume	Source	2017	2018	2019
CO UPV – Steelmaking and Cement	24 chimneys - isokinetic monitoring 3 chimneys - continuous monitoring	-	-	521.46
NO_x (excluding N₂O) UPV – Steelmaking and Cement	24 chimneys - isokinetic monitoring 3 chimneys - continuous monitoring	2,836.29	2,868.29	3,609.30
NO_x (excluding N₂O) CSN Arcos -Cement	Furnace I and II	1,537.62	1,591.71	1,187.68
SO_x UPV – Steelmaking and Cement	11 chimneys - isokinetic monitoring 3 chimneys - continuous monitoring	8,114.39	6,262.75	4,100.37
SO_x CSN Arcos – Cement	Furnace I and II	24.16	16.41	316.12
Particulates (MP) UPV – Steelmaking and Cement	52 chimneys - isokinetic monitoring 38 chimneys - continuous monitoring	2,318.85	2,809.97	2,341.27
Particulates (MP) CSN Arcos – Cement	Furnace I and II	43.36	61.70	720.25
Dioxins and furans CSN Arcos – Cement	Furnace I and II	Furnace I and II	0.00798	-
Plumb (Pb)	-	-	-	-
Volatile Organic Compounds (VOCs) UPV – Steelmaking and Cement	After 2019: 16 chimneys – isokinetic monitoring (THC) Up to 2018: 08 chimneys – isokinetic monitoring (BTEX)	37.01	36.50	11.49
Volatile Organic Compounds (VOCs) CSN Arcos – Cement	Furnace I and II	5.23187	4.59200	7.09554
Polycyclic Aromatic Hydrocarbon (PAHs) CSN Arcos – Cement	Furnace I and II	3.47604	7.86273	6.87001

Note: 1. *On page 72, we provide detailed information on emissions per ton of produced crude steel and clinker. Amounts presented show emissions from steelmaking and cement production processes, at UPV and at CSN Arcos – Cement.

2. Variation is due to a change in monitoring methodology. The upcoming samples will be based on monitoring standardization. .



Employees at one of the air quality monitoring stations in Volta Redonda (RJ)

Monitoring

At UPV, we have 3 three automatic and 5 semiautomatic air quality monitoring stations, in addition to weather stations to bring transparency to our environmental controls and air quality indicators for the city of Volta Redonda. Air emission monitoring at UPV, as well as at the cement plants in Volta Redonda (RJ) and Arcos (MG) is performed through isokinetic (gas flow on the equipment entrance had the same speed as gas flow we intend to analyze) and continuous measurement, via automatic particulates and gas meters.

We continuously monitor our air emissions to ensure air quality is within the standards determined by law,

without putting the population's health at risk. At UPV, we monitor both air emissions and quality, and results are transparently, automated and real-time controlled and reported to the state environmental agency, that consolidates the information and discloses the IQAr (Air Quality Index) to the population.

To soften and mitigate the air pollutant emissions from fixed sources, we use the best environmental control technologies in our equipment. At Presidente Vargas Steelworks, for instance, we have Bag House and Electrostatic Precipitators Dust Collector Systems. However, we have posted an increase in nitrogen oxide at the same time we decreased sulfur oxide emissions in 2019 versus 2018.

We set the goal to reduce particulate emission per ton of crude steel by 40% until 2030, compared to 2019.

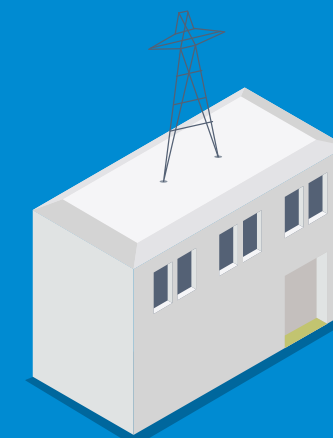
In 2018, in compliance with TAC Decree 03/2016, we completed a reevaluation study of the Air Monitoring Network of UPV's Influence Area, based on techniques practiced and recommended by the United States Environmental Protection Agency. The study concluded that CSN's network is adequately placed. Aiming a greater protection to the population and the environment, we will readjust the air quality monitoring in the region surrounding the UPV, in accordance with TAC Decree 07/2018, expected to be completed by November 30, 2021. The project will allow UPV to have one of the most complete and modern air quality monitoring systems.

Monitoring stations maintained by CSN in Volta Redonda (RJ)



- AUTOMATIC STATIONS
- SEMI-AUTOMATIC STATIONS
- WEATHER STATIONS

Air quality index



Scale

- Good
- Moderate
- Unhealthy for sensitive groups
- Unhealthy
- Very unhealthy
- Hazardous



Management of Dams

GRI 413-1, 413-2

We comply with guidelines and recommendations on dam operation and safety as per ICOLD (International Commission on Large Dams), a non-governmental international commission that fosters the exchange of information on the planning, designing, building and operation of large dams. The standards and practices comply with ICMM (International Council on Mining and Metals) requirements.

By 2021, we will invest R\$400 million in tailing treatment technologies focused on the decharacterization of tailing dams; we are pioneers in the filtering of iron ore tailings in large volumes, with 80% of tailings filtered and stacked in CSN Mineração - and the goal is to reach 100% by 2020. Tailing stacks are

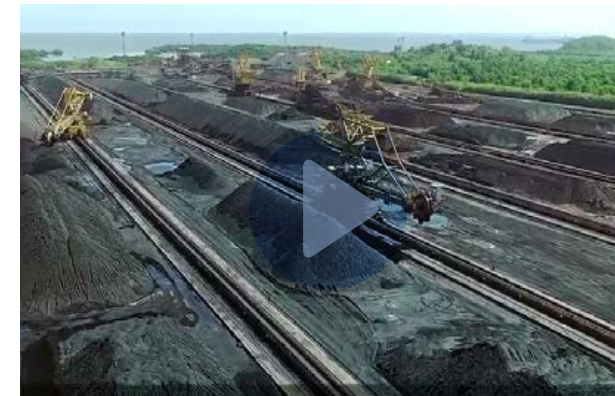
geotechnical structures, built layer by layer, with rigid compaction and humidity controls, deemed a good practice, which is an unprecedented practice in mining.


Thus, upstream dams are going through extensive decharacterization and decommissioning processes. Dam safety and monitoring is performed by geotechnical dam engineers and technicians.

We are investing in projects that will provide gradual independence from the use of dams and focus on business safety and sustainability, with a better interaction with the surrounding community, offering operational balance for all. Thus, the main projects are:

Tailing filtering plant I and II

- Largest filters in the iron ore segment;
- Reduces dependence from the use of dams;
- Tailing dry stacking;
- Increased production at the main plant.



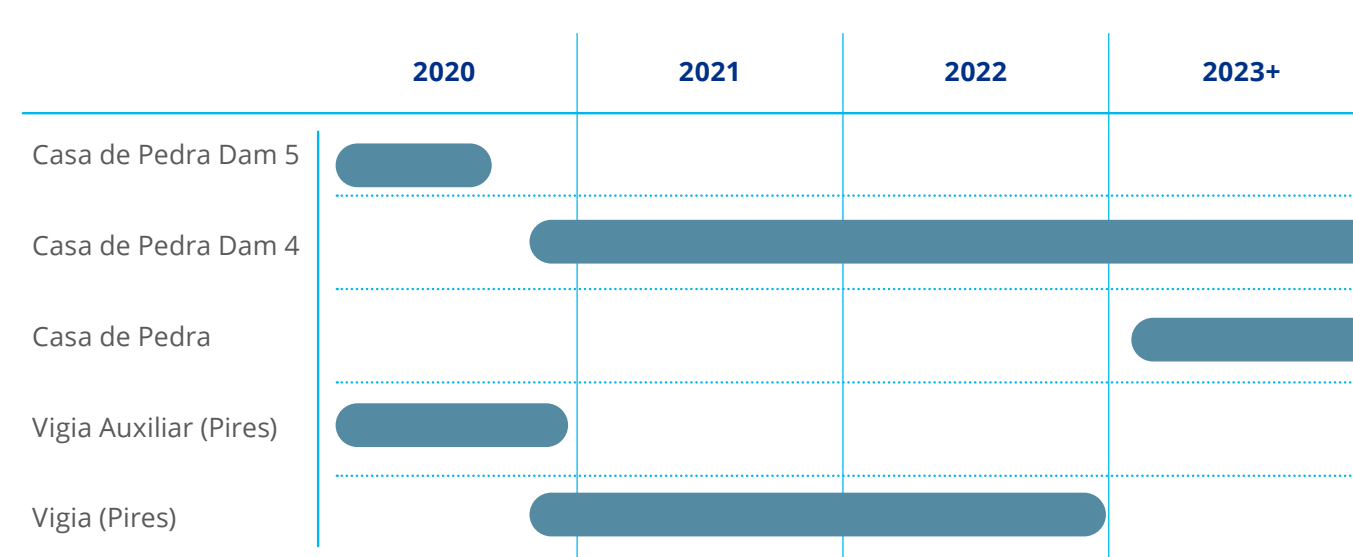
 Click on the chart to watch the video about the filtering and magnetic concentration plants

Magnetic Concentration Plant reduces tailing, CMAI I and CMAI II volumes

- Reduces dependence from the use of dams;
- Transforms part of tailings into products;
- Allows gains of scale;
- Improves ore quality.



CSN Mineração's dam de characterization schedule for the upcoming years



The environmental guidelines that drive our business also include the monitoring of dams used to contain tailings from our mining activities. According to dam classification (Ordinance 70.389/2017 issued by the National Department of Mineral Production - DNPM), all our dams are audited by independent specialized firms, in order to attest to their operational safety and identify preventive actions to ensure stability.

We currently have a general dam inspection program that occurs every two weeks and is performed by our own specialized team. According to the outcome of such inspections, structure maintenance services are scheduled whenever necessary. All our dams are monitored on a regular basis and monitoring actions rely on specific instruments, automated and instantaneous systems, visual inspection, hydraulic control and external audits to prepare the report for every dam we control.

CSN Mineração's dam emergency level in 2019



Mine equipment operator

0 Tailings dam emergency level, according to ANM (National Mining Agency) standards

- CSN Mineração's tailing dams are classified as 0.
- Stability certificates attest to the safety of our dams.



Employee and, in the back, Casa de Pedra mine

CSN Mineração's program encourages visits from Congonhas population

To create a transparent dialog with the communities where we operate, clear doubts on our dam's safety and stability and present how monitoring and inspection processes are developed, we created a visitor program at CSN Mineração focused on the population of Congonhas (MG), specially those who live close to the Casa de Pedra dam, students, local authorities and well as journalists and press representatives working in the region. During the visits, which are organized upon demand, the population gains the opportunity to clear all safety and stability-related doubts, in addition to learning how the monitoring and inspection processes work. They also learn about the operation of the tailing filtering process, technology capable of filtering tailings from iron ore beneficiation processes. Visits can be scheduled both with the Institutional Relations Department - permanently in touch with local representatives - and with the Communications department.

Supported by CSN Foundation, we created the Espaço Comunidade CSN (Community Center), in the Residencial neighborhood, in the city of Congonhas (MG), intended to create an open and direct communication channel between CSN Mineração and the community in Congonhas (MG).

