2018 Annual report

Interactive content

Use the index as the navigation menu. From anywhere in the report, click the heading to return to the index.

In the GRI Summary navigate to the content by clicking on the pages indicated in the "pages and/or links" column.

By clicking on an external link, the indicated site will open automatically in your browser.

About this **report**

The online report is available at
votorantim.com/annualreport

For the eighth consecutive year, investment holding company Votorantim S.A. (Votorantim) publishes its Annual Report for stakeholders, showcasing its operating model, initiatives, advances, challenges, and social, environmental and operating performance, as well as consolidated economic and financial results as audited by PwC. This report also addresses Votorantim's influence on its investees.

Economic and financial information, and the social, environmental and operating performance reported herein consolidate the results of the following investees in Votorantim's portfolio:

- Votorantim Cimentos
- Nexa Resources
- Companhia Brasileira de Alumínio (CBA)
- Votorantim Energia
- Acerías Paz del Río
- Acerbrag
- Citrosuco
- Banco Votorantim

The practices and results presented herein reflect only part of the results reported by each investee; for further details, please read their respective Annual Reports. **102-45** | **102-56**

This document refers to fiscal year 2018, except for Citrosuco, whose data is relative to the season beginning July 2017 and ending June 2018. This report adopts the Global Reporting Initiative (GRI) Standards, Core option. It has also been prepared based on guidance by the International Integrated Reporting Council (IIRC), and on the United Nations Sustainable Development Goals (SDGs). **102-50** | **102-52** | **102-54**

PwC limitedly assured this report, which does not contain changes to scope and limitation. The online and complete version of this document is available on a microsite, and includes the Consolidated Financial Statements and GRI Content Index. Comments about this report can be forwarded to relatoriovsa@votorantim.com. **102-48** | **102-49** | **102-51** | **102-53** | **102-55**

Materiality 102-21 | 102-32 | 102-40 | 102-42 | 102-43 | 102-46

Materiality
is the process used to identify the material themes for the company to report on.

Materiality assessment is a process to identify relevant topics that substantively influence the assessments and decisions of stakeholders, so these are included and discussed in further detail in the Annual Report. Revision of material topics was conducted in 2018 by an external advisor in three stages:

1
Analysis of internal documents of different departments and of the investees.

2
Comprehensive interviews with the following:
- Votorantim executives.
- Members of sustainability and governance teams of the investees.
- Finance and sustainability specialists.
- Scholar specialists.
- Local and international market investors.

3
Analysis of data and information collected from documents and interviews.

Given the diversity of the business portfolio, the topics were structured as follows: (a) material for both Votorantim and investees, and (b) specifically material for each business in the portfolio.

Four topics were identified as material for Votorantim and investees: Strategy and results, Environment, Governance, and Social issues, in addition to specific topics. **102-47** | **102-44**

Materiality was approved by Votorantim's Executive Board, and the identified topics provide the basis for this report's content and the GRI indicators reported on.

2018 **Highlights** 102-10

Corporate

Celebration of **100 years** of history

Development of **innovation projects** at the Center of Excellence (CoE)

Incorporation of long steel operations in Brazil by ArcelorMittal

Acquisition of Companhia Energética de São Paulo (Cesp)

Business combination of Fibria and Suzano

People management

Reinforcement of the **Internship Program**

For the first time, the company was included in the Best Workplaces survey conducted by **Great Place to Work**

Vototalks Festival offered **20 online lectures**, which together attained nearly **10,000 views**

Economic & **financial**

Net revenue of **R$31.9 billion**, up 19% year-on-year

Net income of **R$2.0 billion**, up 141% year-on-year

Adjusted EBITDA of **R$6.9 billion**, up 47% year-on-year

Leverage of **1.91x** net debt/adjusted EBITDA

Social & environmental issues

Votorantim Partnership for Education (PVE) expanded to **104 Brazilian cities**, over twice as many as in the previous year

Reservas Votorantim started operating the **Statutory Nature Reserve Compensation** business

Legado das Águas' project for the **genetic mapping** of Atlantic Forest plants

Legado Verdes do Cerrado's **Agroforestry** project

"Voter's Guide" launch: **184,000 app downloads**

Contents

MESSAGE

Message from the **Board of Directors** 102-14

Left to right: Marcelo Medeiros, Luis Ermírio de Moraes, Cláudio Ermírio de Moraes, Raul Calfat, José Roberto Ermírio de Moraes, Pedro Wongtschowski, and Oscar Bernardes.

2018 was a very special year for us at Votorantim. In addition to celebrating our 100th anniversary, which is uncommon for a company not only in Brazil but globally, we made important changes to our portfolio. At the same time, our investees' performance led us to report more robust consolidated results than in the previous year—net revenue rose 19% to R$31.9 billion, adjusted EBTIDA went up by 47% to R$6.9 billion, and net income increased by 141% to R$2.0 billion.

After four consecutive years of downturn in the Brazilian cement industry, Votorantim Cimentos reported positive operating results. Our investees Nexa, CBA and Citrosuco benefited from the increase in average commodity prices, combined with the appreciation of the dollar against the Brazilian real. Better selling prices for long steel in Argentina and Colombia contributed to the results of this business. In the electric power business, we expanded our capacity in a sector that offers different investment opportunities in Brazil, and we created a platform for investments in renewable energy with the Canada Pension Plan Investment Board (CPPIB). Banco Votorantim increased its operational efficiency, diversified sources of revenue, and invested in its digital transformation.

When it comes to the transformation of our portfolio, we focused on reducing our exposure to cyclical commodities, and increased our exposure to sectors that have a more stable cash generation. Examples of changes in our portfolio were the business combination of Fibria and Suzano, and the acquisition of Companhia Energética de São Paulo (Cesp), company that owns three hydroelectric power plants—the primary plant is Porto Primavera, with installed capacity of 1.5 gigawatt, and whose concession period ends in 2048.

Capital allocation decisions were made in a turbulent scenario of uncertainty in Brazil. We operate in capital intensive industries, and make long-term investment decisions.

Our corporate governance—which is in line with listed companies in terms of transparency, risk management, and stakeholder communication—also contributes to our business model. We influence our investees into following this same model, therefore developing constructive relations with markets, communities, and society.

The way we are, and how we operate and manage our investees—based on the values of the family controlling shareholder—are also key to the businesses, which are ethically conducted and rely on compliance processes and internal controls. We are committed to adhering to our principles while continually evolving our governance—necessary in an ever-changing business environment.

We will continue to evolve and secure the continuity of our business, but at the same time we will be looking for investment opportunities by transforming our current portfolio in different regions. Not only that, but we will be evaluating existing businesses, and new initiatives.

In Brazil, we are about to see an agenda of important reforms for the country, focusing on government debt sustainability, consistent economic growth, and job creation. In this scenario, Votorantim has started 2019 with its companies adjusted in terms of capital structure, which will enable it to focus even more on value creation.

Raul Calfat
Chairman of the Board of Directors, Votorantim

MESSAGE

Message from the **Executive Board** 102-14

2018 was a year of political and economic uncertainty in Brazil, and we at Votorantim once again overcame the challenge of doing business and creating value in this scenario. We were prudent in our activities, but made significant advances in our portfolio transformation. 2018 was also the year when we celebrated Votorantim's centennial, which was very meaningful for us. The history of business in Brazil has few corporate centenarians, and reaching such a milestone is something to be extremely proud of. This milestone was built not only by us, but also by our clients, suppliers, employees, investors, and several other stakeholders.

We have always been committed to working towards our businesses' evolution and, more recently, to increasing the autonomy of our investees and supporting them in their strategies. We have been successful in such commitments, and our yearly results reflect that.

We faced the year with courage, which is proven by all our corporate actions. With courage, we came out of the Brazilian recession stronger; our companies better prepared, with their capital structures adjusted, and leaders motivated for future challenges. In another courageous move, we have allocated over R$10 billion to investments in our companies or to acquisitions for the last three years, despite the crisis.

In 2018, we made important changes to our portfolio. We announced the business combination of Fibria and Suzano and completed the incorporation of Votorantim Siderurgia by ArcellorMittal's operations in Brazil; both Fibria and Votorantim Siderurgia had been in our portfolio for many years, and we deeply admire them. Another achievement regarding the transformation of our portfolio was the acquisition of the controlling stock of Companhia Energética de São Paulo (Cesp) through the joint venture between Votorantim Energia and the Canada Pension Plan Investment Board (CPPIB). The joint venture currently manages 2.2 gigawatts of installed capacity, including the wind farms in northeastern Brazil.

Left to right, standing: João Schmidt, João Miranda, and Sergio Malacrida; sitting: Luiz Caruso, and Luiz Marcelo Fins.

The year of general elections in Brazil, marked with an important renewal in elected officials and parties, coincided with our centennial. Votorantim has always been absolutely certain of its role as a socially responsible business, reason why it has promoted an advertising campaign for voter awareness. Taking advantage of the fact that "Votorantim" carries the word "voto" (Portuguese word for vote), we created the motto "Eu voto" (I vote), and used it in themes that are key for the country, such as education, nature, and people. In addition to the advertising campaign, we created the "Voter's Guide", a mobile app that encourages the exercise of citizenship.

Such a conviction about helping build a better Brazil also translates into the different social investments we make; one highlight was the expansion of the Votorantim Partnership for Education (PVE) to over 100 municipalities. This initiative promotes better quality public education, which positively reflects in indicators, including the Basic Education Development Index (IDEB).

We started 2019 with the same courage that has always marked our history. Today we can expect the economy to recover, especially in Brazil. Globally, the sentiment is of caution—the year started with doubts over interest rates in the United States, and the escalation of tariff wars with China.

This is an environment where we will have to remain prudent when allocating capital, and firm in our belief in doing business the right way, by acting ethically and consistently, which has always permeated our strategic and operating decisions. We will continue to actively build a favorable environment for doing business, and contribute to a more inclusive and sustainable future in Brazil.

João Miranda
CEO, Votorantim

Transforming
opportunities into
great businesses
that create value.

Value for shareholders,
employees, and society.

Profile

The investment **holding company**

Votorantim is a Brazilian family-owned, long-term investment holding company with 100 years of history. The portfolio companies operate out of 20 countries in five continents, in seven businesses in the segments of building materials, metals and mining, aluminum, long steel, electric power, orange juice, and finance. **102-1** | **102-2** | **102-3** | **102-4** | **102-5** | **102-6**

With headquarters located in São Paulo, the holding company has a team of 125 professionals working in the Human and Organizational Development (Human Resources); Investor Relations; Communications; Legal; Governance, Risks, and Compliance; Financial Management; and Corporate Development departments.

Votorantim also has a Center of Excellence (CoE), which in 2018 consolidated the operations of the Shared Solutions, Real Estate Solutions, and Information Technology Proficiency centers. The CoE has a team of 773 employees working in São Paulo, and Curitiba (Brazil), and in Lima (Peru).

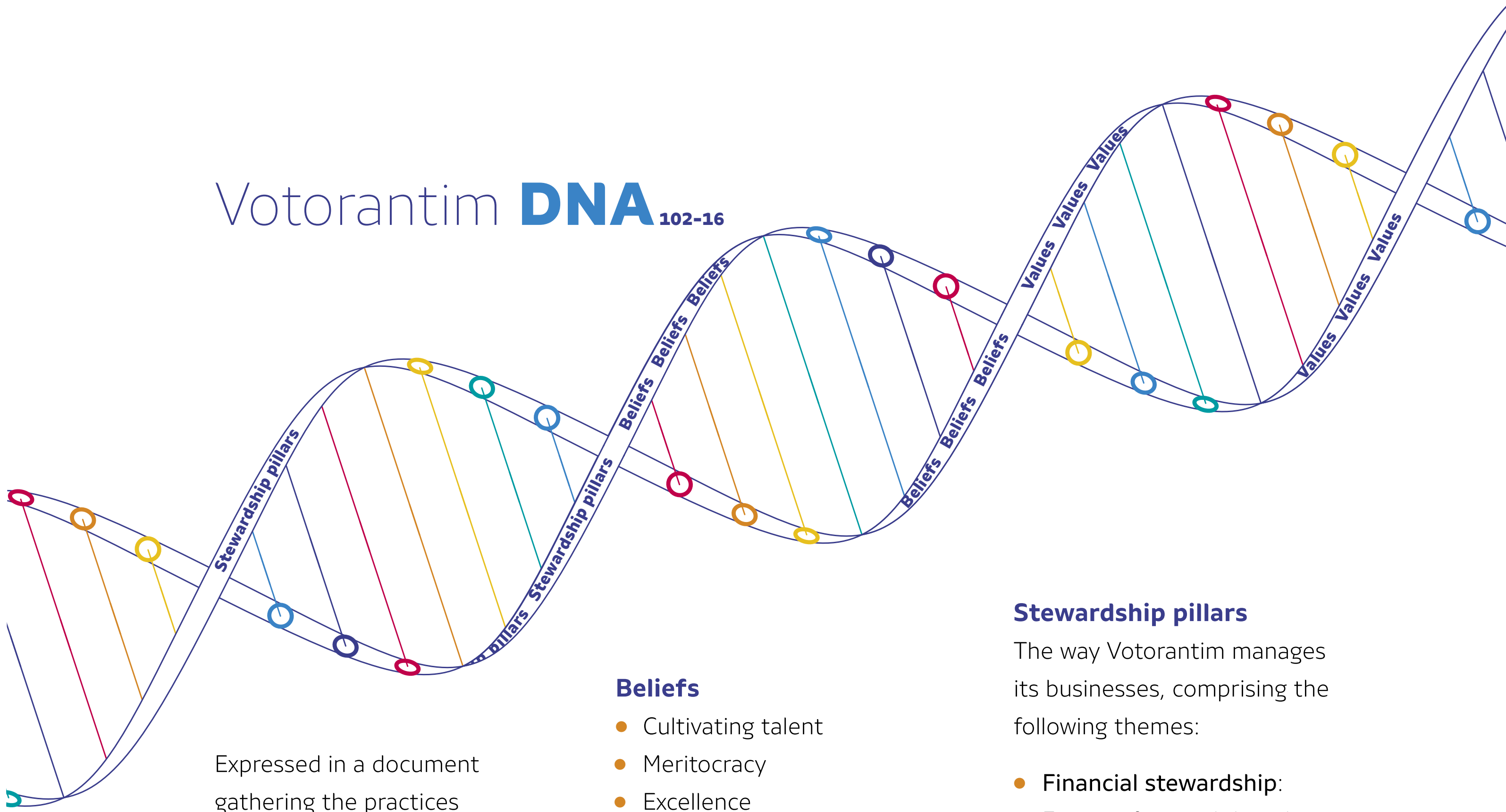
Considering all of its investees, Votorantim has over 36,000 direct employees and 6,000 indirect employees in 485 operating and administrative units. **102-8**

A high-performance culture permeates Votorantim's activities, focused on investment decisions and portfolio transformation, translating Votorantim's influence on its investees with the purpose of enhancing the businesses' value creation and ensuring their continuity. At the CoE, the high-performance culture joins forces with innovation, helping the Center to better identify and develop solutions to meet technological demands and increase its own productivity and that of the investees.

Votorantim also owns two environmental reserves, totaling 62,000 hectares equally divided into Legado das Águas—the largest private Atlantic Forest reserve in Brazil, located in the State of São Paulo—and Legado Verdes do Cerrado—the only private reserve for sustainable development in Brazil's Midwest, located in the State of Goiás.

Votorantim reported consolidated net revenue of R$31.9 billion and consolidated adjusted EBITDA of R$6.9 billion for 2018, up 19% and 47% year-on-year. **102-7**

Votorantim **DNA** 102-16



Expressed in a document gathering the practices Votorantim has adopted for its businesses over the century, the Votorantim DNA governs the holding company's and the investees' way of being, and how they operate and are managed.

Values

sereu

Soundness: Pursuing sustainable knowledge that creates value.

Ethics: Acting responsibly and transparently.

Respect: Respecting people, and being willing to learn.

Entrepreneurism: Growing with the courage to make, innovate, and invest.

Unity: The whole is stronger than its parts.

Beliefs

- Cultivating talent
- Meritocracy
- Excellence
- Pragmatism
- Open dialogue
- Alliance
- Sense of ownership

Governance principles

The way Votorantim manages its day-to-day activities, through guidelines that lay the basis for its corporate governance model.

Stewardship pillars

The way Votorantim manages its businesses, comprising the following themes:

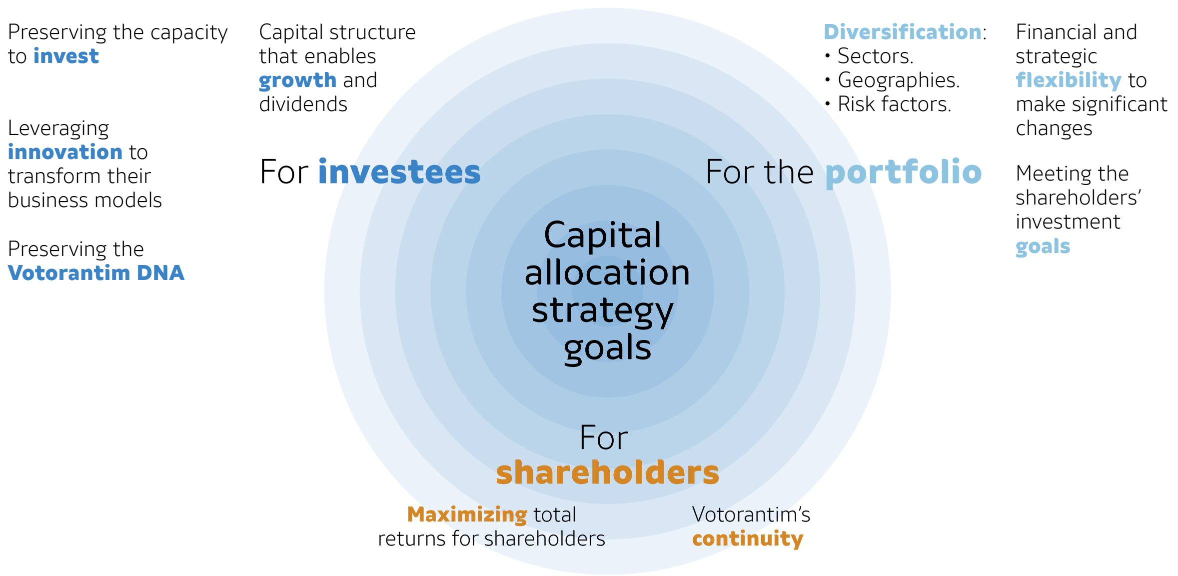
- Financial stewardship: Ensures financial discipline to enable the desired risk-return profile.
- Value creation: Sets out Votorantim's vision, and identifies the business's potential value, translating it into concrete plans that align and mobilize the company.
- Operational excellence: Seeks to continually improve processes through practices and key synergies among the companies.
- People and company: Preserves Votorantim's culture through leadership that incorporates its values and beliefs.
- Image and reputation: Protects and promotes Votorantim's image and reputation with its stakeholders.

Strategy and **management**

As a permanently capitalized investment holding company with a long-term investment horizon, Votorantim seeks to deliver superior financial returns with a positive social and environmental impact. This goal translates into the way it manages its investees, and reflects its purpose of ensuring profitable businesses to shareholders that also benefit society.

Votorantim expects its investees to preserve their capacity to invest in order to secure their continuity; to maintain an adequate capital structure that enables growth and the payment of dividends; to foster innovation, including to transform the business model; and to always be concerned about the impacts of their operations.

Patient capital, **unnegotiable** purpose



Votorantim's **Identity**

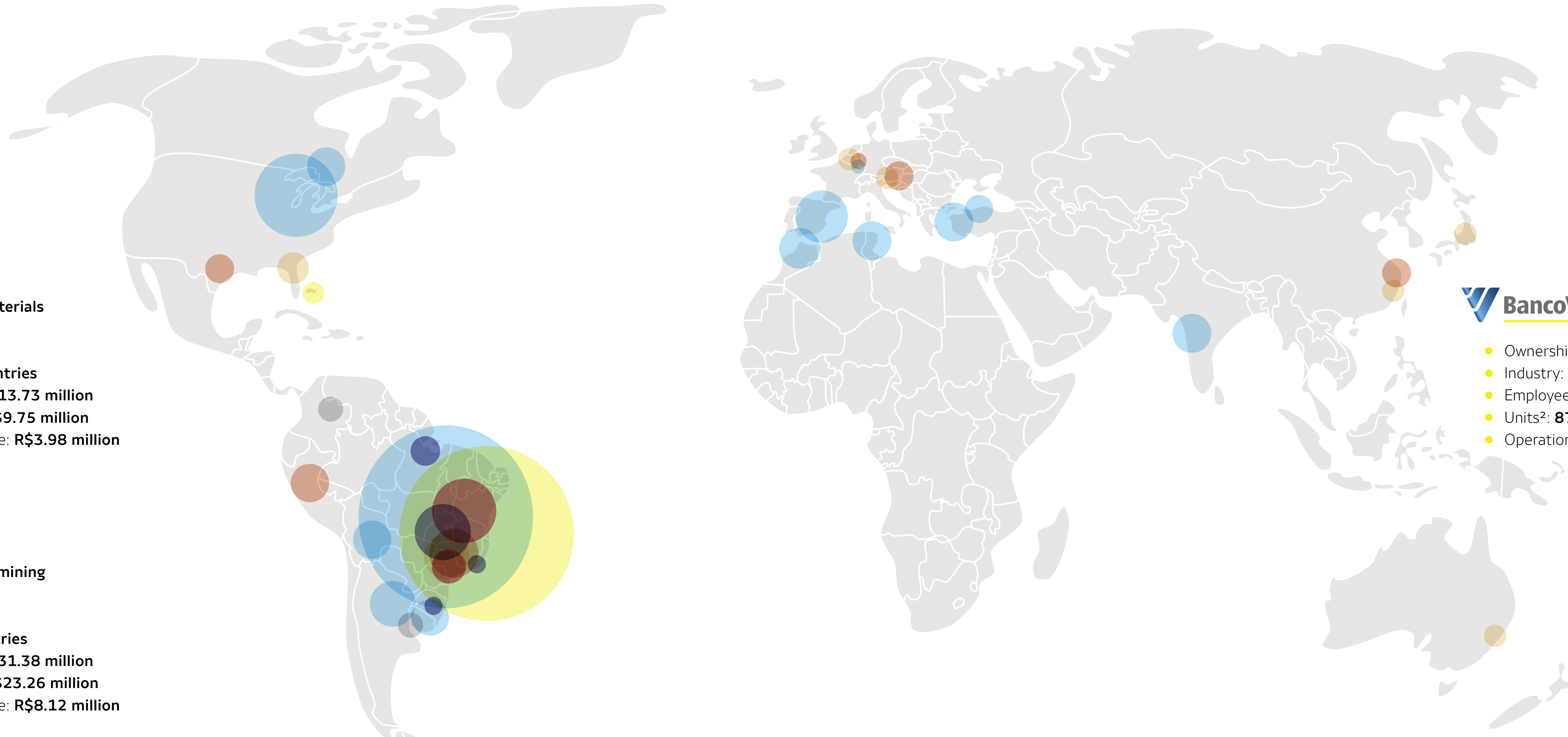
At the right time: The right time is the one we do not miss. Everyday, we remember the decisions we make today will drive future results, and that we have to think fast and act in a structured, strategic and assertive manner. Our mindset is innovative—we are always looking ahead. But when we look to the future we have to be ready for challenging what happens now. We also have to be prepared to respond to changes in different sectors (and countries) where we operate.

The right way: For us, there is only one way of doing it—the right one. Our corporate DNA carries our unique way of behaving and operating. We treat our investees, employees, and society with respect, and we act ethically. We have great expertise in investments and the necessary knowledge to always perform better and responsibly.

With the right people: We have made a firm commitment: We will invest in our people because we believe in them and in what they are capable of delivering. We are always moving forward, towards what is new. We positively influence our people through our inspired leaders.

PROFILE

Portfolio



Votorantim Cimentos

- Ownership: **100%**
- Industry: **Building materials**
- Employees¹: **11,932**
- Units²: **264**
- Operations in **12 countries**
- Social investment: **R$13.73 million**
  - Company funds: **R$9.75 million**
  - Votorantim Institute: **R$3.98 million**

nexa

- Ownership: **64%**
- Industry: **Metals and mining**
- Employees¹: **5,771**
- Units²: **15**
- Operations in **6 countries**
- Social investment: **R$31.38 million**
  - Company funds: **R$23.26 million**
  - Votorantim Institute: **R$8.12 million**

cba

- Ownership: **100%**
- Industry: **Aluminum**
- Employees¹: **5,029**
- Units²: **13**
- Operations in **1 country**
- Social investment: **R$4.95 million**
  - Company funds: **R$3.77 million**
  - Votorantim Institute: **R$1.18 million**

Votorantim Energia

- Ownership: **100%**
- Industry: **Electric power**
- Employees¹: **485**
- Units²: **57**
- Operations in **1 country**
- Social investment: **R$8.19 million**
  - Company funds: **R$3.94 million**
  - Votorantim Institute: **R$4.25 million**

Long steel

- Ownership: **100% of Acerbrag, and 82% of Acerías Paz del Río**
- Industry: **Long steel**
- Employees¹: **2,138**
- Units²: **3**
- Operations in **2 countries**
- Social investment: **R$2.35 million**
  - Company funds: **R$1.72 million**
  - Votorantim Institute: **R$0.63 million**

AcerBrag PazdelRío

BancoVotorantim

- Ownership: **50%**
- Industry: **Finance**
- Employees¹: **3,972**
- Units²: **87**
- Operations in **2 countries**

citrosuco

- Ownership: **50%**
- Industry: **Orange juice**
- Employees¹: **5,331**
- Units²: **46**
- Operations in **7 countries**
- Social investment: **R$2.28 million**
  - Company funds: **R$2.24 million**
  - Votorantim Institute: **R$0.04 million**

¹ Includes company employees, interns, and apprentices
² Includes offices, plants, distribution centers, and other units
Unit locations according to bullet colors

Recognition

Votorantim's operations—in their economic and financial, social, governance, and environmental dimensions—have been recognized by different awards, including the following:

HSM Management Leadership – In its first edition, Votorantim's Executive Board and Board of Directors were granted the award by HSM Management, which recognized the corporate leaders that are transforming organizations and Brazil.

Entrepreneur of the Year – The 21st edition of EY's award, which recognizes Brazilian professionals with prominent careers, was given to the Ermírio de Moraes family, in the Family Business category.

Great Place To Work's Best Workplaces – For the first time, the company was included in the survey, in the Medium-sized Multinational category.

Guia Você S/A's 150 Best Workplaces – For the third consecutive year, Votorantim has been included in the ranking organized by Você S/A magazine; this year, it ranked 55th in the general ranking and 6th in Other Services.

Guia Você S/A's best Companies to Start a Career – For the third consecutive year, Votorantim has been included in the ranking, also organized by Você S/A magazine, this time in the 30th position.

50 most loved companies in Brazil – For the third consecutive year, Votorantim has been included in Love Mondays' ranking, which has a platform for employees to evaluate how satisfied they are with their salary and benefits, career opportunities, corporate culture, and quality of life.

Abrasca Annual Report Award – Votorantim ranked first among Group 1 Privately-Held Companies (net revenue above R$1 billion), for the second year in a row; the award is granted by the Brazilian Association of Publicly-Held Companies.

Highlights of the year: Aberje Awards – In the 44th edition of the event organized by the Brazilian Association of Corporate Communications, Votorantim received the Special Award for being the company with the best corporate communication practices in Brazil.

Centennial year

Votorantim carried out several actions in celebration of its 100th anniversary. As the centennial coincided with the year of general elections in Brazil, the company decided to reaffirm its commitment to acting as a socially responsible business and supported voter awareness through the "Voter's Guide" platform. This includes a book on the election process and the functions of each elective office, and a website and application to foster—in an ideologically neutral and non-partisan way—voters' reflection and awareness when choosing their candidates. *(See the Social Development chapter for further details).*

In education, the Votorantim Partnership for Education (PVE)—initiative in partnership with local governments—was expanded to more than 100 municipalities, focusing on better quality public education and better scores in the country's official education rankings. *(See the Social Development chapter for further details).*

Centennial celebrations also included a reception at Arca, a historic warehouse building located in the Vila Leopoldina district in São Paulo that used to house Votorantim's Metalúrgica Atlas smelting factory. The company has restored the building and transformed into an event venue. A small-format exhibition was prepared for the reception, with photos, objects, pieces of equipment, and videos showing Votorantim's history and how the company is helping transform that district. *(See the Portfolio chapter for further details)*

In another event, employees from all companies in the portfolio, both in Brazil and abroad, simultaneously celebrated the centennial with a symbolic cake. The "Votorantim Cake" recipe was developed in the late 1930's and included in a book published by the company, containing recipes that used the Primus cooking oil, which used to be made by Votorantim from the seeds of the cotton supplied to the textile factory the company owned at the time.

Votorantim also launched an institutional campaign in the media to publicize the initiatives undertaken throughout the centennial year. Taking advantage of the fact that the company's name carries the word "voto" (Portuguese word for vote), the campaign publicized Votorantim's commitments through the phrases "I vote for nature," "I vote for education," "I vote for people," "I vote for citizenship". The campaign also emphasized the company's commitment to the future, through the concept that "someone who loves their country helps build it".

Looking to the future, encouraging the businesses to evolve and **innovate in order to remain relevant**.

Innovation and technology

Established innovation **ecosystem**

The concept of innovation is in the company's mindset and is fostered in the investees.

The concept of innovation goes beyond technology: it is in the company's mindset and is fostered in the investees. The investees have autonomy to adopt different solutions, and Votorantim supports them so they remain competitive, grow, and develop their own business models—goals that heavily rely on innovation.

One of Votorantim's initiatives to foster innovation is 18.18, a transformational program that seeks to deepen the connection between individuals and new trends that will impact businesses in the future, challenging them to rethink their activities for the company's next 100 years. *(See the People chapter for further details)*.

Also, the Center of Excellence's (CoE) innovation program involves the investees and is governed by three development goals:

- Transforming people and culture.
- Creating value for clients and the company.
- Creating more demands and services.

Center of Excellence **(CoE)**

The company formed an innovation team at the CoE with 25 professionals from different areas, dedicated to improving knowledge, bringing business areas closer to the innovation ecosystem, and spreading the theme on different business fronts. Nearly 300 people also received training in São Paulo and Curitiba (Brazil), and in Lima (Peru). During the year, the Innovation Program was launched in Lima, gathering a multidisciplinary team of ten employees from the Peruvian and Brazilian offices.

In partnership with investees, Votorantim has implemented several solutions (*See on the next page*), some of which have already yielded important and scalable results. These initiatives aim at sharing practices among companies and startups, and fostering the innovation theme among employees of the holding company and of the investees.

The Center of Excellence (CoE) offers services in:
Information Technology
Finance
Human Resources
Accounting and Taxes
Real Estate
Loss Prevention
Analytics

Co-creation
In order to operate in an increasingly digital scenario, Votorantim invests in new technologies, encouraging reinvention. With that in mind, the CoE has been working with the investees to build differentiated solutions for the businesses. One example is the project for Nexa, which uses artificial intelligence and advanced analytics to develop a virtual assistant that is able to reduce the time spent on research of new mineral reserves, and increase the effectiveness of mineral exploration-related decisions.

Loss prevention
Under the digital services concept, the loss prevention project seeks solutions to support the compliance process. The tool monitors the companies' transactions, processes and standards in real time. Combining data, it detects potential fraud, operational errors, or deficiencies, and passes them onto the relative departments for the necessary corrections to be made. Votorantim Cimentos and Votorantim Energia are already using this tool, which can be adapted to different risk management needs or businesses.

New products using applied geoprocessing
Using internally-developed algorithms, the CoE has expanded its services portfolio through the smart use of images captured by drones or other high-resolution sources to generate cartographic information. This methodology is more agile, safer, and costs less than the conventional topography process. For example, it enables the measurement of inventory and mine extraction levels, updating of the land use and occupation base, and inspection of properties, facilities, and pieces of equipment.

Acceleration: Avaliei startup
With the goal of transforming the real estate appraisal market, CoE-accelerated startup Avaliei will provide tools for companies that need appraisal reports—a formal document specifying the market value of a property.

Given the lack of technology, low reliability, high costs, and long terms that prevail in conventional property appraisal practices, Avaliei's real estate intelligence platform addresses three key aspects:

- Pricing, through the input of parameters such as physical aspects, type, and location to get price references.
- Valued opinion, where the user can request a more detailed appraisal of the property based on a choice of analytic parameters on the platform.
- Appraisal report, including sharing, collection of physical data through an integrated network of appraisers, and an algorithm for value calculation.

Innovation Day

The event, held for the first time in São Paulo and the second in Curitiba, enabled participants to experience innovation through panels with market professionals, workshops, and by interacting with projects and prototypes presented by startups.

Several market professionals and executives from Votorantim investees discussed highly relevant themes such as digital transformation and innovation, venture capital, business redesign, and urban mobility.

The event also showcased innovative solutions, such as the call recording software used in Banco Votorantim's call center. In 2018, the bank was the first to implement an artificial intelligence tool to identify the content of the calls and forward them to the Ombudsman.

Another case was the Green Code initiative of Legado das Águas, which tracks the production in the tree nursery, so that all the way from the Atlantic Forest to when they are sold, all plants produced in the nursery have their quality and origin assured. *(See the Environmental Development chapter for further details)*.

Corporate governance and risk management

Ethical **conduct**.

One of Votorantim's values that, added to transparency and dialogue with all stakeholders, governs the way the company does business: **the right way.**

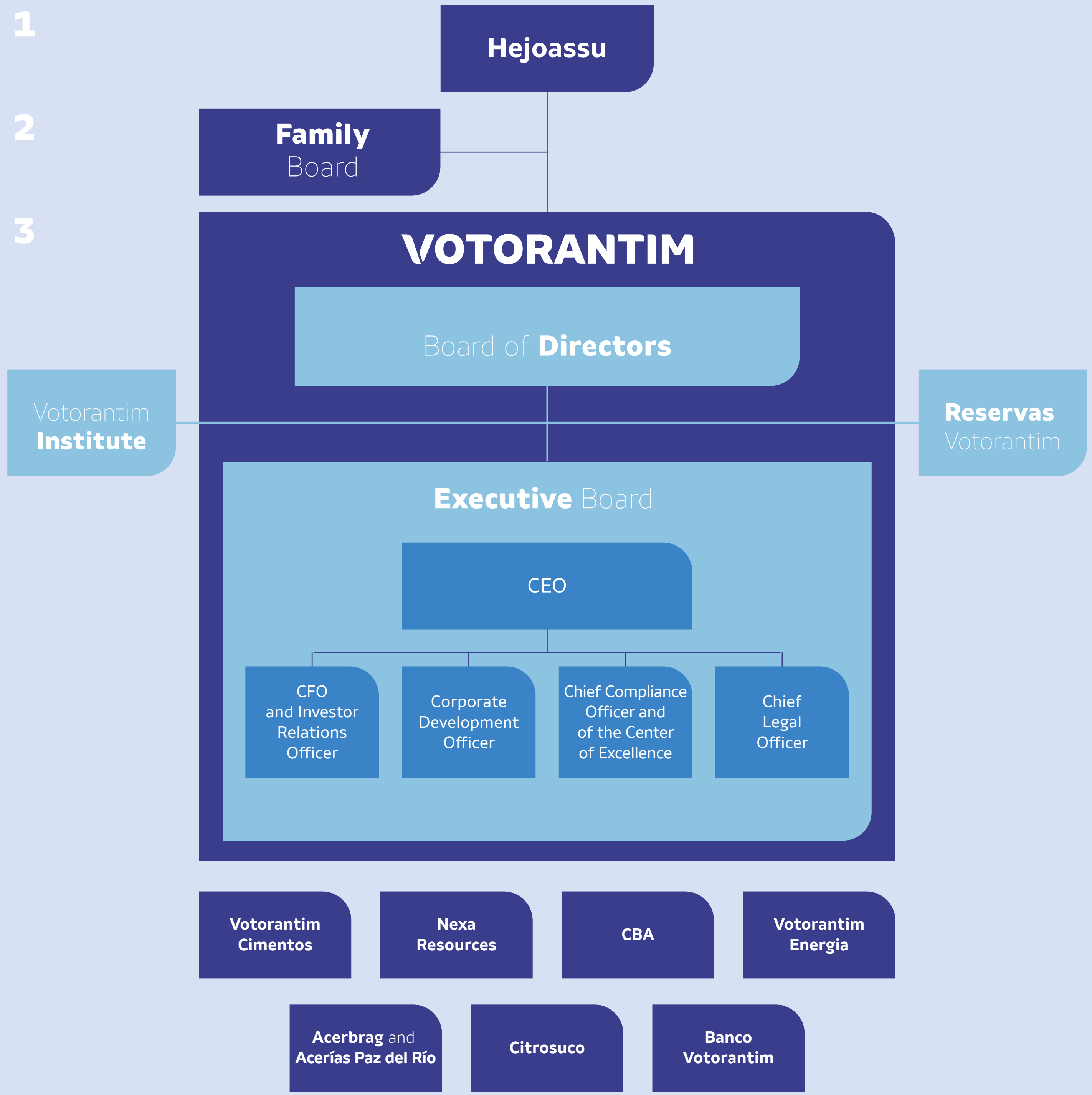
Governance model **102-18 | 102-19 | 102-20 | 102-31**

Created in 2000 and constantly evolving, Votorantim's governance model excels in transparency, which includes an honest dialogue with stakeholders, and in ethical conduct—one of the company's core values, supported by compliance processes and internal controls, and by dissemination activities.

The Votorantim DNA—which establishes the company's way of being, operating and managing its businesses, and sets the pillars to achieve this—is widely disseminated among the company's teams and the investees, through their Boards of Directors or training sessions for employees. This is how Votorantim seeks to perpetuate its principles and values, regardless of changes in the market, business portfolio, or organizational structure.

Votorantim's corporate governance model has three spheres:

1. **Ownership**, represented by the Board of Hejoassu, the holding company that owns Votorantim.
2. **Family**, represented by the Family Board.
3. **Businesses**, conducted and represented by the Board of Directors and Executive Board of Votorantim and its investees companies.



The term-of-office for the Votorantim, Hejoassu, and Family Boards is three years. The Hejoassu and Family Boards are independent from Votorantim, and they interact through a formal schedule of meetings.

The investees have their own Boards of Directors and Executive Boards to discuss and resolve on their strategies, business management, risks, investments, opportunities, and sustainability. **102-19** | **102-20** | **102-29**

Hejoassu's Board

It is responsible for transferring its financial aspiration, macro-vision, and risk appetite to Votorantim, therefore establishing the appropriate spheres for the development of the strategy. It is also responsible for maintaining the company's culture, DNA, talents, and purposes, so as to ensure the continuity of the family business.

The Board has 12 shareholders—three representing each of the four family holding companies. The fourth and fifth family generation members made decisions together. The family is currently in the sixth generation and has 152 members, including 36 shareholders.

Family Board **102-24** | **102-26** | **102-27**

The Family Board has a formal statute and its mission is to keep the family united in their values, preserving their legacy.

The Family Board is also responsible for developing responsible shareholders and leaders for succession both in the family and in businesses, facilitating communication among family members, building family unity, and caring for the family's and company's legacy, inspiring through its history.

Family **values**

INTEGRITY
Being whole, ethical, honoring our history, and helping build the future with respect.

GENEROSITY
Being generous with oneself, the family, and society.

COURAGE
Being determined, always willing to learn and evolve, and believing everything is possible.

UNITY
Honoring the history that unites us, valuing our collective Power, and being at the forefront of our Legacy.

IMPACT
Dedicated, achievement-focused work, driven by the power to innovate and transform.

PASSION
Having the freedom and motivation to find and pursue one's passions.

Board of Directors

This is responsible for defining the strategic planning and orienting its execution, in addition to making capital allocation decisions. It periodically assesses the performance of the investees' Boards of Directors, whose members are appointed by Votorantim's Board.

The Board has seven members—three are family shareholders, three are independent members, and one chairman who is not a family member.

Board members 102-22 | **102-23**
- Raul Calfat – Chairman
- Luis Ermírio de Moraes – Deputy Chairman
- Cláudio Ermírio de Moraes – Board member
- José Roberto Ermírio de Moraes – Board member
- Marcelo Medeiros – Independent board member
- Oscar Bernardes – Independent board member
- Pedro Wongtschowski – Independent board member

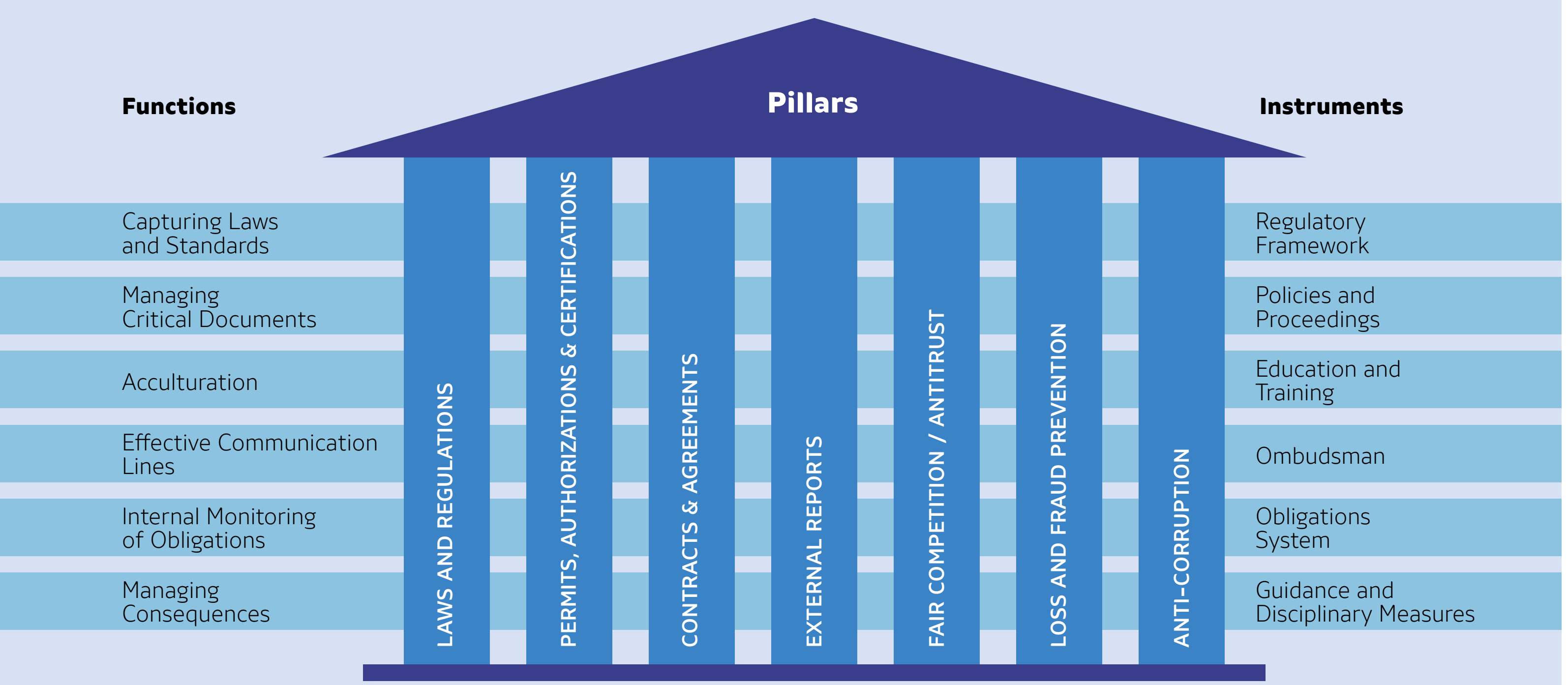
Executive Board

This is responsible for managing the businesses according to the Board of Directors' guidelines.

