



2017 **Report**

VOTORANTIM

100
YEARS



Introduction

This report showcases the main initiatives and performance of investment holding company Votorantim S.A. (VSA) from January 1 to December 31, 2017, as measured by the key indicators monitored by us. **IGRI 102-1, 102-50I**

This report was prepared based on the IIRC integrated reporting framework, and in accordance with the GRI Standards for sustainability reporting: Core option. It also considers the principles of the UN Global Compact, the Organization for Economic Cooperation and Development (OECD), and the UN Sustainable Development Goals (SDGs). **IGRI 102-54I**

Detailed information on each investee can be found in the annual reports of Votorantim Cimentos, Nexa Resources, Companhia Brasileira de Alumínio (CBA), Votorantim Energia, Fibria, Citrosuco, and Banco Votorantim.

The PDF version of this document is available at www.votorantim.com/relatorio and includes our consolidated financial statements and the GRI Content Index. Comments, doubts, and suggestions about this report can be forwarded by e-mail to votorantimri@votorantim.com. **IGRI 102-53I**



Click on the Contents items ([page 8](#)), and on the page references of the GRI Content Index ([page 7](#)) to navigate this report.

Click on any page's header to return to the Contents page.

Use the [links](#) throughout the report to access additional information.

2017 Highlights



NET REVENUE

R\$27.2 billion,
up 5% year-on-year



ADJUSTED EBITDA

R\$4.8 billion,
up 12% year-on-year



LEVERAGE

2.60x net
debt/adjusted EBITDA



COMPLIANCE WEEK

A week of
compliance-related
activities for all investees



VOTORANTIM PARTNERSHIP FOR EDUCATION

707 schools and over
170,000 students in the
program



VOTORANTIM INSTITUTE

Monitored investments
of over **R\$120 million** in
nearly **750 projects**

VOTORANTIM

NEW LOGO

Translates Votorantim's
aspiration towards setting
corporate goals for the next
100 years



CENTER OF EXCELLENCE

Unification of the
operations of the Shared
Solutions (CSC), Real Estate
Solutions (CSI), and
Information Technology
Proficiency (CCTI) centers



ENVIRONMENTAL STEWARDSHIP

R\$485 million invested by
Votorantim



TECH FAIR

Nearly **3,000 people**
participated in the event



ORGANIZATIONAL ENVIRONMENT

One of the Best Companies
to Start a Career and Best
Companies to Work For,
according to *Você S/A*
magazine



NEXA'S IPO

Largest IPO in the metals
and mining sector of the
Americas in the last decade

Dynamic portfolio management

IGRI 102-141

In our 100th anniversary, we want to adapt and anticipate changes, looking to the future and to businesses that will help perpetuate our company

We went through a very complex year in 2017, but even so our results reflect the diversification of our business portfolio and how we prepare our company to move forward in different scenarios. Votorantim celebrated its 100th anniversary in early 2018—an unusual milestone in Brazil's corporate history—in a trajectory that has taught us that an entrepreneurial mindset makes for a perennial business.

Large economies have been thriving globally. The United States recorded growth of 2.3% in 2017, above the World Bank's forecast of 2.1%; the European Union has recovered well, with GDP growth of 2.4%; and China has transitioned to a more service-centered economy and recorded growth of 6.9%. In Brazil, the political crisis deepened, with its developments affecting the economy. The passing of the labor reform and the setting of a ceiling for government expenses were not enough to promote a significant economic pickup. In spite of the growth recorded in some sectors, most industries showed no signs of recovery.

We have made material investments over the past few years. Even though the Brazilian GDP contracted in 2015 and 2016, we have maintained all approved projects, in such diverse fields as mining, cement, pulp, and energy. Most important, we met the budget targets of the projects we invest in: we

With a very mature governance level, we remained disciplined in our capital management and new initiatives improved our internal controls and compliance

delivered in terms of deadlines, cost, and quality. Our investments have strengthened the position of each company in their relevant markets, thus making them more competitive.

We have already become one of the largest private energy traders in Brazil, and invested R\$1.2 billion in the construction of wind farms in the state of Piauí, with installed capacity of 206 megawatts/year. This investment marks Votorantim Energia's debut in the wind power generation sector. By the end of 2017, the company also announced a joint venture with the Canada Pension Plan Investment Board (CPPIB) to boost businesses in energy generation from re-

newable sources in Brazil.

In August 2017—before the expected deadline—Fibria completed its Horizonte 2 project after having invested R\$7.3 billion, and consolidated its leading position in the global pulp market. Also, Banco Votorantim prioritized digital transformation and a new organizational culture to diversify its operations.

Given the complexity of the Brazilian economic scenario, our more domestic market-oriented businesses, such as the cement operation, were affected. Our businesses abroad, on the other hand, including the cement, pulp and orange juice operations, benefited from a more favorable foreign exchange rate.

This has also occurred at Nexa Resources, where its flagship product, zinc, recorded an excellent and timely recovery in prices during the consolidation of the company's operations in Brazil and Peru, becoming one of the five largest mining companies in the world and ranking among the first quartiles in production cost. The company has gone public with an IPO in the United States and Canada that was well received by investors.



BOARD OF DIRECTORS. Left to right, sitting – José Roberto Ermírio de Moraes, Raul Calfat, and Marcelo Pereira Lopes de Medeiros; standing – Sergio Eraldo de Salles Pinto, Oscar de Paula Bernardes Neto, Luís Ermírio de Moraes, and Cláudio Ermírio de Moraes

Companhia Brasileira de Alumínio (CBA) was adversely impacted by the low demand for aluminum in the domestic market, but good international prices ensured better results than in prior years.

On the other hand, the cement industry saw a decrease in demand in Brazil for the third consecutive year, with the cumulative drop reaching nearly 28% in three years, according to data by the Brazilian cement association SNIC. In this scenario, Votorantim Cimentos has relied upon its geographic diversification strategy—with good results in North America, Europe and Africa—and cost structure rationalization to boost its performance.

At Votorantim S.A., we remained disciplined in how we allocate capital. We influenced our investees into selling non-core assets—such as the cement units in China, Chile, and the U.S.

states of Florida and California—and prepaid some debt facilities. In early 2017 we also entered into an agreement to merge Votorantim Siderurgia's and ArcelorMittal's long steel operations in Brazil in exchange for a minority interest in the new company.

On the governance front, we have taken on a series of initiatives to improve our internal controls and compliance, including the Compliance Week event to discuss ongoing issues and reaffirm our stance to companies' leaders. Our governance level is very mature and in line with the best practices of publicly-held companies, even though several of our businesses, including the holding itself, are privately-held companies.

In January 2018, we celebrate Votorantim's 100th anniversary. In the upcoming years we will further focus on new technologies and dis-

ruptive business models to ensure our investees remain competitive, leading to our company's perpetuity.

One century ago we were born a textile company that has ever since evolved into a huge industrial conglomerate, and more recently into an investment holding company with a long-term vision. During this first century of life, we have kept up with the changes in the business universe and we are ready to continue to grow in a structured manner and perpetuate our businesses, supporting our investees, always based on clear stewardship standards. The entrepreneurial mindset is in our DNA, and we know it is key for perpetuating our business and paving the way for the next 100 years.

Raul Calfat

*Chairman of the Board of Directors
Votorantim S.A.*

100 years ahead

[GRI 102-14]

We reaffirm our commitment to doing business respecting the legacy that has brought us this far—we create value with social and environmental responsibility, contribute to people's development, and anticipate the demands from society

We closed 2017 celebrating the fact that we managed to rise to great challenges posed in a year when the Brazilian market was significantly impacted by political instability. Companies operating in the country faced stagnation or retraction in their industries, foreign exchange volatility, and the absence of significant advances in the passing of economic reforms.

During this period, at Votorantim we focused on what we can control—value drivers, measures to gain efficiency and cut costs, and getting even closer to our clients so we can be part of the solutions to their problems. To that end, our companies have innovated processes, services and products.

Focusing on what we can control coupled with the good performance of metal commodities positively impacted our consolidated results—we managed to go from a net loss of

over R\$1 billion in 2016 to a net profit of R\$810 million; our net debt/adjusted EBITDA ratio, which had remained close to 4.00x throughout the year, closed 2017 at 2.60x. Our financial management was prudent as usual, and we maintained a robust

Focusing on what we can control and on process, service, and product innovation positively impacted our consolidated results

cash position and an extended debt amortization schedule.

Even in a turbulent year, we moved forward because we had planned in advance. We kept the investments that had already been approved, and our credit metrics converged to adequate levels. We also saw important developments in our portfolio in 2017; the highlights were the joint venture between Votorantim Energia and Canada's largest

pension fund CPPIB for investments in renewable energy, Nexa's IPO in the U.S. and Canada, and the expansion of Fibria's pulp mill in Três Lagoas (state of Minas Gerais).

Our investees' leaders have been paying attention to the faster-paced changes in technology and how they can radically transform our businesses in the near future, both in terms of opportunities and risks.

Our portfolio of investees mostly concentrates on basic industries, and they continually invest in innovation and are aware of how digital transformation may impact their activities. We believe digital innovation and deep knowledge of our businesses will drive our companies' competitiveness.

In addition to digital transformation, human expertise will always be an edge, and we will continue to invest in our people, encouraging their development. We believe the human



EXECUTIVE BOARD. Left to right, back – João Schmidt, Sergio Malacrida and Luiz Marcelo Fins; front – Luiz Caruso and João Miranda

factor will always be the key capital of any company.

Our leaders' vision of innovation adds to another commitment we reaffirmed in the year of our centennial: we do business respecting the legacy that has brought us this far.

On our journey, we have incorporated the way we do business into the Votorantim DNA—we contribute to people's development, create value with social and environmental responsibility, and anticipate the legitimate demands from society. We take these matters into consideration in all investment decisions we make, because this is how Votorantim does business.

In our first centennial, we chose Education and the exercise of Citizenship as the themes of our celebration.

We believe quality education transforms society. Two years ago, we substantially increased our investments in education through a

Votorantim Institute program called Votorantim Partnership for Education (PVE), which has effectively helped improve public school stewardship in the cities where it was adopted. The PVE program stays four years in each city and improves the Basic Education Development Index (IDEB) by up to 45%. In 2017, we increased the number of cities in the program from 17 to 51; in 2018, we will reach more than 100 cities.

The year 2018 may become a milestone in Brazil's recent history. The country will hold general elections after almost four years of fiercely fighting corruption.

As one of the largest privately-held companies in Brazil, Votorantim believes a company can and should have a voice in issues that matter most for society. We have therefore decided, as a non-partisan entity, to advocate for voter awareness in 2018, because we understand voting is the most effective and democratic

way for citizens to express their desire for change and support the causes they believe in. This is acting as a socially responsible business, and this is what we believe in.

In these first 100 years, we have managed to adapt to different crisis scenarios and navigate out of each one of them in stronger shape. Our portfolio of companies has gone through transformations, our culture has evolved, and we have preserved our corporate DNA.

In the next 100 years we are confident that our company will continue to adapt even in an increasingly more complex and ambiguous scenario, and we will continue to help build a fairer, more ethical and inclusive society.

Votorantim will keep on doing its part.

João Miranda

CEO

Votorantim S.A.

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Votorantim S.A.

Building on our own history to perpetuate operations in an ever more volatile world

We are an investment holding company with businesses in key economic sectors in Brazil and 19 other countries. By the end of 2017, our investment portfolio was highly diversified both in terms of geography and industries—cement, mining, smelting, long steel, pulp, orange juice, electric power, and finance. Our investees serve clients in several different segments, from financial service customers to large manufacturers. **IGRI 102-2, 102-4, 102-6**

We have evolved from a textile company to a conglomerate of businesses, and today VSA is

the investment holding company in charge of allocating capital. **IGRI 102-9**

We closed 2017 with consolidated net revenue of R\$27.2 billion, and consolidated adjusted EBITDA of R\$4.8 billion. Globally, our businesses directly employed more than 40,000 people, in addition to over 20,000 contractors working in 536 operating and administrative units. Our assets include the largest private Atlantic Forest reserve in Brazil—Legado das Águas/Reservas Votorantim, a 31,000-hectare area in the state of São Paulo—and another 31,000-hectare reserve in Goiás (Legado

Verdes do Cerrado). **IGRI 102-7**

As an investor, we keep a low number of employees (147) at VSA's headquarters in São Paulo, working in the Innovation, Sustainability, Communication, Legal, Human and Organizational Development, Financial Management, and Governance, Risks, and Compliance areas. We also manage investments made by the Ermírio de Moraes family, the controlling shareholders of VSA. 671 other employees work for our Center of Excellence (CoE), which has units in the cities of São Paulo and Curitiba in Brazil, and in Lima, Peru. **IGRI 102-3**

IGRI 102-2



A century of history

1918 – The beginning: Antonio Pereira Ignacio, a Portuguese immigrant, acquires the bankruptcy estate of Banco União, which included, among other properties, a fabric factory near the city of Sorocaba, in the state of São Paulo. Votorantim is born under the name Sociedade Anonyma Fabrica Votorantim.



1936 – Cement: Inauguration of the Santa Helena plant near Sorocaba, São Paulo; this is the first cement unit built by Votorantim, and takes the Votoran brand to the market.



1937 – Long steel: Beginning of operations of steelmaker Siderúrgica Barra Mansa in the state of Rio de Janeiro, at a time when the Brazilian industrial activity was undergoing diversification.



1955 – Aluminum: Companhia Brasileira de Alumínio (CBA) was set up near Sorocaba, São Paulo, which became a milestone in Votorantim's history.



1957 – Electric power generation: Inauguration of the first hydroelectric power plant—the França unit on the Juquiá River, in the Ribeira Valley region (state of São Paulo). The plant serves CBA and was the first of seven units built in the region over three decades.



1969 – Zinc: Beginning of operations of Companhia Mineira de Metais, Votorantim's first zinc producer. With units in the cities of Vazante and Três Marias, in the state of Minas Gerais, the first activities are dedicated to producing electrolytic zinc.



1988 – Pulp: Foundation of Votorantim Celulose e Papel (VCP), which consolidated its position as a player in the market with 80,000 hectares of eucalyptus forests in the state of São Paulo.




1989 – Orange juice: Beginning of operations of Citrovita—producer and trader of orange juice and byproducts—with a manufacturing unit in the city of Catanduva and a company-owned orange farm in the city of Itapetininga, both in the state of São Paulo.

VOTORANTIM S.A. AT A GLANCE

 **100%**
LOCALLY OWNED

 **818**
EMPLOYEES

 **41% MEN**
59% WOMEN

 **8** INVESTEES

 **1** CENTER
OF EXCELLENCE

PORTFOLIO

 **536**
UNITS

 OPERATIONS IN
20 COUNTRIES

 **40.922**
EMPLOYEES

Votorantim DNA

IGRI 102-16, 102-271

We have transcribed our best practices developed over the years into a document we call Votorantim DNA, which is based on:

- **Values and beliefs** – the way we are and how we act
- **Governance principles** – the way we manage our companies
- **Stewardship pillars** – what we focus on for managing our companies

Over the last few years we have accelerated our transition into a long-term investment holding company able to consistently yield superior financial returns while making a positive social and environmental impact. We have considerable leverage with our investees as we have representatives in their boards and advisory committees who help disseminate and preserve the Votorantim DNA.

Each business is unique and

has its own idiosyncrasies. Therefore, the investees themselves set their own targets and strategic planning, and make their own day-to-day decisions. Our role is to influence their strategic, sustainability and innovation-related decision-making—and keep on fostering new businesses.

In 2017 we completed the transition of the activities that were still managed by Votorantim S.A. to the investees, increasing their autonomy and allowing them to see their businesses from a broader perspective.

We are very proud of celebrating 100 years of history. Few Brazilian companies have reached this milestone. Looking back, we have learned the future happens at the right time if we constantly foster innovation; the right way if we responsibly manage the social and environmental impacts of our businesses; and with the right people, i.e. inspiring and influ-

Our **legacy** to society

Centennial celebration's activities and campaigns reflect our beliefs and commitment to the country

When planning for the celebration of our 100th anniversary in early 2018, we deeply reflected on what could be our most significant contribution to society. Two years ago we discussed with our shareholders and leaders about how we should celebrate our centennial and what legacy we would like to leave to the country.

These discussions considered the way we do businesses and the commitments we have made throughout our history. One of them is to Brazil's development—we pioneered some sectors where we operate, several cities were built and grew around our opera-

tions, and we created tens of thousands of quality jobs.

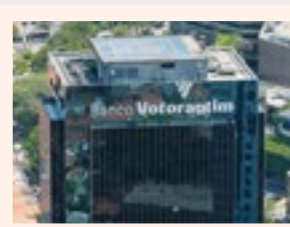
Our commitment to Brazil has led us to choose Education as a legacy, not only because there is a huge educational deficit in the country but also because quality education is the bedrock of a fairer and more egalitarian society, one that creates more democratic opportunities for individual growth. It is education that empowers new generations, broadening their repertoire and making them aware of the importance of exercising citizenship. It is the key driver of a better future for all.

With that in mind, we increased our investment in the

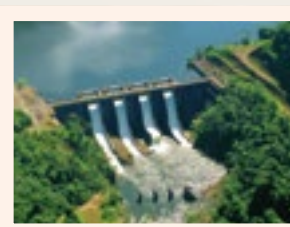
SIX GENERATIONS

Votorantim's founder, Antonio Pereira Ignacio, migrated as a child from Portugal to Brazil, where he built his life and laid the cornerstones for our businesses. He had two sons and a daughter; but early in the 20th century he chose his son-in-law José Ermírio de Moraes as his successor, in what would be later known as meritocracy. A son of sugar producers from Pernambuco, José diligently pushed the businesses forward into different areas of operation.

Today, Antonio Pereira Ignacio and José Ermírio de Moraes are considered the family's first and second generations, respectively. The family currently has more than 140 members—out of which 34 are shareholders—and is in its sixth generation. (See [page 22](#) in chapter "The right way" for further details.) ▼



1991 – Bank: Banco Votorantim—previously a securities broker created in 1988—starts offering capital investment and funding services to external clients.



1996 – Energy: Foundation of Votorantim Energia—company dedicated to managing Votorantim companies' energy assets and providing them with energy management and energy efficiency solutions.



2001 – Internationalization: We took our first step towards internationalization with the acquisition of cement manufacturer St. Marys Cement in Canada. Today, we have operations in 20 countries.



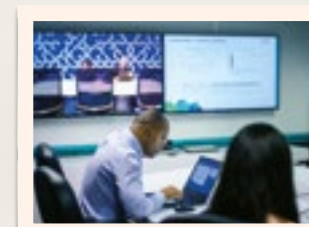
2001 – Corporate governance: We implemented a new governance model where family controlling shareholders can only be members of the boards of Votorantim S.A. and investees.



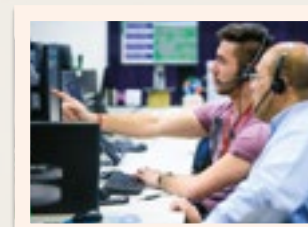
2002 – Votorantim Institute: Votorantim Institute is created to be a social strategy hub for our portfolio companies, aiming to bolster the outcomes of external social investments made in the communities where we operate. Today, the Institute operates out of 144 cities in four countries.



2004 – Peru: Votorantim Metais, now Nexa Resources, acquires the Cajamarquilla refinery in Peru, raising the zinc production by 67% and marking the beginning of our mining and production activities in the country.



2004 – CSC: Set-up, in the city of Curitiba, of the Shared Solutions Center (CSC)—a service excellence center in the areas of accounting and controllezhship, among others. In 2017, it was merged into the Center of Excellence (CoE).



2007 – IT Governance: The Information Technology Proficiency Center (CCTI) is set up with the goal of seeking synergies and enabling economies of scale in IT systems and infrastructure management. It owns one of Brazil's largest ERP operations. In 2017, it was merged into the CoE.

DEVELOPING LEADERSHIP

18.18

The 18.18 Program has been driving transformation at Votorantim, helping us plan our next 100 years. The idea is to make our companies leaders in implementing new models that meet new market demands; to systematically align our purpose for and vision of the future; and to foster environments, behaviors and processes that bolster collective intelligence, considering each of our businesses' scenarios.

The theme for the program's first activities in 2016 was High Performance Culture, and we discussed autonomy and innovative behaviors through inspirational work and governance models. In 2017, the theme was Emerging Technologies and New Consumption, Production and Interaction Standards, and it brought the technological

challenges of the future to our day-to-day operations. (See [pages 35 and 18](#), in chapters "With the right people" and "At the right time" for further details on these two themes.) Employees can access the program's platform at

www.votorantim1818.com.br

and through the mobile app. Both interfaces enable access to articles, podcasts and videos that help our employees stay connected to future trends and disruptive moves in the business scenario.

The visual identity of the program reflects its goal: the first "18" is filled, referring to the first 100 years of Votorantim's history. The second "18" remains unfilled, meaning we are yet to build our next 100 years. ▼

Votorantim Partnership for Education (PVE) program of the Votorantim Institute; 17 cities were in the program in 2016, figure that rose to 51 in 2017. In 2018, we will have over 100 Brazilian cities participating in the program as a token of our centennial. The PVE operates through consulting firms specializing in public primary education stewardship, providing tools and training to the technical body of the cities' departments of education. In the cities where it has already been implemented, the program improves the Basic Education Development Index (IDEB) by up to 45%. The program stays for up to four years in each city to ensure the achievements consolidate. (See [page 33](#) in chapter "The right way" for further details and the program's outcomes.)

In addition to Education, we will foster the exercise of Citizenship in the year of our centennial, considering that 2018 is also a milestone for the Brazilian society—the country will hold general elections for the first time since the fight against corruption gained momentum.

We believe voter awareness is the most democratic and legitimate tool for political transformation, and we will support this exercise of citizenship in a non-partisan way, focusing on our internal stakeholders as potential engagers of other social actors.

Throughout our history, we have always respected the institutions, and we believe this is a mandatory condition for doing business. This right way of doing business is in our DNA. We therefore have internal compliance policies and controls in place as well as an anti-corruption system that is adopted across all our companies. (See [page 24](#) in chapter "The right way" for further details.)

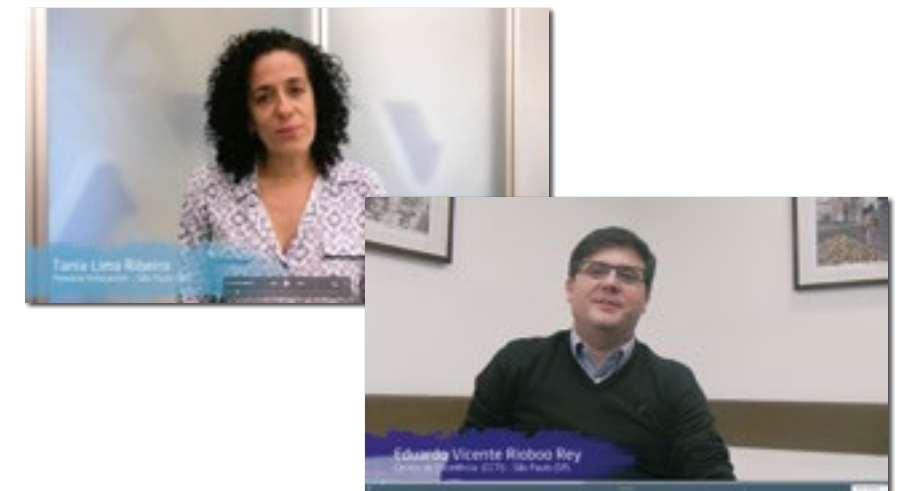
This is the legacy we want to leave to society in our centennial. The first step towards a better society is quality education for all, ensuring greater awareness for future generations. We believe a prosperous country cannot be built without the participation of all social agents, starting with choosing good government representatives through vote. ▼

Inspirational videos

During our research to organize our centennial celebration, we came across some emblematic and inspirational stories from Votorantim's employees and from people whose lives have been positively impacted by our social projects. We made videos of some of these stories, such as the one from an employee who used to come to work with his father as a child and later fulfilled his dream of working

with us; or another employee whose grandfather and father worked at the same Votorantim unit.

We unveiled these stories to encourage people to share their own experiences. In 2017, our employees spontaneously shared over 100 stories with us. These videos and other activities relative to Votorantim's centennial celebration are available at www.votorantim100.com. ▼



2009 – Fibria: Fibria—the world's largest pulp producer—is created after the merger between VCP and Aracruz.



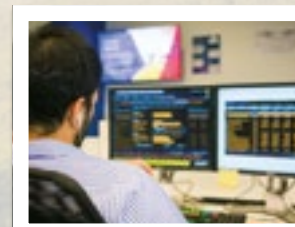
2012 – Citrosuco: Votorantim's Citrovita and Fischer Group's Citrosuco merge and create the world's largest orange juice producer. The new company keeps the Citrosuco name and is jointly controlled by Votorantim and the Fischer Group, each holding a 50% interest in the company.



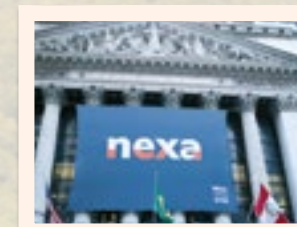
2012 – Legado das Águas: In partnership with the São Paulo state government, we created the largest private Atlantic Forest reserve in Brazil—Legado das Águas—protecting 31,000 hectares of forestland. The area has been protected since 1950 to secure water supply for hydroelectric power plants in the Ribeira Valley, São Paulo.



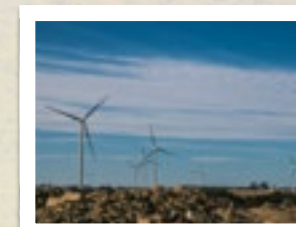
2014 – Real estate assets: The Real State Solutions Center (CSI) is created to manage Votorantim's real estate assets. In 2017, it was merged into the Center of Excellence (CoE).



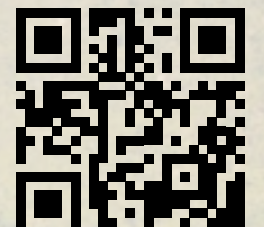
2016 – Portfolio management: We streamlined our holding structure with the creation of Votorantim S.A.—the investment holding company owning interest in our investees. VSA substituted our previous holding companies Votorantim Participações and Votorantim Industrial.



2017 – Nexa: Nexa Resources (previously Votorantim Metais) goes public in an IPO on the stock exchanges of New York, United States, and Toronto, Canada.



2017 – Energy platform: Beginning of wind farm operations in the Northeast of Brazil, and announcement of the joint venture between Votorantim Energia and the Canada Pension Plan Investment Board (CPPIB).



Check our full time line using the QR code above or at www.votorantim100.com

More **modern**, revamped logo

With a new look, logo translates Votorantim's aspiration towards setting corporate goals for next 100 years

What is the Votorantim we want for the next 100 years? Searching for an answer to this question, we realized something: we had to go a step further. Take a step towards the future. In order to do so, we would have to rise to two challenges: prepare our brand to foster value creation and decide what the relation would be between the institutional brand and our investees.

We interviewed more than 50

shareholders, executives and board members, in addition to journalists, investors, clients and suppliers. We also spoke with over 3,000 employees in Brazil and abroad to find out what our essence is.

This research resulted in a new logo: VOTORANTIM is now written in all capital letters, designed with exclusive typography and a new shade of blue that makes it even more lively and striking. Our own typography will also

be used in the logos of our investees, creating a unique visual identity and serving as endorsement of our brand.

Everyday we strive towards a future that innovates, influences, transforms; a future we shape. This is why we believe we can create a future based on the decisions we make today, paying close attention to the present. Our vision embeds a sense of continuity and reflects a real future of practical, attainable and sustainable results. ▼

TODAY, TOMORROW, AND ALWAYS |GRI 102-16, 102-17|

The future we shape happens:



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 the different sectors and countries where we operate.



The right way

For us, there is only one way of doing things: 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 more 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. ▼



Panel during the
Innovation Day: innovation
is the watchword
at the CoE

Innovative mindset

Betting on digital transformation, fostering culture of innovation are key for shaping future

One of our key goals is to include the innovation factor in our high performance culture, because we believe this is the best way to perpetuate our businesses. Our role is to foster this initiative in all departments and all our investees.

In 2017 we merged the operations of the Shared Solutions (CSC), Real Estate Solutions (CSI), and Information Technology Proficiency (CCTI) centers into the Center of Excellence (CoE), which has become even more specialized in providing integrated solutions for demands shared by our investees, capturing synergies without losing sight of the

specific needs of each operation. The goal of the CoE is to deliver products and services at a competitive cost (*find examples of projects and initiatives carried out during 2017 on the following pages.*)

At the CoE, innovation is the watchword. Our multidisciplinary team meets every week to discuss this theme. Last November we held our first Innovation Day with the mission of bringing more than 500 employees closer to startups, universities and research centers, who were invited to talk about what they do best: new technologies, 3D printers, robotics, etc.

The idea is to translate innovative ideas into innovative actions.

Throughout 2017, we carried out several educational activities, including 16 workshops, and the 150 seats available for enrollment were filled in less than one hour. 88% of the employees of the CoE participated in the initiative that featured:

- 3 panels, with nearly 400 participants
- 12 stands for startups
- 154 innovative ideas introduced by professionals—one of them was chosen for a pilot project during the Innovation Day
- 3 pilot projects with startups at the CoE: Overmediacast (videobots), Cedro (chatbots) and Aquarella (tax and analytics)

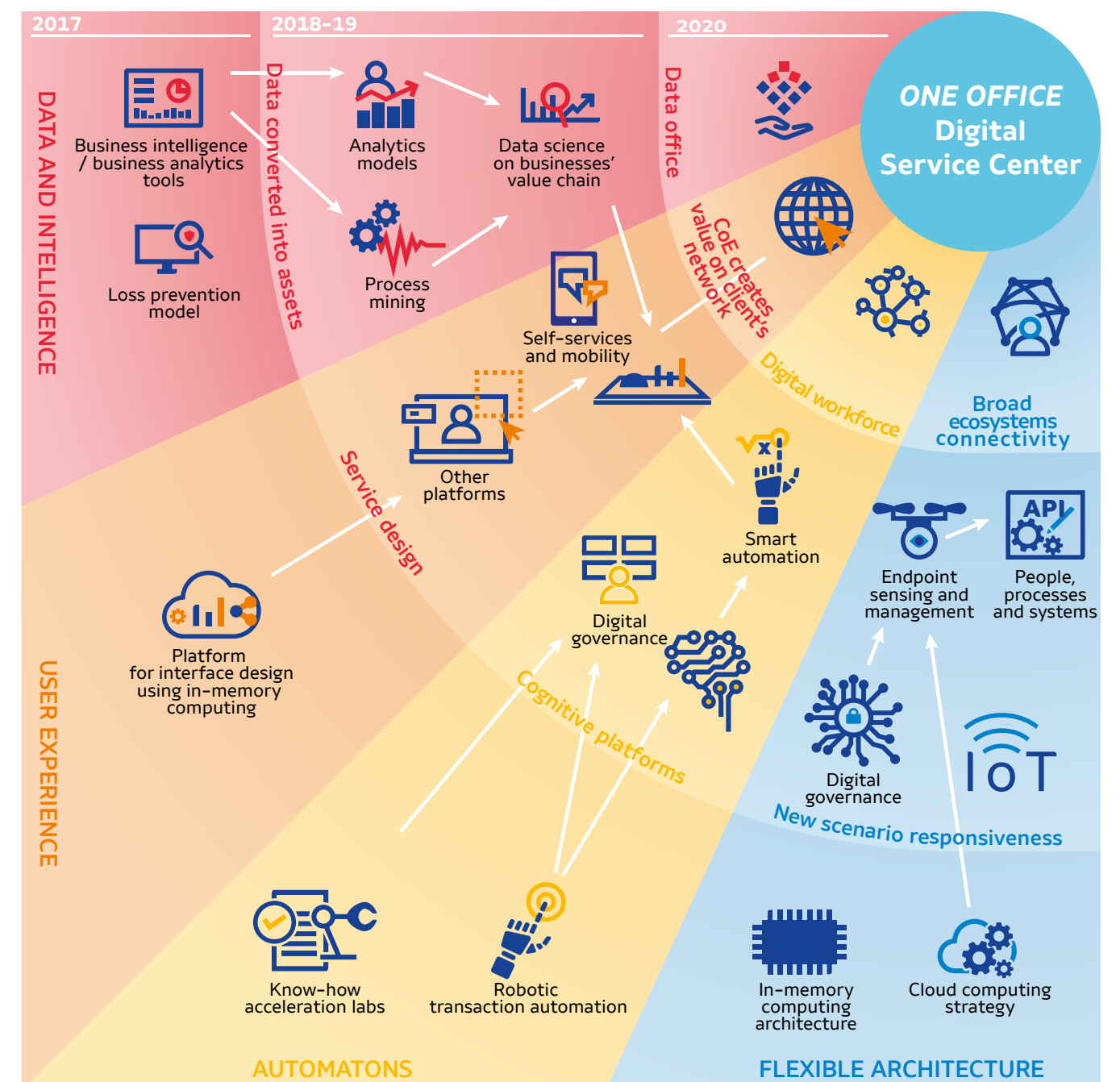
One of the CoE's attributions is to be a catalyst for the digital transformation of supporting services to our investees. We continually challenge ourselves; we are always seeking ways to improve our businesses and what we need to

develop to get there. This process has led us to design a roadmap for the next three years (*see infographic below*), based on what is most prominent in the market in terms of digitization, involving concepts and technologies, startup ecosystems,

artificial intelligence, etc.

Our greatest challenge is doing business in a world where disruption is increasingly more normalized. We are confident that our digital transformation is taking place at the right time and through

DIGITAL TRANSFORMATION AT THE CoE



suitable technology. In 2017, the CoE invested in robotics. Machines are faster and make fewer mistakes, increase productivity and capture synergies at all investees, paving the way for us to open new jobs that require more sophisticated skills in the future.

Voto Talks

Voto Talks is a VSA initiative where investees engage to create a critical mindset around the culture of innovation, making more people aware of the top matters in this field. We held four Voto Talks editions in 2017—two at our headquarters in São Paulo, one in Curitiba, and one at Votorantim Energia, also in São Paulo. At the Curitiba event, 170



Presentation at Voto Talks: yielding insights

employees watched the live presentation. The idea is to bring about a change of pace for employees, yield

insights, and encourage discussions about themes that matter for the businesses. ▼

THE IMPACTS OF EMERGING TECHNOLOGIES

In April 2017, we held the Tech Fair to introduce our employees to the latest technological innovations in the market. Our goal was to showcase the evolution of various emerging technologies and their tremendous impact on businesses and society. In all, 20 companies

gave 42 talks featuring 33 projects or technologies. Nearly 3,000 employees and guests attended the event and were able to interact with prototypes and learn more about projects developed by startups, top innovative companies, and

Votorantim investees. Free to enter and open to the public, the Tech Fair was one of the activities in our 18.18 Program, which bolsters new opportunities for our organization's continuity over the next 100 years. ▼



More than 3,000 people visited the Tech Fair in April 2017

Monitoring large areas

The Smart Territories Challenge was an open-innovation project run in partnership with the 100 Open Startups platform, and led by the CoE's Innovation teams and Real Estate Solutions Center. This project's goal was to explore new solutions and technologies for monitoring large areas, inspecting transmission lines, mapping data on the use and occupation of land, etc. We also selected

services that could be provided to our investees relative to their territories and that delivered synergy and scale. 38 of the 55 startups that applied for the challenge were preselected for being in compliance with the theme, and nine of them were selected for a demo day at Votorantim. By the end of the year, four were already developing prototypes for the projects.

