



Annual Report
Nexa Resources S.A. **2017**

nexa



About this Report

We are presenting Nexa Resources' performance results for the January 1–December 31, 2017 period, in accordance with the International Integrated Reporting Council (IIRC) guidelines and the Global Reporting Initiative's GRI Standards in the Essential option. We disclose economic, social and environmental results annually and the last report, with information from 2016, was published in April 2017. The content covers our operations' main aspects, as well as the risks and opportunities we mapped and were considered of interest to shareholders and other stakeholders. **GRI 102-1, 102-50, 102-51, 102-52, 102-54**

We follow international accounting standards (International Financial Reporting Standards - IFRS) for reporting financial indicators. Social and environmental data follow Brazilian and Peruvian norms applied to labor and environmental issues; for the greenhouse gas aspect we use the GHG Protocol methodology. The document was assured by PricewaterhouseCoopers (PWC).

GRI 102-56

The consolidated financial statements, including the list of entities included, and the accounting audit report are available for viewing on our institutional website (www.nexaresources.com) under the Investors tab. The changes resulting from the Company's new agreements include the effects of the Energy Assets, transferred to Nexa on

June 30, 2017. Consequently, the Company retroactively applied the common control concept. Nexa recognized the Energy Assets for all the years presented in the consolidated financial statements. The transfers of these assets are described in Notes 1 (iii) (vii) to the consolidated financial statements as at December 31, 2017. This report can be downloaded from the same site, also available in Portuguese and Spanish. Comments, suggestions, doubts or criticisms regarding the content, as well as our operations and initiatives in Brazil and abroad, can be sent through the following channel: nexa@nexaresources.com.

GRI 102-45, 102-53

Materiality

GRI 102-44, 102-46, 102-47

This document's contents follow the Materiality Principle established by the IIRC and GRI and was defined based on the evaluation of topics of major relevance to the mining and smelter sector, the Sustainability Accounting Standards Board (SASB) guidelines and sectorial benchmarking, thereafter prioritized in consultation with Nexa's top management.

The material aspects of sustainability and its long-term goals are presented throughout the report and include: waste, energy and emissions, water, people, health and safety, local development, human rights and decommissioning. Economic performance, ethics and integrity are considered as transversal topics.

The relevance of the analysis of these topics, their boundaries and related GRI topics are detailed in the GRI supplement to this report, which can be accessed on the company's website at http://www.nexareport.com/2017/wp-content/uploads/2018/04/nexa_ra2017_tabela_temas_materiais_ING.pdf

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Message from the Board

GRI 102-10, 102-14



The company's Initial Public Offering (IPO) in October 2017 was an historic event for our organization. In a successful initiative that is positioning us more emphatically on the global mining scene, we conducted the IPO on the Toronto (Canada) and New York (USA) stock exchanges. The move required determination and very high level of competence of our staff to reach a new corporate governance level and attract new investors.

The IPO mobilized funding totaling US\$ 570 million, of which US\$ 328 million was through the primary offer and US\$ 242 million in a secondary offer, representing the first mining company public offer anywhere in the world in the last seven years.

For us, 2017 also represents the year when we changed the company's name to Nexa Resources. The Nexa brand merges the best of our originating organizations: Brazil's Votorantim Metais and Peru's Milpo. The name Nexa refers to several elements we consider important, such as Next Future, Excellence, Extraction and Nexus, to make it clear we are a company that views the future of mining courageously, enthusiastically and intelligently. We are certain that our expertise serves as the basis for the development of the mining sector's next generation.

This also was the moment to reiterate our good corporate governance practices, making our Board of Directors stronger and reflecting a global standard, in compliance with additional transparency and accountability commitments. We also reinforced observance with the pillars of our business, based on a Code of Conduct and an Anti-Corruption Policy that emphasize our Identity and our Values and Beliefs, fully repudiating and intolerant to any type of misconduct.

We have entered a new phase, with a new company profile and greater capacity for sustainable growth. The accomplishments in 2017 demonstrate our belief that a mining enterprise must be run with financial discipline, respect for communities, the environment and employees.

Despite our clear intention to act with respect toward the environment and quality of life in all our units, in 2017 we saw the loss of seven valuable lives, a number never before experienced in our company's history. This result has left us perplexed and extremely saddened, since safety is a topic to which we have always been extremely dedicated and we emphasize in the management of our operations. This fact, undoubtedly, removed much of the luster of a year replete with accomplishments and has led us to reassess all of our operational procedures.

In a world marked by rapid transformations, our challenges are to perfect what we have always done well, to consolidate the construction of a high performance culture and to advance in the achievement of new standards of technology, occupational safety and innovation.

By taking the world of mining to the world of people, we are being constantly tested to ensure the imperishability of our purpose and legacy, of innovative development and growth, always adapting ourselves to the new market realities with passion and untiring determination.

Luis Ermirio de Moraes
Chairman of the Board of Directors

Message from the CEO

GRI 102-10, 102-14



Major highlights in 2017 included IPOs on the New York and Toronto stock exchanges and the changing of our name to Nexa Resources. These significant events led us to a new governance level, proper for publicly traded companies and, especially, the markets in which our stock is traded.

We invested US\$ 198 million in Capex (capital expenditures) on several fronts, all focused on the three axes of our strategic plan – Growth, Operational Excellence, and Market Development. Our greenfield projects progressed, in Aripuanã (Brazil), Magistral and Pukaqaqa (Peru), increasing our reserves of mineral potentials.

We also strengthened our commitment to innovation during the year. The Digital Mining project, which is part of our Automation and Information Master Plan (PDAI), is noteworthy as it encourages the application of digital technologies to make our mining activities more productive, competitive and safe. Particularly of importance were our energy efficiency and water recirculation gains, such as with our biomass boiler, already in operation at Três Marias unit; the equipment enabled us to substitute diesel oil

with a renewable fuel, thus producing 22.1% fewer greenhouse gas emissions. In addition to a huge environmental gain, the initiative also led to cost savings.

From an operational perspective, it was a difficult year, mainly due to heavy rainfall in Peru in the first quarter, which impaired mining operations and transportation logistics. We also conducted our Peruvian mining processes in a manner designed to ensure higher levels of safety. We were able to offset part of these losses during the second half thanks to sensible planning and the expertise of our mining and logistics teams.

On the other hand, the metal commodities market performed very well throughout the year, with zinc and copper prices reaching historically high levels – which, in a way, mitigated the drop in

production. Another highlight was our May 2017 bond issue, worth US\$ 700 million and maturing in 2027, which extends the average debt maturity to seven years. Both of these events had a positive impact on our financial indicators: net revenue totaled US\$ 2.4 billion for the year (24.7% higher than in 2016) and adjusted EBITDA was US\$ 668 million.

Unfortunately, we were saddened and frustrated with the loss of seven employees, contracted from third parties, whose deaths occurred within our operations – six in Peru and one in Brazil. For us, safety has always been and remains a core value. Throughout our history, we have worked hard to make our operations safer. Our innovation projects, whether to gain operational efficiency or to reduce costs, always are based on Safety as the central guiding principle of planning and execution. Consequently, such occurrences are inadmissible. We reviewed processes, reinforced security teams, invested in training leaders and employees and adopted new rules to prevent such events from happening again. We reiterate our regrets to all the families who lost their loved ones.

We adhere to the UN Global Compact, maintaining policies and practices in line with our commitment to uphold and respect the human rights, labor, environmental preservation and protection and anti-corruption principles. Resources allocated to social initiatives – mainly to the economic and social development of our surrounding communities – totaled approximately US\$ 14.6 million. With new guidelines and redefined scope, we have re-launched our business volunteer program – now called Somos Todos (All Together). We devoted some 250 thousand hours to staff training and professional development programs.

In 2017, we designed and put into practice our Global Integration Plan, which features activities and projects that are aligned with four fundamental pillars: structure, people, processes, and systems. The goal is to absorb the best practices in each country and strengthen our approach to being a unique and global company. Moreover, we want our people to feel like they are in the same “home” wherever they may be working.

As regards personnel management, we continue to invest in the development of our talents and the building of

inspiring leadership. We invest in our employees, contributing to the fostering of ethical and transparent relationships with our stakeholders.

All of these activities are in full harmony with our vision for Nexa’s future. Our focus will remain on growth with competitiveness, creating and sharing value with the company’s stakeholders. To this end, we will continue to invest heavily in our people, in operational excellence and in the development of new markets, assuring financial discipline, training future leaders, and following a mining model concerned about the impact it has on society’s quality of life well-being.

Thus, fully and responsibly committed, we will be able to deliver that which we have pledged to our stakeholders. We thank our shareholders and investors, employees, customers, suppliers, communities and all other stakeholders who accompany us on this journey along the path to sustainable growth.

Thank you very much.

Tito Martins
CEO



Nexa Resources

We are Nexa Resources S.A. (formerly Votorantim Metais Holding - VMH), a publicly-traded company with shares listed on the Toronto Stock Exchange (TSX) in Canada, and New York Stock Exchange (NYSE) in the United States and whose main shareholder is Votorantim S.A. With over 60 years experience, we maintain mining and smelter operations in Brazil and Peru, which are primarily geared toward the zinc and copper production. [GRI 102-1, 102-5](#)

In Brazil¹, we operate four units, all located in Minas Gerais state. There are two mining units, in Vazante and Morro Agudo (Paracatu); and two smelter units, in Três Marias and Juiz de Fora. In Peru², we have a zinc refinery, in Cajamarquilla, and three mines, in El Porvenir and Atacocha in the Pasco region, and Cerro Lindo in the Ica region. In addition to Brazil and Peru, we maintain commercial offices in the United States, Canada, and Austria. Our headquarters are in Luxembourg and our administrative headquarters are located in the cities of São Paulo, Brazil and Lima, Peru. [GRI 102-3, 102-4, 102-7](#)

Note 1: The operation of Fortaleza de Minas and ore processing is temporarily suspended, producing only sulfuric acid from elementary sulfur.

Note 2: The operation at Chapi is temporarily suspended.

Our product portfolio covers production chains for zinc, copper, lead, silver, and other related minerals, which are marketed to clients in different industrial sectors, such as construction, transportation, consumer goods, agriculture, and health. Our main products and brands are Zinc SHG (Special High Grade) in ingots, jumbos, and granules; Zamac (special zinc-aluminum, magnesium, and copper alloys); Zinca 200 (agricultural limestone); as well as zinc oxide, sulfuric acid, copper sulfate, sulfur dioxide, and zinc, copper, and lead concentrates. [GRI 102-2, 102-6, 102-7](#)

The Cerro Lindo and Vazante units are among the 10 largest zinc mines in the world. Combined with our other mining operations, we are among the world's top five zinc producers, according to Wood Mackenzie. In 2017, our mining operations produced 570 thousand tonnes³ of zinc equivalent and the sales volume for smelter-produced zinc totaled 594 thousand tonnes. Net revenue in 2017 reached US\$ 2.4 billion, a 24.7% increase compared to the 2016 result (US\$ 2.0 billion), and adjusted EBITDA was US\$ 668 million (US\$ 404 million in the previous year). As of December 31, we had 5,446 employees and 7,367 contractors from third parties. [GRI 102-7](#)



Integration is a Key Differential

One of our business' distinguishing features is the integration we have brought about between mines and smelters. In Brazil, the zinc concentrates extracted in the Vazante and Morro Agudo mines are transformed into metallic products in the Três Marias smelter. In addition to concentrates, our Juiz de Fora plant also uses recyclable materials (such as scrap and powder from steelworks) for zinc production. In Peru, most of the zinc concentrates produced in the Cerro Lindo, El Porvenir, and Atacocha mines are processed at the Cajamarquilla smelter. At the mines, copper and lead concentrates are sold directly to the market. The main products marketed by the smelters are zinc ingots, metal alloy ingots, and zinc oxide.

Note 3: Consolidated mining production in kton of zinc equivalent calculated by converting copper, lead, silver, and gold contents to a zinc equivalent grade at 2017 average benchmark prices. The prices used for this conversion are: zinc: US\$ 2,896/t; copper: US\$ 6,166/t; lead: US \$ 2,317/t; silver: US\$ 17/ounce; and gold: US\$ 1,257/ounce.

Our Operation and Projects



Production in 2017

Peru

Brazil

Smelters

Cajamarquilla

310 thousand
tonnes of metallic zinc

Três Marias

186 thousand
tonnes of metallic zinc

Juiz de Fora

87 thousand
tonnes of metallic zinc

Mining

Cerro Lindo

156 thousand
tonnes of contained zinc in concentrates

Pasco (El Porvenir and Atacocha)

63 thousand
tonnes of contained zinc in concentrates

Vazante

135 thousand
tonnes of contained zinc in concentrates

Morro Agudo

21 thousand
tonnes of contained zinc in concentrates

46 thousand

tonnes of contained lead

7 thousand

tonnes of contained lead

44 thousand

tonnes of contained copper

Greenfield projects under development

Shalipayco, Magistral, Pukaqaqa, Hilarión⁴, Florida Canyon⁴

Aripuanã, Caçapava do Sul⁴

Note 4: Projects in mineral exploration phase.



Mining

- Vazante (Brazil) – mine and ore processing unit
- Morro Agudo (Brazil) – mine and ore processing unit
- Cerro Lindo (Peru) – mine and ore processing unit
- El Porvenir (Peru) – mine and ore processing unit
- Atacocha (Peru) – mine and ore processing unit



Smelter

- Três Marias (Brazil) – smelter
- Juiz de Fora (Brazil) – smelter
- Cajamarquilla (Peru) – smelter



Mineral Exploration

- Brazil
- Peru
- Namibia



Offices

- São Paulo (Brazil) – central administration
- Lima (Peru) – commercial and administrative
- Luxembourg – headquarters, commercial, and administrative
- Houston (United States) – commercial
- Belo Horizonte (Brazil) – administrative
- Salzburg (Austria) – commercial
- Toronto (Canada) – administrative



New Brand Driving the Future



With our new brand Nexa, we are positioning ourselves as a global mining company, which uses its intelligence and expertise to continually develop and improve its mining operations. We launched the new brand in October 2017, when we launched the company's IPO on the New York Stock Exchange in the United States and the Toronto Stock Exchange in Canada. The brand unites the best of two companies – Votorantim Metais and Milpo – and symbolizes the moment when operations in Brazil and Peru were integrated, while preserving the legacies of each.

The name, Nexa, is comprised of components of four words that define a company that is aligned with the sustainability principles: Next Future, Excellence, Extraction, and Nexus. This identifies our company as one that is thinking and creating for tomorrow – extracting ores in a responsible and efficient manner, and contributing to a better, more developed society.

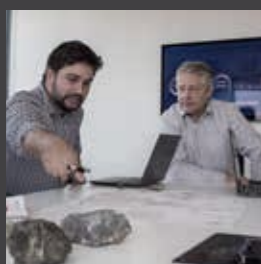
With the challenge of building a global reputation, the Nexa brand maintains the same commitments to which Votorantim Metais and Milpo have been dedicated – operating in the same markets and sustaining relationships with the same stakeholders as a socio-environmentally responsible company that is generating a legacy for the localities in which we are present. There are three fundamental elements that orient our activities: Above all, we are committed to the protection of life; We carry them out with the *Votorantim DNA*; and We drive development.

Nexa connects the mining world to people's lives intelligently, enthusiastically and courageously – galvanizing and managing development as the basis for the evolution of society. We represent a new mining generation, conscious that the way we carry out mining today will have a future impact on the quality of life and the well-being of humankind and the environment.

The Year's Highlights



Financial Capital



US\$ **2.4** billion in net revenue

Completion of the IPO process, with shares listed on the New York and Toronto stock exchanges mobilizing total funding of

US\$ **570** million

US\$ **668** million in adjusted EBITDA

US\$ **700** million, bond issue, maturing in 2027

Manufacturing Capital

Approval of the Aripuanã FEL 2 (Front-End Loading) Project

Approval of the FEL 3 and authorization for execution of the Vazante dry waste disposal project

Progress to **90%** of the shaft for the Vazante mine's useful life extension project

US\$ **198** million in asset investments (Capex)

6.3% increase in copper production

Operations start-up for Ambrosia Sul, the first part of a project to expand the useful life of the Morro Agudo mine

US\$ **94** million investment in mineral exploration and project development, which included US\$ 8.47 million in R&D investments, with a focus on innovation

Human Capital

5,446

own employees.

Global structured Integration Plan

Improvement of the Peru Safety Plan

Valor Econômico newspaper's Valor Executive Award 2017 given to CEO Tito Martins in the Mining and Smelter category

Intellectual Capital



Five startup projects – mapped by the Mining Lab program in the fields of renewable energy and nanotechnology applied to mining – are in the operational testing phase

In Valor Econômico newspaper's ranking of the 150 most innovative enterprises, the company placed third among the five leading firms in the Basic industry and Smelter sector

To achieve operational efficiencies, a Competitiveness management area was established to collaborate on new project design and development

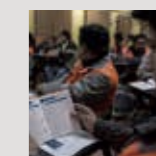
Social Capital

US\$ **14.6** million invested in community-based projects, with **172** sponsored projects in **20** localities

More than **10** thousand people benefited by social investments

Launch of the Somos Todos (All Together) corporate volunteers program, which saw **2,010** volunteer hours, benefitting more than **5** thousand individuals

Progress achieved in third party management through the implementation of Contract Cells and processes to improve safety



Natural Capital

For the fourth consecutive year, the company was listed in Exame magazine's Sustainability Guide as the Most Sustainable Company in the Mining, Steelworks, and Smelter sector

Start-up of the biomass boiler in Três Marias, which represents a **22.1%** reduction in GHG emissions from the plant, with savings estimated at US\$ **3.7** million per year



Specific greenhouse gas emissions maintained at 0.879 t CO₂e

Start-up of the biomass boiler in Três Marias, which represents a

100% of the water used at Cerro Lindo is drawn from the sea (desalinated)



Water Management Plan Review, which resulted in improvements to the water risks tool

Implementation of water accounting in all units to better control the water matrix in each locality



Corporate Governance

Committed to the continuous improvement of our business, we have adopted best governance practices to ensure transparency, fairness, accountability, and corporate responsibility. We consider these to be fundamental principles to enable results that maximize value creation and harmonize our stakeholders' diverse interests.

Our corporate governance model aims to facilitate the flow of information among our executives and other key individuals in our management team, specifically the Board of Directors, advisory committees, and executive boards. Our model ensures that corporate governance principles are consistently applied throughout our organization.

We recognize that good corporate governance plays an important role in our overall success and in enhancing shareholder value. Therefore, our policies and practices include adoption of a formal mandate for the Board of Directors and the appointment of key committees that have independent representation and leadership, including an Audit Committee entirely comprised of independent members; a Compensation Committee; and a Governance and Finance Committee. (Each committee's responsibilities are detailed below.)

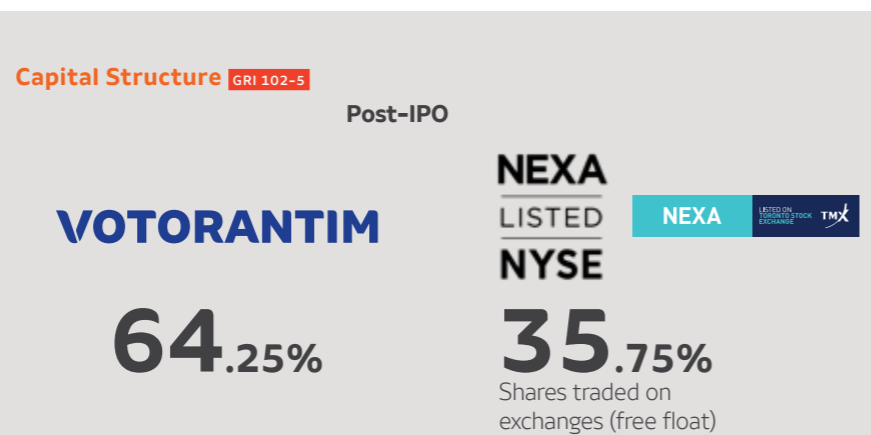
Going Public

In late October, we completed the process for the company's Initial Public Offering (IPO), which was placed on the stock exchanges of Toronto (TSX), in Canada, and the New York Stock Exchange (NYSE), in the United States. Simultaneously, we launched our new brand, Nexa, which was born from the union between Votorantim Metais Holding (VMH), the leading zinc mining company in Brazil, and Milpo, a mining leader in Peru. GRI 102-10

The IPO's main purpose was to contribute to the company's capitalization, making possible new investments; furthermore, a large portion of the amount raised will be invested in both greenfield and brownfield mining projects. The offer's total value was US\$ 570 million, of which US\$ 328 million constituted a primary offer and US\$ 242 million was a secondary offer from Votorantim S.A. (VSA). With the new structure, our capital is now constituted as follows: 64.25% of our shares belong to VSA, while 35.75% are held by other stockholders.

As part of the IPO process, we organized roadshows in a series of cities in the United States, Canada, Switzerland, Peru, Brazil as well as in England, reaching approximately 180 potential investors interested in information regarding corporate strategy, competitive advantages, and performance, among other business data. To create more

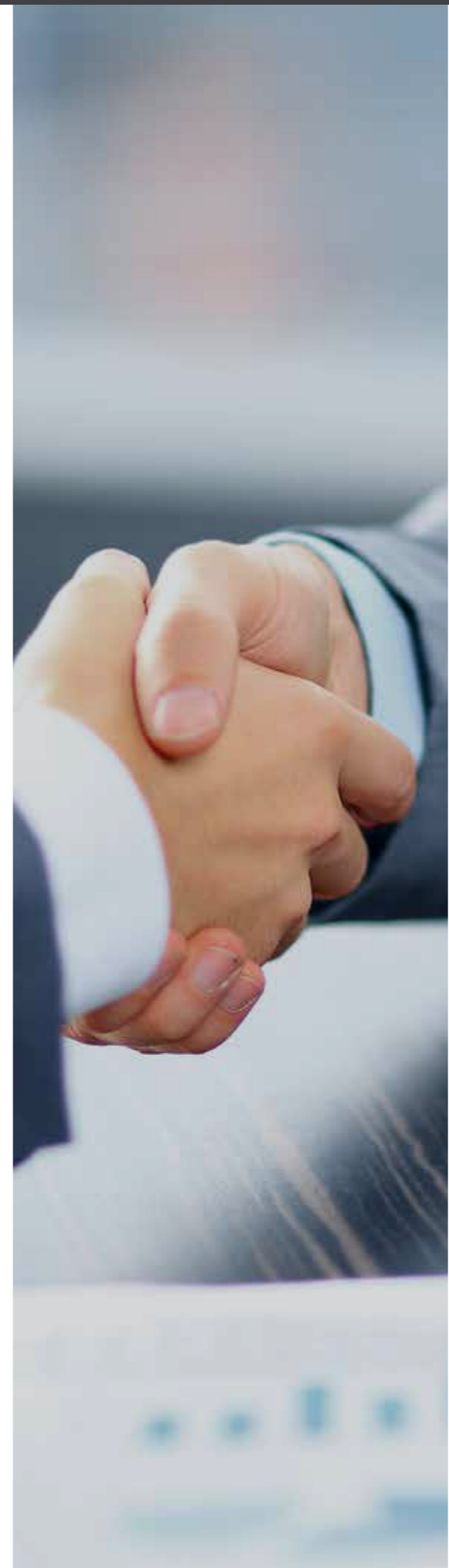
dynamism and transparency in our relationship with investors, both fixed income and equity investors, as well as other players in the financial market – such as analysts, rating agencies, regulators, and stock exchanges – we created an Investor Relations Department, reporting to the Finance and Executive Board.



Note 5: In September 2017, VM Holding S.A. changed its corporate name to Nexa Resources S.A. In addition, our Votorantim Metais - Cajamarquilla S.A., Votorantim Metais Zinco S.A. and Compañía Minera Milpo S.A. subsidiaries started the process to formally change their corporate names to Nexa Resources - Cajamarquilla S.A., Nexa Recursos Minerais S.A. and Nexa Resources Peru SSA, respectively. Changes in the corporate name of these subsidiaries remain subject to local regulatory approvals

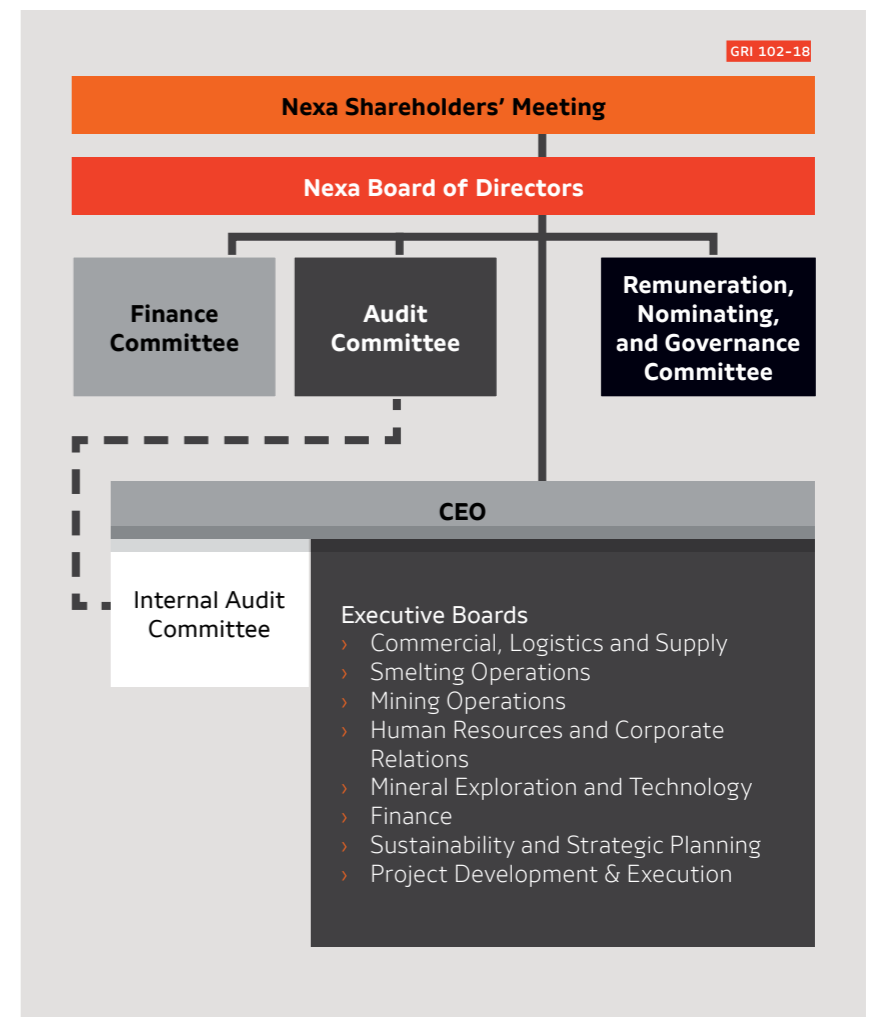
Note 6: Nexa Resources holds a direct 0.17% equity interest in Milpo and an indirect 80.06% equity interest through CJM. 15.79% equity interest is publicly floated and the remaining 3.97% of equity interest pertains to treasury shares, Common shares in circulation; excludes investment shares.

Note 7: Nexa owns 100% of Pollarix ordinary shares and 33.3% of the total capital.



Governance Structure GRI 102-18

Our governance structure is formed by the General Shareholders' Meeting, the Board of Directors, the Advisory Committees (Audit, Finance, and Remuneration, Nominating and Governance) and the Executive Board.



General Shareholders' Meeting

The company's principal decision-making body, the General Shareholders' Meeting is empowered to amend the Bylaws; elect or dismiss members of the Board of Directors; approve accounts and financial statements; consider asset valuations, mergers, acquisitions, and incorporations, among other topics vital to the ongoing performance of the business.

Board of Directors

The Board of Directors' function is to advance the fulfillment of the company's objectives and monitor its performance, while maintaining business continuity. Our Bylaws require the Board of Directors to be composed of a minimum of five and a maximum of 11 permanent members, of which and in compliance with the rules established by the stock exchanges on which we are listed, at least three are independent. The members are elected by the General Shareholders' Meeting through a resolution to one-year terms, with re-election allowed.

In December 2017, we announced the new make-up of the Board of Directors, with terms of office as of January 1, 2018, strengthening governance through a diversified cultural team (four different nationalities: Brazil, Canada, the U.S. and Peru) composed of nine members (seven men and two women), four of whom are independent members. None have an executive role and all are remunerated. In 2018, all new members of the Board of Directors and the Executive Board will participate in a business immersion program and undergo a self-assessment process.

Members of the Board of Directors



Luis Ermirio de Moraes
Chairman
Remuneration, Nominating, and Governance Committee



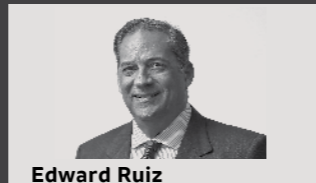
Daniella Dimitrov
Independent director
Audit Committee



João Henrique Batista de Souza Schmidt
Director
Finance Committee



Ivo Ucovich
Director



Edward Ruiz
Independent director
Audit Committee and Finance Committee



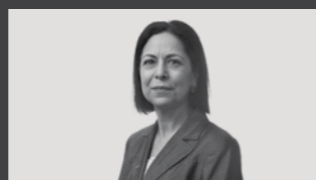
Diego Cristóbal Hernandez Cabrera
Director
Finance Committee



Jean Simon
Director



Eduardo Borges de Andrade Filho
Independent director
Remuneration, Nominating, and Governance Committee



Jane Sadowsky
Independent director
Audit Committee

More information about the duties of the Board of Directors and access to each member's résumé is available at www.nexaresources.com/board-of-directors.

Advisory Committees

Advisory committees, which are established by the Board of Directors to assist in monitoring the company's performance, are composed of board members, are permanent in nature, and handle the following matters – Audit; Finance; and Remuneration, Nominating, and Governance.

Each committee has its own rules of procedure, which establishes roles, terms of office, and operational policies. They meet with the Board of Directors at least four times a year. In addition, periodically, one member from each committee will report on committee activities to the board.

Audit Committee: Monitors the integrity of financial statements and internal control systems, identifies and manages risks, establishes standards and procedures for ethics and conduct.