Board members 102-22 | **102-23**
- João Miranda – Chief Executive Officer
- João Schmidt – Corporate Development Officer
- Luiz Caruso – Chief Compliance Officer and of the Center of Excellence
- Luiz Marcelo Fins – Chief Legal Officer
- Sergio Malacrida – Chief Financial and Investor Relations Officer

Compliance Program **102-17** | **102-25**

Created in 2013, Votorantim's Compliance Program is based on seven pillars, according to the image below.



CORPORATE GOVERNANCE AND RISK MANAGEMENT

Ethics Line
Phone number:
0800 89 11 729
Website:
votorantim.com/linhaetica

Compliance-related themes are widely disseminated among employees through policies, and training on the key aspects of each pillar.

Votorantim's Code of Conduct is also part of the program, and it contains the key elements governing the relations between the holding company, the investees, and stakeholders. This document sets out the expected behavior in the workplace, when dealing with external stakeholders, using company resources, and complying with the Brazilian Anti-corruption Law. It also encourages the reporting of any illicit acts to the Ethics Line. The Ethics Line ensures information confidentiality, preserves the identity of the people involved, and can also be contacted should any doubt arise relating to the interpretation of the Code of Conduct. This platform is available for all investees in different languages. Reports are forwarded to the Conduct Committee, which is responsible for analyzing them, determining which disciplinary action is necessary, and ensuring such action is duly taken.

The structure surrounding ethical conduct is supported by the Anti-corruption Policy, which encompasses all investees. Not only does this document comply with current Brazilian Laws, but it also takes into consideration anti-corruption-related governance practices adopted in Brazil and internationally. The purpose is to ensure the highest integrity, process transparency, and business sustainability standards. Votorantim also has an Anti-corruption Manual for employee orientation, first published in 2017.

The influence of compliance on investees

The investees have Audit Committees that monitor compliance practices, and a compliance work group that addresses new legal requirements. The work group gathers the compliance teams of all companies, and it has technical knowledge to help the companies adopt processes and procedures in line with best market practices. This is what happened in 2018 concerning trade compliance, a theme developed among the investees that sell products abroad.

Institutional relations transparency

In 2018, the company reinforced the recording of all interactions with the government, ensuring transparency in all transactions between employees and government agencies. Leveraged by Votorantim, this process has become stronger among investees.

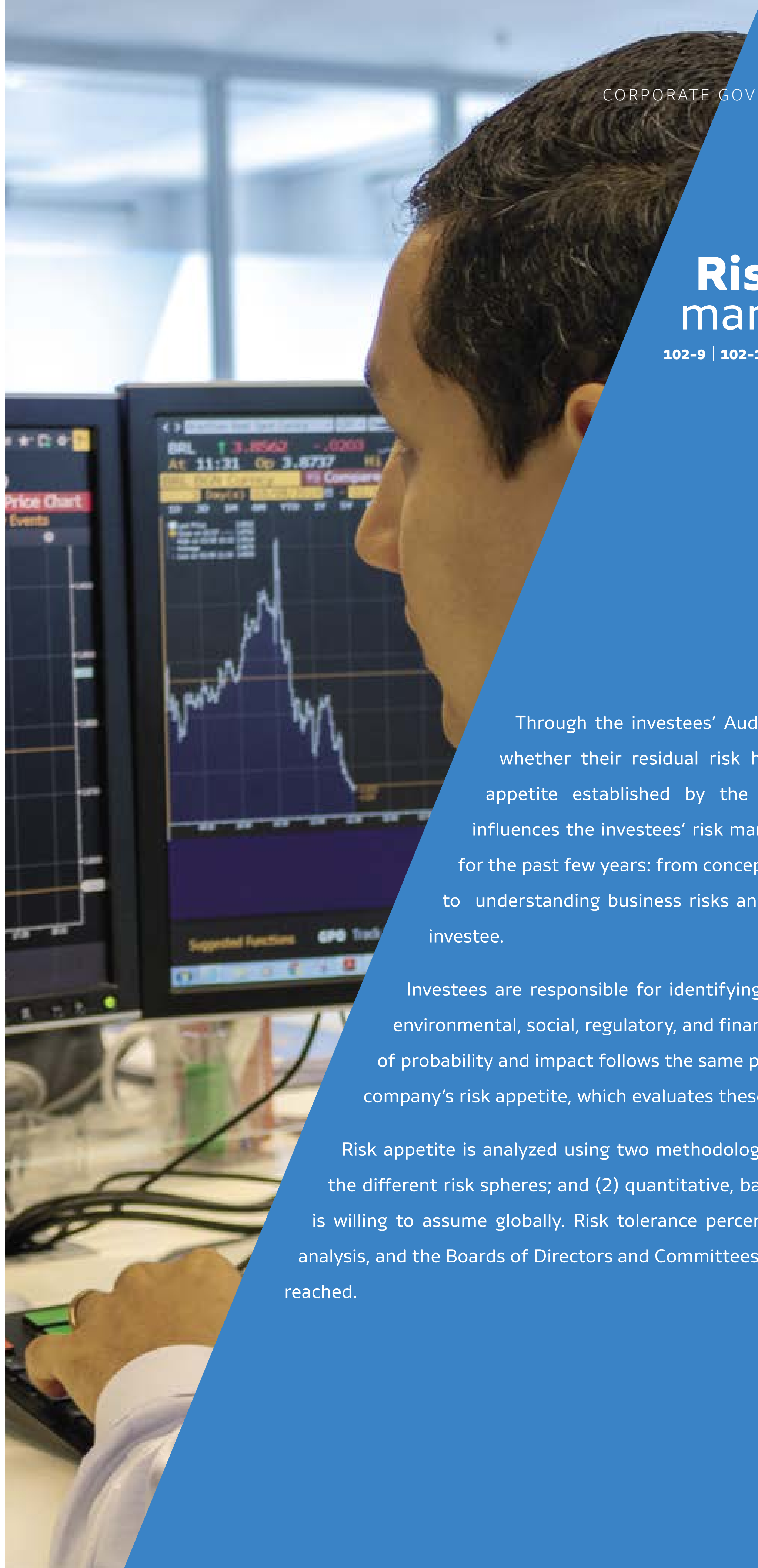
The process to monitor the employees' relations with competitors and government agents has also been enhanced through the analysis of potential conflicts of interest identified in monitoring reports.

Compliance **Week**

Votorantim held the Compliance Week for the second consecutive year in December, the month when International Anti-Corruption Day is celebrated. The event is an opportunity for the executives of Votorantim and its investees to discuss compliance-related legislation and, most of all, the importance of compliance practices for businesses, processes, and day-to-day relations. Philosopher and professor Clóvis de Barros Filho; Guilherme Alfredo de Moraes Nostre, PhD in criminal law; and Maria Cecília Mello, magistrate of the 3rd Region Federal Court of Appeals (TRF-3) were the speakers at the opening ceremony, in São Paulo.

Ethics, moral, and values were themes addressed from an individual responsibility perspective, including the responsibility of maintaining Votorantim's unequivocal vision that there is only one way of doing business—the right way. Speakers also addressed management's civil liability, referring to the image of the whole company.

Compliance Week has also carried out regional events in Curitiba, and in Lima (Peru); and at all investees, with specific themes for each company, including lectures, training sessions, and case studies.



Risk management

102-9 | 102-11 | 102-30

Through the investees' Audit Committees, Votorantim evaluates whether their residual risk has a significant impact on the risk appetite established by the holding company. Votorantim also influences the investees' risk management process, which has evolved for the past few years: from conceptual discussions about inherent risks, to understanding business risks and their impacts on the value of each investee.

Investees are responsible for identifying, quantifying, and treating strategic, environmental, social, regulatory, and financial risks. Their classification in terms of probability and impact follows the same parameters established for the holding company's risk appetite, which evaluates these impacts on the portfolio.

Risk appetite is analyzed using two methodologies: (1) qualitative, which determines the different risk spheres; and (2) quantitative, based on the maximum risk Votorantim is willing to assume globally. Risk tolerance percentages are established based on this analysis, and the Boards of Directors and Committees are involved whenever such limits are reached.

Environmental development

Excellence in eco-efficiency and mitigation of risks are Votorantim's key environmental guidelines.

Environmental **conservation**

Votorantim's commitment to environmental conservation translates into its influencing the investees so that they are always concerned about the impacts of their activities. This commitment is also seen as Votorantim fosters internal and external stakeholders awareness about the need to secure a sustainable future for the next generations.

Therefore, investees adopt initiatives to measure and reduce the use of natural resources, such as water and electric power, waste generation, and the emission of greenhouse gases. They also work closely with their supply chain, monitoring the negative impacts caused by suppliers and helping them adopt best practices. (*See the Portfolio chapter for further details on the investees' initiatives*)

Management of **environmental assets**

Learn more at
legadodasaguas.com.br

Reservas Votorantim (Reservas) manages the environmental assets of the investees, whose purpose is to create shared value, meaning the generation of revenue in the production chain through the conservation of territories and water resources, and community development.

It currently manages 62,000 hectares equally divided into: Legado das Águas—the largest private Atlantic Forest reserve in Brazil, located in the cities of Juquiá, Miracatu, and Tapiraí, in the State of São Paulo—and Legado Verdes do Cerrado—a private reserve for sustainable development, located in the city of Niquelândia, in the State of Goiás.

> The goals are to create shared value, and maintain the conservation of territories and water resources.

In 2018, Reservas started operating the Statutory Nature Reserve Compensation business for farmers, some of which already have contracts in place. It has also promoted these services during agricultural trade fairs.

At Legado das Águas, a closer relationship with the São Paulo Forestry Foundation resulted in the preparation of a plan for the Juruparú Park, which will create opportunities in research and ecotourism. Moreover, the works to enhance tourism stewardship have benefited the cities surrounding the park, and two of them already hold the title of tourist city.

Legado **Verdes do Cerrado**

Legado Verdes do Cerrado was created in 2017 in partnership with the government of the State of Goiás. One of its projects is the reforestation of water sources located in farmers' properties, which has increased the demand for saplings, leading the tree nursery to expand its capacity from 40,000 to nearly 300,000 saplings. Some of the saplings are used in a reforestation project in partnership with the Goiás Agriculture Federation (Faeg) and small farmers. Legado donates the saplings, and together with farmers and Faeg, does the planting. This initiative has already resulted in the recovery of four water sources in the region of Niquelândia.

Legado has also started doing research in partnership with the Brazilian Forestry Service (SFB), and the Federal University of Goiás (UFG), to accurately calculate how much carbon is sequestered in an area of high concentration of trees owned by Legado Verdes do Cerrado, to be used as a sample of the Cerrado area.

This work is expected to last two years, and is already ongoing in an area of 31,000 hectares. It was designed to be extremely precise.

In addition to all these practices, replicated from the experience acquired at Legado das Águas, Legado Verdes do Cerrado has an additional initiative: soybean farming in part of the area that used to be dedicated to eucalyptus farming. In the 2017/2018 season, 1,000 hectares were used, yielding 55,000 sacks of soybeans.

Innovation in biodiversity

Legado das Águas has developed a project for the genetic mapping of Atlantic Forest plants for the potential development of bioproducts. Using cutting-edge tools, the DNA of over 50 species was sequenced to find raw materials that can be used in the pharmaceuticals and cosmetics industries. Over the last three years, the project created a rainforest database, called "Digital Forest".

Another collaborative innovation initiative was the development of the Green Code system to track the tree nursery's production. Innovative in the market, the software identifies all plants that are native to a location, so potential buyers can use a QR-Code on their mobile phones to track the seed's origin and how the production process was conducted. If any problem occurs in a landscaping project, it can be quickly solved because the whole useful life of the plant is monitored. This project has won the Brazilian Automation Association (GS1 Brasil) award.

An agroforestry project was introduced in the Cerrado for planting several species with different life cycles (vegetables, fruits, wood, etc) on the same piece of land, with production throughout the whole year. This project is conducted in partnership with the Tiradentes Institute and involves six hectares of syntropic farming, showing great potential for income generation for local farmers.

Fostering the **best in each one** to achieve the best of everyone.

People

Human and Organizational Development (**DHO**)

Visit
linkedin.com/company/votorantim

Votorantim's DHO department is structured on three fronts:

- Attractiveness, engagement and communication.
- Development.
- Remuneration and benefits.

DHO's goal is to provide an environment for people to genuinely develop their talents and abilities.

By the end of the year, the initiatives had reached 918 employees at the holding company, the CoE, Votorantim Institute, and Reservas, including 349 men and 569 women. In order to develop specific practices for these different stakeholders and businesses, the DHO department has two dedicated and independent teams: one for the management of CoE employees in Brazil (São Paulo and Curitiba), and in Peru, and another for the management of employees in the holding company's office in São Paulo, in the Institute, and in Reservas. **102-8**

Attractiveness, engagement and communication

In 2018, Votorantim redesigned its program for young talents to enter the company. Votorantim formally structured its Internship Program and received 812 applications for 11 available positions. This program offers exclusive development activities and performance evaluations in connection with the intern's daily work. Three of the 11 interns were hired by Votorantim or one of its investees by the end of the program.

With the same goal of attracting young talents, CoE's Internship Program is carried out every six months. In 2018, 56 interns were selected out of 3,234 applications. The program focuses on enhancing soft skills, offering training sessions on themes such as creativity, empathy, and problem solving.

The CoE has also created the Young Talents Program, dedicated to attracting recent graduates from areas that help further develop its digital transformation strategy. Seven young talents were hired in 2018 by the Business Consulting, Analytics, and Innovation departments. All young talents undergo a mentoring and soft skills development program, visit Votorantim's investees, and come into contact with the talents network of these companies.

The CoE has also developed, since 2010, the "Melhor Idade, Melhor Emprego" (MIME) program for people older than 45, or retirees, to carry out operations projects. The goal is to provide them with a source of additional income from more analytical activities, which demand specific knowledge. With no specific hiring cycle, this initiative closed 2018 with 13 participants.

Two other programs that help Votorantim attract talents at the holding company are the Ambassadors, and Alumni programs. Nearly 60 employees volunteered for the Ambassadors program in 2018, and became spokespeople for the company in 19 activities, representing Votorantim in events and trade fairs, classes and lectures at universities.

The Ambassadors are also responsible for welcoming groups of students when they visit the company, such as during the Votorantim Finance Tour event organized for members of the Financial Market University Leagues. In order to play this important role, the Ambassadors receive training and are encouraged to advocate for the company's edges and hear the demands from external stakeholders.

The Alumni program seeks to maintain former employees close to Votorantim, and does so by inviting them to participate in company initiatives and informing them of job opportunities.

Votorantim measures the engagement level of its employees every year. In 2018, 96% of the staff participated in the engagement survey at the holding company, Hejoassu, Votorantim Institute, and Reservas Votorantim. The Engagement Index was 4.15 (on a scale ranging from 0 to 5.00), and the Leadership Index was 75% (on a scale ranging from 0 to 100%). The CoE also carries out an engagement survey, and in 2018 its engagement index was 4.02 (on a scale ranging from 0 to 5.00).

In order to keep employees updated on key company events, Votorantim publishes newsletters and electronic bulletins, and holds events dedicated to discussing themes that are strategic for the company, such as Encontro Votorantim (Votorantim Meeting), and Diálogo (Dialogue), which are held by the CoE every quarter. Votorantim interacts with its investees through the Encontro de Lideranças (Leadership Meeting), held every year. **102-8**

Development

The Votorantim Development System (SDV) gathers a series of actions to foster and accelerate professional careers. Through this system, the company has conducted an individual assessment of its employees, identifying their profile and behavior traits, strengths, types of potential and skills, and other characteristics. Each individual, based on such information and supported by their manager and the DHO department, determines short and long-term opportunities for their professional development in their unique Individual Development Plan (PDI).

DHO's goal is to make the evaluation process smoother and more in line with labor market practices, meaning it has to understand individual challenges and how the employees can add value to the work developed by their departments. This includes self-awareness activities, and permanently fostering dialogue.

The CoE has two main development programs. One is Líder Mais, whose goal is to carry out activities which keep managers aligned with Votorantim's businesses and strategies, enable them to lead innovation, engage their teams, and respond to challenges in a VUCA scenario (Volatility, Uncertainty, Complexity, and Ambiguity). This program lasts a year and a half.

The program had 77 participants in the latest round, including all leaders and a group of employees that are currently not in a managerial position, but have shown potential for it. The themes addressed in the latest round included self-awareness and tools to support time and routine management.

The second program is Mês Desenvolva, which has two annual editions and fosters personal development and empowerment so employees are able to manage their own careers. In 2018, over 400 employees participated in activities involving the following subjects: customer experience, emerging technologies, statistics, the future of work, and a feedback workshop.

Votorantim **Academy**

Visit
vototalks.com.br

The Development pillar also includes the Votorantim Academy, whose activities are divided into three fronts—Inspiration & Stimulation, Personal Journey, and the Votorantim DNA. The programs are enhanced by experiences and are extended to the investees. This approach resulted in an increase of 20% in the number of participants in events promoted by the Votorantim Academy in 2018.

The Academy also organized the Vototalks Festival in 2018, including 20 online lectures, which together attained nearly 10,000 views. The speakers shared knowledge, techniques, and the paths followed in transformational processes. The lectures also addressed themes such as collaborative innovation, the future of education, the creation of startups by centenarian companies, industry 4.0, and circular economy. The online event also featured podcasts with panels on various subjects. A total of 15 hours of training were offered on the event's online platform.

The Vototalks collaborative platform is part of Votorantim's strategy of fostering the creation of multiple tools for inspiration, education, and dialogue for internal and external stakeholders, with the goal of stimulating reflection and action when it comes to projecting the future.

Visit
votorantim1818.com.br

The Votorantim Academy is also a hub supporting the 18.18 program for investees. This transformational program seeks to broaden the connection between individuals and new trends that will impact businesses in the future, challenging them to be innovative. The program is based on high-performance culture, new standards and emerging technologies, business [re]design, transformation awareness, and global mindset. Aligned with this initiative, all investees and Votorantim itself have been challenged to seek innovation.

The program's website is available to the public, and contains articles, podcasts, and videos that help increase the connection with trends that may impact organizations in the future. The online assets also help engage Votorantim's leaders in implementing models compatible with new market demands, systematically align the company's purpose and vision of the future, and foster environments, behaviors, and processes that bolster collective intelligence, considering each of Votorantim's businesses' scenarios.

Potenciar is another Votorantim Academy program. It was created in 2012 and recognizes, promotes and invests in Votorantim's talents, accelerating their learning through technical and behavioral training. The training framework has been redesigned, and now places employees at the forefront of their own development. In 2018, the initiative had seven participants from the holding company and the Votorantim Institute, and 11 from the CoE. The program lasted 12 months and was divided into three sections: "Me", focusing on self-awareness; "Us", where participants gain deeper knowledge about the business model, the companies' strategy, and global trends; and "Everyone", which addresses the impacts, and the value the Votorantim portfolio adds to society.

Remuneration and benefits

In 2018, the holding company restructured its Performance Committee in order to make a 100% qualitative evaluation by the managers. All managers participated in this process, including employees responsible for mentoring and training interns. After learning about the basic concepts of remuneration, all of them received an evaluation from each of their team members in order to facilitate and guide the formal feedback process.

In addition to benefits established by the law, such as meal and public transportation vouchers, Votorantim offers further benefits, listed on the next page.

The CoE also offers reimbursements for school supplies and pharmacy expenses, and childcare allowance for men and women.

Votorantim also carries out exclusive activities for employees. Semana +Vida (+Life Week) is held every year, and offers medical exams, and fosters a healthy life through different initiatives.

The 2018 edition included first aid training, extended massage hours, a program to encourage physical exercise (+Movimento), lectures and a guide on healthy eating, emotional health activities, and medical care.

Benefits offered to employees

- Health insurance
- Dental insurance
- Life insurance
- Private pension through Fundação Senador José Ermírio de Moraes (Funsejem)
- Christmas Card
- Christmas toy voucher for employees with kids
- Medical care
- Executive health check-up
- A program for pregnant employees
- Flu vaccines
- Fruits
- Massage
- Gym reimbursement
- Supporting Program for Employees (PAE), in partnership with Alelo, including psychological, financial, and family support
- Partnership with Commerce Social Service (Sesc) units

The importance of **social engagement** in the business model.

Before entering a new territory, the investees analyze the local context and the impact caused by their operations, and create a plan to generate positive social results.

Social development

Social **commitment**

Throughout their history, Votorantim's investees have always developed a respectful relationship with the communities in order to build a positive social legacy. When the investees enter a new territory, they allocate professionals to map the characteristics, needs, and potentialities of the communities, and identify the impacts caused by the operations in order to design action plans to support sustainable development and better quality of life.

Votorantim influences the investees to commit to both the creation of opportunities and the development of the community. The Votorantim Institute helps the companies design and implement their social strategies, focusing on each business.

SOCIAL DEVELOPMENT

Votorantim **Institute**

Learn more at
institutovotorantim.org.br

In 2018, nearly 200 social actions were implemented by the Votorantim Institute in 160 municipalities in Brazil, Peru, Argentina, and Colombia. These actions are designed according to the needs of each investee and enable economies of scale. Priority is given to projects in the segments of education, and creation of jobs and income, from a perspective of productive inclusion which translates into citizenship.

The Votorantim Partnership for Education (PVE), ReDes, and Public Stewardship Support (AGP) are programs structured by the Votorantim Institute and they account for nearly 80% of the Institute's projects. Other ongoing initiatives include Corporate Volunteering, the Qualification Program for Organizations, Supporting Program for Children's and Adolescents' Rights, and the Community Forums Program.

Education, and income generation are subjects the Votorantim Institute prioritizes when engaging with communities, in line with the territorial development strategy.

Social engagement stages

Prioritizing the locations: The locations in which the social work will focus on are chosen based on business strategy, the company's impacts, and the key social issues of the municipalities where operations are carried out.

Determining the location's characteristics: Includes an in-depth analysis of the local context and of the business to identify social challenges and opportunities.

Social agenda: Defining what the actions will focus on, based on the location's characteristics. The social plan is then elaborated for the medium and long terms, and includes the goals that have been set, the expected results, and the paths to be pursued.

Investment plans: These include the programs and projects that will enable the achievement of the goals set in the plan, and provide further details about budget and schedule for the activities. For locations and stakeholders, this is the most visible part of the work.

Portfolio management: Ongoing initiatives are monitored to ensure the intended advances are made, and that investments are assertive; it also allows for new risks and opportunities to be identified, and any necessary adjustments to be made.

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Votorantim Partnership for Education (PVE)

PVE at a glance

104 municipalities

Over **1,000 schools**

360,000 students directly and indirectly impacted

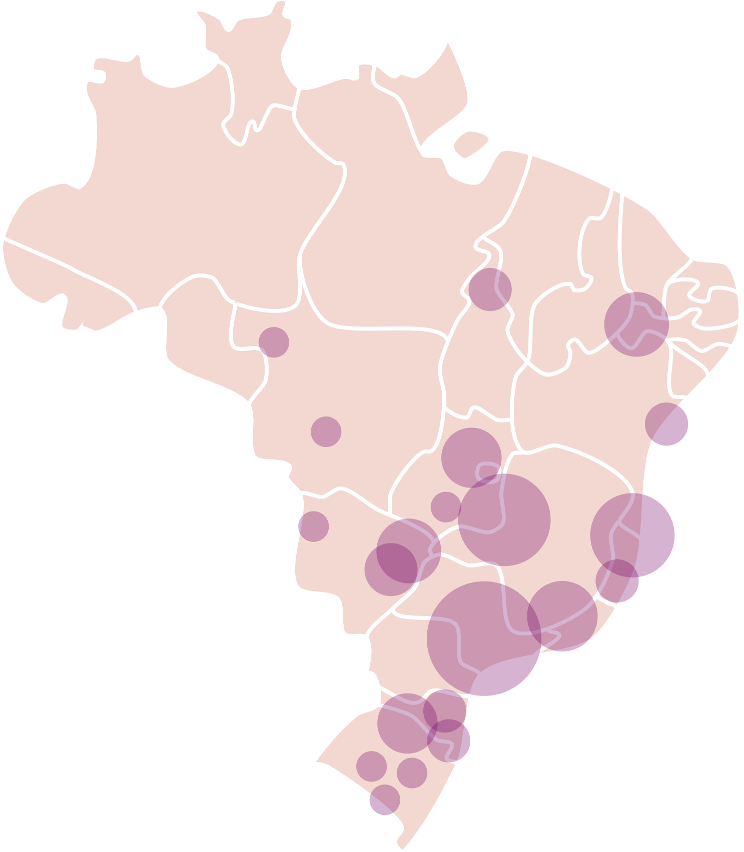
2,000+ public managers from local departments of education trained in the program

770+ school principals and coordinators engaged

Created ten years ago, PVE was expanded in the centennial year, and its activities reached 104 municipalities in Brazil, up from the 51 cities in the previous year. Dedicated to improving education and school stewardship, the initiative engages managers, families, employees of Votorantim investees, and other segments of society that are able to help leverage the quality of education.

Moreover, by considering different realities and understanding that each experience creates value for building a quality education network, PVE helps transform individual practices and structure social networks that work with education.

In 2018, with the theme "Stewardship focused on learning", the PVE helped managers analyze results and improve follow-up and formation routines, so that students learn more, better, and at the appropriate pace. In early 2019, the Program's name was changed to Partnership for Valuing Education.



ReDes Program

ReDes at a glance

R$2.3 million directly invested in projects

33 inclusive businesses supported

22 municipalities in **12 states** and the Federal District

Sectors: agriculture, fishing, dairy production, floriculture, handcrafting, baking, costume jewelry, and sewing

ReDes was created in 2010 in partnership with the Brazilian Development Bank (BNDES), and is also supported by the Multilateral Investment Fund (MIF) of the Inter-American Development Bank (IDB).

The BNDES invests the same amount as the investees, at a 1:1 ratio, in collective projects for income generation. One example is the Nossa Senhora da Conceição Association, from the city of Sobral, in the State of Ceará, whose associates make oil out of babassu coconut; the waste from the production is used as biomass in Votorantim Cimentos's furnaces. This activity is a source of income for the local community from the sale of oil and waste and helps reduce emissions and petcoke costs, the key fuel used in the cement production process.

Public Stewardship Support (AGP)

AGP at a glance

R$2.7 million invested

25 supported projects

16 municipalities in nine states

Given their nationwide footprint, Votorantim's investees operate out of many remote areas, and in municipalities that are not always well-equipped. Specifically in these territories, AGP offers technical support for local governments to improve their stewardship processes and tools, together with urban planning guidelines and instruments. This program focuses on municipalities with a low Human Development Index and population of 50,000 inhabitants or less. In 2018, also in partnership with the BNDES, the program supported 25 projects in two areas—stewardship modernization, and spatial planning, empowering local governments as the agents of local development.

Voter's Guide

Voter's Guide at a glance

Potential to reach **17 million people**

1,500 copies of the book

184,000 app downloads

7,000 comments on social networks

This project fosters voter awareness through a reflection on politics and ethics, and on how important it is for everyone to participate in building the future of the country. It involved the publication of a book—"Voter's Guide", written by political scientist Humberto Dantas—about the Brazilian elections system, and the functions of each elective office, with answers to voters' most frequent questions. The book's content was adapted to an e-book and mobile app, the latter including quizzes about the elections and exercises for voters to give their opinion on subjects discussed by Congress in order to identify the parties that vote according to their beliefs.

Visit
guiadovoto.org.br

Via Solidária

Via Solidária at a glance

R$651,000 in donations

13 benefited projects

The Via Solidária campaign stimulates the employees of Votorantim and of its investees to make donations to projects dedicated to ensuring children's and adolescents' rights. In 2018, donations totaled R$651,000, amount eight times higher than in 2017. Donations can be made through direct payment or deducted from the employee's salary, including in installments. Donations are also income-tax deductible for donors that choose to file a complete tax return.

The projects benefiting from the campaign are appointed and approved by City or State Councils on Children's and Adolescents' Rights, and supported by Votorantim's investees, which provide resources and technical qualification.

Volunteering Challenge

Volunteering Challenge at a glance

4,000 participants

9,000 activities

The Volunteering Challenge engages employees of Votorantim, its investees, and outsourced labor on social activities with organizations and schools chosen by the participants. The teams score points that are computed by an online platform and, by the end of the campaign, the most engaged volunteers and the institution of their choice are awarded a prize.

In 2018, the number of participants in the campaign and the number of activities were all-time records—4,000 and 9,000, respectively. The PVE was also engaged on the activities.

Prudent capital allocation.

Economic and financial performance

Investor Relations

Visit
votorantim.com/ir

Even though Votorantim is a privately-held company, it has several channels and carries out different activities to communicate with the financial market. The company discloses yearly and quarterly results on its Investor Relations (IR) website and to the press, followed by conference calls with investors and financial market analysts. Votorantim also publishes material facts whenever a material event occurs at the company or its investees.

The company has carried out the Votorantim Day in São Paulo for the past 14 years, and in New York for the last eight years. The goal of these events is to build a closer relationship with banks and investors, and to discuss the macroeconomic scenario, as well as the company's strategies and results.

In 2018, Votorantim redesigned its IR website both in English and Portuguese. Integrated to the company's institutional website and offering a better user experience, the new layout follows brand repositioning guidelines established in 2018.

2018 **Results**

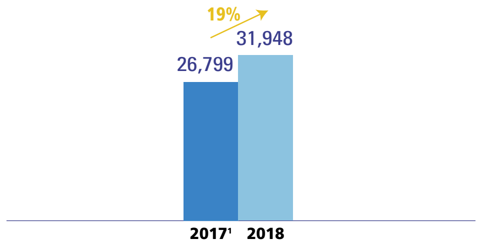
Operating results

In a scenario of political and economic uncertainty in 2018, Votorantim remained prudent when executing the portfolio transformation, but at the same time the performance of its investees led to more robust consolidated results than in the previous year.

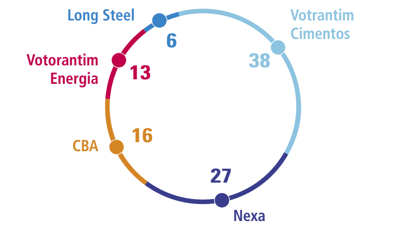
Votorantim's consolidated net revenue totaled R$31.9 billion in 2018, an increase of 19% year-on-year chiefly due to better results from the Brazilian cement operations, and the depreciation of the Brazilian currency against the U.S. dollar, which had a positive impact on the consolidation of foreign operations. A higher sales volume of zinc by smelters and higher aluminum prices also had a positive impact on the result.

Adjusted EBITDA rose 47% year-on-year to R$6.9 billion, also driven by better results from cement operations in Brazil and the depreciation of the Brazilian real against the dollar.

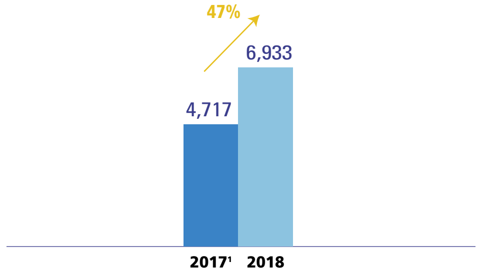
Changes in **net revenue** (R$ MILLION)



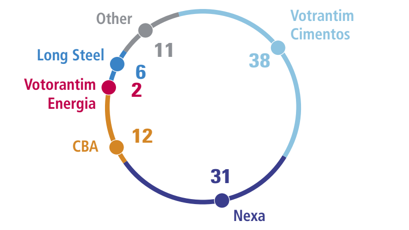
By **segment** (%)



Changes in **adjusted EBITDA** (R$ MILLION)

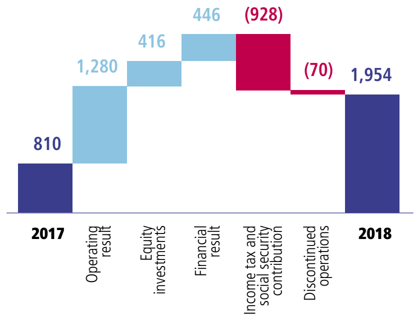


By **segment** (%)

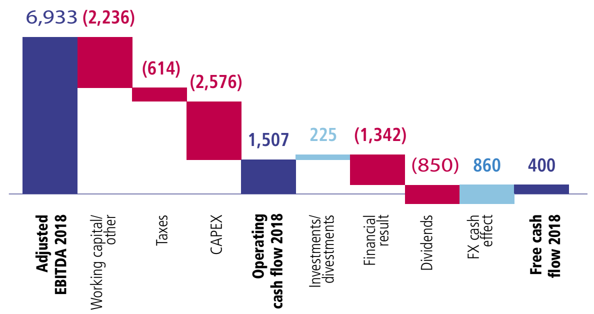


¹ Restated value

Changes in **net income** (R$ MILLION)



Cash **flow** (R$ MILLION)



Net income and cash generation

Net income totaled R$2.0 billion in 2018, compared to net income of R$810 million in 2017.

The increase in operating result mostly reflected a higher adjusted EBITDA.

Income from equity investments increased by R$416 million, driven by the higher net income from investees recognized by the equity method, especially Fibria and Banco Votorantim.

The financial result increased by R$446 million, chiefly due to the non-cash effect of the rise of R$417 million in the fair value of derivatives used to convert dollar-denominated bilateral loans to the Brazilian real.

The income tax and social security contribution loss of R$928 million was mainly driven by the higher deferred tax loss referring to the impact of the corporate reorganization at Votorantim Cimentos.

Discontinued operations mostly refer to the recognition of assets in India as available for sale by Votorantim Cimentos in 2018.

In 2018, operating cash flow amounted to R$1.5 billion, an increase of 121% year-on-year, driven by a higher adjusted EBITDA and lower Capex.

Free cash flow totaled R$400 million, down R$2.5 billion compared to 2017, driven by the proceeds from Nexa's IPO and the sale of non-core assets by Votorantim Cimentos in 2017.

Liquidity and indebtedness

By the end of 2018, consolidated debt totaled R$24.5 billion, down 1% compared to 2017. Notwithstanding the prepayment of debt amounting to R$1.9 billion, mostly by Votorantim Cimentos, the debt reduction was offset by the depreciation of the Brazilian real against the dollar (from R$/US$ 3.31 in Dec/17 to R$/US$ 3.87 in Dec/18).

The effect of the subsidiaries excluded from consolidation represents the total debt of the Ventos do Piauí wind farm, which is now recognized at the level of the joint venture between Votorantim Energia and CPPIB, and is therefore no longer consolidated in Votorantim's result.

Cash, cash equivalents and financial investments totaled R$11.0 billion, 42% of which are denominated in Brazilian currency.

Votorantim and Votorantim Cimentos have two revolving credit facilities amounting to US$700 million and expiring in 2023; along with cash, the liquidity position totals R$13.7 billion.

Net debt totaled R$13.2 billion, an increase of 7% year-on-year, chiefly driven by the depreciation of the Brazilian real against the dollar. Leverage (net debt/adjusted EBITDA) reached 1.91x, down 0.71x compared to December 2017 and 0.69x compared to September 2018.

Capex

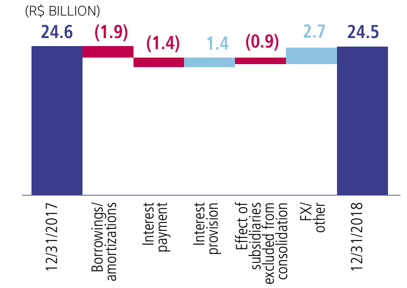
Capex totaled R$2.6 billion, down 17% year-on-year. Expansion projects represented 24% of investments.

Votorantim Cimentos's projects represented 34% of all investments in expansion.

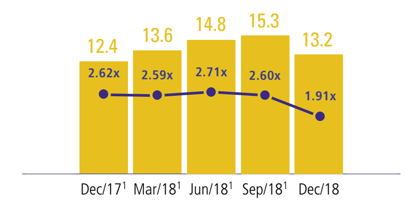
Nexa represented 56% of total investments in expansion; it continued to deepen the Vazante mine in the State of Minas Gerais, in Brazil, and also invested in other expansion projects. At the Vazante mine, the goal is to extend the mine's useful life to 2027, securing its zinc supply.

Votorantim Energia's wind farm—Ventos do Piauí I—accounted for 10% of total investments in expansion; the funds were allocated to complete the project's financial execution, early in the year.

Changes in **gross debt**
(R$ BILLION)

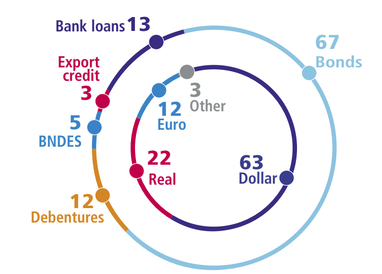


Net debt (R$ BILLION)
Net debt/Adjusted EBITDA

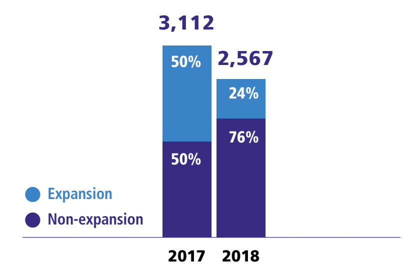


¹ Restated value

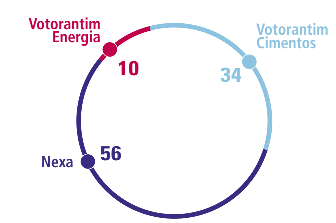
Debt (%) by **type** and **currency**



CAPEX (R$ MILLION)



Expansion **projects** (%)



A permanently capitalized investment holding company **with a long-term horizon**, Votorantim seeks to deliver superior financial returns with a positive social and environmental impact.

Portfolio

Portfolio **transformation** 102-10 | 102-15

In 2018, Votorantim made important changes to its portfolio. The incorporation of Votorantim Long Steel operations in Brazil by ArcelorMittal Brasil was approved by the Brazilian Antitrust Authority (CADE) in February. Following the transaction, Votorantim now holds a 15% ownership in ArcelorMittal Brasil's long steel business.

In March, controlling shareholders of Fibria and of Suzano entered into an agreement to combine both companies' operations; this transaction was completed in January 2019, after the necessary regulatory approvals were obtained in Brazil and abroad. Votorantim now holds a 5.5% minority interest in Suzano.

In October, the joint venture between Votorantim Energia and the Canada Pension Plan Investment Board (CPPIB) won the bidding to acquire the controlling stock of Companhia Energética de São Paulo (Cesp). This transaction was completed in December and is aligned with the joint venture's growth targets for electric power generation from renewable sources in Brazil.

PORTFOLIO

Real estate investments

ARCA:
arcaspaces.com
Instagram: @arcaspaces

PIU:
piuleopoldina.com.br

The Real Estate Investments business was created to develop Votorantim's real estate assets. In 2018, the business advanced in several development initiatives, including properties located in the Vila Leopoldina district, in the western region of São Paulo.

One of the projects was the retrofitting of a historic warehouse building owned by the company and located in Vila Leopoldina, which used to house the Metalúrgica Atlas smelting factory and has now become the newest event venue in the city. In partnership with a business group, the building, which used to be an industrial warehouse surrounded by walls, became a commercial venue with active curation. Named ARCA, the 9,000 m^2 venue was inaugurated in October with one of the city's most important events, part of the city's official calendar—the São Paulo Fashion Week. ARCA was also the chosen venue for Votorantim's Centennial celebration, among other events.

Votorantim has also restored a second warehouse building on the same lot. The first stage of the restoration works was completed in March 2019, and delivered 6,500 m^2. This is now an office space, and it maintained the active curation that contributes to the district's development.

Votorantim and other private institutions have also advanced on the Vila Leopoldina – Villa Lobos Urban Restructuring Project (PIU) presented to the São Paulo City Administration. The project aims to create conditions for a positive transformation in the whole region through a comprehensive program of actions in the public interest. The PIU is an instrument established by the Master Plan for São Paulo, enacted in 2014 and regulated in 2016. The new plan sets a number of guidelines for urban organization and restructuring in underutilized areas that can be potentially transformed.

The gradual recovery of the Brazilian economy—at a lower-than-expected pace after the truck drivers' strike and the uncertainty of election-year politics—impacted cement sales in Brazil in 2018, which fell 1.2% year-on-year according to the Brazilian Cement Association (SNIC).

Despite the slowdown in the cement market in Brazil, Votorantim Cimentos reported positive results both in the country and internationally compared to the previous year. Consolidated net revenue totaled R$12.6 billion in 2018, an increase of 15% year-on-year; and consolidated adjusted EBITDA amounted to R$2.6 billion, up 51% year-on-year. Excluding non-recurring events, the increase was of 18%. By the end of the year, Votorantim approved a capital increase for the amount of R$2.0 billion with the purpose of accelerating the deleveraging process, which had already been ongoing due to better operating results. After the capital increase, completed in January 2019, the company reached a *pro forma* net leverage ratio of 2.8x.

In addition to outstanding results, another highlight was the completion of the project to expand the Charlevoix unit, in the United States, which added 0.6 million tons of capacity. One milestone was the foundation of a non-operating holding company in Luxembourg to consolidate international investments, which will enable a more efficient cash and debt allocation in different geographies. In 2018, the company completed the divestment of projects in Peru, and is almost completing the divestment of operations in India, moving forward with the strategy of rationalizing its asset portfolio and focusing on countries with better value creation perspectives.

In Brazil, the most important moves were the foundation of Juntos Somos Mais, a company dedicated to customer loyalty and retail services; the acquisition of a shipping terminal in Manaus (State of Amazonas), marking the company's debut in a new region; and the growth of other products, especially agricultural limestone.

Initiatives adopted in logistics have also supported the businesses' evolution on three fronts:

1. Increased share of railway and waterway transportation.
2. Technology and modernization of operations, enabled by the Freight Intelligence model.
3. Collaborative businesses, including the automation of the inventory supply process, and the repositioning of distribution centers.