GRI 103-2 (Communication and transparency)

Furthermore, the Dam Safety Plan and the Emergency Action Plan for Mining Dams (PAEBM in Portuguese) comply with said DNPM ordinance. The instruments advise on how to proceed in risk situations and also recommend training the local population, to help them learn how to use sirens and escape routes in case of emergencies.

Risk drills are also developed, and dam containment studies are updated,

assessing the potential impacts of dam rupture based on mathematical modeling. Moreover, through IBRAM (Brazilian Mining Institute), in partnership with Canadian website EduMine, managers responsible for the matter at CSN gained access to the Special Program on Tailing Dams Safety Management, developed in Canada.



More information about CSN Mineração on the website.



Perspectives

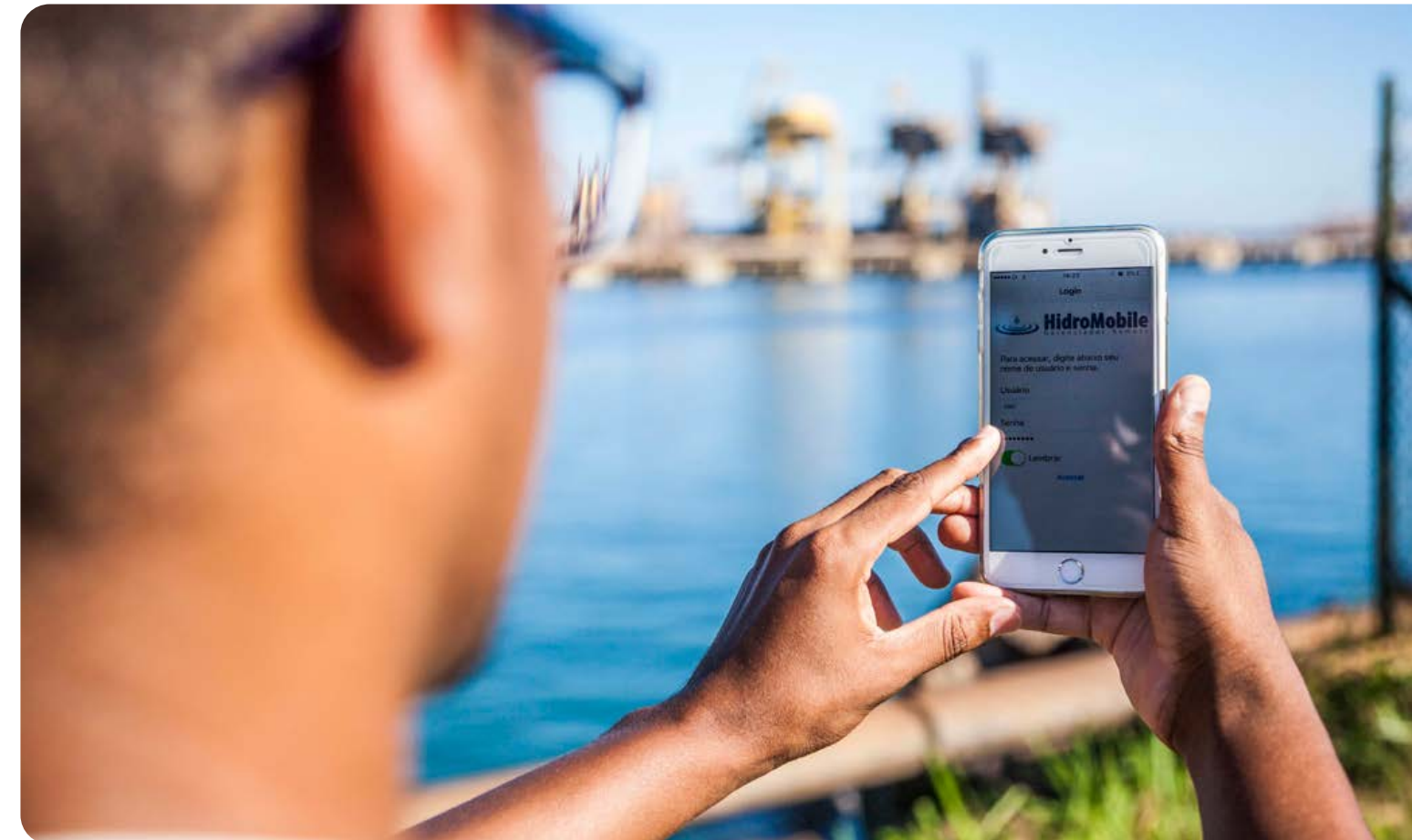
Always seeking to operate following the best environmental, social and governance (ESG) practices, in 2019 we set the 2020 goal of creating the Sustainability, Environmental, Occupational Health and Safety Office, reporting directly to the CEO. The Office's purpose is to bring together policies and practices of departments that are particularly important and have synergies, focused on improving the sustainable performance of our processes in all our business. The commitment is coupled with the launch of an ESG (Environmental, Social and Governance) dedicated website, the creation of an integrated sustainability, environment and occupational health and safety policy, in addition to the strengthening of environmental management investments.

This movement will contribute to the achievement of our ambitions ([see more on page 15](#)), reinforcing our

commitment to sustainable growth, using innovation and disruptive solutions in our businesses. These factors emphasize our position in the steelmaking forefront, due to our efficient and integrated model that favors the circular economy model.

Supported by CSN Inova, we will continue to map possibilities to monetize energy assets as well as decrease fossil fuel consumption and greenhouse gas emissions. The perspectives include the clinker furnace optimization in Arcos (MG), using an innovative technology to make combustion more efficient using hydrogen. Accordingly, we seek to guarantee a more efficient fuel use with lower environmental impact.

For the coming years, we expect to include hydro risk mapping in the steelmaking and mining sectors in our assessments, using the Water Risk Filter from the World Wildlife Fund – WWF



Itaguaí Port (RJ)

and Aqueduct from World Resources Institute – WRI tools to assess physical, reputation and regulatory risks at the basin level and operational risk at the CSN level, to improve GRI, CDP Water and SASB water indicators reporting (2018 edition).



Employee at Presidente Vargas Steelworks, Redonda (RJ)

Social and relationship capital



Supply chain management

GRI 102-9

We are committed to conducting our business ethically and transparently. Therefore, it is important that our business partners comply with Brazilian and foreign legislation. We have a chain of over 5 thousand suppliers that render the most varied services, including raw materials, logistics, maintenance, administrative services, materials, energy as well as equipment and facilities investments. Throughout 2018 and 2019, we paid suppliers slightly over R\$12 billion and R\$14 billion, respectively.

The Compliance Program establishes the due diligence process for third parties. The process began in 2018 and increased 200% in 2019, with the evaluation of 1,200 suppliers.

Concentrated in the corporate level, the Supplies Department is responsible for hiring suppliers and serves all business units. Its procurement process is currently based on Strategic Sourcing, which complies with a predetermined method ensuring the best cost x quality return.

Employee at CSN's
steelmaking process





Employee at the Long Steel plant | Volta Redonda (RJ)

The due diligence process began in 2018 when 400 suppliers have been assessed and this figure increased by 200% in 2019, with the assessment of 1.200 suppliers.

As determined by the Code of Ethics, socially responsible, ethical companies that comply with legal, labor and environmental requirements are favored. Every supplier, upon registering to the Ariba System, must read and accept the general contract conditions, as well as CSN's Code of Ethics, documents that state, among other topics, that we do not tolerate slavery nor child labor, which are grounds for contract termination. In the 2-year period, no significant and real negative

impacts on our supply chain have been identified under the social and economic risk scopes.

Suppliers are hired based on internal standards as well as national and international procurement practices. The Compliance Program establishes the due diligence process for third parties and the use of mechanisms to detect possible conflicts of interest, tasks which are the responsibility of the Audit, Risk and Compliance Office. The due diligence process began in 2018 when 400 suppliers have been assessed and this figure increased by 200% in 2019, with the assessment of 1.200 suppliers. Contracts set forth clauses to ensure strict and full compliance with internal rules, including the Anti-Corruption Law.

During supplier ratification process, the Audit, Risk and Compliance Office makes a comprehensive evaluation based on their National Economic Activity Classification (CNAES in Portuguese). Both the corporate taxpayers' ID (CNPJ) and the partner's individual taxpayers' ID (CPF) are checked to identify any possible engagement in corruption, fraud, complaint, environmental crime, slavery and/or child labor as well as trial history, domestic and international sanctions lists, such as OFAC (Office of Foreign Assets Control), European Union, IBAMA (Brazilian Institute of Environment and Renewable Natural Resources) and embargoes.



Complementing this assessment, suppliers must fill in the “Suppliers Compliance Form” and agree to the Company’s compliance guidelines and practices. The Third-Party Management department is responsible for assessing labor aspects, monitoring the payment of labor taxes and obligations by third parties, requesting payment slips and eventually blocking future payments if irregularities and unresolved matters are identified.

Furthermore, the Suppliers Office together with the Special Sales Office and the units’ dedicated Environmental teams focus on waste as well as obsolete equipment and materials, in order to reduce the volume of waste sent to landfills. Every company that may acquire our by-products, co-products or waste are assessed and approved in advance as per environmental license applicable to their activities, so that we shall not enter into a business relationship with companies with reported irregularities. Through the Recyclables Department, the Supplies Office is responsible for receiving materials discharged by the production, maintenance and support areas, storing and separating them according to the environmental law and, finally, properly disposing them, seeking maximum recycling efficiency.



Some of Prada Embalagens products

**Proportion of
supplier expenditure**


Steelmaking


Mining


Ports


Other

2017	64%	14%	11%	11%
2018	67%	13%	13%	8%
2019	65%	15%	13%	7%



CSN Foundation

GRI 413-1

CSN Foundation is responsible for CSN's social responsibility initiatives, acting as a community transformation agent through social, education, sports and cultural development. CSN Foundation perceives political discussions as important tools in the pursuit of a harmonious relationship with public authorities, companies and institutions where we do business. Accordingly, in 2019 in a partnership with the Local Government of Volta Redonda, Sebrae, Trade Associations and local businesses, we created the *Polo Gastronômico Volta Redonda* (Culinary Hub) to strengthen local economy through culinary and tourism.

Children served by CSN Foundation's *Garoto Cidadão* Project



We sponsor

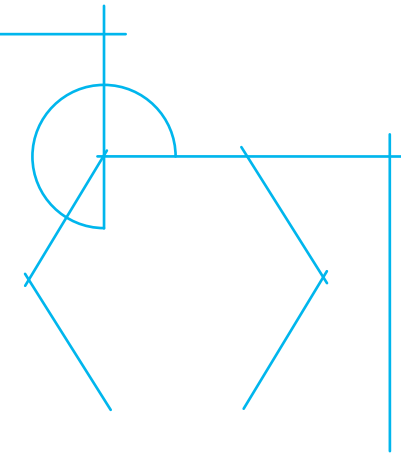
130 projects of partner institutions
through tax incentive laws

31 cities in **12** states



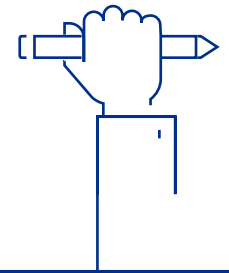
Sponsorships:

- ❑ Ipiranga Museum;
- ❑ Ouro Preto Movie Exhibition;
- ❑ Barretos Cancer Hospital;
- ❑ *GRAAC*;
- ❑ *Unibes Cultural*;
- ❑ *Casa do Povo*;
- ❑ *Santa Casa de Fortaleza*;
- ❑ Several *APAE* units;
- ❑ *Osasco Audax* (SP);
- ❑ *Volta Redonda Futebol Clube* (RJ);
- ❑ *Associação Esporte e Vida* (DF);
- ❑ *UNAS* (Community association of Heliópolis and surrounding region, SP).