The Challenge is part of a strategy we set in motion two years ago: evolving in the management of our assets. Inspecting transmission lines and farmland, for example, used to take two to three weeks; using drones, though, we realized it could be done in just a few days and with greater accuracy and effectiveness. It would also minimize work safety risks, as employees would no longer need to inspect the whole line. ▼



Innovation: drones reduce inspection time and increase accuracy

Accelerated revitalization at Vila Leopoldina

Cities are ever-changing organisms. With that in mind, in 2017 we moved forward with our plans to revitalize a 300,000 square meter area surrounding our properties located in the Vila Leopoldina neighborhood in the city of São Paulo, which has been faced with the paradox of development combined with urban and social degradation for years. Our Urban Intervention Program (UIP) has evolved based on studies

and modeling; we have engaged with the local government and other local stakeholders to implement a broad agenda of interventions of public interest. The positive impact of the program has also increased:

- breathing new life into the neighborhood—over 1,800 employees and new occupants in one of our properties
- promoting art and engagement—walls were painted by youngsters

from neighboring communities ■ adding new plans for renovating existing buildings, creating new public and private spaces that attract visitors and create income and jobs

The scale and complexity of this project demand long-term planning, but we are very responsive in seeking to make it viable. ▼

Evolution in governance

[GRI 102-27]

With investees responsible for operations, our role is to lead the way, allocate capital and preserve our DNA

Our work structure is very clear. We are a private family company that has been managing a business portfolio since 1918. Designed in early 2000, our governance model has been enhanced over time. We have recently increased our investees’ autonomy to enable more in-depth discussions and faster decision-making. Through this process, we realized we should explicitly separate our governance and controlling structure into three spheres: [GRI 102-5, 102-18]

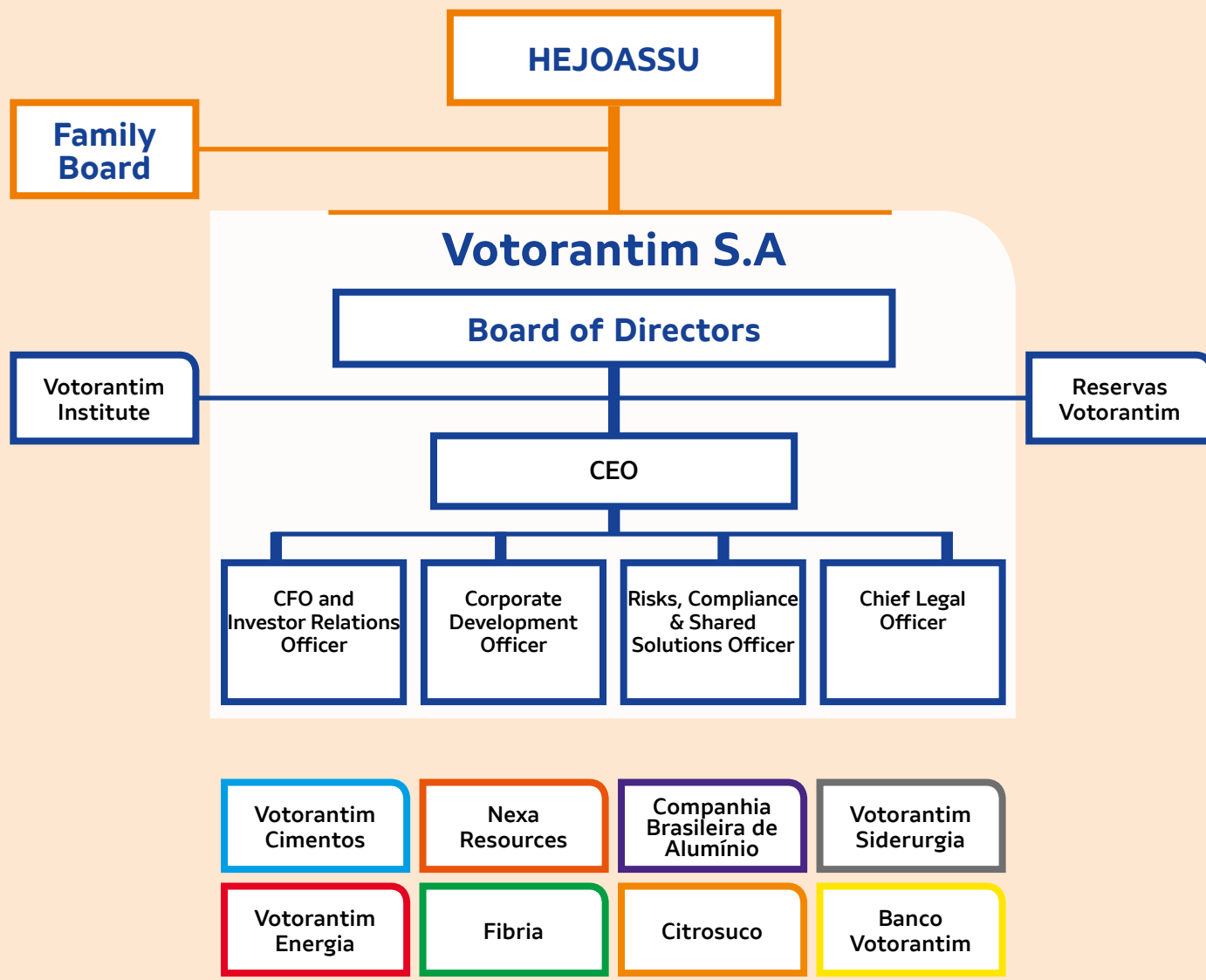
Ownership – The Hejoassu holding company is our core governance body. Its board gathers shareholders representing four family holding companies.

Family – Currently in its sixth generation and with over 140 members (34 of which are shareholders), it is represented by the Family Board, formed in 2001. This board has seven family members—currently five women and two men—including spouses, representing the family’s fourth and fifth generations. (See the box below to learn more about the Family Board.)

Businesses – This is the governance sphere where the Board of Directors of Votorantim S.A. operates. By the end of 2017 and following a restructuring, it had seven members—one chairman who exclusively serves this function, three family

shareholders and three independent members. Day-to-day business is managed by the Executive Board, which in 2017 had one CEO and four officers. [GRI 102-23]

Each investee has a board of directors responsible for strategic planning and business execution, and for approving the necessary investments for meeting strategic goals. Members of these boards include directors and officers of Votorantim S.A.; at Fibria, Votorantim Cimentos, Companhia Brasileira de Alumínio, Nexa Resources and Banco Votorantim, the boards also have independent members.



Values inspire the family

The Family Board’s strategies involve developing, supporting and forming sustainable leaderships and shareholders for family and business succession at Votorantim, while preserving the family’s legacy and values. It is responsible for managing the business information flow among family members, and for communicating family decisions and relations.

On the occasion of Votorantim’s centennial, the family reviewed its Values and committed to remaining united in its investments and to ensuring the company’s perpetuity. Revisiting the past and Votorantim’s history, the family has found new inspirations to define our values for the present and the future:

- Integrity
- Generosity
- Impact
- Courage
- Unity
- Passion

BOARD MANDATES

Ownership – Hejoassu:
Sets out long-term guidelines and shareholder investment targets, and oversees the group’s financial policy, risks, and talents. It is also responsible for watching over Votorantim’s culture and DNA.

Family – Family Board:
Responsible for the development of family members, for communication among members, for protecting and guarding the family’s legacy, and promoting family integration.

Business – Votorantim S.A
Ensures compliance with the guidelines set out by Hejoassu, manages the business portfolio and capital structure, and sets out the policies to be adopted by VSA and its investees.



Compliance Week: engagement and awareness of ethics and integrity issues

Ethics as a core value IGRI 103-2, 103-3

Our relations with internal and external stakeholders are clear and transparent

Ethics is one of the values that have always governed our way of doing business. Our Code of Conduct is a modern, live document that is continually updated with examples (ethical dilemmas and controversial issues) that are specific to our fields of operations. The last edition was published in 2016 and is aligned with both the Brazilian anti-corruption law and the provisions in the For-

eign Corrupt Practices Act (FCPA), whose purpose is to fight transnational corruption by individuals or businesses that have any relation with the United States.

Third-party due diligence

We try our best to influence our business partners and ensure their compliance and integrity while they work with us. To that end, we have a strategy

in place to make our negotiations safer. The first step is to ensure their awareness. All suppliers receive a video explaining integrity is non-negotiable for us: We do not accept any type of corruption and we expect the same from them.

IGRI 205-2

The second step is a more proactive approach to monitoring the integrity of business partners seeking to do business with Votorantim. We vet

the suppliers of our subsidiaries and Fibria, revising each vendor onboarding and applying a specific checklist of integrity issues. We assess them for involvement in lawsuits, independence from the government, political exposure of executives or relatives, issues relating to possible acts of corruption, and their practices regarding health and safety, slave labor, and environmental issues. This system is managed by the CoE and relies on a risk curve that triggers system warnings to the contracting department and escalates the issue to the appropriate functions. Our goal for 2018 is to extend this control system to all contracts.

The departments that transact with high-risk suppliers can now access the Compliance team and request that due diligence be performed for the relevant third party.

Resilience testing

In 2017 we started testing our employees on resilience issues, based on our anti-corruption policy. Before that, they would be trained on the theme and do a test. We have inverted this process, which now starts with the test presenting some ethical dilemmas (day-to-day cases to measure how inclined the person is to not comply with what we expect them to), and subsequently the employee undergoes training.

To continue the work we began in 2016, we provided on-site training in 2017, in-

cluding a week dedicated to compliance issues—this involved the top management of all our investees.

Donations and sponsoring

In 2017, we designed a new model to organize, analyze, and decide on donation requests made to Votorantim S.A.. All requests are reviewed by our Compliance and Legal departments. Through the new model we verify whether the government agency has issued a public call and if the potential donation is in line with our social strategy. The same applies to requests made by individuals and associations or non-governmental organizations.

Government Interaction Record

Another project that reaffirms our commitment to doing things the right way is our Government Interaction Record (RIG). Devised by our Government Relations and Compliance departments and implemented in 2017, the RIG documents and ensures transparency in all interactions between our employees and government agencies, including government-controlled companies.

Loss prevention

Throughout 2017, we developed a loss prevention algorithm at the CoE to increase efficiency, reduce errors and prevent fraud by monitoring all purchase and sale transactions

COMPLIANCE WEEK

For the first time, we held a week of compliance-related activities in allusion to the International Anti-Corruption Day (9 December). Executives of the holding company and of all investees attended lectures and debates about anti-corruption laws, including international examples and other relevant themes. Among the speakers were State's Attorney Rodrigo de Grandis and Federal Inspector General Antônio Carlos Vasconcellos. Activities were also organized at each investee to discuss themes such as digital compliance, trade compliance, compliance culture, donations, etc. Our goal was to engage our employees on and raise their awareness of ethics and integrity issues. State's attorneys Deltan Dallagnol and Carlos Fernando dos Santos Lima closed the thematic week speaking at the CoE in Curitiba. ▼

online. Before the new algorithm, the purchase and sale process could have flaws as it involves different departments, activities and people.

We were the first company to use this system—which is widely adopted by banks and credit card issuers—in the manufacturing industry. The system's algorithm identifies trends in real time and warns about possible errors based on a "fraud library". We adjusted the system's parameters in 2017, and beginning in January 2018 we will have customized solutions for each investee. ▼

Calculated **risk appetite**

Impact scale classifies risk as low, medium, high or critical

[GRI 102-20, 102-15, 103-2, 103-3, 102-11]

In line with international risk management standards, Votorantim's risk appetite model is informed by research and established by the Board of Directors. The model—reviewed on a yearly basis—is based on core financial indicators and is a key development in our portfolio risk analysis. The risk appetite value is the benchmark against which tolerance levels are determined for an impact scale that classifies risks as low, medium, high or critical.

Our risk appetite model is

being replicated for each investee, using the same method but considering their own financial and business indicators. The model has to be approved by each investee's board. This model supplements another process we have been continually improving: in 2016 we reviewed our risk and compliance practices and designed an in-depth roadmap for quantifying risks and triggering risk governance.

This approach has a financial bias but also considers the

aspects we have been including in our risk analyses since 2013—environmental, image, reputation, social impact, health and safety, and corruption factors, etc. It uses as quantitative rationale to inform a qualitative discussion.

VSA's board discusses business risks at least twice a year. Each investee assesses its own business risks more frequently, including social-environmental risks, and submits its analysis to its relative board at least twice a year. ▼

FROM ANALYSIS TO INVESTMENT



Our concern for the environment dates back to our foundation, and we will improve our environmental performance even further

Preserving the environment: stewardship is part of our history

We are committed to managing and reducing any adverse impact of our investees' operations regarding resource use (water, energy, materials), interference in biodiversity, and emissions. **[GRI 102-15]**

Each investee is responsible for the stewardship of its specific environmental factors in its day-to-day operations, and has teams specializing in each factor. Water and energy consumption, and emissions indicators for all investees are con-

solidated in the online version of this report (GRI indicators). Each investee's report provides details on its specific impacts and the main environmental programs developed to address these issues. ▼



Fauna and flora: the Cerrado is home to traditional activities but also to the new economy

Beyond conservation

Reservas Votorantim manages Legado das Águas and Legado Verdes do Cerrado, areas where biodiversity is core asset

One example of our historic commitment to the environment was the acquisition of several hectares of forestland in the Ribeira Valley, in the Southern São Paulo region, between 1920 and 1950, where we installed seven hydroelectric power plants that serve Companhia Brasileira de Alumínio (CBA). Almost one century ago we were already concerned with conserving

the area and ensuring water availability.

In 2012, a partnership with the São Paulo state government made it possible for us to create the largest private Atlantic Forest reserve in Brazil—Legado das Águas—protecting 31,000 hectares of forestland spanning across the cities of Juquiá, Miracatu, and Tapiraí.

Commercial operations started in 2017 under Legado das Águas's foundation docu-

ments. Classes and activities on the environment and ecotourism have been available in the reserve since 2016. Legado das Águas also sells native seedlings produced in a tree nursery covering 1,500 square meters—45,000 seedlings were planted in 2016 and 43,000 in 2017. The whole operation is managed by Reservas Votorantim, company founded in 2015 that also manages the Legado Verdes

TOURISM AND DEVELOPMENT

Based on biodiversity conservation, Reservas Votorantim has launched several initiatives to drive tourism and economic development in communities surrounding its reserves. Partners offer ecotourism package tours at Legado das Águas; throughout the year over 500 people went trekking and biking along the reserve's trails, and kayaking in the reservoirs along the Juquiá River. Reservas Votorantim also coordinates the Legado Experience: visitors spend the day in the reserve, and go trekking and birdwatching, take a boat ride and visit the orchid greenhouse and the tree nursery. Social engagement with local communities is supported by the local governments of Juquiá, Miracatu and Tapiraí, and involves



Kayaking on the Juquiá River: promoting tourism in the region

projects to enhance public stewardship and increase tourist interest in the region, which positively affects tax revenue and job creation. We have also partnered with universities to bolster research projects in biotechnology, plant DNA sequencing, bird and butterfly

watching, recreational fishing, and animal monitoring—including muriquis, or woolly spider monkeys, the largest primates of the Americas; cougars and snakes (over 80 different species have already been identified). Research is voluntary and not conditional upon any operational permit. ▼

do Cerrado, created in February 2017.

Legado das Águas offers us another opportunity, the compensation mechanism provided for in the Brazilian Forest Act enacted in 2008—producers that have not preserved part of the original area must compensate for land misuse. Because this can be done through other areas, we own 28,000 hectares of intact forestland allocated to compensation actions.

Such innovations in stewardship granted Legado das Águas the 2017 National Biodiversity Award by the Brazilian Ministry of the Environment; and the 2017 ECO Award for Process Sustainability by the American Chamber of Com-

merce, which recognizes companies that adopt socially-responsible practices.

Legado Verdes do Cerrado

In 2017, CBA entered into a partnership with the Goiás state government and created Legado Verdes do Cerrado—a private sustainable development reserve covering the largest stretch of preserved savanna in Brazil. Covering 31,000 hectares, the reserve is located in the city of Niquelândia, Goiás, near the Chapada dos Veadeiros National Park. The area has two hubs: the Engenho hub is a 23,000 hectare area that hosts Legado Verdes do Cerrado's headquarters and new econo-

my-related activities. The other hub is the native tree nursery, which produced 40,000 seedlings during tests in 2017. The project also promotes scientific research of water resources, fauna and flora of the Cerrado; and environmental, ecotourism and apiculture activities. The remaining hectares are allocated to traditional-economy activities such as livestock farming, soybean production, and forestry.

Two other projects were also initiated in 2017 to recover water sources located outside our reserve; and we partnered with a public school to create a community vegetable garden incorporating the concepts of inclusion and eco-friendly construction. ▼

Climate-change awareness

Study to broaden knowledge of climate change and its impact on investees

In 2017 we started doing research on how we can increase awareness of climate-change and of its financial risks and opportunities for the current portfolio and future investment decisions. The scope of this study was assessed and determined based on the Carbon Disclosure Project's guidelines and databases; the Sustainable Accounting Standard Board's climate risk

bulletin; and the 2015 publication of the Task Force on Climate-related Financial Disclosure by the Financial Stability Board (FSB), which provides a framework for disclosures that support informed investments. Based on this study, our Sustainability and Corporate Development teams prepared our first Climate-related Risks and Opportunities report. [IGRI 102-151](#) In this report, we address

physical (acute and chronic) and transition (policy and legal, technology, market, and reputation) risks, as well as opportunities (resource efficiency, energy source, products and services, markets and resilience) for our investees. In this initial stage our main goal is to influence the companies and incorporate this new factor into the investment decisions of Votorantim S.A.. ▼



Drought: A physical risk addressed in our climate change report



Side by side with our communities

Activities prioritizing education and local development strengthen bond with communities

[IGRI 103-2, 103-31](#)

Given the nature of their operations, several investees have an impact on their territories. They usually become an important—or even the largest—local economic agent, driving job creation, and GDP and income increase. Sometimes they cause significant change in local urban policy, as operations tend to increase infrastructure use and create new demands. Local institutions have to be increas-

ingly stronger, more present and independent in order to drive positive and mitigate adverse impacts. This is why they build very close relationships with the communities and cities where they operate, and support initiatives primarily on education and local development. The teams in charge of sustainability and social responsibility-related themes at our investees implement social programs

supported by the Votorantim Institute and developed based on studies, consultations and assessments on each community's aspirations and needs, and on an analysis of the social and economic impacts of our operations. We want to bring lasting, substantial social benefits to our communities, creating more opportunities for development and an atmosphere that favors the sustainable operation of our businesses. ▼

Community relations: investees' initiatives are supported by the Votorantim Institute

Social intelligence

Votorantim Institute helps investees create mutual value



Social action: continually improving our social legacy

Founded in 2002, the Votorantim Institute reports directly to the board of Votorantim S.A. and its mission is to improve the social performance of our investees. In 2017, the Institute oversaw investments of more than R\$120 million in nearly 750 projects in Brazil, Peru, Argentina and Colombia—and directly managed the implementation of 156 of these projects.

One of the strategies pursued in 2017 was improving the social risk stewardship at four investees: Votorantim Cimentos, Companhia Brasileira de Alumínio, Votorantim Siderurgia and Votorantim Energia. Throughout the year, the Institute worked with executives from different departments (Sustainability, Operations, Risks, Logistics, Legal, etc) to understand existing processes and

social risks already mapped. It then triggered mitigation actions and worked to improve the investees' know-how and make them more mature regarding social issues in order to offer the best solutions in terms of cost and quality.

Votorantim Institute prefers the expression "social action" to "social investment" because it believes it is broader in meaning—and better reflects what it does. The Institute—being a technical adviser and supplier of social technologies—wants our investees to continually improve their social legacy. This requires addressing ways to minimize, mitigate and offset our activities' adverse impacts; and ways to create more value to society based on each business's processes, products and relations. The Institute does so by sharing specialized knowledge and technical capacity to design projects in such a way that investments always yield the best return.

IGRI 102-151 ▼

ACTION AND REACTION

When it comes to the social legacy of our businesses, the Votorantim Institute considers three impacts:

1) Value chain: Is our production chain sustainable? Do we create jobs for our communities and local suppliers? Do our operations promote women, disability, and racial inclusion?

2) Community: Projects focusing on community relations currently make up 80% of Votorantim Institute's portfolio. Their goal is to make sure our operations have a positive impact on territory development, therefore being welcomed and admired by local communities.

3) Products and markets: How can our strategies, and product and service portfolios in and of themselves create social value? This factor has been recently incorporated into Votorantim Institute's and investees' strategies, and we believe it will soon yield benefits given its high transformational potential and alignment with our business strategy. ▼

United in a cause

Cities in Votorantim Partnership for Education up to 51 from 17; over 170,000 students impacted

We have chosen Education and Citizenship as the theme for the celebration of Votorantim's centennial. The Votorantim Partnership for Education (PVE) gained momentum in 2017—the number of cities in the program increased from 17 to 51, and the number of schools, from 252 to 707. We already have more than 400 representatives of cities' departments of education, and over 1,000 principals and education coordinators involved in the program, which now impacts more than 170,000 students, directly or indirectly.






By strengthening stewardship and school management competences, and through social mobilization, PVE leverages the quality of education in the cities where it is implemented. Of the 53 cities that entered the PVE, 51 completed their activities—and 94% of these reported an evolution in the competences assessed. The Votorantim Institute administered two tests in each city to measure this result, one in the beginning and one by the end of the year. Over 6,000 questionnaires were responded by local education secretaries, educators, school principals, and community leaders. This methodology classifies each

competence using a four-level scale: fragile, ongoing consolidation, consolidated, and robust. We expect cities to gradually advance, and to reach at least the consolidated level in four years. To facilitate their development, the PVE offers local departments of education, schools and mobilization groups training on education-related matters.

The PVE has already been externally assessed for its impact on the Basic Education Development Index (IDEB). Based on data ranging from 2007 to 2015 and compared to all Brazilian cities, the PVE improves a city's IDEB by 38% for primary schools (grades 1–5) and by 45% for middle schools (grades 6–9).

PVE 2017 AT A GLANCE

We have closed the fourth cycle of the Votorantim Partnership for Education program. It is time to celebrate the year's achievements! Throughout 2017, we engaged teachers, students, local departments of education and communities. Some of PVE's numbers are as follows:

-  **51** cities in the program
-  **707** schools
-  **1,000+** school principals and education coordinators
-  **170,000+** students directly and indirectly impacted
-  **400+** public managers and educators from local departments of education trained in the program



A school in the program: assessment shows positive impact on education

ReDes Program

With the goal of fostering sustainable development, this program offers technical and financial support to bolster collective entrepreneurship, especially cooperatives, in the communities our investees operate. This program has been in place since 2010, as a partnership with the Brazilian Development Bank (BNDES). 30 businesses have completed the ReDes supporting cycle so far, 16 of which are considered fully sustainable.

Public Stewardship Support (AGP)

This program enhances local stewardship and qualifies public managers for broadening their role as local development agents in the cities where our investees operate. Created in 2012, in another partnership with the BNDES, it implemented 20 projects in 16 cities in 2017. The most outstanding project was that which assisted with the preparation of Multi-year Plans (PPAs) in eight cities, seven of which have established targets and drawn up stewardship contracts to govern de-

partments' works and make it easier for citizens to oversee them.

Volunteering Challenge

This scavenger hunt-like program involves our investees and the Votorantim Institute. Organized in teams, employees donate their time to any social and community initiative they choose and score points according to the actions carried out. In 2017, 50 Votorantim units participated in the program through 4,856 volunteers—including employees and community invitees—totaling 15,400 hours of volunteer work. ▼

EXAMPLES OF SOCIAL ENGAGEMENT

Below are some of the successful cases of community engagement by our investees.

- Because water is a scarce resource, continual improvement in water stewardship creates a tremendous social impact. At the Cerro Lindo mining field in Peru, for example, Nexa desalinizes seawater and pumps it to the mine, thus avoiding withdrawing water locally.

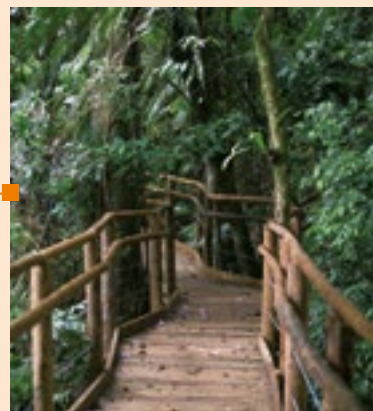


- Fibria's Territorial Rural Development Program has managed to engage the community to such an extent that even a few people who subsisted on stealing timber from the company have become partners and now protect the company's forests.

- A project to use babassu nuts as an energy source at the cement plant in Sobral, Ceará, has engaged the community for the creation of mutual value. In addition to cutting emissions and costs, this project creates income for families of gatherers.



- Reservas Votorantim uses the AGP public stewardship supporting tools to help local governments in the Ribeira Valley develop integrated tourism plans.



- The construction of Fibria's Horizonte 2 project in Três Lagoas, Mato Grosso do Sul, has been completed with no downtime whatsoever. That was possible because Fibria has built a very respectful relationship with all agents involved in the project.
- Citrosuco's program for the inclusion of people with disabilities, named Para Todos ("For All"), has transformed the company's culture.
- Nexa has set social agendas for local development based on the United Nations Sustainable Development Goals (SDGs). ▼



[GRI 103-2, 103-3]

Attracting and engaging talents, fostering our professionals' development, grooming successors

We believe what makes the difference is the human factor. This is why we always take our people into consideration when mapping out our strategies, enhancing our organizational culture, and working on perpetuating our business.

Our investees' leaders, in line with our values and beliefs, are responsible for attracting

and engaging talents, advancing our professionals' development, and planning their own succession. Our goal is to foster a high-performance culture that supports our strategic decisions and influences our investees through cutting-edge human capital practices.

Our Votorantim Development System (SDV) is a model that gathers a series of inte-

grated processes to foster, sustain and advance the development of our employees in three spheres: individual, team, and organization. Assessments and self-assessments help pinpoint positive performance factors and aspects that need further development, in addition to helping our employees build their own individual development plan.

Employees in our office in São Paulo: people make the difference in all our companies



Meeting at the CoE: engaged teams, focused on results

Another SDV process ensures our management, including executives, have a succession plan in place including potential candidates. Not only does it speed up job filling for key positions but it also ensures our executives are constantly networking with talents from our investees and the market.

Our people management targets are very clear: to improve work climate bearing in mind that our personal life and professional life are becoming increasingly mixed together, and to enhance experience and information sharing among different areas. This helps us ensure our people engage with the company, are happy with their jobs and deliver better results.

VSA and our investees employed over 40,000 people

globally—out of which 82% were men and 18% were women—and had more than 20,000 contractors by the end of 2017.

Internship Program

VSA's Internship Program in São Paulo's headquarters has become the front door for young talents, breathing new life into the workplace through new ideas and new ways of doing things. This new model also benefits our relationship with universities, connecting our company to a younger audience. Over the course of one year, internees have the best possible work experience through a close relationship with qualified professionals, and learn about our values and beliefs. In 2017, nine undergraduates were selected from

nearly 800 candidates to participate in the 2018 Internship Program.

We also offered our first intersession internship in 2017. The participants selected for this program were the winners of the Votorantim Experience Program in São Paulo's headquarters, carried out by the Potenciar 2016 group, where 16 students in the finance field were challenged to solve a real business case. These students were invited to spend one day at Votorantim S.A., where they got to know our business and interact with leaders and young employees.

Votorantim Academy

The Votorantim Academy is our department in charge of training and developing our professionals. In 2017, it widened its horizons to support our

high-performance culture. The Academy has become a hub, and its actions started focusing on connecting people, information and trends in order to foster the development of our employees and prepare them for future challenges. Changes were made in three spheres:

Format: More interactive and self-training activities, and fewer on-site classes, following the 70:20:10 learning and development model, according to which individuals obtain 70% of their knowledge from job-related experiences and practice; 20% from interactions with colleagues and leaders, and feedback received; and only 10% from formal education (classes, workshops,

etc.) Some training classes are taught by employees, who share their own knowledge and experience.

Content: Traditional management and technical themes are no longer emphasized; instead, themes are now more comprehensive and focus on today's demands from people and companies. Our training programs are now separated into three categories: Inspiration and Provocation, Personal Journey, and Votorantim DNA.

Scope: The activities used to be more focused on leaders, but are now available to all employees. In some cases they are also open to the public, in an attempt to democratize and spread knowledge.

VOTORANTIM ACADEMY'S ACTIVITIES

In all, 3,052 employees participated in the Academy's activities during the year, divided into 79 groups.



INSPIRATION AND PROVOCATION

2,569 EMPLOYEES IN 53 GROUPS



PERSONAL JOURNEY

450 EMPLOYEES IN 24 GROUPS



VOTORANTIM DNA

33 EMPLOYEES IN 2 GROUPS



Internship program: the front door for young talents



Potenciar group: training includes a business game

Potenciar

Potenciar is a Votorantim Academy program that recognizes, promotes and invests in our talents, fostering their learning through technical and behavioral training focusing on the company's strategy for processes, people and businesses. This program connects

these talents with new corporate trends, helping us transform our businesses. The 2017 edition of the program lasted 12 months, including four weeks of training and a business game that simulated the management of a company. 49 young employees participated in the program, including four from VSA. ▼

OUR ATTRIBUTES

Working at Votorantim means experiencing our attributes every day. We established our company's employee value proposition in 2016, and consolidated all the information we gathered during research for this project. By the end of this process, we realized our seven attributes are as follows:

-  Challenge
-  Embrace transformation
-  Impact
-  Top level employees
-  Learning
-  Commitment to excellence
-  Values

More brand ambassadors and Alumni

In 2017, we created a volunteer group of employees who deliberately see themselves as the key advocates of our attributes, especially when it comes to spreading the word at universities. We named this group of 29

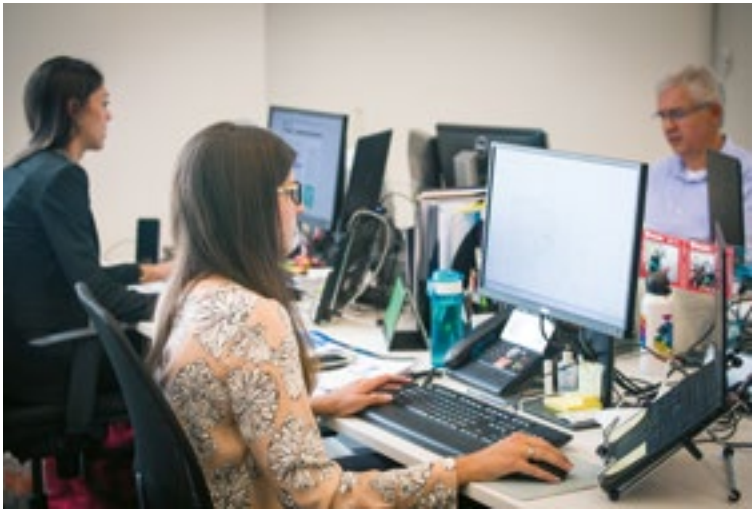
employees Ambassadors. They participate in events, company days, and initiatives involving college students. This initiative has positively impacted our hiring numbers: in 2016, 13% of new employees were hired following the

group's engagement with universities; in 2017, this figure rose to 15%. Our Alumni program has also gathered momentum. Its goal is to maintain a relationship with former employees or young talents that have participated in our

engagement activities. We started sending them newsletters with company information, and they were all invited to participate in company events and to access the contents of the 18.18 Program. ▼

Engaged team

New survey also measures employee engagement



Engagement: 93% of eligible employees took part in the survey

In another step towards putting together highly engaged teams, we have broadened the scope of our annual survey to measure the engagement level of our employees.

Traditional analysis takes into consideration employee "satisfaction".

When measuring team engagement, our new survey attempts to determine each person's emotional bond with the company, and the relationship between work engagement and performance.

In 2017, we applied the engagement survey at Votorantim S.A. (São Paulo office), Hejoassu, Votorantim Institute, and Reservas Votorantim. 93% of eligible employees participated in the survey—on aver-

age, the first survey using this methodology engages 81% of eligible employees. The Engagement Index classifies employees in three groups: engaged, not engaged, and actively disengaged. In our case, the numbers were 47%, 47% and 6% respectively. Our overall average engagement was 4.05, in a scale that ranges from 0 to 5.

Before the new survey, we used to carry out an annual work climate survey, which had until then shown a positive evolution in different indicators such as overall employee satisfaction, leadership index, recommendation index, and participation in the survey itself—in 2016, 99.5% of the employees in our offices in São Paulo participated in the survey.

AMONG THE BEST

We continue to be one of the best companies to work for in Brazil.

We were included in Você S/A magazine's ranking for the second consecutive year in 2017, this time ranking second in Other Services; and our workplace happiness score went up from 71.5 in 2016 to 81.3 in 2017.

Also for the second straight year we ranked among the best companies to start a career, according to the same magazine, based on the perception of employees aged 18 to 26. In 2017 we moved up to the 14th position, up from the 34th place in 2016.

We ranked sixth in career portal Love Mondays' survey of the most loved companies in Brazil, with a score of 4.39 (on a scale of 0 to 5) and a 98% approval rate among our employees. Finally, we are one of the top ten dream companies for young people according to Brasil Júnior, confederation that represents junior enterprises in Brazil. ▼



Lidermais

In 2017, we launched our Lidermais program whose core goals include developing our professionals to promote innovation, building high-performance teams, and preparing our next generation of managers. The program will last 18 months and impact all leaders of the CoE. ▼



www.vcimentos.com.br

VOTORANTIM CIMENTOS AT A GLANCE

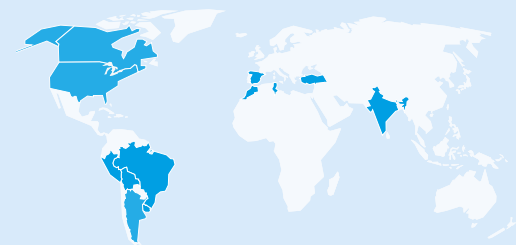


329 UNITS

198 CONCRETE PLANTS
12 MORTAR UNITS
33 CEMENT UNITS
18 CEMENT GRINDING MILLS
58 AGGREGATES UNITS
10 LIME UNITS



**OPERATIONS IN
12 COUNTRIES**



31.8 MILLION t
OF CEMENT PRODUCED



7.8 MILLION m³
OF CONCRETE PRODUCED



23.0 MILLION t
OF AGGREGATES PRODUCED



11,372
EMPLOYEES



89% MEN
11% WOMEN



R\$11.7 MILLION
IN SOCIAL INVESTMENTS

R\$7.2 MILLION
COMPANY FUNDS

R\$4.5 MILLION
INSTITUTO VOTORANTIM
& OTHERS



R\$83.2 MILLION
IN ENVIRONMENTAL
STEWARDSHIP

R\$45.5 MILLION
CAPEX

R\$37.7 MILLION
OPEX

Effective diversification |GRI 102-10|

Internationalization, product portfolio expansion, prudential financial management and operational efficiency add value to year's results

Votorantim Cimentos (VC) has prioritized its internationalization and geographic diversification strategy, which in 2017 had a positive outcome. Operations in Europe, Asia and Africa, South America, and particularly North America made good contributions and partially offset the weaker than expected performance in Brazil, where the political and economic crisis directly affected the company's markets.

VC inaugurated a new line at the plant in Sivas, Turkey—the company's largest investment outside the Americas—and it has already achieved optimal productivity levels. The Yacuses unit in Bolivia was completed by the end of 2016 and became fully operational in 2017. In the next few years, VC will focus on expanding the Charlevoix unit in the United States, planned for 2018, and two units in Argentina in 2018 and 2019. Focusing on these strategic markets, VC completed its non-core asset divestment plan in 2017, by selling assets in China, Chile, and the U.S. states of Florida and California.

Product portfolio diversification was also crucial, emphasizing lower environmental impact, higher added value products. VC expanded the mortars supply, introduced a concrete family (Hi-Mix), and bolstered its agricultural inputs operations in Brazil. In the United States, VC introduced Contempra—lower clinker cement that reduces CO₂ emissions by nearly 10%. In Tunisia, VC started offering specific products for oil companies; in Turkey, a type of cement to be used in gold mining; and in Spain, new special mortars.

VC takes a rigorous approach to financial management, and in 2017 it continued to focus on the prudential management of its liquidity and debt ratio. VSA injected R\$1.7 billion into the company in 2017. These proceeds plus those from divestitures were allocated to the prepayment of loans with original maturities ranging from 2018 to 2022.

VC reported net revenue of R\$11.1 billion, and adjusted EBITDA of R\$1.8 billion for 2017, down 7% and 26% respectively year-on-year.



VC has also broadened its co-processing initiatives to replace petcoke with alternative non-fossil fuels in all operations in Brazil and abroad. Cogeneration using waste heat recovery—a process that recovers and transforms the heat from production lines into electric power—was expanded with the installation of a completely new system in Tunisia capable of meeting over 30%

of the plant's power demand, and of the system retrofit in India's plant to improve its stability and average generation.