Other advances were made in co-processing, led by the Alternative Fuel and Raw Materials (AFR) area. Energy is generated through the appropriate disposal of industrial, commercial, and agricultural waste, which is co-processed at Votorantim Cimentos's units. This area's businesses focus on competitiveness (reduction of the cement production marginal cost), revenue generation (sale of services), and sustainability (reduction of CO_2 emissions and of the amount of waste that used to be disposed of at landfill sites). A leader in co-processing in Brazil, the company closed 2018 with more than 700,000 tons of processed waste, and the replacement of 28% of fossil fuels for fuels from renewable sources. The increased use of AFR to replace fossil fuels is a global strategy of Votorantim Cimentos, which has significantly been expanded in other geographies in projects to increase the use of these materials in Spain, Turkey, and Tunisia.

Aware of sustainability issues, the company has become the vice-president of the Cement Sustainability Initiative, a global sustainable development effort gathering the 24 largest manufacturers of this industry. By the end of 2018, the initiative was transferred to the Global Cement and Concrete Association (GCCA); Votorantim Cimentos is a founding member of this association.

By the end of 2018, the company announced that Walter Dissinger, Global CEO, has decided to take on new challenges after leading the company for more than five years. Marcelo Castelli, an executive who started working at Votorantim in 1997 and has held different executive positions at the company, is Votorantim's new CEO. Castelli is now responsible for leading the company on its continued growth path.

nexa

In 2018, Nexa Resources delivered positive results in the first full year following its IPO in New York, United States, and Toronto, Canada, compared to the production guidance disclosed to the market. In addition to meeting this target, he company continued to focus on updating mineral reserves and resources, obtained approval for the construction of its key greenfield project Aripuanã, located in the State of Mato Grosso, and enhanced its mining and smelter management practices.

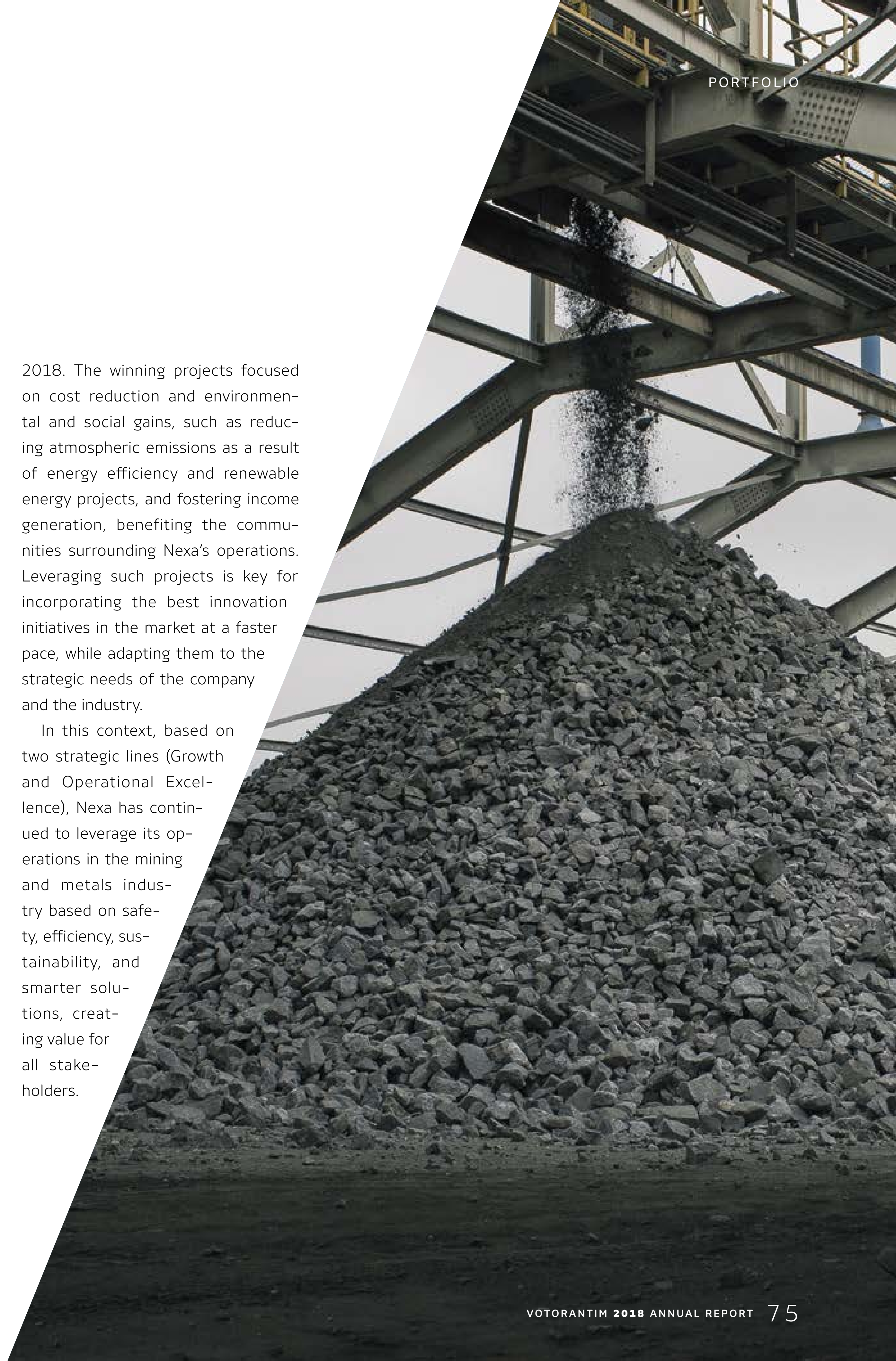
In 2018, Nexa's zinc equivalent metal production totaled 556,000 tons in its mining units, and metallic zinc sales by smelters reached 617,000 tons. Net revenue totaled US$2.5 billion (an increase of 2% year-on-year), and adjusted EBITDA was US$605 million in 2018.

The company's commitment to growth and operating excellence has also reflected on several fronts. The granting of the installation license enabled the beginning of the construction of the Aripuanã Project, an underground zinc polymetallic mine containing zinc, copper, lead, silver and gold, as well as a processing facility, both expected to be operational by 2021. Average production is estimated at 120,000 tons of zinc equivalent per year. A total of US$392 million will be invested in the project.

Among brownfield projects, the company continued to deepen the Vazante mine (zinc). The project has received approval from the Minas Gerais State Environmental Policy Council (Copam) for the implementation of dry stacking tailings at the mine, replacing conventional tailings dams. The dry system is safer for surrounding communities, prevents environmental damage, and reduces water use. Other highlights are the operational integration of the Pasco complex to optimize the operations of the Atacocha and El Porvenir mines; advances in the project for the conversion of the Cajamarquilla smelter's process to jarosite, increasing the plant's zinc extraction rate; and stabilization of the production at Cerro Lindo after several mine development initiatives were carried out in 2018.

Nexa's commitment to innovation was also one of the highlights of the year. The Mining Lab program—created in 2016 to support startups that develop innovative projects for the mining industry—had 186 subscriptions and nine winners in 2018. The winning projects focused on cost reduction and environmental and social gains, such as reducing atmospheric emissions as a result of energy efficiency and renewable energy projects, and fostering income generation, benefiting the communities surrounding Nexa's operations. Leveraging such projects is key for incorporating the best innovation initiatives in the market at a faster pace, while adapting them to the strategic needs of the company and the industry.

In this context, based on two strategic lines (Growth and Operational Excellence), Nexa has continued to leverage its operations in the mining and metals industry based on safety, efficiency, sustainability, and smarter solutions, creating value for all stakeholders.



cba

In 2018, CBA made consistent advances in its transformation process, started four years ago after the revision of its business strategy. One of the key factors of this change is the strengthening and evolution of the cultural program, which involves leaders and that has been disseminated to all company levels.

Even though it is still ongoing, this process has already positioned CBA among the top 10% of companies with the best organizational climate performances, according to the Korn Ferry-HayGroup methodology. With a rate of 81% of favorable responses by 96% of the professionals that voluntarily participated in the survey, the company reached the 90 percentile, becoming a market benchmark.

Another important step was the implementation of the Process to Accelerate Value Capture, which included over 800 initiatives across areas with the participation of nearly 10% of CBA's employees. There were important gains in adjusted EBITDA, and in the development of management towards competitiveness. The company reported net revenue of R$5.4 billion, and adjusted EBITDA of R$832 million in 2018.

When it comes to strategy, in 2018, CBA consolidated its positioning in the Transformed products market as a provider of aluminum solutions and services through co-creation and co-engineering in partnership with customers in the transportation and packaging segments. Exports to strategic customers in the United States increased in the period.

In the Primary products businesses, the company focused on operating efficiency and cost optimization. One of the highlights was the implementation of projects to increase the operating performance in line with environmental gains, such as in the Green Soderberg project for the setting up of 24 pilot furnaces using more advanced technology compared to the 12 units that were installed in 2017. This operation not only enables the automatic supply of electrolytic cells with alumina, but reduces greenhouse gas (GHG) emissions and increases the safety of operations. Another solution, whose implementation began in 2018, is the biomass steam boiler used in alumina operations. With capacity to produce 160 tons/hour of steam, it will increase CBA's energy matrix diversification, following the "green aluminum" trend. "Green aluminum" production is certified by the Aluminium Stewardship Initiative (ASI), a global entity dedicated to setting standards and certifying the sustainability and custody traceability of the aluminum chain. CBA is a member of the ASI and in 2018 it conducted a thorough evaluation of its processes against global standards, in preparation for its certification.

CBA has two water dams and four tailings dams, distributed among its units located in Alumínio (State of São Paulo), Itamarati de Minas and Miraí (State of Minas Gerais), and Niquelândia (State of Goiás). All dams are in compliance with the Integrated Dam Safety Management System (SIGBAR), adopted by CBA to ensure the physical integrity of its dams; and all of them have a Dam Safety Plan (PSB) and an Emergency Plan (PAE) in place. In order to improve even further its safety system, by the end of 2018 CBA implemented a communication project, as part of the Emergency Plan, in the Miraí and Itamarati units. This project includes meetings with government authorities and community leaders to foster an open dialogue with strategic stakeholders and the community. These activities will also be carried out for the Alumínio and Niquelândia units.

During the year, the company also disclosed its new logo, reflecting the transformation CBA has been going through.

Votorantim Energia

2018 was marked with investment opportunities that create value.

Several achievements were enabled by a strategy of:

- Growing in renewable energy generation through new acquisitions or developing company projects.
- Expanding the trading's customer base.
- Continually improving the company's infrastructure, with engaged personnel and efficient processes and systems.

An important achievement in the year was the completion of the transaction to form the joint venture with the Canada Pension Plan Investment Board (CPPIB)—a Canadian pension fund that is one of the ten largest in the world—to invest in renewable energy in Brazil, aiming to leverage this sector in the country. The joint venture now owns the Ventos do Piauí I and Ventos do Araripe III wind farms, located in the States of Piauí and Ceará, which together have an installed capacity of 564 megawatts.

The highlight of the year was the acquisition, by the joint venture, of Companhia Energética de São Paulo (Cesp), the company that owns the concession of three hydroelectric power plants in the State of São Paulo—the primary plant is Porto Primavera, whose concession period ends in 2048. This acquisition increased the joint venture's installed capacity to 2.2 gigawatts (GW), raising Votorantim Energia to a new level in terms of renewable energy generation.

On the trading front, in a highly competitive scenario, the sales volume increased to 2.3 average GW, including free market transactions with Votorantim investees and other customers, and in the regulated market. In the energy trading segment, Votorantim Energia closed 2018 as the second-largest energy trader in Brazil in terms of sales volume.

Such an increase is enabled by differentials such as stability, present on the certainty that the company will honor its contractual commitments, and the relationship it has built with over 300 customers. The company offers energy management and trading services. In 2018 alone, these services translated into revenue of nearly R$200 million for its customers.

All these achievements follow a restructuring in the sales area to leverage innovation in order to identify services that add more value to customers.

Additionally, Votorantim Energia invested in the development of solutions for the power plants owned by Votorantim's investees and for wind farms, focusing on automation, new operating and maintenance processes to improve efficiency and performance, reducing operating costs. At the same time, the company has started negotiating with startups for the development of smart grid projects; some startups have already developed, with the company, efficient and low-cost solutions for the execution of the projects.

The company has also improved its corporate governance practices; one of the major steps was the election of the first independent member of the company's Board of Directors. With vast experience in the electric power sector, the new member will help leverage the company's positioning in the market.

Votorantim Energia's consolidated results include the energy trading and services business for the whole year, and the power generation business up to May 2018, when the joint venture with CPPIB was established, and generation results started being recognized by the equity method. Within this scenario, Votorantim Energia closed 2018 with net revenue of R$4.5 billion, an increase of 8% year-on-year; and adjusted EBITDA of R$157 million, an increase of R$230 million compared to 2017. The joint venture reported net revenue of R$440 million, and adjusted EBITDA of R$322 million, including the results for the year of Ventos do Piauí I and Ventos do Araripe III as of June 2018, date of the acquisition of the wind farm by the joint venture.

Long steel

In 2018, Votorantim's long steel businesses in Colombia, operated by Acerias Paz del Río, and in Argentina, operated by Acerbrag, started being managed by Votorantim's International Steel area, which was created following the incorporation of Votorantim's long steel operations in Brazil by ArcelorMittal Brasil. This incorporation was completed in March.

This new model was conducted in such a way that both companies would be able to maintain standardized and autonomous operations abroad, aligned with the Votorantim DNA.

In Colombia, Acerías Paz del Río invested approximately R$20 million in the structural renovation of its blast furnace to increase operating stability and leverage productivity gains. The local steel market decelerated, driven by a lower civil construction activity, due to the scenario of uncertainty ahead of presidential elections in Colombia.

On the other hand, international steel prices rebounded, positively impacting the domestic market. This scenario has helped mitigate the decrease in demand.

In Argentina, Acerbrag was faced with a challenging context. Because of the measures taken by the government in the second half of the year, due to the commitment made with the International Monetary Fund (IMF), the country's economy sharply contracted, reflecting the lower demand for steel during the year. Even with this political and economic crisis, the operation remained stable, with customer default and costs under control, granting the company the capacity to overcome such hard times.

Within this scenario, the long steel business reported net revenue of R$2.1 billion and adjusted EBITDA of R$383 million for 2018, up 27% and 41% year-on-year.

PORTFOLIO

citrosuco

Citrosuco is one of the global leaders in orange juice production.

Orange juice is part of people's daily nutrition routine; with nutritional content that is similar to that of the fruit, it is a convenient alternative to the regular consumption of fruit and vegetables.

The company produces natural ingredients by processing the entire orange, supporting a global trend to replace non-renewable for renewable raw materials. The products are supplied to different industries, such as cosmetics, cleaning, and health, for example.

In the 2017-2018 season, Citrosuco consolidated the results of its evolution and reported the best operational performance results of its history. Production of Not From Concentrate (NFC) juice hit a record high, with an increase of 51% year-on-year. Net revenue totaled US$1.3 billion and EBITDA amounted to US$294 million, up 6% and 39% respectively year-over-year.

The company invested US$148 million in research and development of new products, in its digital transformation, and in its biggest NFC juice expansion project, beginning a new investment cycle. Important advances were also made in product research and development to better use oranges, and in the digital transformation of processes and operations, which will enable a more efficient use of resources and the adoption of industry 4.0 technologies.

Financial investment is aligned with the company's innovation process, based on three pillars: Innovation culture, External opportunities, and Strategic alignment. Activities to disseminate an innovative culture were carried out in the period, leveraging open innovation by startups, research institutions, universities and customers, making sure the initiatives are strategically aligned with the business.

Employee and supplier training was improved in themes relating to the integrity standards of the company, compliance, and safety, among others, totaling 170,000 hours of training in the 2017-2018 season. The company continued to develop its fruit growers, emphasizing productivity and sustainable production, totaling more than 8,000 hours of training in the last five seasons.

An industry leader in Rainforest Alliance certified orange, Citrosuco fosters the adoption of sustainable farming practices by growers and is one of the first companies to have 100% of its own fruit production assured using the SAI Platform, a global initiative for the development of sustainable agriculture the company is a member of. All these initiatives in partnership with growers resulted in over 100 farms having been independently assured against sustainable agriculture standards by at least one of the Sustainable Agriculture Initiative (SAI) Platform, the Rainforest Alliance, or the Fairtrade Foundation.

Striving for continually improving eco-efficiency processes, during the season the company consolidated the production of biomass from removed orange trees, which has become a new renewable source of energy for the business. Other groundbreaking initiatives are the use of biological agents to combat pest and citrus diseases, and the project that demonstrated the viability of converting the diesel fleet to flex vehicles (diesel and natural gas) used in juice transportation. This will reduce greenhouse gas (GHG) emissions and cut diesel consumption by up to 12%.

The company's commitment to environmental conservation translates into its Biodiversity Plan, which includes initiatives such as maintaining statutory nature reserves and protected areas, controlling protected and restored habitats, responsible land use, and adopting best farming practices. The company preserves nearly 17,000 hectares of the Atlantic Forest and Cerrado biomes. In these areas, seeds are collected for native species nurseries that supply saplings in support of Citrosuco's internal and external reforestation initiatives.

In this context, the company reaffirms its commitment to operating responsibly and to striving for efficiency and environmental conservation. Using the whole of the fruit, offering products that meet the current and future needs of society, and leveraging social and environmental development are the factors governing Citrosuco's strategic vision.

BancoVotorantim

In a year marked with the gradual recovery of the Brazilian economy at a lower-than-expected pace, given the uncertainties surrounding domestic politics and the global scenario, Banco Votorantim's (BV) main business—consumer finance—rebounded, especially in the second half of the year. Auto loans origination rose 8.2% year-on-year to R$17.0 billion in 2018; 89% of that amount correspond to used light vehicles, segment in which BV has a history of leadership and recognized competence.

Ranking sixth among the largest private banks in Brazil according to the Central Bank, BV reported net income of R$1.1 billion for 2018, an increase of 82% year-on-year, reflecting the evolution process it has been through for the past three years. This process is driven by three strategic pillars:

- Improving the businesses' profitability through the proper management of product and service lines.
- Increasing operational efficiency, by equalizing the relation between expenses and revenues.
- Diversifying sources of revenue through new businesses and new trade partnerships.

Since BV started its digital transformation process in 2014, it has tripled investments in technology to levels close to those of the global benchmarks of the financial industry. At the same time, it has emphasized an innovation culture, reinforcing its purpose of improving the customer experience. In retail channels, for example, digital platforms are accessed by over 2 million people on a monthly basis. Other examples of BV's digital transformation are the implementation of facial recognition for fraud control; the infrastructure of micro-services that enable a fast and effective credit decisions on digital channels; and the automatic reading of legal opinions, to better allocate resources in civil lawsuits.

BV also launched relationship platforms in 2018. For customers, in addition to providing a better experience in retail physical stores with a new layout and ambiance, the BV credit card mobile app has undergone significant changes, recording 70% of recurring access. Another app has been developed to facilitate the formalization of car loan proposals, which is already integrated with the sales force platforms and available to all of the nearly 18,000 multi-brand car dealerships BV has a relationship with. As a result of this investment, the average time for stores to fill out a proposal was cut by 35%.

The revision of the organizational culture serves the same purpose. Based on teamwork, similar to startups that have a higher level of autonomy, decisions have become more agile and assertive, translating into the offer of new services, the measurement of their results in terms of scale, adjustments, and delivery, in shorter cycles and with effective and predetermined governance. The work to reposition the brand adds to the achievement of a higher customer reliability level, meaning customers are able to diversify their operations with the institution.

Innovation is also applied to external solutions. BV agreed on several partnerships in 2018 with the purpose of leveraging business diversification and digital transformation, and offering loans for health and welfare procedures. In the second half of the year, the bank created a private equity fund to invest in the startups it finds promising. BV has already agreed on a partnership with an artificial intelligence fintech for advances against receivables, expanding the bank's presence in the small to medium sized business segment and focusing on funding the supply chain of its Wholesale customer portfolio.

BV also inaugurated its Innovation Lab (BV Lab) to connect with startups able to supply technology and have the bank as a client, or to bring business partnerships to the institution. The BV Lab has absorbed the Center of Excellence for Design and Customer Experience, in order to make sure that most of what BV strives for—in terms of innovation from the outside in—is aligned with the goal of improving customer experience.

All internal advances have reflected on operations, whose diversification, started in the previous year, produced results in 2018. BV reported over 4,000 student loan customers, nearly doubling this segment's operations from the first to the second half of the year. With regard to loans for solar energy solutions, also comparing the first and the second halves of the year, operations increased fivefold, an expansion pace that is expected to be maintained in the next fiscal year.

ASSURANCE REPORT

(A free translation of the original in Portuguese)

Independent auditor's limited **assurance** report
on information related to sustainability included in the 2018 Annual Report

To the Board of Directors and Stockholders
Votorantim S.A.
São Paulo - SP

Introduction

We have been engaged by Votorantim S.A. (''Votorantim'' or "Company") to present our limited assurance report on the compilation of the information related to sustainability included in the 2018 Annual Report of Votorantim for the year ended December 31, 2018.

Responsibilities of the Company's management

The management of Votorantim is responsible for the preparation and fair presentation of the information included in the 2018 Annual Report, in accordance with the Global Reporting Initiative (GRI Standards) 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 auditor's responsibilities

Our responsibility is to express a conclusion on the information included in the 2018 Annual Report based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01, "Issuance 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 and independence requirements, and other responsibilities, including in relation to the application of the Brazilian Standard on Quality Control (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures regarding the compliance with the applicable ethical requirements, professional standards and legal and regulatory requirements.

Moreover, the aforementioned standards require that the work be planned and performed to obtain limited assurance that the information included in the 2018 Annual Report, 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 enables the issue of 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 2018 Annual Report, 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 2018 Annual Report of Votorantim.

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 2018 Annual Report.

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 and criteria of the Global Reporting Initiative (GRI Standards) applied in the preparation of the information related to sustainability included in the 2018 Annual Report.

We believe that the evidence we have 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 issuance of an opinion on the sustainability information included in the 2018 Annual Report. 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. Had we 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 2018 Annual Report. Therefore, we do not express an opinion on this information.

Non-financial data are 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 carry out any work on the data reported for prior periods, nor future projections and goals.

The preparation and presentation of the sustainability indicators were performed pursuant to the criteria of the GRI-Standards and, therefore, do not aim to provide assurance with regard to the compliance with social, economic, environmental or engineering laws and regulations. However, the aforementioned standards establish the presentation and disclosure of possible cases of non-compliance with such regulations when sanctions or significant fines are applied. Our limited assurance report should be read and understood in this context, which is inherent to the criteria selected (GRI Standards).

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 2018 Annual Report of Votorantim S.A. has not been compiled, in all material respects, in accordance with the Global Reporting Initiative (GRI Standards).

São Paulo, March 22, 2019

PricewaterhouseCoopers
Contadores Públicos Ltda.
CRC 2SP023.173/O-4

Eliane Kihara
Contadora CRC 1SP212496/O-5

GRI Disclosures

GENERAL DISCLOSURES

Information on **employees** and other workers |GRI 102-8|

	2018		
	Region		
	Brazil	Other countries	Total
Own Employees			
Monthly salary contracts	20,147	8,892	29,039
Hourly wage contracts	4,776	359	5,135
Trainees	0	0	0
Total	**24,923**	**9,251**	**34,174**
Interns and Apprentices			
Interns and summer students	690	85	775
Apprentices	570	57	627
Total	**1,260**	**142**	**1,402**
Total of direct employees	**26,183**	**9,393**	**35,576**
Contractors			
Contractors (Permanent contract)	1,229	4,947	6,176
Total	**1,229**	**4,947**	**6,176**
Total workforce	**27,412**	**14,340**	**41,752**

Collective **bargaining** agreements |GRI 102-41|

	2017	2018
	92.0%	85.0%

NOTE:

• Votorantim Cimentos only measures this indicator for its operations in Brazil.

GRI DISCLOSURES

ENVIRONMENTAL DISCLOSURES

Energy consumption within the organization (GJ) |GRI 302-1|

	2017	2018
Total fuel consumption from non-renewable sources	110,765,249	117,926,384
Total fuel consumption from renewable sources	150,510,896	29,664,142
Total energy consumption within the organization	264,170,043	183,185,779

NOTE:

• This indicator is not reported by Votorantim S.A., Banco Votorantim and Reservas Votorantim.

Energy intensity (GJ/t) |GRI 302-3|

Company	Main products	2016	2017	2018
Nexa	Zinc equivalent	13.610	14.490	14.330
Votorantim Cimentos	Cement	3.170	2.660	2.686
	Aggregates	0.028	0.031	0.027
	Concrete	0.145	0.143	0.129
	Mortar	0.070	0.074	0.069
	Limes and agricultural inputs			2.187
	Clinker		3.350	3.533
CBA	Aluminum	78.620	4.192	3.810
	Processed bauxite	0.048	0.072	0.001
	Nickel carbonate	26.720	113.477	-
	Electrolytic nickel	29.270	57.380	-
	Molten aluminum		81.910	83.690
Long steel	Steel (rolled)	1.840	1.340	-
	Steel (bar)	2.920	2.860	58.000
	Mineral (iron, limestone, carbon)			0.071

NOTE:

- This indicator is not reported by Citrosuco, Votorantim S.A. and Banco Votorantim.
- Data includes renewable and non-renewable energy and operations inside and outside of the company.
- Not applicable for Votorantim Energia..

Water withdrawal by source |GRI 303-1|

Total water use by source	2016	2017	2018
Surface water (rivers, lakes, wetlands, oceans)	64,603,511.9	222,401,322.0	60,680,105.1
Ground water	116,992,500.9	106,930,958.5	122,617,573.1
Rainwater collected directly and stored by the company	11,913,401.9	8,524,679.7	9,614,774.6
Waste water from another organization			4,620,554.0
Water utilities	524.132,3	827.914,0	828,710.2
Total	**194,033,547.0**	**338,684,874.2**	**198,361,716.9**

NOTE:

- This indicator is not reported by Votorantim S.A.

Habitats protected or restored - 2018 |GRI 304-3|

Biome	Total area (km²)	Areas where the success of restoration measures was approved by independent external professionals, or that comply with external standards/protocols
Amazon	28.7	28.7
Caatinga	3.7	3.7
Savanna (Cerrado)	454.3	93.8
Atlantic Forest	499.4	394.0
Tropical wetland (Pantanal)	1.7	1.7
Pampa	4.2	4.2
Other	0.4	0.1
Total	**992.5**	**526.2**

Total area by company (km²)	2016	2017	2018
Long steel	1,796.8	1,848.2	0.1
Citrosuco	175.4	175.3	134.8
Nexa	14,056.0	58.4	56.2
Reservas Votorantim	308.0	308.0	299.4
CBA	236.5	351.6	331.5
Votorantim Cimentos	117.2	117.2	113.6
Votorantim Energia	43.5	57.8	57.0
Total	**16,733.4**	**2,916.5**	**992.5**

NOTE:

- Habitats protected or restored are located in Brazil (states of Ceará, Distrito Federal, Espírito Santo, Goiás, Minas Gerais, Mato Grosso do Sul, Mato Grosso, Paraná, Pernambuco, Rio de Janeiro, Rondônia, Santa Catarina, Sergipe, São Paulo, Tocantins) and Colombia (Boyacá province).
- This indicator is not reported by Banco Votorantim.

GRI DISCLOSURES

Direct (Scope 1) **GHG** emissions (tCO2eq) |GRI 305-1|

Company	Gases included in the calculation	2016	Gases included in the calculation	2017	Gases included in the calculation	2018
Long steel	CO_2-CH_4-N_{20}	1,501,904.0	CO_2-CH_4-N_{20}-HFCs-PFCs-SF_6-NF_3	1,503,440.0	CO_2-CH_4-N_{20}	926,126.0
Citrosuco	CO_2-CH_4-N_{20}	457,053.0	CO_2-CH_4-N_{20}	431,964.0	CO_2-CH_4-N_{20}	470,687.0
Nexa	CO_2-CH_4-N_{20}	189,143.0	CO_2-CH_4-N_{20}-CF_4	165,354.0	CO_2-CH_4-N_{20}	201,024.0
Votorantim Cimentos	CO_2-CH_4-N_{20}	22,679,560.0	CO_2-CH_4-N_{20}	21,883,318.0	CO_2-CH_4-N_{20}	22,568,591.7
CBA	CO_2-CH_4-N_{20}-PFCs	1,524,979.0	CO_2-CH_4-N_{20}-HFCs-PFCs-SF_6	1,387,085.0	CO_2-CH_4-N_{20}-HFCs-PFCs-SF_6	1,370,377.5
Votorantim Energia	-	-	-	-	CO_2-CH_4-N_{20}-HFCs-SF_6	29,092.5
Total		**26,352,639.0**		**25,371,161.0**		**25,565,898.6**

NOTE:

- This indicator is not reported by Votorantim S.A., Banco Votorantim and Reservas Votorantim.
- Total greenhouse gas emissions in this Report were based on preliminary data. The final data of the investees will be available on the Public Emissions Registry platform (https://bit.ly/2UAmgBL).

Energy indirect (Scope 2) **GHG** emissions (tCO2eq)

|GRI 305-2|

Company	Gases included in the calculation	2018
Long steel	CO_2-CH_4	164,022.4
Nexa	CO_2	609,040.0
Votorantim Cimentos	CO_2	866,637.3
CBA	CO_2	21,115.2
Votorantim Energia	CO_2	69.2
Total		**1,660,884.0**

NOTE:

- This indicator is not reported by Citrosuco, Votorantim S.A., Long steel, CBA, Banco Votorantim and Reservas Votorantim.

Other indirect (Scope 3) GHG **emissions** (tCO_2eq)

|GRI 305-3|

Company	Gases included in the calculation	2018
Nexa	CO_2	47,287.0
Votorantim Cimentos	CO_2-CH_4-N_{20}	610,800.8
Votorantim Energia	CO_2-CH_4-N_{20}	667.9
Total		**658,755.7**

NOTE:

- This indicator is not reported by Citrosuco, Votorantim S.A., Long steel, CBA, Banco Votorantim and Reservas Votorantim.

Intensity of greenhouse gas **emissions** (GEE) (tCO_2eq/t) |GRI 305-4|

Company	Main Product	2016	2017	2018
Votorantim Cimentos	Cement	0.633	0.633	0.622
	Aggregates	0.001	0.002	0.001
	Concrete	0.010	0.010	0.009
	Mortar	0.070	0.074	0.002
	Limes		0.088	0.487
Nexa	Zinc equivalent	0.779	0.820	0.822
Long steel	Steel (bar)	1.094	1.020	3.070
	Bars			0.696
	Wires			13.298
	Wire rod			1.567
	Construction mesh			6.621
CBA	Aluminum		0.229	0.219
	Processed bauxite	0.003	0.004	0.003
	Nickel carbonate	8.478	6.515	-
	Electrolytic nickel	2.585	1.688	-
	Molten aluminum	4.991	3.714	3.905

NOTE:

- This indicator is not reported by Citrosuco, Votorantim Energia, Banco Votorantim, Reservas Votorantim and Votorantim S.A.
- Data includes renewable and non-renewable energy and operations inside and outside of the company.

Other significant atmosphere **emissions** (t) |GRI 305-7|

Category	2017	2018
NOX	64,092.0	52,616.2
SOX	18,985.0	24,450.4
Persistent Organic Pollutants (POP)	0.0	0.1
Volatile Organic Compounds (COV)	1,502.0	1,176.7
Hazardous Atmospheric Pollutants (HAP)	0.0	0.0
Particulate Matterl (MP)	6,917.0	4,407.9
Other standard categories of air emissions identified in regulations	89.0	29,996.7

NOTE:

- This indicator is not reported by Citrosuco, Banco Votorantim, Reservas Votorantim and Votorantim S.A.

Total **water** discharge (m^3) |GRI 306-1|

Total water discharge	2016	2017	2018
Total discharged volume	321,117,049.0	319,043,106.6	152,557,874.6

NOTE:

- This indicator is not reported by Votorantim S.A.

Waste by type and disposal method (t) |GRI 306-2|

Non-hazardous waste	2016	2017	2018
Composting	58,264.0	56,981.0	80,626.3
Reuse	543,179.0	989,736.0	113,417.0
Recycling	205,652.0	852,786.0	65,482.8
Recovery, including energy recovery	16,210.0	4,272.0	3,830.4
Incineration (mass burn)	30.0	440.0	2,074.3
Landfill	25,302.0	257,663.0	50,440.5
Deep well injection			0.0
On-site storage	191,464.0	161,995.0	52,273.4
Other	722,467.0	1,852,468.0	1,623,509.2
Total	**1,762,568.0**	**4,176,341.0**	**1,991,653.9**

Hazardous waste	2016	2017	2018
Composting			
Reuse	2,191.0	2,645.0	8,904.5
Recycling	23,183.0	19,373.0	2,265.4
Recovery, including energy recovery	416.0	15,170.0	9,437.6
Incineration (mass burn)	443.0	2,430.0	606.5
Landfill	10,407.0	12,762.0	7,920.0
Deep well injection			
On-site storage	805.0	60,832.0	134.6
Other	23,704.0	13,365.0	2,717.6
Total	**61,149.0**	**126,577.0**	**31,986.1**

NOTE:

- Indicator not reported by Votorantim S.A.
- Votorantim Cimentos reports the consolidated Reuse and Recycling values in the Reuse category.
- Banco Votorantim reports only the amount of waste sent for recycling and generated on construction site.

Percentage of new **suppliers** that were screened using environmental criteria |GRI 308-1|

New suppliers that were screened using environmental criteria	2016	2017	2018
Total number of new suppliers	4,559	10,244	8,286
Total number of new suppliers screened using environmental criteria	669	1,544	379
Percentage of new suppliers screened	14.7%	15.1%	4.6%

Negative environmental impacts in the **supply chain** and actions taken |GRI 309-1|

	2016	2017	2018
Total number of suppliers	78,990	99,284	27,641
Total number of suppliers assessed for environmental impacts	4,299	7,120	1,155
Percentage of suppliers assessed for environmental impacts	5.4%	7.2%	4.2%

NOTE:

- Assessments informed by audits, contractual reviews, two-way engagement, and complaint and grievance mechanisms.

SOCIAL DISCLOSURES

New employee **hires** and employee turnover |GRI 401-1|

	Gender		Age Range		
2018	Men	Women	Under 30 years old	30-50 years old	Over 50 years old
New hires	4,303	1,520	2,977	2,437	409
Employees	27,849	6,139	6,535	22,085	5,368
Termination of employment	4,644	1,398	2,078	3,022	942
Percentage of new hires	15.5%	24.8%	45.6%	11.0%	7.6%
Turnover	16.7%	22.8%	31.8%	13.7%	17.6%

Occupational **health** and safety indicators |GRI 403-2|

2016	Own employees		Contractors	
Occupational health and safety	Global	Brazil	Global	Brazil
Hours/men worked	21,160,298	79,147,034		
Number of injuries	283	442		
Number of fatalities	0	4	5	3
Number of lost days	2,426	11,478		

2017	Own employees		Contractors	
Health and safety indicators	Global	Brazil	Global	Brasil
Hours/men worked	35,588,531	105,320,651		
Number of injuries	117	431		
Number of fatalities	3	0	6	10
Number of lost days	2,517	5,775		

2018	Own employees		Contractors	
Health and safety indicators	Global	Brazil	Global	Brazil
Hours/men worked	18,974,315	63,193,343		
Number of injuries	32	74		
Number of fatalities	0	1	0	4
Number of lost days	1,597	3,095		

Average hours of **training** per year per employee

|GRI 404-1|

Employee category	Gender	2016	2017	2018
Senior management	Women	6.2	9.2	0.0
	Men	9.0	8.0	5.2
Middle management	Women	5.5	11.4	17.4
	Men	8.5	15.7	24.2
Coordinator/Adviser	Women	5.1	15.7	26.7
	Men	7.4	16.8	27.5
Technicians/Analysts/Supervisors	Women	0.7	25.4	21.6
	Men	2.3	24.2	29.8
Trainee	Women	–	0.0	0.0
	Men	–	0.0	0.0
Operational	Women	0.1	9.2	17.6
	Men	0.2	12.3	17.2
Interns	Women	–	0.0	45.2
	Men	–	0.0	83.6
Apprentices	Women	–	0.0	23.6
	Men	–	0.0	27.2

NOTE:

- In 2018, the data refer only to Votorantim S.A. and Center of Excellence (CoE).

Diversity of governance bodies |GRI 405-1|

Company's minority groups	2016	2017	2018
Employees over 50 years old	6,660	6,174	5,370
Women	7,872	7,710	7,092

Governance members – gender	2016	2017	2018
Men	112	134	89
Women	6	12	18

Governance members – age	2016	2017	2018
Under 30 years old	0	0	0
30 and 50 years old	50	61	49
Over 50 years old	68	85	58

NOTE:

- Assumptions for data reported in 2017 were adjusted to ensure comparability.

GRI DISCLOSURES

Employees in each **category** |GRI 405-1|

	Age Group %				
Position	-30 years	30 to 50 years	+50 years	Men %	Women %
Senior management	0.0	45.8	54.2	83.2	16.8
Middle management	1.2	78.8	20.0	67.3	32.7
Coordinators/Advisers	10.2	75.9	13.9	70.7	29.3
Technicians/Analysts/Supervisors	20.2	68.8	11.2	68.4	31.6
Trainee	100.0	0.0	0.0	0.0	100.0
Operational	20.6	62.5	17.0	86.3	13.7
Interns	99.0	1.0	0.0	48.3	51.7
Apprentices	99.4	0.6	0.0	61.6	38.4
Total	22.4	62.4	15.2	80.0	20.0

New **suppliers** that were screened using social criteria |GRI 414-1|

	2016	2017	2018
Labor practices			
Total number of new suppliers	4,559	10,244	8,286
New suppliers screened using criteria relative to labor practices	1,653	2,601	434
Percentage of new suppliers screened	36.3%	25.4%	5.2%
Impacts on society			
Total number of new suppliers	4,559	10,244	8,286
New suppliers screened using criteria relative to impacts on society	728	1,097	198
Percentage of new suppliers screened	16.0%	10.7%	2.4%
Human rights			
Total number of new suppliers	4,559	10,244	8,286
New suppliers screened using human rights criteria	1,490	1,261	1,567
Percentage of new suppliers screened	32.7%	12.3%	18.9%

NOTE:

- This indicator is not recorded by Reservas Votorantim.

Negative **social impacts** in the supply chain and action taken |GRI 414-2|

	2016	2017	2018
Labor practices			
Total number of suppliers	78,990	99,284	27,641
Suppliers assessed for labor practices	4,065	6,646	5,212
Percentage of suppliers assessed	5.1%	6.7%	18.9%
Impacts on society			
Total number of suppliers	78,990	99,284	27,641
Suppliers assessed for impacts on society	3,963	5,827	271
Percentage of suppliers assessed	5.0%	5.9%	1.0%
Human rights			
Total number of suppliers	78,990	99,284	27,641
Suppliers assessed for human rights issues	5,582	19,535	13,034
Percentage of suppliers submitted assessed	7.1%	19.7%	47.2%

NOTE:

- This indicator is not reported by Reservas Votorantim.

Operations with local community **engagement**, impact assessments and development programs |GRI 413-1|

	2016	2017	2018
Total operations	565	436	357
Operations with community engagement	93	142	142
Percentage of operations with local community engagement	16.5%	32.6%	39.8%

NOTE:

- This indicator is not reported by Banco Votorantim.

Incidents of **discrimination** and corrective actions taken |GRI 406-1|

Discrimination cases	2016	2017	2018
Harassment and abuse of power	15	53	51
Other incidents (race, age and nationality)	12	12	6
Other incidents (discrimination and retaliation)	49	118	89
Total number of discrimination cases	76	183	146

Incidents of discrimination	2016	2017	2018
Complaints received by the Ombudsman	76	183	92
Complaints with grounds	64	67	54

Operations and **suppliers** at significant risk for incidents of child labor |GRI 408-1|

Operations and suppliers considered to have significant risk for incidents of child labor and/ or young workers exposed to hazardous work	2016	2017	2018
Votorantim S.A. (Banco Votorantim, CBA, Citrosuco, Nexa, Reservas Votorantim, Long steel, Votorantim Cimentos, Votorantim Energia and the investment holding company)	0	0	0

Operations and **suppliers** with significant risk for incidentes of forced or compulsory labor |GRI 409-1|

Number of operations and suppliers at significant risk for incidents of forced or compulsory labor	2016	2017	2018
Votorantim S.A. (CBA, Citrosuco, Nexa, Reservas Votorantim, Long steel, Votorantim Cimentos, Votorantim Energia and the investment holding company)	0	0	0

Banco Votorantim	2018
Number of operations with significant risk for incidents of forced or compulsory labor	297
Number of suppliers with significant risk for incidents of forced or compulsory labor	141

NOTE:

- Banco Votorantim considered the number of clients that entered the flow in 2018 with socio-environmental risk analysis in 2018. The bank reported the total number of clients analyzed in 2018 by the socio-environmental risk area and had activities under sectors with risks of engaging in forced labor.

Operations that have been subject to **human rights** reviews or impact assessments |GRI 412-1|

	2016	2017	2018
Total number of operations (Brazil and abroad)	565	413	383
Operations subject to reviews	74	73	65
Percentage of operations subject to reviews	13.1%	17.7%	17.0%

Banco Votorantim	2017	2018
Total number of operations (Brazil and abroad)	3,434	1,390
Operations subject to reviews	1,034	717
Percentage of operations subject to reviews	30.1%	51.6%

NOTE:

- Banco Votorantim considered the number of clients that entered the flow in 2018 with socio-environmental risk analysis in 2018. The bank reported the total number of clients analyzed in 2018 by the socio-environmental risk area and had activities under sectors with risks of engaging in forced labor.