100%

of the income from trade activities activities (hotel and schools) are invested in CSN Foundation's social projects, including: scholarships, Capacitar Hotelaria and part of the structure of the Foundation's projects.



CSN Foundation uses funds from the management of 5 assets:

- ❑ *Centro de Educação Tecnológica – CET*;
- ❑ *Hotel-Escola Bela Vista*;
- ❑ *Vila Business Hotel*;
- ❑ *Clube Recreio*;
- ❑ *ETPC* (Pandiá Calógeras Technical School).

2018 and 2019 Highlights



23 cities directly supported by CSN Foundation



797 scholarships for middle, high and technical school as well as higher education



6,883 young people impacted by CSN Foundation projects



621 cultural presentations



554,229 young people impacted by CSN Foundation initiatives



Main CSN Foundation projects

Cultural projects

Garoto Cidadão (Citizen Kid) - Celebrates its 20th anniversary

2,330 children and adolescents served in 2019

1,500 children and adolescents served in 2018

81 *Circula Brasil* presentations
102,370 audience

Celebrating its 20th anniversary in 2019, *Garoto Cidadão* assists children and adolescents between age 10 and 18 who are in social vulnerability situation, in after school activities. Social and cultural workshops, including music, dancing, drama classes and visual arts, are offered to participants in six cities: Araucária (PR), Arcos and Congonhas (MG), Itaguaí and Volta Redonda (RJ) and São Paulo (SP).



Click on the image and watch the video.

Student of *Garoto Cidadão* Project, Congonhas (MG)

CSN Foundation Cultural Center

58,791 visitors in 2019

50,516 visitors in 2018

The center offers free-of-charge multidisciplinary initiatives, targeted at the formation and spread of arts, education and culture. Located in Volta Redonda (RJ), it is now a benchmark in the production and promotion of different cultural offerings, which is attested by the 16% increase in the number of visitors in 2019 versus 2018.

Histórias que ficam (Enduring stories)

A consulting, promotion and broadcast program for the Brazilian audiovisual productions, with production of

8 documentarie

shown in

151 sessions

of the *Mostra Itinerante*,

with an audience of

10,568 spectators

The winning documentary filmmakers received a sponsorship for the movie and advisory from well-known filmmakers.



Educational projects

Young Apprentice Program

Designed to contribute to young people joining the job market and is developed in eight units: Belo Horizonte, Congonhas, Conselheiro Lafaiete, Contagem and Ouro Branco (MG), Duque de Caxias and Volta Redonda (RJ) and São Paulo (SP).

In 2019, were attended

942 young people,

through a partnership with

131 companies

Scholarship Program

In order to prepare students for university and the job market, CSN Foundation grants full and partial scholarships for Pandiá Calógeras Technical School, in Volta Redonda (RJ) and Centro de Educação Tecnológica, in Congonhas (MG). Technical courses in various fields are offered, such as mining, mechanics, electromechanics, computing, business administration, chemistry and mechatronics.

In the 2-year period

795 scholarships were granted

Capacitar Hotelaria e Serviços (Hospitality and Services Training)

The technical training program takes place at *Hotel-Escola Bela Vista* and at Vila Business Hotel, in Volta Redonda (RJ) and is geared towards preparing young people ages 16 to 29 for the job market and their first job. A partnership with the local governments and Degase (General Department for Social and Education Initiatives), the program focuses on young people from the Southern region of Rio de Janeiro. For 6 months, students attend theoretical and practical classes in the hotel's several departments, totaling 220 training hours.

Since the project began in 2007,

1,342 youngsters were trained

Environmental Education Program

Social and environmental initiative that includes lectures, events, cultural activities and workshops in schools and communities in six cities of Minas Gerais: Arcos, Belo Vale, Congonhas, Ouro Preto, Pains and Rio Acima.

The program benefited

17,875 people, in initiatives carried out at **8** schools in **11** communities

Hotel-Escola Bela Vista sponsored by CSN Foundation Volta Redonda (RJ)





Ganhar o Mundo (Winning over the world)

A scholarship program in place since 2016, implemented by CSN Foundation and sponsored by CSN in partnership with Barnard College, a New York university, focuses on education for women. The initiative aims to promote women empowerment and help creating gender equality opportunities. In addition to an undergraduate tuition, the program also includes mentoring and preparation of young women to study abroad.

781 enrolled students

39 scholarship holders participated at the Training Process

24 scholarship holders took English classes and gained academic experience in New York

7 students earned full and partial scholarships for undergraduate courses in the USA

Jéssica Oliveira and Julia Shimizu earned a full scholarship paid by CSN at Barnard College to take Education, Economics and Political Sciences courses.



Student of CSN Foundation's *Garoto Cidadão* Project



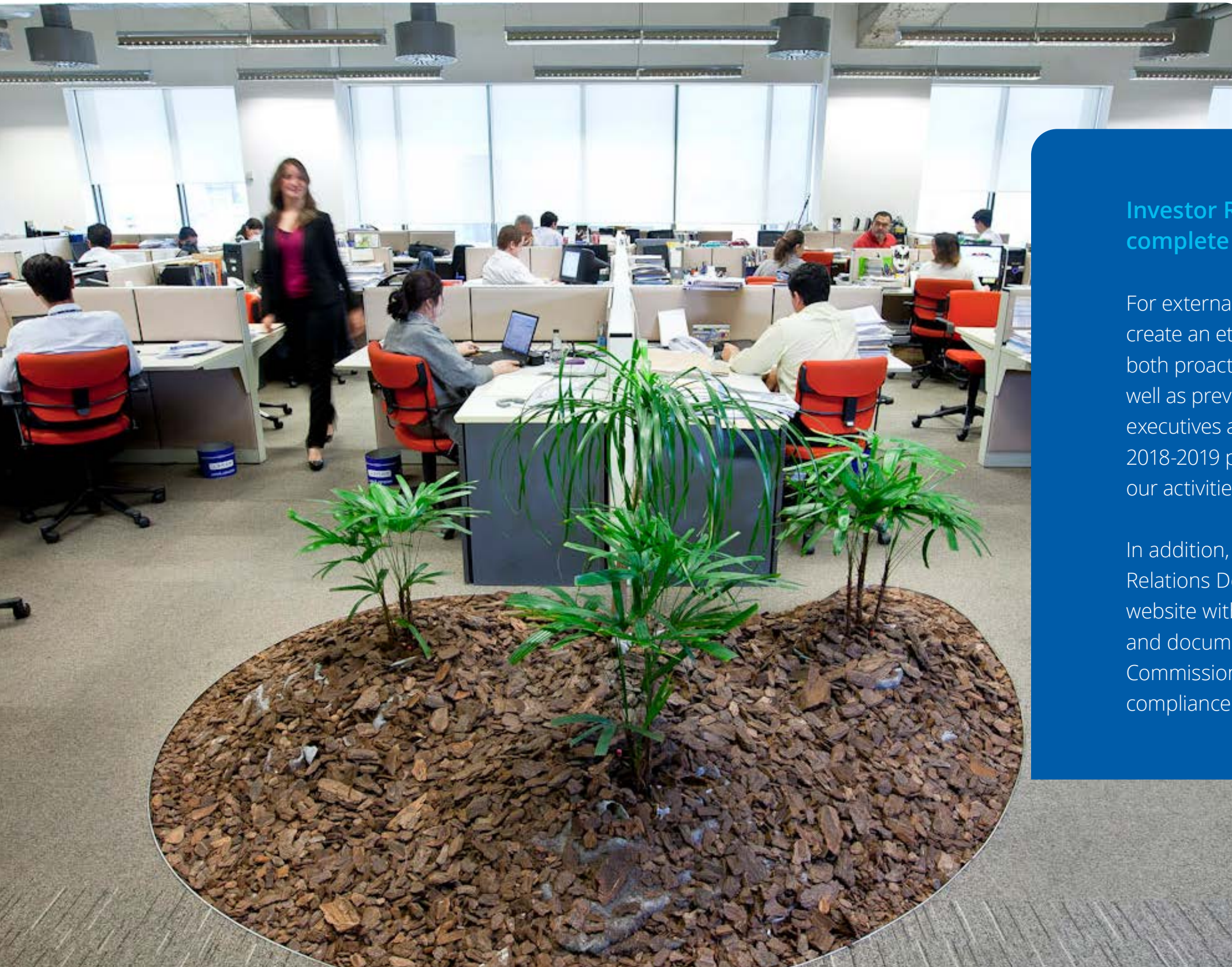
Conheça a ETPC (Discovering ETPC)

The 31st edition of the Conheça a ETPC (Pandiá Calógeras Technical School) event was held in October 2019, when the school opened its doors to the entire community to present the students' works and received over a thousand visitors. High school students' final papers were evaluated by professionals invited by the coordinators of technical courses. The winning project was developed by mechatronics students and uses technology to ensure safety at work. Furthermore, companies and institutions also attended and presented professional growth possibilities, addressing topics such as graduation and starting a career and also presenting technologies used in their production processes.

CSN Foundation's school offers positions for both technical courses on high school level in business administration, electronics, electromechanics, informatics, mechatronics and chemistry, and also supermédio, with extra classes after school hours, as a preparation for entrance examinations, language courses, sports and arts. Throughout its 75 years of history, the school formed over 12 thousand professionals.



Learn more about the CSN Foundation
on the website.



Investor Relations website and social media complete relationship with stakeholders

For external communications, our press office works responsibly to create an ethical and professional relationship with the press, working both proactively, by suggesting contents that strengthen CSN's image, as well as preventive and reactive to protect the brand. On a regular basis, executives attend media trainings to better interact with the press. In the 2018-2019 period, we also boosted our online presence, by strengthening our activities in channels in which we were already present.

In addition, CSN's investors have an open channel through the Investor Relations Department, responsible for constantly updating the IR website with material facts, notices to the market, performance reports and documents submitted to the CVM (Brazilian Securities and Exchange Commission) and the SEC (US Securities and Exchange Commission), in compliance with those agencies' rules and requirements.

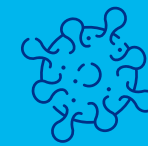




CSN's initiatives to fight Covid-19

The Covid-19 outbreak started in March 2020, when the WHO (World Health Organization) declared it a global pandemic, with potential to cause significant interruptions to operations, increasing market volatility and impacting global and regional economies.