On the innovation front, the Digital Cement project has brought VC even closer to its clients and suppliers, with smartphone apps that enable online purchasing, or calculating costs of and planning construction works. The platform has also connected employees,

suppliers, startups, investment funds, research centers and universities, helping VC find assertive, responsive proposals with lower costs for the company's demands. 107 startups joined The Digital Open Innovation initiative, and seven were selected to work on proposed challenges such as digital territory management, energy efficiency, and use of virtual and augmented reality. ▼

HIGHLIGHTS

- 1st place in Transparency International's ranking of the top 100 Brazilian companies; scored 10 in Anti-Corruption and Organizational Transparency.
- Investment in the Charlevoix unit in the U.S. to increase the production capacity by 600,000 tons/year.
- Social investment amounted to R\$11.7 million in 435 initiatives in Brazil, North America, Europe and Africa.
- New line launched in the Sivas plant (Turkey), bringing the production capacity up from 600,000 to 1.8 million tons/year.
- 65.5% of purchase orders in Brazil came in through the VC Online e-commerce portal.
- Focus on co-processing and energy efficiency in all regions.
- Digital strategy brings VC closer to its clients, with new smartphone apps for purchasing materials and planning construction works.
- Net debt down by R\$2.8 billion; average maturity extended to 10 years. ▼

nexa

www.nexaresources.com

NEXA
AT A GLANCE

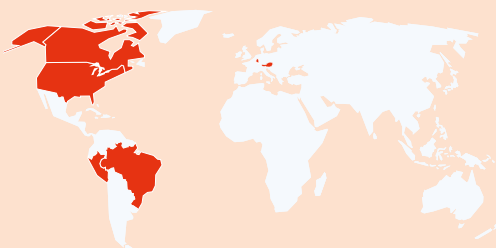
 15 UNITS

5 POLYMETALLIC
MINES


3 ZINC
REFINERIES

7 OFFICES

 OPERATIONS IN
6 COUNTRIES



 570.3 THOUSAND t
OF ZINC-EQUIVALENT
PRODUCED IN MINING¹

 593.9 THOUSAND t
OF ZINC PRODUCTS SOLD AT
THE REFINERIES

 5,446
EMPLOYEES

 89% MEN
11% WOMEN

 US\$14.8 MILLION
IN SOCIAL INVESTMENTS

US\$7.3 MILLION COMPANY FUNDS
US\$7.5 MILLION INSTITUTO VOTORANTIM
& OTHERS

 US\$61.5 MILLION
IN ENVIRONMENTAL
STEWARDSHIP

US\$35.3 MILLION CAPEX
US\$26.2 MILLION OPEX

¹ Includes copper, lead, silver, and gold production translated into tonnes of zinc

Stronger and **more**
connected |GRI 102-10|

IPO in the United States and Canada
paves the way for Nexa's new
enterprises in upcoming years

The year 2017 was marked with significant achievements for Nexa. The name change from Votorantim Metais to Nexa Resources and the successful IPO on the stock exchanges of New York, United States, and Toronto, Canada on October 27, 2017, consolidated Nexa as a global mining business. This was the largest IPO of the Americas' metals and mining industry in the last decade.

Nexa's financial results were driven by the rise in zinc and other metal commodities' prices at the London Metal Exchange (LME), and to efficiency initiatives such as the underground connection between the El Porvenir and Atacocha mines in Peru, and the elimination of bottlenecks in the smelters' production lines in Brazil. Nexa reported net revenue of US\$2.4 billion and adjusted EBITDA of US\$668 million for 2017, up 25% and 65% respectively year-on-year. In order to support its growth strategy, Nexa issued a US\$700 million 10-year bond, which was very well accepted in the market and enabled the company to extend the average

maturity of its debt to seven years.

The project to automate mines and smelting units has advanced, promoting significant gains in efficiency and improving security. One example is distance detonation and automated machinery operation inside underground mines. The Mining Lab—launched in 2016 to help drive forward projects that contribute to an even smarter mining production—supported five start-ups that are now developing technological innovations for the industry.

Nexa currently has growth projects at different stages of development, including opening new mining fields and extending the useful life of existing mines.

The changes seen in 2017 have not prevented Nexa from preserving its identity and its connection with Votorantim. ▼

nexa



HIGHLIGHTS

- The process to integrate the Brazil-Peru operations moved forward with team collaboration and sharing of best practices.
- The Aripuanã greenfield project advanced and is expected to add up to 101,000 tons of zinc-equivalent production per year beginning in 2020.
- 247,000 hours dedicated to training, including in health and safety issues, anti-corruption policies, human rights, etc.
- Proceeds of US\$570.4 million from the IPO—US\$328 million in a primary offering and US\$242.4 million in a secondary offering.
- 5 startups supported by the Mining Lab innovation project.
- Social agendas and local development plans were established for all units in Brazil. ▼
- US\$197.6 million invested in mining and smelting projects.
- Water collection reduced by 14%.

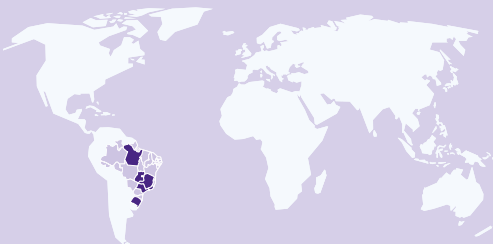


www.aluminiocba.com.br

CBA AT A GLANCE

 **13** UNITS


 OPERATIONS IN
6 STATES IN BRAZIL



 **417 THOUSAND t**
OF ALUMINUM PRODUCED IN
DIFFERENT FORMATS


 **1.3 MILLION t**
OF BAUXITE PROCESSED

 **4,833**
EMPLOYEES

 **94% MEN**
6% WOMEN

 **R\$3.4 MILHÕES** IN
SOCIAL INVESTMENTS

R\$2.5 MILLION COMPANY FUNDS
R\$0.9 MILLION INSTITUTO VOTORANTIM
& OTHERS

 **R\$102.8 MILLION**
IN ENVIRONMENTAL
STEWARDSHIP

R\$25.7 MILLION CAPEX
R\$77.1 MILLION OPEX

One step ahead

IGRI 102-10I

With robust strategy and cultural evolution program, CBA undergoes transformation to remain industry benchmark

In 2015, CBA designed a new strategy that sees the company as three different businesses: electric power generation and trading, primary aluminum production, and manufacturing of processed products. It also established CBA's strategic markets and that the company should focus on providing solutions and services developed in collaboration with customers.

CBA created the "CBA of the Future" (CBA do Futuro) project in 2017 based on that strategy designed two years before plus important additions in the fields of sustainability, technology, competitiveness, customers, and organizational climate and culture. Future goals and the drivers to achieve them are also established in the strategy.

Building on this, CBA implemented a new transformation process to speed up the actions relative to economic value creation drivers to improve competitiveness. The company has also made the decision to become a service provider, focusing on the development of customized projects that foster innovation

to create business opportunities. More than selling aluminum, CBA offers solutions and services co-developed with clients.

A more responsive management and cost reductions to make the business more competitive have resulted in more consistent gains for the company. In spite of the challenges posed by the Brazilian economy, CBA's transformation and better aluminum prices on the London Metal Exchange (LME) were key to the good results and improved profitability seen in 2017. CBA reported net revenue of R\$4.7 billion and adjusted EBITDA of R\$449 million for 2017.

The nickel operation remains temporarily suspended. Maintenance activities continue, and operations will likely be resumed when the price of this commodity stabilizes at a higher level. We have remained committed to the social and economic development of the city of Niquelândia—which has always been part of our strategy—since the operation was suspended. ▼

HIGHLIGHTS

- Project to foster corporate culture, focusing on leadership qualification and development, and on actions to structure organizational processes.
- At the three units in the state of Minas Gerais, after bauxite is mined, farmers get the land back in even better condition—with restored native forests or with the soil in good condition for farming.
- In the Processed Products division, CBA is getting even closer to clients, focusing on responsiveness and co-development of products.
- Partnership with Nexans Brasil S.A for synergies in the production of rods. ▼



www.vsiderurgia.com.br

VOTORANTIM SIDERURGIA AT A GLANCE


 **9 UNITS**

 **OPERATIONS IN
3 COUNTRIES**



 **1.6 MILLION t OF LONG
STEEL PRODUCED**

 **4,702
EMPLOYEES**

 **89% MEN
11% WOMEN**

 **R\$3.2 MILLION IN
SOCIAL INVESTMENTS**

R\$2.2 MILLION COMPANY FUNDS
R\$1.0 MILLION INSTITUTO VOTORANTIM
& OTHERS

 **R\$39.1 MILLION
IN ENVIRONMENTAL
STEWARDSHIP**

R\$12.7 MILLION CAPEX
R\$26.4 MILLION OPEX

Joining forces to grow

IGRI 102-101

Merger of Votorantim Siderurgia's and ArcelorMittal's operations in Brazil to capture synergies in long steel market

Given the challenging scenario seen in the global steel market for the past few years, in February 2017 we agreed on the merger of Votorantim Siderurgia's (VS) and ArcelorMittal's operations in Brazil. After a technical and economic feasibility analysis, the Brazilian Antitrust Board (CADE) approved the merger in February 2018. The transaction includes a 50% holding in Siderúrgica Três Lagoas (Sitrrel), and excludes Acerías PazdelRío in Colombia and Acerbrag in Argentina, which remain in the portfolio of Votorantim S.A.. The merger will not be completed until conditions precedent enforced by CADE are met, which is expected to occur during 2018. Until then, both companies will continue to operate separately.

The combination of both companies' long steel businesses in Brazil aims to capture synergies, benefit clients, and improve operations. As the mills are located in places that supplement each other geographically, the new company will be even closer to clients, improving service quality.

Some highlights in VS's consolidated results for 2017 were:

- Colombia: First half-year was challenging, but an increase of 22.4% in steel prices in the second half partially cushioned the impact on the financial result. There were significant improvements in work safety, with a 30% decrease in accidents with days lost.
 - Argentina: Operations reported good production volumes and price, contributing to a positive cash generation; and an exceptional positive result of zero accidents with days lost.
- Regarding the consolidated operations in Argentina and Colombia, VS's results came in as planned—net revenue of R\$1.7 billion and adjusted EBITDA of R\$272 million.

Even though the operations in Brazil are part of the deal with ArcelorMittal, throughout 2017 costs were tightly controlled and VS's expenses in Brazil returned to the same level reported in 2011. In addition, the electric furnace and rolling mill at the Resende unit in Rio de Janeiro set new production records in 2017. ▼



HIGHLIGHTS

- Merger of Votorantim Siderurgia's and ArcelorMittal's operations in Brazil.
- Over 1.5 million tons of scrap recycled in the production process.
- Energy intensity down by 27% in rolling processes to 1.34 GJ/t.
- Zero accidents with days lost at Acerbrag (Argentina). ▼

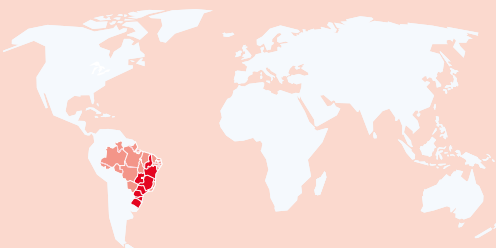


www.venergia.com.br


VOTORANTIM ENERGIA AT A GLANCE

 **39** UNITS
23 HYDROELECTRIC
POWER PLANTS
IN CONSORTIA **9** HYDROELECTRIC
POWER PLANTS
7 WIND FARMS

 OPERATIONS IN
8 STATES IN BRAZIL



 **486**
EMPLOYEES

 **83%** MEN
17% WOMEN

 **R\$4.9 MILLION** IN
SOCIAL INVESTMENTS

R\$2.1 MILLION
COMPANY FUNDS **R\$ 2.8 MILLION**
INSTITUTO VOTORANTIM
& OTHERS

 **R\$12.6 MILLION**
IN ENVIRONMENTAL
STEWARDSHIP

R\$3.5 MILLION
CAPEX **R\$ 9.1 MILLION**
OPEX

Tailwinds

IGRI 102-10I

Completion of wind farms in Piauí, new joint venture improve outlook for Votorantim Energia's operations

Two accomplishments marked the year of 2017 at Votorantim Energia (VE). The company completed the construction of Ventos do Piauí wind farms, adding 206 MW of generation capacity in an investment of R\$1.2 billion; and in December it agreed on a joint venture with the Canada Pension Plan Investment Board (CPPIB).

Investing in wind power generation is a major step towards diversifying the energy matrix from a cutting-edge, innovative renewable source. Throughout our 100 years of history, we have consistently invested in power generation to supply our own operations. We founded Votorantim Energia in 1996 to manage these energy assets—by the end of 2017, we had 23 hydroelectric power plants and 9 other plants owned through consortia. Through these 32 plants, plus our 6 cogeneration plants (including Fibria and Citrosuco) and the Ventos do Piauí wind farms we own 3,045 MW of generation capacity (proportionate interest considered for consortia).

The joint venture acquired two existing wind farms in Brazil's Northeast: Ventos do Piauí I, built by VE; and Ventos do

Araripe III (Ventos III). Together, they add 565 MW of generation capacity and nearly all their production is already sold in the regulated electricity market for 20 years.

The CPPIB—which has US\$400 billion in assets under management and 20 million members and beneficiaries—made an initial investment of R\$690 million. In the long run, the joint venture will invest an additional R\$3 billion in existing assets and in the development of this industry in the country.

The new joint venture is part of our strategy of accelerating VE's growth, including through the expansion of existing wind farms in the Northeast at a time when this source is proving its value to Brazil's energy matrix. VE has also been looking for new opportunities in other renewable sources, believing the discussion around investments in this arena will gather momentum in the upcoming years.

VE is also one of the country's largest power providers—it currently ranks second—and serves clients in different sectors of the Brazilian economy. In 2003, VE started selling part of the surplus generation of our investees. It is also becoming



more specialized in generating and selling electric power to different client profiles. VE reported net revenue of R\$4.1 billion and negative adjusted EBITDA of R\$73 million for 2017. ▼

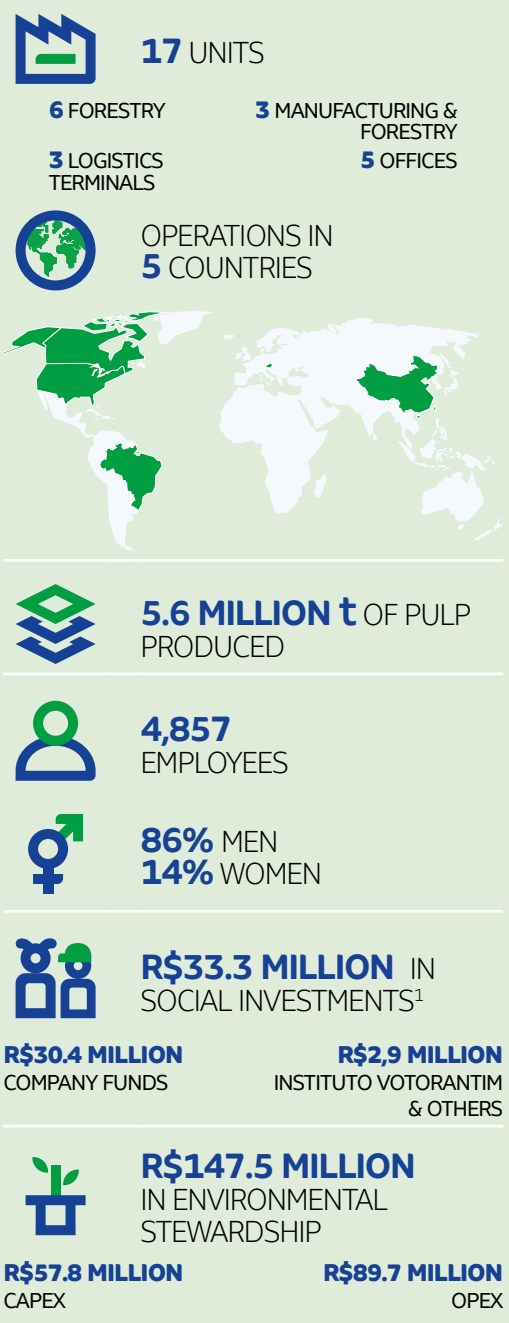
HIGHLIGHTS

- Early completion of construction works and beginning of operations of the Ventos do Piauí wind farm.
- Joint venture between Votorantim Energia and CPPIB.
- Acquisition of the Ventos of Araripe III wind farm.
- Consolidation of VE's position as second-largest energy trading company in Brazil. ▼



www.fibria.com.br

FIBRIA AT A GLANCE



¹ Includes only investments overseen by the Votorantim Institute

New possibilities on the **horizon** IGRI 102-101

Três Lagoas's R\$7.3 billion expansion delivered ahead of schedule, below budget

Fibria—company in which we hold a 29.4% interest—completed an ambitious project in 2017, reaffirming its positioning as the eucalyptus pulp producer with the lowest production costs in the world. Named Horizonte 2, the expansion project received investments of R\$7.3 billion (including 40% in company funds) to transform the Três Lagoas unit in Mato Grosso do Sul into one of the world's largest mills, with capacity of 3.25 tons per year, outranking the Aracruz unit in Espírito Santo.

This was an unparalleled and remarkable project in every aspect—it was completed ahead of schedule, below budget and without any major incident, reaffirming Votorantim's model of doing things right.

Horizonte 2 not only adds a new high-capacity production line, but also brings innovation, a competitive edge, and eco-efficiency to the business. The new automated eucalyptus tree nursery relies on artificial intelligence and is one of a kind in the world.

Regarding environmental stewardship, some highlights were on-site power generation

from eucalyptus bark and black liquor—with a surplus 130 MW delivered to the grid—and a lower volume of water consumption per ton produced—on average 28 m³ per air-dry metric tonne (ADMT), a benchmark for eco-efficient projects.

In addition, social and environmental mitigation actions were prioritized by the community, and city and state government agents, and received R\$8.1 million to be invested in the renovation of schools, hospitals and daycare centers, among other projects.

Fibria goes beyond pulp production alone. Its strategy is to use forestland as a source for new products, such as biomaterials and biofuels, moving towards a low carbon economy. Fibria reported net revenue of R\$11.7 billion and adjusted EBITDA of R\$5 billion for 2017.

In March 2018, the controlling shareholders of Fibria and Suzano Papel e Celulose executed an agreement to merge both companies' operations. The transaction is pending approval by the shareholder meetings of both companies, and are subject to the fulfillment of conditions precedent



and to regulatory approvals, including by the Brazilian Antitrust Board (CADE). Businesses will continue as usual and the companies will operate separately until the transaction is completed. ▼

HIGHLIGHTS

- Three projects stand out in open innovation platform Fibria Insight: two involve nanocellulose (one is the development of paint capable of conducting electricity, and the other is an adhesive application), and the third is the use of pulp as raw material for packaging in the pharmaceutical industry.
- The company was listed in the Corporate Sustainability Index (ISE) of the B3 stock exchange (former BM&FBOVESPA) for the 13th year in a row.
- Company of the Year in the Época Negócios 360° yearbook.
- Project in the Paraíba Valley and in Capão Bonito increased the Atlantic Forest coverage in the state of São Paulo by 4,500 hectares.
- The Colmeias apiculture chain development program completed 15 years in 2017 and produced 2,000 tons of honey, becoming the largest private initiative honey production program in Brazil.
- Leverage reduced to 2.41x (net debt/adjusted EBITDA, in USD). ▼



www.citrosuco.com.br

CITROSUCO AT A GLANCE



47 UNITS

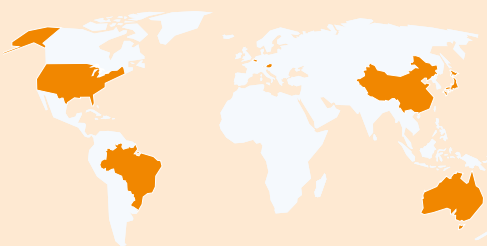
4 PLANTS
2 STORAGE
OPERATIONS

29 FARMS
5 LOGISTICS
TERMINALS

7 OFFICES



OPERATIONS IN
7 COUNTRIES



NEARLY **1 MILLION t**
OF ORANGE JUICE AND
INGREDIENTS SOLD



5,339
EMPLOYEES



77% MEN
23% WOMEN



R\$0.6 MILLION IN SOCIAL
INVESTMENTS¹

R\$0.3 MILLION
COMPANY FUNDS

R\$0.3 MILLION
INSTITUTO VOTORANTIM
& OTHERS



R\$11.6 MILLION
IN ENVIRONMENTAL
STEWARDSHIP

R\$3.6 MILLION
CAPEX

R\$8.0 MILLION
OPEX

¹ Includes only investments overseen by the Votorantim Institute

Natural and sustainable IGRI 102-101

Rise in not-from-concentrate orange juice production, assertiveness in investments, innovation make Citrosuco industry benchmark

Citrosuco increased its not-from-concentrate (NFC) orange juice production by 11% in the 2016-2017 season year-on-year. The company's investments totaled US\$87 million, up 64% compared to the 2015-2016 season, and focused primarily on orange grove maintenance and on increasing production and logistics capacity and efficiency. Jointly controlled by Votorantim S.A. and the Fischer group, Citrosuco wants to become the best producer of juices and natural fruit ingredients of the global food industry.

One of the company's innovation initiatives is the plan to digitize agricultural, manufacturing and logistics processes, integrating big data, industry 4.0 and the internet of things. Analysis of weather, production, disease control, and transportation data will feed cognitive learning, improving processes and products.

Seeking for a clean and sustainable energy matrix, Citrosuco has replaced natural gas with sugarcane bagasse, and renovated one of the three boilers at the Matão plant in

São Paulo, which together helped reduce greenhouse gas emissions by 6%.

The number of Fair Trade certified family farms rose 11% in the season, and Citrosuco's orange suppliers were audited using the SAI Platform assessment tool. Part of the company-owned farms are now Rainforest Alliance Certified and score Gold in SAI Platform's Farm Sustainability Assessment (FSA); the remaining farms kept the Silver score obtained in the previous season. This means a considerable portion of all processed fruit is sourced from farms that adopt sustainable farming practices.

In an effort to control citrus greening in its groves, which is one of the major threats to the global citrus industry, Citrosuco introduced the *Tamarixia radiata* (a type of wasp) to inhibit the disease's vector. It was the first company to ever use this technique. This strategy has helped maintain the rate of infected plants at 1%, way below the average of 17% in the São Paulo citrus belt. Over three million *Tamarixias* were released during the season.



HIGHLIGHTS

- 57% of the power consumed came from renewable sources.
- Greenhouse gas emissions fell by 6%.
- 17,534 hectares of preserved areas, including native and restored forestland.
- R\$12 million invested in social and environmental projects.
- Connectivity technologies make fleet more productive and economical.
- Technical training provided to 100% of fruit suppliers, in an effort to strengthen citrus farming.
- Leverage reached 0.91x (net debt/adjusted EBITDA, in USD), by the end of the season.

Citrosuco also develops a social and educational program with rural migrant workers, addressing health, safety and quality of life by raising awareness to healthy habits and disease prevention.

Citrosuco reported net revenue of US\$1.3 billion and adjusted EBITDA of US\$330 million for 2017.



www.bancovotorantim.com.br

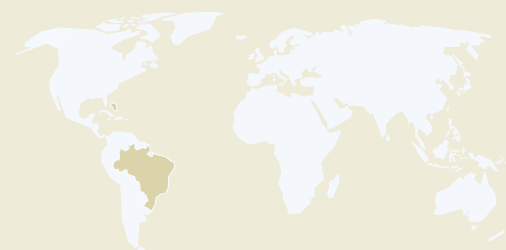
BANCO VOTORANTIM AT A GLANCE



67 UNITS



OPERATIONS IN
2 COUNTRIES



57 BILLION
COMPREHENSIVE LOAN
PORTFOLIO



R\$ 8.9 BILLION
NET EQUITY



6TH LARGEST
PRIVATE BANK IN BRAZIL



3,887
EMPLOYEES



53% MEN
47% WOMEN



EQUATOR PRINCIPLES
SIGNATORY

Focusing on new businesses

IGRI 102-101

Digital transformation, innovative organizational culture are Banco Votorantim's bets to diversify operations

Banco Votorantim is jointly controlled by VSA and Banco do Brasil, and its retail banking business is represented by the BV brand. The bank launched a digital transformation project in the retail banking market in 2017, after spending two years working internally on it. This project has digitized all operations, from back-office to sales force, including car dealers.

In order to support this digital transformation strategy—which demands a faster response and new behaviors from teams—the bank has innovated its organizational culture by introducing multidisciplinary teams and a more informal dress code, and by adopting an open office space concept with no divisions. The bank has also hired technology and design talents.

In line with its diversification strategy, the bank launched new products with prominent Brazilian fintech startups, like GuiaBolso—the most downloaded personal finance app in the country, with 3.5 million users. In this con-

sumer credit partnership, 100% of the processes are digital, and credit analysis is fast, offering competitive rates.

In another digital initiative, the bank invested R\$1 million in fintech startup for online debt renegotiation and financial education QueroQuitar!. The investment was made through the BR Startups fund, created by Microsoft. This fund has Banco Votorantim as an “anchor investor” in the financial sector. In an innovative format, QueroQuitar! works as a debt collection marketplace. In addition to the financial investment, the bank will also support the startup's growth and management.

The bank has also launched a credit facility for the acquisition of residential solar panels with Portal Solar—the industry's largest digital marketplace—and consolidated partnerships for student loans with Ideal Invest and Kroton. The bank closed 2017 with total assets of R\$93.5 billion—ranking sixth among the largest private banks in Brazil—and its loan portfolio amounted to R\$57 billion, down 6.3% year-



on-year. Net income totaled R\$582 million, with a 6.8% return on equity, which closed the year at R\$8.9 billion. The bank's good financial health translated into a 15.5% capital adequacy ratio (capital-to-risk weighted assets ratio), above the minimum 10.5% ratio set by the Central Bank of Brazil and the 8% established by the Basel Committee. ▼

HIGHLIGHTS

- Best Fixed Income Fund Specialist Manager according to Guia Exame Onde Investir.
- 6th largest Private Manager in the country according to Investidor Institucional magazine.
- 1st place in the Central Bank of Brazil's ranking of Ombudsman Quality, introduced in 2017.
- The online platform used by car dealers was fully revamped, cutting by half the number of customer registration fields required for credit decision-making.
- In early 2017, there were four teams working under the Agile methodology; by December there were 11. ▼

Discipline drives results

Business diversification, portfolio transformation translate into 12% rise in adjusted EBITDA and net income pickup

Operating results

Our results were positive in 2017—even against an adverse economic backdrop in the country—owing to our financial discipline, our business diversification, and the initiatives to transform our portfolio.

In 2017, net revenue rose 5% year-on-year to R\$27.2 billion. The rise in metal prices on the London

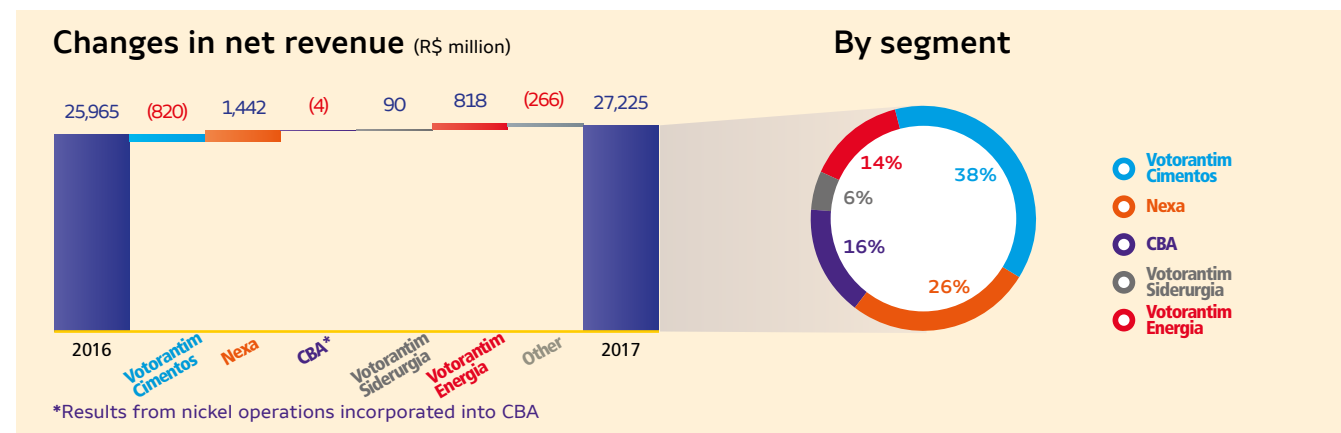
Metal Exchange (zinc, +38%; lead, +24%; copper, +27%; aluminum, +23%) and higher electric power rates and volumes traded had a positive impact on this result.

Even though the cement market retracted in Brazil, causing prices and our operations' sales volumes to fall, some regions in the country started to show a positive trend in the sec-

ond half of 2017.

Adjusted EBITDA rose 12% year-on-year to R\$4.8 billion, driven by better metal prices on the LME, higher electric power rates in Brazil, and the temporary suspension of the nickel operation, which had reported a negative result in 2016.

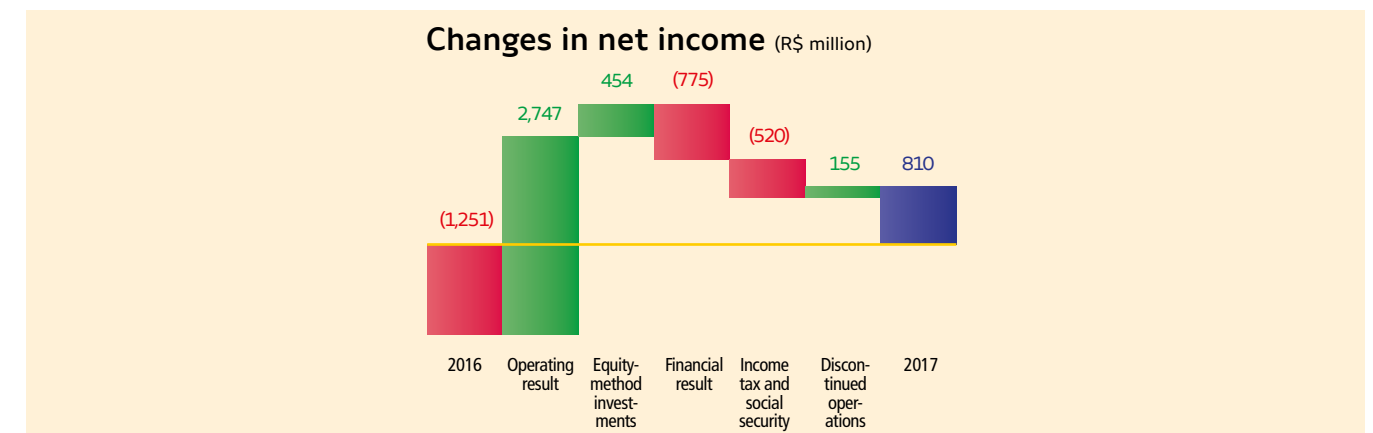
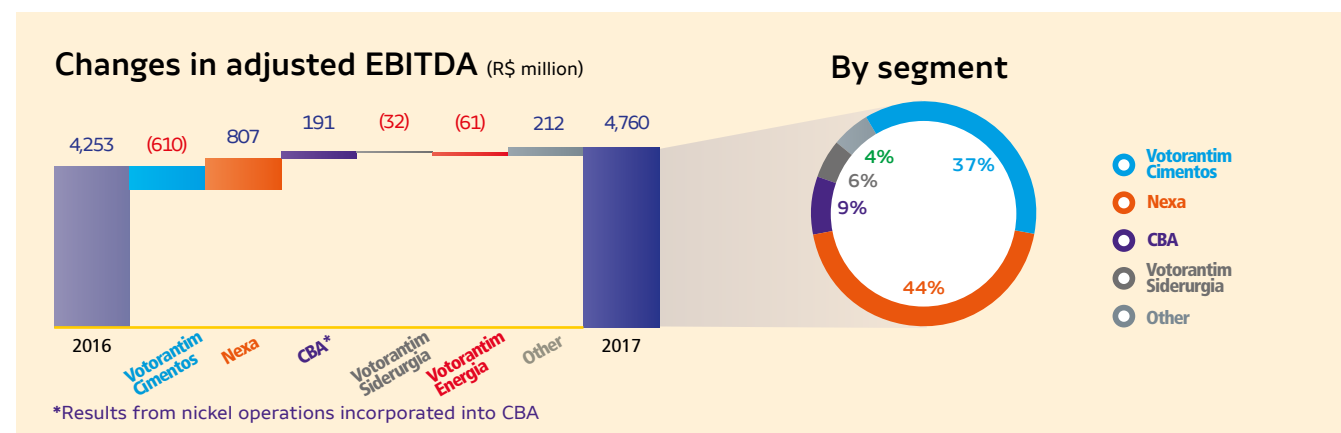
The rise in adjusted EBITDA was not sufficient to prevent the nega-



tive impact from the drop in cement prices and sales volume in Brazil, nor the adverse effect of partial return

of electric power that had been sold in the 2014 auction. The latter was driven by surplus contracting, leading

power distributors to return part of the power contracted in the auction.



Net income and cash generation

Net income totaled R\$810 million in 2017, compared to a net loss of R\$1.3 billion in 2016, mainly driven by higher metal prices and electricity rates. Another factor driving this result was the impairment reported in 2016, relative to the temporary suspension of the nickel operation, and the sale of the long steel business in Brazil—the agreement with Arcelor-Mittal involving Votorantim Siderurgia's operations in the country was executed in February 2017.

Profit from equity-method investments reflects the increase in net income from recognized investees, especially Citrosuco and Banco Votorantim.

The Brazilian real depreciation of 2% against the dollar in 2017 (2017

US\$/R\$ 3.31; 2016 US\$/R\$ 3.26) caused a negative impact of R\$775 million on our financial result. In 2016, the real had appreciated by 16% versus the dollar (2016 US\$/R\$ 3.26; 2015 US\$/R\$ 3.90). Lower financial income driven by the decrease in the CDI interest rate from 14.06% to 10.05% p.a. also reflected on our results.

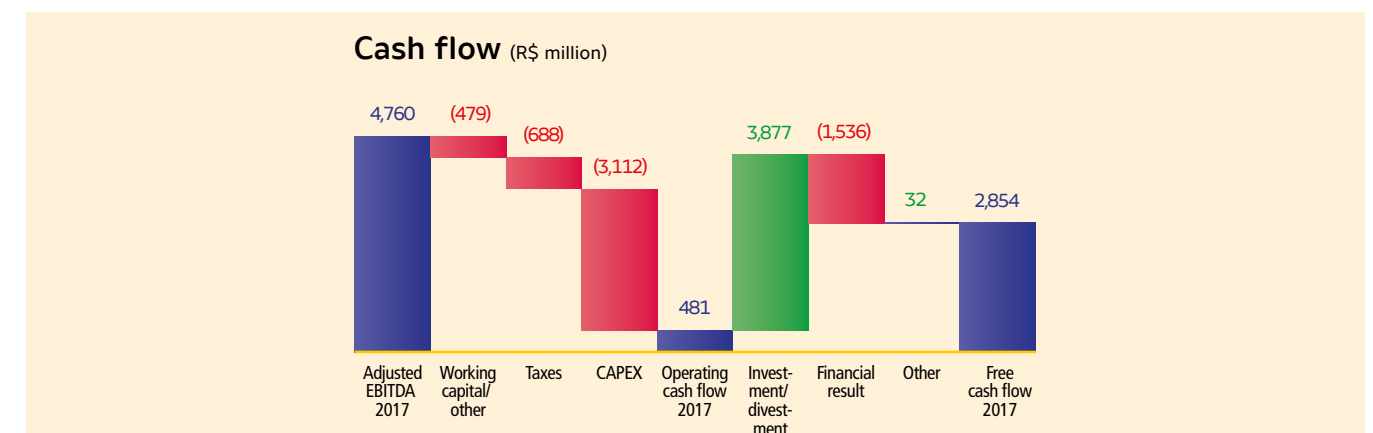
The income tax and social security (IR/CS) loss of R\$520 million was mainly driven by a higher taxable basis in 2017 (net income) compared to a net loss reported in 2016. Net income from operations abroad also affected this result.

Discontinued operations refer to the long steel operations in Brazil, recognized as available for sale, and the sale of non-core assets by Votorantim Cimentos in China, Chile, and the U.S. states of Florida and California.

We recognized positive cash flow from operations of R\$481 million in 2017, down 74% versus 2016, driven by changes in working capital and other items.

This decline mainly reflects the silver streaming agreement (contract for continued production) executed by Milpo by the end of 2016, resulting in cash generation of US\$250 million. Another negative impact came from the non-cash effect of the reversal of a tax provision—exclusion of the ICMS sales tax from the PIS/COFINS social contribution tax base.

Free cash flow amounted to R\$2.9 billion, an increase of R\$2.0 billion compared to 2016, driven by the proceeds from Nexa's initial public offering (IPO) and the sale of non-core assets by Votorantim Cimentos.