ECONOMIC DISCLOSURES

Direct economic value **generated** and **distributed** |GRI 201-1|

Value added breakdown (R$/million)	2016	2017	2018
DIRECT ECONOMIC VALUE GENERATED			
Revenues			
Sales of products and services	30,383	31,362	36,510
Other operating income (expense), net	581	(553)	550
Estimated loss on doubtful accounts	(4)	-	(15)
Total Revenues	**30,960**	**30,809**	**37,045**
Inputs acquired from third parties			
Cost of goods sold and services provided	(17,738)	(17,573)	(22,065)
Impairment of assets	(2,151)	23	52
Gross value added	11,071	13,259	15,032
Depreciation, amortization and depletion	(2,603)	(2,325)	(2,470)
Net value added generated by the Company	**8,468**	**10,934**	**12,562**
Value added received through transfers			
Equity in the results of investees	768	1,219	1,634
Finance income and foreign exchange losses	5,097	2,277	5,204
Total value added received through transfers	5,865	3,496	6,838
Total value added to distribute	**14,333**	**14,430**	**19,400**

Value added breakdown (R$/million)	2016	2017	2018
DISTRIBUTION OF VALUE ADDED			
Personnel and payroll charges			
Direct compensation	2,553	2,469	2,951
Benefits	597	600	709
Social charges	1,023	947	1,040
Total personnel and payroll charges	**4,173**	**4,016**	**4,700**
Taxes and contributions			
Federal	2,217	2,491	2,277
State	2,904	2,604	2,220
Municipal	18	13	15
Deferred taxes	(870)	(586)	608
Total taxes and contributions	**4,269**	**4,522**	**5,120**
Third-party capital remuneration			
Finance costs and foreign exchange losses	6,814	4,766	7,247
Rentals	328	316	379
Total third-party capital remuneration	**7,142**	**5,082**	**7,626**
Own capital remuneration			
Dividends	89	499	1,265
Non-controlling interest	45	220	208
Reinvested profits (offset losses)	(1,085)	239	699
Loss on discontinued operations	(300)	(148)	(218)
Total Own capital remuneration	**(1,251)**	**810**	**1,954**
Value added distributed	**14,333**	**14,430**	**19,400**

Confirmed incidents of **corruption** and actions taken |GRI 205-3|

	2016	2017	2018
Total number of confirmed incidents of corruption	8	0	0
Employees dismissed or disciplined	3	2	0
Termination or non-renewal of contracts with business partners	4	0	0

Lawsuits brought on by **unfair competition**, trust and monopoly practices |GRI 206-1|

	2016	2017	2018
Nexa Resources	0	0	0
Citrosuco	0	0	0
Votorantim Energia	0	0	0
Votorantim Cimentos	0	35	36
Long steel	0	0	0
CBA[1]	-	-	0
Banco Votorantim[1]	-	-	0
Reservas Votorantim[1]	-		0
Votorantim S.A.[1]	-	-	0

NOTE:

[1] These companies did not report this indicator in 2016 and 2017.

GRI SUMMARY

GRI **Summary**

GRI Standards	Disclosure	Page and/or link	Global compact	SDGs	OECD	Assurance
GRI 102: Foundation 2016						
GRI 102: General disclosures 2016	**Organizational profile**					
	102-1 Name of the organization	The invetment holding company, p. 14				
	102-2 Activities, brands, products, and services	The invetment holding company, p. 14				
	102-3 Location of headquarters	The invetment holding company, p. 14				
	102-4 Location of operations	The invetment holding company, p. 14				
	102-5 Ownership and legal form	The invetment holding company, p. 14				
	102-6 Markets served	The invetment holding company, p. 14				
	102-7 Scale of the organization	The invetment holding company, p. 14				
	102-8 Information on employees and other workers	The invetment holding company, p. 14; Human and Organizational Development (DHO), p. 46; General Disclosures, p. 70				
	102-9 Supply chain	Risk management, p. 37				
	102-10 Significant changes to the organization and its supply chain	Portfolio transformation, p. 70				
	102-11 Precautionary Principle or approach	Risk management, p. 37				
	102-12 External initiatives	We have been, since 2011, signatories to the United Nations Global Compact initiative, which mobilizes businesses worldwide to adopt fundamental and globally accepted values on human rights, labor, environment and anticorruption. Information on each investee's external initiatives can be found on their own reports.				
	102-13 Membership of associations	**Ana Paula de Medeiros Carracedo**: Deputy Chair of Amcham's Compliance and Risk Management Committee; member UN Global Compact's Advisory Council and Anti-Corruption Work Group; Member of the Corporate Governance Congress Commission of the IBGC (Corporate Governance Brazilian Institute) and of the Global Anti-Corruption and Corporate Responsibility Commission of the ICC (International Chamber of Commerce). **David Canassa**: Member of São Paulo Federation of Industries (Fiesp) Superior Council for the Environment (COSEMA)				
	Strategy					
	102-14 Statement from senior decision-maker	Message from the Board of Directors, p. 8				
	102-15 Main impacts, risks, and opportunities	Portfolio transformation, p. 70				

GRI SUMMARY

GRI Standards	Disclosure	Page and/or link	Global compact	SDGs	OECD	Assurance
	Ethics and integrity					
	102-16 Values, principles, standards, and norms of behavior	Votorantim DNA, p. 15				
	102-17 Mechanisms for advice and concerns about ethics	Compliance Program, p. 34				
	Governance					
	102-18 Governance structure	Governance model, p. 30				
	102-19 Delegating authority	Governance model, p. 30				
	102-20 Executive-level responsibility for economic, environmental, and social topics	Governance model, p. 30				
	102-21 Consulting stakeholders on economic, environmental, and social topics	Materiality, p. 2				
	102-22 Composition of the highest governance body and its committees	Board of Directors, p. 33				
	102-23 Chair of the highest governance body	Board of Directors, p. 33				
	102-24 Nominating and selecting the highest governance body	Board of Directors, p. 33				
	102-25 Conflicts of interest	Compliance Program, p. 34				
	102-26 Role of highest governance body in setting purpose, values, and strategy	Family Board, p. 32				
	102-27 Collective knowledge of highest governance body	Family Board, p. 32				
	102-29 Identifying and managing economic, environmental, and social impacts	Governance model, p. 30				
	102-30 Effectiveness of risk management processes	Risk management, p. 37				
	102-31 Review of economic, environmental, and social topics	Risk management, p. 37				
	102-32 Highest governance body's role in sustainability reporting	Materiality, p. 2				
	Stakeholder engagement					
	102-40 List of stakeholder groups	Materiality, p. 2				
	102-41 Collective bargaining agreements	General Disclosures, p. 70				
	102-42 Basis for identifying and selecting stakeholders with whom to engage	Materiality, p. 2				
	102-43 Approach to stakeholder engagement	Materiality, p. 2				
	102-44 Key topics and concerns raised through stakeholder engagement	Materiality, p. 2				

GRI Standards	Disclosure	Page and/or link	Global compact	SDGs	OECD	Assurance
	Reporting practice					
	102-45 Entities included in the consolidated financial statements	About this report, p. 1				
	102-46 Defining report content and topic boundaries	Materiality, p. 2				
	102-47 List of material topics	Materiality, p. 2				
	102-48 Restatements of information	In the indicator 405-1, governance composition by age group was changed from 12, 994 and 361 to 0, 49 and 58, respectively.				
	102-49 Changes in the list of material topics and topic boundaries	About this report, p. 1				
	102-50 Reporting period	About this report, p. 1				
	102-51 Date of most recent previous report	2017, published in March 2018.				
	102-52 Reporting cycle	About this report, p. 1				
	102-53 Contact point for questions regarding the report	About this report, p. 1				
	102-54 Claims of reporting in accordance with the GRI Standards	About this report, p. 1				
	102-55 GRI content index	About this report, p. 1				
	102-56 External assurance	Assurance report, p. 86				

			Omission						
GRI Standards	Disclosure	Page and/or link	Part omitted	Reason	Expla-nation	Global Compact	SDGs	OECD	Assu-rance
Material topics									
GRI 200 Standards Economic Series									
Economic Performance									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	2018 Results, p. 65							
	103-2 The management approach and its components	2018 Results, p. 65							
	103-3 Evaluation of the management approach	2018 Results, p. 65							
GRI 201: Economic performance 2016	**201-1** Direct economic value generated and distributed	Economic Disclosures, p. 103							Yes
Anti-corruption									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Compliance Program, p. 34							
	103-2 The management approach and its components	Compliance Program, p. 34							
	103-3 Evaluation of the management approach	Compliance Program, p. 34							
GRI 205: Anti-corruption 2016	**205-3** Confirmed incidents of corruption and actions taken	Economic Disclosures, p. 103				P. 10		VII. Combating bribery, bribe solicitation and extortion	Yes

GRI SUMMARY

GRI Standards	Disclosure	Page and/or link	Omission: Part omitted	Omission: Reason	Omission: Expla-nation	Global Compact	SDGs	OECD	Assu-rance
Anti-competitive behavior									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Compliance Program, p. 34							
	103-2 The management approach and its components	Compliance Program, p. 34							
	103-3 Evaluation of the management approach	Compliance Program, p. 34							
GRI 206: Anti-competitive behavior 2016	**206-1** Legal actions for anti-competitive behavior, antitrust, and monopoly practices	Economic Disclosures, p. 105					16	" X. Competition XI. Taxation "	Yes
GRI 300 Standards Environmental series									
Energy									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 302: Energy 2016	**"302-1** Energy consumption within the organization"	Environmental Disclosures, p. 91					7, 8, 12, 13, 14, 15		Yes
	302-3 Energy intensity	Environmental Disclosures, p. 91				P. 7, P.8, P.9	7, 8	VI. Environment	
Water									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 303: Water 2016	**303-1** Water withdrawal by source	Environmental Disclosures, p. 92					6		Yes
Biodiversity									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Innovation in biodiversity, p. 43							
	103-2 The management approach and its components	Innovation in biodiversity, p. 43							
	103-3 Evaluation of the management approach	Innovation in biodiversity, p. 43							
GRI 304: Biodiversity 2016	**304-3** Habitats protected or restored	Environmental Disclosures, p. 92				P.7, P.8, P.9	6, 13, 14, 15	VI. Environment	Yes

GRI SUMMARY

GRI Standards	Disclosure	Page and/or link	Omission: Part omitted	Omission: Reason	Omission: Explanation	Global Compact	SDGs	OECD	Assurance
Emissions									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 305: Emissions 2016	**305-1** Direct (Scope 1) GHG emissions	Environmental Disclosures, p. 93					3, 12, 13, 14, 15		Yes
	305-2 Energy indirect (Scope 2) GHG emissions	Environmental Disclosures, p. 93					3, 12, 13, 14, 15		
	305-3 Other indirect (Scope 3) GHG emissions	Environmental Disclosures, p. 94					3, 12, 13, 14, 15		
	305-4 GHG emissions intensity	Environmental Disclosures, p. 94				P.7, P.8, P.9	13, 14, 15	VI. Environment	
	305-7 NOx, SOx, and other significant air emissions	Environmental Disclosures, p. 95					3, 13, 14, 15		Yes
Waste and effluents									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 306: Waste and effluents 2016	**306-1** Water discharge by quality and destination	Environmental Disclosures, p. 95					3, 6, 12		Yes
	306-2 Waste by type and disposal method	Environmental Disclosures, p. 95					3, 6, 12		Yes
Supplier environmental assessment									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 308: Supplier Environmental Assesment 2016	**308-1** New suppliers that were screened using environmental criteria	Environmental Disclosures, p. 96				P.7, P.8, P.9			Yes
	308-2 Negative environmental impacts in the supply chain and actions taken	Environmental Disclosures, p. 96				P.7, P.8, P.9		VI. Environment	Yes

GRI SUMMARY

GRI Standards	Disclosure	Page and/or link	Omission: Part omitted	Reason	Expla-nation	Global Compact	SDGs	OECD	Assu-rance
GRI 400 Standards Série Social									
Employment									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Human and Organizational Development (DHO), p. 46							
	103-2 The management approach and its components	Human and Organizational Development (DHO), p. 46							
	103-3 Evaluation of the management approach	Human and Organizational Development (DHO), p. 46							
GRI 401: Employment 2016	**401-1** New employee hires and employee turnover	Social Disclosures, p. 97				P.3, P.6	8	V. Employment and industrial relations	
Occupational health and safety									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 403: Occupational health and safety 2016	**403-2** Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Social Disclosures, p. 97				P.3, P.6	3	" V. Employment and industrial relations VI. Environment "	Yes
Training and Education									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Development, p. 49; Votorantim Academy, p. 50							
	103-2 The management approach and its components	Development, p. 49; Votorantim Academy, p. 50							
	103-3 Evaluation of the management approach	Development, p. 49; Votorantim Academy, p. 50							
GRI 404: Training and education 2016	**404-1** verage hours of training per year per employee	Social Disclosures, p. 98				P.3, P.6	4, 5, 8	" V. Employment and industrial relations VI. Environment "	
GRI 400 Standards Social Series Diversity and equal opportunity									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Human and Organizational Development (DHO), p. 46							
	103-2 The management approach and its components	Human and Organizational Development (DHO), p. 46							
	103-3 Evaluation of the management approach	Human and Organizational Development (DHO), p. 46							
GRI 405: Diversity and equal opportunity 2016	**405-1** Diversity of governance bodies and employees	Social Disclosures, p. 98				P.3, P.6	5, 8	V. Employment and industrial relations	

GRI SUMMARY

GRI Standards	Disclosure	Page and/or link	Omission: Part omitted	Omission: Reason	Omission: Explanation	Global Compact	SDGs	OECD	Assurance
Non-discrimination									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 406: Non-discrimination 2016	**406-1** Incidents of discrimination and corrective actions taken	Social Disclosures, p. 101				P.1, P.2, P.6	5, 16	" IV. Human rights V. Employment and industrial relations "	Yes
Child labor									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 408: Child labor 2016	**408-1** Operations and suppliers at significant risk for incidents of child labor	Social Disclosures, p. 101				P.1, P.2, P.5	8, 16	" IV. Human rights V. Employment and industrial relations "	Yes
Forced or compulsory labor									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 409: Forced or compulsory labor 2016	**409-1** Operations and suppliers at significant risk for incidents of forced or compulsory labor	Social Disclosures, p. 102				P.1, P.2, P.4	8	" IV. Human rights V. Employment and industrial relations "	Yes
Human rights assessment									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 412: Human rights assessment 2016	**412-1** Operations that have been subject to human rights reviews or impact assessments	Social Disclosures, p. 102				P.1, P.2		IV. Human rights	Yes

GRI Standards	Disclosure	Page and/or link	Omission: Part omitted	Omission: Reason	Omission: Expla-nation	Global Compact	SDGs	OECD	Assu-rance
Local communities									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Social commitment, p. 56; Votorantim Institute, p. 57							
	103-2 The management approach and its components	Social commitment, p. 56; Votorantim Institute, p. 57							
	103-3 Evaluation of the management approach	Social commitment, p. 56; Votorantim Institute, p. 57							
GRI 413: Local communities 2016	**413-1** Operations with local community engagement, impact assessments, and development programs	Social Disclosures, p. 100				P.1, P.2, P.4		" V. Employment and industrial relations VI. Environment "	Yes
Supplier social assessment									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	The report consolidates the consumption and energy intensity of each invested company. For more detailed information, see the annual and sustainability reports for each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 414: Supplier social assessment 2016	**414-1** New suppliers that were screened using social criteria	Social Disclosures, p. 99				P.1, P.2, P.3	5, 8, 16	" IV. Human rights V. Employment and industrial relations VI. Environment VII. Combating bribery, bribe solicitation and extortion X. Competition "	Yes
	414-2 Negative social impacts in the supply chain and actions taken	Social Disclosures, p. 100				P.1, P.2, P.3		" IV. Human rights V. Employment and industrial relations VI. Environment VII. Combating bribery, bribe solicitation and extortion X. Competition "	Yes
Public policy									
GRI 103: Management approach 2016	**103-1** Explanation of the material topic and its boundary	Compliance Program, p. 34							
	103-2 The management approach and its components	Compliance Program, p. 34							
	103-3 Evaluation of the management approach	Compliance Program, p. 34							
GRI 415: Public policy 2016	**415-1** Political contributions	There were no political contributions in the reporting period.				P. 10		VII.Combating bribery, bribe solicitation and extortion	

Consolidated financial statements

(A free translation of the original in Portuguese)

Independent **auditor's report**

To the Board of Directors and Stockholders

Votorantim S.A.

Opinion

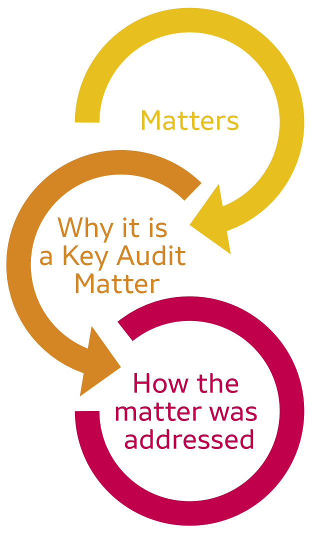
We have audited the accompanying consolidated financial statements of Votorantim S.A. ("Company") and its subsidiaries, which comprise the consolidated balance sheet as at December 31, 2018 and the consolidated statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Votorantim S.A. and its subsidiaries as at December 31, 2018, and their financial performance and cash flows for the year then ended, in accordance with accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

Basis for opinion

We conducted our audit in accordance with Brazilian and International Standards on Auditing. Our responsibilities under those standards are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements" section of our report. We are independent of the Company and its subsidiaries in accordance with the ethical requirements established in the Code of Professional Ethics and Professional Standards issued by the Brazilian Federal Accounting Council, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

INDEPENDENT AUDITOR'S REPORT



Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Our audit for the year ended December 31, 2018 was planned and performed taking into consideration that the Company's operations did not present significant changes compared to the prior year.

In this context, the key audit matters, and our audit approach remained substantially in line with those from the prior year, except for the inclusion of the matters related to the asset held for sale – Fibria Celulose S.A. and the recording of the tax credits arising from the Social Integration Program (PIS) and the Social Contribution on Revenues (COFINS), referring to the exclusion of the Value-added Tax on Sales and Services (ICMS) from the calculation bases of these taxes.

Assessment of impairment of goodwill (Notes 16, 17 and 18)

WHY IT IS A KEY AUDIT MATTER The Company has goodwill based on the expectation of future profitability from business combinations made in prior years totaling R$ 6,960 million (R$ 5,613 million recorded in Intangible assets and R$ 1,347 million recorded in Investments). Property, plant and equipment total R$ 26,180 million.

The Company's management has to determine the recoverable value of the Cash-generating Units (CGUs) to which the goodwill has been ascribed. This requires it to apply critical judgments to determine that value, which is the higher of the fair value, net of selling expenses, and the value in use. The recoverable value is sensitive to changes in assumptions related to price and sales volume fluctuations, operating expenses, and determination of the appropriate discount rates, among other assumptions used in the calculations. Adverse economic and market conditions may significantly affect these assumptions.

HOW THE MATTER WAS ADDRESSED IN THE AUDIT: In respect of this matter, we obtained an understanding of the existing key controls for this area and tested them. We also assessed the methodology that management uses to identify the Cash-generating units (CGUs).

In addition, we assessed the reasonableness of management's main assumptions, including the discount rate used to determine the value in use or fair value net of selling and operating expenses, when applicable, and the growth rates for prices and volumes, by comparing them with available economic and industry-related estimates. Furthermore, with the support of our experts, we tested the mathematical accuracy of the calculations and data for the main assumptions used in the cash flow estimates, and to determine the discount rate.

Through the sensitivity analyses of the main assumptions used, we also assessed whether the individual or cumulative changes would lead to impairment losses that could significantly exceed those recorded by the Company.

After performing these audit procedures, we considered that the methodology used by management is consistent with the methodology adopted in prior years, and that the disclosures are consistent with data and information obtained through our procedures.

Realization of deferred income tax and social contribution tax assets (Note 21)

WHY IT IS A KEY AUDIT MATTER: The Company and its subsidiaries record deferred tax assets arising from temporary differences and income tax and social contribution losses, as well as credits from income tax and social contribution recoverable. These assets were recorded to the extent management considers that the Company will generate future taxable profit that is sufficient for the utilization of these credits.

We considered this an area of focus in our audit since management's assessment of the realization of these assets involves important and subjective judgments to determine the future taxable bases for the utilization of these amounts.

HOW THE MATTER WAS ADDRESSED IN THE AUDIT: In respect of this matter, we obtained an understanding of the key controls that the Company uses to calculate and record tax credits, and tested these controls, as well as the model used to estimate the future taxable profits, which were approved by the Company's management.

We tested the calculations of tax credits and assessed the models and critical assumptions used by management to determine the future tax bases. We compared these assumptions with macroeconomic information available in the market and compared the information from these projections with budgets approved by the Company's governance bodies. In addition, we analyzed the realization periods considered in the Company's historical data and studies in order to test the adequacy and the consistency of these realization estimates in relation to those used in prior years. Finally, we assessed the disclosures related to the recognition of these tax credits.

We consider that the criteria and assumptions that management adopted to determine the tax credits are reasonable in all material aspects in the context of the financial statements.

Provisions and contingent liabilities (Note 23)

WHY IT IS A KEY AUDIT MATTER: At December 31, 2018, the Company and its subsidiaries had recorded provisions calculated based on probable losses estimated in the respective proceedings. The Company and its subsidiaries also have tax, civil, environmental and labor proceedings in progress for which no provisions were recorded in the financial statements because management considered the likelihood of losses for these proceedings as possible or remote, based on the opinion of the Company's internal and external legal advisors.

Management applies critical judgments to determine the likelihood of positive outcomes for proceedings in progress, as well as to estimate the probable losses, since these matters depend on future events that management is not able to control. In this context, the progress of these proceedings, at the several applicable levels, can differ from the results estimated by the management and its internal and external legal advisors, taking into account that changes in court directives or new case law may significantly affect management's estimates.

In respect of this matter, we determined whether the procedures adopted by management to calculate the provisions and the related disclosures are in compliance with the related accounting policy. Furthermore, we obtained confirmation from the external legal advisors regarding the likelihood of loss for the major proceedings and the quantification of the amounts estimated as remote, possible and probable losses. We counted on the support of our tax experts to assess the reasonableness of the estimates prepared by management and its internal and external legal advisors for certain proceedings, considering their progress and the existing case law, when applicable.

We consider that the criteria and assumptions used by management to determine the provisions, and the disclosures in the related explanatory notes are consistent with the information received during our audit.

Asset held for sale – Fibria Celulose S.A. (Note 34)

WHY IT IS A KEY AUDIT MATTER: On March 15, 2018, the Company entered into an agreement for the sale of its interest in associate Fibria Celulose S.A. to Suzano Holding S.A., maintaining a minority interest in the new combined operation resulting from this transaction.

Accordingly, considering that the decision to sell this operation had already been made, the aforementioned investment is presented in the consolidated financial statements as an asset held for sale, and stated at its carrying amount on the agreement date, since the fair value of the operation exceeds the carrying amount of the investment.

We considered this as an area of focus in our audit due to the significance of the amounts that have an important impact on the financial statements, and the judgments by management in relation to the amount to be presented as an asset held for sale in the consolidated financial statements.

HOW THE MATTER WAS ADDRESSED IN THE AUDIT: We verified if the transaction carried out was in compliance with the conditions for its classification as a discontinued operation, and the measurement of the asset classified as held for sale at the lower of its carrying amount and fair value less selling expenses, according to the accounting standards.

In our procedures, we did not identify inconsistencies in the recognition of the effects of the transaction in the financial statements and disclosures of the asset classified as a discontinued operation.

ICMS on the calculation bases of PIS and COFINS (Notes 1.1(g) and 30)

WHY IT IS A KEY AUDIT MATTER: The Company recognized, in the year ended December 31, 2018, R$ 550 million referring to the tax credits arising from the exclusion of the Value-added Tax on Sales and Services (ICMS) from the calculation bases of the Social Integration Program (PIS) and the Social Contribution on Revenues (COFINS), with projection of conversion into cash in five years.

We considered this an area of focus in our audit since the recording of credits, as well as the assessment of their realization, required important and subjective judgments from management.

HOW THE MATTER WAS ADDRESSED IN THE AUDIT: In response to this matter, we obtained the legal opinions from the Company's external legal advisors, and involved our tax experts in the assessment of the risks involved in the recognition and realization of these credits. We verified, on a test basis, the calculations of tax credits, and the models and critical assumptions used by management to determine the amounts recognized.

We consider that the criteria and assumptions used by management to determine the tax credits, and the disclosures in the related explanatory notes are consistent with the information received during our audit.

Other matters

Statements of value added

The consolidated statement of value added for the year ended December 31, 2018, prepared under the responsibility of the Company's management and presented as supplementary information for IFRS purposes, was submitted to audit procedures performed in conjunction with the audit of the Company's consolidated financial statements. For the purposes of forming our opinion, we evaluated whether this statement was reconciled with the financial statements and accounting records, as applicable, and if its form and content were in accordance with the criteria defined in Technical Pronouncement CPC 09 – "Statement of Value Added". In our opinion, this statement of value added has been properly prepared in all material respects, in accordance with the criteria established in the Technical Pronouncement, and is consistent with the consolidated financial statements taken as a whole.

Other information accompanying the consolidated financial statements and the independent auditor's report

The Company's management is responsible for the other information that comprises the Management Report, which is expected to be received after the date of this report.

Our opinion on the consolidated financial statements does not cover the Management Report, and we do not express any form of audit conclusion thereon.

In connection with the audit of the consolidated financial statements, our responsibility is to read the Management Report and, in doing so, consider whether this report is materially inconsistent with the financial statements or with our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, after reading the Management Report, we conclude that there is a material misstatement in this report, we are required to report that fact.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting practices adopted in Brazil and with the IFRS as issued by the International Accounting Standards Board (IASB), and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the financial reporting process of the Company and its subsidiaries.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Brazilian and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Brazilian and International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud could involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of the Company and its subsidiaries.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Company to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

INDEPENDENT AUDITOR'S REPORT

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Curitiba, March 8, 2019

PricewaterhouseCoopers
Auditores Independentes
CRC 2SP000160/O-5

Carlos Eduardo Guaraná Mendonça
CRC 1SP196994/O-2

(A FREE TRANSLATION OF THE ORIGINAL IN PORTUGUESE)
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Consolidated **balance sheet**

	Note	2018	2017
Assets			
Current assets			
Cash and cash equivalents	9	7,667	9,177
Financial investments	10	3,390	3,345
Derivative financial instruments	6.1.1 (a)	216	52
Trade receivables	11	2,546	2,421
Inventory	12	3,814	3,526
Taxes recoverable	13	1,473	1,317
Dividends receivable	14	14	148
Financial instruments - firm commitment	15	202	210
Other assets		564	784
		19,886	20,980
Assets classified as held-for-sale	34	4,527	2,199
		24,413	23,179
Non-current assets			
Long-term receivables			
Financial investments	10	23	25
Derivative financial instruments	6.1.1 (a)	256	138
Financial instruments - put option	6.1.1 (b)	744	
Taxes recoverable	13	2,731	1,784
Related parties	14	271	143
Deferred income tax and social contribution	21 (b)	4,079	4,079
Judicial deposits	23 (b)	755	765
Financial instruments - firm commitment	15		154
Other assets		685	667
		9,544	7,755
Investments	16 (c)	10,882	13,372
Property, plant and equipment	17	26,180	26,223
Intangible assets	18	13,341	12,075
Biological assets		74	65
		60,021	59,490
Total assets		84,434	82,669

The accompanying notes are an integral part of these consolidated financial statements.

	Note	2018	2017
Liabilities and equity			
Current liabilities			
Borrowing	19 (a)	5,291	2,573
Derivative financial instruments	6.1.1 (a)	166	299
Confirming payables	20	1,187	909
Trade payables		4,262	3,514
Salaries and payroll charges		845	895
Taxes payable		490	617
Advances from clients		128	408
Dividends payable	14	482	188
Use of public assets	24	83	76
Financial instruments - firm commitment	15	19	1
Deferred revenue - performance obligations	22	242	246
Deferred revenue - silver streaming		124	104
Other liabilities		808	643
		14,127	10,473
Liabilities related to assets held-for-sale	34	108	1,526
		14,235	11,999
Non-current liabilities			
Borrowing	19 (a)	19,160	22,057
Derivative financial instruments	6.1.1 (a)	78	83
Deferred income tax and social contribution	21 (b)	2,199	1,965
Related parties	14	136	25
Provision	23 (a)	2,595	2,587
Use of public assets	24	1,106	1,056
Pension plan and post-employment health care benefits	25	319	320
Financial instruments - firm commitment	15	161	207
Deferred revenue - performance obligations	22	29	272
Deferred revenue - silver streaming		650	630
Other liabilities		924	653
		27,357	29,855
Total liabilities		41,592	41,854
Equity			
Share capital	26 (a)	28,656	28,656
Revenue reserves		7,088	6,569
Carrying value adjustments	26 (c)	1,475	733
Total equity attributable to the owners of the Company		37,219	35,958
Non-controlling interests		5,623	4,857
Total equity		42,842	40,815
Total liabilities and equity		84,434	82,669

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated statement of **income**

	Note	2018	2017
			"Restyled (Note 2.3)"
Continuing operations			
Net revenue from products sold and services rendered	27	31,948	26,799
Cost of products sold and services rendered	28	(25,909)	(21,171)
Gross profit		**6,039**	**5,628**
Operating income (expenses)			
Selling	28	(775)	(701)
General and administrative	28	(2,173)	(2,013)
Other operating income (expenses), net	30	550	(553)
		(2,398)	**(3,267)**
Operating profit before equity results and finance results		**3,641**	**2,361**
Results from equity investments			
Equity in the results of investees	16 (c)	814	1,219
Dividends received	34 (a)	820	
Realization of other comprehensive income on disposal of investments		4	3
		1,638	**1,222**
Finance results, net	31		
Finance income		1,261	1,153
Finance costs		(2,531)	(2,705)
Result of derivative financial instruments		204	(213)
Foreign exchange losses, net		(977)	(724)
		(2,043)	**(2,489)**
Profit before income tax and social contribution		**3,236**	**1,094**
Income tax and social contribution	21 (a)		
Current		(456)	(722)
Deferred		(608)	586
Profit from continuing operations		**2,172**	**958**
Discontinued operations			
Loss on discontinued operations		(218)	(148)
Profit for the year attributable to the owners of the Company		**1,954**	**810**
Profit attributable to the owners of the Company		1,746	590
Profit attributable to non-controlling interests		208	220
Profit for the year		**1,954**	**810**
Weighted average number of shares - thousands (to the owners of the Company)		18,278,789	18,278,789
Basic and diluted earnings per thousand shares, in reais		**95.52**	**32.28**
From continuing operations			
Basic and diluted earnings per thousand shares, in reais		**107.45**	**40.38**
From discontinued operations			
Basic and diluted loss per thousand shares, in reais		**(11.93)**	**(8.10)**

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED FINANCIAL STATEMENTS
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Consolidated statement of **comprehensive income**

	Note	2018	2017
Profit for the year		**1,954**	**810**
Other components of comprehensive income to be subsequently reclassified to profit or loss			
Attributable to the owners of the Company			
Foreign exchange variations attributable to the owners of the Company	26 (c)	1,555	473
Hedge accounting for net investments abroad, net of taxes	6.1.3 e 26 (c)	(931)	(163)
Hedge accounting for the operations of subsidiaries	26 (c)	158	(101)
Fair value of financial assets available-for-sale of the non-consolidated investments	26 (c)	(74)	39
Realization of comprehensive income on the disposal of investments	26 (c)	(4)	(136)
Realization of comprehensive income on the sale of interest in Nexa Resources S.A.	26 (c)		(419)
Share in other comprehensive income of investees	26 (c)	3	
Attributable to non-controlling			
Foreign exchange variations attributable to non-controlling interests		714	94
Hedge accounting for the operations of subsidiaries			17
Share in other comprehensive income of investees		(1)	60
		1,420	**(136)**
Other components of comprehensive income that will not be reclassified to profit or loss			
Attributable to the owners of the Company			
Remeasurement of retirement benefits, net of tax effects	26 (c)	34	1
Attributable to non-controlling			
Remeasurement of retirement benefits, net of taxes		2	(1)
Other components of comprehensive income for the year		**1,456**	**(136)**
Comprehensive income (loss) from			
Continuing operations		3,628	822
Discontinued operations		(218)	(148)
		3,410	**674**
Comprehensive income attributable to			
Owners of the Company		2,487	284
Non-controlling interests		923	390
		3,410	**674**

The accompanying notes are an integral part of these consolidated financial statements.

(A FREE TRANSLATION OF THE ORIGINAL IN PORTUGUESE)
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Consolidated statement of **changes in equity**

			Attributable to the owners of the Company								
				Revenue reserves							
	Nota		Share capital	Tax incentives	Legal	Profit retention	Retained (loss) earnings	Carrying value adjustments	Total	Non-controlling interests	Total equity
At January 1, 2017			**28,656**	**10**	**654**	**5,590**		**1,255**	**36,165**	**2,658**	**38,823**
Profit for the year							590		590	220	810
Other comprehensive income	Note							(306)	(306)	170	(136)
Comprehensive income for the year							**590**	**(306)**	**284**	**390**	**674**
Increase of non-controlling shareholders - Nexa - dilution of interest								(215)	(215)	1,075	860
Increase of non-controlling shareholders - Nexa - sale of interest										957	957
Allocation of net income for the year											
Legal reserve					30		(30)				
Dividends						(135)	(140)		(275)	(224)	(499)
Profit retention						420	(420)				
Total contributions and distributions to shareholders					**30**	**285**	**(590)**	**(215)**	**(490)**	**1,808**	**1,318**
	26 (b)										
At December 31, 2017			**28,656**	**10**	**684**	**5,875**		**734**	**35,959**	**4,856**	**40,815**
At January 1, 2018			**28,656**	**10**	**684**	**5,875**		**734**	**35,959**	**4,856**	**40,815**
Initial adoption of IFRS 9							(342)		(342)		(342)
Initial application of FIPs, net of taxes - Banco Votorantim S.A.							(116)		(116)		(116)
At January 1, 2018, after the impacts of the adoption of IFRS 9 and FIPs			**28,656**	**10**	**684**	**5,875**	**(458)**	**734**	**35,501**	**4,856**	**40,357**
Initial adoption of IAS 29	1.1 (e)	3.1.2					295		295		295
Profit for the year							1,746		1,746	208	1,954
Other comprehensive income								741	741	715	1,456
Comprehensive income (loss) for the year	1.1 (e)						**1,746**	**741**	**2,487**	**923**	**3,410**
Allocation of net income for the year											
Legal revenue					87		(87)				
Dividends						(789)	(415)		(1,204)	(61)	(1,265)
Profit retention						1,081	(1,081)				
Votorantim Cimentos EAA Inversiones S.L. ("VCEAA") non-controlling interests aquisition											
"											
Reversal of deliberate dividends"	26 (b)					140			140		140
Share premium distribution - NEXA	1.1 (b)									(95)	(95)
Total contributions and distributions to shareholders					**87**	**432**	**(1,583)**		**(1,064)**	**(156)**	**(1,220)**
	26 (b)										
At December 31, 2018	1.1 (b)		**28,656**	**10**	**771**	**6,307**		**1,475**	**37,219**	**5,623**	**42,842**

The accompanying notes are an integral part of these consolidated financial statements.

ALL AMOUNTS IN MILLIONS OF REAIS

Consolidated statement of **cash flows**

	Note	2018	2017
Cash flow from operating activities			
Profit before income tax and social contribution		3,236	1,094
Loss on discontinued operations		(218)	(148)
Adjustments to items that do not represent changes in cash and cash equivalents			
Discontinued Operations - China, California and Florida			(23)
Realization of other comprehensive income - financial results	31		331
Net gain on sale of investment	30	(123)	(625)
Depreciation, amortization and depletion	28	2,470	2,325
Equity in the results of investees	16 (c)	(814)	(1,219)
Deliberation of interim dividends of Fibria	34 (a)	(820)	
Interest, indexation and foreign exchange variations		501	2,006
Reversal for the impairment of fixed, intangible assets and investments	16, 17, 18	(52)	(23)
Gain on sales of fixed and intangible assets, net	30	(42)	(4)
Fair value adjustment	19 (b)	(28)	47
Constitution (reversal) of provision		120	(278)
Derivative financial instruments	6.1.1 (c)	(162)	(319)
Financial instruments - firm commitment	15	132	522
Gain in fair value in VTRM´s operation	30	(300)	
Net gain from financial instrument - put option	31	(71)	
Gain on debt renegotiation	31	(69)	
Tax recovery	30	(498)	
Change in fair value of biological assets			8
		3,262	**3,694**
Decrease (increase) in assets			
Financial investments		346	442
Derivative financial instruments		(92)	(202)
Trade accounts receivable		(168)	(420)
Inventory		(293)	(130)
Taxes recoverable		(262)	12
Related parties		(17)	395
Other accounts receivable and other assets		50	(358)
Increase (decrease) in liabilities			
Trade payables		778	630
Salaries and social charges		(50)	47
Use of public assets		(13)	(84)
Taxes payable		31	160
Other obligations and other liabilities		200	171
Cash provided by operating activities		**3,772**	**4,357**
Interest paid on borrowing and use of public assets		(1,461)	(1,558)
Income tax and social contribution paid		(614)	(688)
Net cash provided by operating activities		**1,697**	**2,111**

	Note	2018	2017
Cash flow from investment activities			
Proceeds from disposals of fixed and intangible assets		177	178
Resources from the public offering and sale of shares of Nexa			1,762
Investment sale - China, California and Florida			1,937
Investment sale	1.1 (i)	419	
Dividends received		1,085	540
Acquisitions of property, plant and equipment	17	(2,567)	(3,108)
Acquisitions of investments		(125)	
Increase in biological assets		(9)	(4)
Increase in intangible assets	18	(115)	(174)
Net cash provided by (used in) investment activities		**(1,135)**	**1,131**
Cash flow from financing activities			
New borrowing	19 (b)	3,665	5,399
Repayment of borrowing	19 (b)	(5,532)	(5,881)
Derivative financial instruments	6.1.1 (a)	(11)	(561)
Dividends paid		(789)	(359)
Dividends paid to non-controlling		(61)	
Share premium Nexa paid		(95)	
Net cash used in financing activities		**(2,823)**	**(1,402)**
Increase (decrease) in cash and cash equivalents		**(2,261)**	**1,840**
Effect of companies excluded from consolidation		(109)	
Effect of fluctuations in exchange rates		860	391
Cash and cash equivalents at the beginning of year		**9,177**	**6,946**
Cash and cash equivalents at end of year		**7,667**	**9,177**
Non-cash transactions			
Non-cash impact Special Program of Tax Regulation ("PERT") debits			(259)

The accompanying notes are an integral part of these consolidated financial statements.

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Consolidated statement of **value added**

	Note	2018	2017
Revenue			
Sales of products and services		36,510	31,362
Estimated loss on doubtful accounts	11 (c)	(15)	
Other operating income (expenses), net		550	(553)
		37,045	**30,809**
Inputs acquired from third parties			
Raw materials and other production inputs		(21,405)	(17,056)
Materials, energy, outsourced services and others		(660)	(517)
Impairment of assets	30	52	23
Gross value added		**15,032**	**13,259**
Depreciation, amortization and depletion	28	(2,470)	(2,325)
Net value added generated by the Company		**12,562**	**10,934**
Value added received through transfers			
Equity in the results of investees		1,634	1,219
Finance income and foreign exchange losses		5,204	2,277
		6,838	**3,496**
Total value added to distribute		**19,400**	**14,430**
Distribution of value added			
Personnel and payroll charges	29		
Direct remuneration		2,951	2,469
Social charges		1,040	947
Benefits		709	600
		4,700	**4,016**
Taxes and contributions			
Federal		2,277	2,491
State		2,220	2,604
Municipal		15	13
Deferred taxes		608	(586)
		5,120	**4,522**
Third-party capital remuneration			
Finance costs and foreign exchange losses		7,247	4,766
Rentals		379	316
		7,626	**5,082**
Own capital remuneration			
Non-controlling interests		208	220
Dividends		1,265	499
Reinvested profits		699	239
Loss on discontinued operations	34 (c)	(218)	(148)
		1,954	**810**
Value added distributed		**19,400**	**14,430**

The accompanying notes are an integral part of these consolidated financial statements.

1 General considerations

Votorantim S.A. (the "Company", the "parent company", or "VSA"), is a long-term Brazilian holding company. With its headquarters in the city of São Paulo, Brazil, the Company's purpose is to manage assets and companies, as well as to invest in other companies in order to further its objectives.

The Company, through its subsidiaries and associates, operates in the following segments: construction, metals and mining, aluminum, electrical energy, long steel, agribusiness and finance.

1.1 Main events that occurred during the year 2018

(a) Votorantim and ArcelorMittal conclude long steel operation Brazil

On February 22, 2017, ArcelorMittal Brasil S.A. ("AMB") and VSA entered into an agreement under which Votorantim Siderurgia S.A. ("VS") will become a subsidiary of AMB and VSA will hold a minority interest of 15% in the combined long steel business.

On February 7, 2018, the Administrative Council for Economic Defense ("CADE") approved this, pursuant to Concentration Act 08700.002165/2017-97.

As at April 1, 2018, VS became a subsidiary of AMB under the corporate name of ArcellorMital Sul Fluminense S.A.. On the same date, the Company received 15% of the combined long steel business of AMB, which, in compliance with accounting rules, was recognized at fair value as a financial instrument, in accordance with CPC 48 – "Financial Instruments".

Votorantim's long steel operations in Argentina (Acerbrag) and Colombia (PazdelRío) were not included in the transaction and continue to be consolidated in the Company's financial statements.

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(b) Reimbursement of share premium Nexa Resources S.A.

On February 15, 2018, the Board of Directors approved the reimbursement of a share premium of US$ 0.60 cents per ordinary share to shareholders, of which R$ 171 was to controlling shareholders and R$ 95 was to non-controlling shareholders of record at the close of business on March 14, 2018 and this was paid on March 28, 2018.

(c) Fibria Celulose S.A. corporate reorganization

On March 15, 2018, the Company together with BNDES Participações SA - BNDESPAR (jointly, the "Controlling Shareholders of Fibria") entered into an agreement with Suzano Holding SA and other controlling shareholders of Suzano Papel e Celulose SA ("Suzano") (jointly, the" Suzano controlling shareholders"), to combine the operations and shareholding bases of Fibria and Suzano, through a corporate reorganization, (Note 34 (a)).

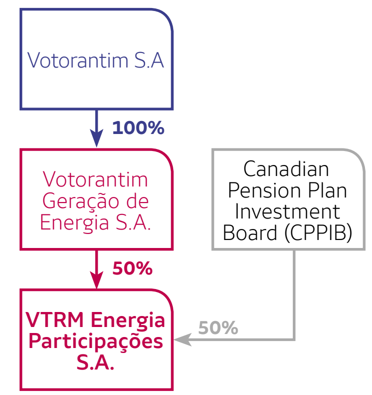
(d) Formation of joint venture with strategic investor

All regulatory approvals were obtained on May 29, 2018 and the compliance was achieved in all conditions precedent necessary to carry out the operations set forth in the Subscription and Investment Agreement entered into by Votorantim Geração de Energia S.A. ("VGE") and the Canadian Pension Plan Investment Board ("CPPIB"), and in the Share Purchase and Sale Agreement entered into by VGE, CPPIB and Salus - Investment Fund for Multistrategy Holdings, both executed on December 13, 2017.

Additionally, on May 29, 2018, VGE and CPPIB resolved at an extraordinary shareholders' meeting a capital increase in the investee VTRM in the amount of R$ 49 and R$ 664, respectively, through issuance of 25,689 and 345,737 thousand common shares, respectively, at an issue price of R$ 1.92. This capital increase generated a significant increase in investment, in the amount of R$ 155, which was recognized as a contra entry to the item "Other operating income (expenses), net" (Note 30).