Based on professional conduct and social responsibility ethical standards, and complying with prevention and control measures recommended by the proper health authorities, CSN created the First Response Management Committee (Crisis Committee), responsible for monitoring the pandemic and its impacts on the global economy. The committee's purpose is to minimize Covid-19 effects in our operations, business and financial results, in addition to, mainly ensuring the health, safety and well-being of our employees. The main measures adopted included:



- Employees in the risk group began to work from home;
- Cleaning was enhanced at the facilities;
- We made 70% alcohol hand sanitizers available in all sites and workplaces (including the offices);
- All employees received fabric masks;
- Social distancing was explained, encouraged and expanded;
- Adoption of approved medical protocols such as:
 - Body temperature measurement of every employee entering the plants and offices;
 - RT-PCR testing and immediate leave for the symptomatic employees and workers that had contact with a suspected case. Employees return to work only after a negative testing for the disease;
 - Leave is granted to employees who tested positive in the RT-PCR, pursuant to WHO and the Health Ministry criteria;
 - Employees in the risk group, according to WHO and the Health Ministry, began to work from home.
- Internal newsletters on Covid-19 prevention measures have been enhanced;
- In-person meetings have been cancelled, in and outside our sites, as well as in-house and external training sessions, relying on digital means to carry out such activities;
- Travels have been canceled.



Employee at the Hot Rolling area of Presidente Vargas Steelworks



Furthermore, the Communications department has been disclosing information on adequate behaviors to prevent Covid-19 in the official communication channels (newsletters, e-mails, TV CSN and Safety Notices).

Our planning and the actions taken to face Covid-19 allowed us not to stop our business units and operations.



Social Commitment

In addition to the donation of **500 thousand fabric masks** to the cities and regions where we operate, we financed part of the construction of a field hospital in Volta Redonda, with **114 beds and distributed supplies** to the local health departments to help fighting Covid-19.

We currently cannot predict when the pandemic is going to end nor what its overall effects are going to be, but we are sure that together we will come out of it stronger.



More information on our 2020 performance can be found at the Results Center section of the Investor Relations website.



Garoto Cidadão teachers looking at the art mural at CSN Foundation Cultural Center | Volta Redonda (RJ)

GRI Content Index

We use the GRI (Global Reporting Initiative) standards methodology (Core Option) to guide the preparation of this report. Complementarily, we report on specific indicators of our industry indicated in the SASB (Sustainability Accounting Standards Board) and, seeking a better alignment to the UN's (United Nations) 2030 Agenda, we report on SDG.



GRI Content Index and SASB, UNCTAD indicators

GRI 102-55

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403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	121		EM-IS-320 EM-MM-320			
403-3	Workers with high incidence or high risk of diseases related to their occupation	124					
403-4	Health and safety topics covered in formal agreements with trade unions	118					



General Disclosures		Page	Omission	SASB Standards	UNCTAD	SDG	Global Compact
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MATERIAL TOPIC: SUSTAINABILITY STRATEGY							
MANAGEMENT APPROACH							
103-1	Explanation of the material topic and its Boundary	11					
103-2	The management approach and its components	27					
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103-1	Explanation of the material topic and its Boundary	11					
103-2	The management approach and its components	Not applicable, as this subject is not material. However, details on CSN's people management can be found on page 106.					
103-3	Evaluation of the management approach						
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401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	204					
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103-1	Explanation of the material topic and its Boundary	11					



General Disclosures		Page	Omission	SASB Standards	UNCTAD	SDG	Global Compact
103-2	The management approach and its components	Not applicable, as this subject is not material. However, details on training offered by CSN can be found on page 115.					
103-3	Evaluation of the management approach						
TRAINING AND EDUCATION							
404-1	Average hours of training per year per employee	115					
404-2	Programs for upgrading employee skills and transition assistance programs	115					
404-3	Percentage of employees receiving regular performance and career development reviews	114					
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MANAGEMENT APPROACH							
103-1	Explanation of the material topic and its Boundary	11					
103-2	The management approach and its components	Not applicable, as this subject is not material. However, details on diversity practices maintained by CSN can be found on page 110.					
103-3	Evaluation of the management approach						
DIVERSITY AND EQUAL OPPORTUNITY							
405-1	Diversity of governance bodies and employees	208					
405-2	Ratio of basic salary and remuneration of women to men	118					
TOPIC: NON-DISCRIMINATION							
MANAGEMENT APPROACH							
103-1	Explanation of the material topic and its Boundary	11					
103-2	The management approach and its components	Not applicable, as this subject is not material. However, details about the Whistleblowing Channel can be found on page 44.					
103-3	Evaluation of the management approach						
NON-DISCRIMINATION							
406-1	Incidents of discrimination and corrective actions taken	208					
TOPIC: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING							
MANAGEMENT APPROACH							
103-1	Explanation of the material topic and its Boundary	11					



General Disclosures		Page	Omission	SASB Standards	UNCTAD	SDG	Global Compact
103-2	The management approach and its components	Not applicable, as this subject is not material. However, details on supply chain management can be found on page 166.					
103-3	Evaluation of the management approach						
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING							
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	166					
TOPIC: LOCAL COMMUNITIES							
MANAGEMENT APPROACH							
103-1	Explanation of the material topic and its Boundary	11					
103-2	The management approach and its components	Not applicable, as this subject is not material. However, details about the relationship with the local community can be found on pages 161 and 169.					
103-3	Evaluation of the management approach						
LOCAL COMMUNITIES							
413-1	Operations with local community engagement, impact assessments, and development programs	161, 169					
413-2	Operations with significant actual and potential negative impacts on local communities	161					



Transnordestina - TLA Locomotive

Annexes



We use the GRI (Global Reporting Initiative) standards methodology (Core Option) to guide the preparation of this report. Complementarily, we report on specific indicators of our industry indicated in the SASB (Sustainability Accounting Standards Board) and, seeking a better alignment to the UN's (United Nations) 2030 Agenda, we report on SDG.





Supplements to GRI standards, SASB and UNCTAD indicator

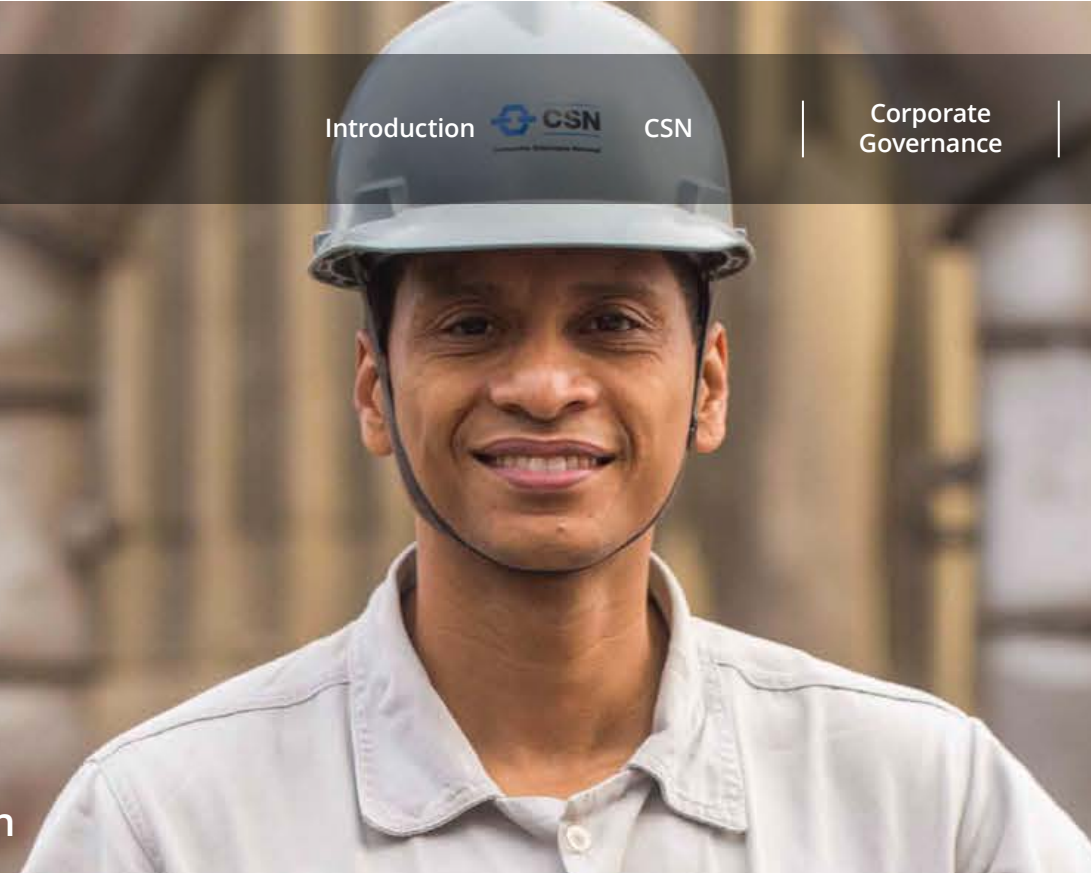
GRI 102-8

Employees by employment contract and by gender

							Total men and women (2017)	Total men and women (2018)	Total men and women (2019)
	2017	2018	2019	2017	2018	2019			
Temporary	144	190	156	89	89	95	233	279	251
Permanent	21,025	20,525	21,280	2,784	2,895	3,338	23,809	23,420	24,618
Total	21,169	20,715	21,436	2,873	2,984	3,433	24,042	23,699	24,869

Employees by employment type and gender

							Total men and women (2017)	Total men and women (2018)	Total men and women (2019)
	2017	2018	2019	2017	2018	2019			
Full-time	21,159	20,704	21,427	2,865	2,973	3,421	24,024	23,677	24,848
Part-time	10	11	9	8	11	12	18	22	21
Total	21,169	20,715	21,436	2,873	2,984	3,433	24,042	23,699	24,869



Employees by employment contract and by region

Employee at the cement plant
Volta Redonda (RJ)

Region	2017			2018			2019		
	Temporary	Permanent	Total	Temporary	Permanent	Total	Temporary	Permanent	Total
North	10	229	239	11	235	246	17	234	251
Northeast	6	1,194	1,200	6	1,243	1,249	7	1,272	1,279
Midwest	0	51	51	0	20	20	0	37	37
Southeast	216	21,685	21,901	255	21,270	21,525	220	22,417	22,637
South	1	650	651	7	652	659	7	658	665
Total	233	23,809	24,042	279	23,420	23,699	251	24,618	24,869



GRI 102-13

As an agent in a strategic industry for the Brazilian economy we participate in debates and discussions on regulatory frameworks, relevant legislation and infrastructure both in institutional terms and through the organizations we are part of, among them:

- ❑ Brazilian Association for Technical Standards (ABNT);
- ❑ Brazilian Association of Large Energy Consumers and Free Consumers (Abrace);
- ❑ Brazilian Association of Energy Self-production Investors (Abiape);
- ❑ Brazilian Association of Container Terminal (Abratec);
- ❑ Brazilian Port Association (ABTP);
- ❑ Latin American Steel Association (Alacero);
- ❑ Business Institutes and Foundations Group (Gife);
- ❑ Brazilian Institute of Mining (Ibram).