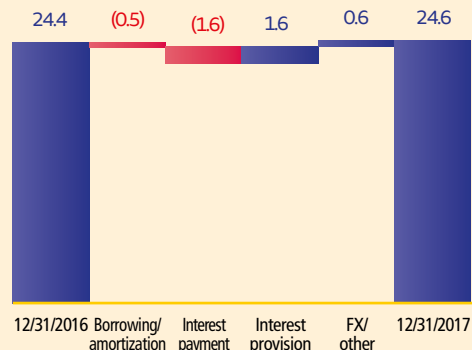


Liquidity and indebtedness

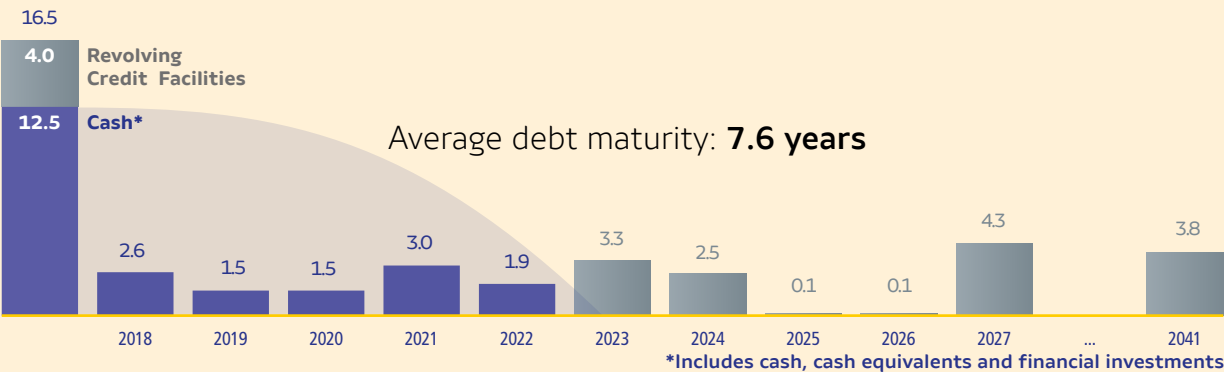
By the end of 2017, consolidated debt totaled R\$24.6 billion, up a slight 1% compared to 2016 due to the depreciation of the Brazilian real against the dollar.

Cash, cash equivalents and financial investments totaled R\$12.5 billion, 49% of which denominated in Brazilian currency. Our cash balance is sufficient to cover more than five years of debt amortization.

Changes in gross debt (R\$ billion)



Debt amortization schedule (R\$ billion)



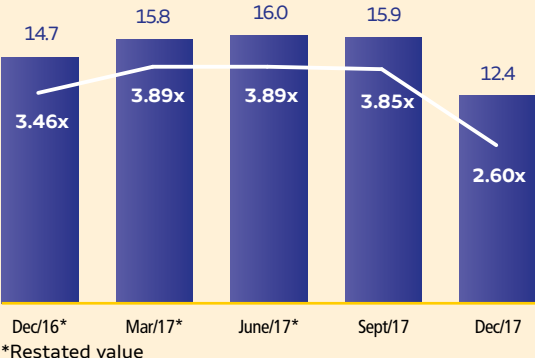
We and our investees have two revolving credit facilities amounting to US\$1.2 billion; along with cash, our liquidity position totals R\$16.5 billion. These facilities expire in 2020, remain available, and have not been used.

Throughout 2017, our investees carried out a series of liability management transactions in order to reduce gross debt and refinancing risk in upcoming years.

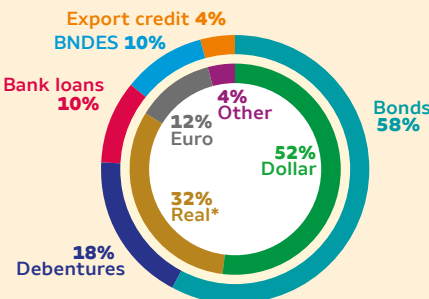
Our debt amortization schedule is long, and our average maturity closed 2017 at 7.6 years.

Net debt totaled R\$12.4 billion, a decrease of 16% year-on-year. Leverage (net debt/adjusted EBITDA) reached 2.60x, compared to 3.46x in December 2017, i.e. a decrease of 0.86 points, driven by the proceeds from Nexa's IPO and the sale of non-core assets by Votorantim Cimentos.

Net debt (R\$ billion)
Net debt / Adjusted EBITDA



Debt by type and currency



CAPEX

We invested R\$3.1 billion in 2017, up 3% year-on-year.

Expansion projects represented 50% of our investments, including the construction of Ventos do Piauí's seven wind farms, adding an installed capacity of 206 MW. This project alone corresponded to 61% of all investments in expansion. This project by Votorantim Energia was fully delivered in 2017, on schedule and

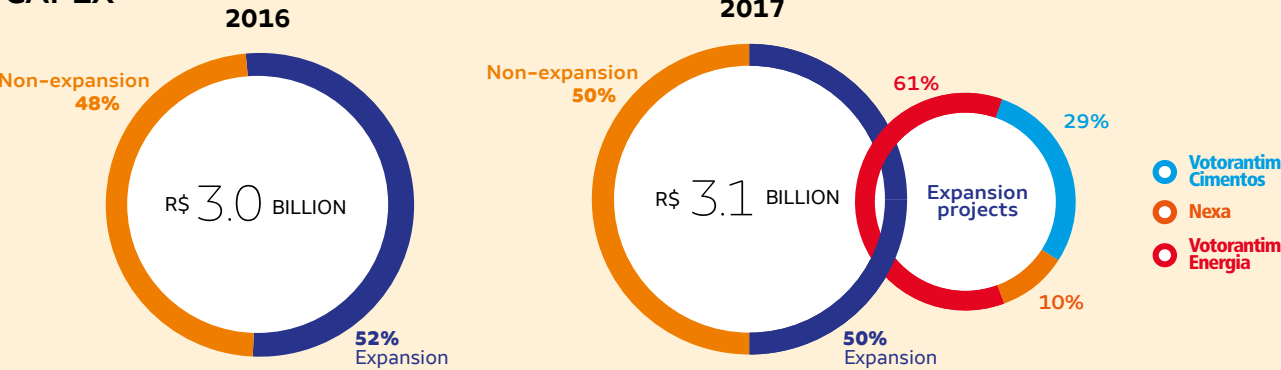
having executed 95% of the pre-determined budget of R\$1.2 billion, i.e. within budget as well.

Votorantim Cimentos's projects received 29% of all investments in expansion. After completing an investment round in Europe and Latin America, the company invested in the expansion of its plant in Charlevoy (United States), which is expected to start operating in the first half of 2018. This project will add a 600,000

ton cement capacity in the region per year.

Nexa continued to deepen the mine in Vazante. This project began in 2015 and will increase the mine's useful life by 10 years (2026), securing the zinc supply. The project is expected to continue through 2022, and the first stage is expected to be completed by December 2018.

CAPEX



Consolidated information

This annual report presents the operating model, the initiatives and key financial and non-financial results of Votorantim S.A., as well as consolidated data of our investees—Votorantim Cimentos, Nexa Resources, Companhia Brasileira

de Alumínio (CBA), Votorantim Siderurgia, Votorantim Energia, Citrosuco, Fibria, and Banco Votorantim. Data contained herein is relative to the reporting period beginning January 1 and ending December 31, 2017; except for Citrosuco, whose data is relative to the crop year beginning July 2016 and ending June 2017. **|GRI 102-45, 102-50, 102-52|**

This report was prepared based on the GRI Standards for sustainability reporting (Core option) and the IIRC integrated reporting framework. We also considered the United Nations Sustainable Development Goals as reference to determine the contents and indicators included in this document.

Materiality |GRI 102-46, 102-21|
The process to determine materiality began in 2012, and involved a survey of our stakeholder groups, including institutional investors, government, media, and third sector organizations. After the survey, materiality is discussed internally to choose the issues that will be reported on. **|GRI 102-40, 102-42, 102-43, 102-44|**

Material issues are directly connected to our stewardship model. We use internal documents as references, such as the Votorantim DNA—it sets out the five strategic pillars for our businesses and governs our relations as a holding company and as an influencer of our investees. We not only pay attention to our businesses' financial results, but also to how we impact and are impacted by economic, social and environmental aspects.






In an attempt to improve this process, in 2016 we contracted U.S. consulting firm Cornerstone Capital to identify sustainability themes and indicators aligned with VSA's strategies and our reporting practices. This study was presented in our 2016 report and was also used for determining materiality for the 2017 report.

The change in VSA's positioning—from an industrial holding to an investor holding—has impacted, since 2014, the reporting model and indicators reported each year. We no longer report on the operating indicators of our investees—they now prepare their own reports—and instead focus more on our business model, governance, and engagement based on our strategic planning, risk management, and investment allocation. **|GRI 102-47|**

Beginning this reporting season, the preparation of our annual report is a responsibility of our Investor Relations department. We believe this falls in line with the market's best disclosure practices, and ensures we meet the increasing demand for environmental, social and governance information.

PwC audited the financial data and limitedly assured non-financial data in this report. This document is available in Portuguese and English. The printed version of this report does not include our investees' consolidated indicators, which are available for online consultation. **|GRI 102-56|**

OUR 5 STEWARDSHIP PILLARS

- **FINANCIAL MANAGEMENT**
Ensures financial discipline to enable the desired risk-return profile
- **VALUE CREATION**
Sets out our vision, and identifies the business's potential value, translating it into concrete plans that align and mobilize the organization
- **OPERATIONAL EXCELLENCE**
Seeks to constantly improve processes through practices and key synergies among the companies
- **PEOPLE AND ORGANIZATION**
Preserves Votorantim's culture through leadership that incorporates our values and beliefs
- **IMAGE AND REPUTATION**
Protects and promotes Votorantim's image and reputation with our stakeholders

GRI Disclosures



General disclosures

INFORMATION ON EMPLOYEES AND OTHER WORKERS |GRI 102-8|

	2017		
	Region		
	Brazil	Other countries	Total
Employees			
Monthly salary contracts	26,278	8,931	35,209
Hourly wage contracts	6,150	370	6,520
Trainees	10	20	30
Total employees	32,310	9,321	41,759
Interns and Apprentices			
Interns	781	77	858
Apprentices	764	54	818
Total Interns and Apprentices	1,536	131	1,676
Contractors			
Contractors (Permanent contract)	14,803	6,422	21,225
Total Contractors	14,803	6,422	21,225
Total Workforce	48,649	15,874	64,660

COLLECTIVE BARGAINING AGREEMENTS |GRI 102-41|

92% of our employees are covered by collective bargaining agreements.

Environmental disclosures

ENERGY CONSUMPTION WITHIN THE ORGANIZATION (GJ) |GRI 302-1|

	2017
Total fuel consumption from non-renewable sources	110,765,249
Total fuel consumption from renewable sources	150,510,896
Total energy consumption within the organization	264,170,043

NOTE:

Consolidated information of the investees; Votorantim S.A. does not report on this disclosure.

ENERGY INTENSITY (GJ/t) |GRI 302-3|

Company	Main product	2015	2016	2017
Fibria	Pulp	21.980	20.760	20.910
Votorantim Cimentos	Cement	3.410	3.170	2.666
	Aggregate	0.040	0.028	0.031
	Concrete	0.070	0.145	0.143
	Mortar		0.070	0.074
	Clinker			3.350
Nexa Resources	Aluminum	12.300		
	Zinc	12.630	13.610	14.490
	Nickel	300.470		
Votorantim Siderurgia	Steel (bar)	2.870	2.920	2.860
	Steel (rolled)	1.810	1.840	1.340
Companhia Brasileira de Alumínio	Aluminum		78.620	4.192
	Processed bauxite (Miraf)		0.048	0.072
	Nickel carbonate		26.720	113.477
	Electrolytic nickel (production up to May/16)		29.270	57.38
	Molten aluminum			81.91

NOTES:

- Votorantim Energia, Citrosuco, and Votorantim S.A. do not report on this disclosure.
- Includes renewable and non-renewable sources, and operations within and outside the organization.

WATER WITHDRAWAL BY SOURCE (m³) |GRI 303-1|

Total volume of water withdrawn by source	2016	2017
Surface water (wetlands, rivers, lakes, and oceans)	64,603,511.9	222,401,322.0
Ground water	116,992,500.9	106,930,958.5
Rainwater collected directly and stored by the organization	11,913,401.9	8,524,679.7
Waste water from another organization		
Water utilities	524,132.3	827,914.0
Total	194,033,546.8	338,684,874.3

NOTES:

- Total volume of rainwater collected reported by Citrosuco refers to reuse.
- Votorantim S.A. and Banco Votorantim do not report on this disclosure.

HABITATS PROTECTED OR RESTORED - 2017 |GRI 304-3|

Biome	Total area (km ²)	Areas where the success of restoration measures was approved by independent external professionals, or that comply with external standards/protocols
Amazon	28.72	28.72
Caatinga	3.82	3.82
Savanna (Cerrado)	2,240.8	581.7
Atlantic Forest	2,693.1	662.1
Tropical wetland (Pantanal)	1.68	1.68
Pampa	4.2	4.2
Other	1,072.8	1,072.8
TOTAL	6,045.2	2,355.02

Total area by company (km ²)	2015	2016	2017
Votorantim Siderurgia	1,542.3	1,796.8	1,848.2
Fibria	184.3	3,102.6	3,128.6
Citrosuco	134.8	175.4	175.3
Nexa Resources	271.7	14,056	58.35
Reservas Votorantim	310	308.04	308.04
Companhia Brasileira de Alumínio		236.5	351.64
Votorantim Cimentos		117.2	117.2
Votorantim Energia		43.5	57.8
TOTAL	2,443.1	19,836.14	6,045.2

NOTES:

- Habitats protected or restored are located in Brazil (in the states of Bahia, Ceará, Distrito Federal, Espírito Santo, Goiás, Minas Gerais, Mato Grosso do Sul, Mato Grosso, Pará, Pernambuco, Paraná, Rio de Janeiro, Roraima, Rio Grande do Sul, Santa Catarina, Sergipe, São Paulo e Tocantins), and Colombia (Boyacá province).
- Banco Votorantim does not report on this disclosure.

DIRECT (SCOPE 1) GHG EMISSIONS |GRI 305-1|

Company	Gases included in the calculation	2016	Gases included in the calculation	2017
Votorantim Siderurgia	CO ₂ – CH ₄ – N ₂ O	1,501,904	CO ₂ – CH ₄ – N ₂ O – PFCs – HFCs – SF ₆ – NF ₃	1,503,440
Fibria	CO ₂ – CH ₄ – N ₂ O	1,036,182	CO ₂ – CH ₄ – N ₂ O – PFCs – HFCs – SF ₆ – NF ₃	1,180,432
Citrosuco	CO ₂ – CH ₄ – N ₂ O	457,053	CO ₂ – CH ₄ – N ₂ O	431,964
Nexa Resources	CO ₂ – CH ₄ – N ₂ O	189,143	CO ₂ – CH ₄ – N ₂ O – CF ₄	165,354
Votorantim Cimentos	CO ₂ – CH ₄ – N ₂ O	22,679,560	CO ₂ – CH ₄ – N ₂ O	21,883,318
Companhia Brasileira de Alumínio	CO ₂ – CH ₄ – N ₂ O – PFCs	1,524,979	CO ₂ – CH ₄ – N ₂ O – PFCs – HFCs – SF ₆	1,387,085
TOTAL		27,388,821		26,551,593

NOTES:

- Votorantim Siderurgia does not include mining operations in Colombia.
- Banco Votorantim, Votorantim Energia and Votorantim S.A. do not report on this disclosure.

GHG EMISSIONS INTENSITY RATIO – tCO₂eq/t |GRI 305-4|

Company	Main product	2015	2016	2017
Fibria	Pulp	0.34	0.34	0.32
Votorantim Cimentos	Cement	0.63	0.6329	0.6333
	Aggregates	0.0018	0.00142	0.0015
	Concrete	0.0053	0.0103	0.0100
	Mortar		0.00228	0.0019
	Lime			0.0878
Nexa Resources	Aluminum	0.9		
	Zinc	0.77	0.779	0.82
	Nickel	23.27		
Votorantim Siderurgia	Bar (billets)	0.91	1.0936	1.02
	Finished products	0.96		
Companhia Brasileira de Alumínio	Processed bauxite		0.0027	0.0043
	Molten aluminum		4.9912	3.7136
	Nickel carbonate		8.4779	6.5150
	Electrolytic nickel		2.5846	1.6875
	Aluminum			0.2291

NOTES:

- Includes renewable and non-renewable energy sources, and emissions within and outside the organization.
- Votorantim Siderurgia does not include mining operations in Colombia.
- Citrosuco, Votorantim Energia, Banco Votorantim, Reservas Votorantim, and Votorantim S.A. do not report on this disclosure.

OTHER SIGNIFICANT AIR EMISSIONS (t) |GRI 305-7|

Category	2017
NO _x	64,092
SO _x	18,985
Persistent organic pollutants (POP)	0
Volatile organic compounds (VOC)	1,502
Hazardous air pollutants (HAP)	0
Particulate matter (PM)	6,917
Other standard categories of air emissions identified in relevant regulations	89

NOTES:

- Votorantim Energia, Banco Votorantim, Reservas Votorantim, and Votorantim S.A. do not report on this disclosure.
- Citrosuco only includes the Matão and Araras units.

WATER DISCHARGE (m³) |GRI 306-1|

Total water discharge	2016	2017
Total discharge	321,117,049	319,043,106.64

NOTE:

- Banco Votorantim, Reservas Votorantim, and Votorantim S.A. do not report on this disclosure.

WASTE BY TYPE AND DISPOSAL METHOD |GRI 306-2|

Total weight of non-hazardous waste (tons)	2016	2017
Composting	58,264	56,981
Reuse	543,179	989,736
Recycling	205,652	852,786
Recovery, including energy recovery	16,210	4,272
Incineration (mass burn)	30	440
Landfill	25,302	257,663
Deep well injection		
On-site storage	191,464	161,995
Other	722,467	1,852,468
Total	1,762,569	4,176,341

Total weight of hazardous waste (tons)	2016	2017
Composting		
Reuse	2,191	2,645
Recycling	23,183	19,373
Recovery, including energy recovery	416	15,170
Incineration (mass burn)	443	2,430
Landfill	10,407	12,762
Deep well injection		
On-site storage	805	60,832
Other	23,704	13,365
Total	61,149	126,577

NOTES:

- Banco Votorantim only reports recycling.
- Nexa Resources aggregates recycled and reused waste.
- Votorantim S.A. and Reservas Votorantim do not report on this disclosure.

NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL CRITERIA
|GRI 308-1|

New suppliers that were screened using environmental criteria	2015	2016	2017
Total number of new suppliers	5,245	4,559	10,244
Total number of new suppliers screened using environmental criteria	790	669	1,544
Percentage of new suppliers screened	15.10%	14.7%	15.0%

NEGATIVE ENVIRONMENTAL IMPACTS IN THE SUPPLY CHAIN AND ACTIONS TAKEN |GRI 308-2|

	2015	2016	2017
Total number of suppliers	140,769	78,990	99,284
Number of suppliers assessed for environmental impacts	4,653	4,299	7,120
Percentage of suppliers assessed for environmental impacts	3.3%	5.4%	7.1%

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|

2017	Gender		Age group		
	Men	Women	Under 30 years old	30–50 years old	Over 50 years old
New hires	4,838	1,656	3,351	2,860	283
Employees	34,657	6,918	8,158	27,202	6,188
Termination of employment	4,913	1,471	2,165	3,296	939
Percentage of new hires	14%	23.9%	40.9%	10.5%	4.6%
Turnover	14.2%	21.3%	26.5%	12.1%	15.2%

OCCUPATIONAL HEALTH AND SAFETY |GRI 403-2|

Occupational health and safety	2015	
	Global	Brazil
Fatalities	0	1
Hours/men worked (employees and contractors)	44,140,004	124,779,042
Number of injuries (Level 1)	289	756
Number of injuries (Levels 2–3)	245	312
Number of injuries with lost days (Levels 4–6)	60	100

Occupational health and safety	2016			
	Employees		Contractors	
	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		

Occupational health and safety	2017			
	Employees		Contractors	
	Global	Brazil	Global	Brazil
Hours/men worked	35,203,822	87,792,421		
Number of injuries	291	356		
Number of fatalities	3	0	6	11
Number of lost days	2,501	6,620		

AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE |GRI 404-1|

Period		Average hours of training per employee		Total hours of training
Employee category	Gender	2015	2016	2017
Senior management	Women	27.3	6.2	32
	Men	31.1	9.0	359
Middle management	Women	43.7	5.5	833
	Men	37.8	8.5	2,363
Coordinator/Adviser	Women	31.8	5.1	4,065
	Men	28.1	7.4	6,699
Technician/Analyst/Supervisor	Women	30.6	0.7	3,779
	Men	20.5	2.3	5,080
Trainee	Women	111.1		
	Men	151.7		
Operational	Women	19.2	0.1	641
	Men	13.7	0.2	803
Intern	Women	13.9		
	Men	13.3		
Apprentice	Women	71.1		
	Men	20.8		

NOTES:

- 2017 data refers to absolute training hours provided by the Votorantim Academy, as described on [page 37](#) of this report.
- 2017 “Operational” data includes all employees in salary groups equal to or below GS-27, i.e. it also includes apprentices and interns. Trainees are included in the technician/analyst/supervisor category.
- Banco Votorantim does not participate in the Votorantim Academy program.

DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES |GRI 405-1|

Organization's minority groups	2016	2017
Employees over 50 years old	6,660	6,188
Women	7,872	6,918

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

Governance members – age group	2016	2017
Under 30 years old	0	12
30–50 years old	50	994
Over 50 years old	68	361

EMPLOYEES IN EACH CATEGORY, BY GENDER

Position	Men %	Women %
Senior management	91.8	8.2
Middle management	83.0	16.5
Coordinator/Adviser	72.1	27.3
Technician/Analyst/Supervisor	71.5	27.9
Trainee	63.3	36.7
Operational	88.3	12.0
Intern	45.3	55.2
Apprentice	58.9	41.1
Total	82.1	17.9

NEW SUPPLIERS THAT WERE SCREENED USING SOCIAL CRITERIA |GRI 414-1|

	2015	2016	2017
Labor practices			
Total number of new suppliers	5,245	4,559	10,244
New suppliers screened using criteria relative to labor practices	2,832	1,653	2,601
Percentage of new suppliers screened	54.0%	36.3%	25.0%
Impacts on society			
Total number of new suppliers	5,245	4,559	10,244
New suppliers screened using criteria relative to impacts on society	795	728	1,097
Percentage of new suppliers screened	15.2%	16.0%	11.0%
Human rights			
Total number of new suppliers	5,245	4,559	10,244
New suppliers screened using human rights criteria	2,096	1,490	1,261
Percentage of new suppliers screened	40.0%	32.7%	12.0%

NEGATIVE SOCIAL IMPACTS IN THE SUPPLY CHAIN AND ACTIONS TAKEN

|GRI 308-2|

	2015	2016	2017
Labor practices			
Total number of suppliers	140,769	78,990	99,284
Suppliers assessed for labor practices	11,163	4,065	6,646
Percentage of suppliers assessed	7.9%	5.1%	7.0%
Impacts on society			
Total number of suppliers	140,769	78,990	99,284
Suppliers assessed for impacts on society	3,296	3,963	5,827
Percentage of suppliers assessed	2.3%	5.0%	6.0%
Human rights			
Total number of suppliers	140,769	78,990	99,284
Suppliers assessed for human rights issues	11,792	5,582	19,535
Percentage of suppliers assessed	8.4%	7.1%	20.0%

OPERATIONS WITH LOCAL COMMUNITY ENGAGEMENT, IMPACT ASSESSMENTS, AND DEVELOPMENT PROGRAMS |GRI 413-1|

	2014	2015	2016	2017
Total operations	650	728	565	436
Operations with local community engagements	72	111	93	142
Percentage of operations with local community engagements	11.1%	15.0%	16.0%	33.0%

NOTES:

- Fibria does not include international offices, since all its manufacturing operations are in fact located in Brazil.
- Banco Votorantim does not report on this disclosure.

INCIDENTS OF DISCRIMINATION AND CORRECTIVE ACTIONS TAKEN |GRI 406-1|

Incidents of discrimination	2015	2016	2017
Harassment and abuse of power	14	15	53
Other incidents (discrimination)	16	12	12
Other incidents (discrimination and retaliation)	43	49	118
Total incidents of discrimination	73	76	183

Total incidents of discrimination	2015	2016	2017
Complaints received by the ombudsman	73	76	183
Complaints with grounds	54	64	67

OPERATIONS AND SUPPLIERS AT SIGNIFICANT RISK FOR INCIDENTS OF CHILD LABOR, AND MEASURES TAKEN TO CONTRIBUTE TO THE EFFECTIVE ABOLITION 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	2014	2015	2016	2017
Votorantim S.A. (Banco Votorantim, Companhia Brasileira de Alumínio, Citrosuco, Fibria, Nexa, Reservas Votorantim, Votorantim Siderurgia, Votorantim Cimentos and Votorantim Energia)	0	0	0	0

OPERATIONS AND SUPPLIERS AT SIGNIFICANT RISK FOR INCIDENTS OF FORCED OR COMPULSORY LABOR |GRI 409-1|

Operations and suppliers at significant risk for incidents of forced or compulsory labor	2014	2015	2016	2017
Votorantim S.A. (Banco Votorantim, Companhia Brasileira de Alumínio, Citrosuco, Fibria, Nexa, Reservas Votorantim, Votorantim Siderurgia, Votorantim Cimentos and Votorantim Energia)	0	0	0	0

OPERATIONS THAT HAVE BEEN SUBJECT TO HUMAN RIGHTS REVIEWS OR IMPACT ASSESSMENTS |GRI 412-1|

Country	2014	2015
Brazil	19	32

	2016	2017
Total operations (Brazil and abroad)	565	413
Operations subject to reviews	74	73
Percentage of operations subject to reviews	13%	18%

Banco Votorantim	2017
Total operations (Brazil and abroad)	3,434
Operations subject to reviews	1,034
Percentage of operations subject to reviews	30%

NOTES:

- Votorantim Siderurgia has no longer submitted operations to human rights reviews because it understands it does not have any operation at risk for incidents of child labor and/or slavery.
- Fibria does not include international offices, since all its manufacturing operations are in fact located in Brazil.
- Banco Votorantim includes the number of new clients in 2017 subject to social-environmental review. The bank reports the total number of clients reviewed in 2017 by the social-environmental risk team whose activity falls into sectors at risk for compulsory labor.

Economic disclosures

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED |GRI 201-1|

Value added breakdown (R\$/million)	2015	2016	2017
DIRECT ECONOMIC VALUE GENERATED			
Revenue			
Sales of products and services	37,006	30,383	31,362
Other operating income (expense), net	(159)	581	894
Estimated loss on doubtful accounts	(74)	(4)	–
Total revenue	36,773	30,960	32,256
Inputs acquired from third parties			
Cost of goods sold and services provided	(20,233)	(17,738)	(19,062)
Impairment of assets	(658)	(2,151)	94
Gross value added	15,882	11,071	13,288
Depreciation, amortization, and depletion	(2,754)	(2,603)	(2,360)
Net value added generated by the Company	13,128	8,468	10,928
Value added received through transfers			
Equity in the results of investees	311	768	1,222
Finance income and foreign exchange losses	7,392	5,097	2,279
Total value added received through transfers	7,703	5,865	3,501
Total value added to distribute	20,831	14,333	14,429

Value added breakdown (R\$/million)	2015	2016	2017
DISTRIBUTION OF VALUE ADDED			
Personnel and payroll charges	4,644	4,173	4,016
Direct remuneration	2,939	2,553	2,469
Benefits	602	597	600
Social charges	1,103	1,023	947
Taxes, and contributions	5,984	4,269	4,516
Federal	2,750	2,217	2,491
State	2,951	2,904	2,604
Municipal	25	18	13
Deferred taxes	258	(870)	(592)
Third-party capital remuneration	9,821	7,142	5,087
Finance costs and foreign exchange losses	9,404	6,814	4,771
Rentals	417	328	316
Own capital remuneration	382	(1,251)	810
Dividends	159	89	(499)
Non-controlling interest	(5)	45	220
Reinvested profits (offset losses)	238	(1,085)	1,234
Loss on discontinued operations	20,831	(300)	(145)
Value added distributed	20,831	14,333	14,429

CONFIRMED INCIDENTS OF CORRUPTION AND ACTIONS TAKEN |GRI 205-3|

	2015	2016	2017
Total number of confirmed incidents of corruption	0	8	0
Employees dismissed or disciplined	0	3	2
Termination or non-renewal of contracts with business partners	0	4	0

NOTE:

– Under “Employees dismissed or disciplined” in 2017, both cases were received in 2016.

LEGAL ACTIONS FOR ANTI-COMPETITIVE BEHAVIOR, ANTI-TRUST, AND MONOPOLY PRACTICES |GRI 206-1|

Number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices	2015	2016	2017
Citrosuco	0	0	0
Votorantim Energia	0	0	0
Votorantim Cimentos	0	0	35
Nexa Resources	0	0	0
Votorantim Siderurgia	0	0	0
Fibria	0	0	0

– Banco Votorantim does not report on this disclosure.

GRI content index [GRI 102-55]

This report has been prepared in accordance with the GRI Standards: Core option. [\[GRI 102-54\]](#)

GRI Standards	Disclosure	Page and/or link	Global Compact	SDGs	OECD	Assurance
GRI 101: Foundation 2016						
GRI 102: General disclosures 2016	Organizational profile					
	102-1 Name of the organization	Introduction; 1				
	102-2 Activities, brands, products, and services	Who we are; 10, 11				
	102-3 Location of headquarters	Who we are; 10/Corporate information; 244				
	102-4 Location of operations	Who we are; 10				
	102-5 Ownership and legal form	Governance; 22				
	102-6 Markets served	Who we are; 10				
	102-7 Scale of the organization	Who we are; 10				
	102-8 Information on employees and other workers	General disclosures; 61				
	102-9 Supply chain	Who we are; 10 For information on investees, please refer to the annual and sustainability reports of each company.				
	102-10 Significant changes to the organization and its supply chain	Highlights; 2 Business portfolio; 40, 42, 44, 46, 48, 50, 52, 54				
	102-11 Precautionary Principle or approach	The right way; 24				
	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 anti-corruption. 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 (Brazilian Corporate Governance Institute); member of the Global Anti-Corruption and Corporate Responsibility Commission of the ICC (International Chamber of Commerce) DAVID CANASSA – Member of the São Paulo Federation of Industries (Fiesp) Superior Council for the Environment (COSEMA)				

GRI Standards	Disclosure	Page and/or link	Global Compact	SDGs	OECD	Assurance
GRI 101: Foundation 2016						
GRI 102: General disclosures 2016	Strategy					
	Statement from senior decision-maker	Messages; 4, 6				
	Key impacts, risks, and opportunities	The right way; 26, 27, 30, 32				
	Ethics and integrity					
	102-16 Values, principles, standards, and norms of behavior	Who we are; 12, 16				
	Governance					
	102-18 Governance structure	The right way; 22				
	102-20 Executive-level responsibility for economic, environmental, and social topics	The right way; 26				
	102-21 Consulting stakeholders on economic, environmental, and social topics	About this report; 60				
	102-22 Composition of the highest governance body and its committees	Corporate information; 244				
	102-23 Chair of the highest governance body	Corporate information; 244				
	102-27 Collective knowledge of highest governance body	Who we are; 12				
	Stakeholder engagement					
	102-40 List of stakeholder groups	About this report; 61				
	102-41 Collective bargaining agreements	General disclosures; 36				
	102-42 Basis for identifying and selecting stakeholders with whom to engage	About this report; 61				
	102-43 Approach to stakeholder engagement	About this report; 61				
	102-44 Key topics and concerns raised through stakeholder engagement	About this report; 61				
	Reporting practice					
	102-45 Entities included in the consolidated financial statements	About this report; 61				

GRI Standards	Disclosure	Page and/or link	Global Compact	SDGs	OECD	Assurance
GRI 101: Foundation 2016						
GRI 102: General disclosures 2016	Stakeholder engagement					
	102-46	Defining report content and topic Boundaries	About this report; 60			
	102-47	List of material topics	About this report; 60			
	102-48	Restatements of information	The area covered by Legado Verdes do Cerrado was restated from 32,000 hectares to 31,000 hectares			
	102-49	Changes in the list of material topics and topic Boundaries	There was no change in the reporting period			
	102-50	Reporting period	Introduction; 1 About this report; 60			
	102-51	Date of most recent previous report	2016, published in March 2017			
	102-52	Reporting cycle	About this report; 60			
	102-53	Contact point for questions regarding the report	Introduction; 1			
	102-54	Claims of reporting in accordance with the GRI Standards	Introduction; 1			
	102-55	GRI content index	Contents			
	102-56	External assurance	Assurance; 94			

GRI Standards	Disclosure	Page and/or link	Omission			Global Compact	SDGs	OECD	Assurance
			Part omitted	Reason	Explanation				
Material topics									
GRI 200 Standards Economic Series									
Economic performance									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Discipline drives results; 56, 57, 58, 59							
	103-2 The management approach and its components	Discipline drives results; 56, 57, 58, 59							
	103-3 Evaluation of the management approach	Discipline drives results; 56, 57, 58, 59							
	201-1 Direct economic value generated and distributed	Economic disclosures; 74							
Anti-corruption									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Ethics as a core value; 25, 26							
	103-2 The management approach and its components	Ethics as a core value; 25, 26							
	103-3 Evaluation of the management approach	Ethics as a core value; 25, 26							
GRI 205: Anti-corruption 2016	205-3 Confirmed incidents of corruption and actions taken	Economic disclosures; 75				P.10		VII. Combating bribery, bribe solicitation and extortion	Yes
Anti-competitive behavior									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Ethics as a core value; 25, 26							
	103-2 The management approach and its components	Ethics as a core value; 25, 26							
	103-3 Evaluation of the management approach	Ethics as a core value; 25, 26							
GRI 206: Anti-competitive behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Economic disclosures; 75					16	X. Competition XI. Taxation	
GRI 300 Standards Environmental Series									
Energy									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	This report consolidates energy consumption and intensity of all investees. For detailed information, please refer to the annual and sustainability reports of 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; 62					7, 8, 12, 13, 14, 15		Yes
	302-3 Energy intensity	Environmental disclosures; 62				P.7, P.8, P.9	7, 8	VI. Environment	

GRI Standards	Disclosure	Page and/or link	Omission			Global Compact	SDGs	OECD	Assurance
			Part omitted	Reason	Explanation				
GRI 300 Standards Environmental Series									
Water									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	This report consolidates water withdrawal by source of all investees. For detailed information, please refer to the annual and sustainability reports of each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 303: Water 2016	Water withdrawal by source	Environmental disclosures; 63					6		Yes
Biodiversity									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	A partnership with nature; 27, Beyond conservation; 28, 29							
	103-2 The management approach and its components	A partnership with nature; 27, Beyond conservation; 28, 29							
	103-3 Evaluation of the management approach	A partnership with nature; 27, Beyond conservation; 28, 29							
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	Environmental disclosures; 63				P.7, P.8, P.9	6, 13, 14, 15	VI. Environment	Yes
Emissions									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Climate-change awareness; 30							
	103-2 The management approach and its components	Climate-change awareness; 30							
	103-3 Evaluation of the management approach	Climate-change awareness; 30							
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Environmental disclosures; 64					3, 12, 13, 14, 15		Yes
	305-4 GHG emissions intensity	Environmental disclosures; 64				P.7, P.8, P.9	13, 14, 15	VI. Environment	
	305-7 NOx, SOx, and other significant air emissions	Environmental disclosures; 65					3, 13, 14, 15		
Waste and effluents									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	This report consolidates total water discharge and total waste by type and disposal method of all investees. For detailed information, please refer to the annual and sustainability reports of each investee.							
	103-2 The management approach and its components								
	103-3 Evaluation of the management approach								
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	Environmental disclosures; 65					3, 6, 12		Yes
	306-2 Waste by type and disposal method	Environmental disclosures; 66					3, 6, 12,		Yes

GRI Standards	Disclosure	Page and/or link	Omission			Global Compact	SDGs	OECD	Assurance
			Part omitted	Reason	Explanation				
GRI 300 Standards Environmental Series									
Supplier environmental assessment									
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its Boundary	This report consolidates supplier environmental assessment data of all investees. For detailed information, please refer to the annual and sustainability reports of each investee.						
	103-2	The management approach and its components							
	103-3	Evaluation of the management approach							
GRI 308: Supplier environmental assessment 2016	308-1	New suppliers that were screened using environmental criteria	Environmental disclosures; 67			P.7, P.8, P.9			
	308-2	Negative environmental impacts in the supply chain and actions taken	Environmental disclosures; 67			P.7, P.8, P.9		VI. Environment	
GRI 400 Standards Social Series									
Employment									
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its Boundary	High-performance culture; 35, 36, 37, 38, 39						
	103-2	The management approach and its components	High-performance culture; 35, 36, 37, 38, 39						
	103-3	Evaluation of the management approach	High-performance culture; 35, 36, 37, 38, 39						
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Social disclosures; 68			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	This report consolidates occupational health and safety data of all investees. For detailed information, please refer to the annual and sustainability reports of 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; 68			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	Votorantim Academy; 36						
	103-2	The management approach and its components	Votorantim Academy; 36						
	103-3	Evaluation of the management approach	Votorantim Academy; 36						
GRI 404: Training and education 2016	404-1	Average hours of training per year per employee	Social disclosures; 69			P.3, P.6	4, 5, 8	V. Employment and industrial relations, VI. Environment	Yes

GRI Standards	Disclosure	Page and/or link	Omission			Global Compact	SDGs	OECD	Assurance
			Part omitted	Reason	Explanation				
GRI 400 Standards Social Series									
Diversity and equal opportunity									
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its Boundary	High-performance culture; 35, 36, 37, 38, 39						
	103-2	The management approach and its components	High-performance culture; 35, 36, 37, 38, 39						
	103-3	Evaluation of the management approach	High-performance culture; 35, 36, 37, 38, 39						
GRI 405: Diversity and equal opportunity 2016	405-1	Diversity of governance bodies and employees	Social disclosures; 70			P.3, P.6	5, 8	V. Employment and industrial relations	
Non-discrimination									
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its Boundary	This report consolidates incidents of discrimination and corrective actions taken by all investees. For detailed information, please refer to the annual and sustainability reports of 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; 72			P.1, P.2, P6	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	This report consolidates operations and suppliers at significant risk for incidents of child labor of all investees. For detailed information, please refer to the annual and sustainability reports of 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; 72			P.1, P.2, P.5	8, 16	IV. Human rights, V. Employment and industrial relations	
Forced or compulsory labor									
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its Boundary	This report consolidates operations and suppliers at significant risk for incidents of forced or compulsory labor of all investees. For detailed information, please refer to the annual and sustainability reports of 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; 73			P.1, P.2, P.4	8	IV. Human rights, V. Employment and industrial relations	

GRI Standards	Disclosure	Page and/or link	Omission			Global Compact	SDGs	OECD	Assurance
			Part omitted	Reason	Explanation				
GRI 400 Standards Social Series									
Human rights assessment									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	This report consolidates operations that have been subject to human rights reviews or impact assessments of all investees. For detailed information, please refer to the annual and sustainability reports of 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; 73				P.1, P.2		IV. Human rights	
Local communities									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Side by side with our communities; 31, 32, 33, 34							
	103-2 The management approach and its components	Side by side with our communities; 31, 32, 33, 34							
	103-3 Evaluation of the management approach	Side by side with our communities; 31, 32, 33, 34							
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Social disclosures; 72				P.1, P.2		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	This report consolidates supplier social assessment data of all investees. For detailed information, please refer to the annual and sustainability reports of 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; 71				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	
	414-2 Negative social impacts in the supply chain and actions taken	Social disclosures; 71				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	

GRI Standards	Disclosure	Page and/or link	Omission			Global Compact	SDGs	OECD	Assurance
			Part omitted	Reason	Explanation				
GRI 400 Standards Social Series									
Public policy									
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Donations and sponsoring; 25							
	103-2 The management approach and its components	Donations and sponsoring; 25							
	103-3 Evaluation of the management approach	Donations and sponsoring; 25							
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	



UN Global Compact Principles

Human Rights

1. Businesses should support and respect the protection of internationally proclaimed human rights; and

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

Labour

3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

4. the elimination of all forms of forced and compulsory labour;

5. the effective abolition of child labour; and

6. the elimination of discrimination in respect of employment and occupation.