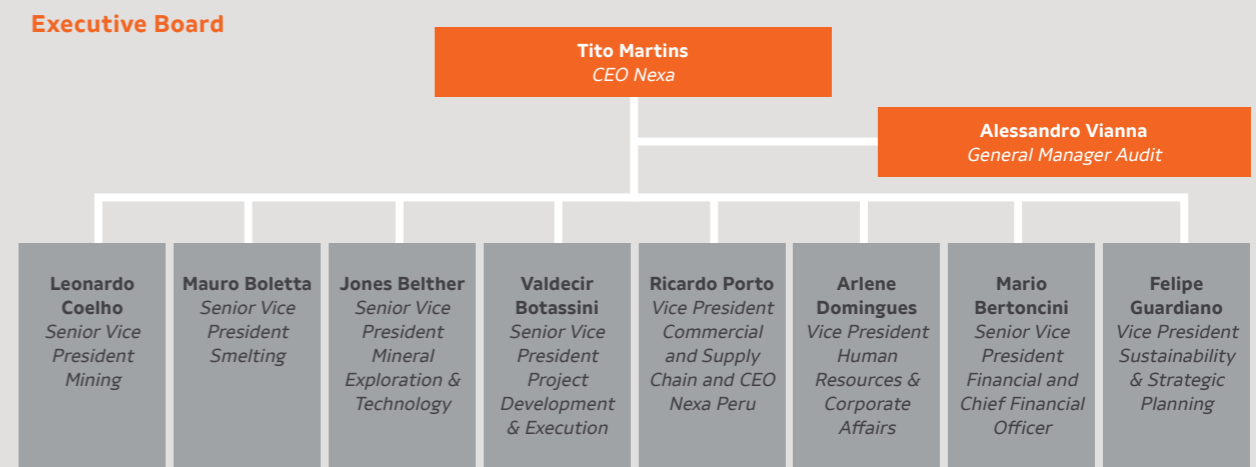
Finance Committee: Responsible for understanding market scenarios and trends, establishing financial strategies and policies, evaluating and monitoring annual investment plans, proposing guidelines for cash management and the company's liquidity position.

Remuneration, Nominating and Governance Committee: Evaluates remuneration models; recommends candidates who might eventually serve as the chair or as members of the Board of Directors; assesses the Board of Directors', the CEO, and each of the advisory committees' performances; and develops corporate governance guidelines and principles.

Executive Board

The Executive Board is responsible for day-to-day business management and for all stakeholder relations. This leadership team is responsible for ensuring the development and execution of the strategic and budgetary plan, which is based on guidelines received from the Board of Directors.

Composed of the President and eight officers, the Executive Board meets weekly to monitor strategic planning, discuss financial and non-financial issues, and design tactical action plans for its teams.





Ethical Behavior

Our company is built upon a solid business foundation, represented by a set of principles that guide our performance and are expressed through our relationships, attitudes, and behaviors, as well as our products, processes, and results. These principles are part of the Votorantim DNA, a document into which Votorantim's best practices, along with its beliefs and values, have been incorporated. It has been compiled over the course of Votorantim's 100-year history and extends to its invested companies. **GRI 102-16**

During the Nexa Integration process, the gradual consolidation of values and beliefs in our international units has been the basis for the formation of a unique culture. In Peru's case, for example, the Cajamarquilla unit (which has been part of the company for over ten years) has the *Votorantim DNA* consolidated into its practices and processes. In our mining units, implementation is in progress. It is very focused on information dissemination by the leadership in those facilities and already producing positive results.

Please have a look at our beliefs and values at www.nexaresources.com/beliefs-and-values.

100
year history and
extends to its invested
companies

Compliance

We maintain a Risk Management and Compliance area, which is overseen by the Finance Department and receives support from the Internal Audit Committee. This structure is responsible for dissemination and management of the Nexa Compliance Program, which is applied to all units in the countries where we operate. The program lays out a series of activities and instruments to enable the proper management of compliance issues.

The Compliance Program is also supported by documents that underpin our work, which address ethical issues and business transparency. Included here are our Corporate Policy on Internal Controls and Compliance, which was created in 2015 and is in line with best market practices, as well as our Anti-Corruption Policy and our Code of Conduct, which establish directives that serve as the basis for our relation with internal and external stakeholders. **GRI 102-16, 103-2, 103-3**

Revised in 2016, and analyzed and approved by the Board of Directors, these documents address aspects of our operations, such as human rights, political contributions, conflicts of interest, labor rights and responsibilities, among other topics of interest between parties. Should any questions or concerns arise, individuals are advised to consult these policies, which are available at www.nexaresources.com/en/corporate-governance-overview#3. If questions or concerns persist, individuals should contact the compliance team and, thereby, avoid the possibility of any misconduct. **GRI 102-17, 408-1, 409-1, 412-2**

In 2017, all employees and suppliers had online access to the Code of Conduct and Anti-Corruption Policy. For employees with computer access, there were also online training sessions related to the Code and the Anti-Corruption Policy, which reached 64% and 60% of employees and suppliers, respectively. Our objective is to reach 100% of employees in 2018. In the period, no cases of corruption involving employees or business partners were confirmed. **GRI 205-2, 205-3**

Compliance Program

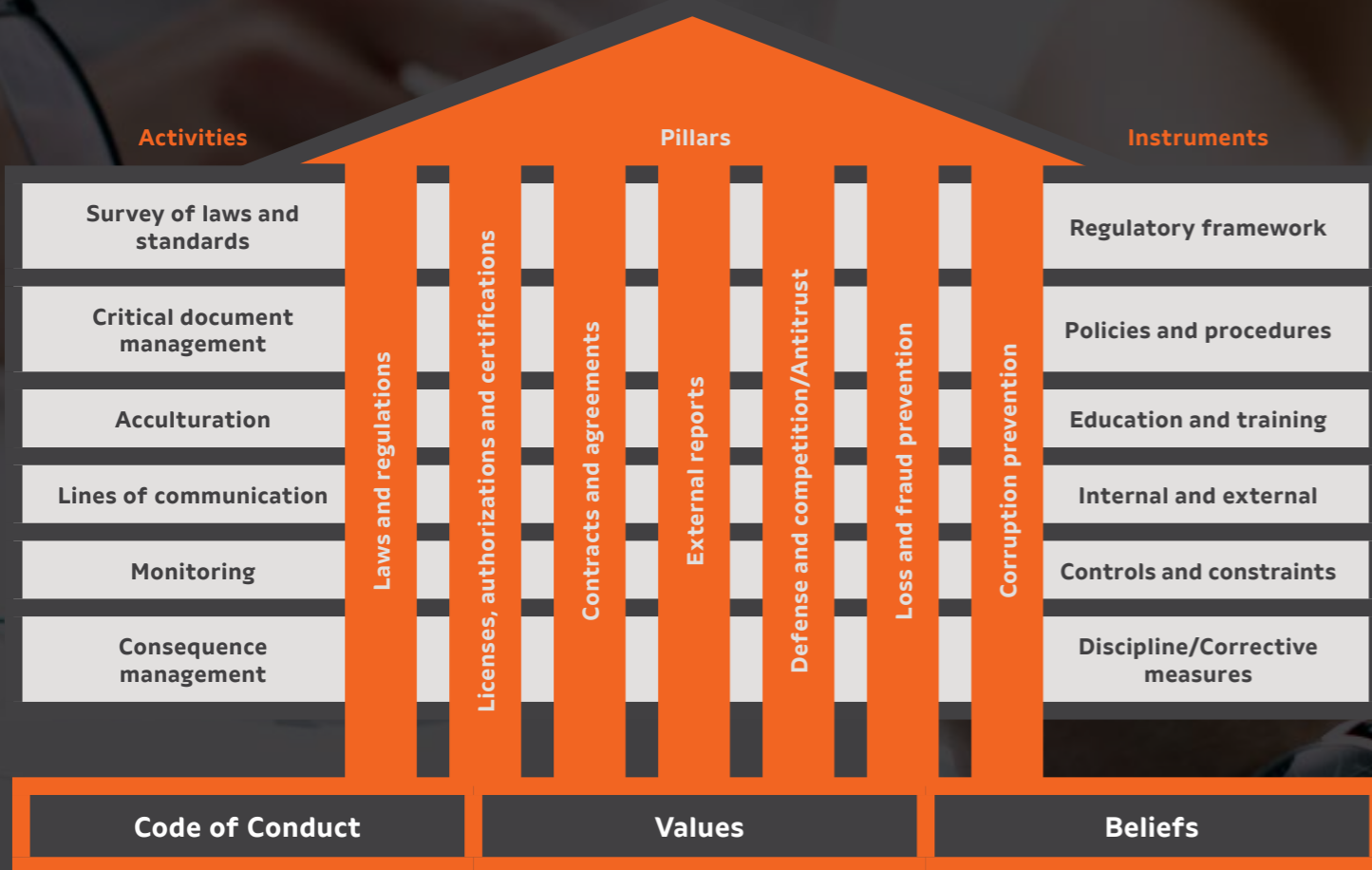
In 2017, as a result of the IPO process, the Risks and Compliance division broadened the basis of the Compliance Program to make it more compliant with anti-corruption, as well as antitrust laws and regulations governing the Canadian and U.S. capital markets. As a result, higher standards have been established, with greater precision of information, filling gaps, and proposing improvements to the system, among other benefits. **GRI 206-1**

As part of this process, we sponsor Compliance Week, which includes observance of the UN-established International Anti-Corruption Day on December 9. At that time, during a presentation in our auditorium in São Paulo, we discussed compliance issues pertinent to our business. Among the topics covered were

Canada's Extractive Sector Transparency Measures Act (ESTMA). The legislation addresses the reporting about payments made to government entities (such as taxes, dividends, bonuses, etc.). The concepts therein relate to extraction activities in all countries in which we operate. Participating at the event, in São Paulo and live videoconferencing, were approximately 100 managers representing all of our units in Brazil and Peru, who were able to watch recorded messages from the company's CEO and CFO.

Another highlight during the year was a review we conducted of our supplier base, with support from Thomson Reuters. Evaluating all Nexa units, we assessed a total 9,137 suppliers, registered since 2014, for a variety of aspects, such as human rights, labor, anti-corruption and finance practices, among others. Of the total evaluated, 114 suppliers presented some concerns. In 2018, we anticipate distribution of this work, which will be followed by a more extensive results analysis. If irregularities are confirmed, corrective measures will be employed.

Compliance Program



Ethics Hotline GRI 102-17, 103-2

We offer our stakeholders an Ethics Hotline, through which it is possible to anonymously report any non-compliance with the Code of Conduct, such as cases of fraud, corruption, discrimination, or harassment, among other issues. Contact may be made via the web at (<https://secure.ethicspoint.com/domain/media/pt/gui/50993/index.html>) or by telephone, toll-free, at 0800 89 11 729 (Brazil) and 0800 50 000 or 0800 50 288 (Peru). This reporting channel is administered externally by a company specializing in this type of work.

Complaints are reviewed by the Internal Audit committee, together with company's appropriate divisions. Reports are forwarded to the Audit committee and, depending upon the nature and severity of any given complaint, there may be additional involvement from the Compliance and Legal divisions, as well as the CEO. Complaints and allegations related to other aspects, such as customer services, supplier issues, or communities, are directed to the Customer Service Department or, in the case of labor issues, to the Human and Organizational Development area.

Complaints pertinent to the Ethics Hotline are submitted to the Conduct Committee, which is presided by the Internal Audit committee's chairman; the body is composed of the CEO, directors, and managers drawn from several corporate divisions. All reports are evaluated and monitored until a suitable outcome is reached. During 2017, the hotline received 140 reports. The average time required to reach resolution and/or closure of an issue was 45 days (as compared to 30 days in the previous year).

In 2017, the Internal Audit team promoted training opportunities for leaders and coordinators in our Brazil units to strengthen the functioning of the complaints investigation system and answer questions.

2017 Ethics Hotline Reports GRI 103-2, 406-1

Analyzed and deemed valid	40
Analyzed and dismissed as being unfounded	77
Received in the year under review	11
Discontinued due to lack of information for analysis	12
Total received in the year	140

Human Rights

Among the reports received in 2017 by the Ethics Hotline that were deemed valid, unfounded, or under review, 75 referred to cases of discrimination. When considered to have standing, corrective measures include verbal warnings and suspensions. During the year, human rights training activities totaled 4,177 hours and 1,712 employees exclusively in Brazil participated, which was equivalent to 30% of total employees. GRI 412-2

Reports of Discrimination to the Ethics Hotline

	2015	2016	2017
Received in the year under review	5	10	8
Analyzed and deemed valid	25	17	27
Analyzed and dismissed as being unfounded	40	64	40
Total analyzed or under analysis	70	91	75

4,177
hours of human rights training, with participation of 1,712 employees exclusively from Brazil, which was the equivalent to 30% of total employees



Risk Management

GRI 102-15

Risk and opportunity management is considered to be one of our business strategy's key aspects, rooted in our corporate guidelines. Focus on this subject resulted in creation, in 2016, of the Enterprise Risk Management (ERM) Policy. The document addresses the principle risks in all corporate divisions and operating units, and is applicable to subsidiaries and controlled companies.

The mapped risks include five major subjects – Compliance; Business Risks (operational and strategic, including socio-environmental aspects); Internal Controls; Financial Risks; and Governance. The matrix is revised annually to remain in conformity with strategic planning set forth by the company.

Action plans are drawn up for high and critical risks, with deadlines established for their completion. Monitoring is carried out, which involves, in addition to the division directly responsible for the topic, the Risks and Compliance division, the Executive Board, and the Board of Directors. For those risks that fall under this classification, monitoring is carried out in a timely manner by the involved divisions.

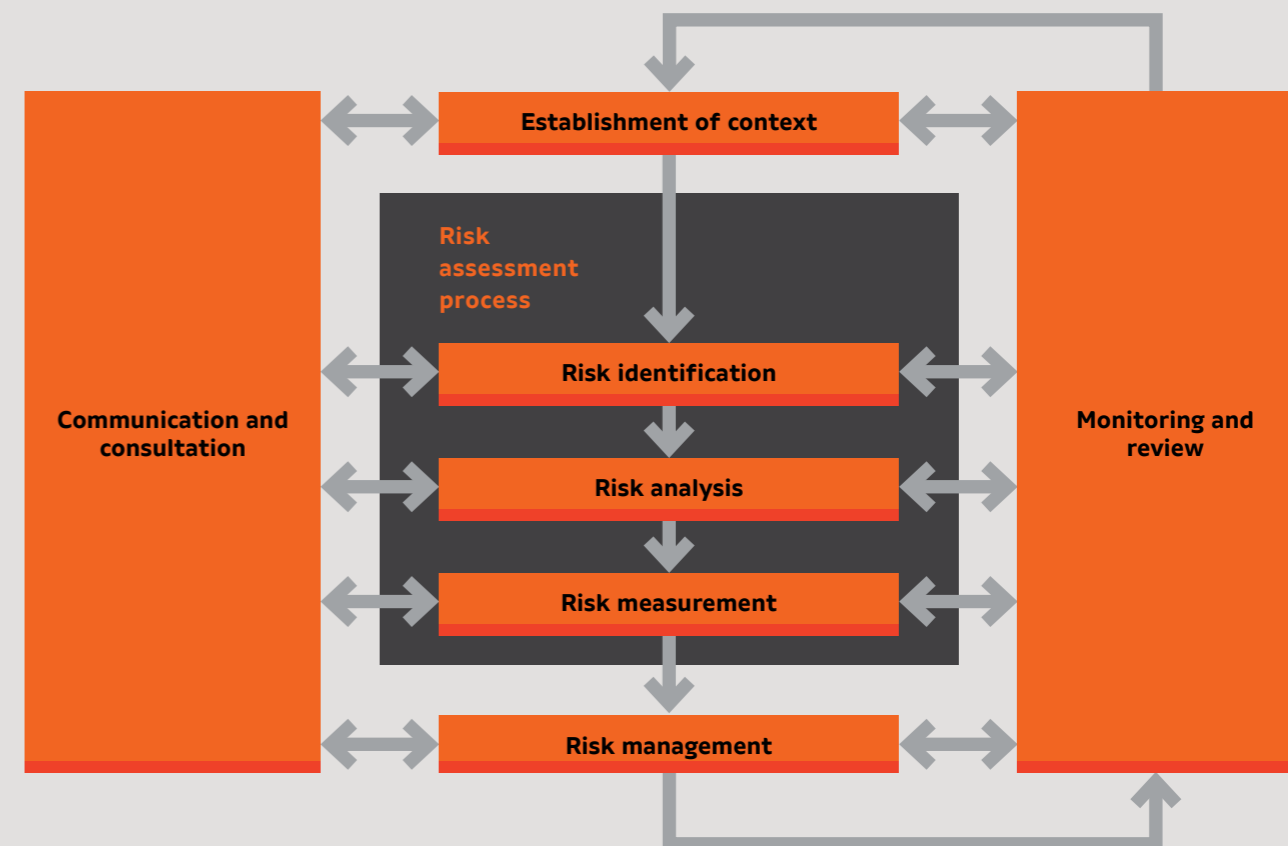
Detailed information related to the risks we manage can be found in the 20-F, released April 2018 (<http://www.nexaresources.com/regulatory-filings>).

Business Risk Management Model

Our risk management model is based on the guidelines set forth in the ISO 31000 standard, which defines criteria for different phases:

- › **Establishment of context** – From a risk perspective, understand the business model, as well as the internal and external environment of the company.
- › **Risk identification** – Areas of the business and risks identify events that threaten the achievement of objectives. These events are classified according to magnitude and follow the criteria established by the impact rule.
- › **Risk analysis** – Collaborative construction of a risk matrix based on the probability of occurrence of risk events and their potential impacts. Risk analysis involves assessing causes, their positive and negative consequences, and the likelihood of them occurring. The matrix, in turn, orients action plans for the management of greater magnitude risks and probability of occurrence.
- › **Monitoring and review** – Risk exposure monitoring is carried out by the Risk Management division and reported to the Executive Board and to the Board of Directors (the highest decision-making bodies). This process is part of monitoring context, identifying new risks, and updating the risk matrix.
- › **Risk management** – Dealing with risks involves a cyclical process consisting of: evaluating risk management already carried out, definition and implementation of new treatments for risks, and assessment of the efficacy of the treatments. Responsibility for the treatment of risks rests with the appropriate business division and/or operating unit, accompanied by the “owner” of the risk and the Risk Management division
- › **Risk assessment** – This step's purpose is to assist decision-making based on the results of risk analysis, including identifying risks that need treatment and prioritizing implementation.

Business Risk Management Model



Risk Management Report

Launched in 2017, this report highlights key risks mapped out by the company's operating units and corporate divisions, and the respective actions being taken to mitigate them. Produced quarterly, the document is updated as reappraisals occur. The resource aims to support the area by providing a broader view of all initiatives and teams involved in managing the business-related risk process.

As part of an annual process, all our units and corporate divisions participated in the operational risk assessment cycle. In addition to reassessing and discussing all risks, managers presented a mapping of the most critical risks and the respective mitigation actions being adopted to address them, all based on the criteria established in ISO 31000.

Stakeholder Engagement

Stakeholder relations are critical for the sustainable growth of our business and therefore we seek to maintain an open, permanent, and transparent dialogue with these parties. Particularly important are those groups formed primarily by shareholders and investors, communities, employees, and clients. This is due to both the influence they have on the business and the impacts they have on our operations and organizational strategy. Banks, suppliers, industry associations, government authorities, regulatory agencies, third sector organizations, and the press complete the stakeholder framework with which we also maintain engagement activities.

With an eye toward establishing closer proximity to these groups and also to promote a conscious and interactive dialogue between parties, we participate in forums and sector meetings, as well as hold various events during the year with our business partners

We maintain an ongoing dialogue with leaders of the communities in proximity to our operations through periodic visits, designed to receive suggestions and complaints, questions need to be answered or information provided about projects under development. Our units also keep track of community demands and work toward goals to improve those relationships (e.g., reducing response times). There is a weekly report to the unit leadership.

GRI 102-43





Strategy

We believe that mining is the basis for the evolution of society, a key ingredient in sustaining the essence of the products and services required for development. We believe in what we do and, more than simply pursuing financial results, we strive to operate with excellence and to add value. To achieve this, we have established solid strategic management that assists us in ensuring continuous development and business continuity, while creating value for all stakeholders and producing consistent returns for shareholders.

Business Model

Our business model evaluates the capture, creation, and distribution of value from the six capitals defined by the International Integrated Reporting Council (IIRC) – financial, natural, human, manufacturing, social and relationship, and intellectual. Due to the nature of the mining sector, we understand that the main elements of value capture involve natural, financial, and human capital; and that we expand our activities in mining, smelter and marketing and distribution to our stakeholders.



Financial Capital: Cash generation produces the majority of the financial capital used in investments, in new project development and in the management of mines and smelters. Strategic projects are also financed with funds raised in the capital market.

Nature Capital: Our activities depend on the prospecting for resources and mineral reserves. To do this, we rationally consume natural resources and seek innovative alternatives to reduce effluents, waste, atmospheric emissions, and biodiversity impacts.

Human Capital: Our Values and Beliefs, our development and compensation policies are key factors in attracting and retaining highly qualified people. Moreover, we continuously invest in improving management practices and strengthening the safety culture among our employees.

Manufacturing Capital: Mining and smelter activities require the use of engineering and technology resources, which are managed to ensure our units' operational stability and to maximize productivity.

Social and Relationship Capital: Engagement with stakeholders – in a process guided by dialogue with and development of the communities in which we operate – is essential for the maintenance of operations and the sustainability of our business, as is improvement of the conditions/prosperity of the communities.

Intellectual Capital: To stimulate the development of technology and innovation, we work in partnership with universities, research centers and public institutions.

Strategic Driver:
Growth



Mineral Exploration

Discovering and developing economically viable mineral resources, as well as extending our mines' useful lives, represent competitive advantages, adding value through the exploitation of reserves or the sale of these projects.

Strategic Driver:
Operational Excellence



Mininig

We conduct mining activities to market concentrates – mainly zinc and copper, with a major part earmarked for our smelters. Our process is distinguished by responsible socio-environmental impact management and in the relationships we maintain with the communities near our mines.



Smelter

We operate three smelters, which are located near our principal mines, and each one of them has a specific value proposition. In addition to zinc metal, zinc oxide, and alloys, the units are configured to produce co-products, such as silver concentrate, sulfuric acid, and copper sulfate.

Strategic Driver:
Market Development



Commercialization

We sell concentrates, metallic zinc and co-products, and invest in the development of products and applications with greater potential for growth in the coming years, while identifying new trends and market needs.

US\$ 2.4 billion
in net revenue

US\$ 106 million
in taxes paid

US\$ 1.5 billion
paid to suppliers

US\$ 14.6 million
invested in communities

US\$ 61.5 million
directed to the environment

us\$ 94.3 million
invested in mineral exploration and project development

765
new jobs GRI 401-1

2,639
contracted suppliers

Employees: We generate direct and indirect jobs; develop, train, and recognize the achievements of our employees while tending to their safety, their intellectual and professional growth.

Investors: The efficient management of assets and resources leads to profit generation, the payment of dividends and increases in the company's value.

Customers: We manufacture quality products and maintain partnerships with customers who are in search of new solutions and applications, thus sustaining, in perpetuity, the zinc and copper value chain.

Public Sphere Management: We pay taxes to governments and promote the training of managers in the public service to improve the quality of services offered to communities in our areas of activity.

Communities: We have a social action plan that features structured activities and ongoing relationships in the localities in which we operate. Through these efforts, we are establishing a lasting legacy by contributing to the development of these communities.

Suppliers: We hire a range of suppliers and seek to train those who are present in the localities in which we operate, thus promoting indirect job creation.

Financial Institutions: We have access to credit financing, which enables us to invest in projects that bring development and value creation to the company and to the localities where we operate.

Strategic Planning

In 2017, we followed up on action plans that included strategies we established in 2015, when we defined three drivers that will allow us to expand competitively – Growth, Operational Excellence, and Market Development. To assist in the execution of this strategy, we have set seven enablers: People and Organization, Sustainability, Project Management, Risk Management, Technology and Automation, Supplies and Logistics, and Capital Structure.

Coordinated by our Executive Board on Sustainability, Corporate Management, and Strategic Planning, we are amplifying the way we are pursuing these initiatives, and thereby placing greater focus on the execution of these activities. Three points are notable about this process:

- › Clear responsibilities: Each of the three strategic drivers and seven enablers have a sponsor and each initiative has a leader responsible for implementing follow-up measures;
- › Group interactions: Representatives from all units and support areas meet to obtain progress updates, review key performance indicators, and how discuss new projects;
- › Frequent follow-up: The Board of Directors and the Executive Board regularly evaluate action plan activities, making adjustments to individual initiatives, as necessary and appropriate to achieve accelerated progress and success.



Growth with Competitiveness



Enablers

People and Organization

- › Cultivate talent and promote inspiring leaders
- › Ensure critical capabilities within the organization, their ongoing evaluation and improvement
- › Increase productivity and competitiveness
- › Enhance effective governance and organizational competencies
- › Promote positive, constructive relationships with all stakeholders

Sustainability

- › Fortify a safety and health culture
- › Create shared value with society
- › Reduce environmental impacts
- › Contribute to the local development of the territories where we operate

Project Management

- › Ensure the development, implementation and successful fulfillment of projects
- › Develop a long-term investment plan

Risk Management

- › Identify and manage key risks from operational and strategic perspectives
- › Reduce and mitigate impacts mainly through preventive systems
- › Monitor volatility and discuss appropriate actions

Technology and Automation

- › Raise the level of efficiency and stability of operational processes through technological and automation solutions
- › Seek out technologies to achieve greater eco-efficiency (eliminating the need for dams, reducing waste generation, decreasing GHG emissions, etc.)
- › Facilitate utilization of low-grade ores and make the use of raw materials more flexible (including the energy matrix)
- › Pursue automation as a driver of competitiveness, growth, and a safer working environment

Supplies and Logistics

- › Generate competitive advantage for operations, processes, and projects (supplies and logistics as strategic partner)
- › Act as a solutions facilitator to establish a better and more sustainable customer-supplier relationship
- › Select the best option between services performed internally and those that are available through outsourcing
- › Create innovations in processes, tools, and information

Capital Structure

- › Optimize cash management, ensuring liquidity and availability
- › Ensure adequate working capital for the organization
- › Guarantee financial resources (capital and debt) in accordance with Nexa's strategic activities

Growth

Along the axis of growth, our priority is to expand our mining operations in the Americas, with a focus on zinc and copper mineral exploration, thus ensuring the replenishment of our reserves. To achieve this, we have defined four growth avenues:

1. Extend the useful life of existing mines (brownfield projects);
2. Develop new projects (greenfields);
3. Explore new areas to sustain long-term production; and
4. Develop new business, including strategic alliances in existing assets or projects, which support the growth plan.

Investments are aimed at extending the lives of our current mines and expanding the mineral resources of new projects, while relatively smaller investments are dedicated to new areas with the intention of identifying future projects.

To manage our project portfolio with greater precision and effectiveness, in 2017, we implemented a new model for governance, design, process, and leadership, which is based in five areas – the Executive Committee; the Engineering Division; Project Leadership; Corporate and Operational divisions; and Project Teams. With this improvement, all areas can deepen their knowledge about our projects and the current stages of each, thereby allowing them to participate more actively in the entire process. As part of this initiative, all company projects were re-analyzed. This included development stage assessments, as well as appraisals of goals and targets, among other issues. The projects were then included as part of the new governance model.



Greenfield Projects

In the spotlight among our greenfield projects already approved and in development are Magistral, Shalipayco, and Pukaqaqa in Peru, and Aripuanã and Caçapava do Sul in Brazil. These are high production potential initiatives, which envisage the use of automated technologies to, among other things, increase operational safety and achieve gains in efficiency. In addition, they feature advanced systems to increase water recirculation, to reduce volumes of resource capture, and to control for the non-discharge of effluents into water bodies. In addition, the social design of these projects includes local development activities.

Greenfield Projects in Development

Project	Estimated Start of Operations	Status 2017
Aripuanã		
One of the largest zinc deposits in Brazil	2020	FS ⁸
Magistral		
Open pit copper mine	2022	PEA ⁹
Shalipayco		
Underground zinc mine	2021	Exploration
Pukaqaqa		
Open pit copper mine	2023	PEA
Florida Canyon		
Underground zinc mine	N/A	Exploration
Hilarión		
Underground zinc mine	N/A	Exploration
Caçapava do Sul		
Open pit zinc mine	2022	PEA

Note 8: Feasibility Study

Note 9: Preliminary Economic Assessment

Aripuanã

This mining expansion project is considered one of the ten largest in the world. It is in an advanced stage of development, with operations anticipated to start in 2020. Polymetallic underground mine project located in Mato Grosso state (in Brazil's Central-West region), it will operate as an integrated underground mine forecast to produce 1.8 million tonnes of crude ore per year (especially zinc, lead, and copper), with an anticipated useful life of 24 years. In 2017, US\$ 12.2 million was spent on Aripuanã's development.

The project was designed to minimize environmental impacts. An example of this is the objective of recirculating up to 70% of the water used in the production process. The region offers adequate infrastructure, including availability of energy, water, and human resources.

In 2017, we submitted our environmental impact study and revised our minimum total costs study. In April 2018, we obtained the Environmental Preliminary License for the project. Concentrate will be transported by truck from Aripuanã to Rondonópolis, Mato Grosso, and then by train to the Port of Santos, São Paulo or to our refineries in Minas Gerais.

Magistral

This open pit copper project and mineral processing unit is located in Peru's Ancash region. When fully developed and operating, it is estimated that it will produce an annual average of 40 thousand tonnes of contained copper concentrate; 3 thousand tonnes of molybdenum; and 600 thousand ounces of silver (17 tonnes). It will have an anticipated useful life of 16 years. In 2017, environmental and social licenses were maintained; exploration and drilling phases are expected to begin in 2018, as well as the pre-feasibility study (FEL2).

Shalipayco

Located in Peru's Junín region, this mine contains deposits of zinc, lead, and silver, with an underground mining operation foreseen. The project is expected to produce an average annual output of 43 thousand tonnes of zinc contained in concentrate; 3 thousand tonnes of lead concentrate; and 700 thousand ounces of silver (19.8 tonnes) per year, with a useful life of 15 years. Operations are anticipated to start in 2021. In 2017, we conducted approximately 40 thousand meters of soundings. Additional geological mapping is planned for 2018 to determine the potential for expansion of mineral resources, besides the development of the conceptual study (FEL1).

Pukaqaqa

This project contemplates the development of a copper, silver and gold open pit mine. We are identifying possible operational synergies between this project and similar assets in the vicinity. The project is located in Peru's Huancavelica region (approximately 400 km south of Lima).