After the completion of the operation, VGE ceased to have a 100% stake and consequently control over VTRM and its subsidiaries. It came to hold joint control in this investment platform ("joint venture") with CPPIB, since both investors have a 50% interest in this company and all strategic, financial and operational decisions must be taken unanimously. As a result of the loss of control and maintenance of shared control, VGE ceased to consolidate the previous investment in VTRM and its subsidiaries on May 29, 2018, and recorded the remaining portion of the investment at fair value, recognizing a gain of R$ 147 under the item "Other operating income (expenses), net" (Note 30). After the initial registration, the investment in the joint venture was

recognized using the equity method, as follows:



The balances of the subsidiary VGE at the periods ended of operation on May 29, 2018 were as follows:

	5/29/2018
Assets	
Current assets	
Cash and cash equivalents	14
Financial investments	68
Trade receivables	19
Other assets	7
	108
Non-current assets	
Long-term receivables	
Liquidity Fund - Reserve Account	3
Other assets	10
	13
Investments	713
Property, plant and equipment	1,189
Intangible	42
	1,944
Total assets	**2,065**

	5/29/2018
Liabilities and equity	
Current liabilities	
Borrowing	65
Trade payables	4
Taxes payable	2
Other liabilities	6
	77
Non-current liabilities	
Borrowing	843
Related parties	83
Provision	21
Other liabilities	23
	970
Total liabilities	1,047
Equity	
Share capital	699
Capital reserves	334
Loss earnings	(15)
Total equity	**1,018**
Total liabilities and equity	**2,065**

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(e) Adjustment of Argentina's hyperinflationary economy

As at July 1, 2018, Argentina's economy was framed by a hyperinflationary economy, with accumulated inflation in excess of 100% in the last three years, accompanied by a high degree of devaluation of the Argentine peso ("ARS"). According to IAS 29 (Financial Reporting in Hyperinflationary Economies), the positive effect of the ARS devaluation was recognized in the consolidated in the amount of R$ 250, and the positive effect of the initial inflation adjustment on the investment balance was in the amount of R$ 295, recorded as a contra entry to "Retained earnings" in shareholders' equity and negative effect, in the amount of R$ 45, recognized in the consolidated result.

Statement of income	IAS 29 effect
Net revenue from products sold	145
Cost ofproducts sold	(88)
Gross profit	**57**
Operating income (expenses)	
General and administrative	(33)
	(33)
Operating profit before equity results and finance results	**24**
Results from equity investments	
Equity in the results of investees	(26)
	(26)
Finance result, net	**(28)**
Profit before income tax and social contribution	**(30)**
Income tax and social contribution	**(15)**
Loss for the year	**(45)**

Balance sheet	IAS 29 effect
Cementos Avellaneda S.A.	168
Acergroup S.A.	79
Acerholding S.A.	48
	295

(f) Cementos Portland S.A. ("CEMPOR") investment sale

On October 4, 2018, the subsidiary Votorantim Cimentos S.A. ("VCSA") and Cementos Bio Bio SA ("CBB"), as partners of CEMPOR, entered into a contract for the sale of all shares representing the company's share capital, in accordance with their respective shares equivalent to 50% of CEMPOR's quotas (R$ 59), as described in Note 16 (c).

On October 10, 2018, the sale was concluded and the subsidiary VCSA registered a loss related to the sale of the investment in the amount of R$ 4, registered in "Other operating income (expenses), net", as described in Note 30, consequently, realized the write-off of R$ 4 related to the exchange variation on investments abroad, which was recognized in "Realization of other comprehensive income of investees."

(g) Acquisition of control of Companhia Energética de São Paulo ("CESP") by VTRM

On October 19, 2018, the joint venture (VTRM) consortium formed by VGE and the Canadian fund CPPIB acquired a shareholding control of CESP through the acquisition of 80.2% of the common shares and 13.7% of the Class B preferred shares. The consortium offered R$ 14.60 per share, corresponding to 35.6% of the total capital of CESP, representing a total offer of R$ 1.7 billion.

This transaction is aligned with the growth objectives of the joint venture in renewable energy generation in Brazil, and will add 1.6 GW of installed capacity to the already existing portfolio of 564 MW of installed generation capacity coming from wind farms Ventos do Piauí I and Ventos do Araripe III.

As foreseen in the bid announcement, after the transfer of control, a new concession of the Porto Primavera Hydroelectric Power Plant will be granted to CESP for 30 years, upon payment of a pre-established grant in the amount of R$ 1.4 billion.

In addition, the consortium undertakes to make a public offering for the acquisition of Class B common and preferred shares remaining in accordance with the terms of the bid announcement, CESP's Bylaws, current legislation and applicable CVM regulations.

On December 11, 2018, the transaction was executed based on the purchase and sale agreement recognized by the parties, in which all conditions for the conclusion of the transaction were determined.

(h) State Value-Added Tax on Sales and Services ("ICMS") from the basis of calculation of the PIS and COFINS contributions

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In the fourth quarter of 2018, based on the final decision of the Federal Regional Court ("TRF"), the subsidiaries VCSA and Nexa BR registered in the asset the right to recover federal tax credits in the amount of R$ 781 (Note 13), being the principal amount of R$ 438 corresponding to the principal registered in "Other income (expenses), net" (Note 30) and the amount of R$ 343 corresponding to interest registered in "Net financial income" (Note 31).

(i) Sale of Indirect subsidiary US Zinc Corporation

In December 2018, the subsidiary FinCo GmbH ("FinCo") sold all of the shares of the indirect subsidiary U.S. Zinc Corporation, which operated in the production and commercialization of zinc, to the investment fund Aterian Investment Partner.

The transaction between the parties ended on December 26, 2018, for the amount of R$ 449 (USD 116), corresponding to operations in the United States, China and the Netherlands Antilles. As a result of the sale, the Company received R$ 419 and registered a gain of R$ 126 (USD 31), recognized under "Other operating income (expenses), net" (Note 30).

(j) Corporate reorganization of subsidiary VCSA

During the second semester of 2018, the subsidiary VCSA undertook a corporate reorganization in order to transfer international investments directly and indirectly held by the subsidiary VCSA to a holding company incorporated in Luxembourg, Votorantim Cimentos International S.A. ("VCI"). The corporate reorganization was carried out to strengthen Votorantim Cimentos' position as an international player, ensuring greater efficiency in the operation, benefiting global governance strategies, strengthening its capital structure, maximizing growth opportunities in several regions and increasing Group access to international markets.

VCI is a wholly-owned subsidiary of the subsidiary VCSA, as well as the investments transferred during the process, and therefore, the corporate reorganization occurred between jointly controlled companies. The assets and liabilities transferred - the contribution by VCSA of all its investment and goodwill in the subsidiary Votorantim Cimentos EAA Inversiones, SL ("VCEAA"), and substitution of the issuer ("Substitution of the issuer") of the debts 3.25% Senior Notes maturing in 2021, 3.50% Senior Notes maturing in 2022 and 7.25% Senior Notes maturing in 2041 from subsidiary VCSA to VCI, for which the subsidiary VCSA became the guarantor - by the effects of the reorganization were recorded at historical cost, as previously recorded in the financial statements of subsidiary VCSA. There was no recording of any goodwill or other difference between the cost of the transaction and the book value, and the difference between the assets and liabilities transferred was recorded in VCI's shareholders' equity.

(k) Reclassification of India operations for "discontinued operations result"

In November 2018, the subsidiary VCSA, with its subsidiary VCEAA, entered into an agreement to sell all the operations in India. As a consequence, were reclassified to discontinued operations, in the statement of income for the years ended December 31, 2017 (Note 2.3) and 2018 (Note 34 (c)), the amounts of R$ (3) and R$ 22, respectively, referring to the result of the year generated by operations in India. The VCEAA registered a loss related to the sale of the investment in the amount of R$ (80), registered in "Discontinued operations result" in Note 34 (c). In addition, balances related to the subsidiary Shree Digvijay Cement Co Limited, in the net amount of R$ 112, were classified as available for sale in the balance sheet (Note 34).

2 Presentation of the consolidated financial statements

2.1 Basis of preparation

(a) Consolidated financial statements

The financial statements have been prepared in accordance with accounting practices adopted in Brazil effective up to December 31, 2018, including the pronouncements issued by the Brazilian Accounting Pronouncements Committee ("CPC"), as well as according to the International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB") and their interpretations ("IFRIC"), and show all relevant information pertinent to interim financial statements, which is consistent with that used by the management in carrying out its duties.

The Company voluntarily discloses its consolidated statement of value added, according to the accounting practices adopted in Brazil, applicable to public companies and presented as an integral part of these financial statements. To international practice, this statement is presented as additional information.

The preparation of these consolidated financial statements considered the historical cost basis, which in the case of certain financial assets and liabilities, including derivative instruments, is adjusted to reflect the fair value measurement.

The financial statements require the use of certain critical accounting estimates. It also requires management to exercise judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

(b) Approval of the financial statements

The Board of Directors approved the consolidated financial statements for issue on March 8, 2019.

2.2 Consolidation

(a) Subsidiaries

Subsidiaries are fully consolidated from the date on which control is transferred to the Company.

Transactions, balances and unrealized gains on transactions between Group companies are eliminated. Unrealized losses are also eliminated, unless the transaction provides evidence of impairment of the asset transferred. Accounting policies of acquired subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Company.

(b) Transactions with non-controlling interests

The Company treats transactions with non-controlling interests as transactions with equity owners of the Company. For purchases from non-controlling interests, the difference between any consideration paid and the proportion acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded directly in equity, in "Profit retention reserves".

(c) Loss of control of subsidiaries

When the Company ceases to have control, any retained interest in the entity is re-measured to its fair value, with the change in carrying amount recognized in profit and loss. The amounts previously recognized in carrying value adjustments are reclassified to profit and loss.

(d) Associates and joint arrangements

Joint operations are accounted for in the financial statements in order to represent the Company's contractual rights and obligations. Therefore, the assets, liabilities, revenues and expenses related to its interests in joint operations are individually accounted for in its financial statements.

Investments in associates and joint ventures are accounted for using the equity method and are initially recognized at cost.

The Company's investments in associates and joint ventures includes goodwill identified on acquisition, net of any accumulated impairment loss.

Dilution gains and losses on investments in associates and joint ventures are recognized in the statement of income.

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2.3 Restatement of comparative figures

In accordance with IFRS 5/CPC 31 - "Non-current assets held-for-sale and discontinued operations", the Company reclassified certain cement operations from India, from continuing operations to discontinued operations.

Also due to the application of IFRS 15/CPC 47 – "Revenue from contracts with customers", there were changes in accounting practices that resulted in reclassifications of the December 31, 2017 result, as described in Note 3.1.

2017

	As prior presented	Impacts of reclassification of Votorantim Cimentos	Elimination of intragroup energy revenue	Reclassification of mineral exploration projects - Nexa	Reclassification of depletion expenses - US Zinc	Reclassification of CPC 47 / IFRS 15	Balance restated
Continuing operations							
Net revenue from products sold and services rendered	27,225	(176)	(250)				26,799
Cost of products sold and services rendered	(20,649)	182	250	16	(38)	(932)	(21,171)
Gross profit (loss) profit	**6,576**	**6**		**16**	**(38)**	**(932)**	**5,628**
Operating income (expenses)							
Selling	(1,666)	4			38	923	(701)
General and administrative	(2,018)	5		(16)		16	(2,013)
Other operating expenses, net	(536)	(10)				(7)	(553)
	(4,220)	**(1)**		**(16)**	**38**	**932**	**(3,267)**
Operating profit before equity results and finance results	**2,356**	**5**					**2,361**
Results from equity investments							
Equity in the results of investees	1,219						1,219
Realization of other comprehensive income on disposal of investments	3						3
	1,222						**1,222**
Finance results, net							
Finance income	1,155	(2)					1,153
Finance costs	(2,710)	5					(2,705)
Income from derivative financial instruments	(213)						(213)
Foreign exchange, net	(724)						(724)
	(2,492)	**3**					**(2,489)**

2017

	As prior presented	Impacts of reclassification of Votorantim Cimentos	Elimination of intragroup energy revenue	Reclassification of mineral exploration projects - Nexa	Reclassification of depletion expenses - US Zinc	Reclassification of CPC 47 / IFRS 15	Balance restated
Profit before income tax and social contribution	**1,086**	**8**					**1,094**
Income tax and social contribution							
Current	(723)	1					(722)
Deferred	592	(6)					586
Profit for the continuing operations	**955**	**3**					**958**
Discontinued operations							
Loss for the discontinued operations	(145)	(3)					(148)
Profitfor the year attributable to the owners	**810**						**810**
Profit attributable to the owners of the Company	590						590
Profit attributable to non-controlling interests	220						220
Profit for the year	**810**						**810**
Weighted average number of shares - thousands (to the owners of the Company)	18,278,789						18,278,789
Basic and diluted earnings per thousand shares, in reais	**32.28**						**32.28**
From continuing operations							
Basic and diluted earnings per thousand shares, in reais	**40.21**	**0.17**					**40.38**
From discontinued operations							
Basic and diluted loss per thousand shares, in reais	**(7.93)**	**(0.17)**					**(8.10)**

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2.4 Foreign currency translation

(a) Functional and presentation currency of the financial statements

The functional currency of the Company is the Brazilian Real ("R$", "Real" or "reais").

(b) Transactions and balances

Foreign currency transactions are translated into reais using the exchange rates prevailing at the dates of the transactions or the dates of valuation when items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the statement of income, except when deferred in equity as net investment hedges.

(c) Subsidiaries with a different functional currency

The results and financial positions of all the Company entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

I. Assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet;

II. Income and expenses for each statement of income are translated at average exchange rates;

III. All resulting exchange differences are recognized as a separate component of equity, in "Carrying value adjustments".

The amounts presented in the cash flow are extracted from the translated movements of the assets, liabilities and profit or loss, as detailed above.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations, and of borrowings and other foreign currency instruments designated as hedges of such investments, are recognized in equity. When a foreign operation is partially disposed of or sold, exchange differences that were recorded in equity are recognized in the statement of income as part of the gain or loss on sale.

Goodwill and fair value arising from the acquisition of an entity abroad are treated as assets and liabilities of the entity abroad and converted at the closing rate.

Below are the functional currencies defined for the significant foreign subsidiaries:

Company	Country	Functional currency	Main activity
Acerbrag S.A.	Argentina	Argentine Peso	Steel
St. Marys Cement Inc. - "St. Mary's"	Canada	US Dollar	Cement
Acerías Paz del Río S.A.	Colombia	Colombian Peso	Steel
Votorantim Cimentos EAA Inversiones, S.L. - "VCEAA"	Espanha	Euro	Cement
Nexa Resources Cajamarquilla S.A.	Peru	US Dollar	Zinc
Nexa Resources Perú S.A.A.	Peru	US Dollar	Mining
Nexa Resources S.A.	Luxemburgo	US Dollar	Holding
Votorantim Cimentos International S.A. - "VCI"	Luxemburgo	US Dollar	Holding
Votorantim FinCO GmbH	Luxemburgo	US Dollar	Trading

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3 Changes in accounting policies and disclosures

3.1 Changes in standards

3.1.1 IFRS 9 / CPC 48 – "Financial Instruments"

(i) Classification and measurement

The changes in accounting policies resulting from the adoption of IFRS 9 have been applied since January 1, 2018 and have not generated effects on the measurement of financial assets and liabilities of the Company and its subsidiaries.

The following table presents the CPC 38 original measurement categories versus the new CPC 48 measurement categories for securities on January 1, 2018:

Original classification according to CPC 38	2017	New classification according to CPC 48	2017
Fair value through profit or loss		Fair value through profit or loss	
Financial investments	3,251	Financial investments	3,251
Derivative financial instruments	160	Derivative financial instruments	160
Financial instruments – firm commitment	364	Financial instruments – firm commitment	364
	3,775		3,775
Available for sale		Fair value through other comprehensive income	
Financial investments	68	Financial investments	68
	68		68
Held to maturity		Amortized cost	
Financial investments	51	Financial investments	51
	51		51

(ii) Impairment

The Company and its subsidiaries adopted the new accounting standard as of January 1, 2018 and applied the simplified approach to recognize the expected credit loss for trade accounts receivable. The methodology for calculating the provision for losses is based on a risk matrix, which is composed of historical data of losses for all aging lists and prospective data, considering the securities to be matched.

The initial impact of adoption was a loss in the amount of R$ 342 in the consolidated statements as from January 1, 2018, recognizing the amount in equity, which was substantially composed of the adoptions made by Banco Votorantim S.A., being a loss in the amount of R$ 337.

(iii) Hedge accounting

The Company and its subsidiaries analyzed the economic relationship, credit risk and the hedge ratio of the current net investment hedge operations and concluded that they will continue to qualify for hedge accounting with the adoption of IFRS 9. As this standard does not change the general principles of accounting of effective hedges, there was no impact as a result of the application of IFRS 9.

(iv) Financial liabilities

The debt renegotiations presented in Note 19 (b), whose contractual terms were the subject of debt swaps – which did not involve financial settlements and resulted in changes in the burden of these debts – and were not substantially altered, had their values remeasured to reflect the change of accounting practice, the effect of which was a reduction of R$ 69 in loans and financing as a contra entry to the gain on the financial result, as described in Note 31.

3.1.2 IFRS 15 / CP 47 – "Revenue from Contracts with Customers"

The Company and its subsidiaries adopted the new accounting standard as of January 1, 2018, resulting in changes in accounting practices linked to the performance obligation related to the freight delivery of products to customers and, consequently, changes in comparative balances.

According to the standard, the Company and its subsidiaries made the changes retrospectively in the balances originally presented on December 31, 2017, according to Note 2.3 – Restatement of comparative figures. On December 31, 2017, the amount reclassified was R$ 932.

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3.2 New standards and interpretations not yet adopted

The following standards have been published and will be mandatory for accounting periods as of January 1, 2019. There was no early adoption of these standards and changes in standards by the Company and its subsidiaries.

3.2.1 IFRS 16 / CPC 06 – "Leasing"

IFRS 16 establishes principles for recognition, measurement, presentation and disclosure for lease agreements. The standard introduces for lessee a single model for accounting on the balance sheet, where they are required to recognize a lease liability reflecting future payments and the right to use the leased asset. The nature of the expense related to these leases was changed from a line operating lease expense to a depreciation expense of the right of use and interest expense for the restatement of the lease liability.

This international standard changes existing lease standards, including CPC 06 (IAS 17) - Leasing Operations and ICPC 03 (IFRIC 4, SIC 15 and SIC 27) - "Complementary Aspects of Leasing Operations".

(a) Analysis scope and assets identification

The Company and its subsidiaries analyzed all active drainage contracts on the date of the initial adoption of the standard, when leases of machinery and equipment, light and heavy vehicles, real estate and land were identified.

As permitted by the standard, the scope of the analysis was disregarded: (i) short-term leases (less than 12 months); and (ii) contracts with amounts lower than USD 5 thousand (R$ 16 thousand).

When identifying the rights of use assets within the scope of identified contracts, the following were also disregarded: (i) contracts with variable payments; (ii) contracts in which the lease asset was considered as non-identifiable; (iii) contracts in which the Company is not entitled to obtain substantially all the economic benefits arising from the use of the asset; and (iv) contracts in which the Company and its subsidiaries do not have substantial control over the definition of the use of the asset.

It should be noted that the Company and its subsidiaries analyzed, but did not identify: (i) contracts that present fixed and variable payments in the same negotiation; (ii) contracts dealing with identifiable and non-identifiable assets in the same trade; or (iii) service contracts in which assets have been identified within the scope of the standard.

(b) Leasing term

The Company and its subsidiaries analyzed for all contracts the lease term according to the combination of non-cancellable term, term covered by the option of extension, term covered by the termination option and, mainly, Management's intention as to the term of stay in each contract.

(c) Discount rate

For initial adoption purposes, the Company and its subsidiaries adopted the average cost of active debt as of December 31, 2018 for all contracts classified in accordance with IFRS 16.

For the new contracts, renewals and additions will be identified the incremental rate for each lease. The incremental rate should reflect the acquisition cost by the Company and its subsidiaries of debt with characteristics similar to those determined by the lease agreement, in terms of term, value, guarantee and economic environment.

(i) Impacts of adoption

The Company and its subsidiaries adopted IFRS 16 on January 1, 2019, in accordance with the simplified cumulative effect in which assets and liabilities are recorded at the same time in the initial period without any effect on shareholders' equity, with an impact on the amount of R$ 577 related to rights-of-use assets and liabilities under lease agreements.

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3.2.2 IFRIC 23 / ICP22 – "Uncertainty over Income Tax Treatments"

This interpretation clarifies how to apply the recognition and measurement requirements of CPC 32 – "Taxes on Profit when there is uncertainty about the treatment of taxes on profit, on the recognition and measurement of their current or deferred tax assets or liabilities, based on profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates.

The interpretations submitted consider that the Company and its subsidiaries should use their judgments in determining whether the tax treatment should be treated individually or jointly, according to the method that allows a better prediction regarding the uncertainties observed.

(a) Assumption of the examination by tax authorities

The interpretation provides as a consensus that the entity considers when accounting for an uncertain tax treatment, which affects the determination of its taxable profit (tax loss), tax base, unused tax losses, unused tax credits and tax rates, the assumption of that the tax authorities will examine the amounts they are entitled to examine and that they are fully aware of all the information related to the examination. In this way, the risk of detection should not be considered when applying the interpretation and the standard.

(b) Probability of tax authorities accepting the tax treatment chosen

The entity should consider the likelihood that the tax authority will accept the uncertain tax treatment adopted. If the entity concludes that the tax authority is likely to accept the uncertain tax treatment, the amount disclosed in a financial statement should be the same as that presented in the tax information. If the entity concludes that the entity is not likely to accept the uncertain tax treatment, the amount disclosed in the financial statements should consider the best method of measurement between the most probable and expected value.

(c) Change of facts and circumstances

The interpretation defines that the entity maintains a monitoring of the facts and circumstances that may affect: (i) its understanding of the probability that the uncertain fiscal treatment adopted by the entity will be accepted by the tax authorities; and (ii) the assumptions of their estimates regarding the subject. When identifying changes, effects should be accounted for as a change in the accounting estimate, applying CPC 23 – "Accounting Policies, Change of Estimate and Error Rectification", and CPC 24 – "Subsequent Events", if applicable.

(i) Impacts of adoption

The Company and its subsidiaries periodically monitor the tax treatment adopted, as well as obtaining, where applicable, legal support in the definition of the probability that the tax authority will accept the applicability thereof. The interpretation will be adopted as from the first quarter of 2019 and its impacts are under analysis by the Company and its subsidiaries.

There are no other standards, changes in standards or interpretations that are not in force that the Company and its subsidiaries expect to have a material impact arising from their application in its financial statements.

4 Critical accounting estimates and judgments

Based on assumptions, the Company and its subsidiaries make estimates regarding the future. By definition, accounting estimates and judgments are continuously reviewed and are based on historical experience and other factors, including expectations of future events, which are considered reasonable for the circumstances. Revisions to the estimates are recognized prospectively.

The accounting estimates will rarely be the same as the actual results. Estimates and assumptions that present a significant risk and are likely to cause a material adjustment to the carrying amounts of assets and liabilities for the next fiscal year are described in the respective notes below:

(i) Fair value of financial instruments and derivatives (Note 6.1.1);

(ii) Trade receivable (Note 11);

(iii) Property, plant and equipment (Note 17);

(iv) Intangible assets (Note 18);

(v) Current and deferred income and social contribution taxes (Note 21);

(vi) Provision (Note 23);

(vii) Pension plan (Note 25).

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5 Social and environmental risk management

The Company, through its subsidiaries and associates, operates in various segments and consequently, these activities are subject to several Brazilian and international environmental laws, regulations, treaties and conventions, including those that regulate the discharge of materials into the environment, which establish the removal and cleaning of the contaminated environment, or those relating to environmental protection. The violations of the environmental regulations in force expose the violator(s) to significant fines and monetary penalties, and may require technical measures or investments to ensure the compliance with the mandatory emissions levels.

The Company and its subsidiaries carry out periodic studies to identify any potentially affected areas and records, based on the best estimates of costs, the amounts expected to be disbursed for the investigation, treatment and cleaning of the potentially affected areas.

The Company and its subsidiaries believe they are in compliance with all of the applicable environmental standards in the countries in which they operate.

6 Financial risk management

6.1 Financial risk factors

The activities of the Company and its subsidiaries expose them to a variety of financial risks, namely: (a) market risk (including currency, commodity price and interest rate risk), (b) credit risk and (c) liquidity risk.

A significant portion of the products sold by the Company and its subsidiaries, such as aluminum, nickel and zinc are commodities, with prices pegged to international indexes and denominated in US Dollars. Their costs, however, are mainly denominated in reais, and therefore, there is a mismatch of currencies between revenues and costs. Additionally, the Company and its subsidiaries have debts linked to different indexes and currencies, which may have an impact on their cash flow.

In order to mitigate the various effects of each market risk factor, the Company and its subsidiaries follow a Market Risk Management Policy, approved by the Finance Committee, with the objective of establishing governance and the overall guidelines of the process of managing these risks, as well as the metrics for their measurement and monitoring.

The financial risk management process aims to protect the cash flow and its operational (revenues and costs) and financial (financial assets and liabilities) components against adverse market events, such as fluctuations in the prices of currencies, interest rates and commodity prices, and against adverse credit events. In addition, it aims to preserve liquidity.

The following financial instruments may be taken out in order to mitigate and manage risk: conventional swaps, call options, put options, collars, currency futures contracts and Non-Deliverable Forward contracts. Strategies that include simultaneous purchases and sales of options are authorized only when they do not result in a net short position in volatility of the underlying asset. The Company and its subsidiaries do not carry out transactions involving financial instruments for speculative purposes.

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(a) Market risk

(i) Foreign exchange risk

The Company and its subsidiaries have certain investments in foreign operations, the net assets of which are exposed to foreign exchange risk. Foreign exchange exposure arising from the Company's and its subsidiaries' participation in foreign operations is mainly hedged by borrowings in the same currency of these investments, being classified as net investment hedges.

Presented below are the accounting balances of assets and liabilities indexed to the foreign currency at the closing date of the balance sheets:

	Note	2018	2017
Assets denominated in foreign currency			
Cash and cash equivalents	9	6,316	6,279
Financial investments	10	62	109
Trade receivables		1,329	1,192
Derivative financial instruments		472	189
Related parties		54	56
Dividends			11
		8,233	**7,836**
Liabilities denominated in foreign currency			
Borrowing (*)		20,668	17,817
Derivative financial instruments		244	382
Trade payables		2,517	1,955
Confirming payables	20	838	761
Deferred revenue - silver streaming		774	734
		25,041	**21,649**
Net exposure		**(16,808)**	**(13,813)**

(*) Does not consider borrowing costs.

(ii) Cash flow and fair value interest rate risk

The interest rate risk arises from the fluctuations of each of the main indexes of interest rates from borrowing and from financial investments, which have an impact on the payments and receipts of the Company and its subsidiaries. Borrowing at fixed rates exposes the Company and its subsidiaries to fair value interest rate risk.

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(iii) Commodity price risk

The Financial Policy of the Company's operating subsidiaries establishes guidelines to mitigate the risk of fluctuations in commodity prices that have an impact on the cash flow of the Company's operating subsidiaries.

The exposure to each commodity price considers the monthly projections of production, purchases of inputs and flows of maturities of the related hedges. Hedge transactions are classified into the following categories:

Fixed-price commercial transactions – hedge transactions that switch, from fixed to floating, the price contracted in commercial transactions with customers interested in purchasing products at a fixed price;

Hedges for "quotation periods" – hedges that set a price for the different "quotation periods" between the purchases of certain inputs (metal concentrate) and the sale of products arising from the processing of these inputs;

Hedges for "costs of inputs" – intended to ensure protection against volatility in the prices/costs of its operating subsidiaries for commodities such as oil and natural gas;

Hedges for "operating margin" – intended to set the operating margin for a portion of the production of certain operating subsidiaries.

(b) Credit risk

Derivative financial instruments and financial investments create exposure to credit risk of counterparties and issuers. The Company and its subsidiaries adopt the policy of working with issuers which have, at a minimum, been assessed by two of the following three rating agencies: Fitch Ratings, Moody's or Standard & Poor's ("S&P"). The minimum rating required for the counterparties is "A" (Brazilian scale) or "BBB-" (international scale), or equivalent. For financial assets where issuers do not meet the minimum credit risk ratings, criteria proposed by the Finance Committee are applied as an alternative.

The credit quality of financial assets is disclosed in Note 8. The ratings disclosed in this Note always represent the most conservative ratings of the agencies in question.

The pre-settlement risk methodology is used to assess counterparty risk on derivatives transactions, determining (via Monte Carlo simulations) the likelihood of a counterparty not honoring the financial commitments defined by the contract. The use of this methodology is described in the Votorantim Financial Policy.

(c) Liquidity risk

The following table analyzes the financial liabilities of the Company and its subsidiaries, by maturity, corresponding to the period remaining in the balance sheet up to the contractual maturity date. Derivative financial liabilities are included in the analysis when their contractual maturities are essential for an understanding of the temporary cash flows. The amounts disclosed in the table are the undiscounted contractual cash flows, these amounts may not be reconciled with the amounts disclosed in the balance sheet.

	Note	Up to one year	From one to three years	From three to five years	From five to ten years	From ten years	Total
At December 31, 2018							
Borrowing (*)		6,176	5,625	7,243	9,335	4,420	32,799
Derivative financial instruments		144	69	30			243
Confirming payables	20	1,187					1,187
Trade payables		4,262					4,262
Dividends payable	14	482					482
Related parties		12	124				136
Use of public assets		80	123	367	357	778	1,705
		12,343	**5,941**	**7,640**	**9,692**	**5,198**	**40,814**
At December 31, 2017							
Borrowing (*)		3,603	5,531	6,970	12,941	7,931	36,976
Derivative financial instruments		310	63	9			382
Confirming payables	20	909					909
Trade payables		3,514					3,514
Dividends payable	14	188					188
Related parties		19	6				25
Use of public assets		79	170	192	591	1,637	2,669
		8,622	**5,770**	**7,171**	**13,532**	**9,568**	**44,663**

(*) Does not include the recorded fair value of the debts contracted under Resolution 4131/1962.

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6.1.1 Derivatives contracted

Accounting policy

Initially, derivatives are recognized at fair value on the date of their contracting and are subsequently re-measured at their fair value. The method for recognizing the resulting gain or loss depends on whether or not the derivative is designated as a hedge instrument in cases of adoption of hedge accounting. If this is the case, the method depends on the nature of the item being hedged. The Company and its subsidiaries adopt hedge accounting and designates certain derivatives such as:

(i) Cash flow hedge

With a view to ensuring a fixed operating margin in reais for a portion of the production of the metal businesses, the subsidiaries enter into commodity forward contracts (zinc, aluminum and nickel) on sales of certain commodities combined with the sale of US Dollar forward contracts. These subsidiaries adopt hedge accounting for the derivative instruments entered into for this purpose.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in equity within "Carrying value adjustments". The gain or loss relating to the ineffective portion is recognized as "Operating income (expenses)". The amounts recognized in equity are recorded in the statement of income (in the same line item affected by the transaction originally hedged) upon realization of the hedged exports and/or sales referenced to London Metal Exchange ("LME") prices.

(ii) Fair value hedges

With the objective of maintaining the flow of the metal businesses' operating revenue pegged to LME prices, the subsidiaries enter into hedging transactions under which they convert sales at fixed prices to floating prices in commercial transactions with customers interested in purchasing products at a fixed price. Changes in the fair values of derivatives that are designated and qualify as fair value hedges are recorded in "Operating income (expenses)".

(iii) Fair value of derivatives and other financial instruments

The fair value of financial instruments that are not traded in active markets is determined through the use of valuation techniques. The Company and its subsidiaries use their judgment to choose among several methods and to establish assumptions that are based primarily on the market conditions existing at the balance sheet date.

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(a) Effects of the derivative financial instruments on the balance sheet and cash flow

The table below summarizes the derivative financial instruments and the underlying hedged items:

Details of the main derivative operations

Programas	Principal Value		As per unit	Purchase/ sale	Average FWD rate	Average term (days) of maturity	Fair value		Realized gain (loss)	Fair value by maturity				
	2018	2017					2018	2017	2018	2019	2020	2021	2022	2023
Hedge Capex														
Collars	1,057		ton	P	3.6 BRL/USD	412	(6.2)			0.4	(5.5)	(1.0)		
							(6.2)			**0.4**	**(5.5)**	**(1.0)**		
Sales at a fixed price														
Zinc forward	10,566	2,318	ton	P	2,559 USD/ton	129	(3.3)	2.1	(6.9)	(3.2)	(0.2)			
							(3.3)	**2.1**	**(6.9)**	**(3.2)**	**(0.2)**			
Hedging instruments for mismatches of quotation quarter														
Zinc forward	153,422	281,397	ton	P/S		21	2.8	(16.3)	(4.5)	2.8				
Silver forward		238	k oz (*)	P/S				0.6	0.2					
Aluminum forward	1,000	6,850	ton	P/S		1	0.1	(0.2)	4.6	0.1				
							2.9	**(15.9)**	**0.3**	**2.9**				
Hedging instruments for the operating margin of metals														
Aluminum forward	13,750	18,970	ton	S	2,092 USD/ton	1	8.5	(21.9)		8.5				
USD forward	29	33	USD	S	3.39 BRL/USD	1	(14.1)	8.9		(14.1)				
							(5.6)	**(13.0)**		**(5.6)**				
Hedging instruments for foreign exchange exposure														
USD forward	514	451	USD	P	4	16	(7.6)	(21.2)	8.0	(7.6)				
Turkish lira forward	11	26	USD	P	6.10 TRY/USD	22	(4.3)	0.4	0.1	(4.3)				
							(11.9)	**(20.8)**	**8.1**	**(11.9)**				
Hedging instruments for debts														
TJLP floating rate vs. CDI floating rate swaps		28	BRL					1.0	1.3					
LIBOR floating rate vs. CDI floating rate swaps	373	254	USD		107.47% % CDI	811	141.6	42.4	25.4	43.1	(22.0)	29.6	(13.7)	104.6
USD fixed rate vs. CDI floating rate swaps		50	USD					(42.7)	(49.1)					
LIBOR floating rate vs. COP fixed rate swaps			USD		Pré COP				3.3					
							141.6	**0.7**	**(19.1)**	**43.1**	**(22.0)**	**29.6**	**(13.7)**	**104.6**
							117.5	**(46.9)**	**(17.6)**	**25.7**	**(27.7)**	**28.6**	**(13.7)**	**104.6**

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Details of the main derivative operations

	Principal Value						Fair value		Realized gain (loss)	Fair value by maturity				
Programas	2018	2017	As per unit	Purchase/ sale	Average FWD rate	Average term (days) of maturity	2018	2017	2018	2019	2020	2021	2022	2023
Hedge accounting – cash flow hedge														
Hedging instruments for the operating margin of metals														
Aluminum forward	114,000	165,175	ton	S	2,198 USD/ton	144	148.9	(143.2)	(81.6)	148.9				
USD forward	251	334	USD	S	3.78 BRL/USD	143	(32.8)	0.1	(72.1)	(32.8)				
							116.1	**(143.1)**	**(153.7)**	**116.1**				
Hedging instruments for mismatches of quotation quarter														
Zinc forward	36,212	58,800	ton	P/S		49	(10.7)	9.9	(0.7)	(10.7)				
Silver forward		265	k oz (*)	P/S				(0.2)	1.0					
							(10.7)	**9.7**	**0.3**	**(10.7)**				
Hedge accounting – fair value hedge														
Sales at a fixed price														
Zinc forward		202	ton	P	USD/ton			0.1						
								0.1						
Hedge accounting – fair value hedge					0	0								
Sales at a fixed price					0	0								
Zinc forward	-	-	ton	P	-	-								
						0								
Hedging instruments for mismatches of quotation quarter														
Zinc forward	71,386	93,003	ton	P/S		44	**5.6**	**(11.4)**	**68.5**	**5.6**				
							5.6	**(11.4)**	**68.5**	**5.6**				
							111.0	**(144.7)**	**(84.9)**	**111.0**				
							228.5	**(191.6)**	**(102.5)**	**136.7**	**(27.7)**	**28.6**	**(13.7)**	**104.6**

(*) k oz– Troy Ounce

The transactions involving derivative financial instruments recognized in "Carrying value adjustments" amounted to R$ 204 in 2018. Besides this, there are hedge accounting operations, which amounted to a loss of R$ (46) in the subsidiaries not consolidated, recognized in "Carrying value adjustments".

(b) Derivative financial instruments – Put-option

In the year ended December 31, 2018, the operation in which VS became a subsidiary of AMB was finalized. According to the agreement between the parties, VSA became a minority stakeholder of 15% of AMB's combined long steel business, which, in compliance with accounting rules, was recognized as a financial instrument in accordance with CPC 48 – "Financial instruments".

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(c) Effects of financial derivative instruments on the financial results

The chart below shows the impact of the financial derivative instruments in the financial results of the year:

Programs	Fair value	Gain (loss) realized	Total
Hedge Capex			
Collars	(6.2)		(6.2)
	(6.2)		**(6.2)**
Hedging instruments for foreign exchange exposure			
USD forward	13.6	8.0	21.6
Turkish lira forward	(4.7)	0.1	(4.6)
	8.9	**8.1**	**17.0**
Hedging instruments for debts			
TJLP floating rate vs. CDI floating rate swaps	(1.0)	1.3	0.3
LIBOR floating rate vs. CDI floating rate swaps	99.2	25.4	124.6
USD fixed rate vs. CDI floating rate swaps	42.7	(49.1)	(6.4)
LIBOR floating rate vs. COP fixed rate swaps		3.3	3.3
	140.9	**(19.1)**	**121.8**
Intrumentos financeiros			
Put option	71.0		71.0
	71.0		**71.0**
Effect on the finance results	**214.6**	**(11.0)**	**203.6**

6.1.2 Fair value estimation

The main financial assets and liabilities are described below, as well as their valuation assumptions:

Financial assets – considering the nature and the terms, the amounts recorded approximate their realizable values.

Financial liabilities – these instruments are subject to the usual market interest rates. The market value was based on the present value of the expected future cash disbursements, at interest rates currently available for the issue of debts with similar maturities and terms.

The Company discloses fair value measurements according to their level of the following fair value measurement hierarchy:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets and liabilities.

Level 2 – Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).

Level 3 – Inputs for the assets or liabilities that are not based on observable market data (that is, unobservable inputs).

As at December 31, 2018, the financial assets and liabilities carried at fair value were classified as levels 1 and 2 in the fair value measurement hierarchy.

		Fair value measured based on		2018
	Note	Prices quoted in an active market (Level 1)	Valuation supported by observable prices (Level 2)	Fair value
Assets				
Cash and cash equivalents	9	4,204	3,463	7,667
Financial investments	10	1,869	1,544	3,413
Derivative financial instruments	6.1.1		472	472
Financial instruments – firm commitment	15		202	202
		6,073	**5,681**	**11,754**
Liabilities				
Borrowing	19	16,413	8,072	24,485
Derivative financial instruments	6.1.1		244	244
Confirming payables	20		1,187	1,187
Financial instruments – firm commitment	15		180	180
Deferred revenue – silver streaming			774	774
		16,413	**10,457**	**26,870**

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		Fair value measured based on		2017
	Note	Prices quoted in an active market (Level 1)	Valuation supported by observable prices (Level 2)	Fair value
Assets				
Cash and cash equivalents	9	5,715	3,245	9,177
Financial investments	10	1,573	2,014	3,370
Derivative financial instruments	6.1.1		190	190
Financial instruments - firm commitment	15		364	364
		7,288	**5,813**	**13,101**
Liabilities				
Borrowing	19	15,292	10,217	25,509
Derivative financial instruments	6.1.1		382	382
Confirming payables	20		909	909
Financial instruments - firm commitment	15		208	208
Deferred revenue - silver streaming			734	734
		15,292	**12,450**	**27,742**

6.1.3 Hedge of net investments in foreign operations

Accounting policy

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges.

Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in "Carrying value adjustments". The gain or loss relating to the ineffective portion is recognized immediately in income. Gains and losses accumulated in equity are included in the statement of income when the foreign operation is partially or fully disposed of or sold.

Were designated as hedged investments presented in the following table including the portion of the debt of the Company and its subsidiaries Companhia Brasileira de Aluminio ("CBA"), Nexa BR and VCSA, denominated in Euros and US Dollars.

	2018		09/07/1905	
	Investment	Debt	Investment	Debt
Nexa Resources Cajamarquilla S.A.	3,437	5,247	2,825	2,981
Votorantim Cement North America Inc. ("VCNA") (i)			2,170	4,219
Votorantim Cimentos EAA Inversiones, S.L. ("VCEAA")	1,092	2,490	1,723	2,263

The foreign exchange loss on the conversion of debts, net of income tax and social contribution, recognized as equity valuation adjustments on December 31, 2018, was R$ 932 (December 31, 2017, loss of R$ 163) (Note 26 (c)).

(i) In 2018, the subsidiary VCSA designated its US Dollar debt, except for the loans of Law 4131/1962, in the amount of R$ 4,491 (USD 1,158)(December 31, 2017, R$ 4,219 (USD 1,275)) as an investment hedging instrument in its indirect subsidiary St. Mary's. The hedge transaction was discontinued in November 2018, as a consequence of the corporate reorganization, when the Company ceased to be the direct controlling shareholder of the investment in VCEAA (Note 1.1 (j)).

The Company and its subsidiaries document and evaluate the effectiveness of the investment hedge operations on a monthly basis, as required by IFRS 9 - "Financial Instruments: Recognition and Measurement".

6.1.4 Sensitivity analysis

The main risk factors affecting the pricing of cash and cash equivalents, financial investments, loans and financing and derivative financial instruments are exposure to the fluctuation of the US Dollar, Euro, Turkish lira, New Peruvian Sun, Argentine Peso and Bolivian interest rates, LIBOR, CDI, US Dollar coupon, commodity prices and electricity purchase and sale contracts. The scenarios for these factors are prepared using market sources and specialized sources, following the Company's governance.

The scenarios as at December 31, 2018 are described below:

Scenario I - Considers a shock in the market curves and quotations at December 31, 2018, according to the base scenario defined by management for March 31, 2019;

Scenario II - considers a shock of + or - 25% in the market curves at December 31, 2018;

Scenario III - considers a shock of + or - 50% in the market curves at December 31, 2018.