Environment

7. Businesses should support a precautionary approach to environmental challenges;

8. undertake initiatives to promote greater environmental responsibility; and

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

Anti-corruption

10. Businesses should work against corruption in all its forms, including extortion and bribery.

SUSTAINABLE DEVELOPMENT GOALS

Sustainable Development Goals

1. No Poverty

2. Zero Hunger

3. Good Health and Well-being

4. Quality Education

5. Gender Equality

6. Clean Water and Sanitation

7. Affordable and Clean Energy

8. Decent Work and Economic Growth

9. Industry, Innovation and Infrastructure

10. Reduced Inequality

11. Sustainable Cities and Communities

12. Responsible Consumption and Production

13. Climate Action

14. Life Below Water

15. Life on Land

16. Peace and Justice, Strong Institutions

17. Partnerships to achieve the Goals

(A free translation of the original in Portuguese)

Independent auditor's limited assurance report on information related to sustainability included in the 2017 Votorantim Report

To the Board of Directors
Votorantim S.A.
São Paulo – SP

Introduction

We were contracted by Votorantim S.A. ("VSA" or "Company") to present our limited assurance report on the compilation of the information related to sustainability included in VSA's 2017 Votorantim Report for the year ended December 31, 2017.

Responsibilities of the Company's management

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

Independent auditors' responsibility

Our responsibility is to express a conclusion on the information related to the 2017 Votorantim 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 Brazilian Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that we comply with ethical requirements, including independence requirements, and perform our engagement to obtain limited assurance that the information included in the 2017 Votorantim 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 information, as well as applying analytical procedures to obtain evidence that allows us to issue a limited assurance conclusion on the information taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead the auditor to believe that the information taken as a whole might present significant misstatements.

The procedures selected were based on our understanding of the aspects related to the compilation and presentation of the information included in the 2017 Votorantim 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 VSA 's 2017 Votorantim Report;

- (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 2017 Votorantim 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 of the Global Reporting Initiative (GRI Standard) applied in the compilation of the information related to sustainability included in the 2017 Votorantim 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 information presented in the 2017 Votorantim 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 included in the 2017 Votorantim Report. Accordingly, we do not express an opinion on this information.

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

Conclusion

Based on the procedures performed, described herein, no matter came to our attention that causes us to believe that the information included in the 2017 Votorantim Report of Votorantim S.A. has not been compiled, in all material respects, in accordance with the guidelines of the Global Reporting Initiative (GRI Standards).

São Paulo,
March 29, 2018

PricewaterhouseCoopers

Contadores Públicos Ltda.
CRC 2SP023173/O-4

Eliane Kihara

Contadora
CRC 1SP212496/O-5

Independent **auditor's report** (A free translation of the original in Portuguese)

To the Board of Directors and Stockholders
Votorantim S.A.

Opinion

We have audited the accompanying consolidated financial statements of Votorantim S.A. and its subsidiaries ("Consolidated"), which comprise the consolidated balance sheet as at December 31, 2017 and the consolidated statements of operations, comprehensive income (loss), 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, 2017, and their financial performance and their 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.

Emphasis of matter

Reissuance of the financial statements

We draw attention to Notes 2.1(b) and 36(e) of the financial statements, which refers to the update and reissuance of the financial statements due to the subsequent event related to the corporate reorganization of the joint venture Fibria Celulose S.A. We issued our original report dated March 2, 2018 on the previously issued financial statements. Due to the update described in the notes above, we are providing this new audit report on the reissued financial statements. Our opinion is not qualified in respect of this matter.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the 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, 2017 was planned and executed considering that the operations of the Company and its subsidiaries did not had any significant changes in relation to the to the prior year. In this context, the Key Audit Matters, as well as our audit approach, have remained substantially aligned with prior year, except for the exclusion of the matters related to the securitization of receivables from the Company's indirect subsidiary, and assets held for sale – Votorantim Siderurgia S.A., as they were related to events of the year ended on December 31, 2016.

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

Why it is a Key Audit Matter

During 2017, the economic scenario of the main countries in which the Company and its subsidiaries operate remained challenging. At December 31, 2017, goodwill based on expected future profitability from business combinations occurred in prior years amounted to R\$ 6,141 million (of which R\$ 4,862 million in "Intangible assets", and R\$ 1,279 million in "Investments"), and property, plant and equipment totaled R\$ 25,855 million.

We considered this an area of focus in our audit, since the test of impairment of assets involves critical judgments by the Company's management. The determination of the recoverable value depends on the materialization of the projections for economic and market conditions in Brazil, and in the several countries where the Company operates, and is susceptible to changes in assumptions related to the growth rates of prices, volume of sales, expenses and discount rates established by management, among other assumptions used in management's valuation models. Adverse economic conditions may result in significant changes in these assumptions.

How the matter was addressed in the audit

In this respect, we obtained an understanding of the existing key controls for this area and tested them. We also assessed the methodology that management used to identify the CGUs. In addition, we assessed the reasonableness of the Company's main assumptions, including the discount rate used to determine the value in use or the fair value less cost to sell, 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.

We used sensitivity analyses involving the main assumptions used in order to assess whether the individual or cumulative changes would lead to impairment losses that significantly exceeded those recorded by the Company.



After performing these audit procedures, we considered that the assumptions and methodology used by management are reasonable, and the disclosures are consistent with the data and information obtained in our procedures.

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

Why it is a Key Audit Matter

The Company and its subsidiaries record deferred taxes arising from temporary differences and income tax and social contribution losses, as well as credits from income tax and social contribution recoverable. These credits were recorded to the extend 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 the Company's assessment of the realization of these credits involves important and subjective judgment to determine the future taxable bases for the utilization of these amounts.

How the matter was addressed in the audit

In this respect, we obtained an understanding of the key controls that the Company uses to calculate and record the tax credits and tested these controls, as well as the templates used to estimate the future taxable profits, which were subject to Company's Board of Directors approval.

We counted on the support of our specialists in tax matters and in company valuations to test the calculations of the credits in relation to the templates and critical assumptions used by management. 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 and its subsidiaries 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 relevant aspects in the context of the financial statements.

Provisions and contingent liabilities (Note 23)

Why it is a Key Audit Matter

At December 31, 2017, 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, and labor proceedings in progress for which no provisions were recorded in the financial statements because management considered the likelihood of losses arising from these proceedings as only possible, 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 manage-

ment is not able to control. In this context, the progress of these proceedings in the different applicable levels can differ from the results estimated by the Company and its internal and external legal advisors, taking into account that changes in court directives or in case law may significantly affect management's estimates.

How the matter was addressed in the audit

In this respect, we determined whether the procedures adopted by management to calculate the provisions and their related disclosures were 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 possible and probable losses.

We counted on the support of our tax specialists to assess the reasonableness of 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.

Other matters

Statements of Value Added

The consolidated Statement of Value Added for the year ended December 31, 2017, 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 is reconciled with the financial statements and accounting records, as applicable, and if its form and content are 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 parent company and consolidated financial statements and the 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 parent company and 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 parent company and consolidated financial statements, our responsibility is to read the Management Report, when made available to us, and, in doing so, consider whether this report is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

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

Management is responsible for the preparation and fair presentation of these consolidated financial statements 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), 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 parent company and 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 may 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 these 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.

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 consolidated 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 27, 2018

PricewaterhouseCoopers

Auditores Independentes
CRC 2SP000160/O-5

Maurício Colombari

Contador CRC 1SP195838/O-3

Consolidated balance sheet

As at December 31

All amounts in millions of reais (A free translation of the original in Portuguese)

	Note	2017	2016
Assets			
Current assets			
Cash and cash equivalents	9	8,960	6,946
Financial investments	10	3,562	3,190
Derivative financial instruments	6.1.1	52	136
Trade receivables	11	2,421	2,001
Inventory	12	3,526	3,381
Taxes recoverable	13	1,317	1,527
Dividends receivable	14	148	180
Financial instruments – firm commitment	15	210	317
Other assets		784	580
		20,980	18,258
Assets classified as held-for-sale	34	2,199	2,125
		23,179	20,383
Non-current assets			
Long-term receivables			
Financial investments	10	25	39
Derivative financial instruments	6.1.1	138	232
Taxes recoverable	13	1,784	1,586
Related parties	14	143	535
Deferred income tax and social contribution	21 (b)	4,079	4,055
Judicial deposits	23 (b)	765	420
Financial instruments – firm commitment	15	154	371
Other assets		667	858
		7,755	8,096
Investments	16 (c)	13,372	12,949
Property, plant and equipment	17	25,855	25,091
Intangible assets	18	12,443	13,013
Biological assets		65	66
		59,490	59,215
Total assets		82,669	79,598

	Note	2017	2016
Liabilities and equity			
Current liabilities			
Borrowing	19	2,573	1,775
Derivative financial instruments	6.1.1	299	401
Confirming payables	20	1,070	968
Trade payables		3,353	2,723
Salaries and payroll charges		895	848
Taxes payable		617	422
Advances from clients		408	174
Dividends payable	14	188	48
Use of public assets	24	76	67
Financial instruments – firm commitment	15	1	
Deferred revenue – performance obligations	22	246	244
Deferred revenue – silver streaming		104	146
Other liabilities		643	649
		10,473	8,465
Liabilities related to assets held-for-sale	34	1,526	1,522
		11,999	9,987
Non-current liabilities			
Borrowing	19	22,057	22,644
Derivative financial instruments	6.1.1	83	342
Deferred income tax and social contribution	21 (b)	1,965	1,983
Related parties	14	25	22
Provision	23 (a)	2,587	2,346
Use of public assets	24	1,056	1,119
Pension plan	31	317	317
Financial instruments – firm commitment	15	207	10
Deferred revenue – performance obligations	22	272	515
Deferred revenue – silver streaming		630	669
Other liabilities		656	821
		29,855	30,788
Total liabilities		41,854	40,775
Equity			
Share capital	25 (a)	28,656	28,656
Revenue reserves		6,569	6,254
Carrying value adjustments	25 (e)	733	1,255
Total equity attributable to the owners of the Company		35,958	36,165
Non-controlling interests		4,857	2,658
Total equity		40,815	38,823
Total liabilities and equity		82,669	79,598

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

Consolidated statement of **income**

Years ended December 31

All amounts in millions of reais unless otherwise stated (A free translation of the original in Portuguese)

	Note	2017	2016
Reclassified (Note 2.)			
Continuing operations			
Net revenue from products sold and services rendered	26	27,225	25,965
Cost of products sold and services rendered	27	(20,649)	(20,010)
Gross profit		6,576	5,955
Operating income (expenses)			
Selling	27	(1,666)	(1,639)
General and administrative	27	(2,018)	(2,091)
Other operating expenses, net	29	(536)	(2,616)
		(4,220)	(6,346)
Operating profit (loss) before equity results and finance results		2,356	(391)
Results from equity investments			
Equity in the results of investees	16 (c)	1,219	724
Realization of other comprehensive income on disposal of investments		3	44
		1,222	768
Finance results, net	30		
Finance income		1,155	1,397
Finance costs		(2,710)	(2,643)
Result of derivative financial instruments		(213)	(1,006)
Foreign exchange losses, net		(724)	535
		(2,492)	(1,717)
Profit (loss) before income tax and social contribution		1,086	(1,340)
Income tax and social contribution	21 (a)		
Current		(723)	(481)
Deferred		592	870
Profit (loss) for the year from continuing operations		955	(951)
Discontinued operations			
Loss for the year from discontinued operations	34 (c)	(145)	(300)
Profit (loss) for the year attributable to the owners of the Company		810	(1,251)
Profit (loss) attributable to the owners of the Company		590	(1,296)
Profit attributable to non-controlling interests		220	45
Profit (loss) for the year		810	(1,251)
Weighted average number of shares – thousands (to the owners of the Company)		18,278,789	18,278,789
Basic and diluted earnings (loss) per thousand shares, in reais		32.28	(70.90)
From continuing operations			
Basic and diluted earnings (loss) per thousand shares, in reais		40.21	(54.49)
From discontinued operations			
Basic and diluted loss per thousand shares, in reais		(7.93)	(16.41)

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

Consolidated statement of **comprehensive income**

Years ended December 31

All amounts in millions of reais (A free translation of the original in Portuguese)

	Note	2017	2016
Profit (loss) for the year		810	(1,251)
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	25 (e)	473	(4,537)
Hedge accounting for net investments abroad, net of taxes	6.1.3 e 25 (e)	(163)	2,033
Hedge accounting for the operations of subsidiaries	25 (e)	(101)	52
Fair value of financial assets available-for-sale of the non-consolidated investments	25 (e)	39	227
Realization of comprehensive income on the disposal of investments	25 (e)	(555)	(25)
Share in other comprehensive income of investees	25 (e)		(84)
Attributable to non-controlling			
Foreign exchange variations attributable to non-controlling interests		94	(711)
Hedge accounting for the operations of subsidiaries		17	
Realization of comprehensive income on the disposal of investments			(19)
Share in other comprehensive income of investees		60	23
		(136)	(3,041)
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 taxes	25 (e)		(37)
Attributable to non-controlling			
Remeasurement of retirement benefits, net of taxes			(4)
Other comprehensive income (loss) for the year		(136)	(3,082)
Comprehensive income (loss) from			
Continuing operations		674	(3,934)
Discontinued operations			(399)
		674	(4,333)
Comprehensive income (loss) attributable to			
Owners of the Company		283	(3,667)
Non-controlling interests		391	(666)
		674	(4,333)

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

Consolidated statement of changes in equity

Years ended December 31

All amounts in millions of reais unless otherwise stated (A free translation of the original in Portuguese)

	Note	Attributable to the owners of the Company						Non- controlling interests	Total equity	
		Share capital	Revenue reserves							
			Tax incentives	Legal	Profit retention	Retained earnings	Carrying value adjustments			Total
At January 1, 2016		21,419	6	654	6,776		2,952	31,807	4,176	35,983
Comprehensive income for the year										
Profit (loss) for the year						(1,296)		(1,296)	45	(1,251)
Other comprehensive income (loss)							(2,371)	(2,371)	(711)	(3,082)
Comprehensive income for the year						(1,296)	(2,371)	(3,667)	(666)	(4,333)
Increase in share capital		7,237						7,237		7,237
Fair value on interest variation – Nexa Resources S.A. (“Nexa”)							572	572	(572)	
Repurchase of shares of Nexa Resources Perú S.A.A. (“Nexa Peru”)							102	102	(191)	(89)
Reversal of dividends					114			114		114
Allocation of net income for the year										
Legal reserve			4			(4)				
Dividends									(89)	(89)
Profit retention					(1,300)	1,300				
Total contributions and distributions to shareholders		7,237	4		(1,186)	1,296	674	8,025	(852)	7,173
At December 31, 2016		28,656	10	654	5,590		1,255	36,165	2,658	38,823
Comprehensive income (loss) for the year										
Profit for the year						590		590	220	810
Other comprehensive income (loss)							(307)	(307)	171	(136)
Comprehensive income (loss) for the year						590	(307)	283	391	674
Increase of non-controlling shareholders – Nexa – dilution of interest	1.1 (f)						(215)	(215)	1,075	860
Increase of non-controlling shareholders – Nexa – sale of interest	25 (f)								957	957
Allocation of net income for the year										
Legal revenue				30		(30)				
Dividends	25 (b)				(135)	(140)		(275)	(224)	(499)
Profit retention					420	(420)				
Total contributions and distributions to shareholders				30	285	(590)	(215)	(490)	1,808	1,318
At December 31, 2017		28,656	10	684	5,875		733	35,958	4,857	40,815

Demonstração consolidada condensada dos fluxos de caixa

Consolidated statement of cash flows

Years ended December 31

All amounts in millions of reais (A free translation of the original in Portuguese)

	Note	2017	2016
Cash flow from operating activities			
Profit (loss) before income tax and social contribution		1,086	(1,340)
Loss for the year from discontinued operations		(145)	(300)
Adjustments to items that do not represent changes in cash and cash equivalents			
Discontinued Operations			
Realization of other comprehensive income from the sale of the China operations	34 (c)	(133)	(44)
Net gain on sale of investments in China, California and Florida	34 (c)	(118)	
Goodwill decrease on sale of operations – China	34 (c)	228	
Realization of other comprehensive income – other operating income (expenses), net	29	(753)	
Realization of other comprehensive income – financial income		331	
Result on the sale of investment in Nexa	29	161	
Gain on sales of investments, net – Cement and Metals Operations	29	(33)	(312)
Provision (reversal) of impairment of investments – long steel Brazil	34 (a)	(71)	988
Gain on sales of fixed and intangible assets, net	29	(4)	(149)
Provision (reversal) for the impairment of fixed, intangible assets and investments	16, 17 and 18	(23)	1,164
Depreciation, amortization and depletion	27	2,360	2,603
Equity in the results of investees	16 (c)	(1,219)	(724)
Interest, indexation and foreign exchange variations		2,042	1,052
Allowance for doubtful accounts	11 (c)		4
Discount on repurchase of bonds	30		(173)
Constitution (reversal) of provision		(273)	384
Derivative financial instruments	6.1.1	(319)	791
Financial instruments – firm commitment	15	522	253
Fair value adjustment – Resolution 4131	19 (b)	47	(26)
Change in fair value of biological assets		8	(2)
		3,694	4,169

	Note	2017	2016
Decrease (increase) in assets			
Financial investments		225	1,754
Derivative financial instruments		(202)	(72)
Trade accounts receivable		(420)	522
Inventory		(130)	322
Taxes recoverable		12	171
Related parties		395	320
Other accounts receivable and other assets		(358)	(111)
Increase (decrease) in liabilities			
Trade payables		630	(300)
Salaries and social charges		47	(20)
Use of public assets		(84)	105
Taxes payable		160	(102)
Other obligations and other liabilities		171	304
Cash provided by operating activities		4,140	7,062
Interest paid on borrowing and use of public assets		(1,558)	(1,779)
Income tax and social contribution paid		(688)	(491)
Net cash provided by operating activities		1,894	4,792
Cash flow from investment activities			
Proceeds from disposals of fixed and intangible assets		178	379
Public offering capture – Nexa	1.1 (f)	1,009	
Sale of Nexa shares		753	
Proceeds from sales of investments – Sirama			566
Sale of investments in China, California and Florida		1,937	82
Dividends received		540	245
Acquisitions of property, plant and equipment	17	(3,108)	(3,026)
Increase in biological assets		(4)	(5)
Increase in intangible assets	18	(174)	(181)
Net cash provided by (used in) investment activities		1,131	(1,940)

	Note	2017	2016
Cash flow from financing activities			
New borrowing	19 (b)	5.399	6.162
Repayment of borrowing	19 (b)	(5.881)	(7.376)
Derivative financial instruments	6.1.1	(561)	(371)
Dividends paid		(359)	(105)
Net cash used in financing activities		(1.402)	(1.690)
Cash increase resulting from incorporation			177
Reduction of cash resulting from reclassification to assets held-for-sale			
Effect of fluctuations in exchange rates		391	(1,042)
Cash and cash equivalents at the beginning of the year		6,946	6,649
Cash and cash equivalents at the end of the year		8,960	6,946
Main non-cash transactions			
Increase in non-cash assets resulting from incorporation			7,060
Adoption of debts in Special Tax Regularization Program ("PERT") without cash effect		(259)	
Transfer of assets classified as held-for-sale			2,125
Transfer of liabilities related to assets classified as held-for-sale			(1,522)

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

Consolidated statement of value added

Years ended December 31

All amounts in millions of reais (A free translation of the original in Portuguese)

	Note	2017	2016
Revenue			
Sales of products and services		31,362	30,383
Estimated loss on doubtful accounts	11 (c)		(4)
Other operating income, net		894	581
		32,256	30,960
Inputs acquired from third parties			
Raw materials and other production inputs		(18,545)	(17,225)
Materials, energy, outsourced services and others		(517)	(512)
Impairment of assets	29	94	(2,152)
Gross value added		13,288	11,071
Depreciation, amortization and depletion	27	(2,360)	(2,603)
Net value added generated by the Company		10,928	8,468
Value added received through transfers			
Equity in the results of investees		1,222	768
Finance income and foreign exchange losses		2,279	5,097
		3,501	5,865
Total value added to distribute		14,429	14,333
Distribution of value added			
Personnel and payroll charges	28		
Direct remuneration		2,469	2,553
Social charges		947	1,023
Benefits		600	597
		4,016	4,173
Taxes and contributions			
Federal		2,491	2,217
State		2,604	2,904
Municipal		13	18
Deferred taxes		(592)	(870)
		4,516	4,269
Third-party capital remuneration			
Finance costs and foreign exchange losses		4,771	6,814
Rentals		316	328
		5,087	7,142
Own capital remuneration			
Non-controlling interests		220	45
Dividends		(499)	89
Reinvested profits (offset losses)		1,234	(1,085)
Loss on discontinued operations		(145)	(300)
		810	(1,251)
Value added distributed		14,429	14,333

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

Notes to the consolidated financial statements

at December 31, 2017

All amounts in millions of reais unless otherwise stated

1. GENERAL CONSIDERATIONS

Votorantim S.A. (the “Company”, the “parent company”, or “VSA”), formerly known as Votorantim Industrial S.A., is a privately held company, fully controlled by the Ermírio de Moraes family, and is the holding company of the Votorantim Group. 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: cement, zinc and byproducts, aluminum, electrical energy, steel, wood pulp, agribusiness and finance.

1.1. MAIN EVENTS THAT OCCURRED DURING THE YEAR 2017

(a) Corporate transactions in the long steel segment

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 capital of AMB (Note 34 (a)).

Votorantim’s long steel operations in Argentina (Acerbrag) and Colombia (PazdelRío) were not included in the transaction.

(b) Sale of assets and liabilities in the Cement segment

(i) China operations

In June 2017, the indirect subsidiary Votorantim Cimentos EAA Inversiones SL (“VCEAA”) carried out the sale of assets and liabilities related to the operations of Suzhou Nanda Cement Co. Ltd., Hua Wo Cement Co. Ltd. – (Shandong) and Hua Wo Cement Co. Ltd. – (Huai’an), located in China.

In October 2017, VCEAA sold all the shares representing Hua Wo (Zaozhuang) Cement Co. Ltd. and Liyand Dongfang Cement Co Ltd., with both companies held by Votorantim Cimentos (“VCSA”) indirectly.

As a result, the VCEAA recorded a loss related to the sale of the investment in the amount of R\$ 139 and exchange variation of the realization of the other comprehensive income – the exchange variation on these foreign investments in the amount of R\$ 60, both recorded under “Discontinued Operations” (Note 34 (c)).

As a result of the sale of this investment, VCSA also carried out proportionally the reduction of goodwill and exchange variation of the realization of other comprehensive income on these investments abroad, in the amount of R\$ 228 and R\$ 73, respectively, recorded under “Discontinued operations” (Note 34 (c)).

(ii) Florida and California operations

The indirect subsidiary Votorantim Cement North America Inc. (“VCNA”) and the Anderson Columbia Group (“Anderson Columbia”) entered into a contract for the sale of all the shares representing the capital stock of the operations in the states of Florida and California (USA), which includes VCNA Prestige Concrete Products Inc., VCNA Prestige Gunitite Inc. (including its wholly-owned subsidiary Sacramento Prestige Gunitite Inc.) and its 50% interest in Suwanee American Cement LLC (“SAC”) and Sumter Cement Co LLC.

In November 2017, the operation was completed and VCSA recorded net gain related to the sale of the investment in the amount of R\$ 257, recorded under “Discontinued operations” (Note 34 (c)).

(c) Reversed a provision referring to the exclusion of State Value Added Tax on Sales and Services (“ICMS”) from the basis of calculation of the PIS and COFINS contributions

In the second quarter of 2017, the investees reversed a provision referring to the exclusion of ICMS from the basis of calculation of the PIS and COFINS contributions, based on the judgment of the Federal Supreme Court (“STF”) with general repercussions. The net result of this reversal represented a gain effect, in the amount of R\$ 327, in the income for the year.

(d) Adoption the Special Tax Regularization Program

In 2017, the subsidiaries adopted the Special Tax Regularization Program (“PERT”), including debits with the Brazilian Federal Revenue (“RFB”) in accordance with the Provisional Executive Act (“MP”) 783/2017, converted into Law 13,496, on October 24, 2017. The amount included in the program was R\$ 374, of which R\$ 117 had already been provisioned. Accordingly, there was an impact on the result for the year, in the amount of R\$ 257, of which R\$ 122 was recorded under “Other operating income (expenses), net” (Note 29), R\$ 79 in financial income and R\$ 56 in tax income and social contribution. Of the total included in the program, R\$ 259 was paid with tax loss and negative basis, and the rest will be settled in cash.

(e) Mato Grosso State Credit Recovery Program – (“REFIS – MT Program”)

The subsidiary VCSA joined the REFIS-MT and signed an agreement with the Public Ministry of the State of Mato Grosso with the purpose of adjusting and ratifying the ICMS tax benefits related to the construction of the Cuiabá plant. Under the agreement, it was recognized that VCSA made investments higher than those provided for in the respective terms of concession of tax benefits. However, divergences in legal interpretation led to tax assessments, which led to the need to resolve pending tax issues through a payment in the amount of R\$ 237 to the State in September 2017. VCSA also pledged to increase investments of R\$ 15, of which R\$ 13.5 was paid in September 2017, for a state development fund for the promotion of small entrepreneurs, and R\$ 1.5 for the municipality of Nobres, which will benefit from projects in the area of health, developed in partnership with the Votorantim Institute, which includes the construction of two service stations for the population. To settle this agreement, the Company adhered to the Mato Grosso State Credit Recovery Program – REFIS-MT Program.

(f) Public offering of shares Nexa Resources S.A. (“Nexa”)

On October 27, 2017, the subsidiary Nexa announced its initial public offering and began trading its shares on the New York Stock Exchange (“NYSE”) and the Toronto Stock Exchange (“TSX”), under the ticker name “NEXA”.

On October 31, 2017, Nexa announced the closing of its initial public offering of 35,650,000 common shares of the Company at a price of USD 16.00 per share, which included a total of 15,150,000 shares sold by VSA, in which 4,650,000 shares are included in the additional purchase option held by VSA. As a result, Nexa’s shareholders’ equity increased by R\$ 1,009 (USD 306).

In primary funding, the VSA share was diluted from 89.35% to 75.61%, resulting in a reduction of R\$ 215 in investment and this was reflected in shareholders’ equity (Note 25).

The sale of shares by VSA corresponded to 15.57% of Nexa’s remaining balance, with the Company holding 64.25%. As a reflection of the operation, VSA recognized a net gain of R\$ 258, of which R\$ 589 was recorded under “Other operating income (expenses), net” (Note 29) and a loss of R\$ (331) recorded in financial income, whit the following effects:

Effects sale of investment in Nexa	
Net income from sale of investment (Note 29)	(161)
Realization of other comprehensive income from sale (Note 29)	750
Hedge Net Investment – Exchange rate variation	(331)
Gain on the sale of investment in Nexa	258

(g) Sale of interests in Cementos Bio Bio S.A. (“Bio Bio”) and in Guanaco Inversiones Ltda. (“Guanaco”)

In October 2017, the subsidiary Votorantim Cimentos Chile S.A. (“VCC”) was partially spun-off, aiming at the creation of a new company named Guanaco Inversiones Ltda., which received through the spinoff the 13.1% interest held by VCC in Bio Bio. In November 2017, the Company sold all the shares of Guanaco and recognized a net gain of R\$ 16. In the same period, VCC also sold the remaining shares it held in Bio Bio, equivalent to a 3.6% interest in such company, and recognized a net gain of R\$ 4 (Note 29).

(h) Joint venture in energy operation

On December 13, 2017, the subsidiary Votorantim Geração de Energia SA (“VGE”) signed an investment agreement with Canada Pension Plan Investment Board (“CPPIB”) to set up a joint venture serving as an investment platform related to acquisition and development of new renewable energy generation assets in Brazil. On the same date, as an initial investment strategy, VGE and CPPIB entered into an agreement to buy and sell shares with Casa dos Ventos Energias Renováveis S.A., aiming at the acquisition by the joint venture of the wind farms of Ventos do Araripe III.

As part of the constitution of the joint venture, VGE will contribute its wholly-owned subsidiaries of Ventos do Piauí I wind farms and CPPIB will contribute approximately R\$ 690. The completion of the operation is subject to verification of some previous conditions.

(i) Change of corporate name

In the fourth quarter of 2017, due to the repositioning in the market, the main companies that are part of the Nexa corporate structure, changed their corporate name. The amendments are still under review by the bodies responsible for approval. Here are the changes that were made:

From	To
Compañía Minera Milpo S.A.A.	Nexa Resources Perú S.A.A.
Votorantim Metais Zinco S.A.	Nexa Recursos Minerais S.A.
Votorantim Metais – Cajamarquilla S.A.	Nexa Resources Cajamarquilla S.A.

2. PRESENTATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

2.1. BASIS OF PREPARATION

(a) Consolidated interim financial statements

The financial statements have been prepared in accordance with accounting practices adopted in Brazil effective up to December 31, 2017, 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 issuance of these financial statements was originally approved by Management on February 28, 2018 and subsequently re-approved on March 21, 2018, due to the disclosure of the subsequent event related to the corporate reorganization of the jointly-controlled subsidiary Fibria Celulose S.A. (Note 36 (e)).

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 trans-

ferred. 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.

2.3. RESTATEMENT OF COMPARATIVE FIGURES

(a) Assets classified as held-for-sale

In accordance with IFRS 5 / CPC 31 – "Non-current assets held-for-sale and discontinued operations", the Company reclassified certain cement operations from China and the states of Florida and California (USA) from continuing operations to discontinued operations, consequently, the result balances were subject to changes in the amounts previously presented in the financial statements as at December 31, 2016. Thus, the effects of these reclassifications are as follows:

2016			
	As prior presented	Impacts of reclassification of cement	Restated
Continuing operations			
Net revenue from products sold and services rendered	26,738	(773)	25,965
Cost of products sold and services rendered	(20,773)	763	(20,010)
Loss of profit	5,965	(10)	5,955
Operating income (expenses)			
Selling	(1,667)	28	(1,639)
General and administrative	(2,112)	21	(2,091)
Other operating income (expenses), net	(2,605)	(11)	(2,616)
	(6,384)	38	(6,346)
Operating profit (loss) before equity results and finance results	(419)	28	(391)
Results from equity investments			
Equity in the results of investees	737	(13)	724
Realization of other comprehensive income on disposal of investments	44		44
	781	(13)	768
Finance results, net			
Finance income	1,397		1,397
Finance costs	(2,666)	23	(2,643)
Income from derivative financial instruments	(1,006)		(1,006)
Foreign exchange, net	544	(9)	535
	(1,731)	14	(1,717)
Profit (loss) before income tax and social contribution	(1,369)	29	(1,340)
Income tax and social contribution			
Current	(482)	1	(481)
Deferred	868	2	870
Profit (loss) for the year from continuing operations	(983)	32	(951)

2016			
	As prior presented	Impacts of reclassification of cement	Restated
Discontinued operations			
Loss for the year from discontinued operations	(268)	(32)	(300)
Loss for the period attributable to the owners	(1,251)		(1,251)
Loss attributable to the owners of the Company	(1,296)		(1,296)
Profit attributable to non-controlling interests	45		45
Loss for the year	(1,251)		(1,251)
Weighted average number of shares – thousands (to the owners of the Company)	18,278,789		18,278,789
Basic and diluted loss per thousand shares, in reais	(70.90)		(70.90)
From continuing operations			
Basic and diluted earnings per thousand shares, in reais	(56.24)	1.75	(54.49)
From discontinued operations			
Basic and diluted loss per thousand shares, in reais	(14.66)	(1.75)	(16.41)

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 hyper-inflationary 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 taken to 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
Votorantim Cement North America Inc.	Canada	US Dollar	Holding
Votorantim Cimentos EAA Inversões, S.L.	Spain	Euro	Holding
Nexa Resources Cajamarquilla S.A.	Peru	US Dollar	Zinc
US Zinc Corporation	EUA	US Dollar	Zinc
Nexa Resources Perú S.A.A.	Peru	US Dollar	Mining
Acerías Paz del Río S.A.	Colombia	Colombian Peso	Steel
Acerbrag S.A.	Argentina	Argentine Peso	Steel
Nexa Resources S.A.	Luxembourg	US Dollar	Holding
Votorantim GmbH	Austria	US Dollar	Zinc
Votorantim FinCO GmbH	Luxembourg	US Dollar	Trading

3. CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

3.1. NEW STANDARDS NOT YET ADOPTED

The following standards have been published and are mandatory for accounting periods starting from January 1, 2018. There was no early adoption of these standards by the Company.