Florida Canyon

This mineral exploration project, in Peru's Amazonas region, consists of 16 contiguous mining concessions, covering approximately 12.6 thousand hectares. It has the potential to produce an annual average of 60 thousand tonnes of contained zinc concentrate; 6 thousand tonnes of lead contained in concentrate; and 200 thousand ounces of silver (5.7 tonnes), with a useful life of 12.5 years. In 2017, the preliminary economic assessment for the zinc deposit was completed and 30 km of access roads were built (of a total of 42 planned) for drilling purposes, thus reducing logistical costs.

Hilarión

Located in Peru's Ancash region (230 km from Lima), this mine contains a mineral deposit of skarn (metamorphic rock), which contains deposits of zinc, lead, silver, and copper sulphide. The project provides for an underground mine that can make use of its own processing plant or use one of several others in the area. In 2017, an Environmental Impact Study license was sought to construct exploration tunnels from the El Padrino deposit to Hilarión and explore the continuity.

Caçapava do Sul

This zinc, lead, and copper extraction project is located in Rio Grande do Sul state (in Brazil's South region). It stands out because it will not use dams for tailings or water, as all waste will be dry deposited. One hundred percent of water that will come in contact with the process and be used in industrial areas will be recirculated, without industrial effluent disposal in the region's rivers.

The project is in the licensing initial phase. The Environmental Impact Study (EIA-RIMA), filed in 2016, is in the phase for implementing supplemental requirements requested by the FEPAM environmental agency.

Brownfield Projects

In recent years, we have achieved significant success in initiatives to expand the capacity and useful life of our mines, aiming to guarantee 15 years of mineral resources for current operations, with five years in reserves.

To achieve this, we have several brownfield initiatives underway in Brazil and Peru. The most important are:

Extension of the Life of the Vazante Mine

The project aims to extend the Vazante mine's useful life to 2027, compared to 2021 as previously planned. Implementation began in 2013 and is expected to be completed in 2023, with a total investment estimated at US\$ 184.3 million, with US\$ 108.0 million being the amount required to conclude the project. We expect that this undertaking to maintain the production of the Vazante mine at 135 thousand ton/zinc/year. As part of this project, we plan to invest in ongoing exploration activities, infrastructure, including expansions of underground pumping stations, raising the capacity of the ventilation system, emergency pathways, dry cutting tailings, access ramps, power grids and substations.

Ambrosia Trend

This project aims at the additional production of zinc concentrate. Total capital investments are estimated at US\$ 19.2 million, almost entirely earmarked for the construction an administrative support area and the Ambrósia Sul deposit's pre-extraction.

Pasco Complex

Merger of the Atacocha and El Porvenir operations to form the Pasco mining complex. The project's objective is to capture the synergies between the two mines, resulting from their proximity and operational similarities, to achieve cost savings and investments and reduce our environmental footprint. The project is being developed in four stages. The first phase involved the administrative integration of both mines, completed in 2014. The second phase, completed in 2015, merged tailings disposal operations, which consolidated the operations of the two mines with a single tailings disposal system. The third phase, completed in 2016, involved the construction of a new power transmission line that supplies both mines, replacing the old transmission lines. The fourth and final step is the integration of mine operations and underground facilities, expected to be completed by 2018.

Conversion to Jarosite Process

The project's goal is to convert our Cajamarquilla foundry to the Jarosita process, which will permit improved zinc recovery. The feasibility study by Amec Foster Wheeler combined with a positive zinc market outlook has led us to progress the project's construction phase. The total capital investment is estimated at US\$ 44.9 million, and the project should be completed in September 2019. Zinc recovery at Cajamarquilla is expected to increase from the current rate from 93.8% to 97.0% after project completion (for more information about conversion see the section entitled "Operational Excellence/Smelter").

New Areas for Mineral Exploration

A highlight among the other initiatives that we maintain to satisfy growth axis objectives and to ensure long-term production sustainability is our Central-West Zinc project. Studies conducted for this effort, in 2016 and 2017, revealed positive intersections of mineralization. Additional projects underway in Brazil include Borborema, Cinturão Rio-grandense, Arco Magmático de Goiás, Sedex Vazante, and Bacia de Tucano. In Peru, our initiatives are Chapi, Guadeloupe, Alpamarca, and Generativos.

The adoption of the Fusion Project is a highlight of our management of the company's mineral exploration division in partnership with Datamine, to store all of the Mineral Exploration area's sounding and sampling databases to support the discovery of new mines and declarations of mineral resources and reserves. The initiative was launched to meet the need for a more robust system capable of handling a large volume of information and to adopt an integrated data management process among our projects. Fusion includes, on a single platform, geological information, as well as all data related to exploration, surface sample collection, drilling, and chemical analyses. In 2017, the project was fully installed at all units located in Peru, which included training for operational teams. Fusion was also implemented in all Brazilian units. The project has brought more reliability and security to stored information.

New Business

Our growth strategy also anticipates potential joint ventures and acquisitions involving the existing projects of other companies. This alternative, which generally involves the exploration of nearby deposits, is an efficient way to identify additional opportunities and thus reduce investment risks.

Resources and Reserves

In 2017, we designed a detailed process for the preparation of technical reports required for the declaration of our resources and mineral reserves in all of our mines and greenfield projects, which are in accordance with the standards set forth in Canada's National Instrument (NI) 43-101 - Standards of Disclosure and the U.S. Securities and Exchange Commission (SEC) Industrial Guide (IG) 07. These company reports are updated annually.



Resources and Reserves¹⁰

Class ¹¹	Total (Mt)	Zinc (%)	Copper (%)	Silver (g/t)	Lead (%)	Gold (g/t)	Zinc (Kt)	Copper (Kt)	Silver (Kg)	Lead (Kt)	Gold (Kg)
Reserves											
Proven	68.17	3.30	0.41	27.5	0.44	0.03	2,250.5	280.8	1,878,076	302.6	2,002
Probable	47.63	3.46	0.31	33.4	0.61	0.02	1,646.8	150.0	1,590,565	290.0	916
Total	115.80	3.37	0.37	30.0	0.51	0.03	3,897.2	430.8	3,468,642	592.6	2,919
Resources											
Measured	248.55	1.00	0.41	9.4	0.25	0.02	2,487.7	1,009.9	2,324,538	622.6	5,227
Indicated	409.64	0.80	0.35	7.3	0.21	0.01	3,271.2	1,450.8	3,004,072	848.8	4,562
Total	658.19	0.87	0.37	8.1	0.22	0.01	5,758.9	2,460.7	5,328,610	1,471.4	9,789
Inferred	236.16	2.63	0.25	19.8	0.57	0.10	6,201.9	590.3	4,682,540	1,356.5	22,980

Obs: Estimating reserves and mineral resources involves assumptions about future commodity prices and technical mining issues. The presented statement of Resources and Reserves follows the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves.

Note 10: The amounts shown in this table have not been adjusted to reflect our proprietary interests. The information presented in this table includes 100% of the estimates of mineral reserves and resources of our consolidated subsidiaries and our joint ventures, some of which are not wholly owned, as set forth in this participation column.

Note 11: Mineral resources are reported exclusively from mineral reserves and have the effective dates described in 6-K mining report and 20-F of 2018.



Operational Excellence

We have developed a series of activities, which seek to achieve not only efficiency gains, but also cost reductions and production volume increases. Our strategy is to pursue excellence on cost control. In this way, we will gain an edge on our competitors and establish greater security in times of falling prices.

In 2017, we created a new Competitiveness division, which is part of our General Management for the Operational Development of Mining (GGDO). The new division is responsible for integration projects and encouraging the mapping and implementation of initiatives that bring efficiency gains to our units, which strengthen the financial management practices for our projects and operations. Our goal is to ensure an alignment between corporate divisions and identify new opportunities to leverage results with better performance in costs, working capital, and other financial indicators, thus contributing to the firm's sustainable growth.

Significant value levers that enable this positioning are:

1. Increases in production volumes through maximization of asset capacity utilization;
2. Operational stability;
3. Reduction of fixed and variable costs, which seek, among other initiatives, synergy between our Brazil and Peru units.

In this sense, several initiatives have already been carried out and are planned for these units as part of our goal of achieving these three levers of operational excellence. The most significant of these follow.

Mining

In mining, the best examples of operational excellence initiatives are in the Cerro Lindo and Cerro de Pasco mines, which have aggressive targets to boost the daily volume of concentrate production. Two activities that impacted productivity at Cerro Lindo were the optimization of hours in operations and replacement 50-ton trucks with lighter weight, 35-ton trucks to increase the mine's productivity. In 2017, the mine reached an average output of 21 thousand tonnes/day of crude ore, which was up from 20 thousand tonnes/day in the previous year, which had been considered to be stabilization level.

Another important activity was the underground connection of the El Porvenir and Atacocha mines in the Cerro Pasco complex. With the project's conclusion in November, several synergies began to emerge along with greater operational flexibilities seeking an increase in the daily production volume of both units.

Other 2017 Highlights Include

- › An increase in shotcreting at Cerro Pasco's underground mines, which is important for the safety and stability of this operation;
- › Stabilization and increase in production of Atacocha's San Gerardo pit (145%), and an extension of its useful life (for 5 years);
- › Contract management work in Cerro Lindo, which has identified cost reductions from 15% to 20%; Focused efforts were also made to reduce fixed costs at Vazante, which allowed for gains at 7% below budget;
- › Expansion of capacity at the Cerro Lindo desalination plant, with 100% utilization of sea water in the operation, generating savings of more than US\$ 563 thousand for the year (212,835 m³);
- › Obtaining an installation license for Vazante's dry disposal project, which is significant to the company and the industry in general, as it eliminates the environmental risks related to a traditional dam. Construction will begin in 2018 and it should be operational in 2020;
- › Greater development during the past three years, of the Vazante mine, which is now 15 km. The unit also achieved its highest level of lead production;
- › The start of Ambrósia Sul operations, which had a positive impact on Morro Agudo production, which increased by approximately 10%;
- › A critical asset management initiative to increase reliability in the operation of equipment, which involved a review of the company's preventive maintenance plan and an analysis of asset quality. The goal was to create more stable operating conditions within our operations across all units.

Smelter

The following were the highlights for operating efficiency projects in 2017:

Jarosite – Conversion of the Cajamarquilla production process from goethite (an iron oxide mineral), to jarosite (iron sulfate), increasing the zinc extraction yield. The unit, which has a nominal capacity of 320 thousand tonnes/year, is expected to hit 340 thousand tonnes/year due to the change in the process. The project will allow an increase in the recovery of zinc of approximately three percentage points the recovery of zinc, thus fulfilling the three important aspects for driving efficiencies: increased utilization of installed capacity, operating stability and cost reductions.

Dehalongenation by Autoclave – Initiated in 2017 in Juiz de Fora, this project is designed to use an autoclave to remove the halogen from Waelz oxide, Flourine and Chlorine. This process removes impurities (Waelz halogen oxide), transforming toxic waste from the steel industry into value-added products (*for more information on this project see the chapter on Innovation*).

Debottlenecking – Removal of bottlenecks in the halogen oxide removal process in Juiz de Fora is an important step that makes available additional capacity in the ustulator (furnace for the processing of sulfide concentrate), enabling the complete utilization of the productive capacity. Together with the 30 thousand tonnes/year project, it will promote the increase of secondary raw materials and increase the unit's production volume.

Biomass Boiler – This equipment went into operation in Três Marias, to further align with the goal of raising cost competitiveness, in addition to contributing to

improvements in the environmental indicators (for more information see pages 48 and 79).

Sulfide and Silicate Bottleneck – Developed in Três Marias, the project is designed to eliminate bottlenecks in the Sulfide and Silicate Processes, and grow the production volume to 208 thousand tonnes of zinc/year by 2023.

Other Highlights in 2017

- › Improvements in the installation of the industrial drainage system in Juiz de Fora, which will carry the effluents to a treatment plant (ETE), allowing better adaptation to environmental requirements.
- › Juiz de Fora tailings dam project will be started in 2018;
- › Maximization of the use of recyclable materials in Juiz de Fora, such as electric arc furnace dust, brass oxide, and other heavy metals, eliminating these environmental liabilities and transforming them into new products. In 2017, about 20% of the unit's production derived from recyclable materials;
- › Stability improvements through the change of the ustulation maintenance methodology, that is now performed with two shorter shutdowns, meaning less downtime for the asset and better optimization of inventory capacity;
- › Restructuring the Cajamarquilla energy matrix project, which will begin to be implemented in 2018 and completed in 2019. Restructuring the Cajamarquilla energy matrix project, which will begin to be implemented in 2018 and completed in 2019. This is basically the substitution of all liquid fuel (diesel oil, heavy oil from auxiliary boilers, heating the unit and the roaster during the shutdowns) with natural gas, significantly reducing greenhouse gas emissions and fuel costs.



Market Development

Regarding the third axis of the strategy, the metallic zinc market, the focus is to maintain our leadership position in South America in addition to developing new markets and products. We prioritize end customers to add value in a sustainable manner over the long run and leverage new opportunities.

In recent years, we have sought to increase our shares in new markets in Africa, the United States, and, more recently, in the Asian market. To do so, we are diversifying our product — with emphasis on galvanization, which accounts for approximately 60% of the world's zinc consumption — and creating strategies that differentiate our products and levels of after-sales service to customers.

We maintain a diversified product portfolio, seeking innovations and customizations to meet the demands of our end customers and keep up with market trends. In the same way, we also sell co-products from our operations, such as Zincol de Morro Agudo, which was previously used for dam construction and is now sold as a zinc-rich limestone powder to be used as an agricultural input. With this change in the technological direction, we reduced the amount of waste from the unit in an initiative that allowed us to transform what was once an environmental concern into a source of revenue.

Also aligned with the metallic zinc strategy adapted for copper and lead concentrate sales, we diversified regional sales, previously concentrated on two large customers, and the direct sales to copper and lead smelters.

During the year, we restructured the Sales Department, which now reports to the Logistics and Supply Chain, allowing us a clearer view of the logistical reinforcement we need to ensure better service to our customers and to differentiate ourselves in the market. Throughout the year, the S&OP (Sales and Operation Planning), with joint production, commercial and logistics planning to maximize the delivery of quality and level of service, as well as boost productivity and costs. We are introducing a new project, a Logistics Roadmap, which will translate the sales strategy into a logistics strategy, improving the possibilities of capturing results.

We also adopted one-off actions to achieve our strategic goals. One such action was to create global teams. Another was to hire a new General Sales Manager, based in Luxembourg, to gain a more direct and comprehensive



view of the international market. In addition to Europe, we have sales offices in the United States and Peru, the latter covering the sales of concentrates, Latin America metals (Latam), ex-Mercosur, and co-products.

We restructured internal positions to obtain greater knowledge and better market segmentation. In Brazil, one of the most important changes was the separation of our accounts into two areas: Steel accounts and General Galvanization and Foundries accounts. This project has already yielded its first result: through a more dynamic approach and closer proximity to the market, we have been able to improve our positions with clients that are important to our business, signing long-term contracts.

We also restructured the Global Planning and Marketing area, which now includes Strategic Marketing; Market Development and Competitive Intelligence; Product Development, Quality and Technical Assistance; S&OP (Sales & Operation Planning); and Sales Performance, to support our sales teams with efforts from the design to the execution of strategy. This structure allows us to continuously evolve initiatives, aligned with Market Development's strategic axes.

We maintained our market leadership in Latin America. In Asia, the final volume of sales was higher than had been initially estimated and above our historical average, which enhanced our global presence.

Our focus in 2018 will be to move closer to our customers and markets. This position is in line with the challenge of strengthening Nexa's image as a global player.

Logistics

Throughout 2017, we made major changes in the joint planning process for the production, commercial and logistics areas, seeking to maximize the quality of delivery and minimize the costs. The project was based on the Logistics Roadmap (see more on page 52), which is designed to integrate logistics control and database systems globally, allowing for speedier reactions and real-time decision-making based on reliable data.

The first tests with the new system, which is expected to be implemented in 2018, have already shown improvements in indicators, such as an evolution in the perception of customer satisfaction, fewer complaints and returned materials, among others. Thanks to this project, we have approved the largest logistics investment plan in

the last five years, totaling some US\$ 5 million.

Another highlight for 2017 was greater internal logistics integration (mine/smelter), mainly between the units in Peru. We improved the logistical flows between shipping and receiving, which led to operational improvements and reduced freight costs for the year by US\$ 2.9 million. One example was the optimization the truck flows at the Cerro Lindo unit, reducing circulation by 30% through planning activities alone, such as better understanding of the convoy trains, the adoption of staggered schedules, and others. In addition to the financial yields, these activities also translated into security and mobility gains.

Also noteworthy were the initiatives carried out in Cajamarquilla to mitigate the adverse effects of the El Niño weather phenomenon on logistics issues. In the rainy season, we adopted an alternative route system, with better use of rail transportation, less affected by rainfall than truck transport.

Innovation and Technology

Our investments in innovation, research and development seek to bring competitive advantages to mining and smelter operations. This position is also aligned with fulfilling the goals established for the three strategic areas: Growth, Operational Excellence and Market Development.

In 2017, we invested US\$ 8.5 million in new technology research and development. The amount is 5.8% above that realized in 2016 (US\$ 8.0 million). All innovation projects are developed using funding from the Finep Financiadora de Estudos e Projetos fund, and some are executed in partnership with other institutions, such as the *Empresa Brasileira de Pesquisa e Inovação Industrial (Embrapii)*, with which we had six contracts completed and 11 active at year's end. Regarding technology, the main highlights were the biomass boiler projects in Três Marias, the dehalogenation of the Waelz oxide by autoclave and the transformation of the Waelz furnace slag for use in the cement industry, in Juiz de Fora.

The boiler came on stream in March and the results achieved with the substitution of 1A oil (derived from petroleum) by renewable fuels were significant. CO₂e emissions were reduced by more than 33,362 tonnes — which represents about 22.1% of the unit's total emissions. Another benefit is that the fuel — eucalyptus chips or sugarcane bagasse — is produced in the region, which helps to promote the local production chain and contributes to regional development.

For the autoclave project, the company developed and patented the technology, which allows greater flexibility in the use of the raw



9. Encourage
the development
and diffusion of
environmentally
friendly
technologies.

material in the halogen extraction process, consisting of the removal of fluorine and chlorine, halogens that interfere with the efficiency and control of electrolysis. This new systems will provide processing for all Waelz oxide whose halogen has been removed by hydrometallurgy and, thus, boost the capacity of the ustulator to treat more concentrates. Without the autoclave, the Waelz oxide produced must be passed through the furnace, taking up space in the technology or reducing the treatment capacity for zinc concentrates. The process is in the final stages of testing and should be operating at full capacity as of the first quarter of 2018.

Also in Juiz de Fora, the slag from the electric arc furnace is being transformed into a Waelz aggregate for use in the cement industry. The unit is already sending the product to the cement factories at a rate faster than waste is produced.

Solar Energy

Another project in progress, which also resulted in a patent, is to use solar energy in the electrolysis process at the Três Marias facility. Solar energy is used to generate direct current and, today, electrolysis requires this type of current. With this new technology, which should be tested in 2018, the process will be optimized. The big challenge is to have a plant that permits the use of many solar panels — and Três Marias has an inactive dam that will allow just that.



Automation and Information Master Plan

As of the definition of Automation as an enabler of the company's strategy and facing the challenges of Industry 4.0 and the Internet of Things (IoT), we put together an Automation and Information Master Plan (PDAI). Started in May 2016 and approved by our Board of Directors in September 2017 its goal was implementation of a digital transformation of our production units and new unit projects; above all, of underground operations with a long-term vision (10 years). In 2017, the PDAI had 15 projects under development, out of a total of approximately 500 in the portfolio.

The plan focuses on operational excellence for reducing costs with specific consumption targets, optimizing the use of labor, operating stability, maximizing asset use, increasing productivity and, in particular, improving safety.

The plan is divided into four chapters:

- › Greenfields Projects
- › Mine (Digital Mining®)
- › Processing
- › Smelter

For the Greenfields Projects, we are committed to designing new units with the most appropriate level of automation; that is, what we expect to reach in the units already in operation only in the long-term. The most recent example is the Aripuanã project.

However, at that moment, our priority is underground operations, where we have the greatest opportunities for improvement. Thus, we have placed big expectations on Digital Mining® to reduce the severity of our accidents, increase our productivity, lower our costs, boost the availability and productivity of our assets and increasingly monitor and operate surface operations.

In ore Processing and Smelting chapters, we seek to raise the technological level of these processes, which are already automated, in search of operational excellence. As the levels come down, safe, well-controlled and stable processes guarantee the competitiveness of the business.

Digital Mining®

One of the chapters in our PDAI, Digital Mining® was created to facilitate the application of digital technologies in underground mining and brings significant gains by applying the concepts from the IoT, autonomous operation, asset management and process control in mine operations. In addition to improving working conditions and making the mining activity safer through the use of automation, this initiative helps boost productivity, maximize asset utilization, improve operational stability and, as a result, lowers operating costs.

Among the most important are:

- › **Remote Detonation:** A pilot project conducted at Morro Agudo to improve safety and increase productivity in operations. By means of a radio-communication system, installed inside the mine, it is possible to carry out detonations in an automated and remote manner. Unlike the conventional process, which requires an on-site operator to prepare and detonate the explosives at a safe distance, the new technology allows setting it off from within a control room, thus reducing the employee's exposure to risk and boosts operational efficiency. The project is part of the Morro Agudo Support Pillar Recovery program, and should be implemented in 2018, with an estimated time gain of 1 hour/day. The initiative will be replicated at our other mines.
- › **On-demand Ventilation System:** The project has several phases, the first being the implementation of control of the principal fans — already in operation in Vazante and Cerro Lindo. At the end of each shift, the mine is empty for a time, which is when detonations are scheduled and the gases that need to be eliminated are released. But, since the mine is empty, it is not necessary for the fans to run at full force. Through automation, it is possible to program a reduction in power to the fans during this period, which allows a cost-savings with electric power. In the first phase in Vazante alone, we estimate that we achieved savings of 2,246 MW of energy/year, enough to supply 1,224 houses, on average, in addition to improvements in safety. The plan is to apply the system in the other mines.
- › **Collision Prevention System to Reduce Accidents with People and Machines:** A system to prevent collisions between machines and equipment in the mine and the operators that are moving about in the underground. It consists of an electronic identification device (tag) in the miner's flashlight that begins to blink as he approaches a machine or person and, in turn, this sounds an audible alarm so that the operator is alerted.

- › **Simba Automation:** The pilot project was tested in Vazante and is based on the autonomous operation of machines underground in the mine. A fully autonomous drill has been developed that can be left untended and would continue to operate autonomously during shift changes. Still in the testing stage, in three months the project generated an estimated additional 1.2% of ore during the year (12 thousand tons), and there is the possibility of even more gains as the project evolves.
- › **Manufacturing Execution System (MES):** The MES is a management system using information in real-time to strengthen the production routine. It began in Cajamarquilla and today it is in the execution and control phase in Vazante. The system has already begun to be implemented in Três Marias after which it will be extended to cover operations in Juiz de Fora. Developed jointly by the areas of Automation, Management and IT, the MES is designed to strengthen routine management, based on appropriate methods and tools, and assess the benefits that are associated with the company's improvements and synergies. This information — such as up-to-date inventory information, shipment of production confirmations for each shift, a secure and automated database — promotes optimization at all production stages ranging from the issue of a service order to the shipment of finished products, producing more assertive reporting for decision making.
- › **Data Networks for Underground Mines:** Throughout 2017, we created our network architecture, which will be responsible for enabling our Digital Mining program, through which we can remotely control the operation and, through the high data transmission capacity, collect information from people and machines, transmit voice communication and images, thus enhancing security and enabling our new model.

In order for the entire Plan to be implemented and deliver effective results, everyone's commitment to behavioral change and the development of our employees' critical skills is important. We have to understand, at all levels of the company, from the most operational areas, that automated processes bring more gains, proffer more safety and make the working environment a better place.

At the School of Automation program, we are also planning to hold virtual classes to develop behavioral skills and automation techniques focusing on Innovation and High Performance at various levels of the company. The pilot project will be adopted in the Vazante and Cerro Lindo units.

Mining Lab

The first initiatives of the Mining Lab program, which we created in 2016 to provide support for startups with innovative projects in the mining industry, are already beginning to deliver results, with five projects in the pre-operational testing phase. The initiatives were selected in early 2017 among 115 registered. The first projects selected for this program were in renewable energy and nanotechnology. The goal was to identify technological solutions that enable as well replace traditional energy sources such as fossil fuels with more efficient and renewable alternatives, and using nanoparticle recovery technology in mining industry processes and products.

The Mining Lab program was a pioneering and daring initiative to link the world of mining and smelter to that of B2B startups. The investment in the first group was by approximately US\$ 277.8 thousand and already has a return of US\$ 379.4 thousand in cost reduction. The projects also provide gains in environmental and social issues, such as reducing atmospheric emissions through increased energy efficiency and renewable energy projects, and promoting the generation of regional income, with consequent benefits for communities near our operations.



Projects included in the Mining Lab Program

Scope	Project Phase
Startup: Bchem Solutions Renewable energy – This technology turns residual vegetable oil into a biodiesel fuel with high combustion power, which can be used as fuel for mining equipment, with low production of pollutants in combustion. The environmental gain from this technology comes at both ends: it prevents used oil from being dumped in the environment, polluting rivers and soil, and produces a biodiesel that replaces the fossil fuels traditionally used in mining. There are also cost reductions for the plant.	A pilot plant will be installed at Vazante and begin testing oil in April 2018.
Startup: ZEG Environmental Renewable energy – A process called flash dissociation transforms organic waste into gas and vapor, which can then be used in the company's industrial processes, reducing the consumption of fossil fuels, which are more expensive and polluting. Cornstalk, scraps of wood and tires, among other things, can be used as starting materials.	The expectation is that equipment will be installed in Juiz de Fora during 2018 and that production will start in 2019 using eucalyptus scrap.
Startup: Bioware – Development of Energy and Environmental Technology Renewable energy – This technology transforms organic material (biomass) into fuel oil, which can be used in equipment that produces zinc oxide. The project will use eucalyptus, already existing in the region, as its raw material. In addition to using a renewable source fuel, whose use generates lower emissions of greenhouse gases, the project will generate income for the region through the purchase of eucalyptus.	Testing will begin in June 2018, expected to be delivered in August 2018.
Startup: nChemi Nanotechnology – This technology consists of producing nanoparticles of treated metal oxides with organic molecules on their surfaces. These molecules can have specific characteristics, such as compatibility with organic, aqueous media or polymer matrices, response to temperature, pH and other factors. The solution is designed to assist in the development of nanoparticles and the pilot application in samples of the effluents from the Três Marias refinery, to capture magnesium cations. In addition to the development of innovative technology for our operations, which may help reduce the amount of metals contained in effluents, this technology may be promising for the capture of other commercially valuable ions such as those of gallium, cadmium, tantalum and others.	nChemi synthesized the nanoparticle according to schedule, which in initial testing still presented low efficiency of absorption of magnesium. With our support, the company is looking for ways to improve absorption efficiency. The project is expected to be completed in June 2018.
Startup: Ecosolutions Nanotechnology – The technology is designed to improve the separation of minerals in a given effluent, through physical processes. As an additional benefit in the process, the company is able to recycle water and filter out minerals with potential sales for agriculture.	Project is with 89% ahead of schedule in the construction of the prototype. The supplier partnered with Senai-Cimatec, which issued a report with the tests on its own pilot equipment that served as a basis for designing the field test equipment. The project is expected to be finalized, with a conclusive report, in June 2018.



Information Technology

In March 2017, we carried out a first workshop to discuss and select creative ideas with the potential for innovation. The initiative was led by the IT Innovation Center, a multidisciplinary group made up of employees from the team and other areas of the company. It is aligned with the IT Conecta movement, which positions IT in a more strategic role and has action fronts to improve the employees' experience in relation to the services provided by the area, as well as supporting our growth strategy.

Among the projects conducted by the area in 2017 are the following highlights:

Logistics Roadmap: With an impact on the strategic, tactical and operational levels, the project is designed to integrate the control systems and the global logistics database, preparing Logistics for the growth projected by our strategic plans. The project provides more real-time reaction speed and decision-making, based on reliable data. This is because, when integrating the logistics, planning, sales and operations the entire organization gains in predictability, automation of control and productivity. The tests with the public affected

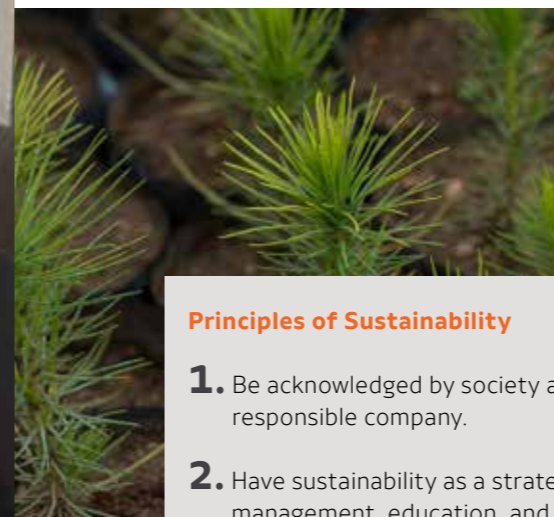
(Administration, Finance, Shipping and Billing, Production, Logistics Planning, *Sales and Operation Planning – S&OP*, Supplies and Logistics Management) for validation of the technology have already been completed and the system is expected to start operations in July 2018.

Big Data: This project refers to the design and planning of a business intelligence system that will interface all information relating to customers, products and suppliers, with a focus on creating a unified database of everything that we will consume. In 2017 the project's architecture was created; in 2018, work will begin in the areas to implement the system.

Sustainability

In the development of our operations, we follow strict sustainability guidelines. This performance is supported by the seven principles established by our majority shareholder, Votorantim S.A.

We are working on the creation of a Sustainability Master Plan, with guidelines and initiatives that will provide the development of best sustainability practices in all areas. The plan establishes a series of objectives and goals related to the material issues of the company and which are part of the strategic plan. These include targets for safety, efficient use of water, waste generation and disposal, and community development.