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						Impacts on profit (loss)					Impacts on comprehensive income				
						Scenario I	Scenarios II & III				Scenario I	Scenarios II & III			
Risk factors	Cash and cash equivalents and financial investments (i)	Borrowing and related parties (i)	Derivative financial instruments/ As per unit		Changes from 2018	Results of scenario I	-25%	-50%	+25%	+50%	Results of scenario I	-25%	-50%	+25%	+50%
Foreign exchange rates															
USD	4,724	17,031 (*)	1,4700	USD	-0.6%	(7)	(195)	(312)	260	454	72	2,798	5,597	(2,798)	(5,597)
EUR	729	2,977			0.6%	3	(126)	(251)	126	251	(17)	688	1,375	(688)	(1,375)
PEN	173				1.0%	2	(42)	(85)	42	85		(1)	(2)	1	2
BOB	46	469			-2.0%						8	106	212	(106)	(212)
TRY	62	187			-19.9%	(12)	(15)	(31)	15	31	37	47	93	(47)	(93)
ARS	95				-15.0%						(14)	(24)	(47)	24	47
	5,829	20,664	1,470			(14)	(378)	(679)	443	821	86	3,614	7,228	(3,614)	(7,228)
Interest rates															
BRL - CDI	4,678	2,829	5,573	BRL	16 bps	2	(17)	(34)	18	37		5	10	(5)	(10)
USD - LIBOR		1,577	1,295	USD	-6 bps		(12)	(24)	12	24		2	5	(2)	(5)
US Dollar coupon			1,459	USD	26 bps	9	33	69	(31)	(61)	(1)	(3)	(6)	3	6
	4,678	4,406	8,327			11	4	11	(1)	1	(1)	4	9	(4)	(8)
Price of commodities															
Zinc			271,586	ton	1.6%	(7)	118	236	(118)	(236)	2	(29)	(57)	29	57
Aluminum			128,750	ton	14.8%						(120)	203	406	(203)	(406)
			400,336			(7)	118	236	(118)	(236)	(118)	174	348	(174)	(348)
Firm commitment – electric energy															
Sale and purchase agreements – fair value			22	BRL			(2)	(5)	2	4					
			22				(2)	(5)	2	4					

(*) Considers baskets of currencies

(i) The balances presented do not reconcile with the cash and cash equivalents, financial investments, related parties and borrowing notes, as the analysis only covers the most significant currencies and the interest rates cover only the principal value.

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7 Financial instruments by category

Accounting policy

The Company and its subsidiaries classify their financial instruments depending on the purpose for which the financial instruments were acquired. Management determines the classification of financial instruments upon initial recognition, in the following categories:

(a) Financial instruments at fair value through profit or loss

These are financial assets held for active and frequent trading. These assets are measured at their fair value, and the changes are recognized in the statement of income for the year.

(b) Financial instruments at fair value through other comprehensive income

Financial instruments that meet the criterion of contractual terms, which give rise to cash flows that are exclusively the payment of principal and interest and are maintained in a business model, the objective of which is achieved both by obtaining contractual cash flows and by sale of financial assets. The instruments in this classification are measured at fair value through other comprehensive income.

(c) Financial instruments at amortized cost

Financial instruments maintained in a business model whose purpose is to obtain contractual cash flows and their contractual terms give rise to cash flows that are exclusively the payment of principal and interest. The instruments in this classification are measured at amortized cost.

(d) Impairment of financial assets measured at cost

This is measured as the difference between the book value of the assets and the present value of the estimated future cash flows (excluding future credit losses that were not incurred), discounted at the current interest rate of financial assets. The book value of the asset is reduced and the amount of the loss is recognized in the statement of income.

If, in a subsequent period, the impairment loss decreases and the impairment can be objectively related to an event occurring after recognition of the impairment (such as an improvement in the debtor's credit rating), the reversal of the loss will be recognized in the statement of the results.

	Note	2018	2017
Assets			
At amortized cost			
Financial investments	10		51
Trade receivables	11	2,546	2,421
Related parties	14	271	143
		2,817	2,615
Fair value through profit or loss			
Cash and cash equivalents	9	7,667	9,177
Financial investments	10	3,396	3,251
Derivative financial instruments	6.1.1	287	160
Financial instruments – firm commitment		202	364
		11,552	12,952
Fair value through other comprehensive income			
Financial investments	10	17	68
Derivative financial instruments	6.1.1	185	30
		202	98

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	Note	2018	2017
Liabilities			
At amortized cost			
Borrowing	19	11,592	12,859
Trade payables		4,262	3,514
Related parties	14	136	25
Confirming payables	20	1,187	909
Use of public assets	24	1,189	1,132
		18,366	18,439
Fair value through profit or loss			
Borrowing	19	12,859	11,771
Derivative financial instruments	6.1.1	170	199
Financial instruments - firm commitment		180	208
		13,209	11,970
Fair value through other comprehensive income			
Derivative financial instruments	6.1.1	74	183
		74	183

8 Credit quality of financial assets

	2018			2017		
	Local rating	Global rating	Total	Local rating	Global rating	Total
Cash and cash equivalents						
AAA	1,329	39	1,368			
AA+	4		4	376		376
AA	6	796	802	70		70
AA-		424	424	2,452	464	2,916
A+		543	543		2,392	2,392
A	1	1,783	1,784		885	885
A-		286	286		393	393
BBB+		759	759		411	411
BBB		118	118		458	458
BBB-		369	369		58	58
BB		21	21		140	140
B-		64	64		77	77
B+		55	55		21	21
B		27	27			
Unrated (i)	11	1,032	1,043		980	980
	1,351	**6,316**	**7,667**	**2,898**	**6,279**	**9,177**
Financial investments						
AAA	3,099		3,099			
AA+	51		51	867		867
AA	166		166	30		30
AA-	5		5	2,315	14	2,329
A+	19	29	48	3	9	12
A		2	2		25	25
A-				18	2	20
BBB+					1	1
B-		30	30		50	50
Unrated (ii)	11	1	12	28	8	36
	3,351	**62**	**3,413**	**3,261**	**109**	**3,370**

	2018			2017		
	Local rating	Global rating	Total	Local rating	Global rating	Total
Derivative financial instruments						
AAA	242		242	30		30
AA+				7		7
AA	1	52	53			
AA-	5		5	69	17	86
A+		134	134		11	11
A		1	1		1	1
Unrated (i)	37		37	55		55
	285	**187**	**472**	**161**	**29**	**190**
	4,987	**6,565**	**11,552**	**6,320**	**6,417**	**12,737**

The local and global ratings were obtained from the ratings agencies (S&P, Moody's and Fitch Ratings). The Company considered the ratings of S&P and Fitch Ratings for presentation purposes and the classification as established in Financial Policies. The main variations between the ratings are due to the changes in methodology performed by S & P on the Brazilian national scale in 2018.

(i) Refers to values invested in offshore banks, which are not rated by any rating agency.

(ii) Refers to Grupo Votorantim's exclusive investment funds (Credit Receivables Investment Funds – "FIDCs"), which are not rated by any rating agency.

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9 Cash and cash equivalents

Accounting policy

Cash and cash equivalents include cash, bank deposits and other highly liquid short-term investments whose original maturities are less than three months, which are readily convertible into a known amount of cash and which are subject to an insignificant risk of change in value.

(a) Breakdown

Cash and cash equivalents in local currency include deposits in current bank accounts and government securities (overnight operations) or financial institutions, indexed to the interbank deposit rate. Cash equivalents in foreign currency are mainly composed of financial instruments in local currency.

	2018	2017
Local currency		
Cash and banks	28	14
Bank Deposit Certificates - "CDBs"	3	534
Repurchase agreements - private securities		165
Repurchase agreements - public securities	1,320	2,185
	1,351	**2,898**
Foreign currency		
Cash and banks	2,856	3,516
Bank Deposit Certificates - "CDBs"	2,759	1,503
Time deposits	701	1,260
	6,316	**6,279**
	7,667	**9,177**

10 Financial investments

Accounting policy

Financial investments are held for the purpose of servicing investments whose maturities are long-term from the date of acquisition.

(a) Breakdown

Most financial investments have immediate liquidity, however, they are classified as financial investments based on the original maturities, considering the intended allocation of funds. The investments in national currency comprise government securities or financial institutions indexed to the interbank deposit rate. Foreign currency-denominated investments consist mainly of fixed-income financial instruments in local currency (time deposits).

	10/07/1905	09/07/1905
Fair value through profit or loss		
Bank Deposit Certificates - "CDBs"	1,396	543
Financial Treasury Bills - "LFTs"	1,763	961
Repurchase agreements - public securities	106	605
Repurchase agreements - private securities	54	1,048
Investment fund quotas	15	29
Financial investments in foreign currency	62	65
	3,396	**3,251**
Fair value through other comprehensive income		
Bank Deposit Certificates - "CDBs"	17	68
	17	**68**
Amortized cost		
Financial Treasury Bills - "LFTs"		7
Financial investments in foreign currency		44
		51
	3,413	**3,370**
Current	3,390	3,345
Non-current	23	25
	3,413	**3,370**

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11 Trade receivables

Accounting policy

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of the Company's business.

Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest rate method, less provision for impairment of trade receivables. Receivables from customers abroad are presented based on the exchange rates prevailing at the balance sheet date.

(a) Breakdown

	Note	2018	2017
Trade receivables - Brazil		1,308	1,296
Trade receivables - foreign customers		1,398	1,231
Related parties	14	14	53
		2,720	**2,580**
Allowance for doubtful accounts		(174)	(159)
		(174)	**(159)**
		2,546	**2,421**

(b) Breakdown by currency

	2018	2017
Brazilian real	1,217	1,229
U.S. dollar	741	620
Euro	102	115
Colombian peso	120	111
Turkish lira	88	91
Uruguayan peso	82	43
Moroccan dirham	62	56
Argentine peso	61	74
Other	73	82
	2,546	**2,421**

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(c) Changes in estimated loss for doubful accounts

	2018	2017
Opening balance	(159)	(159)
Additions, net	(21)	(17)
Receivables written off as uncollectible (i)	13	13
Reclassification of assets classified as held-for-sale	1	4
Effect of subsidiaries excluded from consolidation	(7)	
Foreign exchange variations	(1)	
Closing balance	**(174)**	**(159)**

(i) The amounts charged to the estimated loss account with bad debt are generally written off when there is no expectation of recovering the funds.

(d) Aging of trade receivables

	2018	2017
Current	2,184	1,975
Up to three months past due	295	326
Three to six months past due	22	32
Over six months past due	219	247
	2,720	**2,580**

12 Inventory

Accounting policy

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the weighted average cost method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads. Raw materials derived from biological assets are measured at fair value, less estimated point-of-sale costs at the point of harvest, when they are transferred to inventories in non-current assets.

Net realizable value is the estimated selling price in the ordinary course of business, less conclusion costs and selling expenses. Imports in transit are stated at the accumulated cost of each import.

The subsidiaries, at least once a year, carries out a physical inventory. Inventory adjustments are recorded under "Cost of goods sold and services rendered".

The provision for inventory losses refers substantially to obsolete and low turnover materials.

	2018	2017
Finished products	845	749
Semi-finished products	1,499	1,482
Raw materials	832	624
Auxiliary materials and consumables	896	856
Imports in transit	142	205
Other	82	84
Provision for inventory losses	(482)	(474)
	3,814	**3,526**

ALL AMOUNTS IN MILLIONS OF REAIS UNLESS OTHERWISE STATED

13 Taxes recoverable

Accounting policy

The recoverable taxes are held in assets mainly for the purpose of recognizing in the balance sheet of the entity the book values that will be object of future recovery.

	2018	2017
Corporate Income Tax ("IRPJ") and Social Contribution on Net Income ("CSLL")	1,751	1,524
Social Contribution on Revenue ("COFINS") (i)	1,057	379
State Value-added Tax on Sales and Services ("ICMS")	594	465
Value-added Tax ("VAT") (foreign companies)	297	265
Social Integration Program ("PIS") (i)	230	85
Withholding Income Tax ("IRRF")	62	69
State VAT on Sales and Services on PP&E	59	66
"IRPJ/CSLL" - "Plano Verão"	30	81
Excise Tax ("IPI")	28	32
Other	96	135
	4,204	**3,101**
Current	1,473	1,317
Non-current	2,731	1,784
	4,204	**3,101**

(i) Refers substantially, to the PIS and COFINS credit recognized in the subsidiaries VCSA and Nexa BR, in the amounts of R$ 550 e R$ 231, respectively (Note 1.1 (h)).

14 Related parties

	Trade receivables		Dividends receivable		Non-current assets	
Assets	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Related companies and joint ventures						
Cementos Avellaneda S.A.	3	12				
Cementos Granadilla S.L.	1	1			3	6
Banco Votorantim S.A.			9	55		
Cementos Especiales De Las Islas, S.A.				11		
Citrosuco S.A. Agroindústria (i)	1	23			216	86
Citrosuco GmbH (i)					50	43
Fibria Celulose S.A.	3	12		76	1	1
Mineração Rio Do Norte S.A.				6		
Supermix Concreto S.A.	4	5				
VTRM Energia Participações S.A			5			
Others	2				1	7
	14	**53**	**14**	**148**	**271**	**143**
Current	14	53	14	148		
Non-current					271	143
	14	**53**	**14**	**148**	**271**	**143**

	Trade payables		Dividends payable		Non-current liabilities	
Liabilities	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Parent company						
Hejoassu Administração S.A.			415	140		
Related companies and joint ventures						
Fibria Celulose S.A.	**13**	3			117	1
Superior Materials Holdings, LLC	**7**	1				
Others	**19**	4			19	24
	39	**8**	**415**	**140**	**136**	**25**
Non-controlling interests			67	48		
Current	**39**	8	482	188		
Non-current					136	25
	39	**8**	**482**	**188**	**136**	**25**

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	Sales (purchases), net		Finance income (expenses), net	
Profit and loss	**2018**	**2017**	**2018**	**2017**
Related companies and joint ventures				
Cementos Avellaneda S.A.	36	32		
Cementos Especiales De Las Islas, S.A.	27	12		
Cementos Granadilla S.L.	20	14		
Citrosuco S.A. Agroindústria	32	28		5
Fibria Celulose S.A.	43	143		
Midway Group, LLC	27	21		
Supermix Concreto S.A.	204	167		
Superior Materials Holdings, LLC	66	58		
Others	20	12	(2)	2
	475	487	**(2)**	7

(i) Refers to accounts receivable related to assets in excess of the basic net assets invested in Citrosuco's operation. The realization period is linked to the performance of each item under contractual rules laid down in the shareholder agreement and the closing memorandum signed between Fischer S.A. – Comércio, Indústria e Agricultura and Votorantim.

15 Financial instruments – firm commitment

The controlled company Votorantim Comercializadora de Energia Ltda. ("Votener") centralizes energy purchase and sale transactions to meet the demands of Votorantim companies. A portion of these transactions takes the form of contracts that have been entered into and continue to be carried out for the purpose of receiving the energy for own use or delivering the energy of self-production, in accordance with the productive demands of the Company's subsidiaries and, therefore, meet the definition of a financial instrument.

Another part of these transactions refers to purchases and sales of energy, not used in the productive process of Votorantim companies, being transacted in the active market, and therefore, it meets the definition of financial instruments, due to the fact of being liquidated in energy, and promptly convertible into cash. Such contracts are recorded as derivatives in accordance with IFRS 9 / CPC 48 and are recognized in the Company's balance sheet at fair value on the date the derivative is entered into and is revalued to fair value at the balance sheet date.

The fair value of these derivatives is estimated based, in part, on quotations of prices published in active markets, to the extent that such observable market data exist, and partly by the use of valuation techniques, which considers: (i) prices established in the purchase and sale operations; (ii) risk margin in the supply and (iii) projected market price in the period of availability. Whenever the fair value at initial recognition for these contracts differs from the transaction price, gain or loss, it is recognized in profit or loss for the year.

The Company, through its indirect subsidiary Votener, operates in the Regulated Contracting Environment ("ACR") and participated in the 13th electric power purchase auction on April 30, 2014, in which, through a firm commitment, it made sales until December 2019. These transactions, on initial recognition, resulted in gains from the sale of surplus energy to the Company, which was recognized at fair value. The net difference of expenses and revenues generated by the realization of the fair value, through the physical settlement of the sale and purchase agreements, was recognized as an expense in the amount of R$ 147 in "Other operating expenses, net" (Note 30).

In addition, the other operations carried out by the subsidiaries in the Free Contracting Environment ("ACL"), which meet the definition of a financial instrument, were likewise recognized at fair value. The realization of the fair value in the amount of R$ 15 was recognized as an expense in "Other operating expenses, net" (Note 30).

ALL AMOUNTS IN MILLIONS OF REAIS UNLESS OTHERWISE STATED

The values quoted above have the following composition:

	ACR			ACL				Total	
	CBA	Votorantim Energia	Total	Votorantim Cimentos	CBA	Votorantim Energia	Total	2018	2017
Realization	(116)	(33)	(149)		(9)	(41)	(50)	(199)	(312)
Recognition				(31)	(23)	119	65	65	(97)
Constitution (reversal)	2		2					2	(113)
	(114)	**(33)**	**(147)**	**(31)**	**(32)**	**78**	**15**	**(132)**	**(522)**

The table below shows the composition of the assets and liabilities:

	ACR			ACL				Total	
	CBA	Votorantim Energia	Total	Votorantim Cimentos	CBA	Votorantim Energia	Total	2018	2017
Assets									
Current	110	33	143		6	53	59	202	210
Non-current									154
	110	**33**	**143**		**6**	**53**	**59**	**202**	**364**
Liabilities									
Current				(19)			(19)	(19)	(1)
Non-current				(35)	(82)	(44)	(161)	(161)	(207)
				(54)	**(82)**	**(44)**	**(180)**	**(180)**	**(208)**

16 Investments

Accounting policy

Investments in affiliates, subsidiaries and joint ventures are accounted for using the equity method of accounting as of the date they become their jointly controlled joint ventures.

Affiliates are those entities in which the Company, directly or indirectly, has significant influence, but not control or joint control over financial and operating policies. In order to be classified as a jointly controlled entity, there must be a contractual agreement that allows the Company to share control of the entity and gives the Company the right to the net assets of the jointly controlled entity, not the right to its specific assets and liabilities.

The Company also recognizes its assets in accordance with the venturer's participation in the assets, liabilities, revenues and expenses of the controlled entity on a proportional basis. This implies recognizing the venturer's share of the assets, liabilities, income and expenses of the joint ventures by adding such amounts to its own assets, liabilities, revenues and expenses by the straight-line method, including such amounts in corresponding to the balance sheet and income statement of the same nature.

(i) Impairment of investments

For the calculation of the recoverable amounts of the investments, the Company and its subsidiaries use criteria similar to those used to test goodwill impairment.

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(a) Breakdown

Main consolidated companies	Note	Percentage of total and voting capital 2018	2017	Headquarters	Main activity
Subsidiaries					
Acerbrag S.A.		100.00	100.00	Argentina	Steel
Votorantim FinCO GmbH		100.00	100.00	Austria	Trading
Votorantim GmbH		100.00	100.00	Austria	Zinc
Acariuba Mineração e Participação Ltda.		100.00	100.00	Brazil	Holding
Companhia Brasileira de Alumínio		100.00	100.00	Brazil	Aluminum
Interávia Transportes Ltda.		100.00	100.00	Brazil	Transportation
Santa Cruz Geração de Energia S.A.		100.00	100.00	Brazil	Electric power
Silcar Empreendimentos, Comércio e Participações Ltda.		100.00	100.00	Brazil	Holding
Ventos de São Vicente Energias Renováveis S.A.	1.1 (d)		100.00	Brazil	Holding
Votener - Votorantim Comercializadora de Energia Ltda.		100.00	100.00	Brazil	Electric power
Votorantim Cimentos N/NE S.A.		100.00	100.00	Brazil	Cement
Votorantim Cimentos S.A.		100.00	100.00	Brazil	Cement
Votorantim Energia Ltda.		100.00	100.00	Brazil	Holding
Votorantim Finanças S.A.		100.00	100.00	Brazil	Finance
Votorantim Geração de Energia S.A.		100.00	100.00	Brazil	Holding
Votorantim Investimentos Latino-Americanos S.A.		100.00	100.00	Brazil	Holding
Nexa Recursos Minerais S.A.		100.00	100.00	Brazil	Zinc
Votorantim Cement North America Inc.		100.00	100.00	Canada	Holding
Acerías Paz del Río S.A.		82.42	82.42	Colombia	Steel
Votorantim Cimentos EAA Inversiones, S.L.	1.1 (j)	100.00	100.00	Spain	Holding
St. Marys Cement Inc.		100.00	100.00	USA	Cement
US Zinc Corporation	1.1 (i)		100.00	USA	Zinc
St. Helen Holding II B.V.		100.00	100.00	Cayman Islands	Holding
Hailstone Ltd.		100.00	100.00	British Virgin Islands	Holding
Nexa Resources S.A.		64.25	64.25	Luxembourg	Holding
Votorantim Cimentos International S.A.	1.1 (j)	100.00		Luxembourg	Holding
Votorantim RE		100.00	100.00	Luxembourg	Insurance
Compañia Minera Atacocha S.A.A.		91.00	91.00	Peru	Mining
Nexa Resources Perú S.A.A		80.23	80.23	Peru	Mining
Nexa Resources Cajarmarquilla S.A.		99.91	99.91	Peru	Zinc
Cementos Artigas S.A.		51.00	51.00	Uruguay	Cement
Joint operations					
Baesa - Energética Barra Grande S.A.		15.00	15.00	Brazil	Electric power
Campos Novos Energia S.A.		44.76	44.76	Brazil	Electric power
Great Lakes Slag Inc.		50.00	50.00	Canada	Cement
Voto - Votorantim Overseas Trading Operations IV Ltd.		50.00	50.00	Cayman Islands	Trading

Main consolidated companies	Note	Percentage of total and voting capital 2018	2017	Headquarters	Main activity
Exclusive investment funds					
Fundo de Investimento Pentágono VC Multimercado – Crédito Privado		100.00	100.00	Brazil	Finance
Fundo de Investimento Pentágono CBA Multimercado – Crédito Privado		100.00	100.00	Brazil	Finance
Odessa Multimercado Crédito Privado		96.91	89.97	Brazil	Finance
Odessa Multimercado Crédito Privado Fundo de investimento VC		100.00	100.00	Brazil	Finance
Odessa Multimercado Crédito Privado Fundo de investimento VM		100.00	100.00	Brazil	Finance
Main non-consolidated companies					
Associates					
Cementos Avellaneda S.A.		49.00	49.00	Argentina	Cement
Alunorte - Alumina do Norte S.A.		3.03	3.03	Brazil	Mining
IMIX Empreendimentos Imobiliários Ltda.		25.00	25.00	Brazil	Mining
Mineração Rio do Norte S.A.		10.00	10.00	Brazil	Mining
Supermix Concreto S.A.		25.00	25.00	Brazil	Concrete
Cementos Especiales de las Islas S.A.		50.00	50.00	USA	Cement
Joint ventures					
Citrosuco GmbH		50.00	50.00	Austria	Agribusiness
Banco Votorantim S.A.		50.00	50.00	Brazil	Finance
Citrosuco S.A. Agroindústria		50.00	50.00	Brazil	Agribusiness
Fibria Celulose S.A.	1.1 (c)		29.42	Brazil	Wood pulp
Juntos Somos Mais Fidelização S.A.		45.00		Brazil	Services
VTRM Energia Participações S.A.	1.1 (d)	50.00	100.00	Brazil	Electric power
Hutton Transport Ltda.		25.00	25.00	Canada	Transportation
Midway Group, LLC.		50.00	50.00	USA	Cement
RMC Leasing, LLC.		50.00		USA	Equipament leasing
Superior Materials Holdings, LLC.		50.00	50.00	USA	Cement
Cementos Portland S.A.	1.1 (f)		50.00	Perú	Cement

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(b) Information about the companies investees

The following is a summary of selected financial information of the principal associates and joint ventures as at December 31, 2018:

	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Other com-prehensive	Equity	Net revenue	Operation results	Finance income (costs)	Profit (loss) for the year	Total and voting capital (%)
Investments accounted for based on the equity method – Associates											
Cementos Avellaneda S.A.	441	826	477	20	67	770	1,378	280	46	165	49.00%
Alunorte - Alumina do Norte S.A.	8,634		2,436	2,682		3,516	4,148	(651)	(653)	(933)	3.03%
IMIX Empreendimentos Imobiliários Ltda.	7	7				14	6	6	1	5	25.00%
Mineração Rio do Norte S.A.	554	2,610	507	1,756		901	1,524	306	(282)	16	10.00%
Supermix Concreto S.A.	196	232	142	57		229	1,074	(29)	10	(19)	25.00%
Cementos Especiales de las Islas S.A.	106	84	27	8	(5)	155	252	48		25	50.00%
Controladas em conjunto (Joint ventures)											
Citrosuco GmbH	3,111	1,294	605	308		3,492	3,912	354	42	378	50.00%
Banco Votorantim S.A.	56,264	46,035	63,341	29,832		9,126	5,674	6,296		1,061	50.00%
Citrosuco S.A. Agroindústria	2,632	3,557	2,102	3,534		553	3,164	28	(186)	(268)	50.00%
Juntos Somos Mais Fidelização S.A.	27	3	18		0	12		(10)		(6)	45.00%
VTRM Energia Participações S.A.	26	2,897	116	16		2,791		(18)	(2)	33	50.00%
Hutton Transport Ltda.	35	61	14	2	4	80	78	(12)	1	14	25.00%
Midway Group, LLC.	28	26	9		5	45	117	13		13	50.00%
RMC Leasing LLC	5	15			1	20					50.00%
Superior Materials Holdings, LLC	94	59	39		14	114	391	48		47	50.00%

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(c) Changes in investees

	Opening balance for the year	Equity in the results of investees	Exchange variation	Initial adoption of IFRS 9 (iv)	Initial aplication of FIPs (iv)	Inicial adoption of IAS 29 (v)	Dividends	Additions	Reductions	Gain by adjustment to fair value in VTRM´s operation (vi)	Other	Reclassification for assets classified as held for sale	Closing balance for the year
Investments accounted for based on the equity method - Associates													
Cementos Avellaneda S.A.	251	81	(122)			168							378
Alunorte - Alumina do Norte S.A.	135	(28)											107
Mineração Rio do Norte S.A.	83	2						5					90
IMIX Empreend. Imobiliários Ltda.	6	1					(4)						3
Supermix Concreto S.A.	62	(5)											57
Cementos Especiales De Las Islas, S.A.	69	12	(4)										77
Outros	251	16									(33)		234
	857	**79**	**(126)**			**168**	**(4)**	**5**			**(33)**		**946**
Joint ventures													
Citrosuco GmbH (i)	2,120	156	337										2,613
Banco Votorantim S.A. (ii)	5,111	530		(337)	(116)		(97)				(33)		5,058
Citrosuco S.A. Agroindústria (i)	1,029	(171)	(28)						(178)		(42)		610
Fibria Celulose S.A. (iii)	4,116	181	7								1	(4,305)	
Juntos Somos Mais Fidelização S.A.		(3)						4			4		5
VTRM Energia Participações S.A. (i) (vi)		9					(4)	1,391		144			1,540
Hutton Transport Ltda.	18	4	1				(3)						20
Midway Group, LLC.	14	6	3										23
RMC Leasing LLC.			1					9					10
Superior Materials Holdings, LLC.	53	24	7				(19)		(8)				57
Cemento Portland S.A. (viii)	54	(1)	6						(59)				
	12,515	**735**	**334**	**(337)**	**(116)**		**(123)**	**1,404**	**(245)**	**144**	**(70)**	**(4,305)**	**9,936**
2018	**13,372**	**814**	**208**	**(337)**	**(116)**	**168**	**(127)**	**1,409**	**(245)**	**144**	**(103)**	**(4,305)**	**10,882**
2017	**12,949**	**1,219**	**2**				**(493)**		**(395)**		**90**		**13,372**

(i) The following investments consider the goodwill paid on the acquisition of investments and the surplus value, which is amortized in the income statement of the parent company:

	Goodwill		Added value	
	2018	2017	2018	2017
Citrosuco S.A. Agroindústria	194	194	139	304
Citrosuco GmbH	141	145	726	649
VTRM Energia Participações S.A.			144	

(ii) The investment includes the adjustment to fair value in the amount of R$ 495 (December 30, 2017 – R$ 495).

(iii) The investment includes the addition of R$ 6 referring to the percentage of treasury shares and eliminations of unrealized profits, in the amount of R$ 178, in exchange of land with the Company. Equity was recognized up to March 31, 2018, when the investment was classified as available-for-sale.

(iv) Refers to the initial adoption of IFRS 9 and adjustments to the initial application of the new accounting criteria for the recognition of variation of FIPs quotas recognized directly in the shareholders' equity of Banco Votorantim S.A. (Note 3.1.1 (ii)).

(v) Refers to the initial adoption of IAS 29 recognized directly in shareholders' equity (Note 1.1 (e)).

(vi) Adjustment of investments by operation of VTRM (Note 1.1 (d)).

(vii) Up to May 29, 2018, VGE held a 100% interest in the VTRM investee, recognizing the equity accounting result corresponding to this holding. As of this date, it now holds a 50% interest due to the transaction (Note 1.1 (d)).

(viii)Conclusion of the sale of the CEMPOR joint venture, a transaction mentioned in Note 1.1 (f).

17 Property, plant and equipment

Accounting policy

(i) Property, plant and equipment

Property, plant and equipment are stated at their historical cost of acquisition or construction, less accumulated depreciation. Historical cost also includes finance costs related to the acquisition or construction of qualifying assets.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with these costs will flow to the Company and they can be measured reliably. The carrying amount of the replaced items or parts is derecognized.

All other repairs and maintenance are charged to the statement of income during the financial period in which they are incurred. The cost of major refurbishments is included in the carrying value of the asset when future economic benefits exceed the performance initially expected for the existing asset. Refurbishment expenses are depreciated over the remaining useful life of the related asset.

Land is not depreciated. Depreciation of other assets is calculated using the straight-line method to reduce their cost to their residual values over their estimated useful lives.

An asset's carrying amount is written down immediately to its recoverable amount when the asset's carrying amount is greater than its estimated recoverable amount, in accordance with the criteria adopted by the Company in order to determine the recoverable amount.

Gains and losses on disposals are determined by comparing the sales amount with the carrying amount and are recognized within "Other operating income (expenses), net" in the statement of income.

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(ii) Impairment of non-financial assets

Assets that are subject to depreciation and amortization are reviewed for impairment whenever events or changes in economic, operating or technological circumstances may indicate impairment or loss of book value. An impairment loss is recognized when the carrying amount of the asset or cash generating unit ("CGU") exceeds its recoverable amount, adjusting the carrying amount to the recoverable amount.

The recoverable amount is the greater of an asset's fair value less costs to sell and its value-in-use. For the purpose of impairment assessment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (CGUs). Non-financial assets, except goodwill, which have been impaired, are subsequently reviewed for the analysis of a possible reversal of impairment, at the balance sheet date.

The recoverability of the assets that are used in the activities of the Company and its subsidiaries is evaluated whenever events or changes in circumstances indicate that the book value of an asset or group of assets may not be recoverable based on future cash flows. If the carrying amount of these assets exceeds their recoverable value, the net amount is adjusted and their useful life is adjusted to new levels.

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(a) Breakdown and changes

										2018	2017
	Land and improvements	**Buildings and construction**	**Machinery, equipment and facilities**	**Vehicles**	**Furniture and fittings**	**Construction in progress**	**ARO (i)**	**Leasehold improve-ments**	**Other**	**Total**	**Total**
Opening balance for the year											
Cost	1,959	10,467	34,103	1,121	191	2,793	812	456	444	52,346	49,812
Accumulated depreciation	(58)	(4,232)	(19,722)	(918)	(145)		(443)	(251)	(354)	(26,123)	(24,352)
Net opening balance for the year	**1,901**	**6,235**	**14,381**	**203**	**46**	**2,793**	**369**	**205**	**90**	**26,223**	**25,460**
Additions	5	13	50	3	35	2,459			2	2,567	3,108
Disposals	(22)	(17)	(53)	(1)	(2)	(7)			(1)	(103)	(159)
Depreciation	(7)	(354)	(1,468)	(69)	(18)		(39)	(21)	(8)	(1,984)	(1,814)
Foreign exchange variation	72	191	481	11	3	140	31	17		946	109
Effect of subsidiaries included in (excluded from) consolidation	(1)	(164)	(1,105)	1	(4)	(1)		(2)	(10)	(1,286)	(5)
Reversal (constitution) for impairment	1	3	33		1	(10)			1	29	94
Revision of estimated cash flow							(32)			(32)	
Reclassification to assets classified as held-for-sale	(4)	(1)	(220)							(225)	(476)
Changes in the interest rate			(8)				104			96	
Exchange variation of countries with hyperinflationary economy									138	138	
Transfers (ii)	53	360	1,911	77	8	(2,589)		24	(33)	(189)	(94)
Closing balance for the year	**1,998**	**6,266**	**14,002**	**225**	**69**	**2,785**	**433**	**223**	**179**	**26,180**	**26,223**
Cost	2,060	10,890	35,343	1,225	241	2,785	917	519	389	54,369	52,346
Accumulated depreciation	(62)	(4,624)	(21,341)	(1,000)	(172)		(484)	(296)	(348)	(28,327)	(26,123)
Exchange variation of countries with hyperinflationary economy									138	138	
Net closing balance for the year	**1,998**	**6,266**	**14,002**	**225**	**69**	**2,785**	**433**	**223**	**179**	**26,180**	**26,223**
Average annual depreciation rates – %	**1**	**3**	**10**	**17**	**10**			**9**	**14**		

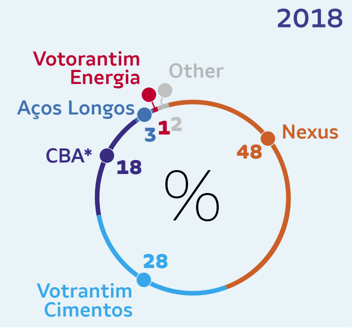
(i) Asset Retirement Obligation

(ii) The transfers are related to the reclassification from "Construction in progress" within "Property, plant and equipment" to "Software" and "Rights to use natural resources", within "Intangible assets".

(b) Construction in progress

The balance is composed mainly of expansion and optimization projects related to industry.

Segment	2018	2017
Nexa Resources	1,353	779
Votorantim Cimentos	771	1,360
CBA	492	368
Long steel	92	195
Votorantim Energia	25	20
Other	52	71
	2,785	**2,793**



The main projects in progress by business segment are as follows:

Nexa Resources	2018	2017
Sustaining	354	261
Expansion and modernization projects	683	212
Security, Health and enviroment projects	223	244
Information technology	53	24
Other	40	38
	1,353	**779**

Votorantim Cimentos	2018	2017
Sustaining	220	209
Modernization	161	66
Environment and security	67	86
Cement grinding - Pecém - Brazil	39	39
New lines of co-processing	35	67
New production line in Sobral - CE	34	
Factory in Nobres - MT	17	
Hardware and software	15	28
Geology and mining rights	10	37
Cement production capacity expansion - North America	3	462
Other	170	366
	771	**1,360**

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CBA	2018	2017
Furnace refurbishment	131	75
Rondon Bauxite projects	114	111
Revitalization and adequacy of power plant	48	51
Alumina factory project	30	25
Automation system modernization	29	32
Plastic transformation and foundry projects	29	26
Furnace rooms project	22	18
Other	89	30
	492	**368**

Long steel	2018	2017
Revitalization and adaptation of plant - Argentina and Colombia		168
Sustaining	80	
Security projects, health and environment projects - Colombia	7	8
Expansion	3	
Information technology	1	
Other	1	19
	92	**195**

Energy	2018	2017
Corumbá project	19	16
Information technology	4	
Change of corporate center - SP	2	4
	25	**20**

18 Intangible assets

Accounting policy

(i) Goodwill

Goodwill represents the excess of the cost of an acquisition over the net fair value of assets and liabilities of the acquired entity. Goodwill on acquisitions of subsidiaries is recorded as "assets" in the consolidated financial statements. Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to CGUs for the purpose of impairment testing. The allocation is made to those CGUs or groups of CGUs that are expected to benefit from the business combination in which the goodwill arose.

(ii) Rights over natural resources

Costs for the acquisition of rights to explore and develop mineral properties and to explore wind resources are capitalized and amortized using the straight-line method over their useful lives, or, when applicable, based on the depletion of the mines in question.

Once the mine or wind farm starts operating, these costs are amortized and considered a cost of production.

Depletion of mineral resources and wind farms is calculated based on extraction and utilization, respectively, taking into consideration their estimated productive lives.

(iii) Computer software

Computer software licenses and development costs directly attributable to software are recorded as intangible assets. These costs are amortized over the estimated useful life of the software (three to five years).

(iv) Use of public assets

This represents the amounts established in the concession contracts regarding the rights to hydroelectric power generation (onerous concession) under Use of Public Assets agreements.

These transactions are accounted for at the time when the operating permit is awarded, regardless of the disbursement schedule established in the contract. Upon inception, this liability (obligation) and intangible asset (concession right) correspond to the total amount of the future obligations discounted to their present value.

The amortization of the intangible asset is calculated on a straight-line basis over the period of the authorization to use the public asset. The financial liability is updated by the effective interest method and reduced by the payments contracted.

(v) Contractual customer relationships and non-competition agreements

Contractual customer relationships and non-competition agreements acquired in a business combination are recognized at fair value at the acquisition date. The contractual customer relations and non-competition agreements have a finite useful life and are carried at cost less accumulated amortization. Amortization is calculated using the straight-line method over the estimated useful lives as follows:

Customer relationships 15 years

Non-competition agreements 5 years

(vi) Impairment of goodwill and investments

Annually, the Company and its subsidiaries review the net book value of goodwill, in order to assess whether there was deterioration or impairment. The recoverable amounts of CGUs were determined according to the value in use, based on the discounted cash flow model. The recoverable amount is sensitive to the rate used in the discounted cash flow model, as well as the expected future cash receipts and the growth rate used for extrapolation purposes.

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(a) Breakdown and changes

										2018	2017
	Note	Rights over natural resources	Goodwill	ARO (i)	Use of public assets	Contracts, customer relationships and agreements	Software	Rights over trademarks and patents	Other	Total	Total
Opening balance for the year											
Cost		8,693	4,863	317	541	235	593	485	783	16,510	17,225
Accumulated amortization		(2,851)		(115)	(180)	(156)	(477)	(313)	(343)	(4,435)	(4,580)
Net opening balance for the year		**5,842**	**4,863**	**202**	**361**	**79**	**116**	**172**	**440**	**12,075**	**12,645**
Additions		1	92	12			5		5	115	174
Disposals		(32)								(32)	(243)
Amortization and depletion		(391)		(3)	(19)	(15)	(45)	(6)	(7)	(486)	(544)
Foreign exchange variation		814	667	39		(1)	(19)	3	82	1,585	266
Reclassification from assets classified as held-for-sale		(4)		(6)		6	(1)			(5)	(355)
Effect of subsidiaries excluded from consolidation	1.1 (c)	(50)	(9)	(19)			(1)	(18)		(97)	(47)
Reversal (constitution) for impairment		24								24	(71)
Revision of estimated cash flow				(1)						(1)	145
Changes in the interest rate		(4)		(22)						(26)	11
Transfers		85					103	1		189	94
Closing balance for the year		**6,285**	**5,613**	**202**	**342**	**69**	**158**	**152**	**520**	**13,341**	**12,075**
Cost		9,860	5,613	337	540	268	526	208	918	18,270	16,510
Accumulated amortization		(3,575)		(135)	(198)	(199)	(368)	(56)	(398)	(4,929)	(4,435)
Net closing balance for the year		**6,285**	**5,613**	**202**	**342**	**69**	**158**	**152**	**520**	**13,341**	**12,075**
Average annual amortization and depletion rates – %		**4**		**7**	7	7	18	10	9		

(i) Asset Retirement Obligation.

(b) Goodwill on acquisitions

Accounting policy

The Company and its subsidiaries use the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Company. The consideration transferred includes the fair value of assets or liabilities resulting from a contingent consideration arrangement, when applicable. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Company and its subsidiaries recognize any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the fair value of the acquiree's identifiable net assets. Non-controlling interests are determined on each acquisition.

	2018	2017
Votorantim Cimentos		
América do Norte	1,208	1,027
Europa, Ásia e África	1,275	1,140
América Latina	12	12
Brasil		
Cimento Vencemos do Amazonas Ltda.	92	
Engemix S.A.	76	76
CJ Mineração Ltda.	16	16
	2,679	**2,271**
Nexa Resources		
US Zinc Corporation		30
Nexa Resources Perú S.A.A.	2,241	1,913
Nexa Resources Cajamarquilla S.A.	358	306
Campos Novos Energia S.A.	26	
Pollarix S.A.	1	1
	2,626	**2,250**
Long steels		
Acergroup S.A.	149	149
Acerholding S.A.	9	15
Acerbrag S.A.	2	3
	160	**167**
CBA		
Campos Novos Energia S.A.	31	58
Metalex Ltda.	49	49
Rio Verdinho Energia S.A.	29	29
Machadinho Energética S.A.	15	15
BAESA - Energética Barra Grande S.A.	7	7
	131	**158**
Holding and other		
Votorantim Andina S.A.	16	16
Fazenda Bodoquena Ltda.	1	1
	17	17
	5,613	**4,863**

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(c) Impairment test for goodwill

Assets that have an indefinite useful life, for example goodwill, are not subject to amortization and are tested annually for impairment.

The Company and its subsidiaries evaluate at least annually the recoverability of the carrying value of the operating segment of each CGU. The process of estimating these values involves the use of assumptions, judgments and estimates of future cash flows that represent the best estimate of the Company and its subsidiaries.

The Company's management determined the budgeted gross margin based on past performance and its expectations of market development. The discount rates used are pre-tax and reflect specific risks related to the operating segment or the CGU being tested.

These calculations use cash flow projections, before income tax and social contributions, based on financial budgets approved by management for a five-year period. Cash flow that exceeds the five-year period is extrapolated using the estimated growth rates. The growth rate does not exceed the average long-term growth rate of the operating sector of each segment.

The calculations of the value-in-use were based on the discounted cash flow model, and are based on the assumptions below:

	Growth rate	Discount rate
Cement	0.0% to 1.0%	6,60% a 11,30%
CBA	(ii)	9,64% a 11,14%
Nexa Resources	(ii)	10,34% a 11,98%
Long steels (i)	Not used	11,91% a 17,10%
Holding and other	Not used	8,40% a 9,57%

(i) Considers units located abroad only (Argentina and Colombia).

(ii) Growth rates take into account independent information on LME's projections for quotations (mainly aluminum, zinc and copper).

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19 Borrowing

Accounting policy

Borrowings are initially recognized at fair value, net of transaction costs incurred, and subsequently carried at amortized cost. Any difference between the proceeds (net of transaction costs) and the total amount payable is recognized in the statement of income over the period of the borrowings using the effective interest rate method.

Borrowing costs directly related to the acquisition, construction or production of a qualifying asset that requires a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of that asset when it is probable that future economic benefits associated with the item will flow to the Company and costs can be measured reliably. The other borrowing costs are recognized as finance costs in the period in which they are incurred.