Wire rod inventory in the Long Steel plant | Volta Redonda (RJ)



GRI 102-48, 102-49, 102-51, 102-52

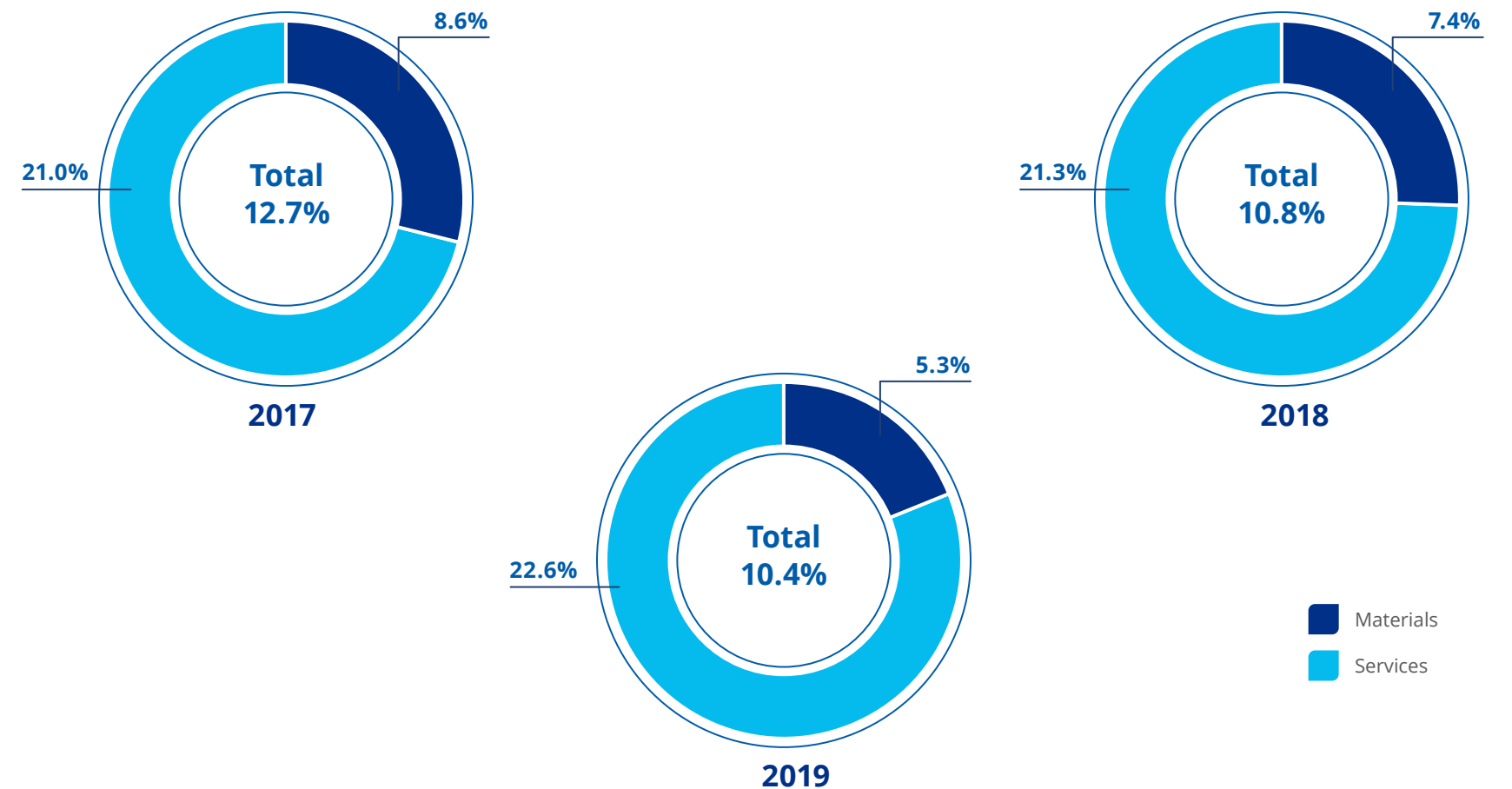
Measurement and calculation methodology of reported environmental indicators have been corrected. Considering the two most recent integrated reports, the disclosure cycle currently adopted by the Company is every 2 years; the previous report addressed CSN's performance in the 2016-2017 period. As of the next report, the Company will resume the disclosure of yearly reports and we set as a 2020 goal the launch of a website dedicated to ESG (Environmental, Social and Governance) matters, to disclose updated information on our related practices.

GRI 102-56

This report has not been submitted to external audit assessment. We received the Gold Seal from GHG Protocol for the past 5 years (2014-20018), for reporting greenhouse gas emissions from all our units and they were submitted to external audit. In the 2-year period, the greenhouse gas emissions inventory has been audited by Green Domus. The financial statements have been submitted to Grant Thornton Independent Auditors.

GRI 204-1

Purchases from local suppliers



GRI 206-1

We are subject to several Brazilian laws aimed at maintaining a competitive commercial environment, in line with the Brazilian Antitrust System. More antitrust-related information can be found on item "8A Consolidated Statements and Other Financial Information" in our 20F Form, available on CSN's IR website.



GRI 301-1

Materials used and produced – steelmaking and mining

Materials used	2017	2018	2019
Iron ore (dry metric ton unit)	5,525,666	5,206,116	3,676,376
Metallurgical coal (dry metric ton unit)	1,600,455	1,630,079	1,160,348
Coal injection into the blast furnace (dry metric ton unit)	554,772	482,275	231,802
Coke (dry metric ton unit)	885,283	940,600	735,183
Heavy oil (m ³)	0	3	2
Light oil (m ³)	0	6	1
LPG (dry metric ton unit)	0	41	37
Natural gas (Km ³ N)	465,923	415,217	426,193
Limestone (dry metric ton unit)	1,091,969	1,034,413	793,655
Crude dolomite (dry metric ton unit)	628,207	341,748	420,003
Pellets (t)	1,130,828	1,240,554	1,134,277
EAF Electrodes (t)	805	753	751
Pig iron (t)	29,574	32,637	32,255
Scraps (t)	847,481	573,331	378,994

Materials produced	2017	2018	2019
BOF crude steel produced (t)	4,157,171	3,947,396	2,775,748
EAF crude steel produced (t)	212,926	204,788	230,193
Total crude steel produced (t)	4,370,097	4,152,184	3,005,941
Iron ore produced (t)	32,378,434	28,521,726	33,674,586

Materials used and produced – cement

Materials used	2017	2018	2019
Clinker used (dry metric ton unit)	1,866,701	1,861,286	2,067,593
Plaster (dry metric ton unit)	100,925	65,234	95,850
Limestone (dry metric ton unit)	146,884	268,907	383,150
Slag (dry metric ton unit)	1,232,001	1,208,183	1,045,053

Materials produced	2017	2018	2019
Equivalent cement (t)	3,338,630	3,469,360	3,546,466
% of recycled inputs used	37%	35%	29%

GRI 303-1, 303-2 e EM-IS-140

We implemented the Water Risk Filter and Aqueduct methodologies to map sites located in water scarcity areas and assess water catchment in such areas. We gather information on discharged water patterns and analysis at all our sites. Due to our business's complexity and recent changes to GRI's water indicators, data is being improved and standardized and will be presented in the upcoming cycles.

GRI 304-4

Species included in CNCFlora's (Brazilian Flora Conservation Center) list, which are present in CSN Mineração's operating area.

General Flora

Species (flora)	CNCFlora
<i>Accara elegans (DC.) Landrum</i>	EN
<i>Anemopaegma arvense (Vell.) Stellfeld ex de Souza</i>	EN
<i>Anthurium megapetiolatum</i>	EN
<i>Apuleia leiocarpa</i>	VU
<i>Araucaria angustifolia</i>	EN
<i>Arthrocerus glaziovii</i>	EN
<i>Aspilia reticulata</i>	VU
<i>Baccharis cf concinna G.M.Barroso</i>	VU
<i>Calibrachoa elegans</i>	EN
<i>Cedrela fissilis Vell.</i>	VU
<i>Cedrela odorata</i>	VU
<i>Cinnamomum erythropus</i>	EN
<i>Cipocereus minensis (Werderm.) Ritter</i>	VU
<i>Comanthera elegans (Bong.) L.R.Parra & Giul.</i>	EN
<i>Dalbergia nigra</i>	VU
<i>Eremanthus elaeagnus (Mart. ex DC.) Sch.Bip.</i>	VU
<i>Esterhazyia nanuzae V.C.Souza</i>	EN
<i>Euplassa incana</i>	VU
<i>Euplassa semicostata</i>	EN
<i>Euterpe edulis Mart.</i>	VU
<i>Hoffmannseggella ghillanyi (Pabst) H.G.Jones</i>	EN
<i>Lepidaploa spixiana (Mart. ex DC.) H.Rob.</i>	EN
<i>Luxemburgia damazioana Beauverd</i>	VU
<i>Lychnophora syncephala</i>	EN
<i>Lychnophora tomentosa (Mart. ex DC.) Sch.Bip.</i>	VU
<i>Lychnophora villosissima Mart.</i>	EN

Species (flora)	CNCFlora
<i>Melanoxylon brauna</i>	VU
<i>Mikania argyreia</i>	VU
<i>Mikania glauca</i>	EN
<i>Mikania neurocaula DC.</i>	EN
<i>Minaria cf. refractifolia</i>	VU
<i>Minasia alpestris (Gardner) H.Rob.</i>	EN
<i>Ocotea odorifera</i>	EN
<i>Paralychnophora glaziouana Loewille</i>	EN
<i>Pilosocereus aurisetus (Werderm.) Byles & G.D.Rowley</i>	EN
<i>Plinia nana Sobral</i>	VU
<i>Richterago arenaria (Baker) Roque</i>	VU
<i>Richterago polyphylla (Baker) Ferreyra</i>	EN
<i>Rudgea jasminoides (Cham.) Müll.Arg.</i>	VU
<i>Setaria sp.1 P. Beauv.</i>	CR
<i>Sinningia rupicola</i>	EN
<i>Smilax lutescens</i>	EN
<i>Syagrus glaucescens Glaz. ex Becc.</i>	VU
<i>Symplocos glaberrima Gontsch.</i>	EN
<i>Uebelmannia pectinifera Buining</i>	EN
<i>Vellozia cf tillandsioides Mello-Silva</i>	CR
<i>Vellozia glabra J.C.Mikan</i>	EN
<i>Vellozia tillandsioides Mello-Silva</i>	CR
<i>Vriesea minarum</i>	EN
<i>Wunderlichia senae Glaz. ex Maguire & G.M.Barroso</i>	EN
<i>Xyris paradisiaca Wand.</i>	EN
<i>Zeyheria tuberculosa</i>	VU