Principles of Sustainability

1. Be acknowledged by society as a socially and environmentally responsible company.
2. Have sustainability as a strategic pillar, guiding governance, management, education, and investment decisions - creating value.
3. Consistently improve economic, social, and environmental outcomes, seeking efficiency and reliability in operations, comparable to world-class standards.
4. Be acknowledged as a company that attracts, develops, and retains talented people in order to generate value and build a fair and inclusive society.
5. Be committed to the welfare and health and safety of employees, customers, and partners
6. Contribute to the development of the communities where we have.
7. Encourage all employees and stakeholders to cooperate and participate in the building of partnerships and collaborative work aimed at generating value for all.

Acknowledgements and Awards

For the fourth consecutive year, we were elected a leading company in the Mining, Steel and Smelter industry by *Guia Exame de Sustentabilidade*, evidence that our investments in this field over the past few years are being well managed and helping to build a good corporate reputation.

External Initiatives GRI 102-12

Our commitment to sustainable development is also expressed in our adherence to several voluntary initiatives, undertaken with national and international sector organizations. These include:

Global Compact – A United Nations initiative, Global Compact aims to mobilize the business community around the world in adopting the ten principles that represent fundamental values of human rights, labor relations, the environment and the fight against corruption. In 2017, we became signatories to this important initiative.

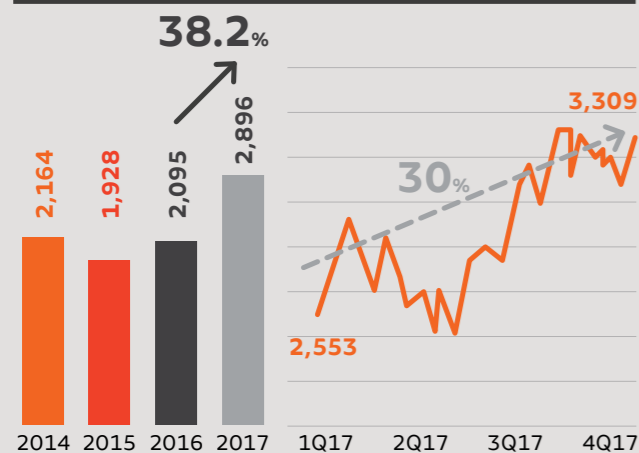
Sustainable Development Objectives – The Sustainable Development Goals (SDGs) are a global agenda composed of 17 objectives and 169 targets to be achieved by 2030, which were adopted at the UN Summit on Sustainable Development in September 2015. Efforts are aimed at eradication of poverty, food security, agriculture, health, education, gender equality, reduction of inequalities, energy, water and sanitation, sustainable production and consumption patterns, climate change, sustainable cities, sustainable use of oceans and terrestrial ecosystems, inclusive economic growth, infrastructure and industrialization, among others. We endorsed this commitment in 2017 and, in this report, we describe the correlation of the SDGs to our material issues and long-term goals.



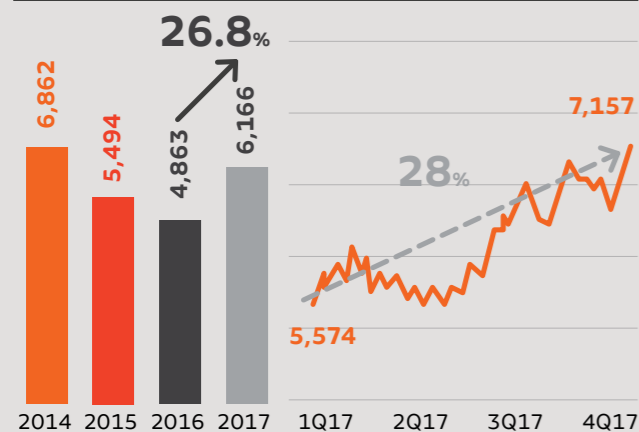
Performance

Economic and Financial

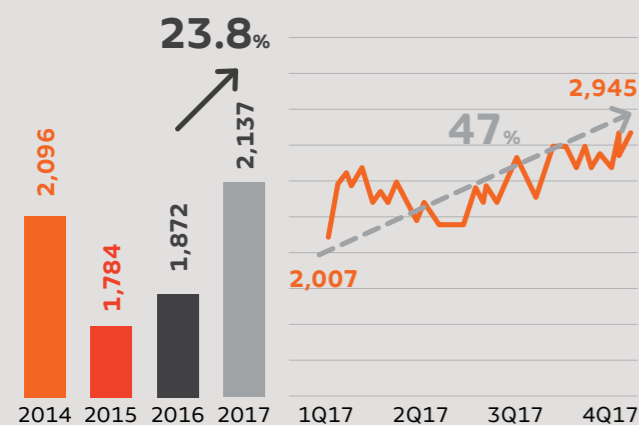
Zinc LME Price (US\$/t, Average)



Copper LME Price (US\$/t, Average)



Lead LME Price (US\$/t, Average)



Operating Results

In 2017, our production of zinc, copper and lead concentrates, measured on the basis of metal content equivalent, totaled 472.3 thousand tonnes, the highlight being 375.5 thousand tonnes of zinc.

The heavy rains and floods recorded in the first quarter in Peru, mainly in the El Porvenir mine area had a negative influence on the production reported.

Production of Concentrates (thousand tonnes)

	Zinc	Copper	Lead	Total
Vazante	135.4	0	1.2	136.6
Morro Agudo	21.0	0	5.8	26.8
Cerro Lindo	155.9	43.6	14.8	214.3
Atacocha	17.0	0.1	16.0	33.1
El Porvenir	46.2	0.5	14.8	61.5
Total	375.5	44.2	52.6	472.3

The sales of zinc products processed in our smelters totaled 593.9 thousand tonnes in 2017, representing a decrease of 2.7% in relation to the previous year, also marked by heavy rains in Peru in the first half of 2017. The result was partially offset by a high performance on the second semester.

Smelter Products Sales (thousand tonnes)

	Metals	Oxides	Total
Juiz de Fora	81.8	0	81.8
Três Marias	161.0	38.5	199.5
Cajamarquilla	312.6	0	312.6
Total	555.4	38.5	593.9

Financial Results GRI 201-1

In 2017, our operations recorded net revenues of US\$ 2,449 million, 24.7% higher than the amount registered in 2016 (US\$ 1,965 million). Revenue growth was influenced by the increase in the prices of metals and limited by the reductions in the volume of production.

The products sold had a total cost of US\$ 1,681 million, 16.8% more than in 2016 (US\$ 1,439 million). The higher price of concentrate in the market contributed to this performance, affecting our smelter operations. Revisions of processes to improve the safety of our Peruvian mines also impacted costs by 2017.

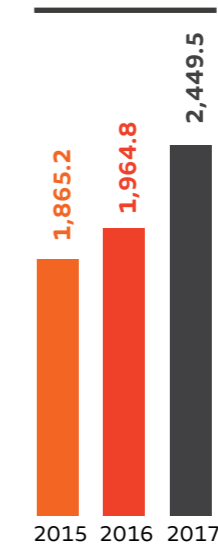
Sales, general and administrative expenses increased by 9% in 2017, reflecting the restructuring of our business units and the corresponding transfer of corporate employees to Nexa Recursos Minerais S.A. (formerly Votorantim Metais Zinco S.A.).

Expenses from other operating income decreased to US\$ 129 million, down 27.3% from 2016, mainly due to specific provision reported in 2016.

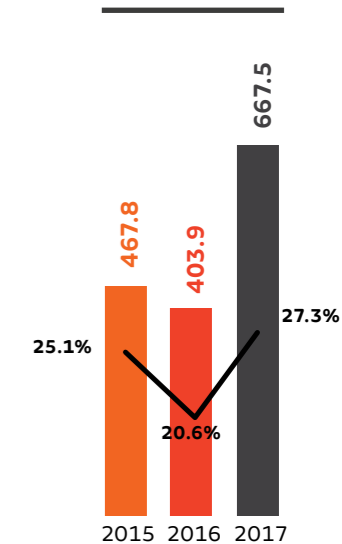
For the year, our adjusted EBITDA was US\$ 667.5 million, 65% higher than in 2016 (US\$ 403.9 million). In the year, adjusted EBITDA margin was 27.3%.

For the year, our adjusted EBITDA was
US\$ 668 million

Net Revenue (US\$ million)



EBITDA and Margin (US\$ million)



Financial Results¹²

	2015	2016	2017	2017 vs. 2016
Net Revenue	1,865.2	1,964.8	2,449.5	24.7%
Cost of Goods Sold	(1,463.3)	(1,439.1)	(1,681.2)	16.8%
General and Administrative Expenses.	(190.9)	(218.0)	(237.5)	9.0%
Sales	(84.6)	(90.6)	(89.2)	(1.6%)
General and administrative	(106.3)	(127.3)	(148.2)	16.4%
Other Non Operating Results	(47.1)	(177.8)	(129.2)	(27.3%)
Depreciation, amortization and depletion	295.3	275.0	270.5	(1.7%)
Adjusted EBITDA ¹³	467.8	403.9	667.5	65.3%
EBITDA Margin (Adjusted EBITDA / RL)	25.1%	20.6%	27.3%	669 bp

Note 12: Adjusted data published in 2016 for changes resulting from new Company agreements including the effects of Energy Assets transferred to Nexa on June 30, 2017. For more information, check page 3 GRI 102-48

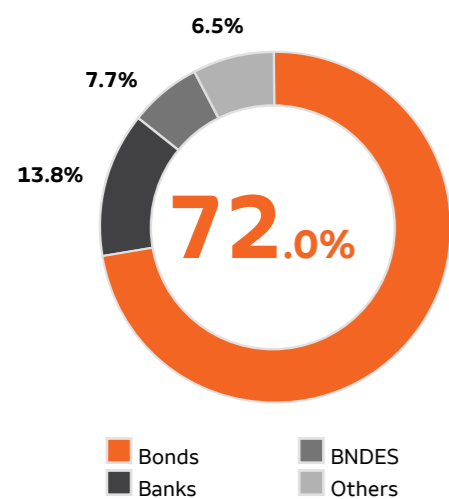
Note 13: Amounts from gains on the sale of investments and depreciation of assets are considered by Management to be exceptional and excluded from adjusted EBITDA

Liquidity and Indebtedness

We closed 2017 with gross debt of US\$ 1.4 billion, with 14% of the amount held by international banks and 72% referring to US\$ 700 million in debt security bonds issued in May 2017, maturing in 2027, bearing interest of 5.375%/year. The amount was used to repay a portion of the existing consolidated debt with the banks, thus extending the average maturity of the company's debt to seven years. These bonds are guaranteed by our subsidiaries Nexa Recursos Minerais S.A., Nexa Resources Peru SSA and Nexa Resources - Cajamarquilla S.A. (formerly, Votorantim Metais Zinco S.A., Companhia Minerá Milpo S.A. and Votorantim Metais - Cajamarquilla S.A.).

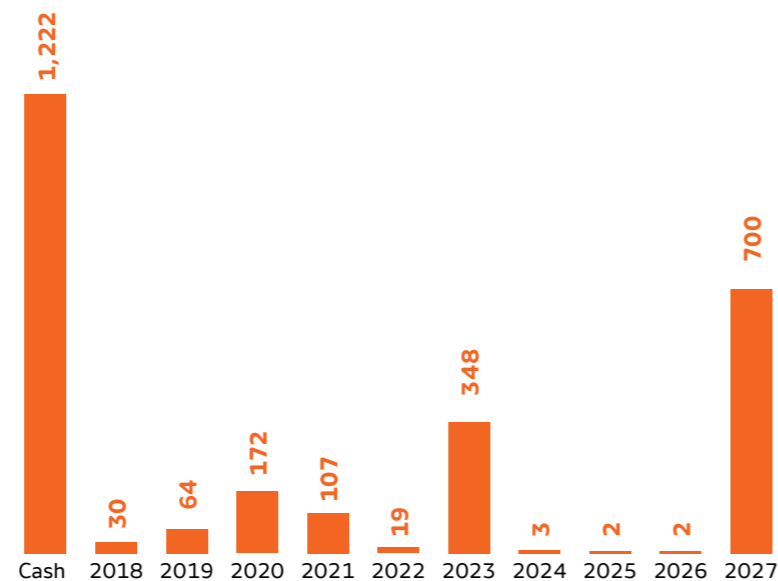
Debt Profile

(US\$ million)



Debt Maturity Profile

(US\$ million)



In December 2017, we reported net debt of US\$ 225 million, resulting in a net debt/adjusted EBITDA ratio of 0.34x, (0.31x at the end of the previous year).

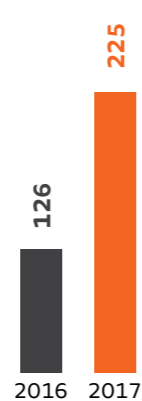
Net Debt/Adjusted EBITDA

(ratio)



Net Debt

(US\$ million)



We closed 2017 with low leverage ratio:
0.34x
net debt / Adjusted EBITDA

Cash Flow

The net cash from operating activities totaled US\$ 379 million in 2017, a decrease of 35.2% over the previous year (US\$ 585 million).

These changes are due to the effects of the silver streaming agreement signed in 2016 through the Nexa UK (formerly Milpo UK Limited) subsidiary, with Triple Flag Mining Finance with reference to the 65% share of production of silver from Cerro Lindo. That percentage will drop to 25% after the delivery of 19.5 million ounces of silver to Triple Flag, which should happen within 10 years. In this transaction, we received a US\$ 250 million payment in advance and, in addition, we will be entitled to 10% of the silver price to be set at the time each ounce of silver is delivered to Triple Flag during the term of the agreement.

The changes in cash and cash equivalents of US\$ 103.5 in 2017 were due to the strong generation of cash and various activities during 2017, such as the bond issue in 2017, repayment of debt, payments of share premiums, asset- and energy-related transactions and the IPO.

Changes in Cash During the Year

(US\$ million)



Note 14: Amount adjusted for results of new agreements of the Company.

Investments

In 2017, investments to meet our strategic guidelines totaled US\$ 198 million, 8% more than in 2016 (US\$ 183 million). Of this amount, US\$ 48.8 million (or 24.7%) was earmarked for expansion in projects to develop new reserves and extend the working life of mines in operation.

In line with the strategic objective of growth in mining, the largest volume of total investments was directed to these activities: US\$ 107.1 million, or 54.2%, with the Vazante mine accounting for 28.0% of the total. Smelting activities took US\$ 81.0 million (41.0%), 22.0% of which was for the Três Marias facility.

We made investments in our health, safety and environmental programs totaling US\$ 62.1 million, an increase of 6.2% compared to the previous year.

Investments

US\$ million	2015	2016	2017
Mining	98.3	105.1	107.1
Cerro Lindo	16.2	18.8	7.5
El Porvenir	37.9	35.8	19.9
Atacocha	11.6	7.7	5.9
Vazante	29.0	34.2	55.3
Morro Agudo	3.6	8.7	18.6
Smelting	72.6	62.8	81.0
Cajamarquilla	28.5	26.5	20.0
Três Marias	34.1	23.8	43.5
Juiz de Fora	10.0	12.5	17.5
Other	16.2	15.0	9.5
Expansion	35.8	41.4	48.8
Non-expansion	151.3	141.5	148.8
TOTAL	187.1	183.0	197.6

US\$ million	2015	2016	2017
Modernization	15.3	19.6	21.4
Maintenance	49.6	54.1	59.4
Health, Safety and Environment	72.9	58.5	62.1
Other	13.5	9.3	5.9
Non-expansion	151.3	141.5	148.8



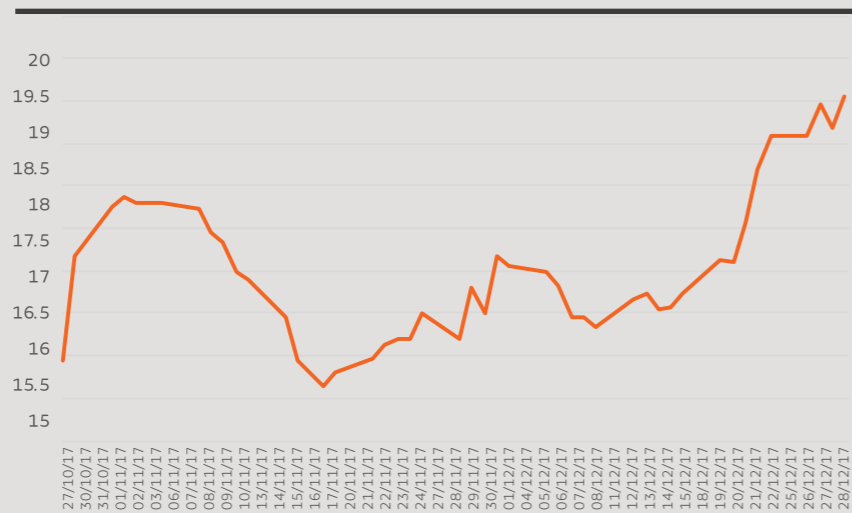
Capital Markets

On October 27, 2017, we made a public offering of 35,650,000 between primary and second offers on the New York Stock Exchange (NYSE) in the United States and the Toronto Stock Exchange (TSX) in Canada. The nominal value of each share on that date was US\$ 16.00. At the end of 2017, the shares were listed at a unit value of US\$ 19.61.

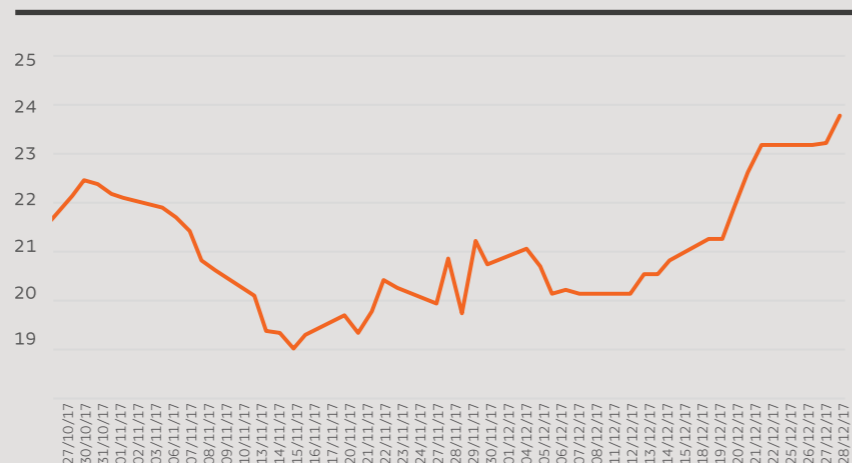
Between the date of the initial offering and December 31, 2017, our shares appreciated approximately 23% on the NYSE and TSX exchanges.

The IPO is described in detail in the Governance chapter.

Evolution NYSE (US\$)



Evolution TSX (CAD)



People

Management Model

GRI 103-1, 103-2, 103-3

Personnel Management is one of our pillars, so we work hard to maintain a high-performance team that is both engaged and committed to our business and that acts responsibly to achieve sustainable growth. Since 2016, the Human Resources and Institutional Relations Department has been consistently working on its Management Plan.

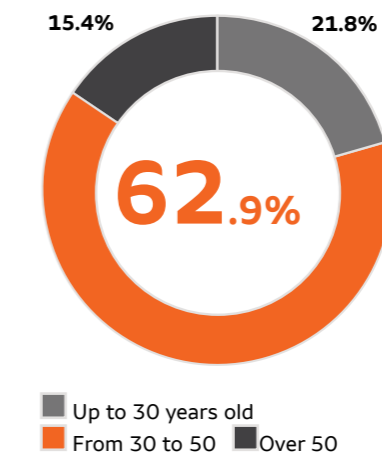
This challenge was based on our strategy of growth with competitiveness and is guided by the initiatives as proposed by the area.

Profile of the Employees

Our staff is very heterogeneous. We value the skills of both those who are taking their first steps in professional life as well as the most experienced members of the team. In 2017, there were 5,446 direct employees on the payroll, of which 3,163 were allocated in Brazil and 2,283 in our operations and offices overseas. We also had 7,367 contract employees. Most of the workers on the payroll, 63%, were people between the ages of 30 and 50; 69.4% had operational functions, and women represented 10.3% of the workforce. GRI 102-8

Distribution by Age Group

GRI 405-1

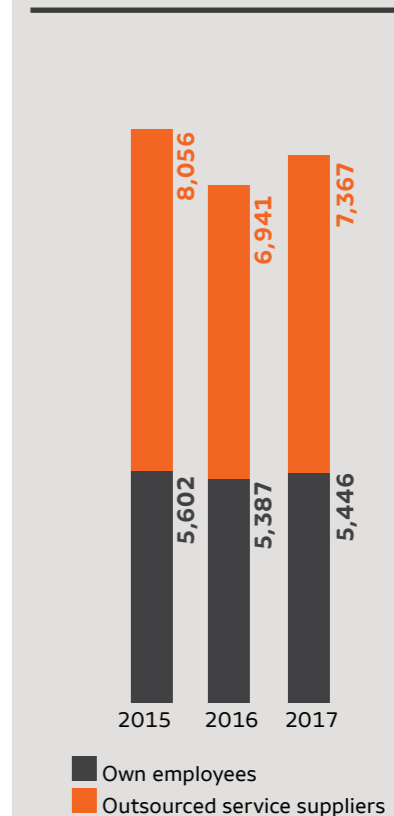


Strategic Focus:

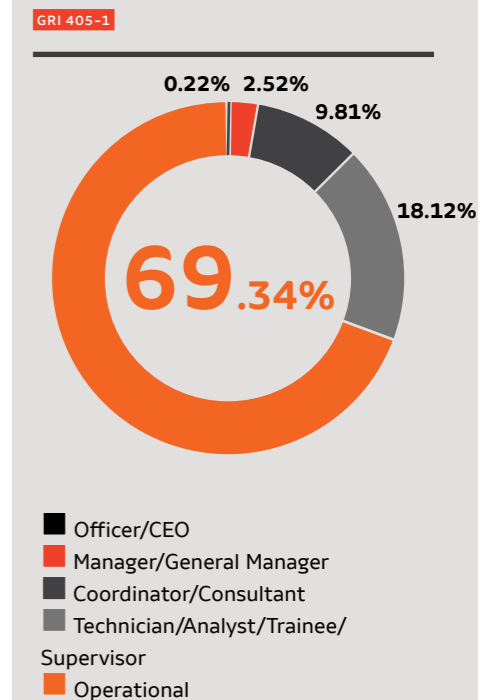
1. Inspirational leadership and effective management of talents
2. Assurance of critical capabilities
3. Contributions to boost the company's productivity and competitiveness
4. Maintain effective governance and organization
5. Continue effective relationships with stakeholders



Total Employees GRI 102-8



Employees by Functional Category GRI 405-1



Education and Training GRI 103-2, 103-3

We always seek to create opportunities for our employees to develop their professional and personal talents, through education and training programs, and the sharing of ideas and experiences. And also by providing an inclusive and safe working environment for all.

We believe in the cultivation of Talents and Meritocracy and we use the Votorantim Development System (VDS) to make sure that professionals have an opportunity to discuss what path, skills and attributes they can develop to grow within the company with their managers. It is a people management model that encourages dialogue and development possibilities and strengthens our strategies for professional growth. Among the growth opportunities offered are: Leadership Development Programs, actions to enhance critical (technical or functional) internal or external capabilities, and gateway programs. Examples include:

- › **Mentoring:** This program, launched in 2015, is designed to exchange knowledge and structured guidance among professionals from different hierarchical levels. By implementing the program over the years, we have been promoting Belief in the Cultivation of Talents and Open Dialogue to strengthening the relations between different areas, networking, in addition to multiplying the experiences. Since the Program's inception, 45 professionals have participated as mentors. There are directors participating as mentors of general managers and general managers as mentors of managers. Every year we prepare new mentors.
- › **Cultivating Leadership:** This program is designed to align the roles of leaders in the context of Nexa, strengthening their knowledge to help them achieve ever greater development of people. In Peru in 2017, we conducted training modules focused on Self-knowledge and the Role of the Leader for all employees in management positions; in Brazil, we promoted Inspired Leadership modules (for general managers and managers) and Systemic Personnel Management Vision (general managers, managers and coordinators). With supervisors, the meetings were focused on consolidating learning in issues important for their positions. In both countries, all leaders participated in at least one module in 2017. Since the beginning of the program, in 2014, we have already had more than 3,558 participants and logged 35 thousand hours of training.

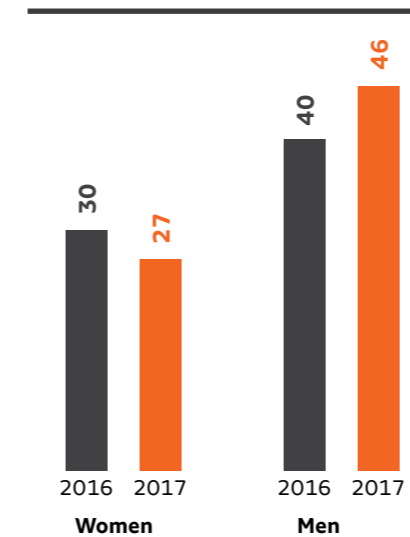
› **The Potenciar Program:** The Potenciar ("Empowerment") Program was created to challenge and develop the young talents in Votorantim Group's companies. In 2017 the Program had 13 "Young talents" interns, seven from Brazil and six from Peru, coming from different areas and units of the company, to reinforce the group's cultural diversity. The main activity was the Desafios (Challenges) project, with presentation to the Executive Board of initiatives with a direct impact on the company's value generation. The issues covered during the year involved enhancing the recovery of zinc metal (Smelter); increased productivity in underground operations in Peru (Mining); and systematization of Opex Calculations for Mining Projects (Development and Execution of Projects).

› **+Talents:** We created this program in 2017 with the objective of bringing to the company people with greater expertise in specific areas, strengthening the talent pool. The idea is to train young talents so that in the future of the area in question will have more resource options available, including succession plans and for other purposes. The first focus was on Health, Safety and Environment (HSE).

One of the main steps in the VDS is the Individual Development Plan (IDP), a co-creation process for the employee and manager, which must be built after a feedback moment. The tool should take into account the points discussed during the feedback, such as performance, beliefs and on-the-job results. In addition, it also considers the next career steps and what development actions are required to get there. Identifying the areas to be addressed during the next review period, the key activities, deadlines and ways to achieve the expected development.

We invested approximately US\$ 2 million in the education and training of our employees in Brazil and Peru in 2017, an amount 11% more than in 2016 (US\$ 1.8 million). The activities totaled more than 245 thousand hours. Our focus has continued to be leadership training and training in behavioral, technical, operational and mandatory aspects. Below is a summary of the main initiatives developed throughout the year.

Average Hours of Training per Employee GRI 404-1



Critical Skills

Of the 11 critical skills that make up our long-term Master Plan, mapped to ensure the long-term sustainability of our business, we identified five and made them a priority for 2017. For each one, we structured a work plan with goals and objectives. They are as follows:

- › **Talent Management:** Increase our ability to identify, acquire and develop talent (leadership, projects and specialists), ensuring high-performance teams and succession planning.
- › **Operational Excellence:** Producing, extracting as much from the assets as possible, with stability, predictability and the lowest possible cost.
- › **Mineral Exploration:** Identify and develop potential opportunities, through exploration or acquisition, ensuring the necessary reserves to ensure the company's growth and perpetuity.

› **Sourcing of Capital:** Analyze, plan and manage the capital structure, in particular debt management, equity participation and hybrid instruments (for example: streaming).

› **Project Execution:** Develop and implement competitive projects that drive the company's growth strategy, ensuring project-oriented owner leaders, delivering cost-effective solutions based on business needs.

In 2017, the execution of the work plans related to these capacities was absorbed into the plan, with actions carried out on several fronts. As an example, we can cite the worked carried out jointly with the Project Development and Execution area, involving the restructuring of the model for governance, structure, process and leadership of Mineral Exploration projects. Among other actions, we trained the teams involved in the project management methodology Capex, FEL (Front-End Loading); basically, this consists of the process phase interspersed with approval gateways, which replaced the old model. By 2018, other capacities, from the 11 mapped, will be included in the Master Plan.



Diversity GRI 103-2, 103-3

We value our inclusive environment and respect for differences, in accordance with the human rights principles set out in our Code of Conduct, through which we reinforce our non-tolerance for any form of discrimination or moral and sexual harassment. The diversity theme is included in our strategic planning and has a series of improvement actions in progress, with defined goals and objectives.

Our corporate committee, made up of members of the Sustainability, Legal, Human and Organizational Development, Communication, Health and Safety areas, coordinates the actions of the Diversity Appreciation Program and guides local committees at the operational units in mapping opportunities that address gender and disability issues (PCDs).

Regarding the Gender theme, one of the highlights was the hiring of two women for the Board of Directors. In the year, we implemented several actions in our Brazil/Peru units designed to meet the requirements of the gender valorization pillar. These include: inclusion of at least one woman in the last stage of the selection process; mapping positions in the operational area to open up new opportunities for women; specific training for women in equipment operations; as well as other actions to enhance infrastructure. Our goal is to have 20% of women in the workforce by the year 2025. By the end of 2017, this percentage was 10.3% (548 women).

Material Issue
People



Objective	Goal	Base year	2014 ¹⁵	2015 ¹⁵	2016 ¹⁵	2017	Form of Measurement
Promote the value of gender diversity	Reach 20% of women across Nexa Resources by 2025	2014	8.9%	9.3%	9.7%	10.3%	Total own women / Total own employees

Note 15: Data published in 2014, 2015 and 2016 were recalculated as a result of a adjustment of the calculation methodology.
GRI 102-48

In 2017, we conducted activities in all units aiming at improving opportunities for people with disabilities (PCDs). In Brazil, 5.1% of the workforce is made up of PCDs. We have emphasized the work in training and reinforcement of those in charge of the recruitment area, the follow-up with the medical area on jobs and functions compatible with disabilities, and the movement of these professionals between areas, valuing training, experiences and individual contributions.

Recognition Program

In 2017, we had 130 initiatives registered in the Awards Program, through which we seek to identify and reward employees who have contributed significant initiatives to the company. The registered projects were chosen according to their scope and their impact in the following categories: Health and Safety, Environment, Operational Excellence and Social Responsibility.

During the selection process, these initiatives were evaluated at the Unit and Company level, and in this last phase, the finalists also compete for the Sustainability Talent Award, organized by the Votorantim Institute. In addition, the groups in the finals also make a presentation in person that allows the project to be exposed to the other units. The announcement of the winners and the awards ceremony takes place during the Leadership Meeting, an annual event that brings together the company's top leadership.

Integration

In 2017, we structured and implemented the Global Integration Plan featuring activities and projects based on four main pillars: structure; people; processes; and systems. The idea is to absorb best practices in each country and strengthen the concept of a unique and global company. The agenda includes several initiatives to address long-term objectives and improve the company's sustainability.