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(a) Breakdown and fair value

		Current		Non-current		Total		Fair value	
Type	**Average annual charges**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Local currency									
Debentures	110.75% CDI	91	1,288	2,718	3,257	2,809	4,545	2,749	4,599
BNDES	TJLP + 2.33% / 1.86% fixed rate BRL / SELIC + 2.92% / IPCA + 5.10%	95	486	635	1,410	730	1,896	687	1,774
Development promotion agency	8.46% Pré BRL / TJLP + 0.65%	51	41	198	208	249	249	246	238
FINAME	4.82% Pré BRL	21	23	68	91	89	114	83	102
Export credit notes			3		100		103		105
Other		11	16	11	11	22	27	20	26
		269	**1,857**	**3,630**	**5,077**	**3,899**	**6,934**	**3,785**	**6,844**
Foreign currency									
Eurobonds – USD	6.06% fixed rate USD	3,077	156	10,742	11,948	13,819	12,104	13,829	12,877
Loans – Law 4131/1962 (i)	LIBOR + 0.97% / 4.04% fixed rate USD	594	176	864	763	1,458	939	1,481	944
Eurobonds – EUR	3.40% fixed rate EUR	978	37	1,541	2,246	2,519	2,283	2,584	2,415
Syndicated loan/bilateral agreements	EURIBOR + 2.00% / LIBOR + 1.10% / 6.14% fixed rate	225	123	1,399	1,192	1,624	1,315	1,626	1,320
Export prepayments	LIBOR + 1.27%		1	765	659	765	660	799	709
BNDES	UMBNDES + 2.46%		112		37		149		152
Export credit notes			1		104		105		107
Working capital	IBR + 2.62% / 5.67% fixed rate COP	111	96			111	96	112	98
Development promotion agency	LIBOR + 1.10%	30		195		225		236	
Other		7	14	24	31	31	45	33	43
		5,022	**716**	**15,530**	**16,980**	**20,552**	**17,696**	**20,700**	**18,665**
		5,291	**2,573**	**19,160**	**22,057**	**24,451**	**24,630**	**24,485**	**25,509**

	2018	2017
Current portion of long-term borrowing	4,854	1,743
Interest on borrowing	324	365
Short-term borrowing	113	465
	5,291	**2,573**

(i) Loans relating to Resolution 4131/1962 have swaps that are indexed to both exchange rates (LIBOR and fixed rates for floating CDI rates) and currency (US Dollars for reais), and resulted in a final weighted cost of 107.78% p.a. of the CDI. Borrowing of this type relates to compound financial instruments, contracted as a single product with the financial institution (debt in US Dollars + swap to a % of CDI in reais). The terms and conditions of the loan and derivative instrument are configured as a compound operation, so that the resulting cost is a debt adjusted by the CDI in reais. The difference in measurement between the two instruments (loan at amortized cost x derivative at fair value), creates an accounting mismatch in the statement of income. To eliminate this accounting mismatch, some of the borrowing contracts made from August 2015, were designated at fair value, and the effect of this designation is the measurement of debt at fair value through profit or loss, according to Note 30.

Key:

BNDES – National Bank for Economic and Social Development.

BRL – Brazilian currency (Real).

CDI – Interbank Deposit Certificate.

COP – Peso Colombiano.

EUR – European Union currency (Euro).

EURIBOR – Euro Interbank Offered Rate.

FINAME – Government Agency for Machinery and Equipment Financing.

IBR – Interbank Rate (Colombia).

INR – Indian Rupee

IPCA – Extended Consumer Price Index.

LIBOR – London Interbank Offered Rate.

SELIC – Special System for Clearance and Custody.

TJLP – Long-term interest rate set by the National Monetary Council. Until December 2017, the TJLP is the BNDES basic cost of financing. As of January 2018, the Long Term Rate (TLP) became the main financial cost of BNDES financing.

UMBNDES – Monetary unit of the BNDES reflecting the weighted basket of currencies of foreign currency debt obligations. At December 31, 2018, 99% of the basket consisted of US Dollars.

USD – US Dollar.

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(b) Changes

	Nota	2018	2017
Opening balance for the year		**24,630**	**24,419**
New borrowing		3,639	5,393
Foreign exchange variation		2,771	616
Interest		1,359	1,616
Addition of borrowing fees, net of amortization		26	(22)
Fair value adjustment		(28)	47
Payments - interest		(1,423)	(1,558)
Effect of subsidiaries excluded in consolidation	1.1 (d)	(909)	
Payments - principal		(5,532)	(5,881)
Reclassification from assets classified as held-for-sale		(13)	
Gain on debt renegotiation	3.1.1 (iv)	(69)	
Closing balance for the year		**24,451**	**24,630**

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(c) New borrowing and amortizations

Through funding and prepayment of certain debts, the Company seeks to extend the average term of maturities, as well as to balance the exposure to different currencies of loans and financing to its cash generation in these currencies.

The main funding and amortizations made in 2018 were as follows:

New borrowing

Date	Company	projects	Currency	Principal	Principal BRL	Maturity	Cost
Mar-18	Votorantim Cimentos S.A.	Law 4131/1962	USD	100	325	2023	112.00% CDI
May-18	Nexa Resources S.A.	Export Prepayment	USD	200	737	2023	LIBOR 6M + 1.27%
May-18	Votorantim Cimentos N/NE S.A.	Debentures	BRL	450	450	2023	110.00% CDI
Jun-18	Nexa Resources S.A.	Development Agency	USD	63	240	2026	LIBOR 6M + 1.10%
Aug-18	Votorantim S.A.	Debentures	BRL	550	550	2024	112.00% CDI
Oct-18	Votorantim Cimentos N/NE S.A.	Law 4131/1962	USD	50	202	2023	108% CDI
Dec-18	Companhia Brasileira de Alumínio	BNDES	BRL	39	39	2028	TLP + 4,90%
Dec-18	Nexa Recursos Minerais S.A.	BNDES	BRL	229	229	2028	TLP + 5,23%
Dec-18	Votorantim Cimentos S.A.	BNDES	BRL	57	57	2028	TLP + 4,71%

Amortizations

Date	Company	Type	Currency	Principal	Principal BRL	Maturity	Observation
Jan-18	Votorantim Cimentos S.A.	Debentures	BRL	(500)	(500)	2022	Prepayment
Jan-18	Votorantim Cimentos S.A.	Debentures	BRL	(44)	(44)	2022	Prepayment
Jan-18	Votorantim Cimentos S.A.	Debentures	BRL	(63)	(63)	2022	Prepayment
Jan-18	Votorantim Cimentos S.A.	Debentures	BRL	(94)	(94)	2022	Prepayment
Jan-18	Votorantim Cimentos S.A.	Law 4131/1962	USD	(50)	(161)	2020	Prepayment
Jan-18	Votorantim Cimentos S.A.	BNDES	BRL	(211)	(211)	2018 / 2019 / 2020	Prepayment
Mar-18	Nexa Recursos Minerais S.A.	Export credit notes	BRL	(100)	(100)	2018	
Mar-18	Nexa Recursos Minerais S.A.	Export credit notes	USD	(31)	(102)	2018	
Apr-18	Votorantim Cimentos S.A.	Debentures	BRL	(148)	(148)	2024	Prepayment
Apr-18	Votorantim Cimentos S.A.	Debentures	BRL	(200)	(200)	2023	Prepayment
May-18	Nexa Resources S.A.	Export Prepayment	USD	(100)	(366)	2018	
May-18	Nexa Resources S.A.	Export Prepayment	USD	(40)	(149)	2023	Prepayment
May-18	Nexa Resources S.A.	Export Prepayment	USD	(60)	(224)	2022	Prepayment
Jun-18	Votorantim Cimentos S.A.	Debentures	BRL	(158)	(158)	2023	Prepayment
Jun-18	Votorantim Cimentos S.A.	Debentures	BRL	(294)	(294)	2025	Prepayment
Aug-18	Votorantim S.A.	Debentures	BRL	(550)	(550)	2024	Prepayment
Oct-18	VOTO-Votorantim Overseas Trading Operations IV Limited	Eurobonds	USD	(97)	(359)	2020	Prepayment
Oct-18	Votorantim Cimentos EAA Inversiones S.L.	Syndicated loan/bilateral agreements	EUR	(43)	(181)	2021	Prepayment
Dec-18	Companhia Brasileira de Alumínio	BNDES	BRL	(39)	(39)	2019 / 2020	Prepayment
Dec-18	Nexa Recursos Minerais S.A.	BNDES	BRL	(229)	(229)	2019 / 2020 / 2021 / 2022 / 2023	Prepayment
Dec-18	Votorantim Cimentos S.A.	BNDES	BRL	(57)	(57)	2019 / 2020	Prepayment

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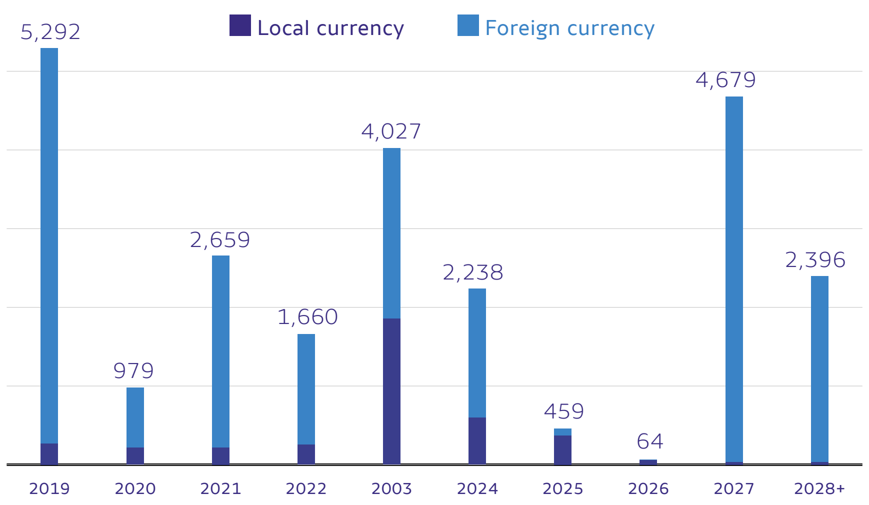
(d) Maturity



(e) Breakdown by currency

	Current		Non-current		Total	
	2018	2017	2018	2017	2018	2017
USD	3,707	366	13,083	13,509	16,790	13,875
Real	269	1,857	3,630	5,077	3,899	6,934
Euro	1,098	110	1,879	2,825	2,977	2,935
Boliviano	64	1	406	395	470	396
Turkish lire	39	47	148	220	187	267
Currencies basket		83		14		97
Other	114	109	14	17	128	126
	5,291	**2,573**	**19,160**	**22,057**	**24,451**	**24,630**

(f) Breakdown by index

	Current		Non-current		Total	
	2018	2017	2018	2017	2018	2017
Local currency						
CDI	91	1,287	2,718	3,259	2,809	4,546
TJLP	79	436	314	1,239	393	1,675
Fixed rate	53	74	209	286	262	360
SELIC	14	55	100	196	114	251
TLP	32		289		321	
Other		5		97		102
	269	**1,857**	**3,630**	**5,077**	**3,899**	**6,934**
Foreign currency						
Fixed rate	4,729	515	13,160	15,549	17,889	16,064
LIBOR	230	5	2,331	1,179	2,561	1,184
EURIBOR	11	39	39	215	50	254
UMBNDES		112		37		149
Other	52	45			52	45
	5,022	**716**	**15,530**	**16,980**	**20,552**	**17,696**
	5,291	**2,573**	**19,160**	**22,057**	**24,451**	**24,630**

(g) Collateral

As at December 31, 2018, R$ 10,389 (December 31, 2017 – R$ 10,607) of the balance of borrowing of the Company and its subsidiaries were collateralized under promissory notes and sureties and R$ 792 of the property, plant and equipment items (December 31, 2017 – R$ 527) were collateralized by liens on the financed assets.

(h) Covenants/financial ratios

Certain borrowings are subject to compliance with certain financial ratios ("covenants"). When applicable, such obligations are standardized for all borrowing.

The Company and its subsidiaries were in compliance with all of these covenants, as applicable.

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20 Confirming payables

The Company and the subsidiaries have entered into agreements with financial institutions, aiming to anticipate receivables from suppliers in the domestic and foreign markets. In this operation, suppliers transfer the right to receive their accounts receivable related to sales of goods to financial institutions.

Operations – Confirming payables	2018	2017
Domestic market	349	148
Foreign market	838	761
	1,187	**909**

21 Current and deferred income tax and social contribution

Accounting policy

The income tax and social contribution expense for the period comprises current and deferred taxes. Taxes on profit are recognized in the statement of income, except to the extent that they relate to items recognized directly in equity. In such cases, the taxes are also recognized in comprehensive income or directly in equity.

The current and deferred income tax and social contribution is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the entities operate and generate taxable income. Management periodically evaluates positions taken by the Company in income tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provision where appropriate on the basis of amounts expected to be paid to the tax authorities.

The current income tax and social contribution are presented net, separated by taxpaying entity, in liabilities when there are amounts payable, or in assets when the amounts prepaid exceed the total amount due on the reporting date.

Deferred tax assets are recognized only to the extent it is probable that future taxable profit will be available against which the temporary differences and/or tax losses can be utilized.

Deferred income tax assets and liabilities are presented net in the balance sheet when there is a legal right and the intention to offset them upon the calculation of current taxes, generally related to the same legal entity and the same taxation authority. Thus, deferred tax assets and liabilities in different entities or in different countries are presented separately, and not net.

The Company and its subsidiaries are subject to income taxes in all countries in which it operates. The provision for income tax is calculated individually by the entity based on tax rates and rules effective at the entity's location. The Company and its subsidiaries also recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will have an impact on the current and deferred tax assets and liabilities in the period in which the determination is made

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(a) Reconciliation of income tax and social contribution expenses

The current amounts are calculated based on the current rates levied on taxable income, adjusted upwards or downwards by the respective additions and exclusions.

The income tax and social contribution amounts presented in the statements of income for the year ended December 31 are reconciled to their Brazilian standard rates as follows:

	Note	2018	2017
Profit before income tax and social contribution		**3,236**	1,094
Standard rates		**34%**	**34%**
Income tax and social contribution at standard rates		**(1,100)**	**(372)**
Adjustments for the calculation of income tax and social contribution at effective rates			
Equity		277	415
Differential rate of foreign companies		559	192
Income tax credit paid in foreign IN 1520/14		(219)	(277)
Reprocessing of previous calculations		70	61
Tax on mining operations		(52)	(74)
Dividends received		(53)	(59)
Tax loss carryforward and non-deferred tax base		(60)	(9)
Tax effect of the corporate reorganization VCSA	1.1 (j)	(431)	
Other additions, net		(55)	(13)
Income tax and social contribution calculated		**(1,064)**	**(136)**
Current		(456)	(722)
Deferred		(608)	586
Income tax and social contribution expenses		**(1,064)**	**(136)**
Effective rate – %		**33%**	**12%**

(b) Breakdown of deferred tax balances

	2018	2017
Tax credits on tax losses	**2,669**	**1,884**
Tax credits on temporary differences		
Estimation for losses on investments, fixed and intangible assets	857	1,181
Foreign exchange gains	761	1,300
Tax, civil and labor provision	574	506
Tax benefit on goodwill	503	465
Asset retirement obligation	182	166
Use of public assets	154	172
Environmental liabilities	128	116
Fair value adjustments	123	(143)
PPR – Provision for profit sharing	113	124
Estimation for inventory losses	78	66
Provision for loan	62	56
Provision for energy charges	49	46
Provision for social security obligations	41	34
Pension funds	3	(18)
Estimated asset disposals	2	20
Other tax credits	194	18
Tax debits on temporary differences		
Borrowing costs	(3)	(3)
Financial instruments – firm commitment	(8)	(61)
Asset retirement obligation	(10)	(6)
Market value Citrosuco	(13)	(154)
Adjustment to present value	(35)	(55)
Deferred of losses on derivative instruments	(77)	63
Gain in fair value in VTRM´s operation	(102)	
Capitalized interest	(141)	(140)
Market value Milpo	(388)	(441)
Goodwill amortization	(405)	(367)
Market value assets	(1,233)	(1,140)
Adjustment of useful lives of PP&E (depreciation)	(2,192)	(1,479)
Other tax debits	(6)	(96)
Net	**1,880**	**2,114**
Net deferred tax assets related to the same legal entity	**4,079**	**4,079**
Net deferred tax liabilities related to the same legal entity	**(2,199)**	**(1,965)**

(c) Effects of deferred income tax and social contribution on the profit for the year and comprehensive income

	2018	2017
Opening balance for the year	**2,114**	**2,072**
Deferred income tax and social contribution on hedge accounting	396	(11)
Effects on the results of the year – discontinued operations	112	(228)
Effects of foreign exchange variations in other comprehensive income	(196)	(41)
Effects on the results for the year – continuing operations	(608)	586
Consumption of tax and social contribution credits for payment of PERT program		(259)
Other	62	(5)
Closing balance for the year	**1,880**	**2,114**

(d) Realization of deferred income tax and social contribution on tax losses

	2018	Percentage
In 2019	881	33%
In 2020	323	12%
In 2021	238	9%
In 2022	391	15%
After 2023	836	31%
	2,669	**100%**

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22 Deferred revenue – obligation for performance

Accounting policy

Deferred revenue, arising from the anticipation of receivables from financial institutions, represents an obligation for the subsidiaries to physically deliver the electric energy already sold to customers and consequently to pass on to the financial institution the amount received from the sale of energy. The obligation is performed monthly, after the transfer of energy to the client and consequent financial transfer to the financial institution.

In December 2014, the subsidiary indirect Votener ceded to a financial institution the receivables due until December 2019 as a result of certain contracts for the Sale of Electric Energy in the Regulated Environment ("CCEAR"), which are being carried out with the physical delivery of energy. This transaction corresponded to R$ 1,252, and has no right of return and/or type of co-obligation of the Company on the receivables. Due to the assignment of receivables, Votener received a total amount of R$ 905, and the interest to be appropriated from the transaction will be recognized pro rata to the result during the term of the agreement.

In May 2015, Votener carried out a second credit assignment operation, without any right of return and/or co-obligation of the subsidiary, in the total amount of R$ 368. By assigning the receivables, Votener received the total amount R$ 251, and interest to be appropriated from the operation will be recognized pro rata to the result during the term of the agreement.

The updated value of these operations at December 31, 2018 was R$ 271 (December 31, 2017, R$ 516).

23 Provision

Accounting policy

The Company and its subsidiaries are a party to tax, civil, labor and other legal claims in progress at different Court levels. Provision against potentially unfavorable outcomes of litigation in progress is established and updated based on management evaluation, as supported by external legal counsel, and requires a high level of judgment regarding the matters involved.

The judicial deposits are monetarily restated and when they have a corresponding provision they are presented net in "Provision". Judicial deposits that do not have a corresponding provision are presented in non-current assets.

(i) Provision for tax, civil, labor, environmental and other legal claims

The Company and its subsidiaries are parties to tax, labor, civil and environmental and other litigation in progress and are discussing these matters at both the administrative and judicial levels. These matters are backed by judicial deposits where applicable.

The provision for tax, civil, labor, environmental and other legal claims is recognized when: (i) the Company has a present legal or constructive obligation as a result of past events, (ii) it is probable that an outflow of resources will be required to settle the obligation, and (iii) the amount can be reliably estimated. Losses classified as possible are not recognized for accounting purposes, and are disclosed in the notes. Contingencies with probability of loss classified as remote are not provisioned nor disclosed, except when the Company and its subsidiaries consider their disclosure justified. The classification of losses between possible, probable and remote is based on the management's assessment, based on the opinion of its legal advisors.

Provision is measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to time elapsing is recognized as interest expense. Provision does not include future operating losses.

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(ii) Asset retirement obligations

The calculation of asset retirement obligations involves judgment about certain assumptions. In environmental terms, they refer to the future obligation to restore the ecological conditions similar to those existing before the beginning of the project or activity, or to carry out compensatory measures, agreed upon with the applicable bodies, as a result of the impossibility of returning the areas to the pre-existing condition. These obligations arise from the beginning of the environmental degradation of the area occupied by the operation or from formal commitments made to the environmental body, under which the degradation must be compensated. The dismantling and removal of an asset from an operation occurs when it is permanently retired, through the interruption of its activities, or by its sale or disposal.

Expenditures relating to mine retirement are recorded as asset retirement obligations. The asset retirement cost, equivalent to the present value of the obligation (liability), is capitalized as part of the carrying amount of the asset, which is depreciated over its useful life.

The Company and its subsidiaries recognize a liability based on the fair value for the demobilization of assets in the period in which they occur, against the corresponding intangible asset. The Company and its subsidiaries consider the accounting estimates related to the recovery of degraded areas and the costs of closing a mine as a critical accounting practice because it involves expressive amounts of provisions and these are estimates that involve several assumptions such as interest rates, inflation, useful life of the assets considering the current stage of exhaustion, the costs involved and the projected depletion dates of each mine. These estimates are reviewed annually by the Company and its subsidiaries.

(iii) Obligation for environmental liabilities

The environmental liability must be recognized when there is an obligation on the part of the Company and its subsidiaries that incurred an environmental cost not yet paid, provided that it meets the recognition criteria as an obligation. Therefore, this type of liability is defined as being a present obligation of the Company and its subsidiaries that arose from past events.

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(a) Breakdown and changes

						2018	2017
		Legal claims					
	ARO (i)	Tax	Labor	Civil	Other	Total	Total
Opening balance for the year	**1,275**	**849**	**99**	**317**	**47**	**2,587**	**2,346**
Additions	24	82	142	59	7	314	687
Reversals (ii)	(47)	(90)	(88)	(199)	(10)	(434)	(945)
Judicial deposits, net of write-offs (ii)		(2)	(9)	92	(1)	80	225
Settlement in cash	(41)	(28)	(82)	(4)	(1)	(156)	(182)
Settlements with escrow deposits			(14)			(14)	(2)
Reclassification of liabilities related to assets held for sale							(18)
Effect of subsidiaries included in (excluded from) consolidation	(20)			(2)	(4)	(26)	15
Present value adjustment	67					67	52
Monetary restatement		35	33	12	2	82	216
Foreign exchange variation	79	7	3	8	1	98	28
Revision of estimated cash flow	(3)					(3)	165
Closing balance for the year	**1,334**	**853**	**84**	**283**	**41**	**2,595**	**2,587**

(i) Asset Retirement Obligation.

(ii) Substantially refers to the classification of civil action loss of the subsidiary CBA, which was changed from probable to remote, generating a reversal of the judicial provision in the amount of R$ 104, of which R$ 66 was the principal amount and R$ 38 was the monetary restatement. The lawsuit is in progress, and at December 31, 2018, CBA had amounts deposited in Court in the amount of R$ 104.

(b) Provision for tax, civil, labor, other contingencies and outstanding judicial deposits

	2018				2017			
	Judicial deposits	Provision	Net amount	Outstanding judicial deposits (i)	Judicial deposits	Provision	Net amount	Outstanding judicial deposits (i)
Tax	(126)	979	853	545	(124)	973	849	679
Labor	(214)	298	84	80	(205)	304	99	71
Civil	(28)	311	283	124	(120)	437	317	10
Other	(1)	42	41	6		47	47	5
	(369)	**1,630**	**1,261**	**755**	**(449)**	**1,761**	**1,312**	**765**

(i) The Company and its subsidiaries have balances deposited in relation to lawsuits classified by management, following the directions of the legal advisors of the Company and its subsidiaries as remote or possible losses and, herefore, they are made without respective provision.

(c) Litigation with likelihood of loss considered possible

The Company and its subsidiaries are party to litigations representing a risk of possible loss, for which no constituted provision has been made, as detailed below.

	2018	2017
Tax (c.1)	11,162	10,035
Civil (c.2)	7,430	7,215
Environmental	516	496
Labor and social security	374	441
	19,482	**18,187**

(c.1) Comments on contingent tax and public rights liabilities with likelihood of loss considered possible

The contingent liabilities relating to tax lawsuits in progress with a likelihood of loss considered possible, for which no provision has been recorded, are commented on below. In the table below we present an analysis of the relevance of these lawsuits:

Nature	2018	2017
Tax assessment notice - "IRPJ/CSLL" (i)	1,884	1,794
"IRPJ/CSLL" – Profits abroad (ii)	1,052	765
"ICMS" – Credit (iii)	818	923
Disallowances of "PIS/COFINS" credits (iv)	680	582
Compensation for exploration for mineral resources ("CFEM") (v)	608	571
Disallowance of "IRPJ/CSLL" negative balance (vi)	493	362
Tax assessment notice – "ICMS" (vii)	315	272
Offset of tax loss – 30% limit (merger)	286	276
"ICMS" – Transfer costs (viii)		242
"ICMS" on electricity charges (ix)	204	199
"IRPJ/CSLL" – Transfer costs (x)	198	192
Error in fiscal classification - Importation (xi)	172	163
Collection of ICMS due to divergences regarding the destination of the property (xii)	104	90
"IRPJ/CSLL" – Deduction of expenses (xiii)	74	71
Other lawsuits	4,274	3,533
	11,162	**10,035**

(i) Tax assessment notice – "IRPJ / CSLL"

In December 2016, the subsidiary VCSA was assessed by the Brazilian Federal Revenue Office in the historical amount of R$ 470 demanding the collection of IRPJ and CSLL relating to the period of 2011, due to the alleged undue deduction of operating expenses and costs. In January 2018, the VCSA became aware of the Lower Court decision from the Federal Revenue's Judgment Office, which judged the appeal partially with grounds, reducing the lawsuit by approximately R$ 114. In December 2018, the Appeal of the Administrative Board of Tax Appeals was dismissed and the Voluntary Appeal was partially accepted for the VCSA, at this moment we await the formalization of the Court Decision. As at December 31, 2018, the restated amount of the contingency was R$ 551, of which R$ 51 was assessed as probable loss and was properly accrued, and the remaining R$ 500 was assessed as possible loss.

In December 2017, the VCSA received a tax assessment notice from the Brazilian Federal Revenue Office in the amount of R$ 1,295 for alleged non-payment or underpayment of IRPJ and CSLL relating to the period from 2012 to 2013, due to: (i) capital gain allegedly obtained due to a barter made by the VCSA; and (ii) amortization of goodwill supposedly incorrect. In October 2018, the VCSA took cognizance of the decision of the lower court, which ruled that the VCSA´s challenge was unfavorable. In December 2018, the Appeal of the Administrative Board of Tax Appeals was dismissed and the Voluntary Appeal was partially accepted for the VCSA, at this moment we await the formalization of the Court Decision. At December 31, 2018, the restated amount of the contingency assessed as possible loss was R$ 1,384.

(ii) Profits abroad – "IRPJ/CSLL"

The Company and its subsidiaries have assessments drawn up by the Brazilian Federal Revenue Office, for alleged nonpayment of IRPJ and CSLL, on profits earned abroad by its subsidiaries or affiliates, in the periods of 2007, 2008, 2010, 2012, 2013 and 2014.

The balance substantially composed by the Company, amounted R$ 739 at December 31, 2018 (R$ 607 as at December 31, 2017). All cases are awaiting judgment at the administrative level.

(iii) ICMS credit

Between 2011 and 2013, eight notices of infringement and fines were filed against the Company's subsidiary Citrovita Agro Industrial Ltda. ("CAI"), mainly aimed at the collection of ICMS credited, as highlighted in invoices for the transfer of other subsidiaries, with the specific purpose of export, whose exits are not taxed. The tax assessment notices totaled R$ 819 as at December 31, 2018 (R$ 923 as at December 31, 2017).

Of the eight cases mentioned above, six are awaiting judgment in the administrative sphere, and (i) three of them with a totally unfavorable decision; (ii) and three in which the decisions kept the entries only in part, reducing the amount assessed. In the face of these decisions, appeals were filed by the CAI and the State Treasury Attorney of São Paulo, which are pending judgment by the Tax and Tax Court. Two of them were closed in an unfavorable manner to CAI at the administrative level and are being discussed in Court.

(iv) PIS / COFINS credit statement

Substantially comprised by the subsidiary CBA, which has Decisional Orders and tax assessments relating to the PIS and COFINS credits, referring to the items applied in the production process, which, in the opinion of the Brazilian Federal Revenue Office, would not generate the right to credit of the said contributions. The amount restated as of December 31, 2018 corresponds to R $ 661. Currently, all the processes await administrative decision.

In the opinion of Management and in the opinion of its independent legal advisors, in light of precedents and case law, the likelihood of loss of the process is considered possible.

(v) Financial Compensation for the Exploration of Mineral Resources - CFEM

The subsidiaries Nexa BR, CBA and VCSA had several assessments drawn up by the National Department of Mineral Production - "DNPM" for alleged failure to pay or lower collection of CFEM from 1991 to 2015. As of December 31, 2018, the amount of possible loss amounts to R$ 608.

(vi) IRPJ negative balance credit

VSA, Companhia Nitro Química Brasileira Ltda. (CNQB) (its company sold to third parties), and its subsidiaries CBA and Nexa BR, received decisions regarding the gloss of negative balance of IRPJ credits, totaling the updated amount of R$ 493 as of December 31, 2018. It is expected that the defenses presented in the administrative and judicial spheres by the companies will be judged.

(vii) Tax assessment notice - ICMS

In the fourth quarter of 2016, the subsidiary CAI received a tax assessment notice whose value up to December 31, 2018 amounts R$ 172. The process currently awaits judgment of the special appeal filed by the company before the Tax and Taxes Court of São Paulo Paulo.

In addition, the subsidiary Nexa BR has tax assessments issued by the tax authorities of the State of Minas Gerais, in the amount of R$ 143, of which R$ 127 refers to the incidence of value added tax on sales of certain energy contracts and R$ 16 referring to tax rate applied to interstate sales of manufactured goods with imported content.

(viii)ICMS - Transfer cost

The subsidiary CBA was assessed for alleged failure to collect ICMS due to the nickel carbonate transfer operations for its subsidiary located in the State of São Paulo, for the periods January 2003 to December 2003, April 2004 to March 2005, from April 2005 to March 2006, from April 2006 to March 2007 and from April 2007 to March 2008.

In the opinion of Management and in the opinion of its independent legal advisors, the criteria adopted for the formation of the calculation basis of the prices practiced by the CBA are in accordance with the pertinent legislation and the probability of loss of the process is considered remote.

(ix) ICMS on electricity charges

The subsidiary CBA has judicial and administrative discussions regarding the incidence of ICMS on the sector charges levied on the electricity tariff. As of December 31, 2018, the amount in controversy of these discussions amounts to R$ 204.

In the opinion of Management and in the opinion of its independent legal advisors, the assessment is unfounded, which is why the likelihood of loss of the process is considered possible.

(x) IRPJ/CSLL – Transfer Price

Between 2007 and 2010, four tax assessments were filed against its subsidiary CAI, aiming at the collection of IRPJ and CSLL, and the adjustment in the basis of tax losses and the negative basis of CSLL, due to the losses made in the adjustments made by the Company in this transfer pricing calculations in 2003 and 2004. In October 2017, one of the cases was closed in a favorable manner to the CAI, with the amount of R$ 199 remaining under administrative discussion, restated up to December 31, 2018. The active processes await judgment of appeals by the Administrative Council of Tax Appeals.

(xi) Tax classification mismatch – Import

In March 2017, the subsidiary CBA was assessed on account of a supposed error in the tax classification on the importation of inputs, resulting in the tax requirement (IPI, PIS, COFINS E II), whose value in December 2018 amounts to R$ 172.

Because the undisputed legal counsel wrongly understood the complaint, the subsidiary CBA filed a challenge that was favorably judged in the first administrative instance. Currently, the case awaits judgment by the CARF of the voluntary appeal filed by the Attorney General of the National Treasury.

In the opinion of Management and in the opinion of its independent legal advisors, the likelihood of loss of said process is considered possible.

(xii) Collection of ICMS due to divergences regarding the destination of the item

The subsidiary CBA was assessed for alleged failure to pay ICMS, due to the credit claims arising from the acquisition of assets due to divergences regarding the allocation of assets in the amount of R$ 104.

In the opinion of Management and in the opinion of its independent legal advisors, the criteria adopted in relation to the destination of the assets are in accordance with the pertinent legislation and the probability of loss of the process is considered possible.

(xiii)IRPJ and CSLL - Expense Deduction

In December 2016, the subsidiary CAI was assessed by the RFB for the collection of IRPJ and CSLL, due to the gloss of exclusions from the calculation base of said taxes in the 2011 calendar year. The amounts required by the tax assessment notice total R$ 74. In the last quarter of 2018, a partial cancellation of the tax assessment notice was filed by the Regional Judgment Office (DRJ), and judgment on the Voluntary Appeal filed is currently awaiting.

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(c.2) Comments on contingent civil liabilities with likelihood of loss considered possible

Nature	2018	2017
Public civil suit – Violation of the economic order (i)	4,023	3,872
Administrative investigations carried out by the Secretariat of Economic Law (ii)	2,052	1,994
Litigation with a São Paulo transportation company (iii)		187
Other lawsuits	1,355	1,162
	7,430	**7,215**

(i) Civil class action – Cartel

The Office of the Public Prosecutor of the State of Rio Grande do Norte filed a civil class action against the subsidiary VCSA, together with eight other defendants, including several of Brazil's largest cement manufacturers, alleging the formation of a cartel, demanding that: (1) the defendants make an indemnity payment, jointly, amounting to R$ 5,600, in favor of the civil class action, due to pain and suffering and property collective damage; (2) the defendants make a payment of 10% of the total amount paid by the customers for the acquisition of cement or concrete under the brands owned by the defendants, during the period from 2002 to 2006, due to individual consumer damages; (3) that the defendants pay the following penalties according to Article 23 Section 1 and Article 24 of Law 8,884/1994: (i) in addition to the payment mentioned in item (1) above, a fine ranging from 1% to 30% of annual gross revenues relating to the fiscal year immediately preceding the year in which the alleged violation occurred, but not less than the monetary advantage acquired; and (ii) a prohibition, for a period not shorter than five years, from obtaining financing from governmental financial institutions or from participating in bidding processes conducted by the federal, state or municipal governments and their entities. In view of the total number of the claims in item (1) above in the amount of R$ 5,600 and because of the claims alleging joint liability, VCSA estimated that, based on its market share, its share of the liability would be approximately R$ 2,400. However, there can be no assurance that this apportionment would prevail and that VCSA will not be held liable for a different proportion, which may be larger, or for the total number of these claims. Additionally, there can be no assurance that VCSA will not be required to pay other amounts as compensation for damages caused to consumers as mentioned in item (2) above and/or the fine mentioned in item (3) above.

In the last quarter of 2018 an order was issued rejecting the arguments presented by the defendants and determining the production of expert evidence. At the moment a decision is awaited on the motions to clarify against such order. The likelihood of loss in this matter is considered possible, and the VCSA has not recorded any provision for this claim. As at December 31, 2018, the restated balance of the contingency was R$ 4,023.

(ii) Administrative Proceedings by SDE, currently CADE (Brazilian antitrust agency)

In 2006 the SDE initiated administrative proceedings against the largest Brazilian cement companies, including VCSA, alleging that the large cement companies would have breached Brazilian antitrust laws, such as in terms of price fixing and the formation of a cartel. After the finding of facts, the CADE court judged the lawsuit, issuing the final terms of the judgment on July 29, 2015, applying several penalties to the companies.

The penalties imposed on VCSA include the payment of a fine of approximately R$ 1,566 and an obligation for VCSA to sell: (1) all its interests in other cement and concrete companies in Brazil; (2) 20% of its installed capacity of concrete services in Brazil, in relevant markets in which VCSA has more than one concrete plant; and (3) a specific cement asset that, in CADE's opinion, was directly related to the alleged illegal act of which VCSA is accused. Other non-monetary penalties were also imposed on VCSA, including: (1) the obligation to publish CADE's decision in one of the five biggest Brazilian newspapers; (2) a prohibition against contracting with official financial institutions for credit lines with financing conditions subsidized by public programs or resources provided by these institutions; and (3) a recommendation to the Federal Revenue that they restrict or limit certain other benefits and tax incentives. As at December 31, 2018, the restated balance of the contingency was R$ 2,052.

In November 2015, VCSA filed an annulment action to cancel the decision issued at the administrative level or, at least, to reduce the applied penalties. The injunction was granted on November 24, 2015, suspending the effects of the decision issued by CADE at the administrative level, preventing CADE from demanding the fulfillment of the obligations and/or executing the penalties until a judgment of the merits. CADE was summoned and filed its defense, while VCSA presented its reply in November 2016. Recently, an economic expert evidence has been accepted. The parties indicated technical assistants and made questions. The expert is requested to inform if he accepts the charge and presents an estimate of the fees. The VCSA classified the likelihood of loss on this lawsuit as possible.

During 2017, some construction companies and concrete producers filed lawsuits for indemnity claims against Votorantim Cimentos and other companies which were convicted by CADE, due to the alleged formation of a cartel in the cement and concrete markets, in summary claiming that the cartel caused economic and non-economic losses. In January 2018, the first sentence dismissing the merit of the indemnity claims was issued. In December 2018, there were already 20 decisions dismissing the merit in the lower court. Moreover, eight of these lawsuits already recognized that eventual damages arising from the facts identified in the administrative proceeding of CADE had already expired, of which five were final decisions. In June 2018, this position was confirmed for the first time by the higher court, through a court decision preventing the charging of amounts prior to three years from the filling of the lawsuit.

(iii) Litigation with a transportation company in São Paulo

In September 2003, a transportation company filed a claim against Votorantim Cimentos Brasil S.A. (a company merged into the subsidiary VCSA) seeking compensation for property damages amounting to R$ 84 and pain and suffering in an unspecified amount, alleging that the VCSA failed to honor two oral contracts. The transportation company argued that those breaches resulted in the discontinuation of the activities of its sales department and significant losses to its transportation department. The VCSA filed its response in September 2009, arguing that: (1) the transportation company's statute of limitations had expired; (2) the VCSA did not change the general conditions of the agreement; and (3) the transportation company was unable to provide the contracted services, which resulted in its insolvency. In August 2011, the Court rejected the argument regarding the expiration of the statute of limitations and determined an expert examination, as requested by the parties. The expert examination was concluded and the report was presented. The parties filed their challenges to the report and the lawsuit was sent to the expert for his opinion. In June 2014, clarifications were provided by the expert. On June 24, 2014, the VCSA's challenge was filed. In December 2014, the Company received a decision declaring the end of the fact-finding phase and requesting the parties to declare whether they would be interested in holding a conciliation hearing. In July 2016, the request was partially judged, sentencing Votorantim to pay R$ 400 thousand. In October 2016, Votorantim filed an appeal request. In 2018, the Court upheld VCSA's appeal by a majority and dismissed the transportation VCSA's claim as unfounded. As a result, there was a reclassification of the likelihood of loss to remote. As at December 31, 2018, the restated amount of the remote contingency is R$ 203.

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24 Use of public assets

Accounting policy

The amount is originally recognized as a financial liability (obligation) and as an intangible asset (right to use a public asset) which corresponds to the amount of the total annual charges over the period of the agreement discounted to present value (present value of the future payment cash flows).

The subsidiaries own or participate in companies that hold concession contracts in the electrical energy industry. Most of these contracts provide for annual payments from the commencement of operations and are adjusted by the General Market Price Index for the Use of Public Assets.

The contracts have an average duration of 35 years, and the amounts to be paid annually are as follows:

							2018			2017
Plants/Companies	Investor	Concession start date	Concession end date	Payment start date	Ownership interest	Intangible assets (Note 18)	Liabilities	Ownership interest	Intangible assets (Note 18)	Liabilities
Salto Pilão	Companhia Brasileira de Alumínio	nov-01	dec-36	jan-10	60%	184	518	60%	194	493
Salto do Rio Verdinho	Companhia Brasileira de Alumínio	aug-02	sep-37	oct-10	100%	7	21	100%	8	20
Itupararanga	Companhia Brasileira de Alumínio	nov-03	dec-23	jan-04	100%		2	100%	1	2
Piraju	Companhia Brasileira de Alumínio	dec-98	jan-34	feb-03	100%	1	6	100%	1	6
Ourinhos	Companhia Brasileira de Alumínio	jul-00	aug-35	sep-05	100%	1	5	100%	1	5
Baesa - Energética Barra Grande	Companhia Brasileira de Alumínio	jun-01	may-36	jun-07	15%	13	45	15%	14	42
Capim Branco I e Capim Branco II	Pollarix S.A.	aug-01	sep-36	oct-07	13%	3	11	13%	3	10
Picada	Pollarix S.A.	may-01	jun-36	jul-06	100%	17	69	100%	18	65
Enercan - Campos Novos Energia S.A	CBA Energia Participações S.A.	apr-00	may-35	jun-06	24%	2	7	33%	2	6
Enercan - Campos Novos Energia S.A	Pollarix S.A.	apr-00	may-35	jun-06	21%	2	6	0%	1	5
Pedra do Cavalo	Votorantim Cimentos N/NE S.A.	mar-02	apr-37	apr-06	100%	112	499	100%	118	478
						342	1,189		361	1,132
Current							83			76
Non-current						342	1,106		361	1,056
						342	1,189		361	1,132

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25 Pension plan and post-employment health care benefits

Accounting policy

The Company, through its subsidiaries abroad (VCNA, VCEAA, Artigas and APDR) and in Brazil (VCNNE), participates in pension plans managed by a private pension entity, which provide post-employment benefits to employees.

The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date minus the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market interest rates that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation. In countries where there is no active market related to such obligations, market rates for government securities are used.

Actuarial gains and losses arising from changes in actuarial assumptions are recognized within "Carrying value adjustments" in the period in which they arise.

Past-service costs are recognized immediately in the statement of income, unless the changes to the pension plan are conditional on the employees remaining in service for a specified period of time (the vesting period). In this case, past-service costs are amortized on a straight-line basis over the vesting period.

For defined contribution plans, the Company pays contributions to the pension plan administrators on a compulsory, contractual or voluntary basis. The Company no longer has payment obligations once the contributions are paid. Contributions are recognized as employee benefit expense when due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

The Company's subsidiaries have a defined contribution plan for employees. Certain subsidiaries, however, have a defined benefit plan.

The table below shows where the balances and activities related to post-employment benefit are allocated in the consolidated financial statements.

	2018	2017
Rights recorded in the balance sheet with:		
Pension plan benefits	25	2
Assets recorded in the balance sheet	25	2
Obligations recorded in the balance sheet with:		
Pension plan benefits	155	168
Post-employment healthcare benefits	164	152
Liabilities recorded in the balance sheet	319	320
Expenses recognized in the statement of income with:		
Pension plan benefits	19	20
Post-employment healthcare benefits	12	11
	31	31
Remeasurement with:		
Pension plan benefits - gross amount	(39)	(23)
Deferred income tax and social contribution	5	8
Pension plan benefits - net amount	(34)	(15)

(a) Defined contribution pension plan

The Company and its Brazilian subsidiaries sponsor private pension plans available to all employees administered by Fundação Senador José Ermírio de Moraes ("FUNSEJEM"), a private, not for profit, pension fund. Under the terms of the regulations of the fund, the contributions of the employees to FUNSEJEM are matched by the sponsors in accordance with the level of remuneration of the employee. For employees whose remuneration is lower than the threshold established by the regulations, the Company matches the contributions that represent up to 1.5% of their monthly remuneration. For employees whose remuneration exceeds the threshold, the Company matches the contributions of employees that represent up to 6% of their monthly remuneration. Voluntary contributions can also be made to FUNSEJEM. Once the plan contributions are made, no additional contributions are required.