Standard	IFRS 15 – “Revenue from contracts with customers”
Validity	January 1, 2018
Main points introduced by the standard	<p>This standard introduces a comprehensive framework for determining the measurement of revenue and when revenue should be recognized.</p> <p>In accordance with IFRS 15, revenue must be recognized when: (i) there is a written or oral contract; (ii) the obligation to perform the contract is identified; (iii) it is possible to determine the price of the transaction and allocate by performance obligation; and (iv) the performance obligation is met.</p> <p>IFRS 15 replaces current revenue recognition standards, including CPC 30 (IAS 18) – “Revenue”, CPC 17 (IAS 11) – “Construction Contracts” and CPC 30 – Interpretation A (IFRIC 13) – “Loyalty Programs with the client”.</p>
Impacts	<p>Management evaluated the principles and amendments introduced by the new standard and concluded that its adoption will not impact the Company in relation to the time for recognition of revenue from customer contracts, as well as its measurement, presentation and disclosure in the financial statements.</p> <p>The observed impacts are related to the review of internal documents and the creation and / or change of procedures, in order to ensure that the new contracts with clients are adequately evaluated and accounted in accordance with IFRS 15.</p>

Standard	CPC 48 / IFRS 9 – “Financial instruments: Recognition and measurement”
Validity	January 1, 2018
Main points introduced by the standard	<p>This standard addresses three aspects of accounting for financial instruments: classification and measurement, impairment and hedge accounting. IFRS 9 is intended to replace IAS 39 – “Financial Instruments: Recognition and Measurement”.</p> <p>(i) Classification and measurement</p> <p>The standard provides a new assessment for the classification and measurement of financial instruments, which will be defined based on the contractual cash flow and the entity’s business model, and introduces a new classification of financial assets at fair value through other entities results.</p> <p>(ii) Impairment</p> <p>IFRS 9 defines that an entity shall measure an expected credit loss from the initial recognition of the financial asset. The standard allows the Company to make this estimate through a general model in which there is a need to monitor whether there is any significant credit risk increase or a simplified model.</p> <p>(iii) Hedge accounting</p> <p>IFRS 9 introduces three requirements for hedge effectiveness:</p> <ul style="list-style-type: none">(i) There is an economic relationship between the object and the hedging instrument;(ii) The effect of credit risk does not dominate the changes in values arising from the economic relationship; and(iii) The hedge ratio of the hedge relationship is the same as that resulting from the amount of the hedged item that the hedge effectively protects and the amount of the hedge instrument that the hedge actually uses to hedge that hedged item amount. <p>The standard also requires a prospective assessment of expectations about the effectiveness of coverage.</p> <p>In addition, exclusively for hedge accounting of cash flow there is a change in relation to the concept of time value, which will no longer be treated as a component of the transaction and will begin to affect shareholders’ equity (other comprehensive income) with the adoption of the IFRS 9.</p>

Standard	CPC 48 / IFRS 9 – “Financial instruments: Recognition and measurement”
Impacts	<p>Management evaluated the principles and amendments introduced by the new standard and concluded that its adoption will not cause significant impacts to the Company and its subsidiaries in relation to the time for recognition, as well as their measurement, presentation and disclosure in the financial statements.</p> <p>(i) Classification and measurement</p> <p>The Company and its subsidiaries analyzed the classification of their financial assets, based on the three new categories: amortized cost, fair value through other comprehensive income and at fair value through profit or loss. The Company does not expect a significant impact on its balance sheet or shareholders’ equity when applying the classification and measurement requirements.</p> <p>(ii) Impairment</p> <p>The Company and its subsidiaries will apply 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 was composed of historical data of losses for all aging lists and prospective data, including considering the securities to be matched.</p> <p>In the analysis performed by the Company, an increase was estimated in the estimated loss that is intangible in the consolidated as at January 1, 2018.</p> <p>(iii) Hedge accounting</p> <p>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 will be no impact as a result of the application of IFRS 9.</p>

Standard	IFRS 16 – “Leases”
Validity	January 1, 2019
Main points introduced by the standard	This standard replaces the previous lease standard, IAS 17 / CPC 06 (R1) – “Leasing Operations”, and related interpretations, and establishes the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract, ie customers (lessees) and suppliers (lessors). Tenants are required to recognize a lease liability reflecting future lease payments and a “right to use an asset” for virtually all lease agreements, with the exception of certain short-term leases and low value asset leases. For landlords, the accounting treatment remains practically the same, with the classification of leases as operating leases or financial leases, and accounting for these two types of lease differently.
Impacts	The evaluation of the Company and its subsidiaries on the impacts of the new standard is underway. The evaluation is being conducted in the different areas, with the objective of identifying the existing lease contracts, as well as the environment of internal controls and systems impacted by the adoption of the new standard.

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

4. CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Based on assumptions, the Company makes 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 31).

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 carries 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 does not enter into transactions involving financial instruments for speculative purposes.

(a) Market risk

(i) Foreign exchange risk

The Foreign Exchange Exposure Management Policy highlights that the purpose of derivative transactions is to reduce cash flow volatility, hedge against foreign exchange exposure, and avoid the mismatch between Company currencies.

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

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

	Note	2017	2016
Assets denominated in foreign currency			
Cash and cash equivalents	9	6,062	4,641
Financial investments	10	326	517
Derivative financial instruments		189	367
Trade receivables	11	1,192	995
Related parties		67	228
		7,836	6,748
Liabilities denominated in foreign currency			
Borrowing (*)		17,817	18,439
Derivative financial instruments		382	742
Trade payables		1,955	1,861
Confirming payables	20	761	605
		20,915	21,647
Net exposure		(13,079)	(14,899)

(*) 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 to fair value interest rate risk.

(iii) Commodity price risk

The Commodity Price Exposure Management Policy 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 adopts 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.

The Company performs initial analyses of customer credit and, when necessary, guarantees deemed or letters of credit are obtained to safeguard the Company’s interests. Additionally, most of the export sales to the United States, Europe and Asia are collateralized by letters of credit and credit insurance.

(c) Liquidity risk

Liquidity risk is managed in accordance with Votorantim’s Financial Policy, aiming to guarantee sufficient liquid resources to honor the Company’s financial commitments in the period and at no additional cost. One of the main instruments of measurement and monitoring of liquidity is the projection of cash flow, observing a minimum term of 12 months of projection as of the reference date.

The following table analyzes the Company’s principal financial liabilities 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, 2017							
Borrowing (*)		3,603	5,531	6,970	12,941	7,931	36,976
Derivative financial instruments		310	63	9			382
Confirming payables	20	1,070					1,070
Trade payables		3,353					3,353
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
At December 31, 2016							
Borrowing (*)		3,826	7,247	8,530	9,924	9,368	38,895
Derivative financial instruments		401	286	56			743
Confirming payables	20	968					968
Trade payables		2,723					2,723
Dividends payable	14	48					48
Related parties		10	12				22
Use of public assets		78	171	193	595	1,889	2,926
		8,054	7,716	8,779	10,519	11,257	46,325

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

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 adopts 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 U.S. 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 uses its judgment to choose among several methods and to establish assumptions that are based primarily on the market conditions existing at the balance sheet date.

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

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

Programs	Principal Value		As per unit	Pur- chase/ sale	Average FWD rate	Aver- age term (days)	Fair value		Real- ized gain (loss)	Fair value by maturity				
	2017	2016					2017	2016		2017	2018	2019	2020	2021
Sales at a fixed price														
Zinc forward	2,318	922 ton		P	3,016 USD/ton	123	2.1	1.8	4.3	2.1				
							2.1	1.8	4.3	2.1				
Hedging instruments for mismatches of quotation periods														
Zinc forward	281,397	184,835 ton		P/S		24	(16.3)	14.3	(17.1)	(16.3)				
Silver forward	238	k oz (*)		P/S		17	0.6		(0.1)	0.6				
Aluminum forward	6,850	1,497 ton		P/S		29	(0.2)		(2.8)	(0.2)				
							(15.9)	14.3	(20.0)	(15.9)				
Hedging instruments for the operating margin of metals														
Aluminum forward	18,970	5,165 ton		S	1,722 USD/ton	1	(21.9)	(1.9)		(21.9)				
Zinc forward		10,690 ton		S	USD/ton			(23.2)						
US Dollar forward	33	16 USD		S	4 BRL/USD	1	8.9	11.4		8.9				
							(13.0)	(13.7)		(13.0)				
Hedging instruments for foreign exchange exposure														
US Dollar forward	451	USD		P	3 BRL/USD	5	(21.2)		(9.1)	(21.2)				
Euro forward		EUR		P	BRL/EUR				(0.9)					
Turkish lira forward	26	USD		P	4 TRY/USD	22	0.4			0.4				
							(20.8)		(10.0)	(20.8)				
Hedging instruments for debts														
Fixed rate in reais vs. CDI floating rate swaps		100 BRL						(1.0)	(0.9)					
TJLP floating rate vs. CDI floating rate swaps	28	28 BRL			97.00% % CDI	197	1.0	1.0	(0.3)	1.0				
LIBOR floating rate vs. CDI floating rate swaps	254	773 USD			111.07% % CDI	1,030	42.4	(320.3)	(535.1)	(23.5)	(30.0)	10.6	85.3	
US dollar fixed rate vs. CDI floating rate swaps	50	50 USD			101.90% % CDI	24	(42.7)	(47.7)	(14.9)	(42.7)				
							0.7	(368.0)	(551.2)	(65.2)	(30.0)	10.6	85.3	
							(46.9)	(365.6)	(576.9)	(112.8)	(30.0)	10.6	85.3	

(*) k oz– Troy Ounce

Programs	Principal Value		As per unit	Pur- chase/ sale	Average FWD rate	Average term (days)	Fair value		Real- ized gain (loss)	Fair value by maturity			
	2017	2016					2017	2016		2017	2018	2019	2020
Hedge accounting – cash flow hedge													
Hedging instruments for the operating margin of metals													
Zinc forward		94,559	ton	S				(74.9)	(145.2)				
Aluminum forward	165,175	225,000	ton	S	2,019 USD/ton	198	(143.2)	(10.6)	(184.0)	(133.6)	(9.6)		
Copper forward		540	ton	S				0.7	(0.6)				
US Dollar forward	334	473	USD	S	3 BRL/USD	200	0.1	80.8	173.4	1.2	(1.1)		
							(143.1)	(4.0)	(156.4)	(132.4)	(10.7)		
Hedging instruments for mismatches of quotation periods													
Zinc forward	58,800	43,294	ton	P/S		47	9.9	(5.6)	14.7	9.9			
Silver forward	265		k oz (*)	P/S		58	(0.2)		(0.3)	(0.2)			
							9.7	(5.6)	14.4	9.7			
Hedge accounting – fair value hedge													
Sales at a fixed price													
Zinc forward	202	426	ton	P	3,169 USD/ton	69	0.1	0.3	1.2	0.1			
							0.1	0.3	1.2	0.1			
Hedging instruments for mismatches of quotation periods													
Zinc forward	93,003	23,940	ton	P/S		43	(11.4)	0.3	(45.2)	(11.4)			
							(11.4)	0.3	(45.2)	(11.4)			
							(144.7)	(9.0)	(186.0)	(134.0)	(10.7)		
							(191.6)	(374.6)	(762.9)	(246.8)	(40.7)	10.6	85.3

(*) k oz– Troy Ounce

The transactions involving derivative financial instruments recognized in “Carrying value adjustments” amount a loss of R\$ (41) in 2017. Besides this, there are hedge accounting operations, which amounted to a loss of R\$ (15) in 2017, in the subsidiaries not consolidated recognized in “Carrying value adjustments”.

(b) Effects of financial derivative instruments on the financial result

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

Programs	Fair value	Realized loss	Total
Hedging instruments for foreign exchange exposure			
US Dollar forward	(21,2)	(9,1)	(30,3)
Euro forward		(0,9)	(0,9)
Turkish lira forward	0,4		0,4
	(20,8)	(10,0)	(30,8)
Hedging instruments for debts			
Fixed rate in reais vs. CDI floating rate swaps	1,0	(0,9)	0,1
TJLP vs. CDI floating rate swaps		(0,3)	(0,3)
LIBOR floating rate vs. CDI floating rate swaps	362,7	(535,1)	(172,4)
US Dollar fixed rate vs. CDI floating rate swaps	5,0	(14,9)	(9,9)
	368,7	(551,2)	(182,5)
Effect on the finance results	347,9	(561,2)	(213,3)

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, 2017 and 2016, 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			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	8,960
Financial investments	10	1,573	2,014	3,587
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
Confirming payables	20		1,070	1,070
Derivative financial instruments	6.1.1		382	382
Financial instruments – firm commitment	15		173	173
Deferred revenue – silver streaming			734	734
		15,292	12,576	27,868

	Fair value measured based on			2016
	Note	Prices quoted in an active market (Level 1)	Valuation supported by observable prices (Level 2)	Fair value
Assets				
Cash and cash equivalents	9	3,128	3,818	6,946
Financial investments	10	1,401	1,828	3,229
Derivative financial instruments	6.1.1		368	368
Financial instruments – firm commitment	15		688	688
		4,529	6,702	11,231
Liabilities				
Borrowing	19	11,252	12,027	23,279
Confirming payables	20		968	968
Derivative financial instruments	6.1.1		743	743
Financial instruments – firm commitment	15		10	10
Deferred revenue – silver streaming			815	815
		11,252	14,563	25,815

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.

Investments that were designated as hedged investments are presented in the following table including the portion of the debt of the Company and its subsidiaries Companhia Brasileira de Alumínio (“CBA”), Nexa Mineral Resources S.A. (“Nexa BR”), VCSA and VS, denominated in Euros and Dollars.

	2017		2016	
	Investment	Debt	Investment	Debt
Nexa Resources Cajamarquilla S.A.	2,825	2,981	3,233	2,968
Votorantim Cement North America Inc.	2,170	4,219	3,173	4,540
Votorantim Cimentos EAA Inversões, S.L.	1,723	2,263	2,410	2,577

The foreign exchange loss on the conversion of debts, net of income tax and social contribution, recognized as equity valuation adjustments on December 31, 2017, was R\$ 163 (December 31, 2016, gain of R\$ 2,033) (Note 25 (e)).

The Company documents and evaluates quarterly the effectiveness of the investment hedge operations, both prospectively and retrospectively.

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 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 of December 31, 2017 are described below:

Scenario I – Considers a shock in the market curves and quotations at December 31, 2017, according to the base scenario defined by Management for March 31, 2018;

Scenario II – considers a shock of + or – 25% in the market curves at December 31, 2017;

Scenario III – considers a shock of + or – 50% in the market curves at December 31, 2017.

Risk factors	Cash and cash equivalents and financial investments (i)	Borrowing and related parties (i)	Derivative financial instruments/As per unit	Impacts on profit (loss)						Impacts on comprehensive income					
				Scenario I		Scenarios II & III				Scenario I		Scenarios II & III			
				Changes from 2017	Results of scenario I	-25%	-50%	+25%	+50%	Results of scenario I	-25%	-50%	+25%	+50%	
Foreign exchange rates															
USD	5,365	14,170 (*)	1,147	USD million	-3.8%	61	403	806	(403)	(806)	401	2,628	5,256	(2,628)	(5,256)
EUR	206	2,934			-5.4%		(1)	(3)	1	3	148	682	1,364	(682)	(1,364)
PEN	81				-4.5%	(3)	(19)	(38)	19	38	(4)	(20)	(40)	20	40
BOB	17	396			-2.4%						9	95	189	(95)	(189)
TRY	129	267			0.4%	1	(32)	(65)	32	65	(1)	34	69	(34)	(69)
ARS	127				0.8%						1	(32)	(64)	32	64
Interest rates															
BRL – CDI	6,144	4,456	3,768	BRL million			(25)	(49)	25	50		9	18	(8)	(17)
USD – LIBOR		839	2,118	USD million	-2 bps		(4)	(9)	4	9		2	5	(2)	(5)
US Dollar coupon			1,121	USD million	3 bps	(1)	18	36	(17)	(33)		(3)	(7)	3	7
Price of commodities															
Zinc			435,720	ton	-2.9%	50	196	393	(196)	(393)	(2)	(8)	(16)	8	16
Aluminum			190,995	ton			2	3	(2)	(3)	78	309	618	(309)	(618)
Copper					-11.8%										
Silver			503	k oz (**) thousand	5.2%		1	2	(1)	(2)		4	7	(4)	(7)
Firm commitment – electric energy															
Sale and purchase agreements – fair value			114	BRL million			4	7	(4)	(8)					
(*) Considers baskets of currencies															
(**) k*oz – Ounces troy															

(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.

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) Held to maturity

Investments in non-derivative marketable securities, made by the Company with the ability and intention of being held to maturity, are classified as held to maturity investments and recorded at amortized cost. The Company assesses, at the balance sheet date, whether there is objective evidence that a financial asset or group of financial assets is impaired. If there is such evidence, a provision for the impairment of the asset is recorded.

(c) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are initially measured at fair value and subsequently at amortized cost using the effective interest method.

(d) Financial assets available-for-sale

Financial assets available-for-sale are non-derivatives that are not classified in any of the previous categories. They are presented as non-current assets unless management intends to dispose of the investment within 12 months after the balance sheet date.

(e) Impairment of financial assets carried at amortized cost

The amount of any impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognized in the statement of income.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized (such as an improvement in the debtor's credit rating), the reversal of the previously recorded loss is recognized in the statement of income.

	Note	2017	2016
Assets			
Borrowing and receivables			
Cash and cash equivalents	9	8,960	6,946
Trade receivables	11	2,421	2,001
Related parties	14	143	535
		11,524	9,482
Assets held-for-trading			
Financial investments	10	3,468	3,204
Derivative financial instruments	6.1.1	160	258
Financial instruments – firm commitment		364	688
		3,992	4,150
Assets available-for-sale			
Financial investments	10	68	3
		68	3
Held-to-maturity investments			
Financial investments	10	51	22
		51	22
Derivatives used for hedging			
Derivative financial instruments	6.1.1	30	110
		30	110
Liabilities			
Liabilities at fair value through profit or loss			
Borrowing	19	12,859	963
Derivative financial instruments	6.1.1	199	613
Financial instruments – firm commitment		208	10
		13,266	1,576
Derivatives used for hedging			
Derivative financial instruments	6.1.1	183	130
		183	130
At amortized cost			
Borrowing	19	11,771	23,456
Trade payables		3,353	2,723
Related parties	14	25	22
Confirming payables	20	1,070	968
Use of public assets	24	1,132	1,186
		17,351	28,355

8. CREDIT QUALITY OF FINANCIAL ASSETS

	2017			2016		
	Local rating	Global rating	Total	Local rating	Global rating	Total
Cash and cash equivalents						
AA+	376		376			
AA	70		70			
AA-	2,452	464	2,916	1,831	815	2,646
A+		2,233	2,233	175	815	990
A		847	847		278	278
A-		393	393		736	736
BBB+		391	391		479	479
BBB		458	458		409	409
BBB-		58	58		111	111
BB+					34	34
BB		140	140	297	91	388
B-		77	77			
B+		21	21		81	81
CCC+					96	96
Unrated (i)		980	980	2	696	698
	2,898	6,062	8,960	2,305	4,641	6,946
Financial investments						
AA+	867		867	59		59
AA	30		30			
AA-	2,315	14	2,329	2,105		2,105
A+	3	168	171	479	308	787
A		25	25	3	12	15
A-	18	2	20	17	66	83
BBB+		21	21			
BBB					3	3
BB				23		23
B-		50	50			
CCC+					104	104
Unrated (ii)	28	46	74	26	24	50
	3,261	326	3,587	2,712	517	3,229

	2017			2016		
	Local rating	Global rating	Total	Local rating	Global rating	Total
Derivative financial instruments						
AAA	30		30	84		84
AA+	7		7			
AA-	69	17	86	173		173
A+		11	11	10	1	11
A		1	1		24	24
A-					76	76
Unrated (i)	55		55			
	161	29	190	267	101	368
	6,320	6,417	12,737	5,284	5,259	10,543

The local and global ratings were obtained from the ratings agencies Standard & Poor's ("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.

(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

9. CASH AND CASH EQUIVALENTS

Accounting policy

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.

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.

	2017	2016
Local currency		
Cash and banks	14	14
Certificates of deposits	534	
Repurchase agreements – private securities	165	1,072
Repurchase agreements – public securities	2,185	1,219
	2,898	2,305
Foreign currency		
Cash and banks	3,516	1,895
Certificates of deposits	1,503	2,746
Term deposits	1,043	
	6,062	4,641
	8,960	6,946

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.

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).

	2017	2016
Held-for-trading		
Bank Deposit Certificates – “CDBs”	543	657
Financial Treasury Bills – “LFTs”	961	740
Repurchase agreements – public securities	605	661
Repurchase agreements – private securities	1,048	603
Financial investments in foreign currency	282	517
Investment fund quotas	29	26
	3,468	3,204
Available-for-sale		
Bank Deposit Certificates – “CDBs”	68	3
	68	3
Held-to-maturity		
Financial Treasury Bills “LFTs”	7	
Financial investments in foreign currency	44	
Bank Deposit Certificates – “CDBs”		22
	51	22
	3,587	3,229
Current	3,562	3,190
Non-current	25	39
	3,587	3,229

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	2017	2016
Trade receivables – Brazil		1,296	1,125
Trade receivables – foreign customers		1,231	1,009
Related parties	14	53	26
		2,580	2,160
Allowance for doubtful accounts		(159)	(159)
		(159)	(159)
		2,421	2,001

(b) Breakdown by currency

	2017	2016
Brazilian Real	1,229	1,006
US Dollar	620	449
Euro	115	110
Colombian peso	111	83
Argentine peso	74	100
Canadian dollar	4	3
Other	268	250
	2,421	2,001

(c) Changes in estimated loss for doubtful accounts

	2017	2016
Opening balance	(159)	(155)
Additions, net	(17)	(70)
Receivables written off as uncollectible (i)	13	17
Reclassification of assets classified as held-for-sale	4	30
Foreign exchange variations		19
Closing balance	(159)	(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

	2017	2016
Current	1,975	1,796
Up to three months past due	326	169
Three to six months past due	32	20
Over six months past due	247	175
	2,580	2,160

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 Company, 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.

	2017	2016
Finished products	749	700
Semi-finished products	1,482	1,396
Raw materials	624	617
Auxiliary materials and consumables	856	952
Imports in transit	205	101
Other	84	104
Provision for inventory losses	(474)	(489)
	3,526	3,381

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.

	2017	2016
Corporate Income Tax (“IRPJ”) and Social Contribution on Net Income (“CSLL”)	1,524	1,354
State Value-added Tax on Sales and Services (“ICMS”)	465	542
Social Contribution on Revenue (“COFINS”)	379	386
Value-added Tax (“VAT”) (foreign companies)	265	275
Social Integration Program (“PIS”)	85	85
“IRPJ/CSLL” – “Plano Verão”	81	185
Withholding Income Tax (“IRRF”)	69	90
(“ICMS”) on property, plant and equipment	66	78
Excise Tax (“IPI”)	32	29
Other	135	89
	3,101	3,113
Current	1,317	1,527
Non-current	1,784	1,586
	3,101	3,113

14. RELATED PARTIES

Assets	Trade receivables		Dividends receivable		Non-current assets	
	2017	2016	2017	2016	2017	2016
Related companies and joint ventures						
Banco Votorantim S.A.			55	51		
Citrosuco GmbH (i)					43	205
Citrosuco S.A. Agroindústria (i)	32				86	302
Fibria Celulose S.A.	12	4	76	116	1	1
Mineração Rio do Norte S.A.			5	7		
Supermix Concreto S.A.	5	21				
Other	4	1	12	6	13	27
	53	26	148	180	143	535
Current	53	26	148	180		
Non-current					143	535
	53	26	148	180	143	535

Liabilities	Trade payables		Dividends payable		Non-current liabilities	
	2017	2016	2017	2016	2017	2016
Parent company						
Hejoassu Administração S.A.			140			
Related companies and joint ventures						
Fibria Celulose S.A.	3	4			1	
Suwannee American Cement LLC		27				
Other	6	3			24	22
	9	34	140		25	22
Non-controlling interests			48	48		
Current	9	34	188	48		
Non-current					25	22
	9	34	188	48	25	22

Profit and loss	Sales (purchases), net		Finance income (expenses), net	
	2017	2016	2017	2016
Related companies and joint ventures				
Cementos Granadilla S.L.	14	64		
Citrosuco S.A. Agroindústria	28	12	5	15
Fibria Celulose S.A.	143	59		(1)
Superior Materials Holdings, LLC	58	68		
Supermix Concreto S.A.	167	276		
Cementos Avellaneda S.A.	32			
Cementos Especiales de las Islas, S.A.	12	20		
Midway Group, LLC.	21			
Other	12	4	2	1
	487	503	7	15

(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, 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, 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 IAS 39 / CPC 38 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 period.

The Company, through its 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\$ 286 in “Other operating expenses, net”.

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\$ 236 was recognized as an expense in “Other operating expenses, net” (Note 29).

The values quoted above have the following composition:

	ACR			Voto- rantim Cimen- tos	ACL			Total	
	CBA	Energy	Total		CBA	Energy	Total	2017	2016
Realization	(134)	(39)	(173)	(12)	(14)	(113)	(139)	(312)	(286)
Recognition					(37)	(60)	(97)	(97)	33
Reversal (i)	(87)	(26)	(113)					(113)	
	(221)	(65)	(286)	(12)	(51)	(173)	(236)	(522)	(253)

(i) The reduction in volume was caused by the exit of distributors from the regulated trading environment, and they migrated to the free environment.

The table below present the composition of equity balances:

	ACR			Voto- rantim Cimen- tos	ACL			Total	
	CBA	Energy	Total		CBA	Energy	Total	2017	2016
Assets									
Current	106	31	137		9	64	73	210	317
Non-current	119	35	154					154	371
	225	66	291		9	64	73	364	688
Liabilities									
Current				(1)			(1)	(1)	
Non-current				(22)	(53)	(132)	(207)	(207)	(10)
				(23)	(53)	(132)	(208)	(208)	(10)
	225	66	291	(23)	(44)	(68)	(135)	156	678

16. INVESTMENTS

Accounting policy

Investments in affiliates, subsidiaries and joint ventures are accounted for using the equity method of accounting (“MEP”) 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 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 uses criteria similar to those used to test goodwill impairment.

(a) Breakdown

Main consolidated companies	Percentage of total and voting capital		Headquarters	Main activity
	2017	2016		
Subsidiaries				
Acerbrag S.A.	100.00	100.00	Argentina	Steel
Votorantim FinCO GmbH	100.00	100.00	Austria	Trading
Votorantim GmbH (formerly known as Votorantim Metais GmbH)	100.00	100.00	Austria	Zinc
Acariúba 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
Nexa Recursos Minerais S.A. (formerly known as Votorantim Metais Zinco S.A.)	100.00	100.00	Brazil	Zinc
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.	100.00	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
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.	100.00	100.00	Spain	Holding
St. Marys Cement Inc.	100.00	100.00	USA	Cement
US Zinc Corporation	100.00	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. (formerly known as VM Holding S.A.)	64.25	89.35	Luxembourg	Holding
Votorantim RE	100.00	100.00	Luxembourg	Insurance
Compañía Minera Atacocha S.A.A.	91.00	91.00	Peru	Mining
Nexa Resources Perú S.A.A. (formerly known as Compañía Minera Milpo S.A.A.)	80.23	80.23	Peru	Mining
Nexa Resources Cajamarquilla S.A.” (formerly known as Votorantim Metais Cajamarquilla S.A.)	99.91	99.91	Peru	Zinc
Cementos Artigas S.A.	51.00	51.00	Uruguay	Cement

Main consolidated companies	Percentage of total and voting capital		Headquarters	Main activity
	2017	2016		
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 Limited	50.00	50.00	Cayman Islands	Trading
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	89.97	81.39	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	Percentage of total and voting capital		Headquarters	Main activity
	2017	2016		
Associates				
Cementos Avellaneda S.A.	49.00	49.00	Argentina	Cement
Alunorte – Alumina do Norte S.A.	3.03	3.03	Brazil	Mining
Mineração Rio do Norte S.A.	10.00	10.00	Brazil	Mining
Supermix Concreto S.A.	25.00	25.00	Brazil	Cement
IMIX Empreendimentos Imobiliários Ltda.	25.00	25.00	Brazil	Mining
Cementos Bio Bio S.A. (Nota 1.1 (g))		16.70	Chile	Cement
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.	29.42	29.42	Brazil	Wood pulp
Hutton Transport Ltda.	25.00	25.00	Canada	Transportation
Midway Group, LLC.	50.00	50.00	USA	Cement
Sumter Cement Co, LLC. (i)		50.00	USA	Cement
Superior Materials Holdings, LLC	50.00	50.00	USA	Cement
Suwannee American Cement, LLC. (i)		50.00	USA	Cement
Trinity Materials, LLC.		50.00	USA	Cement
Cemento Portland S.A.	50.00	50.00	Peru	Cement

(i) The elimination of the percentages in 2017 refers to the sale of cement companies, as described in Note 1.1 (b).

(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, 2017:

Investments accounted for based on the equity method – Associates						
	Cementos Avellaneda S.A.	Alunorte – Alumina do Norte S.A.	Mineração Rio do Norte S.A.	Supermix Concreto S.A.	IMIX Empreendimentos Imobiliários Ltda.	Cementos Especiales de las Islas S.A.
Assets						
Current assets	491	8,234	399	207	18	105
Non-current assets	360		2,390	215	7	88
Liabilities						
Current liabilities	307	2,296	726	128	1	22
Non-current liabilities	6	1,476	1,231	46		33
Other comprehensive income	(84)					
Equity	538	4,462	832	248	24	138
Results						
Net revenue	1,240	5,543	1,164	1,014	11	3
Operation results	297	201	197	2	11	3
Finance income (costs)	10	(161)	(72)	4	1	
Profit (loss) for the year	198	58	106	7	10	(2)
Total and voting capital (%)	49.00%	3.03%	10.00%	25.00%	25.00%	50.00%

Joint ventures								
	Citro-suco GmbH	Banco Votorantim S.A.	Citro-suco S.A. Agroindústria	Fibria Celulose S.A.	Hutton Transport Ltda.	Mid-way Group, LLC.	Superior Materials Holdings, LLC	Cemento Portland S.A.
Assets								
Current assets	2,781	48,366	2,435	10,530	30	28	100	36
Non-current assets	323	45,148	3,006	28,163	56	20	48	108
Liabilities								
Current liabilities	284	55,803	2,340	5,790	4	15	43	30
Non-current liabilities	168	28,480	2,038	18,253	11	5		6
Other comprehensive income		(86)						
Equity	2,652	9,231	1,063	14,650	71	28	105	108
Results								
Net revenue	3,381	13,397	2,823	11,739		84	330	
Operation results	411	5,528	546	1,173	12	9	52	(2)
Finance income (costs)	159		(124)	(783)				(3)
Profit (loss) for the year	553	629	406	1,085	12	9	51	(4)
Total and voting capital (%)	50.00%	50.00%	50.00%	29.42%	25.00%	50.00%	50.00%	50.00%

	2017								2016	
Investments accounted for based on the equity method – Associates	Cementos Avellaneda S.A. (i)	Alunorte – Alumina do Norte S.A. (ii)	Mineração Rio do Norte S.A. (ii)	Supermix Concreto S.A.	IMIX Empreend. Imo-biliários Ltda.	Cementos Bio Bio S.A. (ii)	Cementos Especiales De Las Islas, S.A.	Other	Total	Total
Opening balance for the year	237	150	105	64	3	152	57	241	1,009	1,150
Equity in the results of investees	97	2	11	2	3	11	(1)	13	138	160
Dividends	(32)	(17)	(33)	(4)		(4)			(90)	(39)
Exchange variation on foreign investments	(51)					3	13		(35)	(210)
Disposals						(161)			(161)	
Effect of associates included in the consolidation (iv)										(41)
Actuarial benefits						(1)			(1)	
Other								(3)	(3)	(11)
Closing balance for the year	251	135	83	62	6		69	251	857	1,009

[illegible]

(i) At December 31, 2017, 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:

	2017	2016
Cementos Avellaneda S.A.	(13)	(2)
Citrosuco S.A. Agroindústria	498	478
Citrosuco GmbH	794	816
Suwannee American Cement, LLC.		96

- (ii) Relates to investees in which the participation is less than 20%, but the Company has significant influence over the activities through agreements established with shareholders.
- (iii) The equity income of the investee considers eliminations of unrealized profits, in the amount of R\$ 178 (December 31, 2016 – R\$ 178), in exchange for land with the Company.
- (iv) The values presented in 2016 refer to the effects of the incorporation of Votorantim Participações S.A.
- (v) Refers to the adjustment to the fair value of available-for-sale securities recognized in Banco Votorantim's shareholders' equity.
- (vi) Refers to the assets and liabilities sale in the cement segment (Note 1.1 (b)).

(d) Investments in listed companies

	2017		2016	
	Book value	Market value	Book value	Market value
Cementos Bio Bio S.A. (*)			152	143
Fibria Celulose S.A. (*)	4,289	7,798	4,046	5,197

(*) Calculated in proportion to the ownership interest held by the Company.

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.

(ii) Leases

Leases of property, plant and equipment under which the Company has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the inception of the lease at the lower of the fair value of the leased item and the present value of the minimum lease payments.

Each lease payment is allocated between the liability and finance charges. The corresponding rental obligations, net of finance charges, are included in other payables.

The interest element of the finance cost is charged to the statement of income over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant and equipment acquired under finance leases are depreciated over the useful life of the asset.

(iii) 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 (CGU). 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.

(a) Breakdown and changes

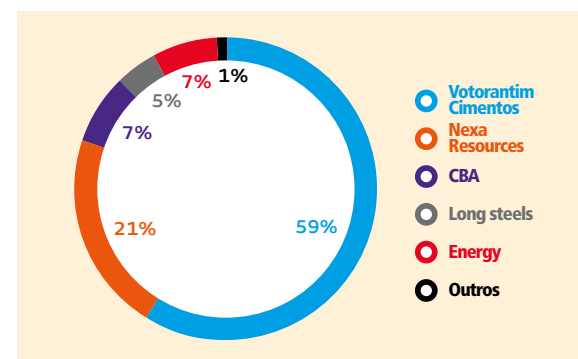
	2017								2016	
	Land and improve- ments	Buildings and construc- tions	Machinery, equipment and facilities	Vehicles	Furniture and fittings	Construc- tion in progress	Leasehold improve- ments	Other	Total	Total
Opening balance for the year										
Cost	2,017	9,840	31,904	1,206	192	3,471	459	439	49,528	55,491
Accumulated depreciation	(56)	(4,022)	(18,692)	(932)	(139)		(245)	(351)	(24,437)	(26,210)
Net opening balance	1,961	5,818	13,212	274	53	3,471	214	88	25,091	29,281
Additions	1	122	1,157	4	4	1,818		2	3,108	3,026
Disposals	(18)	(6)	(84)	(19)	(2)	(23)	(6)	(1)	(159)	(146)
Depreciation	(4)	(289)	(1,410)	(78)	(10)		(18)	(5)	(1,814)	(2,168)
Foreign exchange variation	37	37	82	4	(2)	(60)	12		110	(2,016)
Effect of subsidiaries included in (excluded from) consolidation		23	(20)	(3)		(10)		5	(5)	55
Reversal (constitution) for impairment	(2)	78	25			(6)	(1)		94	(769)
Reclassification to assets classified as held-for-sale	(87)	(233)	(61)	(31)		(34)	(30)		(476)	(1,982)
Transfers (i)	13	685	1,482	52	3	(2,363)	34		(94)	(190)
Closing balance for the year	1,901	6,235	14,383	203	46	2,793	205	89	25,855	25,091
Cost	1,959	10,467	34,105	1,121	191	2,793	456	444	51,536	49,528
Accumulated depreciation	(58)	(4,232)	(19,722)	(918)	(145)		(251)	(355)	(25,681)	(24,437)
Net closing balance for the year	1,901	6,235	14,383	203	46	2,793	205	89	25,855	25,091
Average annual depreciation rates – %	2	3	9	10	11		9	18		

(i) The transfers at December 31, 2017 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.

	2017	2016
Votorantim Cimentos	1,360	2,044
Nexa Resources	779	737
CBA	368	257
Long steels	195	154
Energy	20	242
Other	71	37
	2,793	3,471



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

Main projects in progress – Votorantim Cimentos	2017	2016
Cement production capacity expansion in Charlevoix- North America	461	280
Equipment refurbishment	123	89
Environment and security	84	27
New lines of co-processing	63	33
Cement production capacity expansion – Tunisia	45	33
New unit in Ituaçu – Brazil	43	43
Structural recovery	40	19
Cement grinding – Pecém – Brazil	39	42
Geology and mining rights	37	27
New unit in Sobral – Brazil	35	35
Hardware and software	27	10
Burden removal – cement	26	47
New lines of co-processing – North America	18	7
New unit in Primavera – Brazil	14	81
New unit in Yacuses – Bolivia	12	530
New plant in Edealina – Brazil	7	7
Cement production capacity expansion in Sivas – Turkey	5	364
Agricultural supplies plant Ponte Alta – Brazil		15
Other	281	355
	1,360	2,044

Main projects in progress – Nexa Resources	2017	2016
Mining project – Brazil	271	297
Acquisition and renovation of parts and equipment – Brazil	140	170
Security, health and environment projects – Brazil	119	146
Production line construction – Brazil	84	18
Information technology projects – Peru	10	23
Modernization and production increase projects – Brazil	6	33
Other	149	50
	779	737

Main projects in progress – CBA	2017	2016
Rondon Alumina project – Brazil	111	108
Furnace refurbishment – Brazil	75	16
Revitalization and adequacy of power plant – Brazil	51	39
Automation system modernization – Brazil	32	25
Plastic transformation and foundry projects – Brazil	26	19
Alumina factory project – Brazil	25	24
Furnace rooms project – Brazil	18	15
Other	30	11
	368	257

Main projects in progress – Long steels	2017	2016
Repair plant operating equipment – Colombia	51	18
Revitalization and adaptation of plant – Argentina and Colombia	44	5
Battery vertical repair project – Colombia	39	7
Modernization of plant operating equipment – Argentina and Colombia	35	36
Security projects, health and environment – Colombia	8	20
Other	18	68
	195	154

Main projects in progress – Energy	2017	2016
Corumbá project – Brazil	16	11
Change of Corporate Center – Brazil	2	
Ventos de São Vicente wind power complex – Brazil	1	231
Other	1	
	20	242

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 Cash-Generating Units (“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 is operational, 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 reviews 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 purposes.