To start with, we created a committee (the Integration Nucleus) at the beginning of the year, formed by Brazilians and Peruvians. We also ran workshops with directors, general managers, focal points and facilitators to discuss the possible levers and barriers inherent in this process. The activities carried out

during the meeting contextualized the emergence of Nexa and reinforced its objectives, emphasizing that the integration was intended to combine the best of the operations in the two countries, without interfering with the governance or the processes, maintaining Votorantim's DNA, its compliance with legal issues and credibility in the market. All of this was accomplished without losing sight of the main parameters for this project: safety as a value and respect for local cultures.

Since the beginning of the Integration process, 28 professionals have participated in the Program, focusing on sharing knowledge, a culture of safety and process integration.

Integration Nucleus

Based on the diagnosis made in our units and interviews and focus groups with employee representatives, we defined 12 macro initiatives that were given priority in 2017.

These objectives were: to strengthen the understanding and application of our Beliefs and Values, guaranteeing the longevity of Votorantim's DNA; to promote and disseminate the history of our units and companies and the regional culture of each country in which we operate; to standardize the information and communication systems used; to ensure unique policies and procedures; to standardize and strengthen the understanding of the Brazil-Peru organizational structure and between the sales offices in Luxembourg and the United States; to standardize the remuneration and benefits policies and practices among countries; to consolidate a single system of recruitment and development of personnel; and ensure a common language and integrated management of the company's communication channels and processes.

Internal Placement

In 2017, we created 286 professional opportunities, filling 26% of these positions from our own ranks; for the executive level, there were 34 vacancies, 32% of which were staffed from within, compared to 36% and 70% in 2016. The decrease in the percentage of internal use occurred mainly due to the creation/restructuring of new areas for which we seek professionals in the market with expertise and experience in order to add knowledge and quality to our teams and processes.

In line with Votorantim's desire to cultivate talents, we also re-introduced and improved the Movimenta Program, which allows employees to move between Votorantim companies, through applications for vacancies in different units and locations. The program has been restructured and is more comprehensive in terms of levels of candidates, which now includes apprentices and trainees (after completion of the respective programs) for certain vacancies.

At the managerial level there is also a new program, with opportunities that include vacancies, even those in Votorantim companies in other countries. Another change was in relation to the minimum time an employee needs at his or her current position before applying for a new opportunity. At the professional level, it was formerly necessary to complete 24 months in one position before applying for another; now, the time has been reduced to 18 months. For managerial slots and higher, the time is 24 months. At Nexa units, employees at the professional level and above can apply for vacancies worldwide.

286
professional opportunities we created in 2017

12 Integration Fronts



Material Issue
Safety and Health



Safety

Objective	Goal	Base year	2014	2015	2016	2017	Form of Measurement
Avoid fatal and serious accidents, that impact the company's image and ensure the stability of safe working conditions and processes	Achieve a Total Recordable Injury Frequency Rate less than or equal to the benchmark figure for the mining and smelting industry	2014	2.78	2.27	2.25	2.46	Number of accidents with and without lost days x 1,000,000/man-hours worked
	Achieve a Safe Behavior Index of more than 90% for all units and subsidiaries	Not applicable	No evaluation	No evaluation	83.5%	83.3%	Risk Observations at Work

People are our most important capital resource. That is why we consider safety to be non-negotiable. Our goal, set in the Strategic Plan, is to achieve a zero accident rate. To do this, we have identified 14 critical risks for operations, with security protocols that must be constantly monitored. These processes were strengthened in 2017 so that we can improve the recorded accident chart.

During the year, our Total Recordable Injury Frequency Rate (TRIFR) was 2.46, including accidents with and without lost time both for our own

employees and third parties, compared to 2.25 in the previous year. The accident severity rate was 1,384 (versus 510.3 in 2016), reflecting the seven fatal accidents that occurred during the year.

GRI 403-2

We had seven fatalities in our operations, six in Peru and one in Brazil, all involving outsourced employees. After the incidents, we conducted a comprehensive review and our Board of Directors approved a plan to prevent fatal accidents, dramatically reduce the incidence of accidents and raise the level of safety

culture in the Peru mining facilities. Some initiatives included in the plan include leadership development, training for employees and outsourced workers, and technology initiatives such as the Digital Mining project and the Automation Plan.

Our Board of Directors provides direct oversight for the implementation of these measures and schedules the quarterly effectiveness evaluations. Fatal accidents in 2017 occurred in the following situations:

- › A rock slide during underground work in El Porvenir mine (January 25)
- › An accident with a piece of heavy equipment (LHD loader) at the Atacocha underground mine (March 8);
- › Maintenance activity on the automatic sampler of the conveyor belt in El Porvenir (March 18);
- › Electric shock while performing maintenance activities in Cajamarquilla (March 22)
- › A fall between levels of the underground mine, in Cerro Lindo (May 10);
- › Incident involving heavy truck during maintenance in Atacocha (October 15);
- › An accident involving a part from the industrial cleaning equipment that was operating in Juiz de Fora (December 5).

Safe Behavior

In 2017, more than ever, the safety issue was the focus of our strategy. We revisited our integrated health, safety and environmental management system and worked to improve our standards, procedures and tools to make it even more robust and efficient. A number of measures were taken throughout the year to promote an environment that preserves the physical integrity of all employees, whether they are our workers or outsourced employees.

We conduct field audits, with on-site observation of employee behavior and compliance with safety procedures. In addition, safety indicators are part of the variable remuneration package for managers and operations professionals, as well as the CEO and directors, general managers and managers of corporate areas. In 2017, we created the Nexa Integrated Rate, an index that combines the results of the TRIFR and the severity rate, which will also be targets for all company executives by 2018.

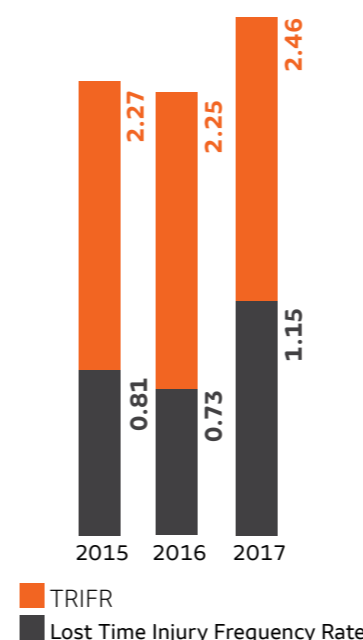
We have progressed the implementation of a specific safety improvement plan for our Peruvian facilities (Peru Safety Plan), which is designed to eliminate fatal accidents; drastically reduce the number and severity of accidents; and to raise, in the medium term, safety consciousness in operating units. The project, which is being developed jointly by several areas, has been approved by the managing directors and the Board of Directors. Leaders from both countries are mobilizing to systemically search out the obstacles and failures to consolidate a safety culture.

The plan is divided into eight blocks, covering various issues involving safety, each with specific initiatives: Training and leadership awareness; strengthening the structure of the occupational health and safety team; implementation of the Third Party Management Program; improving the well-being and working conditions in the units; standardization of processes and procedures and improvements to contingency plans in the mining units in Peru; training and team awareness; synergy with the Digital Mining actions, focus on safety; and the Automation and Information Master Plan, in support of risk mitigation.

We extended the Golden Rules (also called Rules for Life) to include our units in Peru. The initiative has a set of mandatory guidelines and procedures related to the critical operating risks at our operations and should, therefore, be considered inviolable and followed closely by all. In addition, we have implemented the application of consequence management for non-compliance with safety policies and procedures.

Accident Frequency Rate

GRI 403-2



14
we have identified 14 critical risks for operations, with security protocols that must be constantly monitored. These processes were strengthened in 2017 so that we can improve the recorded accident chart.

Critical Risk

- › **Blocking and isolation of energy**
- › **Working at Heights;**
- › **Safe use of hand tools**
- › **Confined spaces**
- › **Light vehicles and mobile equipment**
- › **Rock falls (unstable rock in the ceilings or sides in subterranean drillings, with risk of rock slides)**
- › **Excavations (civil work, open pit, underground)**
- › **Liquid metal**
- › **Electrical installations**
- › **Hazardous chemical compounds**
- › **Protection of machines**
- › **Suspended loads**
- › **Pressurized systems**
- › **Venomous animals**

Golden Rules

- 1. Working at heights** – Work performed at a height greater than 1.80m requires the use of accident prevention safety equipment and an anchoring point approved for use.
- 2. Blocking and isolation of energy** – The maintenance and cleaning of machinery whose moving parts, electric conductors or fluids present an accident risk must be carried out in a zero-energy state.
- 3. Confined space** – Working in confined spaces should only be performed by trained and authorized professionals. The use of an entry permit and the monitoring of the safety watch during the entire procedure is mandatory.
- 4. Light vehicles and mobile equipment** – The operation of light vehicles or mobile equipment requires the use of seat belts for both the driver and the passengers. The use of a mobile phone is prohibited while driving or operating equipment. Speed limits must always be observed within the units.
- 5. Alcohol and drugs** – The use of alcohol or drugs on the premises or on duty is prohibited.
- 6. Rock falls** – Entry to mining fronts and development is only permitted after a formal inspection that confirms it is safe.
- 7. Suspended loads** – For these cases, the equipment must be inspected with a check list and all items must conform. Critical loads must be approved through a Work Permit and follow a rigging plan. The operating area must be isolated and warning signs posted.
- 8. Safety protection for machines** – The protection can only be removed with machine and equipment locked and with energy shut off. At the end of the activities, the protective equipment must be replaced to avoid removal by unauthorized persons.
- 9. Hazardous chemical materials** – Hazardous chemicals should be handled only while the employee is using HSE-approved PPE. All hazardous chemicals should be on the master list of authorized products. Safety and protection systems for tanks, cylinders and pipelines of hazardous chemicals cannot be removed or disabled.
- 10. Accident reporting** – Every accident, regardless of its severity, must be reported.
- 11. Work authorization** – For activities involving critical safety hazards, it is mandatory that all workers involved have formal authorization.
- 12. Risk assessment** – Prior to any activity, a prior and formal risk assessment must be carried out through the following tools: Preliminary Risk Analysis (APR) for all activities, except for supervision activities, area inspections, site visits and administrative activities; Procedures for routine activities; PPT for non-routine and high-risk activities.

We are continuing our “coaching” process in the Peruvian units, where we have already helped over 400 managers and that is now even more focused on creating a safety culture. The program prioritizes guidelines that range from the identification of risks to zero tolerance for inappropriate behavior that can lead to accidents.

Along with the implementation of policies and tools, the safety team’s structure itself also changed and gained additional overall weight in the Peruvian mining units through the creation of a specific management team dedicated to safety. This team is fully aligned with the other units, the restructuring of the workforce based on each unit’s size and the risks associated with its operation and the introduction of a technical training program for the area’s employees.

In addition, other activities were devoted to improving mine procedures and inspections, strengthening the field safety teams with better trained personnel.



Safety for Outsourced Employees

For outsourced labor management, one of the Safety Plan’s most important blocks, activities range from selection and hiring of our strategic partners, training of their operational professionals and managers, risk management in outsourced activities, awareness management and the recognition and reward process for companies and professionals that best serve our health and safety culture. With regard to the health and safety issues, we want to have with us companies that are as engaged as is Nexa in the prevention and elimination of any and all accidents.

Safety in Logistics

Our logistics operations presented low daily and serious accident rates. This was due to the success of the accident reduction program implemented in 2015. One of the highlights was the introduction of the Health, Safety and Environment (HSE) Management Manual for logistics operations, published in 2016. The document is part of the company’s overall support of legal requirements and aims at ensuring that suppliers closely follow the standardized internal guidelines.

In 2017, several activities were focused on logistical safety, such as the creation of safety committees with our logistics providers, safety campaigns, simulated emergency drills and training. All activities were integrated between the Brazilian and Peruvian operations.

Aimed at both inbound and outbound transport operations, the manual addresses such issues as contractor requirements for logistics services, safety rules, communication and event analysis, requirements for the transportation of dangerous cargoes and emergency response guidelines, involving internal and external processes — external transit of cargo, port terminals and warehouses under logistical management. In addition to the publication of the manual, we also updated the logistics service contracts with HSE guidelines for common cargo and hazardous cargo.

Another activity in this regard was the 1st Logistics Safety Committee meeting for transporters. The event, at the Três Marias and Juiz de Fora units, involved discussions and planning actions to improve logistics operational safety. In addition to sharing experiences, ideas and best practices, the committee prepared a work plan containing 12 safety actions.

400
managers

who now are even more
focused on creating a
safety culture.

Material Issue
Safety and Health



Occupational Health

Objective	Goal	Base year	2016	2017	Form of Measurement
Ensure the establishment of principles and objectives to be met and perpetuated within the company, resulting in a long-term vision	Define goals for the corporation and the unit deployment for the health theme within the Sustainability Master Plan	2016	Carry out a study of hygiene, health and quality of life in the units and elaboration of an action plan based on the deficiencies found	Presentation of the unit diagnosis and implementation of the shared management model of Occupational Health and Hygiene (HSO). Implementation of the Quality of Life Program in all units	Percentage of achievement of annual targets

We believe that the balance between work and personal life can mean better quality in everyday life. Therefore, we have initiated actions on behalf of employee health and wellness. These initiatives are contained in the *Viver Melhor* (Live Better) Program, which is based on the World Health Organization Quality of Life (WHOQOL) program and the implementation of the Occupational Health and Hygiene (OHH) shared management model.

The *Viver Melhor* program is based on six basic elements: physical; psychological; environment; interpersonal relationships; independence; and beliefs/spirituality. We give priority to activities to improve the physical, psychological, environmental and interpersonal relationships resulting a diagnosis made during the planning phase. However, the pillars of independence and spirituality can be handled indirectly.



Viver Melhor activities structure

VIVER MELHOR	Physical	Psychological	Environment	Interpersonal relations
Institutional Actions	Healthy diets and work-related exercise	Encouragement of the practice of physical exercise	Work environment improvement plan	Sports events
Local Actions	Realized by units focused on local demands			

In 2017 all initiatives were designed to carry out physical activities and implement work gymnastics by contracting a physical education professional. The activities carried out during the year included health and quality of life workshops (some of which were extended to family members), with nutritional guidelines during the medical examinations on the facilities; health campaigns, dental care, vaccinations, prevention of diseases such as cancer, sexually transmitted diseases (STDs) and AIDS, skin care, stress and relaxation, blood donation, among others; training sessions including, health and safety coaching for managers, training in gymnastics and hygiene, first aid; events such as races, Olympic events days and gymnastics, Miner's Day, World Health Day, table tennis competitions, safety seminars and life appreciation, year-end celebrations, and others.

In 2017, we developed the *Viver Melhor* Program, which sets guidelines for promoting employee incentive programs aimed at discovering the right degree of quality in their lives. The actions were designed according to local realities and needs. Distributed to corporate centers and to all units in Brazil and Peru, the program will be regularly evaluated through four different indicators for inputs, processes, results and impact (transformation).

The program will be administered through the Corporate Quality of Life Committee, which defines the guidelines and actions that must be implemented in all units. The local quality of life committees are responsible for drawing up the plan to adopt corporate and local actions according to the unit's demands. This committee is composed of workers who represent units' different areas and who can contribute in the development of plans adapted to each reality, as well as technical representatives to support solutions suited to the demands.

Each local committee elects a representative to serve on the corporate committee. In addition to unit representatives, the corporate committee is composed of representatives from Health and Safety, Human and Organizational Development and Corporate Communications.

By 2018, activities planned for the units include: implementing a nutritionist's visit once a week; training in work-related gymnastics activities to be inserted into the work routine of the areas; align health guidelines with the cafeteria service; and coordination between areas.

Designed to improve our employees' working conditions, in 2017 an Occupational Health and Hygiene

(OHH) shared management model was introduced. It includes registration of occupational health and safety risks and controls through equipment protection devices, training, administrative measures and engineering projects, among others. This model seeks to boost the effectiveness of occupational risk management by sharing awareness, responsibilities and information about prevention methods and practices among the technicians, leaders and employees; and maintaining and improving the quality, consistency and traceability of technical data, documents and evidence regarding occupational risk management.

The model also includes periodic audits as routine control and management procedures in OHS, to comply with the policy's legal, technical and guidelines. The methodologies for conducting and documenting the audits may involve the use of questionnaires, checklists, interviews, measurements and direct observations, depending on the nature of the function being audited. The results will be documented in a report and distributed to management and others who are directly involved.

Environmental

Management Model

GRI 103-2, 103-3

Our environmental management model values responsible actions, designed to protect and prevent impacts on the environment and fostering the conscious use of natural resources. In line with the strategic plan defined in 2016, we are committed to reducing the specific generation of mining and metallurgical waste, greenhouse gas emissions and the specific use of new water, boosting the latter's recirculation ratio in our operations.

The management of these impacts is through an Integrated Health, Safety and Environment Policy that contains guidelines and procedures that position our employees' actions. In addition, we strictly follow environmental laws and regulations pertaining to each country in which we are present.

Toward this end, we have ISO 14001 certification (compliance standard that provides organizations with the bases for an environmental management system that, integrated with other management requirements, supports efforts to meet environmental targets).

GRI 102-11

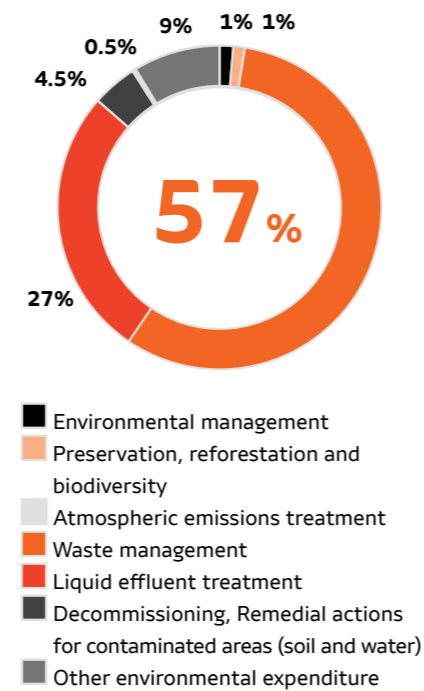
In 2017, we completed the future-use studies for all units; this involved updating the decommissioning plans based on the integration of environmental and social data in line with the characteristics of each region (the study and the plans are detailed in the Social chapter under the material Decommissioning topic).

Environmental Investments

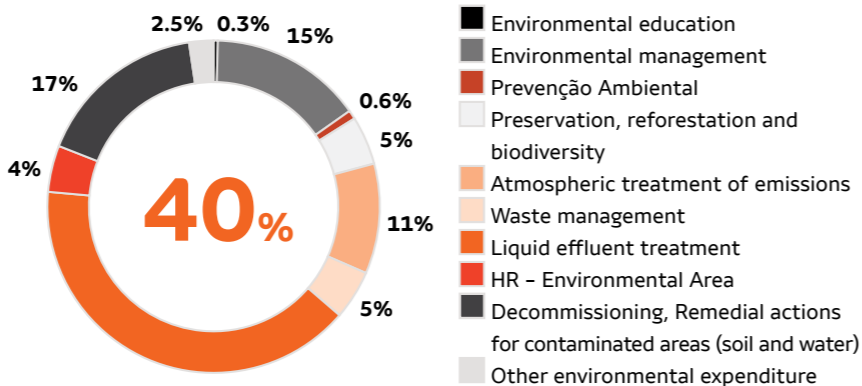
We continuously strive to implement the industry's best practices, seeking opportunities to be more eco-efficient – that is, to produce more and produce it better, using fewer resources and generating less waste. In this direction, the funding of innovation carried out through the Digital Mining program (see more on page 49) let's us establish improvement initiatives for equipment and processes. Significant environmental gains were achieved.

In 2017, environmental actions received investments of US\$ 61.5 million, 15.8% more than in 2016 (US\$ 53.1 million). This amount was distributed with emphasis on effluent treatment and disposal (32.4%), waste (34.4%) and decommissioning (10%).

Environmental Investments



Environmental Expenditure



8. Undertake initiatives to promote greater environmental responsibility.

3 GOOD HEALTH AND WELL-BEING

6 CLEAN WATER AND SANITATION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

14 LIFE BELOW WATER

Objective	Goal	Base year	2014	2015 ¹⁶	2016 ¹⁶	2017	Form of Measurement
Reduce the impact on the generation and final disposal of waste, focusing on investments in process efficiency, minimization of risks, use of new technologies and generation of economic value	Reduce 50% of the specific quantity of mineral-metallurgical waste generated (calculated by the tonne of generated waste/ton of product) and/or sent to landfills ratio	2014	9.35	12.77	8.78	10.08	Total wastes generated and disposed of (dams, tailings deposits, mine interiors, batteries, etc.) per tonne of product. Excludes mineral-metallurgical waste sent to destinations in co-processing or generation of new products
	Reduce total specific waste generation (tonne waste/ton of product)	2014	9.37	12.78	8.80	10.10	Total waste generated (mining-metallurgical + industrial) per tonne of product

Note 16: The values were changed due to a adjustment in the total waste generated at the El Porvenir unit. GRI 102-48, 103-1, 103-2, 103-3

In recent years, we have been working on research and development of technologies to reduce waste generation, or to enable its reinsertion into production chains. Our best result was obtained in the Zero Waste Project at the Morro Agudo mine, whose production process change resulted in the elimination of tailing generation, in exchange for the generation of agricultural products, responsible for 5% of unit's revenues in 2017. A more recent example was the use of the slag generated in the Waelz furnace at Juiz de Fora as a raw material for cement production. These results are in line with the strategic plan, whose commitment in 2015 was to reduce the volume of mineral and metallurgical waste generated and/or sent to landfills by 50%.

Other actions that resulted in reduced consumption of natural resources and costs, as well as a lower level of environmental impacts associated with waste disposal, were: adding a flotation cell for the separation of silver and lead present in the ore at the mine in Vazante.

In 2017, our operations generated a total of 16.8 million tonnes of mineral and metallurgical wastes, 33% non-hazardous and 67% hazardous — a 7% overall reduction compared to 2016's result (18.1 million tonnes).

Mineral–Metal and Industrial Wastes (thousand tonnes)

GRI 306-2, MM3

Type	2015	2016	2017
Hazardous			
Mineral-metallurgical waste (sterile)	1,460.9	1,746.9	1,704.9
Mineral-metallurgical waste (tailings)	14,220.6	9,871.8	9,660.7
Industrial wastes	5.2	2.9	3.0
Non-hazardous			
Mineral-metallurgical waste (sterile)	2,659.0	5,458.3	4,539.3
Mineral-metallurgical waste (tailings)	1,060.6	1,038.2	958.8
Industrial wastes	13.5	14.0	15.4

Dam Management

For the management of tailings dams, which is one of the main risks associated with mining activities, we apply the International Commission on Large Dams' guidelines. Currently, we use three waste disposal methods in our operations: dams, for which we employ coating techniques, leak monitoring systems; dry stacking, continuous surveying and management (Nexa has 39 dams, 18 in Brazil and 21 in Peru); or mine backfill, filling the spaces from which the minerals were withdrawn.

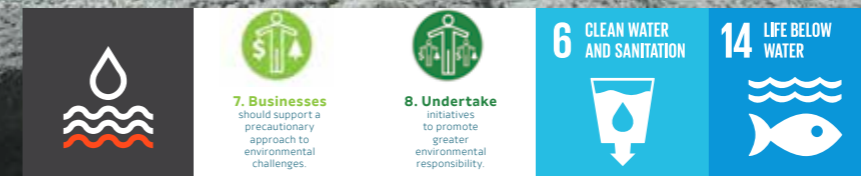
Some operations may combine one or more layout methods. At the Atacocha, Cerro Lindo and El Porvenir units in Peru, we adopted the backfill method, whereby 38% of the tailings is returned to the Pasco Complex mines and 48.7% to the Cerro Lindo mine. In Cerro Lindo, the waste not used as backfill is filtered, separating water and solids. The water is recirculated and the waste is sent to specific deposition piles. This same model is being considered in new projects in Brazil (Aripuanã and Caçapava do Sul). In 2017, we obtained the environmental license for the dry-tail disposal project at the

Vazante mine. Implementation should begin in 2018 and be completed by 2020.

For the management of these dams, we have an efficient system in place that focuses on security, optimization and stability with continuous rather than the twice-a-year monitoring actions required by law. Dam management is one of the topics included in our business risk management processes and regularly discussed at executive meetings, where reports are presented on the stability of these structures.

We also rely on the work of an independent consulting firm (Geoconsultoria) to jointly monitor and measure the performance of key control indicators, in addition to discussing actions for each of the 39 dams.

Material Issue Water



Objective	Goal	Base year	2014	2015	2016	2017	Form of Measurement
Minimize the company's dependence on the use of new water (gross)	Increase water recirculation to 75%	2014	59%	58%	67%	66%	% of recirculation based on total water used by the company
	Reduce the specific use of new water (m ³ new water/tonne of product)	2014	34.68	29.64	31.59	31.00	Sum of all new water collected and used by the company including surface runoff, rain, mine demotion, etc.) per tonne of product

GRI 103-1, 103-2, 103-3

For our operations, water is also a subject of great importance and, therefore, the bolstering of water resources management in line with the company's sustainable action policy is part of our strategy. Our water efficiency target is to achieve 75% recirculation in all operations by 2025. Another challenge is the specific use of new water in our processes: the target is to reduce such water collection by 30%.

Our performance in this regard is regularly measured. The following monitoring indicators in 2017 showed that our water recirculation was on the order of 66% in 2017, compared to 67% in 2016. The calculation took into account the volume collected in relation to all the water used in the process. **GRI 303-3**

Our water management plan is divided into three main stages, which are periodically reviewed and applied in the operations as well as greenfield projects under development. The three stages are:

- › **Diagnosis:** consists of water risk assessment and the development of a framework for water accountability;
- › **Control/Mitigation:** exercised through audits and a contingency plan;
- › **Development:** includes a Measurement Master Plan (flow) for all units, with 14 initiatives that contribute to increase recirculation and reduce fresh water intake.

Evolution

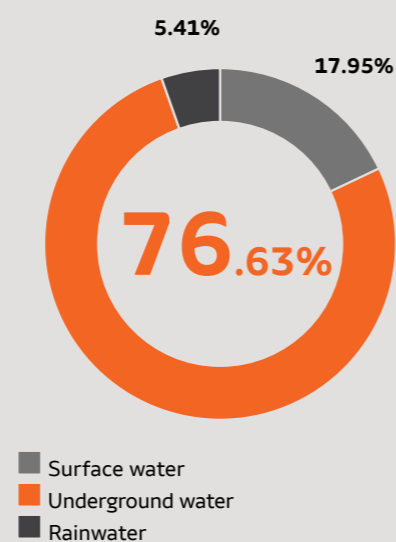
In 2017, we made progress in mapping the water scarcity risk through the development of the Water Risk tool. We applied this matrix in all our units and, today, we can express both the risk exposure and its aspect. We also evolved in terms of water monitoring critical analysis, aligning concepts and standardizing results from outside quality analysis laboratories.

Another important initiative during the year was the standardization of water accounting practices. We now can evaluate the actual cubic meter cost of water used in each unit, including pumping, circulation, treatment and concession costs. These oversight practices will lead to the introduction of a number of managerial improvements into the process, while also helping monitor the largest users of the resource, permitting better planning. For 2018 and 2019, we intend to install internal flow meters in each user area considered most relevant to water management. As a result, we will be able to identify new opportunities for further evolution.

As examples of good water management practices, we can highlight the following initiatives in some units. Cerro Lindo operates the first desalination plant in Peru. With a station composed of storage tanks, pumping networks and reverse osmosis filters, it is possible to operate with 100% of the water taken from the ocean and there is no effluent disposal at the mining unit. The unit also has recirculation and treatment systems that allow the efficient reuse of the water in the production process, minimizing intake losses and costs, maintaining water efficiency at 91%.

Regarding our units in Brazil, we continued the "Clean Water" project at Morro Agudo, which allows the removal of good quality water directly from geological faults, fractures and wells for use in the plant and subsequent return to the environment. Its water reuse process has reached the 78% mark. In Três Marias, also notable has been the reduction of water use by 17% due to improvements in the resource management process initiated in the second half of 2017.

Water Use by Source¹⁷ **GRI 303-1**



Note 17: The water balance of Nexa is based on the Water Accounting Framework (SMI / MCA, 2014), which incorporates all the volume of water collected and used by the organization. The data are reported considering the abstractions of surface water (river and sea), underground (coming from wells or withdrawal for mine lowering, although not used in the production process) and rainwater stored in physical structures located in the units.

Disposal

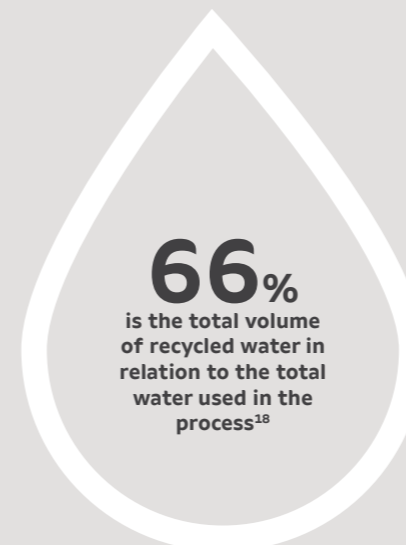
Our water recirculation program also contributes to ensuring lower effluent volumes. This reduces both the risk of an adverse impact on the environment and the cost of treatment to ensure that the effluent discharged meets the required quality parameters. In 2017, 40% of the environmental expenses were earmarked for effluent treatment purposes.

With the exception of Cerro Lindo unit, where there is no mining waste disposal, 100% of the effluents from other plants are sent to Treatment Stations (ETSS/ETSi) and submitted to processes according to type. All new projects have the obligatoriness to start operations with a built-in recirculation ratio of at least 75%.

In Juiz de Fora, we will conclude the installation of the new industrial drainage system in 2018, designed to segregate rainwater in the unit. The works contemplate the construction of new drainage networks, adequately sized and made out of resistant materials; installation of a pumping system for the containment tanks in the industrial area to Barragem da Pedra reservoir, in peak rainfall periods; construction of sedimentation tanks and drainage segregation.