Legenda: CR - Critically endangered | EN - Endangered | VU - Vulnerable



GRI 304-4

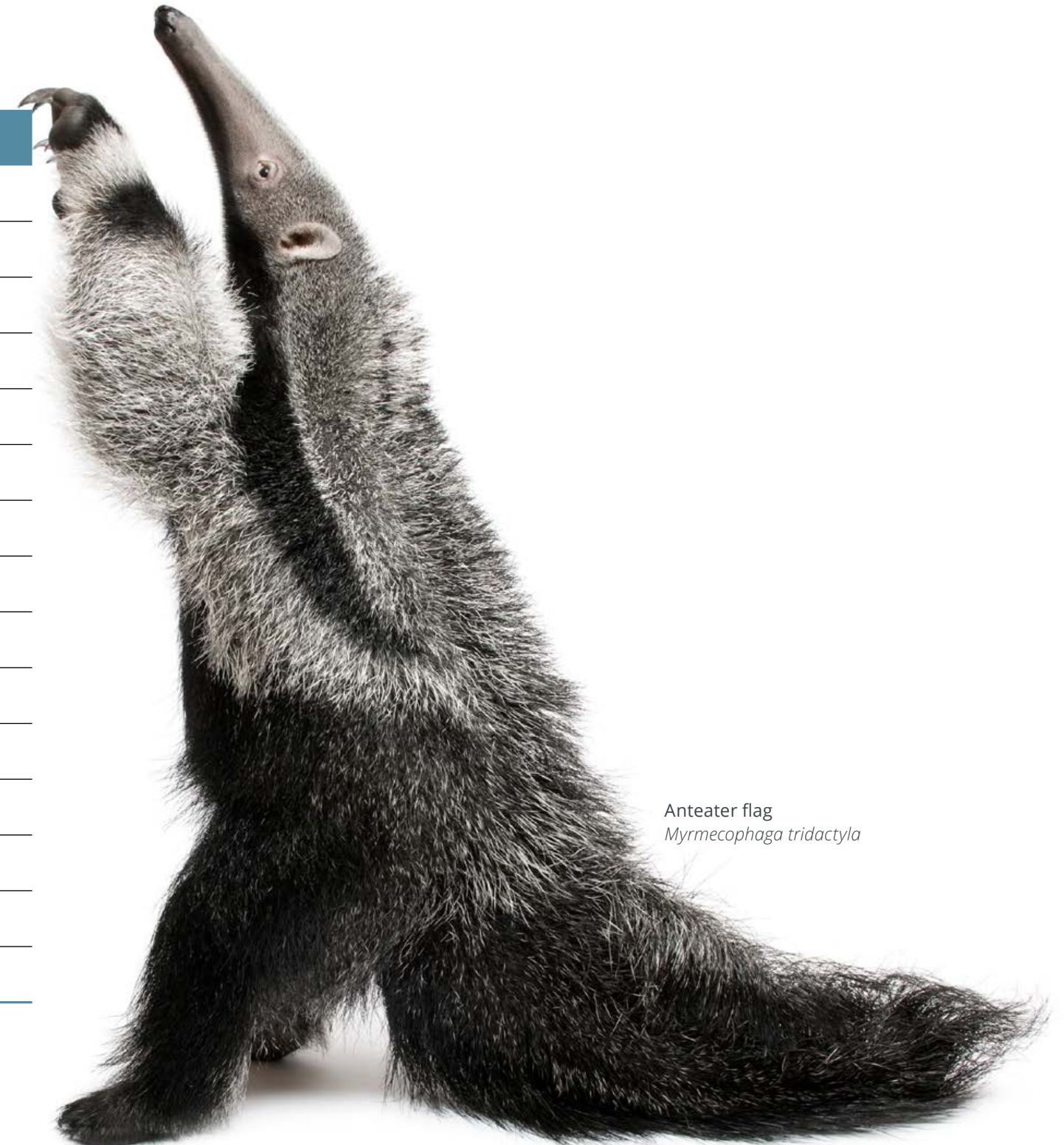
Species included in IUCN's (International Union for Conservation of Nature) list, which inhabit CSN Mineração's operating areas.

General Fauna

Species (fauna)	IUCN Category	Group
<i>Coryphaspiza melanotis</i>	VU	Avifauna
<i>Culicivora caudacuta</i>	VU	Avifauna
<i>Jacamaralcyon tridactyla</i>	VU	Avifauna
<i>Microspingus cinereus</i>	VU	Avifauna
<i>Scytalopus iraiensis</i>	EN	Avifauna
<i>Spizaetus tyrannus</i>	-	Avifauna
<i>Hydromedusa maximiliani</i>	VU	Herpetofauna
<i>Pithecopus ayeaye</i>	CR	Herpetofauna
<i>Alouatta guariba</i>	LC	Mastofauna
<i>Chrysocyon brachyurus</i>	NT	Mastofauna
<i>Herpailurus yagouaroundi</i>	LC	Mastofauna
<i>Leopardus guttulus</i>	VU	Mastofauna
<i>Leopardus wiedii</i>	NT	Mastofauna
<i>Myrmecophaga tridactyla</i>	VU	Mastofauna
<i>Puma concolor</i>	LC	Mastofauna

Legenda

CR - Critically Endangered | EN - Endangered | VU - Vulnerable | NT - Near Threatened | LC - Least Concern



Anteater flag
Myrmecophaga tridactyla

GRI 305-4

Category	Emissions (tCO ₂ e/normalization factor)		
	2017	2018	2019
tCO ₂ eq/crude steel ton ¹	2,70	2,72	2,81
Kg CO ₂ eq/cement ton ²	492	460	506
tCO ₂ eq/R\$ thousand DVA - Scope 1 ³	2,12	1,19	1,29
tCO ₂ eq/R\$ Thousand DVA - scope 2 ⁴	0,04	0,01	0,01

Notes:

1. According to World Steel Association (WSA) methodology - Scope 1+2+3
2. According to Global Cement and Concrete Association (GCCA) methodology - Scope 1+2
3. According to Brazil GHG Protocol and UNCTAD methodology - Scope 1 - UNCTAD B.3.1
4. According to Brazil GHG Protocol and UNCTAD methodology - Scope 2 - UNCTAD B.3.2

GRI 305-5

Reduction of GHG Absolute Emissions

Scope	Emissions (tCO ₂ e)		
	2017	2018	2019
Scope 1	14,487,240.53	14,152,178.98	10,095,344.67
Scope 2	246,367.46	170,303.61	47,074.90
Scope 3	787,510.03	721,890.89	1,037,484.42



Water treatment station at Presidente Vargas Steelworks



GRI 305-7, EM-IS-120

Significant specific air emissions volume recorded by steelmaking and Cement plant at UPV

Specific emissions	Source	Unit	2017	2018	2019
(1) CO	24 chimneys - isokinetic monitoring 03 chimneys - continuous monitoring	ton/crude steel ton	-	-	0.000173
(2) NO _x (excluding N ₂ O)	24 chimneys - isokinetic monitoring 03 chimneys - continuous monitoring	ton/crude steel ton	0.000649	0.000691	0.001201
(3) SO _x	11 chimneys - isokinetic monitoring 03 chimneys - continuous monitoring	ton/crude steel ton	0.001857	0.001508	0.001364
(4) Particulates (MP)	52 chimneys - isokinetic monitoring 38 chimneys - continuous monitoring	ton/crude steel ton	0.000531	0.000677	0.000779
(5) Volatile Organic Compounds (VOCs)	After 2019: 16 chimneys - isokinetic monitoring (THC) Up to 2018: 08 chimneys - isokinetic monitoring (BTEX)	ton/crude steel ton	0.000008	0.000009	0.000004
(6) Polycyclic Aromatic Hydrocarbon (PAHs)	-	ton/crude steel ton	-	-	-

Note: Crude steel produced (in tons):
2017 = 4,370,097.64
2018 = 4,152,184.00
2019 = 3,005,941.00

Significant specific air emissions volume recorded by CSN Arcos - Cement (ton/clinker tons)

Specific emissions	Source	Unit	2017	2018	2019
(1) NO _x (excluding N ₂ O)	Furnace I and II	ton/clinker ton	0.000825657	0.000838963	0.000581748
(2) SO _x	Furnace I and II	ton/clinker ton	0.000012973	0.000008653	0.000154844
(3) Particulates (MP) - PM ₁₀	Furnace I and II	ton/clinker ton	0.000023287	0.000032524	0.000352794
(4) Dioxins and furans	Furnace I and II	ton/clinker ton	0.000000004	0.000000000	0.000000000
(5) Volatile Organic Compounds (VOCs)	Furnace I and II	ton/clinker ton	0.000002809	0.000002420	0.000003476
(6) Polycyclic Aromatic Hydrocarbon (PAHs)	Furnace I and II	ton/clinker ton	0.000001867	0.000004144	0.000003365

Note: 1. Clinker produced (tons):
2017 = 1,862,305
2018 = 1,897,241
2019 = 2,041,585

2. CSN Arcos - Cement collects NO_x, SO_x and MP samples every quarter and dioxins and furans samples every six months. In 2017, two samples were collected from furnace I (FI) and 4 samples from furnace II (FII), and FI operated for approximately half the hours of FII. In 2018, 4 samples from both sources were collected and recorded a remarkably close operation time: FI 5,917 hours and FII 6,185 hours. In 2019, three samples from FI and 4 samples from FII were analyzed and FI's hours surpassed FII's ho (6,732 vs. 6,369).



Volume of significant atmospheric emissions recoded by CSN Mineração

Air quality - Total Suspended Particles (TSP) - 24-hour average

Station	Operation	2017			2018			2019		
		Annual average (µg/m ³)	# 24-hour average > Domestic Standard (240)	AQI ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (240)	AQI ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (240)	AQI ¹
Plataforma - New	CSN Mineração	-	-	-	38.7	0	100% rated as good	44.34	0	100% rated as good
Basílica	CSN Mineração	-	-	-	42.72	0	100% rated as good	56.99	0	100% rated as good
EMMA 1 - Plataforma ² Neighborhood	CSN Mineração	116	6	-	78	1	-	69	0	-
EMMA 2 - Casa de Pedra Neighborhood	CSN Mineração	50	0	-	57	0	-	55	0	-
EMMA 3 - Cristo Rei Neighborhood	CSN Mineração	42	0	-	40	0	-	43	0	-
EMMA 4 - Esmeril Neighborhood	CSN Mineração	40	0	-	43	0	-	52	0	-

1. AQI (Air Quality Index): standard set forth by the Brazilian legislation to evaluate air quality as good, moderate, unhealthy, very unhealthy and hazardous.

2. A new air quality monitoring station was set up and this monitoring station no longer makes sense.



Air quality - Inhalable Particles (PM10) - 24-hour average

Station	Operation	2017			2018			2019		
		Annual average (µg/m ³)	# 24-hour average > Domestic Standard (120)	AQI ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (120)	AQI ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (120)	AQI ¹
Plataforma - New	CSN Mineração	-	-	-	30.75	0	95.07% rated as good and 4.93% rated as moderate	31.06	0	89.59% rated as good and 10.41% rated as moderate
Basílica	CSN Mineração	-	-	-	27.01	0	96.71% rated as good and 3.29% rated as moderate	27.8	0	93.15% rated as good and 6.85% rated as moderate
EMMA 1 - Plataforma ² Neighborhood	CSN Mineração	65	5	-	44	2	-	40	0	-
EMMA 2 - Casa de Pedra Neighborhood	CSN Mineração	24	0	-	30	0	-	31	0	-
EMMA 3 - Cristo Rei Neighborhood	CSN Mineração	28	0	-	25	0	-	28	0	-
EMMA 4 - Esmeril Neighborhood	CSN Mineração	30	0	-	31	0	-	35	0	-

1. AQI (Air Quality Index): standard set forth by the Brazilian legislation to evaluate air quality as good, moderate, unhealthy, very unhealthy and hazardous.