(a) Breakdown and changes

	2017									2016
	Rights over natural resources	Goodwill	ARO (i)	Use of public assets	Contracts, customer relationships and agreements	Softwares	Rights over trademarks and patents	Other	Total	Total
Opening balance for the year										
Cost	8,694	5,193	873	541	408	548	481	771	17,509	20,859
Accumulated amortization	(2,533)		(505)	(161)	(260)	(422)	(283)	(332)	(4,496)	(4,289)
Net opening balance	6,161	5,193	368	380	148	126	198	439	13,013	16,570
Additions	46	38	88			1		1	174	181
Disposals	(11)	(228)	(4)						(243)	(84)
Amortization and depletion	(381)		(48)	(19)	(13)	(46)	(25)	(12)	(544)	(596)
Foreign exchange variation	42	210	10		(1)	1	(2)	6	266	(2,227)
Reclassification from assets classified as held-for-sale	(34)	(265)	(1)		(55)				(355)	1
Effect of subsidiaries excluded from	(9)	(38)							(47)	(653)
Constitution for impairment	(23)	(48)							(71)	(352)
Revision of estimated cash flow			145						145	23
Changes in the interest rate	(2)		13						11	(39)
Transfers	53					34	1	6	94	189
Closing balance for the year	5,842	4,862	571	361	79	116	172	440	12,443	13,013
Cost	8,693	4,862	1,127	541	235	593	485	783	17,319	17,509
Accumulated amortization	(2,851)		(556)	(180)	(156)	(477)	(313)	(343)	(4,876)	(4,496)
Net closing balance for the year	5,842	4,862	571	361	79	116	172	440	12,443	13,013
Average annual amortization and depletion rates – %	16		5	7	7	6	10	10		

(i) Asset Retirement Obligation.

(b) Goodwill on acquisitions

Accounting policy

The Company applies 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 recognizes 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.

	2017	2016
Votorantim Cimentos		
Votorantim Cimentos EAA Inversiones, S.L.	1,134	1,192
Prairie Material Sales Inc	663	653
St. Marys Cement Inc.	364	360
Prestige Materials		132
Prestige Gunita Inc.		94
Engemix S.A.	76	76
Votorantim Investimentos Internacionais S.A.		48
Companhia de Cimento Ribeirão Grande		47
CJ Mineração Ltda.	16	16
Cementos Artigas S.A.	12	12
Other	6	3
	2,271	2,633
Nexa Resources		
Nexa Resources Perú S.A.A.	1,913	1,885
Nexa Resources Cajamarquilla S.A.	306	301
US Zinc Corporation	30	29
Pollarix S.A.	1	
	2,249	2,215
Long steels		
Acergroup S.A.	149	149
Acerholding S.A.	15	18
Acerbrag S.A.	3	4
	167	171
CBA		
Campos Novos Energia S.A.	58	57
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
	158	157
Holding and other		
Votorantim Andina S.A.	16	16
Fazenda Bodoquena Ltda.	1	1
	17	17
	4,862	5,193

(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 Company.

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%	8.91% to 14.34%
CBA	(ii)	9.72% to 10.94%
Nexa Resources	(ii)	10.60% to 11.53%
Long steels (i)	Not used	11.91% to 17.10%
Holding and other	Not used	7.53% to 8.91%

(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).

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.

(a) Breakdown and fair value

Type	Average annual charges (i)	Current		Non-current		Total		Fair value	
		2017	2016	2017	2016	2017	2016	2017	2016
Local currency									
Debentures	115.27% CDI	1,288	252	3,257	3,633	4,545	3,885	4,599	3,936
BNDES	TJLP + 2.39% / 4.54% fixed rate BRL / SELIC + 2.74%	486	453	1,410	938	1,896	1,391	1,774	1,285
Commercial notes			267				267		266
Development promotion agency	7.56% fixed rate BRL / TJLP + 0.98%	41	38	208	243	249	281	238	246
FINAME	4.85% fixed rate BRL	23	29	91	113	114	142	102	117
Export credit notes	118.00% CDI	3	101	100		103	101	105	99
Other	0	16	13	11	16	27	29	26	24
		1,857	1,153	5,077	4,943	6,934	6,096	6,844	5,973
Foreign currency									
Eurobonds – USD	6.15% fixed rate USD	156	122	11,948	9,518	12,104	9,640	12,877	9,298
Loans – Resolution 4131 (ii)	LIBOR USD + 1.56% / 3.73% fixed rate USD	176	6	763	2,663	939	2,669	944	2,482
Eurobonds – EUR	3.44% fixed rate EUR	37	26	2,246	1,939	2,283	1,965	2,415	1,954
Syndicated loan/bilateral agreements	EURIBOR + 2.01% / 6.81% fixed rate	123	38	1,192	1,234	1,315	1,272	1,320	1,416
Export prepayments	LIBOR USD + 2.54%	1	78	659	2,160	660	2,238	709	1,666
BNDES	UMBDES + 2.46%	112	122	37	150	149	272	152	268
Export credit notes	LIBOR USD + 1.85%	1		104		105		107	
Working capital	IBR + 3.70% / 9.25% fixed rate INR	96	90			96	90	98	89
Development promotion agency			128		5		133		93
Other		14	12	31	32	45	44	43	40
		716	622	16,980	17,701	17,696	18,323	18,665	17,306
		2,573	1,775	22,057	22,644	24,630	24,419	25,509	23,279
Current portion of long-term borrowing		1,743	1,360						
Interest on borrowing		365	324						
Short-term borrowing		465	91						
		2,573	1,775						

- (i) The average annual charges are presented only for agreements that represent a large share of the total debt amount.
- (ii) Loans relating to Resolution 4131 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 108.33% 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.

Legenda:

BNDES	– National Bank for Economic and Social Development.
BRL	– Brazilian currency (Real).
CDI	– Interbank Deposit Certificate.
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
LIBOR	– London Interbank Offered Rate.
SELIC	– Special System for Clearance and Custody.
TJLP	– Long-term interest rate set by the National Monetary Council. The TJLP is the BNDES basic cost of financing.
IPCA	– Extended Consumer Price Index.
UMBDES	– Monetary unit of the BNDES reflecting the weighted basket of currencies of foreign currency debt obligations. At December 31, 2017, 99.60% of the basket consisted of US Dollars.
USD	– US Dollar.

(b) Changes

	2017	2016
Opening balance for the year	24,419	30,531
New borrowing	5,399	6,162
Interest	1,616	1,757
Effect of subsidiaries included in consolidation		(829)
Addition of borrowing fees, net of amortization	(21)	(40)
Fair value adjustment – Resolution 4131	47	(26)
Discount on repurchase of bonds		(173)
Payments – interest	(1,558)	(1,735)
Foreign exchange variation	609	(3,852)
Payments – principal	(5,881)	(7,376)
Closing balance for the year	24,630	24,419

(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 2017 were as follows:

New borrowing

Date	Company	Modality	Currency	Amount	Amount BRL	Maturity	Cost	Guarantor	Note
Jan-17	Votorantim S.A.	Resolution 4131	USD	73	235	2021	96.90% CDI		Renegotiation of cost and maturity
Jan-17	Votorantim Cimentos S.A.	Debenture	BRL	500	500	2022	119.90% CDI		
Jan-17	Votorantim S.A.	Debenture	BRL	69	69	2022	118.90% CDI		Renegotiation of cost and maturity
Jan-17	Votorantim S.A.	Debenture	BRL	241	241	2023	118.90% CDI		Renegotiation of cost and maturity
Jan-17	Votorantim S.A.	Debenture	BRL	240	240	2024	118.90% CDI		Renegotiation of cost and maturity
Feb-17	Votorantim S.A.	Resolution 4131	USD	100	321	2021	119.80% CDI		Renegotiation of cost and maturity
Feb-17	Nexa Recursos Minerais S.A.	Export Credit Note	BRL	100	100	2020	118% CDI		
Apr-17	Nexa Recursos Minerais S.A.	Export Credit Note	USD	31	100	2020	119.90% CDI		
Apr-17	Nexa Resources S.A.	Eurobond	USD	700	2225	2027	5.375% p.y.	Nexa CJM, Nexa Peru and Nexa BR	
Jul-17	Ventos de São Vicente Energias Renováveis S.A.	Debenture	BRL	100	100	2024	IPCA + 5.4739% p.y.	VSA	Development of wind farms
Sep-17	Ventos de São Vinicius Energias Renováveis S.A.	Debenture	BRL	102	102	2018	106% CDI	VSA	Development of wind farms
Sep-17	Ventos de Santo Agostinho Energias Renováveis S.A.	Debenture	BRL	54	54	2018	106% CDI	VSA	Development of wind farms
Sep-17	Ventos de Santa Albertina Energias Renováveis S.A.	Debenture	BRL	69	69	2018	106% CDI	VSA	Development of wind farms
Sep-17	Ventos de São Casimiro Energias Renováveis S.A.	Debenture	BRL	69	69	2018	106% CDI	VSA	Development of wind farms
Sep-17	Ventos de São Adeodato Energias Renováveis S.A.	Debenture	BRL	99	99	2018	106% CDI	VSA	Development of wind farms
Sep-17	Ventos de Santo Afonso Energias Renováveis S.A.	Debenture	BRL	27	27	2018	106% CDI	VSA	Development of wind farms
Sep-17	Campos Novos Energia S.A.	Debenture	BRL	384	384	2020	107.5% CDI	Actual guarantee	
Sep-17	Campos Novos Energia S.A.	Debenture	BRL	256	256	2022	107.5% CDI	Actual guarantee	
Dec-17	Ventos de Santo Afonso Energias Renováveis S.A.	BNDES	BRL	114	114	2034	TJLP + 2.06%	VSA and Ventos de São Vicente	Development of wind farms
Dec-17	Ventos de São Adeodato Energias Renováveis S.A.	BNDES	BRL	109	109	2034	TJLP + 2.18%	VSA and Ventos de São Vicente	Development of wind farms
Dec-17	Ventos de São Casimiro Energias Renováveis S.A.	BNDES	BRL	113	113	2034	TJLP + 2.18%	VSA and Ventos de São Vicente	Development of wind farms
Dec-17	Ventos de Santa Albertina Energias Renováveis S.A.	BNDES	BRL	111	111	2034	TJLP + 2.18%	VSA and Ventos de São Vicente	Development of wind farms
Dec-17	Ventos de Santo Agostinho Energias Renováveis S.A.	BNDES	BRL	115	115	2034	TJLP + 2.18%	VSA and Ventos de São Vicente	Development of wind farms
Dec-17	Ventos de São Vinicius Energias Renováveis S.A.	BNDES	BRL	114	114	2034	TJLP + 2.18%	VSA and Ventos de São Vicente	Development of wind farms
Dec-17	Ventos de Santo Alberto Energias Renováveis S.A.	BNDES	BRL	115	115	2034	TJLP + 2.18%	VSA and Ventos de São Vicente	Development of wind farms

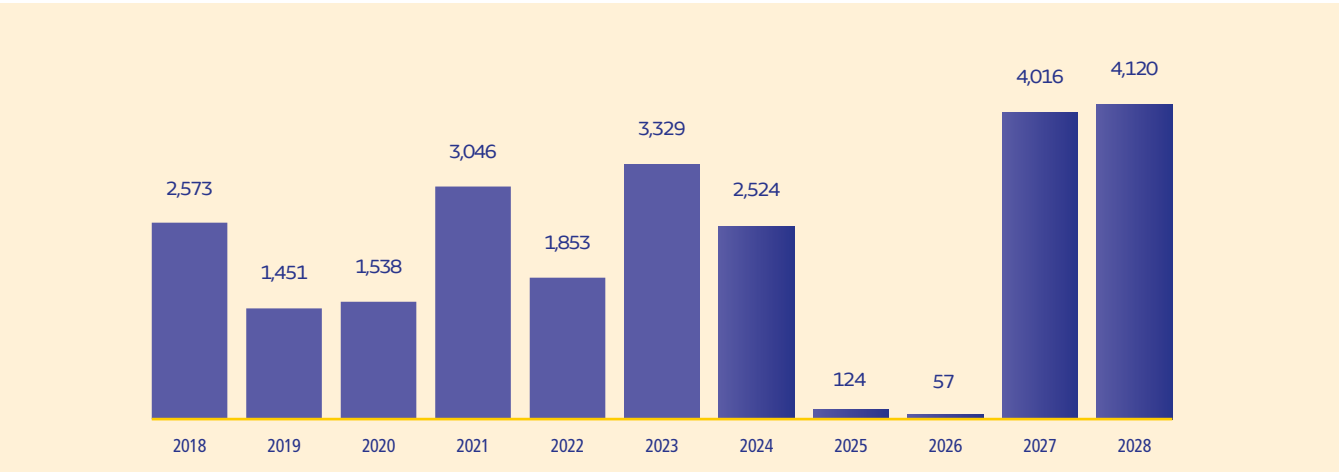
Amortizations

Date	Company		Currency	Main	Main BRL	Maturity		Note
Jan-17	Votorantim Cimentos S.A.	Debenture	BRL	(150)	(150)	2017	Prepayment	
Jan-17	Votorantim S.A.	Resolution 4131	USD	(73)	(235)	2017	Renegotiation of cost and maturity	
Feb-17	Votorantim S.A.	Resolution 4131	USD	(100)	(308)	2018	Prepayment	
Mai-17	Votorantim GMBH	PPE	USD	(290)	(921)	2019	Prepayment	
Mai-17	Votorantim GMBH	PPE	USD	(200)	(635)	2021	Prepayment	
Jun-17	Companhia Brasileira de Alumínio	NCE	BRL	(100)	(100)	2017		
Aug-17	Votener – Votorantim Comercializadora de Energia Ltda.	Commercial note	BRL	(250)	(250)	2017		
Aug-17	Votorantim Cimentos S.A.	Debenture	BRL	(240)	(240)	2021	Prepayment	
Aug-17	Votorantim Cimentos S.A.	Resolution 4131	USD	(50)	(156)	2019	Prepayment	
Nov-17	Votorantim Cimentos S.A.	Debenture	BRL	(240)	(240)	2021	Prepayment	
Nov-17	Votorantim Cimentos S.A.	Resolution 4131	USD	(100)	(325)	2021	Prepayment	
Nov-17	Votorantim Cimentos S.A.	Resolution 4131	USD	(100)	(328)	2020	Prepayment	
Dec-17	Votorantim Cimentos S.A.	Resolution 4131	USD	(200)	(662)	2020	Prepayment	
Dec-17	Votorantim Cimentos S.A.	Resolution 4131	USD	(50)	(166)	2019	Prepayment	
Dec-17	Votorantim Cimentos S.A.	Resolution 4131	USD	(50)	(164)	2020	Prepayment	

(d) Breakdown by currency

	Current		Non-current		Total	
	2017	2016	2017	2016	2017	2016
US Dollar	366	372	13,509	14,409	13,875	14,781
Real	1,857	1,153	5,077	4,943	6,934	6,096
Euro	110	32	2,825	2,500	2,935	2,532
Boliviano	1	3	395	392	396	395
Turkish lire	47	27	220	279	267	306
Currencies basket	83	90	14	101	97	191
Other	109	98	17	20	126	118
	2,573	1,775	22,057	22,644	24,630	24,419

(e) Maturity



(f) Breakdown by index

	Current		Non-current		Total	
	2017	2016	2017	2016	2017	2016
Local currency						
CDI	1,287	252	3,259	3,633	4,546	3,885
TJLP	436	421	1,239	824	1,675	1,245
Fixed rate	74	196	286	354	360	550
Reference rate (TR)		267				267
SELIC	55	17	196	132	251	149
Other	5		97		102	
	1,857	1,153	5,077	4,943	6,934	6,096
Foreign currency						
Fixed rate	515	238	15,549	12,662	16,064	12,900
LIBOR	5	213	1,179	4,671	1,184	4,884
EURIBOR	39	5	215	218	254	223
UMBNDDES	112	122	37	150	149	272
Other	45	44			45	44
	716	622	16,980	17,701	17,696	18,323
	2,573	1,775	22,057	22,644	24,630	24,419

(g) Collateral

As at December 30, 2017, R\$ 10,607 (December 31, 2016 – R\$ 8,828) of the balance of the Company's borrowing was collateralized under promissory notes and sureties and R\$ 527 of the property, plant and equipment items (December 31, 2016 – R\$ 142) 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 was in compliance with all of these covenants, as applicable.

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	2017	2016
Domestic market	309	363
Foreign market	761	605
	1,070	968

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 is 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 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.

(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 periods ended December 31 are reconciled to their Brazilian standard rates as follows:

	2017	2016
Profit (loss) before income tax and social contribution	1,086	(1,340)
Standard rates	34%	34%
Income tax and social contribution at standard rates	(369)	456
Adjustments for the calculation of income tax and social contribution at effective rates		
Equity	415	265
Differential rate of foreign companies	192	(87)
Income tax credit paid in foreign IN 1520/14	273	183
Income tax and social contribution losses without recording the deferred amounts, net	(9)	(340)
Dividends received	(59)	
Tax on mining operations	(74)	(37)
Foreign income IN 1520/14	(550)	(383)
Other exclusions, net	50	332
Income tax and social contribution calculated	(131)	389
Current	(723)	(481)
Deferred	592	870
Income tax and social contribution expenses	(131)	389
Effective rate – %	12%	29%

(b) Breakdown of deferred tax balances

	2017	2016
Tax credits on tax losses	1,884	1,868
Tax credits on temporary differences		
Foreign exchange gains	1,300	1,496
Estimation for losses on investments, fixed and intangible assets	1,153	1,102
Tax, civil and labor provision	506	545
Tax benefit on goodwill	465	263
Use of public assets	172	178
Asset retirement obligation	166	170
Environmental liabilities	116	106
Estimation for inventory losses	66	77
Deferred losses on derivative instruments	63	109
Provision for energy charges	46	35
Estimated asset disposals	20	7

	2017	2016
Other tax credits	260	278
Tax debits on temporary differences		
Borrowing costs	(3)	(4)
Asset retirement obligation	(6)	(25)
Pension funds	(18)	(42)
Adjustment to present value	(55)	(57)
Financial instruments – firm commitment	(61)	(234)
Capitalized interest	(140)	(133)
Fair value adjustments	(143)	(112)
Goodwill amortization	(367)	(337)
Market value Citrosuco	(154)	(148)
Market value adjustments to property, plant and equipment	(1,581)	(1,669)
Adjustment of useful lives of PP&E (depreciation)	(1,561)	(1,367)
Other tax debits	(14)	(34)
Net	2,114	2,072
Net deferred tax assets related to the same legal entity	4,079	4,055
Net deferred tax liabilities related to the same legal entity	(1,965)	(1,983)

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

	2017	2016
Opening balance for the year	2,072	2,004
Effects on the results for the year	592	870
Deferred income tax and social contribution on hedge accounting	(17)	(906)
Effects of foreign exchange variations in other comprehensive income	(46)	155
Consumption of IRPJ and CSLL tax credits for payment of PERT (Note 1.1 (d))	(259)	
Reclassification to assets classified as held-for-sale		120
Effect on the result of discontinued operations	(228)	(171)
Closing balance for the year	2,114	2,072

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

	2017	Percentage
In 2018	240	13%
In 2019	249	13%
In 2020	268	14%
In 2021	222	12%
After 2022	905	48%
	1,884	100%

22. DEFERRED REVENUE – OBLIGATION FOR PERFORMANCE

Accounting policy

Deferred revenue, arising from the anticipation of receivables from financial institutions, represents an obligation for the Company 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 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 as of December 31, 2017 is R\$ 516 (December 31, 2016, R\$ 759).

23. PROVISION

Accounting policy

The Company is 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 “Provisions”. 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 considers its 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.

(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 recognizes 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 considers 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 if 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.

(iii) Obligation for environmental liabilities

The environmental liability must be recognized when there is an obligation on the part of the Company 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 that arose from past events.

(a) Breakdown and changes

	2017					2016	
	ARO (i)	Legal claims				Total	Total
		Tax	Labor	Civil	Other		
Opening balance for the year	1,035	725	176	372	38	2,346	2,189
Present value adjustment	52					52	27
Additions	57	311	196	107	16	687	486
Reversals (ii)	(2)	(746)	(163)	(21)	(13)	(945)	(256)
Judicial deposits, net of write-offs (ii)		438	(108)	(105)		225	(76)
Settlement in cash	(39)	(48)	(45)	(48)	(2)	(182)	(127)
Reclassification to related liability			(2)			(2)	(11)
Effect of subsidiaries included in (excluded from) consolidation	(7)	2	17	3		15	79
Reclassification of liabilities related to assets held for sale			12	(30)		(18)	(18)
Monetary restatement	(10)	164	16	38	8	216	231
Foreign exchange variation	24	3		1		28	(134)
Revision of estimated cash flow	165					165	(44)
Closing balance for the year	1,275	849	99	317	47	2,587	2,346

(i) Asset Retirement Obligation

(ii) In the second trimester the investees reversed a provision referring to the exclusion of ICMS from the basis of calculation of contributions to PIS and COFINS, for which there were judicial deposits constituted in the same amount. This reversal was based on the conclusion of the Federal Supreme Court (STF), which decided that the inclusion of ICMS in the PIS and COFINS taxes bases are unconstitutional and supported by the position of the legal counsel of the investees. The amount of R\$ 307 was recorded in the “Reversal of provisions, net” (operating income) and the amount R\$ 190 in the “Reversal of adjustment of liability provisions” (financial results) in the income statement. The reversal totaled R\$ 169 in the income tax and social contribution and the net effect of these amounts totaled R\$ 327. Consequently, the corresponding judicial deposits were reclassified to current assets

(b) Provision for tax, civil, labor, other contingencies and outstanding judicial deposits

	2017				2016			
	Judicial deposits	Provision	Net amount	Out-standing judicial deposits (i)	Judicial deposits	Provision	Net amount	Out-standing judicial deposits (i)
Tax	(124)	973	849	679	(562)	1,287	725	214
Civil	(120)	437	317	10	(15)	387	372	104
Labor	(205)	304	99	71	(97)	273	176	99
Other		47	47	5		38	38	3
	(449)	1,761	1,312	765	(674)	1,985	1,311	420

(i) The Company has balances deposited in relation to lawsuits classified by management, following the directions of the Company's legal counsel as representing remote or possible losses and, therefore, they are made without respective provision.

(c) Litigation with likelihood of loss considered possible

The Company is party to litigations representing a risk of possible loss, for which no constituted provision has been made, as detailed below.

	2017	2016
Tax	10,351	7,329
Civil	7,215	7,149
Environmental	496	484
Labor and social security	441	309
	18,503	15,271

(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 the materiality of these lawsuits:

Nature	2017	2016
Tax assessment notice – "IRPJ/CSLL" (i)	1.794	828
ICMS credit (ii)	923	757
"IRPJ/CSLL" – Profits abroad (iii)	765	172
Disallowances of "PIS/COFINS" credits	582	425
Compensation for exploration for mineral resources ("CFEM")	571	564
Disallowance of "IRPJ/CSLL" negative balance	362	306
Offset of tax loss – 30% limit (merger)	276	271
Tax assessment notice – "ICMS" (iv)	272	216
"IRPJ/CSLL" – Transfer costs (v)	192	222
"ICMS" – transfer costs	242	225
Errors in fiscal classification – Importation (vi)	163	
"ICMS" requirements on TUSD	134	149
Collection of ICMS due to divergences regarding the destination of the property	90	
"IRPJ/CSLL" – Deduction of expenses (vii)	71	85
Tax assessment notice – ISS	61	
Other lawsuits with individual amounts lower than R\$ 100	3.853	3.109
	10.351	7.329

(i) Tax assessment notice – "IRPJ / CSLL"

In December, 2011, the subsidiary VCSA was assessed by the Brazilian Federal Revenue, for the historical value of R\$ 185, due to supposed non-payment or underpayment of IRPJ and CSLL, related to the period from 2006 to 2010, according to: (i) amortization of goodwill supposedly being incorrect; (ii) utilization of tax loss more than the limit of 30% permitted by tax regulations (merger); and (iii) non-payment of IRPJ and CSLL obligations on a monthly estimates basis. In March 2015, regarding the voluntary appeals filed with the Administrative Board of Tax Appeals, the board authorized the exclusion of the qualified and isolated fines and confirmed the lower court decision regarding the reduction mentioned above. Such court decision denied the taxpayer's Special Appeal.

On September 30, 2017, the updated amount assessed amounted to R\$ 298 and VCSA opted to include this case in Special Program of Tax Regularization "PERT" (Note 1.1 (d)).

Of the total residual balance, part of the amount refers to the assessment that the VCSA received in December 2016 by the Brazilian Federal Revenue in the historical amount of R\$ 470, demanding the collection of IRPJ and CSLL related to the period of 2011, undue deduction of expenses and operating costs. Currently, the VCSA awaits the judgment of the impugnation presented to the Special Revenue Service. On December 31, 2017, the amount updated in controversy is R\$ 473, whose likelihood of loss is possible.

In December 2017, VCSA was assessed by the Federal Revenue Service in the amount of R\$ 1,295, due to the alleged absence of payment or lower payment of IRPJ and CSLL related to the period between 2012 and 2013, due to: (i) gain of capital allegedly obtained as a result of an exchange made by the Company; and (ii) amortization of supposedly incorrect goodwill. In January 2018, the Company filed the challenge and is currently awaiting

judgment before the Federal Revenue Service. As of December 31, 2017, the adjusted amount in contingency is R\$ 1,302, estimated as possible.

(ii) ICMS credit

Between 2011 and 2013, eight notices of infringement and fines were filed against its subsidiary Citrovita Agro Industrial Ltda. (“CAI”), mainly aimed at the collection of the ICMS credited, as highlighted in invoices for the transfer of other subsidiaries, for the specific purpose of export, whose exits are not taxed. The tax assessment notices totaled R\$ 817 as of December 31, 2017.

Of the eight cases mentioned above, seven are awaiting judgment in the administrative sphere, and (i) three of them with a totally unfavorable decision; (ii) and four in which decisions kept the entries only in part, reducing the assessed value. In view of these decisions, appeals were filed by the company and by the State Treasury Attorney of São Paulo, which are pending judgment by the Tax and Tax Court. One of them was terminated unfavorably at the administrative level and is being discussed in court.

In the period ended on December 31, 2017, the CBA has notice, relating to the ICMS tax credits relating to items applied in the production process, which, in the opinion of the State of Goiás, would not generate the right to the credit of said tax. The amount updated as of December 31, 2017 corresponds to R\$ 106. In the opinion of Management, and in the opinion of independent legal advisors, the Company makes ICMS credits in accordance with the pertinent legislation, which is why the probability of process is considered possible.

(iii) Profits abroad – “IRPJ/CSLL”

The Company has official notifications served by the Brazilian Federal Revenue, for supposed non-payment of IRPJ and CSLL due to the profit realized abroad by its subsidiaries, in 2007 and 2008, which amounted to R\$ 266 in December 2017. In June 2017, the Company was assessed in R\$ 329 for supposedly not computing, in its IRPJ and CSLL tax calculation of the 2012 calendar year, the profit realized by subsidiaries abroad. The Company has R\$ 607 under discussion.

The subsidiary VCSA has official notifications served by the Brazilian Federal Revenue as well, for supposed non-payment of IRPJ and CSLL due to the profit realized abroad by its subsidiaries from the 2008 to 2010 calendar years, which amounted to R\$ 158 in December 2017.

(iv) Tax assessment notice – “ICMS”

In the fourth quarter of 2016, its subsidiary CAI received a tax assessment notice whose amount updated through December 31, amounts to R\$ 164. The lawsuit currently awaits judgment of the special appeal filed by the company with the Tax Court of São Paulo.

(v) “IRPJ/CSLL” – Transfer costs

Between 2007 and 2010, four tax assessments were filed against its subsidiary, Citrovita Agroindustrial Ltda., 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 glosses in 2003 and 2004. In October 2017, one of the cases was closed in a favorable way to the company, remaining under administrative discussion the amount of R\$ 192, updated until December 31, 2017. The active processes await judgment of appeals by the Administrative Council of Tax Appeals.

(vi) Errors in fiscal classification – Importation

In June, 2017, the subsidiary CBA was allegedly assessed in error in relation to the fiscal classification of the importation of inputs, for tax enforcement purposes (IPI, PIS, COFINS E II), in the amount of R\$ 163. The subsidiary understands than the assessment is improper and presented its impugnation. As at the date of these financial statements, the subsidiary was awaiting an administrative decision in the first instance.

(vii) “IRPJ/CSLL” – Deduction of expenses

In December 2016, its subsidiary CAI was assessed by the Federal Revenue Service (“RFB”) for the collection of Corporate Income Tax (“IRPJ”) and Social Contribution on Net Income (“CSLL”), the reason for the gloss of exclusions from the calculation base of said taxes in the 2011 calendar year. The amount required by the tax assessment notice amounts to R\$ 71 (updated until December 2017). Currently, it is awaited the judgment of the presented impugnation.

(c.2) Comments on contingent civil liabilities with likelihood of loss considered possible

Nature	2017	2016
Public civil suit – Violation of the economic order (i)	3,872	3,630
Administrative investigations carried out by the Secretariat of Economic Law (ii)	2,258	2,128
Litigation with a São Paulo transportation company (iii)	187	179
Indemnity lawsuits		57
Other lawsuits	898	1,155
	7,215	7,149

(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 Company, 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 10.0% 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 8,884/94: (i) in addition to the payment mentioned in item (1) above, a fine ranging from 1.0% to 30.0% 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.

There has been not been yet a significant decision on the lawsuit. The likelihood of loss in this matter is considered possible, and the Company has not recorded any provision for this claim. As at December 31, 2017, the restated balance of the contingency was R\$ 3,872.

(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 the obligation of 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 (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) the prohibition from contracting with official financial institutions credit lines with financing conditions subsidized by public programs or resources provided by these institutions; and (3) the recommendation to the Federal Revenue that they restrict or limit some other benefits and tax incentives. As at December 31, 2017, the restated balance of the contingency was R\$ 1,994.

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 judgment of the merit. CADE was summoned and filed its defense, while VCSA presented its reply in November 2016. Now, the settlement of the lawsuit is awaited. The Company 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 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.

(iii) Litigation with a transportation company in São Paulo

In September 2003, a transportation company filed a claim against VCB (a company merged into the Company) seeking compensation for property damages amounting to R\$ 84 and pain and suffering in an unspecified amount, alleging that the Company 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 Company filed its response in September 2009, arguing that: (1) the transportation company's statute of limitations had expired; (2) the Company 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 Company'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. As at December 31, 2017, the restated balance of this contingency was R\$ 187.

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 Company invests in companies that have 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:

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	CBA	nov-01	dec-36	jan-10	60%	194	493	60%	204	516
Salto do Rio Verdinho	CBA	aug-02	sep-37	oct-10	100%	8	20	100%	8	21
Itupararanga	CBA	nov-03	dec-23	jan-04	100%	1	2	100%	1	2
Piraju	CBA	dec-98	jan-34	feb-03	100%	1	6	100%	1	6
Ourinhos	CBA	jul-00	aug-35	sep-05	100%	1	5	100%	1	5
Baesa – Energética Barra Grande	CBA	jun-01	may-36	jun-07	15%	14	42	15%	14	44
Capim Branco I e Capim Branco II	Nexa BR	aug-01	sep-36	oct-07	13%	3	10	13%	3	11
Picada	Nexa BR	may-01	jun-36	jul-06	100%	18	65	100%	19	68
Enercan – Campos Novos	CBA	apr-00	may-35	jun-06	0%			33%	5	
Enercan – Campos Novos	Votorantim Metais S.A.	apr-00	may-35	jun-06	0%			12%	1	12
Enercan – Campos Novos Energia S.A	CBA Energia Participações S.A.	apr-00	may-35	jun-06	24%	2	6	0%		
Enercan – Campos Novos Energia S.A	Pollarix S.A.	apr-00	may-35	jun-06	21%	1	5	0%		
Pedra do Cavalo	Votorantim Cimentos N/NE S.A.	mar-02	apr-37	apr-06	100%	118	478	100%	123	501
						361	1,132		380	1,186
Current							76			67
Non-current						361	1,056		380	1,119
						361	1,132		380	1,186

25. EQUITY

(a) Share capital

Accounting policy

Share capital is represented exclusively by common shares classified as equity.
On December 31, 2017 and December 31, 2016, the fully subscribed and paid-up capital of the Company was R\$ 28,656, consisting of 18,278,789 thousand common shares.

(b) Dividends

Accounting policy

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 the General Meeting.

Therefore, the calculation of the dividends as at December 31 can be shown as follows:

	2017	2016
Net income (loss) attributable to controlling shareholders	590	(1,296)
Legal reserve	(30)	
Dividend calculation basis	560	
Dividends	140	
Percentage of net income for the year	25%	25%

During 2017, the Company approved to its parent company Hejoassu Administração S.A, the amount of R\$ 135, corresponding to dividends related to part of the balance of the “Profit Reserve” account, accumulated up to December 31, 2016.

(c) Earnings per share

Accounting policy

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.

(d) Government grants

Accounting policy

Government grants are recorded at fair value when there is a reasonable guarantee that the grant will be received and the Company will be able to comply with all of the required conditions.

Government grants related to costs are deferred and recorded in the statement of income during the period required to reconcile them with the costs that they are intended to offset.

(e) Carrying value adjustments

	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, 2016	9.808	(6.375)	(82)	(41)		(358)	2.952
Other comprehensive income							
Currency translation of investees located abroad	(4.537)						(4.537)
Hedge accounting for net investments abroad, net of taxes		2.033					2.033
Hedge accounting for the operations of subsidiaries			52				52
Remeasurement of retirement benefits				(37)			(37)
Other comprehensive income on disposal of investments	(25)						(25)
Share in other comprehensive income of investees						(84)	(84)
Fair value of available-for-sale financial assets of non-consolidated investments					227		227
Repurchase of shares of Nexa Resources Perú S.A.A.						102	102
Fair value per share variation - Nexa						572	572
At December 31, 2016	5.246	(4.342)	(30)	(78)	227	232	1.255

	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
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)
Fair value of available-for-sale financial assets of non-consolidated investments					39		39
Realization of comprehensive income on disposals of investments	(136)						(136)
Realization of comprehensive income on the sale of interest 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)	(82)	266	(148)	733

(f) Non-controlling interests

	2017	2016
Nexa Resources S.A. (i)	2,967	808
Nexa CJM	795	736
Nexa Perú	406	521
Cementos Artigas S.A.	204	197
Asment de Témará	170	144
Yacuces, S.L.	125	108
Itacamba Cemento S.A.	92	99
Shree Dijivay Cement Co. Ltd	54	52
Yibitas Yozgat Isci Birliği Insaat M.T.S	22	23
Acerías Paz Del Rio S.A.	12	18
Other (ii)	10	(48)
	4,857	2,658

(i) The variation refers to the issuance of new shares and sale of interest by VSA.

(ii) The value presented as a debt is substantially derived from the balances of investees that had negative equity at the end of the year.

26. NET REVENUE

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 Company. Revenue is shown net of value added tax, rebates, discounts and rebates, after elimination of sales among consolidated companies.

The Company 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 activities.

Revenue will not be reliably measured if all terms of sale aren't resolved. The Company 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) Sale of products

Revenue is shown net of value added tax, returns, rebates and discounts, after eliminating sales within the consolidated companies.

(ii) Sales of products and service

The Company and its subsidiaries recognize revenue when: (i) the amount of revenue can be reliably measured; (ii) it is probable that future economic benefits will flow to the entity; and (iii) specific criteria have been met for each of the activities of the Company and its subsidiaries as described below. Revenue will not be deemed as reliably measured if all sale conditions are not resolved. The Company and its subsidiaries base their estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

(iii) 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.