The Santa Catarina river, present in Vazante (northwest Minas Gerais), is one of several Brazilian water sources that suffer from a water scarcity crisis. The soil through which the river flows is karst, whose characteristics are favorable for the

appearance of dolines, a proven natural phenomenon. Since 2014, when the lack of rain began to worsen in the region, some of these features appeared along the river, contributing to a reduced flow. The company is conducting studies related to the subject and constantly monitors the river's movements. In addition, we act as a partner with the community, the municipal government and environmental agencies to minimize the impacts of the water crisis in Vazante through dialogue and panel discussions with the community (see more on page 83.)

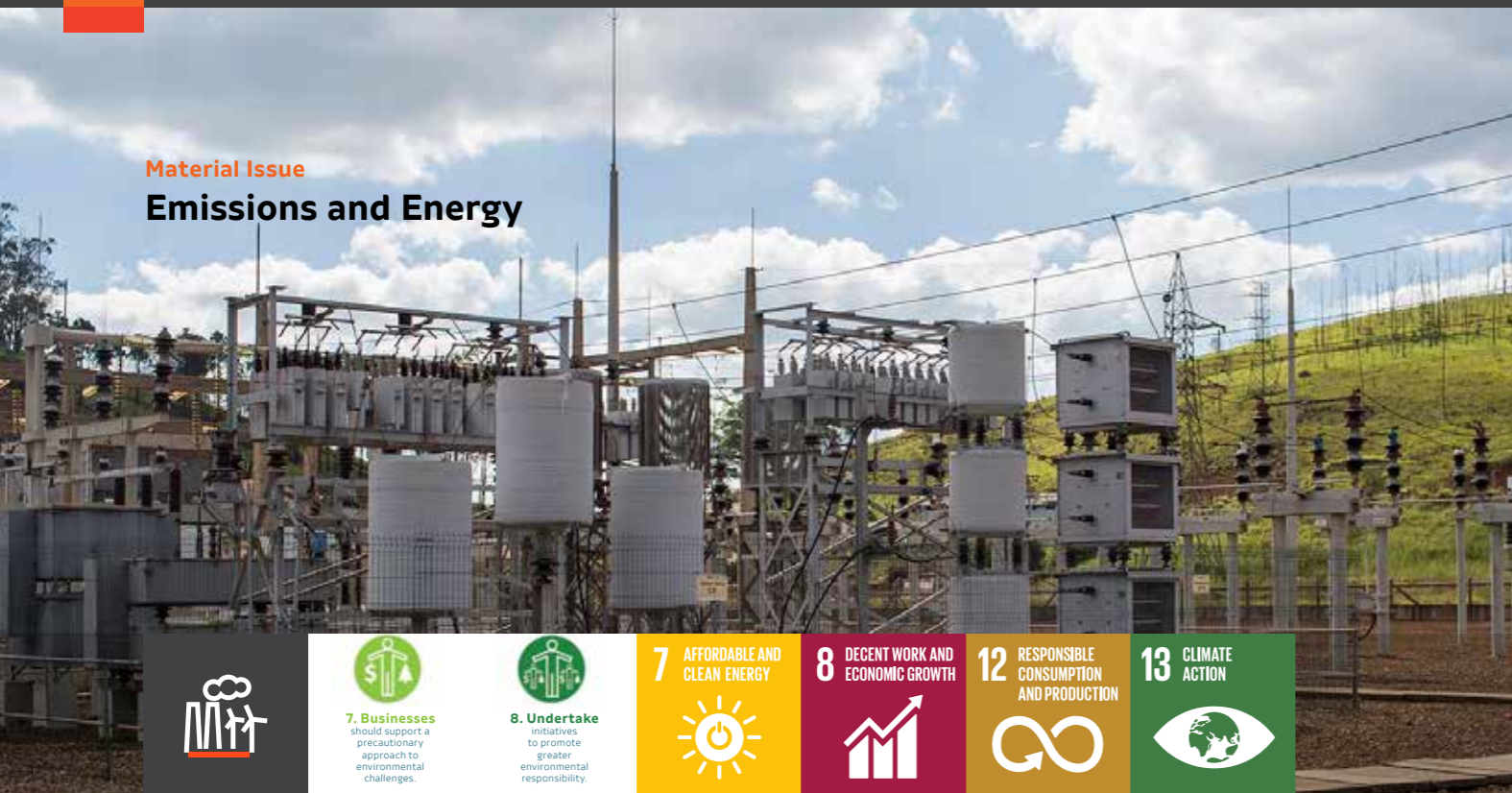


Note 18: The data are calculated based on the Water Accounting Framework (SMI / MCA, 2014), which considers the sum of reused water / sum of water used and the GRI base, where the sum of reused water / sum of used water withdrawn.



Material Issue

Emissions and Energy



Objective	Goal	Base year	2014 ¹⁹	2015 ¹⁹	2016 ¹⁹	2017	Form of Measurement
Minimize the impact related to climate change, investing in energy efficiency, matrix flexibility with a focus on renewable sources and technological innovation projects	Reduce the emission of greenhouse gases (GHG) per tonne of product by 5%	2014	0.910	0.932	0.895	0.879	tonnes of carbon equivalent (tCO ₂ e)/tonne of product

Note 19: The data published from 2014 to 2016 were recalculated because of the inclusion of the emissions generated in the ores transportation between Peru and Brazil. [GRI 103-1, 103-2, 103-3](#)

Weather is a highly relevant aspect for our business, mainly due to its influence on the hydrological scenario. Intense climate change can adversely affect our operations, causing numerous problems, including postponing schedules and, consequently, increasing operating costs. These are risk factors to the business and hamper the achievement of goals and the development of projects, as happened in early 2017 in operations in Peru, affected by heavy rains.

To consolidate our commitment to the theme and to collaborate in the strengthening of a low carbon economy and an increasingly sustainable society, we have set ourselves the target of reducing greenhouse gas (GHG) emissions by 5% per tonne of product by 2025.

Toward this aim, we have adopted a set of initiatives for adaptation and mitigation of impacts, inventory of greenhouse gas emissions (GHG) and constant guidance and monitoring. In addition, our investments in this field in recent years have focused on energy efficiency and flexibility of the energy matrix, with a focus on renewable sources and technological innovation projects.

Evolution

In 2017, we put a biomass boiler into operation in the Três Marias unit, replacing the boilers burning fossil fuels derived from oil; this action avoided the consumption of 15,612 tonnes of this fuel over the year. The new structure, which aims to reduce the unit's fuel costs and carbon emissions, uses eucalyptus chips and/or sugarcane bagasse produced in the region as fuel. The next step is to introduce the biomass operate into the unit for steam production.

With the boiler changeover, we reduced CO₂e emissions by 33,621 tons in the unit (from February to December) — which accounts for approximately 22.1% of all the plant's emissions. The expected savings from energy cost reductions was US\$ 3.7 million. In addition, social gains were achieved by fostering the productive chain and contributing to the promotion of agricultural development in the region.

Another important initiative

occurred at the Cajamarquilla unit in Peru, replacing liquid fuels (diesel oil) with natural gas; this was made possible by the installation of a gas pipeline in the region. The project, currently in the process of obtaining a license, will begin to be set up in 2018 for a 2019 start-up date, reducing the plant's emissions and fuel expenditures.

Also noteworthy are the investments in innovation through the Mining Lab program. Of the five initiatives selected in 2016 and already under study for implementation, three are aimed at energy efficiency and emission reduction projects. One of them includes the construction of a steam plant at the Três Marias unit (more information in the Innovation and Technology chapter, on page 49).

In power generation, we have two studies being conducted: the first is the installation of a solar power unit at the Fortaleza de Minas unit, with a capacity to generate 30MW; and the second includes a small hydroelectric plant at Vazante, with capacity of 1.4MW.

Energy Consumption

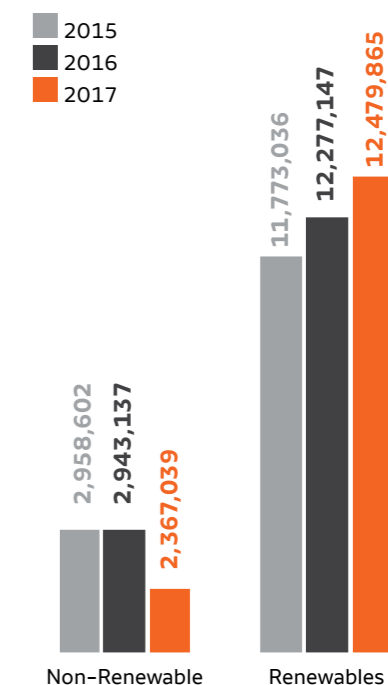
Energy consumption in our operations for the year was 14,846,904 GJ, a reduction of 2.5% compared to 2016 (15,220,284 GJ), with 84.1% from renewable sources (80.7% in 2016). This proportion is reflected especially the electric power matrixes of Brazil and Peru, since both of their bases are made up of a greater share of water sources.

[GRI 302-1](#)

In the year, electricity generation accounted for 18.9% of total consumption. There is cogeneration in steam boilers and generation at power plants and small hydropower projects managed by Votorantim Energia (which serves the subsidiaries of Votorantim S.A. as well as external clients).

Characteristics of the Energy Matrix

(GJ) [GRI 302-1](#)



Consumption of Energy Inside and Outside the Organization in GJ

[GRI 302-1 and 302-2](#)

	2015	2016	2017
Non-Renewable	2,958,602	2,943,137	2,367,039
Oils (oil and diesel)	2,132,655	2,297,137	1,604,598
Coke	577,459	416,021	413,286
Natural gas	182,528	168,931	292,628
Other non-renewable fuels	65,959	61,048	56,526
Renewables	11,773,036	12,277,147	12,479,865
Electricity generated	1,990,768	2,478,583	2,355,143
Purchased electricity – other sources	9,781,841	9,798,194	10,124,316
Other renewable fuels	427	370	406
Total	14,731,637	15,220,284	14,846,904



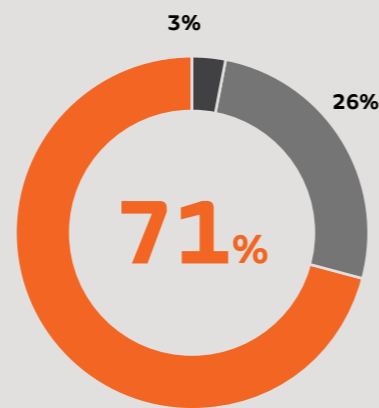
Atmospheric Emissions

In 2017, greenhouse gases (GHGs) from our operations totaled 927,979 tCO₂e, representing a 5% reduction over the previous year (975,511 tCO₂e). Emissions from electricity consumption (Scope 2) accounted for 71% of the total. The emission intensity was reduced to 0,879 tCO₂e per tonne of zinc produced.

Greenhouse Gas Emissions (tCO₂e) GRI 305-1, 305-2, 305-3

	2015	2016	2017
Scope 1			
Stationary combustion	168,569	146,615	94,831
Mobile sources - own	142,321	147,800	140,663
Waste treatment	14,168	2,659	5,323
Soil - calcareous	0	5	0
Total Scope 1	325,058	297,079	240,817
Scope 2			
Purchased electricity	693,651	661,185	660,852
Total Scope 2	693,651	661,185	660,852
Scope 3			
Transmission and distribution	6,990	17,247	26,310
Total Scope 3	6,990	17,247	26,310
Total	1,025,698	975,511	927,979

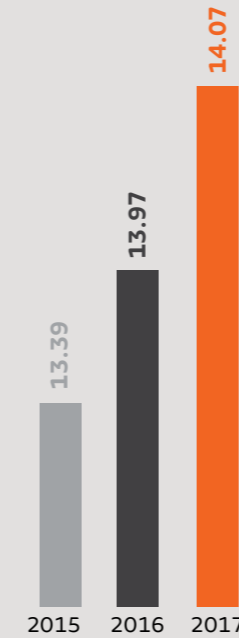
Greenhouse Gas Emissions by Scope – 2017 GRI 305-1, 305-2, 305-3



- Scope 1 (Direct emissions)
- Scope 2 (Acquired emissions)
- Scope 3 (Indirect emissions)

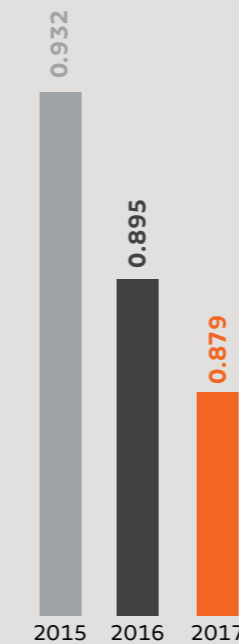
Energy Intensity

GJ/tonne of product GRI 302-3



Intensity of GHG Emissions

(tonCO₂e/tonne of product) GRI 305-4



Material Issue
Local Development



Objective	Goal	2015	2016	2017	Form of Measurement
Build and implement Development and Relationship Plans in locations classified as priorities	Achieve 90% efficiency of Local Development Plans	Characterization for Três Marias, Vazante, Morro Agudo and Fortaleza de Minas	Characterization for Juiz de Fora, Cajamarquilla, Aripuanã and Caçapava	Preparation of the Local Development Plan of the mapped communities: Ambrosia, Fortaleza de Minas, Juiz de Fora, Morro Agudo, Três Marias and Vazante	Percentage of compliance with each unit's Development Plan

GRI 103-1, 103-2, 103-3, 413-1

Community

In the field of social responsibility, our strategy focuses on local development, encouraging initiatives that contribute to the education and training of people near our facilities, collaborating to benefit economic diversification and quality of life of these populations.

Our engagement actions are structured and designed to build strong and lasting relationships. Therefore, we act ethically, committedly and always try to keep the channels open for frank and transparent dialogue with our communities.

We restructured our Social Responsibility actions on two main fronts, designed to make them more dynamic and enhance the flow of communication with the community and how we manage projects: Stakeholder Relations and Social Projects & Local Development. While the former is aimed at obtaining a social license to operate, while recognizing the realities and potentials of each community, the latter is driven by the management of the social investments and the striving for shared value.

Local Development Plan

We prepared a Local Development Plans (LDP) for each of our operations, based on a Social Agenda that directly involved community representatives. It is a participatory process aimed at forming priorities and developing scenarios presenting a desired future and the paths to take to turn them into reality. We understand that promoting local development means the company must adopt unconventional commitments going beyond its core business values. This includes encouraging other actors in the localities to work in partnership with us.

The Social Agenda dialogues have led to the establishment of priorities involving actions for the social inclusion of young people and women. The idea is to strengthen and diversify the local economy, modernize public management, strengthen civil society's participation and help inhibit the spread of diseases through preventive health programs; in general, these agendas are based on environmental protection concepts and promote the rational use of natural resources.

The results the LDPs seek to achieve are inserted as targets in the Nexa Sustainability Master Plan, with execution cycles through to 2025 and 2030. The Sustainable Development Objectives also are aligned in terms of themes and purposes to join up different sectors, thus helping meet shared goals. Furthermore, the concept of development that helps spur economic growth without ignoring human, social and environmental progress is taken into consideration.

We started to develop our LDPs in 2015. We first prepared local profiles that helped us better understand the territorial, socio-economic and organizational context of the communities in which our production units are located. The objective was to put together a multi-faceted overview of each municipality. We have already mapped 100% of our units in Brazil and this process is now underway in Peru.

In a second stage, we transformed this knowledge into a dialogue process, consulting with the in-company and outside audiences. This led to the preparation of the Social Agendas over the course of 2017. In this phase, we organized 72 workshops with 940 people participating, both in-house and external audiences, where studies were presented and challenges identified in the local profile

characterizations. In these meetings, employees, community representatives and other groups prioritized the themes considered most material and/or urgent for each locale.

The third step was to decide upon Nexa's Social Agenda through meetings of a Work Group consisting of employees from each unit representing different sectors, who discussed the Agenda's priority themes and challenges. They based the selections using criteria about social relevance, social impact, legacy, execution capacity and effort level. Next, general and specific objectives and work fronts were established.

The fourth phase, also carried out in 2017, involved the preparation of the Local Development Plan itself, with the validation of goals and work fronts along with the different indicators and targets to enable monitoring and evaluation of the proposals until 2025 and 2030.

It was a very robust and pioneering joint process, featuring dialogue and preparation of the LDPs together with communities. It has also brought about significant gains in dissemination and integration within the company between the various hierarchical levels and different activity areas and, in fact, including the social aspect in the business routines, processes and priorities.

The Agenda has had a positive impact that has led to more employee-volunteer actions, greater public participation in government hearings, better quality multi-annual municipal plans, the formation of partnerships between stakeholders and to a plurality of viewpoints toward prioritization of a collective awareness — from the young to the old, from the politicians to the residents, from the urban to the rural dwellers.

Local Development Plan

Characterization

- › 147 indicators distributed in 15 social themes
- › Local perceptions and knowledge
- › Integrated territorial view
- › Matrix of fragilities and opportunities by territory



Social Agenda

- › Multi-stakeholder and representative dialogue
- › Inclusion of vulnerable youths and publics in the dialogue
- › Transfer and exchange of knowledge and understanding
- › Connection of perceived problems with the SDOs
- › Prioritization of challenges for the territory
- › Suggestion of initiatives/work fronts



Nexa Social Agenda

- › Dialogue and engagement with multi-area internal audiences
- › Dissemination of social actions to the company's various areas
- › Matchups prioritizing the challenges for the community and for Nexa
- › Improvement in employees' social awareness



Local Development Plan

- › Definition of general and specific objectives
- › Refining of work fronts and potential partners
- › Proposal for indicators and progress
- › Stakeholder agreements



General Data

- › 940 participations in 72 meetings
- › Consolidation of relationships between the company and communities (stakeholders)
- › Building a Positive Agenda, reflecting local needs and demands
- › Active engagement of Nexa's leadership



THEMES

Economic Development

- › Labor and income
- › Economic development beyond mining
- › Attractive cities for new business
- › Production and circulation of local agricultural and animal husbandry products
- › Entrepreneurial incentives
- › Access and professionalization in different occupations



Infancy and Youth

- › Reduction in the primary school dropout and evasion rates
- › Access to vocational and higher education
- › Insertion of young people into the labor market
- › Access to culture, sports, leisure and citizenship (coexistence and social participation) to reduce criminality



Preventive Health and Sanitation

- › Environmental sanitation
- › Access to drinking water (consumption and production)
- › Waste management
- › Prevention of basic diseases
- › Quality of life and well-being



Public Management and Social Participation

- › More efficient and transparent municipal administration
- › Reduction of crime and violence
- › Strengthening social participation and control



Social Agenda by the Numbers:

- › 940 participations in 72 dialogue moments, with the five units participating in the process (Fortaleza de Minas, Juiz de Fora, Três Marias, Morro Agudo and Vazante), with external participation by 543 representatives from local businesses, governments, organized civil society, educational organizations, community leaders, media and the community at large; and the involvement of 397 internal participants from different company areas, from top management to the operating level.
- › The results from participant evaluations evidenced the importance of the activities, the moments for listening, the level of representation shown and the knowledge exchange achieved.

Key Highlights and Challenges:

- › The process also featured substantial involvement of unit managers
- › Boosted the social awareness of the involved in-company audience
- › Significant external participant representation
- › Inclusion of community members, youths and more vulnerable populations in the dialogue (in addition to the formal stakeholders)
- › Knowledge exchanges between participants and different sectors.
- › Low level of maturity and knowledge of the various audiences in general regarding the topics discussed and the SDGs
- › Short-term and more immediate vision
- › To progress the dialogue beyond just the formal institutions and stakeholders

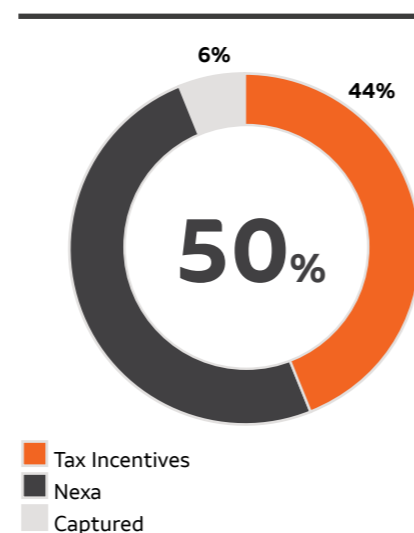
Social Investment

During the year, the social investments with own funds, tax incentives and money that was raised from outside sources, reached US\$ 14.6 million, compared to US\$ 11.3 million in 2016, representing 29% growth. Overall, we sponsored 172 projects in 20 locations in Brazil and Peru, benefiting more than 10 thousand people.

These projects are structured through three transversal pillars: Education & Knowledge, Economic Diversification and Social Participation; and they meet the requirements of the five key axes we consider strategic: Economic Dynamism; Human Capital; Institutional Capital; Social Capital; and Health. We also invest in other initiatives, especially related to basic infrastructure: this includes roads, sanitation and housing, among others. In Peru, these initiatives have a government counterpart through the Works for Tax program.

All projects are constantly monitored and we publish a monthly newsletter ("Flash") containing information about each initiative's performance. Each unit general manager analyzes this document and, quarterly, by Executive Board, which evaluates action progress and results achieved for the community and the company.

Origin of Social Investment (US\$ 14.6 million)



Main Programs and Results

Economic Dynamism Axis

During the year, the initiatives conducted under the Economic Dynamism axis, which stimulates the sustainable growth of the economy in the communities, received contributions totaling US\$ 2.05 million. Some of the main projects supported in this area are: *Empresas Comunes* (Communal Companies), *ReDes* and *Líder* (Leader).

The highlight is the *Empresas Comunes* program, run in Atacocha, El Porvenir, Pukaqaqa, Cerro Lindo and Magistral, in Peru. The objective is to strengthen the existing community companies in these localities to enable them as part of the productive chain for our operations, thus generating jobs and local income, also assuring resources for those who cannot work.

During the year, four companies acted as service providers for our units, with a new contractor entering in 2017 with 2,870 members. They are peasant communities from Cajamarquilla (in Atacocha), Yarusyacan (Atacocha and El Porvenir), San Juan de Milpo (El Porvenir) and Chavin (Cerro Lindo). At the end of 2017, companies from two communities (Conchucho and Pampas) were being formed to work on the Magistral project. In addition to the service provision contract, we also assist the community by hiring consulting firms, which conduct orientation work, formalization, the establishment of corporate governance for the companies and train the people who are part of the production chain.

Human Capital

In 2017, we invested US\$ 1.27 million in projects developed through the Human Capital axis, which includes initiatives in education, workplace, sport, culture and the rights of vulnerable populations. The highlight of this pillar is the *Parceria Votorantim pela Educação* (Votorantim Partnership for Education) program (PVE), an initiative supported by all invested Votorantim S.A. companies. It aims to contribute to the improvement of public education through the community social mobilization and the introduction of qualified educational management practices.

Institutional Capital Axis

For the Institutional Capital axis, we developed initiatives to support public management in partnership with the BNDES, to which we allocated US\$ 836 thousand for investments in 2017.

The program is designed to assist municipalities in the adoption of more efficient management processes and tools, such as achieving fiscal and financial breakeven points. Doing so allows the city governments to capture and earmark funds to improve their municipal management practices and local infrastructure. In some locations, we also participate in the review of the Master Plan in addition to contributing to the preparation of sanitation, mobility and housing plans.

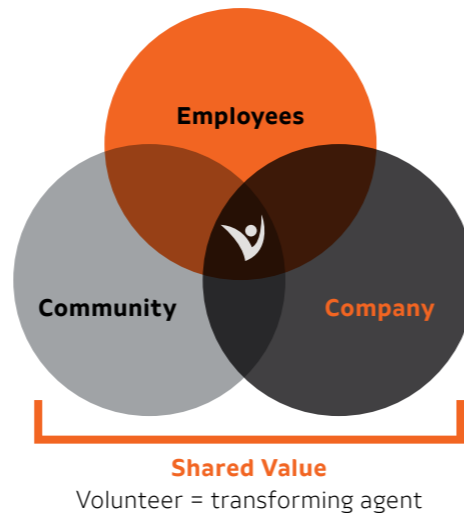
Social Capital Axis

Our Social Capital investments totaled US\$ 469 thousand in 2017. The highlight of the year was the launch of Somos Todos (All Together), Nexa's new business volunteer program. We have been developing actions in this field since 2008 and, as of 2016, we felt the need to reshape our initiatives. The program underwent complete restructuring, ranging from benchmarking through to the involvement in a number of company's areas. The concept was to consolidate a model that included our growth aspirations and the lever represented by the voluntary potential of our employees as agents of change.

In addition to being aligned with the material issues of our Sustainability strategy, because creating shared value with society is one of the enablers, the new program is also in step with the UN Sustainable Development Goals (SDGs).

To meet volunteer profiles and program objectives — to stimulate citizenship, improve our sense of belonging and generate a positive impact in the communities — we defined three action pillars: All Together Transformation, All Together Citizenship and All Together Innovation. Based on these, each unit prepares a portfolio of voluntary activities that complement the social projects and other opportunities that have been mapped in each region. The idea is to merge recurring, one-off, face-to-face or online actions. The local steering committee members are responsible for organizing and coordinating these actions, comprising volunteer employees from various areas who serve as the program's focal point.

Our goal is to achieve 20% engagement among our employees in Brazil and Peru, with 18 thousand dedicated hours per year, by 2025. In 2017, we achieved an historic mark: we jumped from 518 hours dedicated to 5,771 hours, totaling 2,010 registered volunteers (the numbers also include the actions taken in the Volunteer Challenge, in partnership with the Votorantim Institute). Engagement jumped from 5.8% in the previous year to 11%.



All Together Pillars

ALL TOGETHER TRANSFORMATION – Frequent, recurring actions

Objective: to foster social transformation, both for the beneficiary and for the volunteer;

Ex.: Lectures, workshops and training sessions; Social inclusion of vulnerable publics; Recurrent improvements in infrastructure, institutions or public coexistence spaces.

ALL TOGETHER CITIZENSHIP – One-off, mobilization actions

Objective: Involve a large number of employees on a single day to exercise rights of citizenship and solidarity;

Ex.: Group effort to improve infrastructure; collection campaigns; recreation in nursing homes, daycare centers, orphanages; events open to the community through services, recreation, etc.

ALL TOGETHER INNOVATION – Participatory innovation actions

Objective: to together seek innovative solutions for local community issues.

Ex.: Challenge Marathon (Hackathon); battle of Concepts; strengthening of the Community Participation Group.



All Together's Numbers

2,010
volunteers registered
between September and December

simultaneous launch
in all our units, in Brazil and Peru

5,771
volunteer hours conducted

10 Local committees formed, equipped and with portfolio mounted in all units

Approximately, **5 thousand** people benefited

Distribution of the Actions



60% Professional guidance
Playful educational workshops

23% Infrastructure improvements

9% Professional guidance
Entrepreneurship

6% Socialization activities
Collection campaigns

3% Strengthening Organizations

Other Initiatives

GRI 203-1

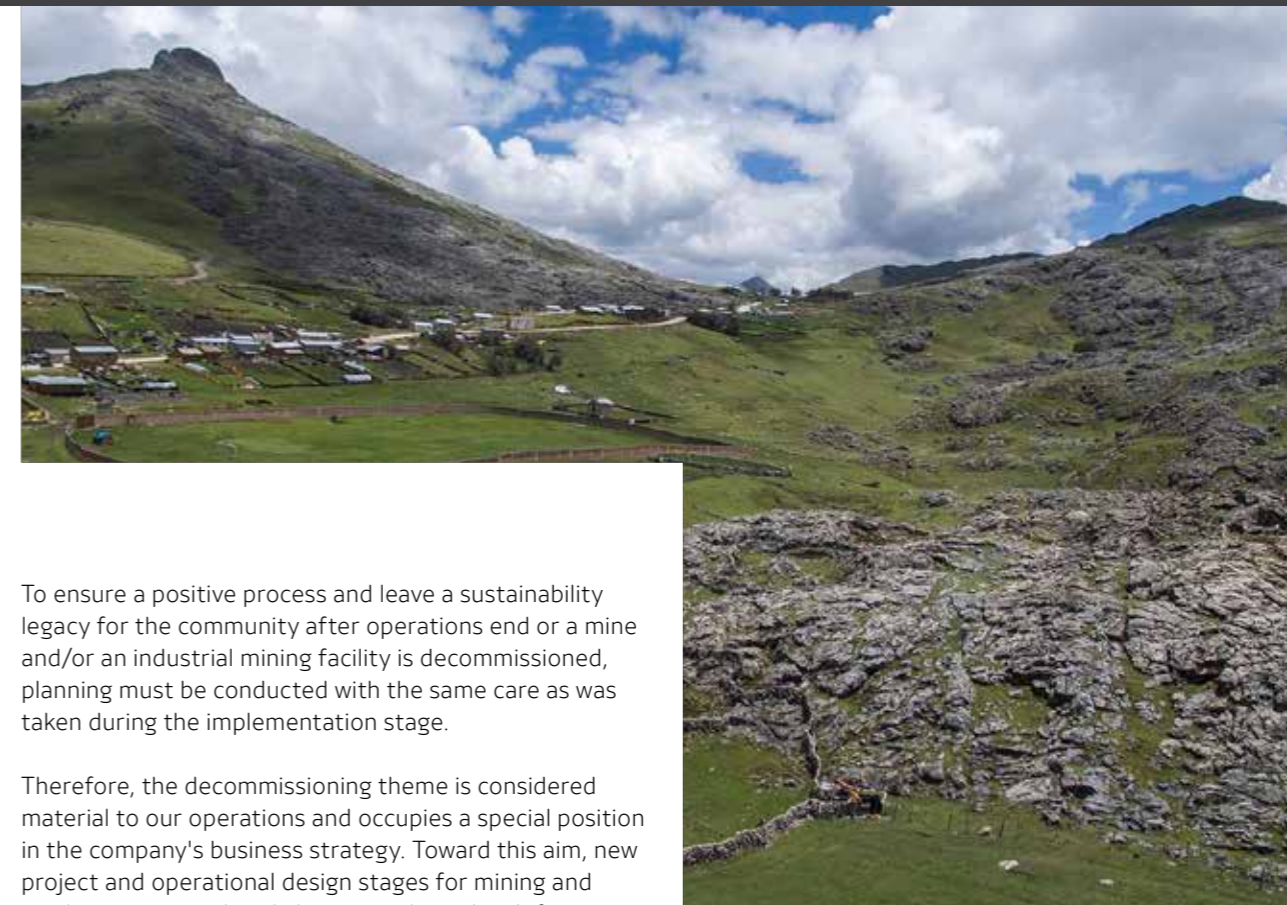
In 2017, the infrastructure and service initiatives we supported received resources totaling US\$ 9.2 million. The actions are linked to the thematic axes already implemented in the municipality through projects to improve management and social mobilization quality. Our goal, in addition to greater interaction with the communities, is to contribute to local progress, thereby improving the population's quality of life. Among the highlights is a road construction in Cerro Lindo.