2. A new air quality monitoring station was set up and this monitoring station no longer makes sense.



Air quality - Inhalable Particles (PM2.5) - 24-hour average

Station	Operation	2017			2018			2019		
		Annual average (µg/m ³)	# 24-hour average > Domestic Standard (60)	AQI ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (60)	AQI ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (60)	AQI ¹
Plataforma- New ²	CSN Mineração	-	-	-	-	-	-	8.62	0	97.26% rated as good and 2.74% rated as moderate
Basílica ³	CSN Mineração	-	-	-	-	-	-	16.62	1 ⁵	94.52% rated as good and 5.21% rated as moderate
EMMA 1 - Plataforma ⁴ Neighborhood	CSN Mineração	-	-	-	-	-	-	30	2 ⁶	-
EMMA 2 - Casa de Pedra Neighborhood	CSN Mineração	-	-	-	-	-	-	19	-	-
EMMA 3 - Cristo Rei Neighborhood	CSN Mineração	-	-	-	-	-	-	22	-	-
EMMA 4 - Esmeril Neighborhood	CSN Mineração	-	-	-	-	-	-	24	1 ⁶	-

1. AQI (Air Quality Index): standard set forth by the Brazilian legislation to evaluate air quality as good, moderate, unhealthy, very unhealthy and hazardous.

2. 8/19 BAM MP2.5 was installed and monitoring began for this parameter.

3. 6/5/2019 19 BAM MP2.5 was installed and monitoring began for this parameter.

4. A new air quality monitoring station was set up and this monitoring station no longer makes sense.

5. Parameter extrapolated due to soil movement and fires next to the monitoring station.

6. Parameter extrapolated due to fires in rural properties neighboring the monitoring station.



Air Quality - Ozone (O₃) - 1-hour average - Day's Maximum Moving Average

Station	Operation	2017			2018			2019		
		Average - Day's Maximum Moving Average (µg/m ³)	# 24-hour average > Domestic Standard (140)	IQA ¹	Average - Day's Maximum Moving Average (µg/m ³)	# 24-hour average > Domestic Standard (140)	IQA ¹	Average - Day's Maximum Moving Average (µg/m ³)	# 24-hour average > Domestic Standard (140)	IQA ¹
Basílica	CSN Mineração	-	-	-	40.75	0	99.73% rated as good and 0.27% rated as moderate	44.63	0	98.633% rated as good and 1.37% rated as moderate

1. AQI (Air Quality Index): standard set forth by the Brazilian legislation to evaluate air quality as good, moderate, unhealthy, very unhealthy and hazardous.

Air Quality - Nitrogen Dioxide (NO₂) - 1-hour average

Station	Operation	2017			2018			2019		
		1-Hour Average concentration average (µg/m ³)	# Average Concentration 1 Hour > Domestic Standard (260)	IQA ¹	1-Hour Average concentration average (µg/m ³)	# Average Concentration 1 Hour > Domestic Standard (260)	IQA ¹	1-Hour Average concentration average (µg/m ³)	# Average Concentration 1 Hour > Domestic Standard (260)	IQA ¹
Basílica	CSN Mineração	-	-	-	8.99	0	100% rated as good	12.73	0	100% rated as good

1. AQI (Air Quality Index): standard set forth by the Brazilian legislation to evaluate air quality as good, moderate, unhealthy, very unhealthy and hazardous.

Air quality - Sulfur Dioxide (SO₂) - 24-hour average

Station	Operation	2017			2018			2019		
		Annual average (µg/m ³)	# 24-hour average > Domestic Standard (125)	IQA ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (125)	IQA ¹	Annual average (µg/m ³)	# 24-hour average > Domestic Standard (125)	IQA ¹
Basílica	CSN Mineração	-	-	-	10.28	0	100% rated as good	8.58	0	100% rated as good

1. AQI (Air Quality Index): standard set forth by the Brazilian legislation to evaluate air quality as good, moderate, unhealthy, very unhealthy and hazardous.



GRI 307-1

From 2017 to 2019, we received environmental fines in the amount of R\$8,031,790.25 and 15 non-pecuniary penalties, that include Notice of Infraction with warning penalty and embargoes to the activities. Proof of the commitment to the ongoing management of our environmental liabilities in industrial areas, as well as to the recovery mining-depleted areas, we develop reclamation process through technological innovation. See below received fines, their causes and status.

Company	Notice of Infraction	Date of Issue	Restated fine amount ¹	Root cause	Status
NOTICE OF INFRACTION WITH FINE ≥ 1MM					
CMIN	916/2017	09/26/2017	R\$ 2.557.920,00	Air pollution	Awaiting administrative defense analysis
CMIN	1095/2019	02/11/2019	R\$ 2.188.870,25	Non-compliance with requirements	Awaiting administrative defense analysis and request for loss of Notice of Infraction's subject matter due to adhesion to the Local Government of Congonhas' Dam Safety Plan.
CMIN	1131/2019	04/24/2019	R\$ 2.190.000,00	Non-compliance with requirements	Awaiting administrative defense analysis
CMIN	1220/2019	09/26/2019	R\$ 1.095.000,00	Water pollution	Awaiting administrative defense analysis
NOTICES + EMBARGOES					
FTL	00248/2017	02/02/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
FTL	00239/2017	02/02/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
TLSA	00242/2017	02/02/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
TLSA	00240/2017	02/02/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
TLSA	00241/2017	02/02/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
TLSA	00243/2017	02/02/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
TLSA	00244/2017	02/02/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
TLSA	00342/2017	03/07/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
SEPETIBA TECON	CILAMNOT 01108304	06/26/2019	Embargoes to the activities	Non-compliance with the permit	Discussion in court
CSN	Ofício SEA 002/2017	11/30/2017	Embargoes to the activities	Non-compliance with the permit	Closed ²
CSN	89966/2017	09/01/2017	Warning	Non-compliance with the permit	Awaiting administrative defense analysis
PRADA	11093912	07/03/2019	Warning	Non-compliance with the permit	Awaiting administrative defense analysis
CMIN	879/2017	07/12/2017	Warning	Air pollution	Awaiting administrative defense analysis
CMIN	900/2017	08/09/2017	Warning	Non-compliance with requirements	Awaiting administrative defense analysis
MIPE	206177/2019	04/18/2019	Activities related to B2A Dam were suspended	Dam without Stability Condition Statement (DCE)	Structure is non-operational. Activities exclusively aimed at decharacterization of the structure are being performed in the site, Information forwarded to the environmental agency.

Note: 1. Above information refers to environmental fines equal to or higher than R\$1 million.

2. After receiving notice about UPV's activities, the current TAC.INEA 07/2018 and the current AAF (Environmental Work Permit) 002019 were formalized. There was no effective embargo (operation shutdown). Thus, the notice was terminated.





Employees at Presidente Vargas Steelworks' chemical lab

GRI 401-1, 401-2, 401-3

Turnover rate, new hires and benefits

In 2019, we hired 5,890 employees, up by 35.5% vs. 2018. Out of those new hires, 43.5% work at the steelmaking business. Find below the turnover rate, broken down by business sector and region.

All employees receive the following benefits: health insurance, life insurance and funeral assistance. We also offer other benefits to our employees at specific operational units, including: tuition support for kids, dental insurance, school supplies kit, food and meal vouchers, agreement with drugstores, cafeteria, private pension plan, transportation voucher, employee profit sharing, food boxes and shutter transportation. In 2018, 1,023 employees took on maternity/paternity leave vs. 933 in 2019.

	 Maternity/paternity leaves granted		Total
2017	150	819	969
2018	156	867	1,023
2019	102	831	933
	Total employees returning from maternity/paternity leave		Total
2017	166	820	986
2018	142	814	956
2019	131	796	927



NEW HIRES		2017		2018		2019	
STEELMAKING							
Southeast	Women	Men	Women	Men	Women	Men	
<30 years old	330	1,424	419	851	477	1,121	
30 to 50 years old	51	1,009	115	455	176	620	
> 50 years old	3	63	1	29	5	41	
South							
<30 years old	14	55	12	42	22	54	
30 to 50 years old	12	30	6	43	9	37	
> 50 years old	1	0	0	1	1	3	
COMMERCIAL STEELMAKING							
Northeast							
<30 years old	5	14	6	16	6	12	
30 to 50 years old	1	3	0	2	2	7	
> 50 years old	0	0	0	0	0	0	
Southeast							
<30 years old	0	0	2	1	7	5	
30 to 50 years old	0	0	0	1	5	0	
> 50 years old	0	0	0	0	0	0	
South							
<30 years old	2	2	0	0	0	2	
30 to 50 years old	1	3	0	2	1	1	
> 50 years old	0	0	0	0	0	0	
MINING							
North							
<30 years old	12	27	13	17	13	20	
30 to 50 years old	4	28	5	14	1	15	
> 50 years old	0	1	0	3	0	1	
Southeast							
<30 years old	223	587	204	442	248	750	
30 to 50 years old	37	561	30	247	83	512	
> 50 years old	1	26	0	11	1	72	

NEW HIRES		2017		2018		2019	
LOGISTICS							
Northeast	Women	Men	Women	Men	Women	Men	
<30 years old	35	63	44	113	49	96	
30 to 50 years old	5	52	7	73	9	93	
> 50 years old	1	3	1	1	0	4	
Southeast							
<30 years old	47	193	49	140	61	127	
30 to 50 years old	10	120	13	76	21	100	
> 50 years old	0	6	0	2	0	4	
PACKAGING							
Midwest							
<30 years old	0	10	0	4	0	0	
30 to 50 years old	0	2	1	0	0	0	
> 50 years old	0	2	0	0	0	0	
Southeast							
<30 years old	47	150	28	99	26	84	
30 to 50 years old	52	94	31	39	34	45	
> 50 years old	0	7	0	7	3	3	
South							
<30 years old	0	1	0	1	1	1	
30 to 50 years old	0	2	0	0	0	2	
> 50 years old	0	0	0	0	0	0	
CORPORATE							
Northeast							
<30 years old	0	0	0	0	0	0	
30 to 50 years old	0	0	0	0	0	0	
> 50 years old	0	0	0	0	0	0	
South							
<30 years old	0	0	0	0	0	1	
30 to 50 years old	0	0	0	0	0	1	
> 50 years old	0	0	0	0	0	0	



NEW HIRES		2017		2018		2019	
Southeast	Women	Men	Women	Men	Women	Men	Men
<30 years old	83	47	103	131	128	170	
30 to 50 years old	21	18	26	46	56	57	
> 50 years old	0	1	0	3	5	5	
CEMENT							
Southeast							
<30 years old	55	63	43	98	50	94	
30 to 50 years old	12	60	11	81	29	89	
> 50 years old	0	12	0	8	0	5	
DISTRIBUTION							
Southeast							
<30 years old	9	18	15	38	8	39	
30 to 50 years old	8	21	5	21	11	46	
> 50 years old	0	0	0	0	0	2	
TOTAL	1,082	4,779	1,190	3,158	1,549	4,341	