(a) Reconciliation of revenues

	2017	2016
Gross revenue		
Sales of products – domestic market	10,350	11,068
Sales of products – foreign market	14,156	13,467
Supply of electrical energy	6,569	5,498
Services provided	486	663
	31,561	30,696
Taxes on sales, services and other deductions	(4,336)	(4,731)
Net revenue	27,225	25,965

(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 Company, classified by currency and destination, is as follows:

(i) Revenue by destination

	2017	2016
Brazil	13,290	12,680
United States	3,336	3,395
Peru	2,234	1,823
Argentina	1,127	1,080
Canada	1,062	950
Colombia	991	1,005
Turkey	682	701
Switzerland	567	287
Spain	487	653
Luxembourg	418	347
Morocco	394	425
Uruguay	307	296
Japan	227	153
Bolívia	222	122
Tunisia	199	258
Singapore	194	145
India	181	193
China	153	137
Chile	148	166
Taiwan	147	53
Austria	119	79

	2017	2016
Belgium	110	143
Germany	75	150
Italy	67	56
Ecuador	65	29
Other countries	423	639
	27,225	25,965

(ii) Revenue by currency

	2017	2016
Real	13,063	12,495
US Dollar	9,150	8,308
Canadian Dollar	1,017	953
Colombian Peso	834	854
Argentinian Peso	857	800
Euro	519	680
Turkish Lira	567	627
Dirham	394	425
Dinar	199	258
Other currencies	625	565
	27,225	25,965

27. EXPENSES BY NATURE

	2017			2016	
	Cost of products sold and services rendered	Selling	General and administrative	Total	Total
Raw materials, inputs and consumables	13,404	66	177	13,647	12,857
Employee benefit expenses	2,615	349	1,052	4,016	4,173
Depreciation, amortization and depletion	2,212	49	99	2,360	2,603
Outsourced services	1,020	43	498	1,561	1,493
Transportation expenses	92	865	12	969	1,084
Other expenses	1,306	294	180	1,780	1,530
	20,649	1,666	2,018	24,333	23,740

28. 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”.

	2017	2016
Salaries and bonuses	2,469	2,553
Payroll charges	947	1,023
Benefits	600	597
	4,016	4,173

29. OTHER OPERATING EXPENSES, NET

	2017	2016
Realization of other comprehensive income - Nexa (Note 1.1 (f))	750	
Realization of other comprehensive income - Others	3	
Net income from sale of investment - Nexa (Note 1.1 (f))	(161)	
Gain on sale of investments - Cement and Metals Operations	33	312
Reversal (provision) for impairment of investments - long steel Brazil (Note 34 (a))	71	(988)
Reversal (constitution) for impairment of investments, fixed and intangible assets	23	(1.164)
Gain on sale of fixed and intangible assets, net	4	149
Tax benefits	74	109
Net gain on co-processing	22	11
Special mining tax	8	
Reinsurance operations	(26)	
Expenses with environmental obligations	(30)	(248)
Royalties of mining and exploration rights	(37)	(36)
Special Program for Tax Regularization - State	(44)	
Loss on hedge	(63)	(127)
Special Program for Tax Regularization - Federal	(122)	
Spending on not activatable projects	(316)	(210)
Financial instrument - firm commitment (i)	(522)	(253)
Other expenses, net	(203)	(171)
	(536)	(2.616)

(i) Relates to the result of the sale of energy surplus, recognized by the fair value of the contracts and carried out in accordance with the physical energy delivery, as described in Note 15.

30. 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 period in which they arise.

	2017	2016
Finance income		
Income from financial investments	583	754
Reversal of monetary restatement of provision	207	
Interest on financial assets	119	156
Monetary updating of assets	119	131
Fair value of borrowing	61	115
Discounts obtained	29	19
Interest and monetary restatement – use of public assets (i)	6	
Interest on related-party transactions (Note 14)	7	15
Discount on repurchase of bonds		173
Other finance income	24	34
	1,155	1,397

	2017	2016
Finance costs		
Capitalization of borrowing costs	29	73
Interest on borrowing	(1,580)	(1,728)
Monetary restatement of provision	(268)	(197)
Income tax on remittances of interest abroad	(120)	(106)
Interest on taxes payable	(123)	
Fair value of borrowing and financing	(117)	(89)
Interest on anticipation of receivables	(101)	(101)
Adjustment to present value CPC 12	(83)	(66)
Borrowing fees	(40)	(74)
“PIS/COFINS” on financial results	(38)	(57)
Interest and monetary restatement – use of public assets (i)	(3)	(106)
Discounts granted	(2)	(20)
Other finance costs	(264)	(172)
	(2,710)	(2,643)
Results of derivative financial instruments (Note 6.1.1 (b))		
Revenue	3	43
Expenses	(216)	(1,049)
	(213)	(1,006)
Foreign exchange variation, net	(724)	535
Finance results, net	(2,492)	(1,717)

(i) In 2017, the Company 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).

31. 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.

	2017	2016
Obligations recorded in the balance sheet with:		
Pension plan benefits	166	197
Post-employment healthcare benefits	151	120
Liabilities recorded in the balance sheet	317	317
Expenses recognized in the statement of income with:		
Pension plan benefits	20	22
Post-employment healthcare benefits	11	7
	31	29
Remeasurement with:		
Pension plan benefits – gross amount		63
Deferred income tax and social contribution	8	(21)
Pension plan benefits – net amount	8	42

(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.

(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:

	2017	2016
Present value of funded obligations	1,042	865
Fair value of plan assets	(808)	(733)
Deficit of funded plans	234	132
Present value of non-funded obligations	82	176
Total deficit of defined benefit pension plans	316	308
Impact of the minimum funding requirement/assets ceiling	1	9
Assets and liabilities in the balance sheet	317	317

The changes in the defined benefit obligation and the fair value of the plan assets during the year were as follows:

	2017			2016	
	Present value of funded and unfunded obligations	Fair value of plan assets	Total	Impact of the minimum requirement of the funds/asset ceiling	Total
Opening balance for the year	1,046	(736)	310	9	319
Current service cost	8		8		8
Finance cost (income)	51	(33)	18		18
	59	(33)	26		26
Re-measurements:					
Return on assets, excluding the amount included as finance income		(35)	(35)		(35)
Losses (gains) arising from changes in demographic assumptions	13		13		13
Losses arising from changes in financial assumptions	42		42		42
Losses (gains) arising from experience	(10)		(10)		(10)
Changes in the asset ceiling, excluding the amount included as finance cost				(8)	(8)
	45	(35)	10	(8)	2
Foreign exchange gains (losses)	59	(48)	11		11
Contributions:					
Employer		(4)	(4)		(4)
Payments of the plans:					
Payment of benefits	(84)	47	(37)		(37)
Closing balance for the year	1,125	(809)	316	1	317

The defined benefit obligation and the plan assets, by country, are as follows:

	Percentage											
	2017						2016					
	Brazil	Europe	North America	South America	Colombia	Total	Brazil	Europe	North America	South America	Colombia	Total
Present value of the obligation	49	19	706		268	1,042	43	21	540	2	258	864
Fair value of plan assets	(52)	(4)	(624)		(128)	(808)	(54)	(4)	(559)		(117)	(734)
	(3)	15	82		140	234	(11)	17	(19)	2	141	130
Present value of non-financial obligations		46	32	4		82		43	135			178
Impact of the minimum requirement of the funds/asset ceiling	1					1	8		1			9
	(2)	61	114	4	140	317	(3)	60	117	2	141	317

The actuarial assumptions used were as fallows:

	2017						2016					
	Brazil	Europe	North America	South America	Colombia	Total	Brazil	Europe	North America	South America	Colombia	Total
Discount rate	9.93%	7.25%	3.46%	10.70%	6.75%	7.62%	11.41%	6.20%	4.00%	10.00%	7.50%	7.82%
Inflation rate	4.46%	2.85%	2.00%			3.10%	4.97%	0.75%	2.00%	11.50%	3.50%	4.54%
Future salary increases	5.25%	6.85%	2.50%	6.70%		5.33%	5.76%	7.25%	2.50%	3.00%		4.63%
Increases in future pension plans	4.46%				3.50%	3.98%	4.97%				3.50%	4.24%

The assumptions relating to mortality experience are established based on the opinion of actuaries, in accordance with published statistics and the experience in each territory. The mortality assumptions for the most important countries are based on the following post-retirement mortality tables: (i) Brazil AT-2000 Basic segregated for gender and disability table RRB-1994, modified and aggravated by 15%, segregated by gender; (ii) Europe: CSO80 with a projection period of ten to 15 years; (iii) North America: RP- 2000 segregated by gender with a projection period of eight years and (IV) Colombia: Based on table RV8, regulated by resolution 115-2010, without an expiration period.

(c) Post-employment benefits (pension and health care)

The Company operates post-employment health care plans through its subsidiary 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.

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:

(a) FDI – Ceará Industrial Development Fund

Tax incentives granted until 2020 and 2026, within the scope of the Ceará Industrial Development Fund, created under State Law No. 10,367 of December 7, 1979 and State Decree No. 29,183, of February 8, 2008.

(b) PSDI – Sergipe Industrial Development Program

Tax incentives granted until 2031, under the Sergipe Industrial Development Program, created under the terms of State Law No. 3,140 of December 23, 1991 and State Decree No. 29,935 of December 30, 2014.

(c) Pro-Indústria – Tocantins Industrial Development Program – Xambioá – TO

Tax incentives granted until 2023, under the Tocantins Industrial Development Program, created under the terms of State Law No. 1,385 of July 9, 2003 and State Decree No. 2,845, of September 14, 2006.

(d) PRODEIC – Mato Grosso Industrial and Commercial Development Program

Tax incentives granted until 2021 and 2023 under the Industrial and Commercial Development Program of Mato Grosso, created under the terms of State Law 7,958, of September 25, 2003 and State Decree No. 1,432, of September 29, 2003.

(e) PRODIC – Industrial, Commercial and Mineral Development Program of the State of Rondônia

Fiscal incentives granted until 2018, within the scope of the Industrial, Commercial and Mineral Development Program of the State of Rondônia, created under the terms of State Law No. 1,558, of December 26, 2005 and State Decree No. 12,988, of July 13, 2007.

(f) PRO MARANHÃO – Incentive Program for Industrial Activities and in the State of Maranhão

Tax incentives granted until 2031, within the scope of the Incentive Program for Industrial and Technological Activities in the State of Maranhão, created under the terms of State Law No. 9,121, dated March 4, 2010 and State Decree No. 26,689, of June 30, 2010.

(g) M.A.E. – Program for the Attraction of Companies in the State of Pará

Tax incentives granted until 2027, within the scope of the Program for the Attraction of Companies in the State of Pará, created under the terms of State Law 6,913, dated October 3, 2006 and State Decree No. 2,490, dated October 6, 2010.

(h) PRODUZIR – Industrial Development Program in the State of Goiás

Tax incentives granted up to 2020, within the scope of the Industrial Development Program in the State of Goiás, created pursuant to State Law 13,591 of January 18, 2000 and State Decree No. 5,265, of June 30, 2000.

(i) Federal tax incentives

Income tax incentives granted by the federal government through the Northeast Development Authority and the Amazon Development Authority, to encourage economic and social development in some areas of the North and Northeast regions of Brazil. These incentives are recorded in profit or loss on an accrual basis and are allocated at the end of the year to the “Tax incentives” reserve account.

33. INSURANCE

The Company and its subsidiaries maintain property risk insurance coverage amounting to R\$ 55,321 and for loss of income amounting to R\$ 7,583 on December 31, 2017. The Company’s management considers these amounts sufficient to cover eventual property risks and loss of profits.

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
Assets classified as held-for-sale – Long steel Brazil	2,194	1,522
Net investment		672
Assets classified as held-for-sale – Cement segment	5	4
Net investment		1

(a) Long steel segment

On February 22, 2017, AMB and VSA entered into a contract under which VS will become a subsidiary of AMB and VSA will hold a 15% minority interest in the combined long steel business. Votorantim’s long steel operations in Argentina (Acerbrag) and Colombia (PazdelRío) were not included in the transaction.

In compliance with the accounting rule for assets classified as held-for-sale, the Company carried out the valuation of the assets and liabilities of these operations at their fair value.

Assets and liabilities classified as held-for-sale, which were valued at their fair value, generated expenses in the amount of R\$ 988 in 2016. In 2017, there was a revaluation of the fair value and a reversal of R\$ 71, both recorded as impairment in item “Other operating expenses, net” (Note 29).

During the year ended December 31, 2017, VSA made a contribution of R\$ 220 in the capital of VS. As this contribution will not be subject to adjustment in the negotiation, this amount was classified in the result, net of

taxes, as “discontinued operations”. Also during the 2017 fiscal year, the companies of the long steel operation, located in Argentina, decided dividends in the amount of R\$ 89 for VS. Due to the fact that operations in Argentina were not included in the transaction, the amount receivable was reclassified to “discontinued operations”, net of taxes. The tax effect of the operations was R\$ 105.

The loss for the year ended December 31, 2016 of the long steel operation in Brazil, in the amount of R\$ 268, was retained in the income statement and reclassified from “Continuing Operations” to “Discontinued Operations”.

Considering that the asset classified as held-for-sale is valued at its fair value, consequently, it was not revalued by equity method on December 31, 2017.

(b) Cement segment

The assets and liabilities of the cement segment correspond to outstanding balances of China’s operations.

(c) Income from discontinued operations

	Cement	Siderurgy	Total
Loss for the year 2017	36		36
VSA			
Contribution of capital, net of taxes – long steel in Brazil		(145)	(145)
Deliberate dividends, net of taxes – long steel in Brazil		(59)	(59)
VCEAA			
Result from the sale of assets and liabilities of China (Note 1.1 (b))	(139)		(139)
Other Comprehensive Income – China (Note 1.1 (b))	60		60
VCSA			
Other Comprehensive Income – China (Note 1.1 (b))	73		73
Write-off of goodwill on sale of operations – China (Note 1.1 (b))	(228)		(228)
Net gain on the sale of assets and liabilities of California and Florida (Note 1.1 (b))	257		257
Loss for the year 2017	59	(204)	(145)

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:

Adjusted EBITDA	Note	Industrial segments	
		2017	2016
Net income (loss) for the year		810	(1,251)
Plus (less):			
Continuing operations			
Equity in the results of investees		(1,197)	(774)
Net financial results		2,506	1,745
Income and social contribution taxes		133	(397)
Depreciation, amortization and depletion		2,360	2,603
Discontinued operations			
Equity in the results of investees		(151)	(31)
Net financial results		96	140
Income and social contribution taxes		126	2
Depreciation, amortization and depletion		35	185
EBITDA before other additions and exceptional items		4,718	2,222
Plus:			
Dividends received		489	188
Extraordinary items			
EBITDA – discontinued operations		306	4
Non-recurring items – discontinued operations		(267)	
Gain on sale of investments, net		(625)	(312)
Constitution (reversal) for impairment – property, plant, equipment		(10)	1,121
Constitution (reversal) for impairment of investments		(71)	1,031
Fair value of biological assets		8	(2)
PERT payment with deferred tax credit		99	
Other		113	1
Adjusted annualized EBITDA (A)		4,760	4,253
Net debt			
Borrowing	19	24,630	24,419
Cash and cash equivalents, financial investments and derivative financial instruments		(12,274)	(9,691)
Net debt (B)		12,356	14,728
Gearing ratio (B/A)		2.60	3.46

(b) Balance sheet – business segments

Assets	2017										
	Votorantim Cimentos	Nexa Resources	CBA	Long steels (*)	Energy	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Current											
Cash and cash equivalents, financial investments and derivative financial instruments	4.657	4.078	1.009	197	759	1.793		12.493	81		12.574
Trade receivables	879	598	395	174	387	269	(281)	2.421			2.421
Inventory	1.358	1.075	660	348		85		3.526			3.526
Taxes recoverable	292	264	434	44	10	192		1.236	81		1.317
Dividends receivable	11		5		2	327	(183)	162	55	(69)	148
Financial instruments – firm commitment			115		95			210			210
Other assets	308	61	274	31	13	97		784			784
	7.505	6.076	2.892	794	1.266	2.763	(464)	20.832	217	(69)	20.980
Assets classified as held-for-sale	5					2.194		2.199			2.199
	7.510	6.076	2.892	794	1.266	4.957	(464)	23.031	217	(69)	23.179
Non-current assets											
Long-term receivables											
“Financial investments and derivative financial instruments”	18	15	6			124		163			163
Taxes recoverable	705	108	566	16		389		1.784			1.784
Related parties	64	2	1.222	14	459	834	(2.452)	143			143
Deferred income tax and social contribution	728	743	918	64	9	1.130	465	4.057	22		4.079
Judicial deposits	675	36	15	2	2	35		765			765
Financial instruments – firm commitment			119		35			154			154
Other assets	394	73	20	2	26	152		667			667
	2.584	977	2.866	98	531	2.664	(1.987)	7.733	22		7.755
Investments	695	1	219		155	32.178	(19.876)	13.372	5.113	(5.113)	13.372
Property, plant and equipment	12.426	5.825	4.766	932	1.222	684		25.855			25.855
Intangible assets	5.464	6.992	602	64	506	1.005	(2.190)	12.443			12.443
Biological assets			4	6		55		65			65
	21.169	13.795	8.457	1.100	2.414	36.586	(24.053)	59.468	5.135	(5.113)	59.490
Total assets	28.679	19.871	11.349	1.894	3.680	41.543	(24.517)	82.499	5.352	(5.182)	82.669

(*) Relates to long steel operations abroad (Argentina and Colombia).

Liabilities and equity	2017									
	Votorantim Cimentos	Nexa Resources	CBA	Long steels (*)	Energy	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Total, consolidated
Current liabilities										
Borrowing	1.666	135	229	46	458	39		2.573		2.573
Derivative financial instruments	65	42	165			27		299		299
Confirming payable	644	367		59				1.070		1.070
Trade payables	1.178	1.091	461	312	409	129	(227)	3.353		3.353
Salaries and payroll charges	376	264	138	29	17	71		895		895
Taxes payable	326	136	43	73	20	19		617		617
Advances from customers	31	3	241	128	2	3		408		408
Dividends payable	167	13	18		9	179	(198)	188	69	188
Use of public assets	31	5	40					76		76
Related parties			249				(248)	1		1
Deferred revenue – performance obligation	3				243			246		246
Deferred revenue – silver streaming		104						104		104
Other	348	71	81	30	15	96		641	2	643
	4.835	2.231	1.665	677	1.173	563	(673)	10.471	71	10.473
Liabilities related to assets held-for-sale	4					1.522		1.526		1.526
	4.839	2.231	1.665	677	1.173	2.085	(673)	11.997	71	11.999
Non-current liabilities										
Borrowing	11.967	4.653	2.589		846	2.002		22.057		22.057
Derivative financial instruments		8	11			64		83		83
Deferred income tax and social contribution	552	1.075				170		1.797	168	1.965
Related parties	175	7	314	558	742	482	(2.253)	25		25
Provision	1.088	851	461	83	26	78		2.587		2.587
Use of public assets	447	75	534					1.056		1.056
Pension plan	177			140				317		317
Financial instruments – firm commitment	22		53		132			207		207
Deferred revenue – performance obligation					272			272		272
Deferred revenue – silver streaming		630						630		630
Other	208	257	61	94	10	26		656		656
	14.636	7.556	4.023	875	2.028	2.822	(2.253)	29.687	168	29.855
Total liabilities	19.475	9.787	5.688	1.552	3.201	4.907	(2.926)	41.684	239	41.854
Equity										
Total equity attributable to owners of the Company	8.527	5.323	5.661	330	479	36.636	(20.998)	35.958	5.113	35.958
Non-controlling interests	677	4.761		12			(593)	4.857		4.857
	9.204	10.084	5.661	342	479	36.636	(21.591)	40.815	5.113	40.815
Total equity	9.204	10.084	5.661	342	479	36.636	(21.591)	40.815	5.113	40.815
Total liabilities and equity	28.679	19.871	11.349	1.894	3.680	41.543	(24.517)	82.499	5.352	82.669

(*) Relates to long steel operations abroad (Argentina and Colombia).

(c) Adjusted EBITDA – business segments

	2017										
	Votoran- tim Cimentos	Nexa Resources	CBA	Long steels (*)	Energy	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Continuing operations											
Net revenue from products sold and services rendered	11.104	7.828	4.673	1.659	4.124	800	(2.963) (*)	27.225			27.225
Cost of products sold and services rendered	(8.357)	(5.370)	(3.973)	(1.341)	(3.857)	(714)	2.963 (*)	(20.649)			(20.649)
Gross profit	2.747	2.458	700	318	267	86		6.576			6.576
Operating income (expenses)											
Selling	(1.133)	(285)	(74)	(111)	(7)	(56)		(1.666)			(1.666)
General and administrative	(812)	(473)	(205)	(89)	(98)	(300)		(1.977)	(41)		(2.018)
Other operating income (expenses), net	(197)	(413)	279	46	(251)	589	(589) (**)	(536)			(536)
	(2.142)	(1.171)		(154)	(356)	233	(589)	(4.179)	(41)		(4.220)
Operating profit (loss) before equity results and finance results											
	605	1.287	700	164	(89)	319	(589)	2.397	(41)		2.356
Result from equity investments											
Equity in the results of investees	157		12		20	1.256	(251)	1.194	315	(290)	1.219
Realization of other comprehensive income on disposal of investments	3							3			3
	160		12		20	1.256	(251)	1.197	315	(290)	1.222
Finance results, net											
Finance income	661	93	177	18	119	204	(131)	1.141	14		1.155
Finance costs	(1.577)	(335)	(404)	(89)	(152)	(284)	131	(2.710)			(2.710)
Results of derivative financial instruments	(169)	(2)				(42)		(213)			(213)
Foreign exchange gains (losses), net	(205)	(154)	18	(1)		(417)	35	(724)			(724)
	(1.290)	(398)	(209)	(72)	(33)	(539)	35	(2.506)	14		(2.492)
Profit (loss) before income tax and social contribution											
	(525)	889	503	92	(102)	1.036	(805)	1.088	288	(290)	1.086
Income tax and social contribution											
Current	(164)	(404)	(54)	(61)	(43)	3		(723)			(723)
Deferred	11	57	68	42	86	132	194	590	2		592
Profit (loss) from continuing operations	(678)	542	517	73	(59)	1.171	(611)	955	290	(290)	955

	2017										
	Votoran- tim Cimentos	Nexa Resources	CBA	Long steels (*)	Energy	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Eliminations	Total, consolidated
Discontinued operations											
Profit (loss) from discontinued operations	59					(204)		(145)			(145)
Profit (loss) for the year	(619)	542	517	73	(59)	967	(611)	810	290	(290)	810
Profit (loss) attributable to the owners of the Company	(681)	356	518	78	(59)	967	(589)	590	290	(290)	590
Profit (loss) attributable to non-controlling interests	62	186	(1)	(5)			(22)	220			220
Profit (loss) for the year	(619)	542	517	73	(59)	967	(611)	810	290	(290)	810

(*) Relates to the net revenue from electric energy operations (Votener and CBA).

(**) Refers to the net gain of CBA on the sale of the Pollarix S.A. investment. Preferred shares for VGE and common shares for Nexa BR. Deducted from the cost of write-off of respective investments.

(***) Relates to long steel operations abroad (Argentina and Colombia).

	2016												
	Votoran- tim Cimentos	Nexa Resources	CBA	Long steels (***)		Nickel (**)	Energy	Holding and other	Elimina- tions	Total, industrial segments	Votorantim Finanças	Elimina- tions	Total, consoli- dated
Continuing operations													
Net revenue from products sold and services rendered	11.924	6.386	4.345	1.569		332	3.306	878	(2.775)	25.965			25.965
Cost of products sold and services rendered	(8.815)	(4.801)	(3.685)	(1.207)		(489)	(3.145)	(643)	2.775	(20.010)			(20.010)
Gross profit	3.109	1.585	660	362		(157)	161	235		5.955			5.955
Operating income (expenses)													
Selling	(1.063)	(315)	(98)	(111)		(5)		(47)		(1.639)			(1.639)
General and administrative	(905)	(437)	(180)	(115)		(55)	(72)	(313)		(2.077)	(14)		(2.091)
Other operating income (expenses), net	343	(586)	(1.178)	(153)		(42)	(102)	(898)		(2.616)			(2.616)
	(1.625)	(1.338)	(1.456)	(379)		(102)	(174)	(1.258)		(6.332)	(14)		(6.346)
Operating profit (loss) before equity results and finance results	1.484	247	(796)	(17)		(259)	(13)	(1.023)		(377)	(14)		(391)
Result from equity investments													
Equity in the results of investees	121	(1)	67			10		709	(176)	730	166	(172)	724
Realization of other comprehensive income on disposal of investments	44									44			44
	165	(1)	67			10		709	(176)	774	166	(172)	768
Finance results, net													
Finance income	872	56	166	23		28	124	225	(127)	1.367	30		1.397
Finance costs	(1.652)	(201)	(493)	(87)		(37)	(132)	(166)	127	(2.641)	(2)		(2.643)
Results of derivative financial instruments	(770)	(13)	3			(5)	1	(222)		(1.006)			(1.006)
Foreign exchange gains (losses), net	552	499	470	(10)		270		(22)	(1.224)	535			535
	(998)	341	146	(74)		256	(7)	(185)	(1.224)	(1.745)	28		(1.717)
Profit (loss) before income tax and social contribution	651	587	(583)	(91)		7	(20)	(499)	(1.400)	(1.348)	180	(172)	(1.340)
Income tax and social contribution													
Current	(82)	(238)	(67)	(74)			(33)	16		(478)	(3)		(481)
Deferred	(117)	(99)	433	(51)			41	344	324	875	(5)		870
Profit (loss) for the year from continuing operations	452	250	(217)	(216)		7	(12)	(139)	(1.076)	(951)	172	(172)	(951)

	2016											
	Votoran- tim Cimentos	Nexa Resources	CBA	Long steels (***)	Nickel (**)	Energy	Holding and other	Elimina- tions	Total, industrial segments	Votorantim Finanças	Elimina- tions	Total, consoli- dated
Discontinued operations												
Loss from discontinued continuing operations	(28)						(272)		(300)			(300)
Profit (loss) for the year	424	250	(217)	(216)	7	(12)	(411)	(1.076)	(1.251)	172	(172)	(1.251)
Profit (loss) attributable to the owners of the Company	370	218	(217)	(160)	7	(12)	(304)	(1.198)	(1.296)	172	(172)	(1.296)
Profit (loss) attributable to non-controlling interests	54	32		(56)			(107)	122	45			45
Profit (loss) for the year	424	250	(217)	(216)	7	(12)	(411)	(1.076)	(1.251)	172	(172)	(1.251)
(*) Relates to the net revenue from electric energy operations (Votener and CBA).												
(**) Corresponds to the period between January 1 and June 30, 2016, as VMSA was merged into CBA on July 1, 2016.												
(***) Relates to long steel operations abroad (Argentina and Colombia).												

(d) Statement of income – business segments

	2017									
	Votorantim Cimentos	Nexa Resources	CBA	Long Steel (***)	Energy	Holding and other	Eliminations	Total, industrial segments	Votorantim Finanças	Total, consolidated
Net revenue from products sold and services rendered	11,104	7,828	4,673	1,659	4,124	800	(2,963) (*)	27,225		27,225
Cost of products sold and services rendered	(8,357)	(5,370)	(3,973)	(1,341)	(3,857)	(714)	2,963 (*)	(20,649)		(20,649)
Gross profit	2,747	2,458	700	318	267	86		6,576		6,576
Operating income (expenses)										
Selling	(1,133)	(285)	(74)	(111)	(7)	(56)		(1,666)		(1,666)
General and administrative	(812)	(473)	(205)	(89)	(98)	(300)		(1,977)	(41)	(2,018)
Other operating income (expenses), net	(197)	(413)	279	46	(251)	589	(589) (**)	(536)		(536)
	(2,142)	(1,171)		(154)	(356)	233	(589)	(4,179)	(41)	(4,220)
Operating profit (loss) before equity results and finance results	605	1,287	700	164	(89)	319	(589)	2,397	(41)	2,356
Plus:										
Depreciation, amortization and depletion – continuing operations	991	864	318	108	16	63		2,360		2,360
EBITDA	1,596	2,151	1,018	272	(73)	382	(589)	4,757	(41)	4,716
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)
Constitution (reversal) for impairment – fixed assets	21		(31)			(71)		(81)		(81)
Fair value of biological assets						8		8		8
REFIS payment with deferred income tax credit	99							99		99
Other						113		113		113
Adjusted EBITDA	1,763	2,135	449	272	(73)	214		4,760	10	4,770

(*) Relates to the net revenue from electric energy operations (Votener and CBA).

(**) Refers to the net gain of CBA on the sale of the Pollarix S.A. Investment. Preferred shares for VGE and common shares for Nexa BR. Deducted from cost of write-off of respective investments.

(***) Relates to long steel operations abroad (Argentina and Colombia).

											2016
	Votorantim Cimentos	Nexa Resources	CBA	Long Steel (***)	Nickel (**)	Energy	Holding and other	Elimina- tions	Total, industrial segments	Votorantim Finanças	Total, consoli- dated
Net revenue from products sold and services rendered	11.924	6.386	4.345	1.569	332	3.306	878	(2.775) (*)	25.965		25.965
Cost of products sold and services rendered	(8.815)	(4.801)	(3.685)	(1.207)	(489)	(3.145)	(643)	2.775 (*)	(20.010)		(20.010)
Gross profit	3.109	1.585	660	362	(157)	161	235		5.955		5.955
Operating income (expenses)											
Selling	(1.063)	(315)	(98)	(111)	(5)		(47)		(1.639)		(1.639)
General and administrative	(905)	(437)	(180)	(115)	(55)	(72)	(313)		(2.077)	(14)	(2.091)
Other operating income (expenses), net	343	(586)	(1.178)	(153)	(42)	(102)	(898)		(2.616)		(2.616)
	(1.625)	(1.338)	(1.456)	(379)	(102)	(174)	(1.258)		(6.332)	(14)	(6.346)
Operating profit (loss) before equity results and finance results	1.484	247	(796)	(17)	(259)	(13)	(1.023)		(377)	(14)	(391)
Plus:											
Depreciation, amortization and depletion – continuing operations	1.015	951	374	146	37	1	79		2.603		2.603
EBITDA	2.499	1.198	(422)	129	(222)	(12)	(944)		2.226	(14)	2.212
Plus:											
Dividends received	68		32				88		188	57	245
Exceptional items											
Loss (gain) on sale of investments, net	(297)	(2)	24				(37)		(312)		(312)
Constitution (reversal) for impairment – fixed assets	103	(2)	846	175					1.121		1.121
Compensation energy assets		134					(134)				
Provision (reversal) for impairment – investments							1.031		1.031		1.031
Fair value of biological assets							(2)		(2)		(2)
Other			1						1		1
Adjusted EBITDA	2.373	1.328	481	304	(223)	(12)	2		4.253	43	4.296

(*) Relates to the net revenue from electric energy operations (Votener and CBA).

(**) Corresponds to the period between January 1 and June 30, 2016, as VMSA was merged into CBA on July 1, 2016.

(***) Relates to long steel operations abroad (Argentina and Colombia).

36. SUBSEQUENT EVENTS

(a) Transactions in the subsidiary VS

In the first quarter of 2018, the Company paid the residual amount of R\$ 150, corresponding to the capital contribution in the VS investee, as resolved at the Extraordinary General Meeting held on December 21, 2017.

On February 7, 2018, the Administrative Council for Economic Defense (“CADE”) approved, pursuant to Concentration Act 08700.002165 / 2017-97, the transaction by which the Company, as provided for in the initial agreement signed in February 2017, will become a subsidiary of AMB. The process now enters its final phase and, while not complete, VS and AMB continue to operate independently.

On February 9, 2018, the Company resolved, at the Extraordinary General Meeting, to reduce the amount of R\$ 354 of the capital stock in the VS investee, transferring the investments in Acerholding and Acergroup to VSA.

(b) Early liquidation of debentures

On January 11, 2018, VCSA redeemed in advance, in the amount of R\$ 500, all the outstanding debentures of the ninth public issuance of debentures. The debentures matured on January 10, 2022.

On January 26, 2018, VCSA made the early amortization of installments maturing on March 5, 2022, on the fifth, sixth and eighth issues of public debentures. The total value of the principal amortized amounted to R\$ 200.

(c) Early liquidation of Loans – Resolution 4131

On January 24, 2018, VCSA prepaid the loan agreement related to Resolution 4131, in the amount of USD 50 (R\$ 161), signed on September 17, 2015, with maturity on September 25, 2020. The swap contract linked to this loan was also settled.

(d) Early liquidation of loans with the BNDES

On January 26, 2018, VCSA prepaid loans contracted with BNDES in the amount of R\$ 210. These contracts were executed in 2009 and 2011 and expire in 2018, 2019 and 2020.

On January 26, 2018, the company VCNNE prepaid loans contracted with BNDES in the amount of R\$ 24. These contracts were signed in 2009 and expire in 2018 and 2019.

(e) Corporate reorganization of Fibria

On March 15, 2018, the Company collectively with BNDES Participações S.A. – BNDESPAR (jointly, the “Fibria Controlling Shareholders”), Suzano Holding S.A. and the other controlling shareholders of Suzano Papel e Celulose S.A. (jointly, the “Suzano Controlling Shareholders”), and acting as intervening party Suzano Papel e Celulose S.A. (“Suzano”), have entered into the Voting Agreement and other Obligations (“Commitment”), pursuant to which Suzano Controlling Shareholders and Fibria Controlling Shareholders agreed to exercise their voting rights in order to combine the operations and shareholding basis of Suzano and Fibria Celulose S.A. (“Fibria”), through a corporate reorganization (“Transaction”).

The terms and conditions of the Transaction, briefly described below, will be included in the Protocol and Justification of a Merger of Shares and of Company, to be submitted together with the appraisal reports and other applicable documents to the approval of the Boards of Directors of Fibria and Suzano, as well as, of the Extraordinary General Shareholders’ Meetings of Fibria and Suzano.

(i) Financial Basis of the Transaction

Pursuant to the Commitment, 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) fifty-two Reais and fifty cents (R\$ 52.50), adjusted by the CDI variation from March 16, 2018 until the date of its effective payment, to be made in a single installment on the date of closing of the Transaction (“Cash Installment”) and (ii) 0.4611 (zero comma, four, six, one, one) common shares of Suzano, adjusted pursuant to the exchange ratio referred to below (“Exchange Ratio”). Such shares of Suzano shall also be delivered to the shareholders of Fibria on the date of Closing of the Transaction.

In addition to the CDI adjustment, as indicated above, the Cash Installment will be adjusted by any dividends, interest on net equity and other proceeds declared by Fibria and Suzano as of March 15, 2018, except for the minimum mandatory dividend of Suzano and Fibria that have already been disclosed to the market. The Exchange Ratio will be proportionally adjusted by any stock splits, reverse stock splits and bonus stocks of Suzano and Fibria.

(ii) Conditions precedent for the Transaction

The closing of the Transaction is subject to the fulfillment of conditions precedent usual for these type of transactions, including the approval by certain antitrust authorities in Brazil and abroad.

(iii) Other relevant information

Until the date of closing of the Transaction, Fibria and Suzano will carry out its activities in the ordinary course of businesses and will remain operating independently.

The financial statements are being reissued only for the disclosure of this subsequent event, and the balance sheet and income statement presentations remain unchanged since, as of December 31, 2017, there were no facts or other elements being able to be conclude, that moment, which the implementation this process would be highly probable over a period up to one year. Upon closing of the Transaction as described above, the Company will make the appropriate accounting registrations relating to the probable gain resulting from the Transaction, in addition to the accounting registration at Fair Value of the 5.6% capital shareholding in Suzano.

For further information regarding the Transaction, please refer to the Material Fact and the Transaction documents available on Fibria Investor Relations website (www.fibria.com.br/ri).

BOARD OF DIRECTORS
[GRI 102-22, 102-23]

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Luis Ermírio de Moraes – Deputy Chairman
Cláudio Ermírio de Moraes
José Roberto Ermírio de Moraes
Marcelo Pereira Lopes de Medeiros
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João Schmidt – Corporate Development Officer
Luiz Caruso – Risks, Compliance & Shared Solutions Officer
Luiz Marcelo Fins – Chief Legal Officer
Sergio Malacrida – CFO and Investor Relations Officer

HEADQUARTERS [GRI 102-3]

Rua Amauri, 255
São Paulo – SP – Brazil
CEP: 01448-000
Phone: +55 11 3704-3300

www.votorantim.com

CREDITS AND ACKNOWLEDGMENTS

General coordinators

**Finance and
Investor Relations Department**
Mariana Mayumi Oyakawa
Sergio Malacrida

Support
David Canassa
Débora Vargas Leal Oliveira
Renata Vinhas Oliveira

Collaborators
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Technical adviser
Resultante Consultoria Estratégica

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Editora Contadino

**Graphic design, cover,
layout and infographics**
Pierre Design Marketing
Pierre-Louis A. Ferrandis

External assurance
PricewaterhouseCoopers (PwC)

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