Material Issue
Decommissioning



Objective	Goal	2015	2016	2017	Form of Measurement
Ensure deactivation in line with the sector's best practices and enable subsequent reuse of areas to add value for investors and communities	Ensure that 100% of the units have a prepared a future-use alternative study and an updated decommissioning plan, in line with the sector's benchmark standards	-	22.2%	83.3%	Percentage of total units with future use alternative study and updated decommissioning plan

GRI 103-1, 103-2, 103-3



To ensure a positive process and leave a sustainability legacy for the community after operations end or a mine and/or an industrial mining facility is decommissioned, planning must be conducted with the same care as was taken during the implementation stage.

Therefore, the decommissioning theme is considered material to our operations and occupies a special position in the company's business strategy. Toward this aim, new project and operational design stages for mining and smelter units are already being conducted with future visualization regarding their eventual shutdown.

In Peru, to obtain a license, it is necessary to prepare the decommissioning plan beginning with the initial project stage. In Brazil, from a legal point of view, it is presented, mainly, in two ways: simplified, at the time a mining permit is requested; and more detailed, two years prior to the ending of mining activities; there is no formal requirement for smelting units.

However, regardless of current legislation, all of our companies' internal operational guidelines and new projects have decommissioning plans.

These plans are technical documents and contain the guidelines for safe, full and efficient deactivation, in which economic, environmental and social actions are contemplated.

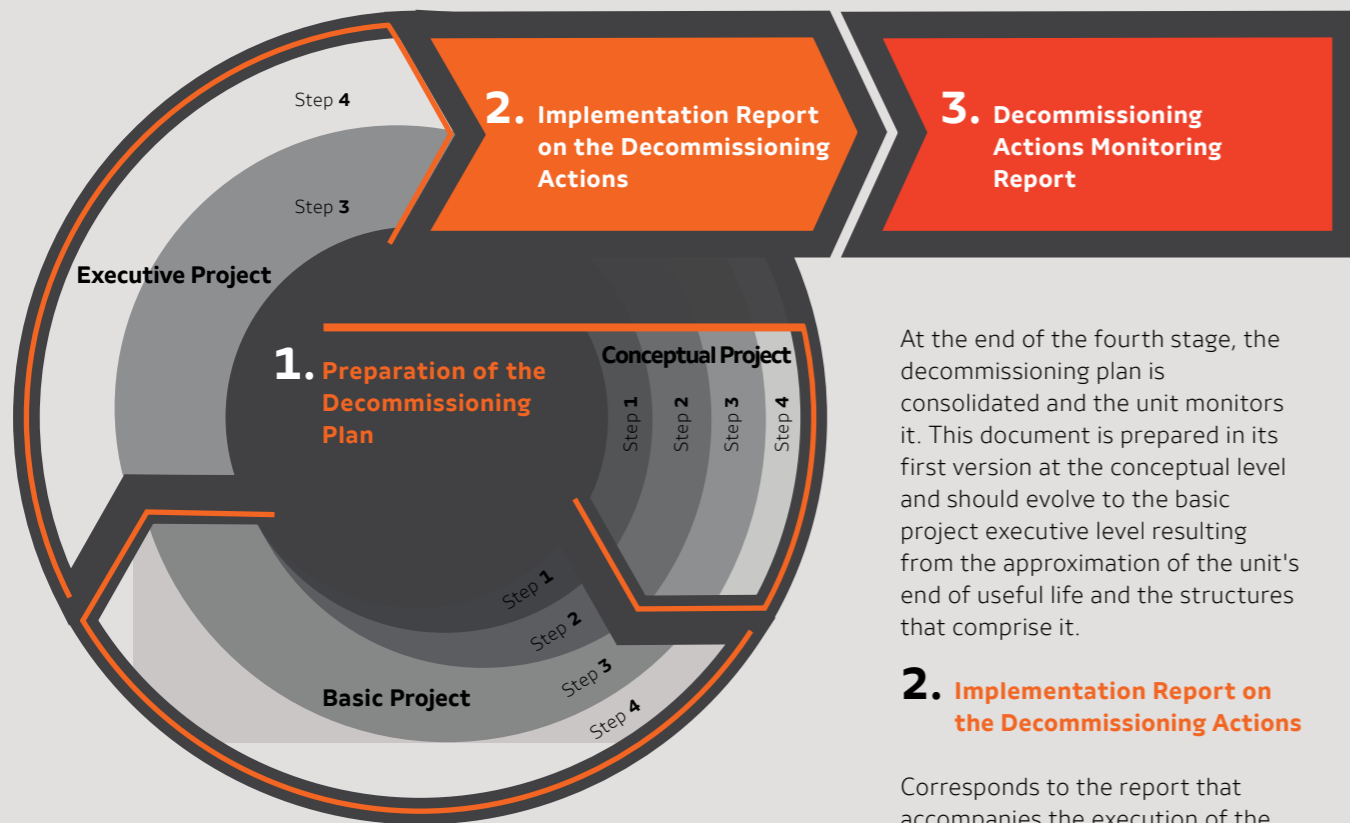
The document also includes forward-looking studies regarding alternatives future use of the areas, with these detail levels: Conceptual Plan, Basic Project and Executive Project.

In 2017, we completed the review of the plans for all the units installed in Brazil and for Cajamarquilla and we also prepared alternative future-use studies for all the units in operation in Peru. By 2018, we expect to complete our Peruvian mining units' plans.

To enable this, we have conducted a diagnosis of the areas' physical, biotic and socio-economic resources, surveying constraints and local development potentials in the short- and long-term. We also studied civil structures and equipment to identify what can be reused and what should be correctly disposed of after decommissioning.

After collecting the data, we prepared a physical-financial schedule for the plants, including pre-decommissioning, decommissioning and post-closing measures.

The work was accompanied by the Corporate Committee for Approval of Plans and Decommissioning Projects that was restructured in 2017 to ensure the evaluation and approval of all the plans prepared for the projects under the company's management.



Decommissioning Plan

1. Preparation of the Decommissioning Plan:

Step 1: Diagnosis

In this stage, the socio-environmental diagnosis of the areas of the unit and the municipalities where these operations are inserted is conducted. The diagnosis considers the characterization of potentialities and limitations related to the physical, biotic and socio-economic environment and its objective is to map potential future uses for the area.

Step 2: Alternatives for Future Use

In this step, based on the diagnosis of the previous phase, the mapped future uses are evaluated by means of a multi-criteria analysis that assesses risks and identifies the most indicated future use from a technical and economic point of view for the area in question.

Step 3: Definition of the Decommissioning Actions

This stage defines the decommissioning actions that must be implemented for the physical, biotic and socio-economic environments to achieve the intended future use.

Step 4: Valuation of Decommissioning Actions

In this stage, the decommissioning actions defined in step 3 are evaluated, which will base the execution of the plans and whose overall value will subsidize the financial provision for the decommissioning of the unit.

2. Implementation Report on the Decommissioning Actions

At the end of the fourth stage, the decommissioning plan is consolidated and the unit monitors it. This document is prepared in its first version at the conceptual level and should evolve to the basic project executive level resulting from the approximation of the unit's end of useful life and the structures that comprise it.

2. Implementation Report on the Decommissioning Actions

Corresponds to the report that accompanies the execution of the decommissioning actions. This document involves the status of the actions, the evolution of their implementation and the results obtained in this stage. The period of decommissioning implementation varies according to the complexity of the unit and the structures that comprise it.

3. Decommissioning Actions Monitoring Report

After the implementation of the decommissioning actions, the post-decommissioning monitoring period will begin. This stage includes monitoring of physical, biotic and socio-economic indicators, designed to oversee the effectiveness of the implemented actions.

Monitoring will be conducted for at least five years, and this period may be extended if the indicators do not reach the desired results and/or stability.



Vazante Decommissioning

The evolution of the decommissioning plan for the Vazante unit in Minas Gerais illustrates how we conduct this process, which aims to achieve physical, chemical and biological stability in the area. Furthermore, we seek to reduce negative impacts, leaving a positive socio-economic and cultural legacy.

We initiated zinc mining in Vazante in 1969 and, ever since, we have invested in extending the useful life of the unit. The current forecast, based on probable and proven reserves, is that the mine will operate until 2027. However, we are conducting ongoing mineral resource research and development activities that could extend this horizon even more.

The current plan was based on a diagnosis of the physical, biotic and socio-economic environment that identified the potentialities and limitations of the region and supported the construction of a future-use plan for the area, which is to be reviewed every five years.

In the survey, the potential of developing ecotourism activities (taking advantage of the natural potential of caves and cavities in the region), teaching (unit mining structures) and religious tourism (Festa da Nossa Senhora da Lapa) was identified.

In line with this process, a Social Agenda was created, representing participatory dialogue with community representatives, public authorities and civil society entities. The end purpose was the preparation of a local development plan (detailed in the Community chapter).

In this context, the current plan also calls for environmental measures (physical, chemical and biological), such as actions to recover degraded areas, and alternatives for local development after the demobilization of our assets.

On the environmental side, the plan is consistently moving forward. The investment in the last five years was US\$ 2.5 million, a little more than 10% of the US\$ 21.4 million budgeted for the next five years, culminating in:

- › Recovery of 292 hectares, equivalent to about 600 football fields;
- › Decommissioning of two former ore processing and concentrating units, including one that was not operated for us but was incorporated into its service area as a result of extended life projects;
- › One decommissioned mining pit and four partially decommissioned, of a total of ten existing;
- › Five uncompensated sterile stacks of a total of eight existing;
- › One of the two tailings dams decommissioned by the State Environmental Foundation of Minas Gerais (Feam).
- › The replenished vegetation cover in these areas has created a favorable environment for the expansion of fauna species and the monitoring of this indicator has shown important evolution in the last five years.


As an example, the number of species of fauna found in the Lumiadeira pit and Sterile Stacks LCA 01 to 05 rose 108% for mammals, 140% for reptiles, 174% for birds and 250% for amphibians between 2013 and 2017. For birds, the number of species almost tripled and, currently, approximately 17% of the species in the Brazilian Cerrado are found in this area.

Flora and wildlife indicators (Amount of species)


Group	2013	2017	Variation
Birds	50	137	174.0%
Mammals	12	25	108.3%
Reptiles	5	12	140.0%
Amphibians	4	14	250.0%

Material Issue
Human Rights






2. Make sure
that they are not
complicit in human
rights abuses.




8. Undertake
initiatives
to promote
greater
environmental
responsibility.

8 DECENT WORK AND
ECONOMIC GROWTH



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Objective	Goal	Base year	2015	2016	2017	Form of Measurement
Ensure that suppliers comply with social and environmental risk prevention and mitigation practices	100% of the suppliers of critical categories engaged in the socio-environmental risk prevention and mitigation program	2014	Review of the qualification process of suppliers inserting socio-environmental criteria	Insertion of socio-environmental criteria in the process of qualification and adaptation of the checklist for audits on suppliers' premises	Regular supplier performance evaluation	Percentage of suppliers evaluated

GRI 103-1

The unification of the Commercial, Procurement and Logistics areas under the same department, conducted in 2017, led to important advances in supplier relations. With a more integrated vision, we were able to tap synergies between these operations, which allowed us to implement improvement actions throughout the year for a more efficient management of the entire supply chain.

Regardless of supplier size, we seek to engage everyone in the best socio-environmental practices, with a view toward ensuring the responsible use of natural resources and respect for workers' rights. Our Supplier Management Program encompasses four topics: cost/value, quality, contractual compliance (agreements and legal coverage) and homologation (tax compliance and licenses).

For qualification, we demand compliance with the labor, environmental and tax laws and regulations in force in the countries where we operate, as well as the safety criteria adopted for our operations. Upon implementation of the Ariba system in 2018, all suppliers will receive a copy of our Code of Conduct and must agree to the terms defined therein.

We also require they sign a specific document that vetoes the use of child labor or forced labor; this is so even though in our supplier base there are no operations deemed at risk for human rights violations. Clauses are included that determine the provision of a safe and healthy working environment, freedom of association and no discrimination due to gender, race, social class, nationality, religion, physical or mental disability, sexual choice, association with unions or political affiliation, among others.

GRI 407-1, 408-1, 409-1

Some companies receive technical visits from the Supply and Supplier Management areas. In the event of complaints alleging noncompliance with requirements related to human rights impacts, an investigation process is initiated to ascertain the facts and take the applicable actions, which may involve fines or contract termination. In 2017, no cases of violation of these conditions were registered. **GRI 409-1**

Supplier Collection

Criteria	Requirements ²⁰
Environmental	<ul style="list-style-type: none"> › Compliance with environmental legislation in the countries of operation › ISO 14001 standard › Health, workplace safety and environmental programs › Environmental risk prevention programs › Operating/Environmental Operation Licenses › Federal Technical Registration with Ibama
Socio-economic	<ul style="list-style-type: none"> › Compliance with all laws of the countries of operation (labor, tax, anti-corruption, etc.) › Does not appear on the "Slave Labor Dirty List" published by the Brazilian Labor and Employment Ministry › Signing of a document based on the SA 8000 standard, including non-use of forced or child labor, providing a safe and healthy working environment for workers, freedom to associate and non-discrimination of any kind

Note 20: Requirements vary according to the nature of the contract and the activity of the supplier

In 2017, 53% of new suppliers were selected and included in the system based on labor practice criteria and 1% on environmental, human rights and social impact criteria. The target through 2025 is to engage 100% of critical suppliers in social-environmental risk prevention and mitigation programs. No cases representing violation of human rights aspects were reported in the year. **GRI 414-1**



Suppliers Selected on the Basis of Socio-Environmental Criteria GRI 308-1, 414-1

	2015		2016		2017	
	Nº	%	Nº	%	Nº	%
Number of suppliers that the company considered selecting or contracting	1,159		1,558		2,639	
Environmental	20	2%	20	2%	36	1%
Human Rights	0	0%	14	1%	27	1%
Labor Practices	404	35%	765	49%	1,403	53%
Impacts on society	15	1%	17	1%	23	1%

Supply Chain GRI 102-9

Our supplier registry covers widely diverse segments: raw material inputs, waste management, environmental management, energy supply, minerals and chemical products, fuels in general, health services, packaging supply, transportation in general, MRO (Maintenance, Repair and Other), facilities and IT, services and maintenance, among others. At the end of 2017, 53,844 companies were registered, compared to 61,269 in 2016.

We do not have a specific policy for hiring local suppliers, but whenever possible and, as a tie-breaking criterion, we give preference to suppliers near our units. We take into account the advantages represented by proximity to the operations, identification with the culture and the impulse given to local development provided by a long-term relationship with companies from the communities. In addition, our units have free to acquire

non-critical services locally. We also encourage some suppliers, with larger purchase volumes, to open units close to our operations. In 2017, six in-company stores were installed near or inside the company's units.

Our purchases totaled US\$ 1,555 million in 2017, of which 75.6% were contracted from companies located in the regions where we operate.

Percentage of Products and Services Purchased Locally GRI 204-1

	2015	2016	2017
Total value spent on suppliers (US\$ million)	1,090.2	1,537.4	1,554.8
% spending on local suppliers ²¹	77.0%	65.1%	65.7%

Note 21: In Brazilian operations, suppliers are considered to be located in the cities of the microregions where the company units are located. In Peru, it is they who sell products and services throughout the country.

Outsourcing Management

We have implemented an Outsourcing Management Program designed to optimize management and improve the relationships with contracted companies. It operates through 25 multidisciplinary work fronts to improve procedures, tools, flows, indicators and provide greater clarity and definition regarding roles and responsibilities throughout each step of the service management process.

In 2017, we reviewed the tool, which became even more efficient due to the inclusion/change of some procedures, including the revision of the service codes for the units in Brazil. The database, containing more than 7 thousand codes, numbered 156 after the update. We also standardized the outsourced employee concept and classification, through the procedure and indicator unification by all units. The invitation-to-bid letter procedure was also improved, with more precise information for the supplier regarding the conditions for contracting services, highlighting aspects such as quality, workplace health and safety, environmental aspects, performance and rationalization of incurred costs.

As one of the program's initiatives, we conducted contract management training for professionals from the Três Marias and Juiz de Fora units, run by a consulting firm and representatives of the main interface areas (Supplies, Legal, Human and Organizational Development, SSMA, Controllership/Tax, Management and CSC). The objective was to strengthen understanding of the new system, presenting in detail our Contract Cell structure and to share concepts, facilitating communication and synergy with the areas.

The Três Marias, Juiz de Fora and Cajamarquilla units are pioneers in the establishment of the Contract Cell, whose commitment is to employ the best management practices. The aim is to reduce costs, mitigate risks, comply with legal obligations and company policies, and implement transparency and predictability for the contractor and contractees.

Ariba Project

One of the year's main initiatives was the setup of the SAP Ariba platform, an advanced digital solution that will bring greater efficiency, transparency and traceability throughout the entire supply chain. It is a system for exchanging documents and consulting information via the internet, including price quotes, purchase orders, delivery notifications, collection schedule, measurement sheet, invoicing, invoice payment and payment forecasting queries, among others.

The implementation was conducted by the Supply and IT areas in a gradual manner; this involved introduction of the modules that make up the tool over several months and specific training for the employees directly linked to the purchasing processes in the Corporate Center and the units. Currently, 100% of the strategic negotiations are already transacted over the platform, ensuring that our commercial relations with the market is conducted in a more traceable fashion, with higher visibility and better relationship management with our suppliers.

The idea is for the Ariba platform to provide us with an online database, with social, environmental and financial indicators (screening) for 100% of our suppliers. Thus, it is possible to manage our contracts with greater accuracy and lesser risk. Toward this end, the biggest challenge will be the revision of the entire Peruvian supplier base, especially in the mines, due to the large outsourced labor base in our operations in the country. For the beginning of 2018, we are planning an event with the leaders of the Peruvian suppliers and Nexa's top management to pursue alignment of points of view.



GRI Content Index GRI 102-55

Indicators		Pages (Supplementary data)	External Assurance		
GRI 102: GENERAL DISCLOSURES					
102-1. Name of organization		79			
102-2. Primary brands, products and/or services		12			
102-3. Location of the organization's headquarters		115			
102-4. Location of operations		3 and 11			
102-5. Nature of ownership and legal form		10 and 22			
102-6. Markets served		12			
102-7. Scale of the organization		11 and 12			
102-8. Total number of employees		61			
		2015	2016		
			2017		
			Brazil		
Own employees	Paid monthly	Men	1,576	1,541	1,541
		Women	338	312	344
	Paid hourly	Men	1,204	1,196	1,213
		Women	45	51	65
	Trainees	Men	3	5	0
		Women	7	5	0
Interns and apprentices	Interns	Men	49	42	47
		Women	52	44	57
	Apprentices	Men	2	24	31
		Women	3	13	17
Service providers (third-parties)	Permanent	522	553	1,115	
	Temporary (projects)	1,752	359	396	
Total		5,553	4,145	4,826	
		2015	2016	2017	
				Abroad	
Own employees	Paid monthly	Men	2,246	2,075	2,098
		Women	163	168	165
	Paid hourly	Men	0	0	0
		Women	1	2	0
	Trainees	Men	18	25	14
		Women	1	7	6
Interns and apprentices	Interns	Men	80	28	26
		Women	33	18	19
	Apprentices	Men	0	4	0
		Women	0	1	0
Service providers (third-parties)	Permanent	5,782	6,029	5,856	
	Temporary (projects)		0	0	
Total		8,324	8,357	8,184	
		2015	2016	2017	
				Total	
Own employees	Paid monthly	Men	3,822	3,616	3,639
		Women	501	480	509
	Paid hourly	Men	1,204	1,196	1,213
		Women	46	53	65
	Trainees	Men	21	30	14
		Women	8	12	6
Interns and apprentices	Interns	Men	129	70	73
		Women	85	62	76
	Apprentices	Men	2	28	31
		Women	3	14	17
Service providers (third-parties)	Permanent	6,304	6,582	6,971	
	Temporary (projects)		359	396	
Total		13,877	12,502	13,010	

Indicators	Pages (Supplementary data)	External Assurance
Information Omitted	Reasons for Omission	Explanation for Omission
Gender of third-parties	Nexa Resources does not manage this information.	Not available
Type of work (full or part-time) of third-parties		
Comment: All employees are hired for an indefinite period; trainees and apprentices have temporary contracts.		
102-9. Supply chain		96
102-10. Significant changes in the organizational structure		6, 8 and 22
102-11. Precautionary principle	All of the company's operating units have obtained certification under the ISO 14001 standard. This standard is a tool that helps to identify, prioritize and manage environmental risks as part of day-to-day practices. It ensures that the company gives more attention to the most important business issues and it requires strong commitments by the company on pollution prevention and continuous improvement, integrating them into the routine business management cycle. The management system also takes into consideration the precautionary principle established by the United Nations Conference on Environment and Development in 1992 (Eco 92). The adoption of this principle is a way to guarantee the company against potential risks that, given the current state of knowledge, cannot yet be identified.	
102-12. Charters or other initiatives	Available in the online version	
102-13. Memberships of associations		33
102-14. CEO's statement		6 and 8
102-15. Description of key impacts, risks and opportunities		26 and 27
102-16. Values, principles and standards of behavior		26 and 27
102-18. Governance structure		23, 24 and 25
102-40. Stakeholder groups engaged		33
102-41. Employees covered by collective bargaining agreements	100% of employees are covered by collective bargaining agreements (Brazil)	
102-42. Basis for identification and selection of stakeholders		33
102-43. Approach to stakeholder engagement		32 and 33
102-44. Key topics and concerns identified and organization's approach		3
102-45. Entities included in the financial statements		3
2017		
Campos Novos Energia S.A. - "Enercan"		
Capim Branco Energia		
Cia. Minera Gaico S.A.		
Cia. Magistral S.A.C		
Cia. Minera Dona Isabel Ltda.		
Cia. Minera Shalipayco S.A.C		
Nexa Resources Atacocha S.A.A. - "NEXA ATACocha" (formerly Compañia Minera Atacocha S.A.A)		
Nexa Resources Perú S.A.A. - "NEXA PERU" (formerly Compañia Minera Milpo S.A.A - "Milpo")		
Consórcio UHE Igarapava		
InPac Holding Limited		
Inversiones Garza Azul S.A.C		
L.D.O.S.P.E Empreendimentos e Participações Ltda.		
L.D.Q.S.P.E Empreendimentos e Participações Ltda.		
L.D.R.S.P.E Empreendimentos e Participações Ltda.		
Nexa Resources El Porvenir S.A.C (formerly Milpo Andina Peru S.A.C.)		
Nexa Resources UK Ltd. - "NEXA UK" (formerly Milpo UK Limited)		
Minera Bongará S.A.		
Minera Cerro Colorado S.A.C		
Minera Chambará S.A.C		
Minera Pampa de Cobre S.A.C		
Minera Rayrock Ltda.		
Mininig Dardanelos Ltda.		
Mininig Santa Maria Ltda.		
Otavi Mining Investments (Pty) Ltd.		
Ojtombo Mining Proprietary Ltd.		
Pollarix S.A.		
Rayrock Antofagasta S.A.C		

Indicators	Pages (Supplementary data)	External Assurance	
SMRL CMA nº54			
SMRL Ltda. Pepita 1			
Votorantim Andina S.A. - "VASA"			
Votorantim GmbH			
Votorantim Investimentos Latino-Americanos S.A. - "VILA"			
Votorantim Metais Argentina S.A.			
Votorantim Metais Bolivia S.R.L.			
Nexa Resources Cajamarquilla S.A. - "NEXA CJM" (formerly Votorantim Metais Cajamarquilla S.A.)			
Nexa Recursos Minerais S.A. - "NEXA BR" (formerly Votorantim Metais Zinco S.A. - "VMZ")			
Votorantim Metais Canada Inc.			
Votorantim Metais Namibia. Ltd.			
Votorantim US. Inc.			
102-46. Report content and boundaries	3		
102-47. Material topics	3		
102-48. Restatements of information	57, 64, 73 and 91		
102-49. Significant changes in the material topics and topic boundaries	There were no significant changes in the scope and limits of the material aspects		
102-50. Reporting period	3		
102-51. Date of most recent report	3		
102-52. Reporting cycle	3		
102-53. Contact	3		
102-54. Report 'in accordance' option	3		
102-55. Report content Index	98		
102-56. External assurance policy	3		
GRI 103. MANAGEMENT APPROACH			
103-1. Explanation of the material topic and its boundary	61, 73, 75, 78, 82, 90 and 94		
103-2. Number of grievances related to environmental impacts filed, addressed, and resolved through formal mechanisms	7, 29, 61, 72, 73, 75, 78, 82 and 90		
We maintain dialogue with the leaders of the surrounding communities through regular visits, which are occasions when suggestions, complaints and returns are collected. The units also keep track of the demands of the community and work toward meeting relationship improvement goals, for example, by reducing response times. A weekly report is sent to the Unit's managers. In 2018, we will begin running the Community Dialogue/PDC Panels, holding periodic meetings throughout the year (monthly or bimonthly, according to each locality's characteristics), pursuant to the Relationship Protocol.			
103-3. Evaluation of the management approach	61, 72, 73, 75, 78, 82 and 90		
GRI 200. ECONOMIC SERIES			
GRI 201. ECONOMIC PERFORMANCE			
201-1. Direct economic value generated and distributed, including revenues, operating costs, employee remuneration, donations and other community investments, retained earnings and payments to capital providers and governments	57	✓	
Nexa Resources is a closed-capital company that adopts the accounting and governance practices of listed companies. It has its own board of directors that orients its long-term strategic direction and preserves its values and management beliefs. The generation and distribution of added-value is the result of activities performed after the preparation of long-term plans. These plans are based on macroeconomic scenarios, demand and availability of raw materials and energy, and are part of the strategic planning cycle, which also includes all material topics of sustainability and strategic targets. The monitoring of the budget execution includes the preparation of a statement of the value-added distributed (DVA). The DVA demonstrates the government taxes paid and the amounts distributed to the company's various stakeholder groups.			
Breakdown of Value-Added (US\$ thousand)	2015	2016	2017
Direct Economic Value Generated			
1) Revenues	-	-	-
1.1) Sales of products and services	2,706,831	2,265,111	2,070,659
1.2.) Other operating revenues (expenses)	5,279	408	11,491
1.3) Provision for bad debts	385	653	-285
1.4) Total revenues	2,712,495	2,266,172	2,081,865
2) Inputs acquired from third parties	-	-	-
2.1) Cost of goods sold	-1,511,124	-1,505,750	-1,053,232
2.2) Selling, general and administrative expenses	-43,673	-32,611	-28,380
2.3) Impairment of fixed assets	0	979	-8,574
3) Gross value-added	1,157,698	728,790	991,679
3.1) Depreciation, amortization and depletion	-270,454	-275,034	-295,258
4) Net value-added produced	887,244	453,756	696,421

Indicators	Pages (Supplementary data)	External Assurance	
5) Value-added received in transfers	-	-	
5.1) Equity pick-up	60	-158	-256
5.2) Realization of other impacts when investment is written-down	0	0	0
5.3) Financial revenues	167,827	507,731	201,426
Total value-added received in transfers	167,887	507,573	201,170
6) Total value-added to be distributed	1,055,131	961,329	897,591
7) Distribution of value-added	-	-	-
7.1) Salaries, benefits and social charges	278,285	233,755	202,876
7.1.1) Salaries	146,766	126,570	112,072
7.1.2) Benefits	76,677	66,863	60,761
7.1.3) Social charges	54,842	40,322	30,043
7.2) Taxes, tariffs and contributions	285,175	167,026	273,178
7.2.1) Federal	195,413	134,421	116,307
7.2.2) State	70,127	55,592	55,221
7.2.3) Municipal	138	114	113
7.2.4) Deferred taxes	19,497	-23,101	101,537
7.3) Remuneration of third-party capital	326,406	450,039	561,333
7.3.1) Financial expenses	298,008	428,650	543,357
7.3.2) Rents	28,398	21,389	17,976
7.4) Remuneration of own equity	165,265	110,509	-139,796
7.4.1) Net profit (loss) for the period	165,265	110,509	-139,796
8) Distribution of value-added	1,055,131	961,329	897,591
8.1) Economic value retained	-	-	-
8.2) Operating costs	-	-	-
GRI 202. MARKET PRESENCE			
202-1. Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.		-	
Nexa Resources remuneration policies and practices are in line with the market. The company does not discriminate salaries by gender. The salaries are established for Salary Groups (SG), each one being composed of a number of employee categories. The variations in salaries within each SG are due to merit, competence and service time served in the position.			
2015	In 2015 no employee earning below the local minimum salary was identified.		
2016	In 2016 no employee earning below the local minimum salary was identified.		
2017	In 2017 no employee earning below the local minimum salary was identified.		
Comments: 1. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.			
GRI 203. INDIRECT ECONOMIC IMPACTS			
203-1. Infrastructure investments and services supported..		84	
GRI 204. PROCUREMENT PRACTICES			
204-1. Proportion of spending on local suppliers at significant locations of operation.		96	
Amount spent on local suppliers	2015	2016	2017
Amount spent on local suppliers (US\$)	839,304,369.31	1,000,928,740.85	1,021,352,882.75
Total amount spent on local suppliers (US\$)	1,090,186,000.00	1,537,382,000.00	1,554,797,000.00
Percentage spent with local suppliers	77.0%	65.1%	65.7%
Information Omitted	Reasons for Omission	Explanation for Omission	
São Paulo head office	Indicator is not applicable to the São Paulo head office	Not Applicable	
Comments: 1. Indicator is not applicable to the São Paulo head office, since it does not fit into the classification criteria for local suppliers. 2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.			
GRI 205. ANTI-CORRUPTION			
205-2. Communication and training on anti-corruption policies and procedures		27	✓
The company's governance structure for fighting corruption includes: the Ethics Channel; Anti-Corruption Policy; Policy for Transactions with Stakeholders; internal audit; internal controls; and the compliance area. Training sessions on these policies are held annually for managers. All other stakeholders are informed about them through the Code of Conduct.			