TURNOVER		2017		2018		2019	
Southeast	Women	Men	Women	Men	Women	Men	Men
<30 years old	0.00%	0.00%	61.38%	25.75%	98.96%	41.24%	
30 to 50 years old	9.79%	11.47%	15.96%	8.04%	24.83%	9.26%	
> 50 years old	34.35%	18.22%	15.63%	8.92%	10.94%	4.05%	
STEELMAKING							
South							
<30 years old	0.00%	0.00%	48.08%	29.03%	104.76%	42.19%	
30 to 50 years old	15.13%	11.59%	9.33%	11.83%	12.68%	10.42%	
> 50 years old	23.21%	16.98%	0.00%	10.53%	20.00%	13.64%	
COMMERCIAL STEELMAKING							
Northeast							
<30 years old	0.00%	0.00%	50.00%	46.30%	0.00%	0.00%	
30 to 50 years old	20.00%	18.18%	11.11%	6.86%	0.00%	0.00%	
> 50 years old	41.18%	24.40%	0.00%	0.00%	0.00%	0.00%	
Southeast							
<30 years old	0.00%	0.00%	15.38%	7.14%	71.43%	275.00%	
30 to 50 years old	0.00%	0.00%	4.17%	2.78%	21.43%	10.61%	
> 50 years old	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
South							
<30 years old	0.00%	0.00%	0.00%	0.00%	0.00%	66.67%	
30 to 50 years old	18.75%	62.50%	0.00%	15.00%	12.50%	8.33%	
> 50 years old	35.00%	41.18%	0.00%	0.00%	0.00%	0.00%	
MINING							
North							
<30 years old	0.00%	0.00%	109.09%	21.93%	0.00%	0.00%	
30 to 50 years old	13.16%	16.52%	20.00%	15.25%	0.00%	0.00%	
> 50 years old	34.38%	17.69%	0.00%	7.78%	0.00%	0.00%	
Southeast							
<30 years old	0.00%	0.00%	56.27%	27.67%	81.31%	47.89%	
30 to 50 years old	10.26%	15.41%	11.38%	11.08%	16.73%	15.49%	
> 50 years old	31.97%	20.18%	8.33%	7.04%	8.33%	14.72%	



TURNOVER		2017		2018		2019	
LOGISTICS							
Northeast							
	Women	Men	Women	Men	Women	Men	
<30 years old	0.00%	0.00%	59.42%	36.28%	0.00%	0.00%	
30 to 50 years old	30.00%	16.48%	11.29%	10.46%	0.00%	0.00%	
> 50 years old	56.87%	21.20%	16.67%	4.50%	0.00%	0.00%	
Southeast							
<30 years old	0.00%	0.00%	36.32%	22.02%	90.30%	30.60%	
30 to 50 years old	12.96%	11.71%	15.71%	10.33%	15.79%	12.21%	
> 50 years old	26.27%	16.34%	0.00%	7.76%	0.00%	3.10%	
PACKAGING							
Midwest							
<30 years old	0.00%	0.00%	0.00%	162.50%	0.00%	0.00%	
30 to 50 years old	20.00%	25.76%	50.00%	84.62%	0.00%	0.00%	
> 50 years old	20.00%	52.13%	0.00%	0.00%	0.00%	0.00%	
Southeast							
<30 years old	0.00%	0.00%	77.50%	77.58%	118.18%	77.06%	
30 to 50 years old	32.07%	22.36%	31.25%	29.74%	26.56%	13.79%	
> 50 years old	36.89%	29.28%	22.73%	34.09%	15.91%	3.00%	
South							
<30 years old	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	
30 to 50 years old	0.00%	50.00%	0.00%	0.00%	0.00%	40.00%	
> 50 years old	0.00%	41.67%	0.00%	0.00%	0.00%	0.00%	
CORPORATE							
Northeast							
<30 years old	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
30 to 50 years old	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
> 50 years old	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
South							
<30 years old	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	
30 to 50 years old	0.00%	0.00%	0.00%	0.00%	0.00%	5.56%	
> 50 years old	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

TURNOVER		2017		2018		2019	
Southeast							
	Women	Men	Women	Men	Women	Men	
<30 years old	0.00%	0.00%	60.06%	53.37%	83.66%	90.43%	
30 to 50 years old	17.73%	14.15%	12.92%	9.53%	19.48%	11.95%	
> 50 years old	34.16%	22.70%	4.55%	9.20%	18.00%	4.89%	
CEMENT							
Southeast							
<30 years old	0.00%	0.00%	49.40%	30.56%	76.92%	48.21%	
30 to 50 years old	22.00%	15.58%	13.58%	15.90%	27.62%	17.11%	
> 50 years old	39.18%	21.80%	0.00%	12.68%	0.00%	6.00%	
DISTRIBUTION							
Southeast							
<30 years old	0.00%	0.00%	100.00%	56.73%	80.00%	88.64%	
30 to 50 years old	15.83%	12.89%	24.14%	13.24%	31.43%	23.60%	
> 50 years old	22.67%	16.97%	0.00%	0.00%	0.00%	5.36%	



GRI 405-1

Diversity at governance bodies

AGE	Women	2017		2018		2019	
		Women	Men	Women	Men	Women	Men
Officers	2	18	2	20	2	19	
30 to 50 years old	1	6	1	8	0	8	
> 50 years old	1	12	1	12	2	11	
Executive Officers	0	5	0	5	0	5	
30 to 50 years old	0	4	0	1	0	1	
> 50 years old	0	1	0	4	0	4	
Directors	0	9	3	14	4	13	
30 to 50 years old	0	3	1	3	1	2	
> 50 years old	0	6	2	11	3	11	
Overall Total	2	32	5	39	6	37	

GRI 406-1

In 2017, 2018 and 2019, the Whistleblower Channel received 4, 1 and 13 discrimination reports. All reports received have been analyzed by the department in charge of conducting investigations based on a compliance department's methodology. For reports assessed as founded, we take the appropriate measures that include layoffs/suspension/warnings of the employee as well as counseling to his or her entire team on ethical and behavioral principles. We organize campaigns encouraging employees to use the Whistleblower Channel, resulting in an increase in the number of reports. Thus, the Compliance department has strengthened initiatives to tackle such behavior.



Annexes

UNCTAD Performance Assessment

	2017	2018	2019
B.1 – Sustainable water use			
B.1.1 – Water reuse and recycling UPV	93.40%	94.00%	92.90%
B.1.1 – Water reuse and recycling CSN Mineração	56.01%	64.50%	76.19%
B.1.2 – Water use efficiency (Megaliters) CSN's total catchment	96.893	89.057	102.713
B.1.2 – Water use efficiency (Megaliters/DVA R\$) CSN Total	0.01418	0.00751	0.01310
B.1.2 – Water use efficiency (Megaliters / ton of produced steel) UPV	0.02021	0.01979	0.02565
B.1.2 – Water use efficiency (Megaliters / ton of produced iron ore) CSN Mineração	0.000289	0.000311	0.000202
B.1.2 – Water use efficiency (Megaliters / ton of produced cement) CSN Cimentos (Arcos and Volta Redonda)	0.000267	0.000261	0.000224

Note: As of 2020, we will assess our business exposure to water risks, based on Water Risk Filter WWF and Aqueduct WRI risk assessment methodologies.

B.2.1, B2.2

UN's SDG INDICATORS		2017	2018	2019
% Hazardous waste reuse	UNCTAD B.2.2	99.19%	99.58%	99.44%
% Non-hazardous waste reuse	UNCTAD B.2.2	9.68%	17.16%	7.48%
% Reduction in hazardous waste generation	UNCTAD B.2.1		5.81%	-1.27%
% Reduction in non-hazardous waste generation	UNCTAD B.2.1		-51.06%	93.87%

UN's SDG SPECIFIC INDICATORS		2017	2018	2019
DVA (R\$)		R\$ 6,834,321	R\$ 11,851,335	R\$ 7,839,357
Hazardous waste generation / R\$ DVA	UNCTAD B.2.1	0.00000377	0.00000230	0.00000343
Non-hazardous waste generation / R\$ DVA	UNCTAD B.2.1	0.0057	0.0016	0.0047

UNCTAD B.2.1

Indicator shows the waste generation / added value (DVA) ratio, considering waste as an output without market value or with a negative market value.

	2017	2018	2019
DVA (R\$ thousand)	R\$6,834,321	R\$11,851,335	R\$7,839,357
Generation of hazardous waste/ R\$ DVA	0.00000377	0.00000230	0.00000343
Generation of non-hazardous waste/ R\$ DVA	0.0057	0.0016	0.0047

Credits

Board of Directors

Benjamin Steinbruch
(Board of Directors Chairman)
Yoshiaki Nakano
Antonio Bernardo Vieira Maia
Miguel Ethel Sobrinho
Fabiam Franklin

Executive Board

Benjamin Steinbruch (CEO)
Marcelo Cunha Ribeiro
David Moise Salama
Luis Fernando Barbosa Martinez
Pedro Gutemberg Quariguasi Netto

Report's overall coordination, writing and preparation

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Sustainability, Environment and Occupational Health and Safety Office

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Team:

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Collaboration

For the collection and assessment of the information disclosed in the Report, we would like to thank the support and cooperation of the managers and other colleagues from all CSN's sites and corporate departments:

Presidente Vargas Steelworks (UPV);
CSN Porto Real;
CSN Paraná;
Prada Distribuição;
Prada Embalagens – SP;
Prada Embalagens – Resende;
CSN Mineração;
ERSA;
CSN Cimentos;
CSN Arcos;
TECON - Container Terminal;
TECAR - Bulk Terminal;
Transnordestina Logística S.A;
Antiga Mineração de Carvão (Criciúma – SC).

Investor Relations Executive Office

Marcelo Cunha Ribeiro - CFO,
Leonardo Tatsuya Shinohara - Investor Relations
Manager

Team:

Jose Henrique Triques Oliveira

Graphic and editorial project, writing and proofreading

blendON

Environmental indicators management

GRI, UNCTAD, SASB, ODS, sector assessments (World Steel Association, International Council of Mining and Metals, Global Cement and Concrete Association), water risk assessment and GHG Protocol – Combustech Tecnologia da Combustão Ltda.

Photos

Banco de imagens CSN*
Envato
iStock

*Most of the pictures showing CSN Employees have been taken before the coronavirus pandemic and are part of the Company's in-house image bank. Therefore, some employees are not wearing masks. Given the pandemic, CSN put up a Crisis Committee to preserve employees' health and safety (see more on the initiatives on page 176).

Corporate Information

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Cement

CSN - Branch Arcos

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CSN – Branch UPV – Cement unit

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Phone: (24) 3344-6000
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Other companies

CSN Mineração S.A. – Headquarters

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Zona Rural – Congonhas (MG)
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CSN Mineração S.A.

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Porto de Itaguaí – Itaguaí (RJ)
CEP: 23826-600

CSN Mineração S.A.

Mina do Pires Unit
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Congonhas (MG)
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CSN Mineração

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Companhia Metalúrgica Prada

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Companhia Metalúrgica Prada

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Companhia Metalúrgica Prada

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