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(b) Defined benefit pension plan

The Company has subsidiaries with defined pension plans in North America, South America and Europe, which follow similar regulatory standards. The defined benefit pension plans also offer health care and life insurance, among other benefits. The cost of the retirement benefits and the other benefits of the plan granted to employees are determined by the projected benefit method on a pro rata basis considering the length of service and the best expectations of management regarding the return on plan assets, salary adjustments, costs and mortality trends, and the age of retirement of employees.

The amounts recognized in the balance sheet are determined as follows:

	2018	2017
Present value of funded obligations	1,031	1,042
Fair value of plan assets	(814)	(808)
Deficit of funded plans	217	234
Present value of non-funded obligations	68	82
Total deficit of defined benefit pension plans	285	316
Impact of the minimum funding requirement/assets ceiling	9	2
Assets and liabilities in the balance sheet	294	318

The changes in the defined benefit obligation and the fair value of the plan assets during the year were as follows:

	2018					2017
	Present value of funded and unfunded obligations	Fair value of plan assets	Total	Impact of the minimum requirement of the funds/asset ceiling	Total	Total
Opening balance	**1,125**	**(809)**	**316**	**1**	**317**	**320**
Current service cost	9		9		9	9
Finance cost (income)	56	(31)	25		25	20
Past service cost and curtailments	(2)		(2)		(2)	1
	63	**(31)**	**32**		**32**	**30**
Re-measurements:						
Return on assets, excluding the amount included as finance income		29	29		29	(35)
Losses (gains) arising from changes in demographic assumptions	(1)		(1)			13
Losses (gains) arising from changes in financial assumptions	(69)		(69)		(69)	42
Losses arising from experience	(6)		(6)		(6)	(10)
Changes in the asset ceiling, excluding the amount included as finance cost				7	7	(8)
	(76)	**29**	**(47)**	**7**	**(39)**	**2**
Foreign exchange gains (losses)	95	(65)	30		30	6
Contributions:						
Employer		(6)	(6)		(6)	(4)
Payments of the plans:						
Payment of benefits	(99)	63	(36)		(36)	(36)
Assumed/(acquired) in a business combination	(8)	4	(4)		(4)	
Closing balance	**1,100**	**(815)**	**285**	**8**	**294**	**318**

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The defined benefit obligation and the plan assets, by country, are as follows:

Percentual

	2018						2017					
	Brazil	Europe	North America	South America	Colombia	Total	Brazil	Europe	North America	South America	Colombia	Total
Present value of the obligation	43	29	697		263	1,032	49	20	706		268	1,043
Fair value of plan assets	(53)		(619)		(142)	(814)	(52)	(4)	(624)		(128)	(808)
	(10)	29	78		121	218	(3)	16	82		140	235
Present value of non-financial obligations		31	32	5		68		46	32			82
"Impact of the minimum requirement of the funds/asset ceiling"	8					8	1					1
	(2)	60	110	5	121	294	(2)	62	114	4	140	318

The actuarial assumptions used were as follows:

	2018						2017					
	Brazil	Europe	North America	South America	Colombia	Total	Brazil	Europe	North America	South America	Colombia	Total
Discount rate	10.51%	6.12%	3.84%	10.92%	7.50%	7.78%	9.93%	7.25%	3.46%	10.70%	6.80%	7.63%
Inflation rate	5.37%	1.33%	2.00%			2.90%	4.46%	2.85%	2.00%			3.10%
Future salary increases	4.88%	7.00%	2.50%	6.92%		5.33%	5.25%	6.85%	2.50%	6.70%		5.33%
Increases in future pension plans	5.37%				3.50%	4.44%	4.46%				3.50%	3.98%

(c) Post-employment benefits (pension and health care)

The Company operates post-employment health care plans through indirect subsidiaries in North America, VCNA, and in Europe, VCEAA. The accounting method, assumptions and frequency of evaluations are similar to those used for the defined benefit pension plans. Most of these plans are not funded.

The obligations relating to these plans are included in the movement of the defined benefit obligations previously presented.

26 Equity

Accounting policy

(i) Share capital

Share capital is represented exclusively by common shares classified as equity.

(ii) Dividends

This is recognized as a liability in the Company's financial statements at year-end based on the Company's bylaws. Any amount that exceeds the minimum required, 25% of the profit for the year, is only recognized on the date it is approved by the stockholders at a General Meeting. When a Company presents a loss in the year, there is no dividend.

(iii) Earnings per share

Earnings per share are calculated by dividing the profit attributable to the controlling stockholders by the weighted average number of common shares during the year. The weighted average number of shares is calculated based on the periods in which the shares were outstanding.

(iv) Statutory reserve

The statutory reserve is constituted by the appropriation of 5% of the net income for the fiscal year or remaining balance, limited to 20% of the capital stock. Its purpose is to ensure the integrity of social capital. It can only be used to offset losses and increase capital. When the Company presents a loss in the year, there will be no legal reserve.

The retained earnings reserve refers to the retention of the remaining balance of retained earnings in order to meet the business growth plan established in the Company's investment plan.

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(v) Government grants

The tax incentive reserve is credited with tax incentive benefits, which are recognized in the income statement for the year and allocated to retained earnings for this reserve. These incentives are not included in the calculation of the mandatory minimum dividend.

(vi) Equity valuation adjustments

The equity valuation adjustments include:

(a) Effective portion of the cumulative net change in fair value of hedge instruments used in hedge of cash flow until the recognition of the cash flows that were hedged.

(b) Cumulative translation adjustments with the exchange differences arising from the translation of the financial statements of foreign operations.

(c) Effective portion with exchange differences of hedge of the Company's net investments in a foreign operation.

(d) Actuarial losses (gains) and measures with retirement benefits.

(a) Share capital

On December 31, 2018 and December 31, 2017, the fully subscribed and paid-up capital of the Company was R$ 28,656, consisting of 18,278,789 thousand common shares.

(b) Dividends

The calculation of mandatory dividends at December 31 can be shown as follows:

	2018	2017
Net income (loss) attributable to controlling shareholders	1,746	590
Legal reserve	(87)	(30)
Dividend calculation basis	1,659	560
Dividends	**415**	**140**
Percentage of net income for the year	**25%**	**25%**

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During 2018, the Company approved to its parent company Hejoassu Administração S.A, the amount of R$ 789, corresponding to dividends related to part of the balance of the "Profit Reserve" account, accumulated up to December 31, 2017.

On April 30, 2018, the Ordinary and Extraordinary General Shareholders' Meeting resolved the cancellation of the mandatory minimum dividends of 2017 in the amount of R$ 140.

(c) Carrying value adjustments

	Attributable to the owners of the Company						
	Currency translation of investees located abroad	**Hedge accounting for net investments abroad, net of taxes**	**Hedge accounting for the operations of subsidiaries**	**Remeasurement of retirement benefits**	**Fair value of available-for-sale assets**	**Other comprehensive income**	**Total**
At January 1, 2017	**5,246**	**(4,342)**	**(30)**	**(78)**	**227**	**232**	**1,255**
Other comprehensive income							
Currency translation of investees located abroad	473						473
Hedge accounting for net investments abroad, net of taxes		(163)					(163)
Hedge accounting for the operations of subsidiaries			(101)				(101)
Remeasurement of retirement benefits				1			1
Fair value of available-for-sale financial assets of non-consolidated investments					39		39
Realization of comprehensive income on disposal of investments	(136)						(136)
Realization of comprehensive incomeon the sale of interst in Nexa Resources S.A.	(593)	330	13	(4)		(165)	(419)
Increase in noncontrolling interest - Nexa Resources S.A. - dilution interest						(215)	(215)
At December 31, 2017	**4,990**	**(4,175)**	**(118)**	**(81)**	**266**	**(148)**	**734**
Other comprehensive income							
Currency translation of investees located abroad	1,555						1,555
Hedge accounting for net investments abroad, net of taxes		(931)					(931)
Hedge accounting for the operations of subsidiaries			158				158
Remeasurement of retirement benefits				34			34
Fair value of available-for-sale financial assets of non-consolidated investments					(74)		(74)
Realization of comprehensive income on disposals of investments						(4)	(4)
Share in other comprehensive income of investees						3	3
At December 31, 2018	**6,545**	**(5,106)**	**40**	**(47)**	**192**	**(149)**	**1,475**

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(d) Non-controlling interests

	2018	2017
Nexa Resources S.A. (i)	3,431	2,967
Nexa Resources Cajarmarquilla S.A.	885	795
Nexa Resources Perú S.A.A	564	406
Cementos Artigas S.A.	212	204
Asment de Témara	165	170
Yacuces, S.L.	139	125
Itacamba Cemento S.A.	99	92
Shree Dijivay Cement Co. Ltd	21	54
Yibitas Yozgat Isci Birligi Insaat M.T.S	18	22
Acerías Paz Del Rio S.A.	22	12
Other	67	9
	5,623	**4,856**

(i) The variation refers to the issuance of new shares and sale of interest by VSA.

27 Net revenue from products sold and services rendered

Accounting policy

Revenue represents the fair value of the consideration received or receivable from the sale of goods in the ordinary course of business of the subsidiaries. Revenue is shown net of value added tax, rebates and discounts after elimination of sales among consolidated companies.

The subsidiaries recognizes revenue when: (i) the amount of revenue can be measured reliably; (ii) it's probable that future economic benefits will flow to the entity; and (iii) specific criteria have been met for each of the Company's and its subsidiaries' activities.

Revenue will not be reliably measured if all terms of sale aren't resolved. The subsidiaries bases its estimates on historical results, taking into account the type of customer, the type of transaction and the specificities of each agreement.

Revenue recognition is based on the following principles:

(i) Sales of products and service

Revenue is shown net of value added tax, returns, rebates and discounts, after eliminating sales within the consolidated companies.

(ii) Sale of surplus energy

The sale of energy, which meets the definition of a financial instrument, is recognized in the Company's financial statements at its fair value.

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(a) Reconciliation of revenues

	2018	2017
Gross revenue		
Sales of products - domestic market	15,901	13,620
Sales of products - foreign market	17,029	13,730
Supply of electrical energy	3,314	3,299
Services provided	521	486
	36,765	31,135
Taxes on sales, services and other deductions	(4,817)	(4,336)
Net revenue	**31,948**	**26,799**

(b) Information on geographical areas in which the Company operates

The geographical areas are determined based on the location of the customers. The net revenue of the subsidiaries classified by currency and destination, is as follows:

(i) Revenue by destination

	2018	2017
Brazil	15,400	13,290
United States	3,977	2,910
Peru	2,459	2,234
Argentina	1,421	1,127
Colombia	1,260	991
Canada	1,137	1,062
Spain	676	487
Turkey	663	682
Luxembourg	631	418
Switzerland	598	567
Morocco	447	394
Uruguay	390	307
Japan	344	227
Bolívia	304	222
China	278	153
Belgium	257	110
Tunisia	232	199
Taiwan	231	147
Chile	202	148
Austria	147	119
Singapore	139	194
Alemanha	76	75
Equador	64	65
Italia	50	67
India	29	181
Other countries	536	423
	31,948	**26,799**

(ii) Revenue by currency

	2018	2017
Real	15,028	12,813
US Dollar	11,099	8,974
Dólar Canadense	1,127	1,017
Colombian Peso	1,066	834
Argentinian Peso	1,062	857
Euro	729	519
Turkish Lira	488	567
Dirham	447	394
Dinar	232	199
Other currencies	670	625
	31,948	**26,799**

28 Expenses by nature

				2018	2017
	Cost of products sold and services rendered	Selling	General and administra-tive	Total	Total
Raw materials, inputs and consumables	16,363	9	9	16,381	12,850
Employee benefit expenses	3,239	374	1,087	4,700	4,016
Depreciation, amortization and depletion	2,361	15	94	2,470	2,325
Outsourced services	1,362	64	598	2,024	1,560
Transportation expenses	1,784	33		1,817	1,154
Other expenses	800	280	385	1,465	1,980
	25,9090	**7750**	**2,173**	**28,857**	**23,885**

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29 Employee benefit expenses

(a) Health care (post-retirement)

The liability related to the health care plan for retired employees is stated at the present value of the obligation, less the market value of the plan assets, adjusted by actuarial gains and losses and past-service costs, in a manner similar to the accounting methodology used for defined benefit pension plans. The post-retirement health care obligation is calculated annually by independent actuaries. The present value of the post-retirement health care obligation is determined based on an estimate of the future cash outflow.

Actuarial gains and losses arising from changes in actuarial assumptions are fully recognized within "Carrying value adjustments" in the period in which they arise.

(b) Employee profit sharing

Provision is recorded to recognize the expenses related to employee profit sharing. This provision is calculated based on qualitative and quantitative targets established by management and recorded in the statement of income as "Employee benefits".

	2018	2017
Salaries and bonuses	2,951	2,469
Payroll charges	1,040	947
Benefits	709	600
	4,700	**4,016**

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30 Other operating expenses, net

	Note	2018	2017
Tax recovery (i)		498	
Gain in fair value in VTRM´s operation	1.1 (c)	300	
Net income from sale of investment – US Zinc	1.1 (i)	126	
Tax benefits		110	74
Gain (loss) on hedge		75	(63)
Income from rentals and leasing		57	73
Reversal for impairment of investments, fixed and intangible assets		52	23
Net income from waste sale		48	29
Gain (loss) on sale of fixed and intangible assets, net		42	4
Insurance operations		15	(26)
Realization of other comprehensive income – Nexa			750
Realization of other comprehensive income – Others			3
Net income from sale of investment – Nexa			(161)
Gain on sale of investments – Cement and Metals Operations		(3)	33
Reversal (provision) of environmental obligations		(6)	(30)
Provision, net		(18)	(223)
Royalties on natural resources		(46)	(37)
Financial instrument – firm commitment	15	(132)	(522)
Expenses on not activatable projects (ii)		(575)	(316)
Other income (expenses), net		7	(164)
		550	**(553)**

(i) Relates substantially to the credit of PIS and COFINS Granted in subsidiaries VCSA and Nexa BR, mounting R$ 308 and R$ 130, respectively, as described on Note 1.1(h).

(ii) Relates substantially to mineral exploration projects that are in the early stages of research.

31 Finance results, net

Accounting policy

(i) Financial income (expenses)

These comprise interest rates on loans and financial investments, monetary and exchange variation on assets and liabilities, linked to loans with a swap instrument, as a result of the exchange variation net of gains and losses on derivative financial instruments (swap contracts) and various discounts that are recognized in the income for the year on the accrual basis.

(ii) Foreign exchange variations

A foreign currency transaction shall be initially recognized in the functional currency by applying the spot exchange rate between the functional currency and the foreign currency on the transaction date on the amount in foreign currency.

At the end of each reporting period, monetary items in foreign currency must be converted using the closing exchange rate.

Foreign exchange variations arising from the settlement of monetary items or the translation of monetary items at rates different from those for which they were converted at the initial measurement during the period or in previous financial statements shall be recognized in the statement of income in the year in which they arise.

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	Note	2018	2017
Finance income			
Income from financial investments		389	583
Fair value of borrowing		42	61
Reversal of monetary restatement of provision		103	207
Interest on financial assets		476	119
Gain on debt renegotiation	3.1.2 (iv)	69	
Monetary updating of assets		64	119
Discounts obtained		35	29
Interest on related-party transactions	14	2	10
Interest and monetary restatement - use of public assets (i)			6
Other finance income		81	19
		1,261	**1,153**
Finance costs			
Interest on borrowing		(1,394)	(1,580)
Capitalization of borrowing costs		43	29
Monetary restatement of provision		(194)	(268)
Fair value of borrowing and financing		(155)	(117)
Interest and monetary restatement - use of public assets		(108)	(3)
Interest on anticipation of receivables		(101)	(101)
Adjustment to present value CPC 12		(96)	(83)
Borrowing fees		(102)	(40)
Income tax on remittances of interest abroad		(111)	(120)
Interest on silver streaming		(27)	
"PIS/COFINS" on financial results		(46)	(38)
Interest on taxes payable		(13)	24
Interest on related-party transactions	14	(4)	(3)
Interest on Mato Grosso State Credit Recovery Program ("REFIS")			(40)
Interest on Special Tax Regularization Program ("PERT")			(107)
Charges on discount operations		(18)	
Other finance costs		(205)	(258)
		(2,531)	**(2,705)**

	Note	2018	2017
Results of derivative financial instruments	6.1.1 (c)		
Revenue		370	3
Expenses		(166)	(216)
		204	**(213)**
Foreign exchange variation, net		(977)	(724)
Finance results, net		**(2,043)**	**(2,489)**

(i) Refers substantially to the PIS and COFINS credit recognized in the subsidiaries VCSA and Nexa BR, in the amounts of R$ 242 and R$ 101, respectively, according to (Note 1.1 (h)).

(ii) In 2017, the subsidiary CBA and indirect subsidiary VCNNE recognized a monetary adjustment revenue on "UBP" - Use of the Public Asset, as a result of the index used to update ("IGP-M" General Market Price Index).

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32 Tax benefits

VCSA and its subsidiaries have tax incentives within certain state and federal industrial development programs. The state programs are aimed at attracting industrial investments seeking regional decentralization, promoting employment and income generation, besides complementing and diversifying the industrial matrix of the states. These fiscal incentives are approved by the states in the form of percentage financing of up to 75%, presumed credit with a percentage of up to 95% and deferral of the payment of taxes or partial reductions of the amount due for imports of assets and inputs.

33 Insurance

The Company and its subsidiaries maintain property risk insurance coverage amounting to R$ 59,253 and for loss of income amounting to R$ 11,695 on December 31, 2018. The Company's management considers these amounts sufficient to cover eventual property risks and loss of profits.

In addition to the previous risk insurance, the Company and its subsidiaries maintain the policies of civil liability of executives and directors in amounts considered adequate by Management.

34 Assets and liabilities classified as held-for-sale

Accounting policy

They are classified as assets held-for-sale when their book value is recovered, mainly through sale and when the sale is considered highly probable.

The asset or group of assets to be classified as held-for-sale should be measured at initial recognition at the lower of its book value if it were not classified as such and the fair value less costs to sell. If the asset or group of assets is acquired as part of a business combination, it must be measured at fair value less costs to sell. When the sale is expected to occur after one year, the entity shall measure selling expenses at present value. Any increase in the present value of selling expenses that results from the passage of time should be presented in the results as financial expense.

Depreciation of assets held for trading ceases when a group of assets is designated as held-for-sale. The assets and liabilities of the group of discontinued assets are presented in single lines in assets and liabilities.

	Assets	Liabilities	Net investment
Cellulose Segment - Fibria Celulose S.A. (a)	4,305		4,305
Cement segment - India and China operations (b)	222	108	114
	4,527	108	4,419

(a) Pulp segment

On March 15, 2018, the Company together with BNDES Participações SA - BNDESPAR (jointly, "Controlling Shareholders of Fibria"), entered into an agreement with Suzano Holding SA and all other shareholders of Suzano Papel e Celulose SA (together, Suzano Controlling Shareholders "), the Voting Commitment and the Assumption of Obligations, by which are the Controlling Shareholders of Fibria and the Controlling Shareholders of Suzano, with the Commitment"), through a corporate reorganization ("Operation").

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In compliance with the accounting rule to position itself as a high risk company, the Company began to be a reclassification of the investment in the book value. The fair value of the transaction exceeds the carrying amount.

The terms and conditions of the transaction must be submitted to the second paragraph of the Protocol and the Prospects for Merger of Shares and Company, and must be submitted to the evaluation of sets of data and additional documents to the Boards of Directors of Fibria and Suzano by its administrations, as well as, in due course, the deliberation of the Extraordinary General Meetings of Fibria and Suzano.

On October 11, 2018, Fibria announced through the Notice to the Market that the opinion of the General Superintendency, which regulates, without restriction, a combination of business and a shareholder transaction between Fibria and Suzano.

On November 29, 2018, a European Commission competition was held, checking all the precedents of the transaction for a business association and shareholder base.

On December 3, 2018, Fibria approved interim dividends in the amount of R$ 2,783, of which a portion corresponds to a Company in the amount of R$ 820 in dividends received in the income for the year.

(i) Financial basis of the operation

Pursuant to the Undertaking, a corporate reorganization shall be submitted to the shareholders of Fibria and Suzano, which will result in: (a) the ownership by Suzano of all the shares issued by Fibria; and (b) the receipt by Fibria's shareholders, for each common share issued by Fibria, of (i) R$ 52.50 (fifty-two Reais and fifty cents), adjusted for the CDI variation from March 16, 2018 and (ii) 0.4611 (zero, comma, four, six, one, one) common shares issued by Suzano, adjusted as mentioned below ("Exchange Ratio"), to be delivered also on the date of consummation of the Transaction.

In addition to the adjustment for the CDI variation, as indicated above, the Cash Portion will be adjusted based on dividends, interest on shareholders' equity and other earnings declared by Fibria and Suzano as of March 15, 2018, except for the minimum dividends obligations already disclosed to the market by Fibria and Suzano. The Exchange Ratio will be proportionally adjusted for eventual splits, splits and bonuses of the shares issued by Fibria and Suzano.

(b) Cement segment

The assets and liabilities of the cement segment correspond to India's operations and the remaining assets of China.

(c) Income from discontinued operations

	Cement	Siderurgy	Total
VSA			
Contribution of capital, net of taxes – long steel in Brazil		(160)	(160)
VCEAA			
Income from the sale of assets and liabilities of India and China.	(58)		(58)
Loss for the year 2017	**(58)**	**(160)**	**(218)**

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35 Supplemental information – Business segments

In order to provide more detailed information the Company has elected to present financial information organized into two business segments. Each segment presented has been prepared following the accounting consolidation policies in note 22 and consider, first, the elimination of balances and transactions among the companies before: (i) eliminations between business segments; (ii) eliminations of investments held by the holding companies.

Additionally, the eliminations and reclassifications among the companies are presented so that the net results reconcile with the consolidated financial information of VSA according to the supplementary information. This supplementary information is not intended to be in accordance with, and is not required by, the accounting practices adopted in Brazil, or by IFRS.

(a) Capital management

The financial leverage ratios are calculated according to the information of the industrial segments, considering the accumulated result of 12 months, as loan covenants, are summarized as follows:

		Industrial segments	
Adjusted EBITDA	**Note**	**2018**	**2017**
Net income for the year		**1,953**	**810**
Plus (less):			
Continuing operations			
Equity in the results of investees		(1,634)	(1,197)
Net financial results		2,051	2,503
Income and social contribution taxes		1,066	138
Depreciation, amortization and depletion		2,471	2,325
Discontinued operations			
Equity in the results of investees			(151)
Net financial results		2	99
Income and social contribution taxes		(99)	126
Depreciation, amortization and depletion		39	35
EBITDA before other additions and exceptional items		**5,849**	**4,688**
Plus :			
Dividends received		942	489
Extraordinary items			
EBITDA - discontinued operations		65	306
Non-recurring items - discontinued operations		211	(267)
Gain on sale of investments, net		(130)	(625)
Reversal for impaiment of property, plant, equipment and intangible assets		(24)	(23)
Reversal for impairment of investments			(71)
Fair value of biological assets			8
PERT payment with deferred tax credit			99
Gain by adjustment to fair value in deconsolidation of VTRM	1.1 (d)	(302)	
Other		322	113
Adjusted annualized EBITDA (A)		**6,933**	**4,717**
Net debt			
Borrowing	19	24,451	24,630
Cash and cash equivalents, financial investments and derivative financial instruments		(11,237)	(12,274)
Net debt (B)		**13,214**	**12,356**
Gearing ratio (B/A)		**1.91**	**2.62**

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(b) Balance sheet – business segments

Assets	Votorantim Cimentos	Nexa Resources	CBA	Long steels (*)	Votorantim Energia	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Eliminations	2018 Total, consolidated
Current											
"Cash and cash equivalents, financial investments and derivative financial instruments"	3,946	4,401	738	176	121	1,820		11,202	71		11,273
Trade receivables	903	671	490	182	445	94	(239)	2,546			2,546
Inventory	1,604	1,045	827	337		1		3,814			3,814
Taxes recoverable	348	370	356	72	10	233		1,389	84		1,473
Dividends receivable					9	101	(68)	42	9	(37)	14
Financial instruments – firm commitment			116		86			202			202
Other assets	269	106	52	46	2	89		564			564
	7,070	6,593	2,579	813	673	2,338	(307)	19,759	164	(37)	19,886
Assets classified as held-for-sale	222					4,305		4,527			4,527
	7,292	6,593	2,579	813	673	6,643	(307)	24,286	164	(37)	24,413
Non-current assets											
Long-term receivables											
"Financial investments and derivative financial instruments"	140	1	2			136		279			279
Financial instruments – put option						744		744			744
Taxes recoverable	1,328	342	656	14		391		2,731			2,731
Related parties	27	3	1	15	233	940	(948)	271			271
Deferred income tax and social contribution	426	779	782	148		1,415	504	4,054	25		4,079
Judicial deposits	564	36	124	2		29		755			755
Financial instruments – firm commitment											
Other assets	434	88	13	38	1	111		685			685
	2,919	1,249	1,578	217	234	3,766	(444)	9,519	25		9,544
Investments	787	1	197		1,796	30,365	(22,281)	10,865	5,058	(5,041)	10,882
Property, plant and equipment	12,610	7,020	4,830	1,135	36	549		26,180			26,180
Intangible assets	6,038	7,535	501	28	546	209	(1,516)	13,341			13,341
Biological assets			4	5		65		74			74
	22,354	15,805	7,110	1,385	2,612	34,954	(24,241)	59,979	5,083	(5,041)	60,021
Total assets	29,646	22,398	9,689	2,198	3,285	41,597	(24,548)	84,265	5,247	(5,078)	84,434

(*) Relates to long steel operations abroad (Argentina and Colombia).

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2018

Liabilities and equity	Votorantim Cimentos	Nexa Resources	CBA	Long steels (*)	Votorantim Energia	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Current liabilities											
Borrowing	3,496	126	118	111		1,440		5,291			5,291
Derivative financial instruments	30	55	58			23		166			166
Confirming payable	658	273	256					1,187			1,187
Trade payables	1,781	1,500	391	405	385	17	(217)	4,262			4,262
Salaries and payroll charges	375	225	119	32	20	74		845			845
Taxes payable	318	52	32	71	12	5		490			490
Advances from customers	32	12	29	48	2	5		128			128
Dividends payable	20	2	4		59	454	(57)	482	37	(37)	482
Use of public assets	33	6	44					83			83
Related parties			223				(223)				
Financial instruments - firm commitment	19							19			19
Deferred revenue - performance obligation					242			242			242
Deferred revenue - silver streaming		124						124			124
Other	401	173	50	24	1	158		807	1		808
	7,163	2,548	1,324	691	721	2,176	(497)	14,126	38	(37)	14,127
Liabilities related to assets held-for-sale	108							108			108
	7,271	2,548	1,324	691	721	2,176	(497)	14,234	38	(37)	14,235

(*) Relates to long steel operations abroad (Argentina and Colombia).

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2018

Liabilities and equity	Votorantim Cimentos	Nexa Resources	CBA	Long steels (*)	Votorantim Energia	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Non-current liabilities											
Borrowing	10,049	5,395	1,941			1,775		19,160			19,160
Derivative financial instruments	75					3		78			78
Deferred income tax and social contribution	569	1,157		1	107	197		2,031	168		2,199
Related parties	177	6	13	630	2	71	(763)	136			136
Provision	1,083	838	471	97	2	104		2,595			2,595
Use of public assets	467	80	559					1,106			1,106
Pension plan	197			122				319			319
Financial instruments – firm commitment	35		82		44			161			161
Deferred revenue – performance obligation					29			29			29
Deferred revenue – silver streaming		650						650			650
Other	186	307	53	177	6	195		924			924
	12,838	8,433	3,119	1,027	190	2,345	(763)	27,189	168		27,357
Total liabilities	20,109	10,981	4,443	1,718	911	4,521	(1,260)	41,423	206	(37)	41,592
Equity											
Total equity attributable to owners of the Company	8,815	9,399	5,064	328	2,374	37,076	(25,837)	37,219	5,041	(5,041)	37,219
Non-controlling interests	722	2,018	182	152			2,549	5,623			5,623
Total equity	9,537	11,417	5,246	480	2,374	37,076	(23,288)	42,842	5,041	(5,041)	42,842
Total liabilities and equity	29,646	22,398	9,689	2,198	3,285	41,597	(24,548)	84,265	5,247	(5,078)	84,434

(*) Relates to long steel operations abroad (Argentina and Colombia).

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(c) Statement of income – business segments

											2018
	Votorantim Cimentos	Nexa Resources	CBA	Long steels (**)	Votorantim Energia	Holding and other	Elimina-tions	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Continuing operations											
Net revenue from products sold and services rendered	12,610	9,066	5,417	2,112	4,456	1,064	(2,777) (*)	31,948			31,948
Cost of products sold and services rendered	(10,224)	(6,904)	(4,468)	(1,844)	(4,283)	(963)	2,777 (*)	(25,909)			(25,909)
Gross profit	**2,386**	**2,162**	**949**	**268**	**173**	**101**		**6,039**			**6,039**
Operating income (expenses)											
Selling	(613)	(69)	(36)	(25)		(32)		(775)			(775)
General and administrative	(810)	(553)	(197)	(133)	(94)	(373)		(2,160)	(13)		(2,173)
Other operating income (expenses), net	596	(345)	(35)	182	345	(82)	(111)	550			550
	(827)	**(967)**	**(268)**	**24**	**251**	**(487)**	**(111)**	**(2,385)**	**(13)**		**(2,398)**
Operating profit (loss) before equity results and finance results	**1,559**	**1,195**	**681**	**292**	**424**	**(386)**	**(111)**	**3,654**	**(13)**		**3,641**
Result from equity investments											
Equity in the results of investees	120		(27)		39	1,323	(645)	810	530	(526)	814
Dividends received						820		820			820
Realization of other comprehensive income on disposal of investments	4							4			4
	124		**(27)**		**39**	**2,143**	**(645)**	**1,634**	**530**	**(526)**	**1,638**
Finance results, net											
Finance income	647	233	152	15	108	230	(132)	1,253	8		1,261
Finance costs	(1,250)	(417)	(395)	(152)	(154)	(295)	132	(2,531)			(2,531)
Results of derivative financial instruments	34	(9)		4		175		204			204
Foreign exchange gains (losses), net	(319)	(538)	(283)	(33)		(218)	414	(977)			(977)
	(888)	**(731)**	**(526)**	**(166)**	**(46)**	**(108)**	**414**	**(2,051)**	**8**		**(2,043)**
Profit (loss) before income tax and social contribution	**795**	**464**	**128**	**126**	**417**	**1,649**	**(342)**	**3,237**	**525**	**(526)**	**3,236**
Income tax and social contribution											
Current	(127)	(251)	(26)	(70)	(23)	41		(456)			(456)
Deferred	(600)	107	(48)	87	(116)	63	(103)	(610)	2		(608)
Profit (loss) from continuing operations	**68**	**320**	**54**	**143**	**278**	**1,753**	**(445)**	**2,171**	**527**	**(526)**	**2,172**

(*) Relates to the net revenue from electric energy operations to CBA and VCSA.

(**) Relates to long steel operations abroad (Argentina and Colombia).

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											2018
	Votorantim Cimentos	Nexa Resources	CBA	Long steels (**)	Votorantim Energia	Holding and other	Elimina-tions	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Discontinued operations											
Loss from discontinued operations	(58)					(160)		(218)			(218)
Profit (loss) for the year	**10**	**320**	**54**	**143**	**278**	**1,593**	**(445)**	**1,953**	**527**	**(526)**	**1,954**
Profit (loss) attributable to the owners of the Company	(46)	274	43	97	278	1,593	(493)	1,746	526	(526)	1,746
Profit attributable to non-controlling interests	56	46	11	46			48	207	1		208
Profit (loss) for the year	**10**	**320**	**54**	**143**	**278**	**1,593**	**(445)**	**1,953**	**527**	**(526)**	**1,954**

(*) Relates to the net revenue from electric energy operations to CBA and VCSA.

(**) Relates to long steel operations abroad (Argentina and Colombia).

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											2017
	Votorantim Cimentos	Nexa Resources	CBA	Long steels (**)	Votorantim Energia	Holding and other	Elimina-tions	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Continuing operations											
Net revenue from products sold and services rendered	10,928	7,764	4,423	1,659	4,124	864	(2,963) (*)	26,799			26,799
Cost of products sold and services rendered	(8,726)	(5,543)	(3,773)	(1,430)	(3,873)	(789)	2,963 (*)	(21,171)			(21,171)
Gross profit	**2,202**	**2,221**	**650**	**229**	**251**	**75**		**5,628**			**5,628**
Operating income (expenses)											
Selling	(578)	(59)	(24)	(22)		(18)		(701)			(701)
General and administrative	(807)	(500)	(205)	(89)	(82)	(289)		(1,972)	(41)		(2,013)
Other operating income (expenses), net	(207)	(409)	279	46	(258)	585	(589)	(553)			(553)
	(1,592)	**(968)**	**50**	**(65)**	**(340)**	**278**	**(589)**	**(3,226)**	**(41)**		**(3,267)**
Operating profit (loss) before equity results and finance results	**610**	**1,253**	**700**	**164**	**(89)**	**353**	**(589)**	**2,402**	**(41)**		**2,361**
Result from equity investments											
Equity in the results of investees	157	(4)	12		20	1,260	(251)	1,194	315	(290)	1,219
Realization of other comprehensive income on disposal of investments	3							3			3
	160	**(4)**	**12**		**20**	**1,260**	**(251)**	**1,197**	**315**	**(290)**	**1,222**
Finance results, net											
Finance income	659	88	177	18	119	209	(131)	1,139	14		1,153
Finance costs	(1,572)	(332)	(404)	(89)	(152)	(287)	131	(2,705)			(2,705)
Results of derivative financial instruments	(169)	(2)				(42)		(213)			(213)
Foreign exchange gains (losses), net	(205)	(154)	18	(1)		(417)	35	(724)			(724)
	(1,287)	**(400)**	**(209)**	**(72)**	**(33)**	**(537)**	**35**	**(2,503)**	**14**		**(2,489)**
Profit (loss) before income tax and social contribution	**(517)**	**849**	**503**	**92**	**(102)**	**1,076**	**(805)**	**1,096**	**288**	**(290)**	**1,094**
Income tax and social contribution											
Current	(163)	(390)	(54)	(61)	(43)	(11)		(722)			(722)
Deferred	4	57	68	42	86	132	195	584	2		586
Profit (loss) for the year from continuing operations	**(676)**	**516**	**517**	**73**	**(59)**	**1,197**	**(610)**	**958**	**290**	**(290)**	**958**

(*) Referem-se a operação de venda de energia elétrica da Votener para a CBA e VCSA.

(**) Referem-se às operações de aços longos no exterior (Argentina e Colômbia).

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											2017
	Votorantim Cimentos	Nexa Resources	CBA	Long steels (**)	Votorantim Energia	Holding and other	Elimina-tions	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Discontinued operations											
Profit (loss) from continuing operations	56					(204)		(148)			(148)
Profit (loss) for the year	**(620)**	**516**	**517**	**73**	**(59)**	**993**	**(610)**	**810**	**290**	**(290)**	**810**
Profit (loss) attributable to the owners of the Company	(682)	330	518	78	(59)	993	(588)	590	290	(290)	590
Profit (loss) attributable to non-controlling interests	62	186	(1)	(5)			(22)	220			220
Profit (loss) for the year	**(620)**	**516**	**517**	**73**	**(59)**	**993**	**(610)**	**810**	**290**	**(290)**	**810**

(*) Referem-se a operação de venda de energia elétrica da Votener para a CBA e VCSA.

(**) Referem-se às operações de aços longos no exterior (Argentina e Colômbia).

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(d) Adjusted EBITDA – business segments

										2018
	Votorantim Cimentos	Nexa Resources	CBA	Steel (**)	Votorantim Energia	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Total, consolidated
Net revenue from products sold and services rendered	12,610	9,066	5,417	2,112	4,456	1,064	(2,777) (*)	31,948		31,948
Cost of products sold and services rendered	(10,224)	(6,904)	(4,468)	(1,844)	(4,283)	(963)	2,777 (*)	(25,909)		(25,909)
Gross profit	**2,386**	**2,162**	**949**	**268**	**173**	**101**		**6,039**		**6,039**
Operating income (expenses)										
Selling	(613)	(69)	(36)	(25)		(32)		(775)		(775)
General and administrative	(810)	(553)	(197)	(133)	(94)	(373)		(2,160)	(13)	(2,173)
Other operating income (expenses), net	596	(345)	(35)	182	345	(82)	(111)	550		550
	(827)	**(967)**	**(268)**	**24**	**251**	**(487)**	**(111)**	**(2,385)**	**(13)**	**(2,398)**
Operating profit (loss) before equity results and finance results	**1,559**	**1,195**	**681**	**292**	**424**	**(386)**	**(111)**	**3,654**	**(13)**	**3,641**
Plus:										
Depreciation, amortization and depletion – continuing operations	1,038	974	303	91	27	38		2,471		2,471
EBITDA	**2,597**	**2,169**	**984**	**383**	**451**	**(348)**	**(111)**	**6,125**	**(13)**	**6,112**
Plus:										
Dividends received	46				8	896	(8)	942	143	1,085
Exceptional items										
Loss (gain) on sale of investments, net	4	(1)	(111)			(133)	111	(130)		(130)
Reversal for impairment – fixed assets	(8)	12	(41)			13		(24)		(24)
Gain by adjustment to fair value in deconsolidation of VTRM					(302)			(302)		(302)
Other	(15)					337		322		322
Adjusted EBITDA	**2,624**	**2,180**	**832**	**383**	**157**	**765**	**(8)**	**6,933**	**130**	**7,063**

(*) Relates to the net revenue from electric energy operations to CBA and VCSA.

(**) Relates to long steel operations abroad (Argentina and Colombia).

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										2017
	Votorantim Cimentos	Nexa Resources	CBA	Steel (**)	Votorantim Energia	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Total, consolidated
Net revenue from products sold and services rendered	10,928	7,764	4,423	1,659	4,124	864	(2,963) (*)	26,799		26,799
Cost of products sold and services rendered	(8,726)	(5,543)	(3,773)	(1,430)	(3,873)	(789)	2,963 (*)	(21,171)		(21,171)
Gross profit	**2,202**	**2,221**	**650**	**229**	**251**	**75**		**5,628**		**5,628**
Operating income (expenses)										
Selling	(578)	(59)	(24)	(22)		(18)		(701)		(701)
General and administrative	(807)	(500)	(205)	(89)	(82)	(289)		(1,972)	(41)	(2,013)
Other operating income (expenses), net	(207)	(409)	279	46	(258)	585	(589)	(553)		(553)
	(1,592)	**(968)**	**50**	**(65)**	**(340)**	**278**	**(589)**	**(3,226)**	**(41)**	**(3,267)**
Operating profit (loss) before equity results and finance results	**610**	**1,253**	**700**	**164**	**(89)**	**353**	**(589)**	**2,402**	**(41)**	**2,361**
Plus:										
Depreciation, amortization and depletion – continuing operations	956	856	318	108	16	71		2,325		2,325
EBITDA	**1,566**	**2,109**	**1,018**	**272**	**(73)**	**424**	**(589)**	**4,727**	**(41)**	**4,686**
Plus:										
Dividends received	67		51			371		489	51	540
Exceptional items										
Loss (gain) on sale of investments, net	(20)	(16)	(589)			(589)	589	(625)		(625)
Reversal for impairment – fixed assets	21		(44)			(71)		(94)		(94)
Compensation of energy assets	99							99		99
Fair value of biological assets						8		8		8
Other						113		113		113
Adjusted EBITDA	**1,733**	**2,093**	**436**	**272**	**(73)**	**256**		**4,717**	**10**	**4,727**

(*) Relates to the net revenue from electric energy operations to CBA and VCSA.

(**) Relates to long steel operations abroad (Argentina and Colombia).

36 Subsequent events

(a) Results of the offer to employees

As expected in the privatization auction, in January 2019, the indirect subsidiary VTRM acquired additional shares of CESP related to the remaining shares of the offer to employees, totaling an investment of R$ 210. After the results of the offer to employees, VTRM to hold a 40.0% stake in CESP, equivalent to 93.5% of the voting common shares.

(b) Offer of Tender and Exchange Offer of debt by VCI

On January 10, 2019, the indirect subsidiary VCI announced the tender offer ("Tender Offer") of its euro bonds maturing in 2021 and 2022 and its US dollar bonds maturing in 2041 On February 14, 2019, the repurchase transaction was settled, with the principal amount of EUR 61 (R$ 269) of the issuance maturing in 2022, EUR 152 (R$ 673) maturing in 2022 and USD 540 (R$ 2 billion) maturing in 2041, together with a total cash outlay of R$ 3 billion.

Concurrently with the Tender Offer, VCI announced the exchange offer of its US dollar-denominated bonds maturing in 2041 for a new issue of bonds from its direct subsidiary St. Mary's Inc. (Canada)), maturing in 2041 and annual coupon of 7.25%. However, the transaction did not meet the minimum conditions stipulated in the offer and was not made.

(c) Conclusion of Fibria Celulose S.A. sale

On January 14, 2019, Suzano Papel e Celulose SA ("Suzano") and Fibria (together with Suzano, the "Companies") jointly made public and in addition to information previously disclosed by the Companies in the relevant facts, informing its shareholders and the market in general that, on this date, the corporate reorganization object of the Voting Commitment and Assumption of Obligations entered into on March 15, 2018 was completed, with the effective combination of operations and shareholding bases of Suzano and Fibria, pursuant to the protocol and justification executed on July 26, 2018 and approved by the shareholders of the Companies at meetings held on September 13, 2018.

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(d) Early settlement of 4131 loans and bonds

On January 23, 2019, the Company prepaid all principal plus interest on its bonds, signed on March 25, 2013, maturing on September 25, 2019, which were guaranteed by the subsidiary VCSA in 50% of the value. The total value settled by the VSA was R$ 809 (USD 216).

On February 14, 2019, the Company prepaid the loan agreement related to Resolution 4131/1962, in the amount of R$ 187 (USD 50), signed on May 14, 2015, with maturity on May 14, 2020.

On February 25, 2019, the Company prepaid the loan agreement related to Resolution 4131/1962, in the amount of R$ 386 (USD 102), entered into on February 24, 2017, with maturity on January 21, 2021.

(e) ICMS on the basis of calculation of PIS and COFINS

In February 2019, there was recognition of the decision in another lawsuit of the subsidiary VCSA, regarding the thesis of exclusion of ICMS on the basis of calculation of PIS and COFINS, registering a credit the amount of R$ 401. In addition, the subsidiary VCSA proceeded with the collection of the judicial deposit that was linked to another lawsuit, whose final res judicata occurred at the end of 2018, in the amount of R$ 346 (Note 1.1 (h)).

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