Indicators					Pages (Supplementary data)	External Assurance
2017	Employee category	Total number of employees (405-1)	Total number of employees informed about anti-corruption policies	Percentage of employees informed about anti-corruption policies	Total number of employees who received anti-corruption training	Percentage of employees who received anti-corruption training
	CEO/Director	9	2	22.2%	0	0.0%
	Manager	106	101	95.3%	82	77.4%
Brazil	Coordinator/ Consultant	396	378	95.5%	322	81.3%
	Technician/ Analyst/Supervisor	497	370	74.4%	303	61.0%
	Trainee	0	0	0.0%	0	0.0%
	Operator	2,155	596	27.7%	172	8.0%
	Intern	103	71	68.9%	36	35.0%
	Apprentice	49	0	0.0%	0	0.0%
	Total	3,315	1,518	45.8%	915	27.6%
	CEO/Director	3	0	0.0%	0	0.0%
Manager	31	0	0.0%	0	0.0%	
Peru	Coordinator/ Consultant	138	1	0.7%	1	0.7%
	Technician/ Analyst/Supervisor	470	1	0.2%	1	0.2%
	Trainee	20	0	0.0%	0	0.0%
	Operator	1,621	0	0.0%	0	0.0%
	Intern	45	0	0.0%	0	0.0%
	Apprentice	0	0	0.0%	0	0.0%
	Total	2,328	2	0.1%	2	0.1%
	Business partners to which the anti-corruption policies and procedures adopted were communicated by the organization	Nexa Resources addresses the fight against corruption through its Code of Conduct which can be accessed by internal and external stakeholders. In addition, internally, it communicates specific standards and policies such as the Global Corporate Anti-Corruption Policy which is applicable to all employees.				
205-3. Confirmed cases of corruption and the actions taken by the organization					27	✓
GRI 300. ENVIRONMENTAL PERFORMANCE						
GRI 301. MATERIALS						
301-1. Materials used by weight and volume					-	✓
All Nexa Resources' raw materials are managed based on: a five-year demand forecast (strategic plan); available stocks of resources (renewable and non-renewable); management of licenses for mining and production; and installed production capacities. Each year in the budget the amounts of inputs are fine-tuned for the following year. During the current year sales and production are planned on a monthly basis to manage material flows.						
Consumption of main materials (metric tons)	Category	2015	2016	2017		
ROM (internal supply)	Non-renewable	12,671,535	13,206,043	12,976,233		
Concentrates (internal supply)	Non-renewable	1,215,433	1,209,593	1,143,562		
Other Materials (external supply)	Non-renewable	102,309	110,095	354,458		
Other Materials (internal supply)	Non-renewable	152,064	143,189	161,051		
Total weight of main materials	-	14,141,340	14,668,919	14,635,305		
Comments:						
1. For the purposes of this indicator Nexa Resources adopted the assumption of informing the main mineral ores and chemical inputs utilized by each unit. An input was considered to be significant when its consumption was equal or greater than one metric ton/month.						
2. Indicator is not applicable to the São Paulo head office.						
3. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.						
301-2. Percentage of materials used that are recycled materials					-	✓
Percentage of recycled materials	2015	2016	2017			
Total recycled materials used	84,070.31	78,633.23	92,298.30			
Total de materiais usados (GRI 301-1)	14,141,340.29	14,668,918.90	14,520,708.91			
Percentage of recycled materials used	1%	1%	1%			
Comments:						
1. The Juiz de Fora unit (Brazil) is the only unit that has recycling of materials						
2. Indicator is not applicable to the São Paulo head office.						
3. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.						
GRI 302. ENERGY						
302-1. Energy consumption within the organization					79	✓
Comments:						
1. Indicator is not applicable to the São Paulo head office.						
2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.						
302-2. Energy consumption outside the organization					79	✓
Comments:						
1. Indicator is not applicable to the São Paulo head office.						
2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.						

Indicators				Pages (Supplementary data)	External Assurance
302-3. Energy intensity				81	✓
Comments:					
1. Indicator is not applicable to the São Paulo head office.					
2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.					
GRI 303. WATER					
303-1. Total water withdrawal by source				76	✓
Comments:					
1. Nexa Resources' water balance was prepared according to the Water Accounting Framework (SMI/MCA, 2014), and encompassed the total volume of fresh water withdrawn and used by the organization. The data being reported included the withdrawal of surface water (rivers and the ocean), groundwater (from wells or the deepening of the mine itself, even when it is not used in the production process) and rainwater from the storage structures located at the units.					
2. Nexa conducts 28.8% of the measuring through equipment installed its units. The rest reported is calculated through estimates of the data					
3. Indicator is not applicable to the São Paulo head office.					
4. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.					
303-3. Percentage and total volume of water recycled and reused				76	✓
Comments:					
1. The figures were calculated according to the both the Water Accounting Framework (SMI/MCA, 2014), which uses the ratio of the total volume of reused water/ total volume of water used, and the GRI method, which uses the ratio of the total volume of reused water/total volume of fresh water withdrawn.					
2. Indicator is not applicable to the São Paulo head office.					
3. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.					
GRI 305. EMISSIONS					
305-1. Direct (Scope 1) GHG emissions				80 and 81	✓
Comments:					
1. Indicator is not applicable to the São Paulo head office.					
2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.					
305-2. Energy indirect (Scope 2) GHG emissions				80 and 81	✓
Comments:					
1. Indicator is not applicable to the São Paulo head office.					
2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.					
305-3. Other indirect (Scope 3) GHG emissions				80 and 81	✓
Comments:					
1. Indicator is not applicable to the São Paulo head office.					
2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.					
3. The data presented is included in the greenhouse gas (GHG) emissions inventory which is prepared based on NBR ISO 14.064-1/07 and the Brazilian GHG Protocol program.					
305-4. GHG emissions intensity				81	✓
Comments:					
1. Indicator is not applicable to the São Paulo head office.					
2. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.					
GRI 306. EFFLUENTS AND WASTE					
306-1. Total water discharged by quality and destination				-	✓
We comply with all legal requirements concerning effluents and waste and with the values specified in the respective licensing processes. We have set a corporate goal that aims to reduce the generation of waste per metric ton produced in all processes. To achieve this our technology teams seek to develop new techniques and technologies, for more sustainable and profitable alternatives for the waste generated, as well as other relevant aspects.					
Volume discharged (cubic meters)	2016	2017			
Effluents requiring treatment	195,763,337.25	109,108,670.72			
Effluents not requiring treatment	741,000.00	814,900.70			
Effluents not classified	0	10,489,891			
Total	196,504,337.25	120,413,462.72			
Destination (cubic meters)	2016	2017			
Reused by the organization	73,791,210.96	61,961,922.26			
Reusing by another organization	0	0			
Sea	1,521,739.50	1,993,276.50			
Lakes	0	0			
Rivers	119,021,406.80	107,700,668.50			
Other (specify)	2,169,980.00	10,489,891.41			
Comments:					
1. Indicator is not applicable to the São Paulo head office.					
306-2. Total weight of waste by type and disposal method				74	✓
Total weight of waste (metric tons)	2015	2016	2017		
Disposal of NON-HAZARDOUS waste	13,498.74	13,967.10	15,436.58		
Composting	880.41	867.22	726.58		
Reuse/recycling	9,034.83	10,807.76	11,394.02		
Recovery	1,316.00	0.00	0.00		
Incineration (or use as a fuel)	0.00	29.19	79.33		
Sanitary landfill	1,183.77	1,574.56	1,741.21		
Co-processing/processing	0.00	11.00	140.70		
Storage on site	1,015.84	555.55	1,311.58		

Indicators		Pages (Supplementary data)	External Assurance
Underground injection of waste	0.00	0.00	0.00
Industrial landfill	67.89	121.82	43.17
Disposal of HAZARDOUS waste	5,159.61	2,909.59	3,053.62
Composting	0.00	0.00	0.00
Reuse/recycling	363.31	408.18	372.79
Recovery	4.43	13.51	5.93
Incineration (or use as a fuel)	0.18	0.27	0.19
Sanitary landfill	0.00	0.00	0.00
Co-processing/processing	736.80	766.81	732.38
Storage on site	646.96	365.50	175.43
Underground injection of waste	716.00	0.00	0.00
Industrial landfill	2,691.93	1,355.32	1,766.90
TOTAL waste disposal	18,658.35	16,876.69	18,490.20
Composting	880.41	867.22	726.58
Reuse/recycling	9,398.14	11,215.94	11,766.81
Recovery	1,320.43	13.51	5.93
Incineration (or use as a fuel)	0.18	29.46	79.52
Sanitary landfill	1,183.77	1,574.56	1,741.21
Co-processing/processing	736.80	777.81	873.08
Storage on site	1,662.80	921.06	1,487.01
Underground injection of waste	716.00	0.00	0.00
Industrial landfill	2,759.82	1,477.14	1,810.07

Comments:

- Indicator is not applicable to the São Paulo head office.
- Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.
- The final disposal of waste is carried out in accordance with the classification of waste defined in NBR 10.004.
- The data reported in previous years for mining operations in Peru was reclassified. As from 2016 the data includes the amounts of metals and mining waste injected underground.

GRI 307. ENVIRONMENTAL COMPLIANCE

307-1. Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

A high proportion of Nexa Resources' products are sold to other industries (B2B). Therefore, we follow the criteria required by our customers in relation to these issues. For the products destined to direct consumption we have developed best practice manuals including information on their use and disposal.

Period	2015	2016	2017
Total number of legal sanctions	11	3	5
Total monetary value of significant fines	1,010,249.24	378,547.60	964,411.75
Legal actions filed through arbitration mechanisms	0	0	0

Comments:

- This item included the fines and sanctions received and amounts paid, including both completed legal actions and administrative proceedings.
- Indicator is not applicable to the São Paulo head office.
- Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.

GRI 308. SUPPLIER ENVIRONMENTAL ASSESSMENT

308-1. Percentage of new suppliers that were selected considering environmental criteria

96

Comments:

- Indicator is not applicable to the São Paulo head office.

GRI 400. SOCIAL

GRI 401. EMPLOYMENT

ASPECT: EMPLOYMENT

401-1. Total number and rates of new employee hires and employee turnover by age group, gender and region

37

The company's guidelines and policies for human resources include:

- Hiring: the company values the candidates' skills, with fair and equitable opportunities for all groups.
- Career management: the company values meritocracy, pragmatism, excellence, open dialogue on all issues, and a sense of belonging. Career management includes the setting of short and long-term targets, management of an opportunities pipeline and professional training, including courses at the corporate university (Votorantim Academy).
- Termination: the employee leaving completes a questionnaire on the degree of his/her satisfaction/motives for leaving. This is conducted in the cases of both voluntary and involuntary terminations in order to understand the circumstances and improve the management of the subject.

Indicators		Pages (Supplementary data)	External Assurance
2017			
Brazil			
		Age Group	
	Men	Women	Under 30 years old Between 30 and 50 years old Over 50 years old
Total employees (GRI 102-8)	2,754	409	874 1,995 294
Employees hired	379	144	329 188 6
Terminations	422	130	237 225 90
Rate of new hires	14%	35%	38% 9% 2%
Abroad			
		Age Group	
	Men	Women	Under 30 years old Between 30 and 50 years old Over 50 years old
Total employees (GRI 102-8)	2,112	171	255 1,485 543
Employees hired	191	69	103 145 12
Terminations	254	104	146 182 46
Rate of new hires	9%	40%	40% 10% 2%
Rates			
New hires	14%		
Terminations	17%		
Information Omitted		Reasons for Omission	Explanation for Omission
Turnover rate		Not managed	Not managed

GRI 403. OCCUPATIONAL HEALTH AND SAFETY

403-2. Type of injury and rates of injury, occupational diseases, lost days, absenteeism and total number of work-related fatalities, by region and gender

66 and 67



Occupational Health and Safety Indicators

	2015	2016	2017
Man-hours worked (own, permanent third-parties, temporary third-parties and Capex Projects)	32,091,747	32,978,913	33,771,849
Total number of injuries (Level 1)	145	211	200
Total number of injuries without lost days (Levels 2 and 3)	47	50	44
Total number of injuries with lost days (Levels 4, 5 and 6)	26	24	39
Fatalities	1	2	7
Number of lost days	2,263	674	748
Injury Rate (IR)	0.45	0.45	0.49
Occupational Disease Rate (ODR)	3.44	0.33	0
Lost Days Rate (LDR)	14.10	4.09	2.61
Frequency rate of injuries with and without lost days	2.27	2.25	2.46
Frequency rate of injuries with lost days	0.81	0.73	1.15

Information Omitted

Information on third-parties by gender

Number of occupational diseases, non-occupational diseases and accidents outside work for permanent and temporary third-party contract staff and those working on Capex projects.

Nexa Resources does not manage this information.

Not available

Absenteeism rate

Comments:

- The frequency rate of injuries with and without lost days was calculated based on the total number of injuries for Levels 2 to 5, for own employees, permanent and temporary third-party contract staff, and those working on Capex projects, multiplied by one million and divided by the total man-hours worked.
- The calculations of injury rates do not include Level 1 injuries (outpatient care).
- The calculation of lost days is defined as the number of days elapsed, beginning on the day after the accident.
- We do not manage the absenteeism rate, since we manage, monitor and improve the controls that are part of our efforts on behalf of the well-being, health and safety of our employees, based on the rates for accident severity and frequency and with and without lost time, among other performance indicators.

GRI 404. TRAINING AND EDUCATION

404-1. Average number of hours of training per year per employee by gender, and by employee category

62 and 63

Each unit develops its own training plans based on the technical and management needs of its operations. For management training the company uses Votorantim's corporate university (Votorantim Academy), which provides courses on leadership development and the preservation of the company's values and management beliefs.

Performance evaluations are carried out annually. The objectives and the targets to be achieved during the current period are defined for each position. In January each year, the results are evaluated using a standard format.

Employee categories	Gender	2015	2016	2017
CEO/Director	Women	20	18	4
	Men	21	21	2
Manager	Women	54	41	32
	Men	61	46	33

Indicators		Pages (Supplementary data)	External Assurance
Coordinator/Consultant	Women	32	19
	Men	42	23
Technician/Analyst/Supervisor	Women	25	42
	Men	47	66
Trainee	Women	85	85
	Men	33	140
Operator	Women	8	22
	Men	25	35
Intern	Women	16	18
	Men	11	21
Apprentice	Women	24	7
	Men	64	15
Overall average	Women	23	30
	Men	31	40

GRI 405. DIVERSITY AND EQUAL OPPORTUNITY

405-1. Composition of governance bodies and breakdown of employees by employee category, by gender, age range, minority group, and other diversity indicators

61

All new hires in Nexa are selected based on their skills. No distinction is made in terms of gender, age groups, minorities, ethnic groups, etc.

Employee categories	Gender	Total employees	Age Group		
			Under 30 years old	Between 30 and 50 years old	Over 50 years old
CEO/Director	Men	11	0	5	6
	Women	1	0	0	1
Manager	Men	115	1	83	31
	Women	22	0	20	2
Coordinator/Consultant	Men	381	54	262	65
	Women	153	39	111	3
Technician/Analyst/Supervisor	Men	771	132	524	115
	Women	196	84	103	9
Trainee	Men	14	14	0	0
	Women	6	6	0	0
Operator	Men	3,574	719	2,261	594
	Women	202	80	111	11
Intern	Men	73	71	2	0
	Women	76	75	1	0
Apprentice	Men	32	31	1	0
	Women	17	17	0	0

Composition of minority groups in the organization

	2015	2016	2017
Employees over 50 years old	-	858	837
Women	-	618	673

Composition of governance bodies (Board Members and Directors) by gender

	2015	2016	2017
Men	-	13	16
Women	-	1	1

Composition of governance bodies (Board Members and Directors) by age group

	2015	2016	2017
Under 30 years old	-	0	0
Between 30 and 50 years old	-	4	5

	2015	2016	2017
Composition of minority groups in the organization	-	10	7

405-2. Ratio of basic salary and remuneration of women to men by employee category, at significant locations of operation

-

Nexa remuneration policies and practices are in line with the market. The company does not discriminate salaries by gender. The salaries are established for Salary Groups (SG), each one being composed of a number of employee categories. The variations in salaries within each SG are due to merit, competence and service time in the employee category.

Employee category	2016		2017	
	Salary	Remuneration	Salary	Remuneration
CEO/Director	Not reported	Not reported	Not reported	Not reported
Manager	1.18	1.21	0.96	0.98
Coordinator/Consultant	0.87	0.88	1.09	1.10
Technician/Analyst/Supervisor	0.81	0.82	0.84	0.85
Trainee	0.40	0.40	0.45	0.45
Operator	0.67	0.66	0.75	0.75
Intern	0.78	0.81	0.89	0.89
Apprentice	0.84	0.84	0.94	0.94

Indicators	Pages (Supplementary data)	External Assurance
Information Omitted	Reasons for Omission	Explanation for Omission
Base salary and remuneration of the CEO/Director category	Confidential information	Confidential information

GRI 406. NON-DISCRIMINATION

406-1. Total number of reports of discrimination and actions taken

29

Comments:
1. Of the 27 reports considered valid, 10 were related to harassment and/or abuse of power and 17 to other categories. For the reports considered valid, corrective measures were taken, including: dismissals, verbal warnings, suspensions and/or transfers.
2. The category "Other" included reports related to: persecution, violations of labor laws, conflicts of interest, disrespect, discrimination, accusations or complaints associated with health, safety and the environment

GRI 408. CHILD LABOR

408-1. Operations and suppliers at significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.

27 and 95

Comments:
1. Indicator is not applicable to the São Paulo head office.

GRI 409. FORCED OR COMPULSORY LABOR

409-1. Operations and suppliers at significant risk for incidents of forced or compulsory labor, and measures taken to contribute to the elimination of all forms of forced or compulsory labor.

27 and 95

Comments:
1. Indicator is not applicable to the São Paulo head office.

GRI 412. EVALUATION IN HUMAN RIGHTS

412-2. Total number of hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.

27 and 29

PERFORMANCE: SOCIETY

GRI 413. LOCAL COMMUNITIES

413-1. Percentage of operations with local community engagement, impact assessments, and development programs

82

GRI 414. SUPPLIER SOCIAL ASSESSMENT

414-1. Percentage of new suppliers that were selected considering labor practices' criteria.
Percentage of new suppliers that were selected considering human rights criteria.
Percentage of new suppliers that were selected using criteria for impacts on society.

95 and 96

Comments:
1. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.

GRI 419 - SOCIOECONOMIC COMPLIANCE

419-1. Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations in the social and economic area

-

The management of legal compliance is accomplished through the Legal Department's internal processes, which are applied to the whole of the organization's operations. This includes the use of specialized and dedicated systems to ensure the review by, and approval of, the Legal Department. In addition, we have intensified the management of corporate procedures and policies, with the establishment of procedures for all areas affected by legal aspects and liable to corruption. We also implemented ongoing training programs, especially on the topics of anti-corruption and anti-trust.

Year	2015	2016	2017
Total value of significant fines (US\$)	12,325,721.34	26,280,637.49	30,339,871.16
Number of non-monetary sanctions	0	0	0
Legal actions filed through arbitration mechanisms	0	0	0

Comments:
1. This item included the fines and sanctions received and amounts paid, including both completed legal actions and administrative proceedings.
2. Does not include information on the Fortaleza de Minas and Cajamarquilla units. Information is not available.

Sub-category: Metals and Mining Sector

MM1. Amount of land (owned or leased, and managed for production or extractive activities) disturbed or rehabilitated.

-

All our mining units have plans for the environmental rehabilitation of their areas, in accordance with the development of the mines, and their remediation costs are accounted for in the company's financial statements. The company has a department which manages the release of the area and its environmental rehabilitation (LARA). This department also prepares plans for the management of green areas and decommissioning, in accordance with Votorantim Metais' Management Standards.

Area of disturbed or rehabilitated land (hectares)	2015	2016	2017
Total area of land disturbed and not yet rehabilitated	1,283	3,190	2,094
Total area of land disturbed during the reporting period	19	32	9
Total area of land rehabilitated during the reporting period, considering the agreed end-use	131	148	119
Total area of land disturbed and not yet rehabilitated	1,171	3,074	2,027

Comments:
1. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended.
2. Indicator is not applicable to the São Paulo head office.

Indicators	Pages (Supplementary data)		External Assurance
MM2. The number and percentage of total sites identified as requiring biodiversity management plans (BMP), and the number of sites with plans in place.	-		✓
Year	2015	2016	2017
Total number of units	8	7	8
Total number of units identified as requiring a BMP	3	4	4
Number of units that have a BMP in place	2	2	4
Percentage of units that have a BMP in place	67%	50%	100%
Comments: 1. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended. 2. Indicator is not applicable to the São Paulo head office.			
MM3. Total amounts of overburden, rock, tailings and sludge and their associated risks.	74		✓
Comments: 1. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended. 2. Indicator is not applicable to the São Paulo head office.			
MM4. Number of strikes and lock-outs exceeding one week's duration, by country.	-		
Management is proactively seeking to identify the requests of employees and their union leaders, and to comply with the terms of the collective agreements in each of the operational areas. The monitoring of relations with employees occurs continuously throughout the year, through meetings between supervisors and their teams to address the problems identified in anticipation of the demands by trade unions. The aim is to maintain friendly and ongoing relations with the unions in order to prevent critical situations.			
2015	There were no cases of strikes or stoppages lasting more than a week in 2015.		
2016	There were no cases of strikes or stoppages lasting more than a week in 2016.		
2017	There were no cases of strikes or stoppages lasting more than a week in 2017.		
MM5. Total number of operations taking place in, or adjacent to, indigenous peoples' territories, and the number and percentage of operations or sites where there are formal agreements with indigenous peoples' communities	-		
Even though Nexa Resources does not currently have operations in, or adjacent to, indigenous lands, the company considered that this possibility could arise in future projects and created a Traditional Communities Committee with the task of preparing guidelines and procedures to deal with the issue. This committee is composed of representatives from the areas of communications, mineral exploration, sustainability, environment, legal and the Votorantim Institute. These areas work together to prepare plans and actions.			
Year	2015	2016	2017
Total number of operations located in, or adjacent to, indigenous peoples' territories	0	0	0
Number of operations that have formal agreements on community benefits or community development plans with indigenous peoples' communities	0	0	0
Percentage of operations that have formal agreements on community benefits or community development plans with indigenous peoples' communities	0	0	0
Comments: 1. Indicator is not applicable to the Fortaleza de Minas unit, since its production activities have been temporarily suspended. 2. Indicator is not applicable to the São Paulo head office.			
MM6. Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples	-		
2015	There were no cases of significant disputes with local communities or indigenous peoples relating to land use and customary rights.		
2016	In 2016, there was a conflict situation related to land use with the local community in Anexo de Jorainiyc, in the Community of Yarusyacán, in the region of Pasco, Peru.		
2017	There were no cases of significant disputes with local communities or indigenous peoples relating to land use and customary rights.		

Indicators	Pages (Supplementary data)		External Assurance
ARTISANAL AND SMALL SCALE MINING			
MM8. Number (and percentage) of company operating units where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks	-		
Nexa Resources does not have any areas that have artisanal or small-scale mining. Nexa Resources' environmental management system requires that a risk assessment be carried out for any new project or any change in the operations of the existing units.			
Year	2015	2016	2017
Locations where artisanal mining activities take place on, or adjacent to, the site, or in locations that may pose risks to the organization's operations.	Not applicable	Not applicable	Not applicable
Nature of the risks associated with artisanal and small-scale mining, and the measures taken by the organization to manage and mitigate these risks.	Not applicable	Not applicable	Not applicable
The total number and percentage of these sites in relation to the total number of the organization's operations.	Not applicable	Not applicable	Not applicable
MM9. Sites where resettlement took place, the number of households resettled in each, and how their livelihoods were affected in the process	-		
Nexa Resources has developed a standard for the health, safety, environment (HSE) and sustainability requirements of projects and this standard requires that any need for resettlement be registered. Over the past five years no new mining areas have been opened. Thus, there was no need for re-allocations or payment of compensation.			
2015	In 2015 there was no need to create a resettlement program, because there were no families or individuals in this situation. Consultation and practical measures to restore an affected community were not necessary, as this did not occur due to the actions of our operations.		
2016	In 2016 there was no need to create a resettlement program, because there were no families or individuals in this situation. Consultation and practical measures to restore an affected community were not necessary, as this did not occur due to the actions of our operations.		
2017	In 2017 there was no need to create a resettlement program, because there were no families or individuals in this situation. Consultation and practical measures to restore an affected community were not necessary, as this did not occur due to the actions of our operations.		
Year	2015	2016	2017
Report the number of families involved in any resettlement program. If available, report the number of individuals or an estimate.	0	0	0
Identify the sites where communities were resettled.	0	0	0
Report the consultation processes and practical steps taken to restore the affected community, to mitigate the impacts of the changes. What were the results of these measures in terms of the impacts on livelihoods, including sustainable land use?	0	0	0
Report any significant disputes related to resettlement and the measures employed to address these issues.	0	0	0
MM10. Number and percentage of operations with a closure plan (Decommissioning Plan)	91		✓
Year	2015	2016	2017
Total number of operations	13	13	13
Total number of operations with decommissioning plans	13	13	13
Percentage of operations with decommissioning plans	100%	100%	100%
Financial provision for the closing of activities	219,575,025.82	208,886,624.15	260,942,224.80
Comments: 1. Due to the nature of its activities the São Paulo Head office does not require a decommissioning plan.			

Independent auditors' limited assurance report on information related to sustainability included in the Annual Report for 2017 - Nexa Resources S.A.

To the Management of
Nexa Recursos Minerais S.A.
São Paulo - SP

Introduction

We have been engaged by Nexa Recursos Minerais S.A. (formerly Votorantim Metais Zinco S.A.) ("Nexa" or "Company") to present our limited assurance report on the compilation of the information related to sustainability included in the Annual Report for 2017 - Nexa Resources S.A. of Nexa, for the year ended December 31, 2017..

Responsibilities of the Company's management

The management of Nexa is responsible for the preparation and fair presentation of the information included in the Annual Report for 2017 - Nexa Resources S.A., in accordance with the guidelines of the Global Reporting Initiative (GRI Standard) and for such internal control as it determines is necessary to enable the preparation of information free from material misstatement, whether due to fraud or error.

Independent auditors' responsibility

Our responsibility is to express a conclusion on the information included in the Annual Report for 2017 - Nexa Resources S.A., based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01, "Issue of an Assurance Report related to Sustainability and Social Responsibility", issued by the Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that we comply with ethical requirements, including independence requirements, and perform our engagement to obtain limited assurance that the information included in the Annual Report for 2017 - Nexa Resources S.A., taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the Brazilian standard NBC TO 3000 and ISAE 3000 mainly consists of making inquiries of management and other professionals of the entity involved in the preparation of the sustainability information, as well as applying analytical procedures to obtain evidence that allows us to issue a limited assurance conclusion on the information, taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead the auditor to believe that the information taken as a whole might present significant misstatements.

The procedures selected are based on our understanding of the aspects related to the compilation and presentation of the information included in the Annual Report for 2017 - Nexa Resources S.A., other circumstances of the engagement and our analysis of the areas in which significant misstatements might exist. The following procedures were adopted:

- (a) Planning the work, taking into consideration the materiality and the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the information included in the Annual Report for 2017- Nexa Resources S.A. of Nexa.
- (b) Understanding the calculation methodology and the procedures adopted for the compilation of indicators through interviews with the managers responsible for the preparation of the information.
- (c) Applying analytical procedures to quantitative information and making inquiries regarding the qualitative information and its correlation with the indicators disclosed in the information included in the Annual Report for 2017 - Nexa Resources S.A.
- (d) Comparing the financial indicators with the financial statements and/or accounting records.

The limited assurance engagement also included the application of procedures to assess compliance with the guidelines of the Global Reporting Initiative (GRI Standard) applied in the compilation of the information related to sustainability included in the Annual Report for 2017 - Nexa Resources S.A.

We believe that the evidence we obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Scope and limitations

The procedures applied in a limited assurance engagement are substantially less detailed than those applied in a reasonable assurance engagement, the objective of which is the issue of an opinion on the information related to sustainability included in the Annual Report for 2017 - Nexa Resources S.A. Consequently, we were not able to obtain reasonable assurance that we would become aware of all significant matters that might be identified in an assurance engagement, the objective of which is the issue of an opinion. If we had performed an engagement with the objective of issuing an opinion, we might have identified other matters and possible misstatements in the information related to sustainability included in the Annual Report for 2017 - Nexa Resources S.A. Therefore, we do not express an opinion on this information.

Non-financial data is subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate and estimate these data. Qualitative interpretations of the relevance, materiality, and accuracy of the data are subject to individual assumptions and judgments. Furthermore, we did not consider in our engagement the data reported for prior periods, nor future projections and goals.

Conclusion

Based on the procedures performed, described herein, no matter has come to our attention that causes us to believe that the information included in the Annual Report for 2017 - Nexa Resources S.A. of Nexa Recursos Minerais S.A. (formerly Votorantim Metais Zinco S.A.) has not been compiled, in all material respects, in accordance with the guidelines of the Global Reporting Initiative (GRI Standard).

São Paulo, April 23, 2018

PricewaterhouseCoopers
Contadores Públicos Ltda.
CRC 2SPO23173/O-4

Eliane Kihara
Contadora CRC 1SP212496/O-5

Forward Looking Statement

This report contains certain forward-looking information and forward-looking statements as defined in applicable securities laws (collectively referred to in this report as “forward-looking statements”). All statements other than statements of historical fact are forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Nexa to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements include estimates, forecasts, and statements as to management’s expectations with respect to the business and operations of the Company and mining production and smelting sales for future periods.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Statements concerning future production costs or volumes are based on numerous assumptions of management regarding operating matters and on assumptions that demand for products develops as anticipated, that customers and other counterparties perform their contractual obligations, that operating and capital plans will not be disrupted by issues such as mechanical failure, unavailability of parts and supplies, labor disturbances, interruption in transportation or utilities, adverse weather conditions, and that there are no material unanticipated variations in the cost of energy or supplies.

We assume no obligation to update forward-looking statements except as required under securities laws. Further information concerning risks and uncertainties associated with these forward-looking statements and our business can be found in our public disclosures filed under our profile on Sedar (www.sedar.com) and on Edgar (www.sec.gov).

Corporate Information

Board of Directors

Luis Ermirio de Moraes – Chairman
Daniella Dimitrov
Diego Cristóbal Hernandez Cabrera
Eduardo Borges de Andrade Filho
Edward Ruiz
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Aricely Lamontanha e Luiz Perez

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We appreciate the support and cooperation of the managers and other colleagues involved in the corporate and industrial areas of Nexa Resources, for information calculation and analysis.

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